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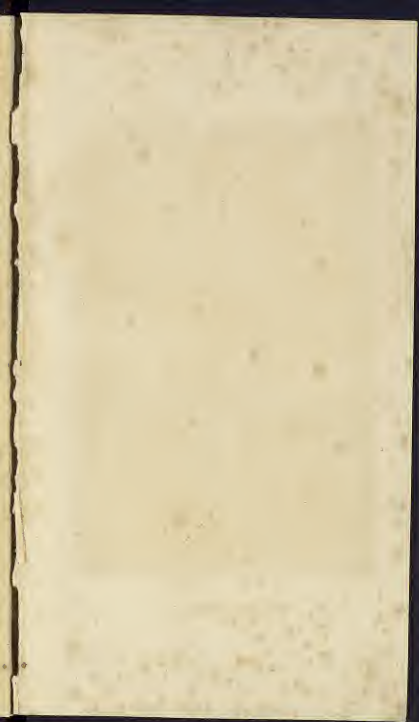
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*Drawn, & Engraved on Steel by J. Sturges*

FRONTISPIECE.

EVERY MAN HIS OWN GARDENER.

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THE  
COMPLETE GARDENER,  
OR  
GARDENER'S CALENDAR

OF WORK TO BE DONE IN THE  
KITCHEN, FRUIT, FLOWER, FORCING GARDEN, &c.

*For Every Month in the Year;*

CONTAINING  
DIRECTIONS FOR THE PROPAGATION AND CULTURE OF THE VARIOUS  
SORTS OF PLANTS, FLOWERS, SHRUBS, AND TREES;

AND  
THE SOILS AND SITUATIONS ADAPTED TO THE VARIOUS SORTS:

WITH CLASSICAL LISTS OF  
TREES, SHRUBS, PLANTS, AND FLOWERS  
PROPER FOR CULTIVATION IN BRITISH GARDENS AND PLANTATIONS;  
EXPLAINING THE NATURE OF GROWTH, PROPERTIES, AND MODE OF CULTURE OF  
EACH VARIETY.

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BY THOMAS MAWE AND JOHN ABERCROMBIE

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REVISED AND IMPROVED,  
WITH AN APPENDIX ON FORCING,  
BY WILLIAM GOWANS, C. M. H. S.

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## ADVERTISEMENT.

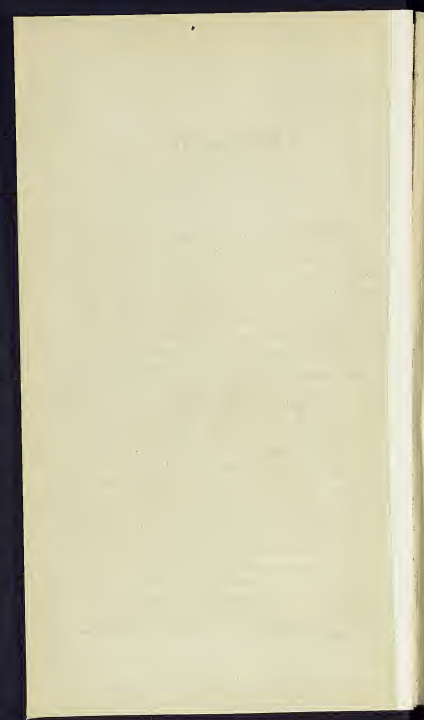
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THE Reviser of the present Edition of this justly popular Work, being prepared for the task, not only by his own practice and observation, but by having had his attention directed to various more modern works on the same subject, has seen no reason for making any considerable amendments on the principles or details of Abercromby. The general principles of Gardening, indeed, seem to be as correctly ascertained, and clearly described by that Author, as by any that have succeeded him. In some of the details of practice he is certainly somewhat antiquated; and regarding the more important of these details, some improvements will be found in the present Edition.

One of the objects of this Edition being to accommodate the Work to the Scottish, as well as the English climate, Notes have been added on the more important differences of management, resulting from the difference of climate between the two kingdoms.

The style of Abercromby, though somewhat inelegant, and in some instances, prolix, yet appears, upon the whole, to be fully as concise and, at least, as correct and intelligible as that of some of the more modern, and less original of his successors. The present Edition, therefore, contains few alterations relating merely to the style.

In some departments of the Forcing Garden only, does Abercromby appear so considerably antiquated, as to render a statement of modern practice in these departments, a thing desirable in a new Edition of his Work. This desideratum has been supplied in an Appendix on Forcing, by the present Editor.





# EVERY MAN HIS OWN GARDENER.

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## JANUARY.

### WORK TO BE DONE IN THE KITCHEN GARDEN.

#### PREPARATIONS FOR EARLY CROPS.

As early productions of several sorts of kitchen garden vegetables are in particular request, this is now the principal season to begin to make preparations in forwarding that business, whereby to raise the respective sorts required in early perfection, both by means of hotbeds, and by culture in the natural ground.

But as some particular sorts of the more tender species are to be obtained only by aid of hotbeds, such as cucumbers and melons; and others of more hardy nature, when in request in the earliest season, require also the assistance of hotbeds, such as sallading, radishes, asparagus, kidneybeans, peas, &c.; that where it is required to have any of these productions as early as possible, should now proceed in forwarding, in preparation, the necessary supplies of hot dung, rich earth, and other requisites proper in their cultivation, by hotbeds accordingly, as explained for each under its respective head.

And for several early natural crops in the full ground, should now prepare warm borders, and other similar compartments, in proper time for their reception, by manuring, where necessary, with proper dung, and giving a general good digging, ready for early peas, beans, radishes, spinach, &c.; and for the particulars of which, see each sort under its respective head, as observed above in the hotbed articles.

#### EARLY CUCUMBERS AND MELONS.

As it is generally the ambition of most gardeners to excel each other in the production of early cucumbers, &c., all neces-

sary preparations should be made this month for that purpose, by preparing dung for hotbeds, in which to raise the plants; for they, being exotics of a very tender quality, require the aid of artificial heat under shelter of frames and glasses, until June or July, in this country.

But by the aid of hotbeds, defended with frames and glasses, we obtain early cucumbers, in young green fruit, fit to cut or gather in February, March, and April, &c., and ripe melons in May, June, and July.

The proper sorts of cucumbers for the early crops are the early short prickly,—long green prickly; and of which, the first sort sometimes comes earliest; but the last mentioned is considerably the finest fruit, and greatly preferable for general culture.

And if early melons are also required, there are several varieties of the fruit: the Cantaleupe is one of the best for its handsome growth, good size, and superior flavour; and is in much estimation. But it may also be proper to raise some of the others for variety; the old Romana is a great bearer, comes early, but the fruit much smaller, though well flavoured; the Polignac is also a fine melon; but it may also be eligible to raise two, three, or more of the best approved different sorts.

Observe, that in procuring these seeds for immediate sowing, both of cucumbers and melons, it is advisable to have those of two, three, or four years' old, if possible, as the plants will generally show fruit sooner, as well as prove more fruitful, than those of new seeds, which are apt to run vigorously to vine, often advancing in considerable length before they show a single fruit.

That when intended to raise cucumbers and melons early, provide a quantity of fresh horse stable dung, as explained below, wherewith to make a small hotbed for a seedbed, in which to raise the plants to a proper growth for ridging out, or transplanting into larger hotbeds next month, to remain to fruit; for this purpose a small bed for a one or two-light frame may be sufficient, in which case a good cart load of proper hot dung, or about twelve or fifteen large wheelbarrows full, will be enough for making a bed of proper dimensions for a one-light box, and so in proportion for a larger.

Agreeably to these intimations, provide the requisite supply of good horse stable dung from the dunghills in stable yards, &c., consisting of that formed of the moist stable litter and dunging of the horses together, choosing that which is moder-

ately fresh, moist, and full of heat, rejecting any very dry, long strawy, and exhausted parts, always preferring that which is of some lively, warm, steamy quality; and of which take the long and short together as it occurs, in proper quantity, as above. And being thus procured, proceed to making the hotbed, or, previously to forming it into a bed, if the dung is rank, it would be proper to prepare it a little to an improved state, more successful for that purpose, by forking the whole up into a heap, mixing it well together; and let it thus remain eight, ten, or twelve days, to ferment equally, and for the rank steam and fierce heat to transpire or evaporate in some effectual degree, and by which time it will have acquired a proper temperament for making into a hotbed.

Choose a place on which to make the hotbed, in a sheltered, dry part of the melon ground, &c., open to the morning and south sun; and it may be made either wholly on the surface of the ground, or in a shallow trench, of but from six to twelve inches deep, and four or five feet wide, according to the frame; but if made entirely on the surface, which is generally the most eligible method at this early season, it affords the opportunity of lining the sides of the bed with fresh hot dung quite down to the bottom, to augment the heat when it declines, and also prevents wet from settling about the bottom of the beds, as often happens when made in a trench, which chills the dung, and causes the heat soon to decay.

Then, according to the size of the frame, mark out the dimensions of the bed, either on the ground or with four stakes, making an allowance for it to be two or three inches wider than the frame each way; this done, begin to make the bed accordingly, observing to shake and mix the dung well, as you lay it on the bed, and beat it down with the back of the fork, as you go on: but I would not advise treading it; for a bed which is trodden hard will not work so kindly, and be more liable to burn than that which is suffered to settle gradually of itself: in this manner proceed till the bed has arrived at the height of from four to five feet, which will not be too much; making an allowance for its settling six or eight inches, or more, in a week or fortnight's time; but let it be full three feet high; and as soon as finished, let the frame and glass be put on; keep them close till the heat comes up, then raise the glass behind, that the steam may pass away.

The next thing to be observed, is about earthing the bed in which to sow the seed: and for which occasion, should have a

proper supply of rich, light, dry earth, or compost, ready at this season, under some airy, dry shed, or hovel, covered at top to keep out rain, that the earth may be properly dry; for if too moist or wet at this time, it would prove greatly detrimental, both to the growth of the seed and young plants, as well as be very apt to cake and burn at bottom, next the dung, by the strong heat of the bed: therefore observing, that for early hotbeds of cucumbers and melons, should generally deposit a necessary quantity of proper earth, under some cover, as above, either the beginning of winter, or at least a fortnight or three or four weeks previous to making the hotbed, in order to have it in the dry, mellow state above-mentioned, ready for immediate use when wanted.

Three or four days after the bed is made, prepare to earth it, previously observing if it has settled unequally; take off the frame and glasses, and level any inequalities; make the surface smooth, put on the frame again, and then lay therein as much of the above-mentioned earth as will cover the whole top surface of the bed, about three or four inches thick; then fill two, three, or more middling smallish garden pots with more of the aforesaid rich earth, place them within the frame on the hotbed, put on the glass or glasses, and continue them till the earth in the pots is warm; and when that is effected, sow the seeds in the pots, both of cucumbers and melons, each separately, more or less in each pot, according to the quantity of plants required; but generally considerably more of cucumbers than melons, at this season, covering in the seeds about half an inch deep with the same earth.

This done, place the pots towards the middle of the bed, plunging the bottom part a little into the earth, drawing some of the same up round each pot; at the same time, or in two or three days after, may sow a few seeds in the earth of the bed, to have a chance both ways; but by sowing in pots, if the bed should heat too violently, as is sometimes unavoidably the case, the pots can be readily drawn up more or less, out of danger of burning the earth, &c. therein; and thus the sowing in pots, in a new made hotbed, in full heat, may prove a greater advantage than sowing in the earth of the bed, with regard to more probable safety from burning.

After sowing the seeds, put on the lights or glasses close; but when the steam, from the heat of the bed, rises copiously, give it vent by raising one corner of the upper ends of the lights half an inch, or an inch; which is also necessary, in order

to prevent any burning tendency from the great heat of the bed in its early state.

Continue now to cover the glasses of the hotbed every evening, about an hour at most, after the time of sunsetting, with garden mats; and uncover them every morning, not sooner than between eight and nine o'clock, at this season; and observe, in covering up in the evening, that as the bed will at first have a strong heat and steam within the frame, it may be advisable to cover only a single mat thick for the first three or four nights, as a thicker covering in the early state of the bed might be apt to occasion a too violent internal heat and steam of a burning nature; but as the great heat decreases, augment the covering, being careful not to suffer the ends of the mats to hang down considerably below the frame, over the sides of the bed, which would draw up a hurtful strong steam from the dung, as well as confine the steam and heat too much, and keep the bed too stifflingly close from the external air, which would weaken the germination or sprouting of the seed, and the plants would come up weak, and of a sickly, yellowish hue: observe, therefore, these and the following precautions, in order both to prevent too great heat in the bed, and that the plants may rise with a proper degree of strength and healthful growth.

Likewise observe, on the above considerations, that in covering up, or applying the night covering of mats over the glasses, during the time the strong heat and steam continue in the bed, it would be proper, when the mats are put on in the evening, to raise the upper ends of the glass or glasses half an inch, or a little more or less, occasionally, both to give vent to the internal rank steam, and to admit a moderate degree of fresh air; and which may fasten one of the covering mats to hang down a little over the part where the lights are occasionally opened, to prevent the cutting external air from rushing immediately into the frame, especially after the plants are advancing.

Great care is requisite, that the earth in the pots have not too much heat, for the bed is yet very hot, and therefore let the degree of internal heat in the bed be daily examined; and if anything of burning should appear, you can conveniently raise the pots farther from the dung, from which the danger proceeds, without disturbing the seeds or plants, and thereby prevent all injury from too much heat, provided you examine the bed every day, and give proper vent to the rank steam within the frame, while of a burning quality.

In two, three, or four days after the seed is sown, you may

expect the plants to appear; when it will be proper to admit fresh air to them, by raising the upper end of the glass a little every day; and if the earth in the pots appear dry, refresh it moderately with a little water that has stood in the bed all night, just to take off the cold chill; applying it about eleven or twelve o'clock of the day, and principally only to the earth about the roots, not over the tops of the plants; which done, shut down the glasses close for about half an hour or an hour; then open again a little, and shut close towards the evening; when continue to cover the glass every night with garden mats. And at this time also, if the heat of the bed is strong, raise the glass a little behind with a prop, when you cover up in the evening, to give vent to the steam; and nail a mat to hang down over the end of the glass that is raised, to break off the sharp edge of the external cold night air from the plants; but when the heat is more moderate, the glasses may be shut close every night, observing to uncover in proper time every morning, to admit the essential benefit of the daylight, sun, and air to the plants; being careful to continue the admission of fresh air at all opportunities in the daytime, to promote strength in the plants, otherwise they would run weak, and very long and feeble-shanked; raising the glass as before observed, and if windy or very sharp air, to hang a mat before the place, as above.

On the day that the plants appear, sow a little more seed in the same bed, in the manner above-mentioned; for these tender plants being liable to suffer by different causes at this season, it is proper, therefore, to sow a little seed at three different times in the same bed, at short intervals; for if one sowing should miscarry, another may succeed.

When the plants, however, both of the first and succeeding sowings, are two, three, or four days old, they should be planted in small pots, which pots must be placed also in the hotbed, in the manner following.

Observe to fill the pots, the day before you intend to remove the plants, with some rich, dry earth, and set them within the frame till the next day, when the earth in the pots will be warm; then, proceeding to planting, take the plants carefully up in the seed pots, raising them with your finger, &c., with all the roots as entire as possible, and with as much of the earth as will readily adhere about the fibres; and thus, the pots of earth being ready, and forming the earth thereof a little concavely hollow a small depth, place the plants in the hollowed part of

the earth slopingly, with their roots towards the centre, and earth over their roots and stems, near an inch thick; observing, if cucumbers, to plant three plants in each pot; if melons, two plants in each pot will be sufficient; and if the earth is quite dry, give a very little water just to the roots of the plants only, and directly plunge the pots into the earth on the bed, close to one another, filling up all the spaces between with earth: and let every part of the bed within the frame be covered with as much earth as will prevent the rising of the rank steam immediately from the dung, which would destroy the plants.

Be careful to examine the bed every day, to see that the roots of the plants do not receive too much heat: if anything like that appears, draw up the pots a little, or as far as you see necessary for the preservation of the plants, replunging them again to their rims when the danger is over.

Two or three days after planting, if the bed is in good condition, the plants will have taken root; though that is effected sometimes in twenty-four hours.

When the plants are fairly rooted, if the earth appears dry, give them a little water in the warmest time of the day; and if the sun shines it will prove more beneficial: let the watering be occasionally repeated very moderately, according as the earth in the pots becomes dry, and appears in want of a little moisture; and for this purpose, always have some soft water set within the frame a few hours, to be ready to water the plants as you shall see occasion; but always with very great cautious moderation at this season.

If there is now a brisk growing heat in the bed, you should, in order to preserve it as long as possible, apply some outward protection of long stable litter, straw, waste hay, or dried fern, round the sides of the bed, raising it by degrees round the outsides of the frame.

This will defend the beds from the cold piercing wind, heavy or driving rains, and snow, if either should happen; for these, if suffered to come at the bed, would chill it, and cause a sudden decay of the heat, whereby the plants would certainly receive a great check.

If a lively heat be kept up, you may admit air to the plants every day, to strengthen their growth, by tilting the glasses in proportion to the heat of the bed, and temperature of the external air: generally observing, in this case, that when there happens a sharp cold air, or cutting wind, it would still be advisable to nail a garden mat to the upper end of the glasses,

to hang down over the place where the air is admitted, supported a little hollow or detached underneath, two or three inches from the frame; and it will thus break off and prevent the cutting external air from entering immediately into the frame upon the plants, and at the same time admit a proper degree of mild fresh air to greater advantage; however, in calm, moderate weather, this precaution is not materially necessary.

About a fortnight, or a little more or less time, after the bed is made, you will carefully examine the heat thereof, to see if it wants augmentation; and when the heat begins to decline considerably, remove the temporary protection of straw, hay, or fern, from the front and back of the bed, if any was laid round it, as before advised; then apply a lining of fresh horse-dung, close to one or both sides, as it shall seem necessary, by the heat being less or more decreased; for a constant regular degree of internal heat must be supported, to resist the external cold, and continue the plants in a proper state of advancing growth: but if the heat is not greatly declined, it would be advisable to line only one side first, applying it to the back of the bed; and in a week or fortnight after, line the front, &c., forming the lining about twelve to fifteen or eighteen inches wide; but raise it very little higher than the dung of the bed, lest it throw in too much heat immediately to the earth and roots of the plants, covering the top with earth two inches thick, to preserve the heat, and prevent the rank steam of the new dung from coming up and entering into the frame, where it would prove destructive to the plants; the lining will soon greatly revive the declining heat of the bed, and continue it in good condition a fortnight longer.

Ten or twelve days after lining one side, proceed as before, removing the protection of straw, litter, &c., if any, from the other side, and apply a lining of hot dung, as above; afterwards to both ends; and these will again revive and augment the heat for another fortnight, or more.

After performing the lining, if very cold, wet, or snowy weather prevail, it may be proper to lay a quantity of dry, long litter all around the general lining, which will protect the whole from driving cold rains and snow, and preserve the heat of the bed in a fine growing temperature.

By applying these linings of hot dung in due time, and renewing them as there shall be occasion, you may preserve the bed in a proper temperature of heat, of sufficient duration to continue the plants in a free growing state in the same bed.



until of due size for ridging out into the larger hotbeds, finally to remain to produce their fruit.

Observe, however, that where there is plenty of hot dung, and every proper convenience, you may, in order to forward the plants as much as possible, prepare a second hotbed, by way of nursery, about a fortnight after making the seedbed, in order to receive the plants therefrom in their pots, when the heat begins to decline, plunging the pots in the earth, as above directed; continuing to support the heat of this bed, as already explained, and in which the plants may be nursed and forwarded, till they acquire a proper size for transplanting finally into the fruiting hotbeds. *See next month.*

When the plants have advanced in growth with their two first rough leaves, about two or three inches broad, and have pushed their two first running buds in the centre, or are a little advanced in the formation of one or two short runners, they are then of a proper size for ridging out into the large hotbeds where they are finally to remain, which perform in proper time, according to the directions given in February, under the article *Cucumbers*.

But in order to strengthen the plants in a more firm, stocky growth, and to promote a production of fruitful runners, each plant must be stopt (as the gardeners term it), or topped at the first or second joint: *i. e.* the top of the first advancing runner, when formed in the centre like a small bud, should be pinched or cut off close to the joint, as directed, in February (which see), where the method of performing it is more fully explained.

#### CARE OF THE VARIOUS SORTS OF LETTUCES.

If you have lettuce plants in frames, or under hoop-arches defended with mats, let them enjoy the open air at all opportunities, by taking the glasses, or other shelters, entirely off, when the weather is mild and dry.

But in very wet weather, and when sharp cutting winds prevail, keep the glasses over them, observing, however, at such times, to raise the lights or glasses behind, two or three inches in mild days, to admit air to the plants; for if they are kept too close, they will be drawn up weak, and attain to but little perfection; but let the glasses be close shut every cold night. In severe frosty weather, keep them close night and day, and cover the glasses with mats, or straw, &c., both of nights, and occasionally in the daytime, if no sun appears, and the frost is rigorous; also let the same care be observed to those under

hoop-arches; but let them have the full air in dry open weather.

Or where any Cos lettuce are pricked in a south border, close under the wall, &c., it would be advisable, in hard frost, to cover them as above.

In the above lettuce, in general, pick off all decayed leaves when any appear, keep them always cleared from weeds; and destroy slugs, which often greatly annoy lettuces; and in mild weather stir the surface of the earth between, which will much enliven the plants.

#### SOWING LETTUCES.

ABOUT the first or second week, or any time in this month, if the weather is open, you may sow some green and white Cos lettuce, common cabbage lettuce, brown Dutch and Cilicia kinds, &c., all on a warm border, under a south wall or pales, &c., a little sloping to the sun, sowing the seeds moderately thick at this season, and raked lightly and evenly into the ground.

Sow a little more of the same seed about the middle and latter end of this month, in order both to succeed the crops sown at the beginning, and as a substitute in case they should be cut off by the severity of the weather at this season of the year; but for the greater certainty of having a few forward lettuce, you may sow a little seed in a dry warm spot, defended with a frame, and put on the glasses occasionally; or sow some under hand-glasses.

But when required to raise some early lettuce as forward as possible, you may sow some green and white Cos kinds, in a slender hotbed under glasses, or occasional shelter of mats, for planting out early into warm borders; or the young plants may be greatly forwarded if pricked upon another hotbed next month, and in March or April transplanted into the full ground.

#### FORCING EARLY ASPARAGUS.

HOTBEDS for forcing asparagus may be made with success any time this month, which will furnish young asparagus for the table next month, and in March.

Observing, for this occasion you must be furnished with plants that have been raised in the natural ground till of three or four years' growth, of a proper size and strength to produce eligible crops of good-sized asparagus shoots, when planted in a hotbed; and must be provided with plenty of good hot dung,

wherewith to make substantial hotbeds, two feet and a half or a yard high, and with proper large frames and glasses to place on the beds, and garden mats for covering of nights, &c.

But for general particulars of the plants, and the necessary quantity, as well as of the hotbed, and other requisites, see the article *Forcing Asparagus*, in February, which is equally applicable on the present occasion.

#### SOWING RADISHES.

IN the beginning, or any time this month, when the weather is open, sow some short-topped radishes for an early crop, on a warm border, that lies well to the sun, under a wall or other fence; and about the middle or latter end of the month you may sow more of the same sort, and some salmon radishes, to succeed the short tops.

But you should not mix the seed of both sorts together, but let each sort be sown separate; for the short-topped kind will come into use sooner by a week than the salmon radish, even if both are sown at the same time; besides, the latter runs more to leaves than the former.

The surest method is, to sow a little of the short-topped kind at least twice this month: therefore, if you sow in the beginning or middle, sow some more towards the latter end of the month, in a similar warm situation

Or towards the latter end of the month, if mild open weather, may sow a larger supply of the short tops, for a more general crop; and in which, if thought convenient, may scatter a small sprinkling, either of carrots or round-leaved spinach and lettuce, to come in after the radishes are drawn off; though, as it is advisable to sow the radishes pretty thick at this season, it would be rather more eligible to sow them entirely alone, without intermixture of any other crops.

You should sow the radish seeds pretty thick at this season; for when the plants begin to appear, the weather, if it should prove sharp, will cut off some, and the birds too, being apt to attack them, will destroy many: sow the seed evenly over the surface, and either rake it in with a large wide-toothed rake, or, if sown in beds, cover it with fine earth from the alleys, half an inch deep: then observing, especially in appearance of frost, or even in mild weather, it will be of much advantage to spread some clean, dry straw, or dry, long litter, over the surface, two inches thick, which will keep the ground warm, resist the frost, and greatly forward the germination of the seed.

Likewise when the plants begin to come up, continue to protect them from the frost and birds, by spreading straw, &c., as above, dry fern, or large garden mats, over the surface, to remain till they are fairly above ground, then uncovered every mild day, covered at night, and always when frosty weather; using a pitchfork, &c., in spreading on the straw covering, and a light wooden or other rake to draw it off into the alleys, where it must be permitted to lie, to be ready to spread over the plants every night, and even in the day, when there is occasion, on account of severe frost, which, however, should always be done every evening, especially when there is an appearance of frost, but must be taken off every day in mild weather; which work of covering early radishes should be continued occasionally, until the plants are advanced at least two or three weeks more in growth, according to the temperature of the season; or generally till they have formed the second or rough leaves in the centre in the course of the following month; but in default of litter or straw for this purpose, may cover with garden mats, first having a quantity of wooden pegs stuck into the ground slantways, two inches above the surface, to keep the mats a little detached from the radishes: both of which methods of covering early radishes are the general practice of the London gardeners, who thereby have them ready to draw for market plentifully in March.

But in order to have radishes as early as possible, recourse may be had to the assistance of hotbeds; therefore, any time in this month, make a moderate hotbed for one or more garden frames, of only about two feet depth of dung, sufficient just to promote the early germination of the seed, and forward the plants moderately, without running them up long-shanked, &c. When the bed is made, set on the frame; lay in about six inches' depth of good light garden earth; then having some seed of the best early dwarf short-topped radish, sow it evenly on the surface, press it into the earth with the back of a spade, and cover it half an inch deep with light mould, and put on the glasses.

When the plants appear, give them a large share of air, either by taking the glasses, &c., entirely off in open mild weather, or tilting them up high at one end, as the weather shall permit, otherwise they will draw or run up long-shanked, and be spoiled; and after the plants have been up a few days, thin them regularly with your hand, where they stand too thick, and leave the strongest plants standing not less than an inch asunder.

Support a gentle heat in the bed, when it declines, by applying a moderate lining of hot dung.

Some of the same seed may be sown on a warm spot in the common ground, and covered with a frame, or awning, &c. These will come in at a very acceptable season.

#### CARROTS.

If the weather is open and dry about the beginning, or any time of this month, let a warm spot of ground be prepared for a few early carrots: dig the ground a full spade deep, and break the earth well as you go on.

But this is only intended for a few to come in a little before the general crop; therefore, only a small compartment of ground should be prepared for this purpose. Choose a dry mild day to sow the seed, and let it be raked in as soon as sown.

In some families young carrots are required as early as possible, and they may be forwarded by sowing the seed in a moderate hotbed.

Make the hotbed about two feet thick of dung, and procure some light, rich, dry earth, which lay six inches thick on the bed. Sow the seed thinly on the surface, and cover it with the same kind of earth a quarter of an inch deep.

When the plants come up, let them enjoy the free air in mild weather, and cover them in cold nights, whilst young; and when an inch or two high, thin them to about three inches asunder; and you will thus have young spring carrots for drawing in April and May.

#### SPINACH.

. Any time in this month, if open weather, you may sow a little spinach to come in early in the spring; at which time it will be very acceptable in most families. The smooth-seeded, or round-leaved kind, is the best to sow at this season, for early spring and summer spinach in April and May, the leaves being large, more thick and succulent than the triangular spinach; though, as the latter is hardiest, it may be proper to sow also some of that sort at this early season.

The first seed may be sown about the beginning of this month, and a little more about the middle or towards the latter end, in order to be more certain of a crop, and to have a regular succession; sow it either broad-cast, and rake it in, or in flat shallow drills, drawn with a hoe, an inch deep and a foot asunder, or in drills between rows of early beans, or cabbages, &c.

## SMALL SALADING.

MAKE a slight hotbed, in which to sow the different sorts of small salading, that will not now endure the open air at this season of the year, such as cresses, mustard, radish, and rape, to cut while young.

The hotbed for these seeds need not be more than about eighteen inches or two feet thick of dung, and must be covered with a frame and glasses. The earth must be light and dry, and laid about four to five or six inches thick on the bed; then either let small shallow flat drills be drawn from the back to the front of the bed; sow the seed therein, each sort separately, and very thick, covering them not more than a quarter of an inch deep with earth; or if but just covered is sufficient, and the plants will rise more expeditious and regular; or the seed may be sown thick all over the surface of the bed, each sort separate; smooth it down with the spade, then sift as much light earth over as will just cover it, as above observed, and directly put on the glasses: or, in want of frames and lights, may use hand-glasses, observing in general to cover the glasses every night, and severe frosty weather, with mats or straw, litter, &c.

As soon as the plants appear, give them air plentifully, by raising the glasses on props; otherwise they will mould or fog, and spoil as fast as they come up.

It must be remembered, that where a regular succession of these small herbs is required for salad, should repeat the sowings, at least once a fortnight.

If you have not hot dung to spare to make hotbeds for this purpose, may sow in a sloping bed of natural earth, under a shallow garden frame, covered with glasses: allotting for this occasion some warm compartments of rich earth in the full sun: preparing it in a sloping manner fronting the south, a foot higher on the north side than in front. Set a frame thereon, sinking the back part, &c., so as to have the whole surface of the earth within six or eight inches of the glasses; sow the salading, put on the glasses, covering them of nights and bad weather, as above, and you need not doubt of success; though, generally, in severe frosty weather, a hotbed will always prove the most effectually successful on this occasion.

## MINT, TANSY, &amp;c.

MAKE a small hotbed for some mint, when it is required at an early season in young green shoots, for salads and mint sauce, &c. A bed for a small or middling garden frame, of one or two lights, may be sufficient for supply of a moderate family; but where larger supplies are required, have the hotbed more extensive in proportion, and in general about two feet thick of dung; then set on the frame, and lay about four or five inches' depth of earth on the bed, ready for planting.

Then having some roots of common spear-mint, place them upon the surface, pretty thick, and cover them with earth about an inch and a half deep; or may place the roots in drills, and draw the earth over them.

The mint will appear in about a week or fortnight, and will be in fine order for mint sauce, &c., and either to use alone as a salad, or to mix among other small herbs.

By the same means may obtain green tansy and tarragon.

## PARSLEY.

Sow some parsley-seed, if open weather, about the middle, or towards the latter end of this month.

There being two sorts, the common plain-leaved, and the curled-leaved, the latter is preferable, the leaves being large, thick, and bushy, and is in much request for garnish to dishes, though both sorts are eligible as pot-herbs, &c. Let the seeds be sown, each sort separate, in any dry ground, in shallow drills nine inches asunder, and covered in with earth about a quarter of an inch deep.

Or these seeds may be sown in a single drill along the edges of the kitchen garden quarters or borders.

As this seed sometimes lies five or six weeks before it grows, that which is sown now will be forwarding in vegetation, to come up soon in the spring.

## CAULIFLOWERS.

Look over, in open weather, the frames of cauliflower plants which were raised and planted in frames last autumn for protection in winter, to plant out in spring for the principal summer crops; and where withered or damaged leaves appear, let them be picked off, and suffer no weeds to grow among them, and stir the surface gently between, which will enliven and cherish the plants.

In open weather, let the plants have plenty of air every day, by raising the glasses, or by taking them entirely off when the weather is mild and dry; but generally continue the glasses over in rainy weather: and keep them close down every cold night, and do not open them at all in frosty weather.

In very severe weather, cover the glasses every night with mats, straw, or fern, &c.; also, if there be occasion, in the daytime, in very rigorous frost, and no sun; likewise, in such weather, lay some litter round the outsides of the frame, for this will be very serviceable in preventing the frost from entering at the sides.

Cauliflowers under hand or bell-glasses must also have air every mild day, by raising the glasses two or three inches on the warmest side; in sharp weather keep them close; in severe frost lay some litter round each glass; this will protect the plants greatly: but in mild dry weather the glasses may be taken off every day for four or five hours; and in quite mild weather, let the glasses remain tilted also in nights, to admit full air, to prevent their drawing up weak, or running into flower, at an improper growth; but they must be kept close every cold night.

As slugs often annoy these plants in mild winters, you should search for them occasionally, to prevent their depredations.

You may now sow a small portion of cauliflower seed towards the end of this month, in a hotbed, to succeed the winter-standing plants, or as occasional substitutes, in case these should be killed by the frost, or that none were raised last autumn to stand the winter, as above. See *February*.

#### PLANTING OUT CABBAGE PLANTS.

When the weather is open, prepare some ground for cabbage plants; let some rotten dung be laid on the ground, which should be well dug one spade deep, and the dung properly buried in the bottom of the trenches.

Towards the latter end of the month, if the weather is mild and the plants strong, a moderate quantity may be transplanted, observing to plant them about two feet and a half asunder, or some only half that distance when designing to cut the cabbages while young, in a thinning order.

The sugar-loaf, early Yorkshire, and Battersea cabbage, are proper for this season; but any of the larger sorts may likewise be planted at this time.



Towards the latter end of the month make good the plants in the former plantations that have been destroyed by the severity of the weather and the vermin.

On the ground where cabbages are planted now or in the spring, if you are stinted for ground, you may sow a small crop of spinach in single drills between the wider rows; which, if sown now, will be fit to gather off in April and May.

#### TRANSPLANTING CABBAGES, &c. FOR SEED.

TRANSPLANTING cabbages and savoys, &c. for seed: this work should be done generally in November or December: but where it was omitted in these months, it may still be done: if the weather will permit, let it be done in the beginning of the month.

The method of preparing and planting them is this:—

For the purpose of saving seed, let some of the largest and best full-grown cabbages, &c. be taken up in a mild dry day, and divest them of the large outer leaves: and if they appear wet, place them with the heads downward a day or two, to drain off any moisture before planted, to prevent their rotting; or, in default of full cabbages, may use cabbage stalks, furnished with good full heads of strong sprouts, as they will answer the same purpose, both in regard to the goodness of the seed and its produce.

Let a dry open compartment of ground, exposed to the full sun and free air, be chosen for planting them; and the readiest method is to plant them in trenches, as you dig the ground: and the plants should be allowed two or three feet distance each way.

Dig the ground a full spade deep, and keep the trenches clear and wide. When you have advanced with the digging two feet from the end, then with the spade cut the edge of the trench even on the side that is dug, and somewhat perpendicularly downward to the bottom; then set the cabbages in the trench, in a similar position, close to the dug ground, and two feet asunder, with the bottom of their heads a little within the surface: and having planted one row, proceed again with the digging, laying the ground against their stalks and roots, and round the bottom of each head; continuing with the digging till advanced two or three feet from the row of plants; then prepare the trench as before, and plant another row in the same manner, and so proceed till the whole is planted. They will shoot up into stalks in the spring, for flower and seed, which will ripen in August following.

## EARTHING UP CELERY.

WHEN the weather is open, take advantage of a dry day, before setting in of frost, to earth up such celery that requires it in being advanced to some considerable length above the ground.

Let the earth be well broken, and laid up to the plants lightly, that they may not be broken down or bruised, raising the earth very near the top of the plants: for if severe frosts set in, it would destroy, or at least greatly damage, such parts as are above ground, which, if of any considerable length, and happen to be killed by the weather, would occasion a great part of that within the earth to decay or rot downward.

In some families these plants are required every day; but if the ground is frozen hard, you cannot easily take them up: therefore, at the approach of severe weather, either cover some of the rows with dry long litter, which will prevent the ground from being frozen, and will also protect the plants; or, at the approach of severe weather, there may, for the service of a family, be a quantity of the plants taken up in a dry day: carry them into some sheltered place, and there lay them in dry earth or sand, as far as their white or blanched part.

In dry open weather let some of the best full grown endive be prepared for blanching, taking opportunity of a dry day, when the plants are also dry, and tie the leaves of each plant together; they will be blanched for use in a fortnight, proper for salads, soups, stewing, &c.

Likewise may transplant or plunge endive into a raised sloping ridge or bank of dry earth, for blanching more securely from wet or frost, by which the endive, in blanching, is often apt to rot at this season, when tied up as it remains in the common level ground; though the plants are not always secure, even when laid into a raised ridge or bank of earth, unless under cover of some shelter from the weather; however, a quantity may be tried different ways, occasionally, for the supply of a family.

One method is, to prepare, in a dry warm situation, a raised ridge or bank of light loose earth, as dry as possible, fronting the sun, two or three feet high, the front in a steep slope, to run off the falling rain, &c.; then, drawing up a quantity of full grown endive in a dry day, and if rather wet in the heart, place them, top downward, in a covered dry place for a day or

two, to drain off the moisture; this done, proceed to deposit the endive into the steep sloping side of the bank of earth, gathering or tying the leaves of each plant up close together, and plunge them horizontally into the earth, moderately close to one another, so as the ridge may contain a sufficient quantity.

After being thus deposited, give occasional protection from frost, snow, and heavy rains, either by placing a frame, &c. over, or a thick covering of long straw litter; and thus the endive will sometimes blanch in tolerable perfection.

Or, for the greater certainty of blanching and preserving good endive at this season, there may be laid a quantity of light dry earth, or sand, into any dry shed, or other covered place, in a high ridge or round heap, and so bury the endive therein, as above; or lay some dry earth, or old tan, in a deep garden frame, in a ridge, and in which plunge your endive; and when the weather is frosty or wet, the glasses may be put on, and other covering if necessary; by this method you may obtain good endive in the severest season, provided care be taken to lay in a quantity at the first appearance of hard frosts. One frame will contain a great many plants.

But with respect to the endive that is growing in the open ground, it is proper, in severe frosty weather, to cover some of the best plants, with any kind of dry long litter; but must be immediately removed in mild weather, to prevent putrefaction.

#### BEANS.

In the beginning of this month, if the weather is open, let some ground be got ready for a main crop of broad beans. The principal large sorts are,

Sandwich bean, toker bean, Windsor bean, broad Spanish bean, broad long-podded bean.

The Sandwich bean is an excellent sort, and may be planted the first week in this month, if the weather permits; also the toker bean, which is very fine, and a good bearer. Let the rows be three feet distant from each other, and set the beans either by a blunt-ended dibble two or three inches deep, or drill them in that depth, and about three or four inches asunder in the rows.

Some Windsor beans may be planted about the same time; and the first main crop may be planted about the middle, or towards the latter end of the month. Let the rows be a yard asunder, and plant the beans four or five inches apart in the

rows, as the plants of this sort grow very strong, and should have good room for their growth.

You may, however, in this month, plant also the broad Spanish, long-podded, or any sort of garden beans that are most approved of, either for family use or market. And if some small early Magazan or Lisbon beans were not planted before Christmas, or have suffered by the frost, let some more of the same kinds be now planted the first opportunity of mild open weather; either planted in rows two or three feet asunder, where they are to remain, or some sown thick in a bed, or part of a warm border, under a frame, &c., for transplanting.—See *October* and *November*.

Or in case of a deficiency of the above early beans, either in being cut off by the frost, or that none were planted, may now sow some thick together, either in a hotbed, to forward them for early transplanting, the bed defended with a frame and glasses, or covered occasionally with an awning of mats, &c., in severe weather: and thus will be forwarded two or three weeks before those now planted at once in the natural ground; giving the plants, when come up, full air in all open weather; and when they are advanced one or two inches in growth, transplant them into a warm south situation, when the weather is mild, planting them in rows two feet and a half asunder.

Or where there is the convenience of a hothouse, &c., you may sow some thick in a large wide garden pot or two placed therein: and when the beans are come up about an inch in growth, inure them by degrees every mild day to the full air, to harden them for transplanting, as above.

#### SOWING PEAS.

LET some hotspur peas be sown the beginning of this month, for a full crop, on a warm piece of ground, to succeed the same sorts which were sown in November and December: the sorts are,

Charlton hotspur, Golden hotspur, Reading hotspur, Masters' hotspur.

But the first two are the earliest, and the others are excellent fine peas, long pods, and good bearers, and proper to succeed them. Sow each sort in rows, two feet and half asunder; but if you intend to set sticks to them, to climb upon for support, let the rows be three feet distance.

At the same time, also, you may sow the first crop of marrow-fat peas, and they will succeed the hotspurs; for they will

come into bearing as the others go off. This pea is much admired in most families: but the dwarf-marrowfat is the properest for sowing at this season; observing, if you intend to set sticks for these peas to run or climb upon for support, sow them in rows full four feet distant from each other; but if no sticks are intended, three feet and a half will be quite sufficient.

For a general list of peas, see the catalogue of the kitchen plants at the end of the book, any of which may also be sown in open weather.

Where a few early peas are particularly required in the most early season, they may be obtained by either sowing some in a hotbed to remain, or rather for transplanting from that into another; or some young pea-plants, as are now advanced an inch or two in growth, may be transplanted into a hotbed.

Either of which methods should be performed the beginning of the month, if the weather permits: though the sowing in a hotbed may be done in any weather, or also young pea-plants transplanted from a raising hotbed finally into a larger; observing, generally, for either method, to have the early dwarf frame peas, either sown in a larger hotbed, in cross-rows from the back to the front, to remain, or rather more eligibly sown thick on a smaller hotbed, for transplanting into a larger one when about an inch or two high; or if any of the early forward sown peas, either in a bed, warm border, &c., are now of similar proper growth, some may be transplanted into a hotbed, as above, to remain for production; or some might be expeditiously raised, sown in pots in a hothouse, for transplanting in the same manner; or occasionally raised early in a bed or natural earth, defended with frames and glasses; or in a warm south border, in a row close under the wall, and transplanted into a hotbed.

Or some early peas may be sown in large pots, or young plants, as above, transplanted therein to remain, and placed in a forcing-house, or stove, &c.; or may also sow or plant some dwarf sorts in the borders of a fruit forcing-house.

#### EARTHING UP PEAS AND BEANS.

If you have peas and beans already up, in the natural ground, one, two, or three inches high, or more, take advantage of a dry day, when the surface of the ground is dry, and draw some earth up to their stems.

This should not be omitted, for it will strengthen and forward the plants, and protect them greatly from the frost.

## ARTICHOKES.

ARTICHOKES, if not landed up before, should not be neglected any longer, except the severity of the frost prevents it; in which case, as these plants are liable to suffer greatly by rigorous weather, it is advisable to give some temporary protection, first clearing away the decayed and large old leaves, then apply a good thick covering of long, dry, strawy dung or mulchy litter, close about each plant: but if open weather, it would be most expedient to land them up; observing, preparatory to this, to cut away all the large and decayed old leaves close to the ground, then dig between, and earth up the plants, as in November and December.

But the work of landing up artichokes should generally be performed in November or December; for which see the work of those months. It should never be omitted; for it is the most general effective method of preserving the plants in severe winters.

And after they are landed, if the frost should prove very severe, it will also be proper to lay light dry mulch, or long litter over the rows: if the plants are of the true globe sort, too great care cannot be taken to preserve them; for sometimes a severe winter makes a great havock among them; and, in spring, young sets to recruit the plantations are often so very scarce, that they can hardly be obtained for any money.

## MUSHROOMS.

MUSHROOM-BEDS should be carefully attended to at this season. They should have sufficient covering to defend them effectually from the frost, rain, or snow; which should not be less than twelve inches thick; and if heavy rain or snow should have penetrated quite through the covering, this must be removed immediately, or your spawn will be in danger of perishing. Replace it with a good covering of clean and dry wheat or other straw; and in order to defend the bed more effectually from wet and cold, it is advisable to spread some large mats or canvass cloths over the straw, which will greatly preserve the beds.

Mushroom-beds may now be made, if required: they will afford a full crop in spring and beginning of summer, though probably not so successful as the autumnal-made beds. See the *Kitchen Garden for September*, for the method of making and spawning the beds, &c.

## THE FRUIT GARDEN.

## PRUNING APPLE AND PEAR TREES IN ESPALIER, AND AGAINST WALLS.

WHERE there are wall and espalier apple and pear trees yet unpruned, that work should now be forwarded as much as possible, and may be safely performed upon all sorts, without fearing any danger from frost injuring the trees in the cut parts, even if it happens when performing the operation.

Apple and pear trees being of the spur-bearing kind, and their mode of bearing similar, one method of pruning answers for both; they, producing their fruit upon short natural spurs from the sides and ends of the branches, and the same branches continue bearing for many years, increasing their quantity of fruit-spurs as they gradually advance in length; let it therefore be remarked, that in the general course of pruning those trees, their branches and shoots are not to be shortened, but generally trained along horizontally to the espalier and wall, at their natural length, at least as far as there is scope of room to extend them; never shortened except on particular occasions, below explained; and the whole trained four to five or six inches asunder.

Keeping, therefore, this in mind, look over the general branches, in which observe, that in such advancing young trees as are still in training, requiring a farther supply of young wood to form the head, be careful to select and retain a proper quantity of the best-placed last summer's shoots at full length, and generally a terminal shoot to each mother branch; and cut out all the superfluous and irregular ones; but, in full-trained or old trees, still retaining the former trained or same individual bearing branches for many years, as long as they continue fruitful; and only examine any particular branches that appear worn out or decayed, or any that are too much crowded or very irregular, and let such be now pruned out; at the same time observe where any of the last summer's shoots are wanted to supply vacant spaces, and retain them accordingly; cutting out all the superfluous or over-abundant, close to the main branches; likewise, let all foreright and other irregular-placed shoots be cut away; carefully retaining the leading shoot to all the main branches, where there is scope to run them; so retaining the general branches and the necessary supply of young wood, about four to five or six inches asunder, to be trained to

the wall, &c., all at their full length, as aforesaid; and, according as they advance in length, still continue extending them to the wall and espalier, without shortening, at least as far as their limited space admits.

In the course of this pruning, have particular care to preserve all the natural fruit-spurs; but cut away all those formed of the remaining stumps of shortened shoots, for these rarely produce anything but a confusion of unnecessary wood-shoots every summer: and for which reason be careful, in pruning out the superfluous and irregular shoots, always to cut them quite close to whence they originate.

Then train in all the remaining proper branches and shoots at their full length, about from four to five or six inches asunder, as aforesaid, without reducing them in length either in the summer or winter pruning.

By the above practice the shoots or branches of these trees, will, about the second or third year after they are laid in, begin to produce short shoots or spurs (as they are generally termed) about an inch or two in length: some not above half an inch; and from these the fruit is produced.

But if the branches of these trees were to be shortened, it would be cutting off the very part where blossom buds or spurs first begin to appear; and instead of those fruitful parts, they would send forth a number of strong wood-shoots. This plainly shows, that the shoots which are intended for fruit-bearing must not be generally shortened; for if that is practised, the trees would constantly run to wood, and never produce any tolerable crop of fruit.

If, indeed, there is a want of wood in any part of these trees, then occasional shortening some of the adjacent young shoots may be necessary, whereby to promote a production of laterals the ensuing summer to furnish the vacancy.

For instance, if there is any vacant part in a tree, and two, three, or more shoots, are requisite to furnish that vacancy, and only one shoot was produced in that part the preceding summer, that shoot, in such a case, being now shortened to four or five buds, it, if strong, will produce three or four lateral shoots the summer following.

#### PRUNING PLUMS AND CHERRIES.

This is also a proper season to prune and nail plums and cherries, either against walls or espaliers

Let it be observed, in the pruning of these trees against walls



or espaliers, that, like the apples and pears, they being of the spur-bearing kind, producing the fruit upon short natural spurs or studs, emitted along the sides of the branches, of from two or three to many years old, so must accordingly retain the same branches, many years for bearers, which must not be shortened in the course of pruning, but trained horizontally at their full length, about three or four to five or six inches asunder; also all young shoots of the last year's growth, as are now proper to be reserved in vacancies, to furnish the wall or espalier with bearing wood, must not be shortened; but every such shoot or branch must be left entire; and this should at all times be observed, which is the only certain method whereby to render the branches fruitful.

In the operation of pruning these trees, observe, as advised for the apple and pear trees, to give proper attention both in any young trees still under training, and in the fully-trained older trees furnished with the requisite expansion of branches.

Observing, in the former, *i. e.* the young trees under training, that where further supplies of branches are required in order to form a proper expansion of bearers trained in regularity, should be careful to leave some best well-placed young shoots for that purpose; and cut out the improper and unnecessary, such as foreright and other irregular placed growths; or also any superfluous or over-abundant shoots, that may occur in particular parts of the trees; retaining the reserved proper shoots mostly at their full length, for training as above; and they will thus, in from one, two, or three years' growth, furnish natural fruit-spurs for bearing; but generally sooner in the cherries than the plums, as some sort of cherries will probably bear fruit the same year, on the young shoots now trained in: the morella, in particular, bears mostly on the one-year-old shoots: for observations thereon—see *November*.

And in the full-trained trees of the above sorts, look carefully over the general expansion; and where any occasional supply of young wood appears necessary, select and retain some best placed proper shoots of last summer accordingly, either to furnish any present vacancy, or to train in between the main branches where it may seem expedient, in order to be advancing to a bearing state, ready to supply any apparent future occasion; but in the morella particularly, above mentioned, retain always a general supply for principal bearers: (see *November*;) and prune out all irregular and superabundant shoots close to the mother branches; and if casual worn-out or

decayed old unfruitful branches occur, let them now be cut out, retaining young wood of proper growth, &c. to supply their place; preserving also, in all vacant spaces, a supply of the best young shoots at their natural length, as above advised, and a leading one to each branch; being careful to preserve all the short natural fruit-spurs, and cut away close any remaining naked stumps of former shortened shoots: then, as soon as a tree is thus pruned, proceed to train in all the proper shoots and branches to the wall and espalier, at their full length, as aforesaid, at the above-mentioned distances: and all those thus treated will, in two or three years' time, send out many short shoots, or fruit-spurs, about half an inch or an inch in length; and from these spurs the fruit is always produced.

These spurs generally appear first toward the upper part, or that which was once the superior part of the one, two, and three year old branches; and if shortening was to be practised, those parts would consequently be cut away where the blossom-buds would have otherwise first made their appearance. Therefore, in the course of pruning apple, pear, plum, and cherry trees, never shorten or top the young shoots that are left for a supply of bearing wood, nor any of the bearing branches, if room to extend them; and they will thus all gradually form themselves into a plentiful bearing state.

But if shortening was generally practised to these kinds of fruit trees, as is the case with many pruners, it would prove their manifest destruction in regard to preventing their fruitfulness: for, in the places where fruit-buds would otherwise naturally appear, there would advance nothing but strong wood shoots: so that the trees would be continually crowded with useless and unfruitful wood.

When, however, there is at any time a supply of wood wanted, then shortening particular shoots may be proper, as observed above for the apples and pears.

#### GENERAL OBSERVATIONS IN PRUNING ALL THE ABOVE TREES.

We observed above, that shortening the branches of apple, pear, plum, and cherry trees, was not proper in the general course of pruning; it, however, in some particular cases, is most necessary; for which take the following hints:—

For example, when the trees, for walls and espaliers particularly, are about one year old from the budding or grafting, either in the nursery, or newly planted against walls or espaliers; with their first shoot immediately from the budding or

grafting, at full length, it is proper to shorten or head down these shoots near the insertion of the bud or graft, to force out lateral branches, which is called heading down the trees; but this should not be done till spring, cutting them down to four or five eyes; which will procure a production of lateral shoots near the head of the stock from these remaining lower eyes or buds, the following summer, in order for training in accordingly, that the wall or espallier may be regularly furnished with branches from the bottom. After this the branches are to be trained along at their full length, except it appears necessary to shorten some or all of these lateral shoots, in order that each may throw out also two or three lateral branches to furnish that part of the tree more effectually; training the said lateral shoots also at their full length; but if there appear to be still more branches wanting, some of the most convenient of these last shoots may also be shortened to promote their producing a farther supply of lateral branches, sufficient to give the tree its proper form; for the great article in this training-pruning is to encourage and assist young wall and espallier fruit-trees, in their first two or three years' growth, to produce shoots in proper places, so as to cover the wall or espallier regularly with branches, from the bottom to the top.

But when the trees have acquired branches enough to effect the first proper formation of the head, they will afterwards naturally furnish further supplies to cover the wall or espallier regularly every way, to the allotted extent, without any farther shortening, except on particular occasions, when a vacancy happens in any part, according to the rule mentioned in the article of apples and pears.

There is one thing further to be observed in pruning apple, pear, plum, and cherry trees; and that is, when the trees have acquired branches enough to cover the wall or espallier, at the distance above mentioned, then all those young shoots of the last summer's growth, that are not wanted in vacancies to form new bearers, must be cut off quite close to the place from whence they arise, leaving no spurs but the fruit spurs that are naturally produced, which every branch will be plentifully furnished with, if the above rules are observed.

#### PEACHES, NECTARINES, AND APRICOTS.

PEACHES, nectarines, and apricots, may be pruned and nailed any time in this month, if the weather should prove mild; or

at all opportunities, without danger of any material injury, if pruned in frosty weather.

For although these trees are rather tenderer than the sorts before mentioned, and the frost is more apt to affect them in some degree at the newly-cut parts, it is only extremely rigorous frost that can any way affect them in consequence of pruning, and that not materially.

In the training and pruning of peaches, nectarines, and apricots, little or no difference is to be observed; they all produce their fruit principally upon the young shoots of the former summer, the fruit-blossoms rising directly from the eyes of the shoots, a plentiful supply of which must be reserved annually in every part to train in for bearing: they also, sometimes, bear on the small natural spurs arising on the two or three years' wood, which generally occur more frequently in the apricots; and all such spurs should be carefully preserved, for they generally bear good fruit: keeping in mind, however, that the young yearling shoots are to be considered as the general bearers: observing, that as the general branches and bearing shoots are to be trained to the wall horizontally, about three to four or five inches' distance, we must prune out annually all superabundant shoots, or that are more than can be trained in with proper regularity; likewise a considerable part of the old, or two last years' bearers; and, observing, that as a general supply of the best of the last year's shoots must annually be left in a regular manner in every part of the tree, to bear the fruit the succeeding summer, each of the said shoots must be shortened more or less according to their strength, now, in the winter pruning, as directed below, in order to encourage them to produce a more regular succession of bearing wood in the ensuing summer. The wood, which is then produced, will bear fruit in the summer after that; and the same shoots both bear the fruit and a supply of successional shoots at the same time for future bearers, &c.

Before you begin to prune, in these trees particularly, it is proper generally to unnailed all the young shoots which were nailed last summer, and great part of their respective mother branches, by which means you will have room to examine the shoots, and to use your knife properly.

In the course of pruning these trees, be careful to select the most promising and best situated shoots at the above distances, in a regular manner, advancing as it were, one after another, in every part of the tree, making room for them, by cutting

out all the other useless or unnecessary shoots, together with a proportionable share of the former bearers, before intimated, and old naked branches not furnished with bearing wood.

For example, you are to observe that these young shoots are, as above hinted, produced principally upon those shoots which were laid in last winter, and which produced the fruit last summer: and some casually on the older wood; but shall suppose many of the said shoots, or branches, which were laid in last winter, to have produced each three shoots in summer, and that they now all remain, but that there may not be room to lay in more than one of the said shoots on each of the branches; it remains to be considered, which of these three shoots on each branch is proper to be left; whether the uppermost, middle, or lower of the three: there is no general rule for this, but we will suppose the middlemost; in which case, cut off the lower one quite close to the branch, and then that part of the branch which hath the upper shoot upon it must be pruned down to the middle one; so that there is only the middle shoot now remaining, which terminates or makes the end of the branch: but, if it is thought most convenient to leave the uppermost of the three, the middle and lower are to be cut away close to the branch; or, on the contrary, if the lower shoot only is to be left, cut off the branch with the middle and upper shoot thereon, close to the lower one: and if thought most proper to leave in any place two out of three shoots on a branch, then the upper and lower are apparently most proper, provided they be the best shoots, and to cut out the middle one: or if two lower shoots appear best for your purpose, cut off the upper part of the branch with the top shoot close to the middle one; and, if to retain the two upper shoots, prune out the lowermost: there may not always happen to be just three young shoots on every year's branches: but I choose to mention that number, that I may be the better able, in this small compass, to explain and convey some idea of the method practised in pruning these sorts of trees.

At the same time, observe, in the above general pruning, to retain the most promising well-placed shoots, of the best middling, or moderately strong growth, and which appear the most fruitful or likely to furnish a proper supply of blossom-buds; rejecting very weakly slender shoots, and such as are very long jointed, likewise uncommonly thick spongy growths, as also remarkably rank luxuriant, cutting them all clean out; likewise the foreright and others ill-placed, that could not be trained

with proper regularity.—And, as you proceed, cut some considerable part of the past bearers of the last, or two or three preceding years to make room for the above young supply; pruning them down to some eligible lateral shoots, or some occasionally to their origin, as it may seem expedient: also take out casual old naked branches, advanced of some considerable length, without being now furnished with lateral young bearers, or fruitful shoots, eligibly placed for training where wanted; pruning them either entirely out to make room for the more fruitful wood, or pruned down, more or less, to any more prolific well-placed young branch proceeding therefrom, and that is furnished with young shoots for bearing.

Next, let it be remembered, that as you proceed in pruning these trees, most of those young shoots that are left to bear must be shortened, especially the smaller, the middling, and those of moderate growth, both to strengthen them in their future production, and to promote the producing more certainly a supply of successional lateral shoots next summer, properly situated, so as to continue every part of the tree always well furnished with bearers; for without this precaution of shortening the shoots, many of them are apt to run up, producing laterals only, mostly towards the upper part, leaving the bottom naked; whereby the tree in time becomes devoid of bearing shoots below: so that the shortening should be performed more or less, according to their strength, and that of the tree in general.

For instance, if a tree is weak, or but a moderate shooter, generally leaving the shoots about five or six inches apart, for training in nearly at that distance, let them be shortened according to their strength; some of the weaker shoots to five, six, or eight inches, others of stronger growth, out to about ten or twelve, to fifteen or eighteen inches long: for the shortening should always be performed, more or less, according to the different shoots, and, in some degree, according as the blossom-buds appear situated higher or lower on the respective shoots; not to shorten below all the said buds, in those shoots designed principally for bearing.

When a tree is in a moderate good condition, neither very vigorous nor weakly; but a middling strong shooter, the shoots may be left nearly about three, four, or five inches asunder, and should be shortened rather less in proportion than the foregoing, but agreeable to the same rules in shoots of different growth; pruning some to about eight, ten, or twelve inches,

others to fifteen or eighteen inches long, or more, according to their strength and situation in different parts of the tree, as well as, in some cases, to the apparent situation of the blossom buds, in being placed higher or lower on the respective shoots selected for bearers, as before observed.

But when any trees are of very vigorous growth in their general shoots, they must be shortened but moderately; or some shoots very little; in which some of the less vigorous may be cut to about twelve or fifteen inches; but in stronger shoots prune off only about one-third or fourth of their length, or some of the most luxuriant left mostly at their full length: for if the strong shoots of a generally vigorous tree were to be much shortened, it would occasion their shooting still more luxuriantly to rampant unfruitful wood; therefore the vigorous shoots should be very moderately shortened; and where they are general in a tree, it is advisable both to leave them closer and of much greater length than the shoots in moderate growing trees, that the exuberance of sap may be expended in the larger extent and expansion of wood, and the tree thereby in time become a more moderate shooter and a good bearer.

Observe, however, in shortening the shoots in general, both in trees of moderate, middling, and strong growth, that in those shoots adapted for principal bearers the ensuing season, should be careful not to cut away too low, or below all or most of the blossom-buds, or parts where they are expected to advance, being generally distinguishable from the leaf or shoot-buds by their round, plump, swelling appearance, the others being oblong, narrow, and flattish; and therefore should give proper attention to shorten accordingly in the shoots where the fruit-buds are apparent.

Likewise, observe, that in shortening the bearing shoot or others of those trees, they should generally, where practicable, be cut to an eye or wood-bud that is likely to produce a shoot for a leader the ensuing season; the shoot-bud eyes being distinguishable from the fruit or blossom-buds, by their longer, flattish form, the others being roundish, swelling, and turgid; or may also, occasionally, prune to an eye having one or two blossom-buds, as frequently, from the same eye, shoot-buds are also formed on one side of the single or between the two twin blossom-buds aforesaid, and from which a good leading shoot will be most likely produced, which is necessary to the welfare of the fruit: for where a leading shoot is produced at

or near the extremity of a bearing branch, it draws nourishment to the fruit more effectually.

After having pruned one tree, let it be directly nailed as you go on ; observing to lay in the branches and shoots horizontally, perfectly straight, and parallel to each other at the above-mentioned distances, nailing them all close to the wall in a neat manner.

#### VINES.

VINES may be pruned any time this month, when the weather will permit.

In training and pruning vines, observe that the young shoots of last summer are the only bearing wood ; and the branches and bearing shoots should be trained from about eight to ten or twelve inches distance, either horizontally or perpendicularly, as the space of walling, &c. will admit ; and therefore, in the pruning, carefully leave a sufficient quantity of the last year's shoots, at the above distances, so that every part may be properly furnished with them ; for it is from these only that the bearing shoots are produced, which yield the fruit in the succeeding summer ; and to make room for the successional supply of bearing shoots, must cut away some equal portion of the former bearers, together with all the superfluous or over-abundant and useless young wood, cutting them close to the old branches ; and let each retained shoot be shortened to form about three or four, to five or six buds, or eyes, according to their strength ; cutting them about an inch above an eye, and somewhat sloping.

Thus, in the course of pruning vines, you should always leave every year a proper supply of young shoots, both towards the bottom, middle, and upper part of the wall, in order that there may be a constant succession of young wood coming up in regular order, in every part of the tree, pruning out the superabundancy, as just observed : and also part of most of the former bearers of last year, &c. and casual long naked old wood, to make room for the successional young supply, pruning them less or more down to some best young shoots, or lateral branch furnished therewith : and any long naked old branch, not furnished with lateral young wood, advanced a considerable length, or to the extent of the limited space of walling, &c. in that unfruitful state, should be taken off, either quite to the bottom, or to some convenient lateral young branch to supply its place.



As soon as pruned, let them be immediately nailed up straight and close to the wall, at the above-mentioned distances.

#### FIG-TREES.

FIG-TREE pruning is advised to be deferred till next month, or *March*, where see the method explained.

#### PRUNING GOOSEBERRY AND CURRANT TREES.

GOOSEBERRIES and currants bear both on the young one or two years' wood, and upon the several years' branches, generally upon small spurs rising naturally all along the sides; and in each winter pruning it will be required to cut out any casual worn out, decayed, and very irregular branches, and have a proportionable supply of last summer's young shoots retained, and the rest pruned out.

In pruning gooseberries, let them always be kept thin of branches, and these not permitted to grow ramblingly across one another, but all pruned to some regular order, so as the main bearers, or general branches and shoots, stand six or eight inches' distance at the extremities; and generally either keep the middle somewhat hollow, or, if permitted to run up full in the heart, keep it thin of branches, as above advised; so that you will now prune out any irregularities, &c., such as casual crowding, cross-placed wood, and any worn-out or naked old branches, retaining young shoots, where necessary, to supply their places; and cut out all the superabundant lateral shoots of last summer, close to the old wood, only retaining here and there a good one in vacancies, or occasionally towards the lower parts, to be advancing to a bearing state, to supply the place of casual worn-out bearers: and generally leave, where practicable, a terminating or leading shoot to each main branch, either such as is placed naturally at or near the end of the branch; or, occasionally, where any branch is too long or rambling, prune it down to some convenient lateral shoots, &c., to remain for a terminal leader; and in both cases, generally leave but one terminal to each branch; and all those shoots now retained, both lateral and terminal, should either be mostly left entire, and only shorten long stragglers, and very bending and reclining growths, occasionally; or, at least, by no means shorten the shoots of these trees too much; for by cutting them very short, they are made to produce a deal of wood and but small fruit: and being so full of wood as to exclude the sun and free air in summer, the fruit cannot ripen well; and it likewise

renders it troublesome to get at the fruit, when fit to gather. Never clip the trees with garden shears, as is the practice of some ignorant persons.

Currant bushes should likewise be kept thin and regular, not suffering the branches to run promiscuously across each other; for when suffered to grow so irregular and crowding, they produce but small fruit; and the great thicket of branches excluding the essential benefit of the sun, the berries will not ripen freely and regular with a good flavour; observing, therefore, to keep the general branches thin, about six or eight inches asunder; in which, if any are too crowded or over-abundant, prune out the most irregular; also any cross-placed branches, and casual worn-out old bearers, together with all the irregular-placed and superabundant young shoots of last summer, preserving only occasional supplies of the most regular ones in vacancies, and a leading one at the termination of each branch, agreeable to the rules exhibited above in pruning the gooseberry bushes; and the general upper shoots may be mostly shortened more or less, where required to keep the head to a moderate extent, and of a compact firm growth.

Observe in pruning young gooseberry and currant bushes, let those designed for standards be pruned to a clean single stem, eight, ten, or twelve inches; and being careful to retain a requisite supply of the best young shoots properly situated above to form the head accordingly, cut out the irregular and ill-placed; and the retained proper shoots may in some be moderately shortened, especially such as run away straggling from the rest; and any proper shoots advancing below, may be permitted to remain entire till advanced equal with the others above, &c., that the whole may come on as equally as possible, to form a regular head.

Currants and gooseberries trained against walls or palings, &c., should also have a necessary pruning and regulation in the general branches, or as may be required, cutting out the superabundant and irregular-placed shoots of last summer, or any casual too crowding and disorderly growing older branches, or such as appear unfruitful, or any of a worn-out or decayed state, and all dead wood; retaining young shoots advancing from below, and in the most vacant parts, shortened more or less, or left entire, according to room for extending them; and train the general branches, &c., three or four to five or six inches distance.

## PLANTING GOOSEBERRIES AND CURRANTS.

Currants and gooseberries may also be planted; and if the trees are to be placed round the quarters of the kitchen garden, or in cross rows to divide the ground into wide compartments, should prune them up to one clean stem, of about ten, twelve, or fifteen inches, before you form the head of the tree: for when these trees are suffered to branch away immediately from the bottom, they, by spreading out so near the ground, will impede the growth of any crops that grow near their low expansion, and render it troublesome to work about them, in the occasional business of digging, hoeing, weeding, &c.; besides, they do not appear so agreeable as when trained to a single stem supporting a regular head of branches.

Generally plant these shrubs six or eight feet distance in the rows; and if in continued full plantations, let the rows be eight or ten feet asunder.

Likewise plant currants against walls and palings; some against south walls for earliest fruit, and others on north walls, for latest production; planted six or eight to ten feet distance;\* and the branches permitted to advance quite from the bottom, and trained up regularly to the wall, &c., three or four to five or six inches asunder.

Or may also plant some best early sorts of gooseberries against a south wall, for earliest production both of green and ripe fruit; planting and training them as above in the currants

## PRUNING RASPBERRIES.

In pruning these plants, observe that a fresh supply of shoots arise from the roots every year in summer for bearing the succeeding year; for the shoots, when but one year old only, always produce fruit, and totally die in winter following, those of each year being succeeded by the successional supply, from the roots of young shoots of the last summer, to bear the ensuing season; therefore, as the shoot which produced fruit last year will now be dead, they must be cut away close to the surface of the ground; and leave standing upon each root three or four of the strongest shoots of the last summer's growth to bear fruit the same year in the ensuing summer; but cut the rest down to the ground.

Those shoots which are left to bear, must be each of them shortened; in doing which, cut off about one-third or fourth of

\* Four or five feet may do.

the length of each shoot, according to their strength; observing, as they generally form a bend at top, it is proper to shorten them at a little below the bending part; and if they are left longer, or that they straggle wide and irregular from one another, may plait or tie them together, either uprightly or archways at top, to support them in an erect position.

The ground should then be digged between the rows; and as you go on, the roots that do not belong to the standing plants should be taken away, and all shoots growing in the intervals dug up.

#### PLANTING RASPBERRIES.

You may now make fresh plantations of raspberries, observing to procure young plants that are furnished each with one strong shoot of last summer, which may be obtained plentifully from any old plantation, as they always send up abundance of off-set suckers for sets, preferring those with good fibrous roots, rejecting such whose roots are naked and woody; prune off the weak tops of the shoots, and the long straggling roots, and plant them, by opening small apertures with a spade, in rows four feet and half asunder, and two or three feet distance in each row.

This distance appears considerable at first; but they should never be planted closer, as the advantage of it will be seen in two years' time; for when planted too close, they will, in the summer season, form a perfect thicket, insomuch that the fruit will be small, and not ripen with a good flavour; nor can you come at them readily, when fit to gather.

These plants should be planted in an open situation. For particulars, see *October*.

#### PREPARATIONS FOR PLANTATIONS OF FRUIT TREES.

If you intend to make new plantations of fruit trees, either for the wall or for espaliers, the borders should be trenched two spades deep: but previously, if the soil is poor, or very light, and wants augmentation, it would be of much advantage to add a supply of fresh strong earth or compost or good loamy earth, if it can be obtained, and rotten dung, working the whole together; and may be applied either wholly to the general border, or only at present to the place where each tree is to be planted, and the rest supplied by degrees; but if only some trees are wanted in different places, and that any improvement, as above, is thought necessary, it need only be applied in the

places where the trees are intended, as just observed : preparing the improvement about three to four or five feet in width, and one good spade deep, at least, for each tree.

If an orchard is to be planted, and the soil is but indifferent, it will be of advantage to add some very rotten dung, and fresh loam, or any good earth or compost, the most easily obtained, in each hole where the trees are to stand ; working the earth, loam, and dung well together.

However, in intending any plantations as above, it may be proper to observe, that when the ground is naturally of some tolerable fertile quality, good staple earth, or moderate loam, or other good mellow cultivating soil, as that of a garden or good field land, it will not require any other improvement than to dig or trench the ground a proper depth of one or two spades, as it may admit, or occasionally, at present, only to dig the holes for the trees.

#### PLANTING FRUIT TREES.

PLANT fruit trees where required, in open weather, of any sorts intended, both for walls, espaliers, and standards : for walls, the sorts are apricots, peaches, nectarines, plums, cherries, pears, vines, figs ; for espaliers, apples, pears, plums, quinces, cherries ; and for standards, the principal sorts are apples, pears, plums, cherries, with smaller portions of quinces, medlars, mulberries, filberts, services, &c. See *February*, and *March*, *November*, &c.

Let the wall and espalier trees be planted fifteen feet asunder at least ; but if eighteen or twenty, it will prove of considerable advantage, by admitting of a large scope for the horizontal extension of the branches ; and let full standard trees be planted thirty or forty feet distance. See *February*, &c.

#### PROTECTING THE ROOTS OF, AND SUPPORTING NEW-PLANTED TREES.

If the weather should now prove severe, it will be proper to protect the roots of new-planted fruit trees from being hurt by the frost, by laying mulch, or dung litter, on the surface of the ground, particularly the choicest of the stone fruit kinds ; as peaches, nectarines, apricots, and any principal sorts of cherries and plums.

Support all new-planted standard trees with stakes, and let a hay band be put round the stem of the tree, at the place where

it is to be fastened to the stake, to prevent the bark from being galled.

#### PRUNING OLD STANDARD FRUIT TREES.

THIS is also a proper time to examine your old standard fruit trees, to thin them where wanting, and to cut off all dead or irregularly growing branches, and to clear the trees from moss. See the work of *November*.

#### FORCING FRUIT TREES FOR EARLY FRUIT.

WHERE there is the accommodation of hot walls, or forcing houses, furnished with fruit trees for producing early fruits, as cherries, peaches, apricots, &c., may now begin to prepare for that business, by shutting all the glasses close, and about the middle, or toward the latter end of the month, begin to make the fires; or in vineries the beginning of the month: and in these forcing departments, where there is a pit in which to make a hotbed of tanner's bark, or hot horse-dung, make the hotbed first, and in a fortnight after let the fires be continued every night. See the *Fruit Garden* for next month.

#### FORCING EARLY STRAWBERRIES.

Now is a proper time, about the latter end of this month, to begin to make a hotbed to raise a few early strawberries: those which are planted now in a hotbed will produce fruit fit to gather in March or April.

About the middle or end of this month, provide for that purpose as much new horse-dung, as will make a hotbed about a yard high, for one or more three-light frames.

Let the dung be thrown in a heap, and let it lie about eight or ten days: in that time it will be in good condition to make the hotbed.

But in this business, a tan-bark hotbed, made in a bark-pit defended with a proper frame and glasses, would generally be more successful in fruiting these plants early.

But, previous to this, there should be a proper quantity of strawberry-plants potted, ready to place on the said hotbed; or if this was done in autumn before, in September or October, &c., it will be of particular advantage: the Alpine and scarlet kinds are the best sorts for this purpose, and should be plants of two years old, of a full bearing state, and of which, if none were potted before for this occasion, it may now be done in open weather. The method is this:—provide as many pots

(twenty-fours or thirty-twos) as the frame intended for your hotbed will conveniently contain, when set close together; at the same time get some fresh and good earth; if it is loamy it will be the better; and let it be well broken with the spade. Having the pots and the earth ready, put some of the earth into each pot to the depth of three or four inches; then take up the plants with a ball of earth to their roots, pare the ball nearly round with a knife, and clear the plant from all withered or rotten leaves, then place it in the pot, and fill the space between the ball and the sides of the pot with the above earth, and cover the surface of the ball with the same. Let them be watered as soon as you have finished planting, and remove the pots to a warm situation, there to remain till the bed is ready to receive them: but if the weather should prove bad before the hotbed is ready, let the plants be protected by covering them, or removing them under a frame and glasses, or into some sheltered place.

Having, however, prepared the dung for the hotbed, make it for one or more frames, about three feet high, and directly set on the frame and lights, to protect it from wet, and draw up the heat sooner: and when the violent heat is over, lay therein either some dry light earth, or some waste tanner's bark, of a decayed bark bed, four or five inches thick; then bring in the plants, and plunge the pots into the earth or tan, up to the rims, and close together as can be, filling up also all the interstices between with earth, &c.

When all the pots are plunged, put on the glasses, and keep them close till the steam arises in the bed, when it will be necessary to raise them a little behind, to let the steam pass off.

When the plants begin to push, let them have air at all opportunities, when the weather is favourable; for if kept too close, they will draw up weak, and not blossom well, and the blossom would drop, without being succeeded by fruit, and should be frequently refreshed with a little water, and cover the glasses every night with mats, and support the heat of the bed by linings of hot dung.

N. B. In forcing strawberries, the plants may be taken up out of the natural ground with balls of earth, and placed immediately in the earth of the hotbed without potting them. However, when it is intended to force strawberries, either in a common hotbed or in the hothouse, it would be a good method to plant some bearing plants in pots, in September or October, and so place the pots close together in a garden frame, or

under some warm wall, till the time they are to be placed in the hotbed.

But where there is the convenience of a pine-apple stove, or any kind of fruit forcing-house, or hot wall, &c., may raise plenty of early strawberries in great perfection, with but very little trouble: having some bearing plants ready in pots, place them in the hothouse, anywhere near the glasses, giving frequent light waterings; they will fruit early in great abundance.

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### THE PLEASURE OR FLOWER GARDEN.

GREAT care should now be taken to protect the choicest flowering plants at this unfavourable season, particularly the principal sorts, and tender kinds in pots, which, if not done before, should now be removed, in their respective pots, to places of shelter from severe frost, either in garden frames, or under awnings of mats; or, in default of such protections, let them be placed in some warm situation under a south wall, &c.

#### AURICULAS.

THE best auriculas in pots should be well protected from excessive rains, snow, or sharp frosts: for although these plants are hardy to stand the winter fully exposed, yet by giving occasional protection, it preserves them in strength to flower in greater perfection.

The choicest varieties of these plants should always be removed in their pots, about the end of October, or beginning of November, and placed in frames, or in a bed arched over with hoops, in a warm dry situation, in the full sun, where they can be occasionally covered when the weather is unfavourable; but let the covers be constantly off when the weather is mild and dry.

Towards the end of this month, if the weather is mild, it will be time to think of preparing to add some fresh earth to the pots of these plants.

Let some proper compost be prepared for this purpose (see *Auricula*, in *August*); and, if the season is mild and forward in the latter end of this month, may dress the plants therewith; but if unfavourable weather, defer it till the next month; first clear the plants from dead leaves, and take the old earth away from the top and round the sides of the pots, as low as you



conveniently can, without disturbing their roots; fill up the pot with the earth that you have prepared; and when you have finished this, return the pots to the place intended for sheltering them, as above.

#### CARE OF CARNATIONS.

TAKE great care to protect your fine carnations that are in pots, from hard frost, excessive rains, and snow; for, as observed of the auriculas, notwithstanding the plants being hardy to stand the winter in the open air, it is advisable to defend the choicer sorts in bad weather, to preserve them in good strength for flowering in best perfection, accordingly.

These pots should be plunged in a raised bed of dry compost, in the beginning of winter, and the bed arched over low with pliant rods or hoops, at that time; this will be of great advantage to the plants, if you are careful to draw mats over the arches when the weather is severe.

But if the pots were to be placed in garden frames, it would be still better, if you take care to put the glasses over them in rigorous weather; but when the weather is mild, and not immoderately wet, no covering must be over the plants, but let them have the free air at all such times, day and night.

Or in want of the above means of protection, the pots of plants should be placed in some warm situation.

#### CARE OF CHOICE HYACINTHS AND TULIPS.

IN severe frosty weather, it would be of beneficial advantage, if the beds wherein you have deposited the choicest kinds of hyacinths and tulips, or any other curious bulbous roots, be covered, either with an awning of mats, or, in default thereof, with straw, fern, or dry long litter; but it must be removed as soon as the severe weather is over.

But when any of the above-mentioned plants, of the most curious kinds, begin to appear above ground, it would be of much advantage to have the beds arched over low with hoops, &c.; and when the weather is unfavourable, such as in severe frost, let the mats be drawn over the arches, and fastened down, that the wind may not blow them off: but when the weather is open, let them be constantly uncovered.

The finest kinds, particularly of hyacinths, tulips, ranunculuses, and anemones, merit this care.

## PLANTING RANUNCULUSES, ANEMONES, &amp;c.

PLANT ranunculuses and anemones in mild, dry, open weather, if you have any now out of the ground; these now planted will succeed those which were put in the ground in October or November.

For their reception choose a dry situation, where the ground is of a light friable nature. Let it be well digged, breaking the earth fine, and form into beds of three feet and a half or four feet wide, and rake the surface smooth, then take an opportunity of dry, mild, open weather, and plant the roots either in drills, or by dibble, in rows, six to eight or nine inches distant, and allow the distance of four to five or six inches in the rows; and plant them about two inches deep.

For the particular method of preparing the beds, and planting the roots, see the work of *September* and *October*.

These flowers make a very agreeable appearance, when they are planted in small patches in the borders among other flowers. In a small circle of about six inches diameter you may plant four or five roots; that is, one in the middle, and the rest round the extreme parts of the circle. Let the patches be from two or three, to five, ten, twelve, or fifteen feet asunder.

The above practice, however, of planting those roots in sorts, for it is necessary to plant the fine varieties together in narrow beds, as above, in order both to have the opportunity of protecting them occasionally in severe weather, if thought expedient, and that, when in flower, they may display a specious show together in their various colours, stripes, and tints, in the different varieties; and also in the spring, when plants are in bloom, they can be more readily sheltered from great rains, or too much sun, both of which would hasten the decay of the flowers; and as the pleasure of admiring the bloom is the only intention of cultivating these flowers, no pains should be spared to protect the more beautiful sorts.

## PLANTING TULIPS.

TULIPS, if you have any out of the ground, should now be planted the first settled open weather, to blow late, and to succeed those planted in the last autumn.

Let this work be done as soon as the weather will permit; for if these roots are kept much longer out of the ground, they will blow very poorly. If they are to be planted in beds, let them be three or four feet wide, raised two or three inches,

somewhat rounding, that they may throw off the redundant wet of heavy rains, and remain drier at this season more effectually.

In a dry mild day, in open weather, let these bulbs be put into the ground in rows, nine inches distant, allowing six inches between the plants in each row, and plant them about three inches deep. Or, if intended to plant any of the inferior sorts in the borders, in assemblage with other flowers, they may either be planted in a single row towards the front, or some dotted singly, or by three together, to effect a greater variety: but these flowers, when planted in the borders, make the best appearance in little clumps; that is, in a circle of about six or eight inches, plant four or five roots; and about from three or four to five or ten feet further, plant another such clump, and so proceed, in a varied order, towards the front and middle.

#### PLANTING CROCUSES AND SNOW-DROPS.

ANY sort of crocuses may still be planted for an early spring bloom, if dry mild weather; generally planting them along the edges of the flower-borders, next the walks, and in flower-beds, &c., commonly within five or six inches of the edge, either in a continued row, or dotted in little patches, planted about two inches deep; though those designed for the borders appear to greater advantage when disposed in small patches, than in a continued row. Draw a small circle with your finger, about four or five inches diameter; in the middle plant one root, and plant three or four round the edge of the circle; about eighteen inches, or two or three feet further, make another circle, and plant the roots as above; and so proceed to the end of the border, &c.; or may vary the patches, in having some near the edge, and others more towards the middle: observing, if you have different kinds, to plant each sort separate; and if you plant the first patch with yellow crocuses, plant the next with blue, and so proceed with others of different sorts.

Snow-drops may also be planted now in the same manner as the crocuses.

#### PLANTING VARIOUS SORTS OF BULBS.

JONQUILS, narcissuses, hyacinths, bulbous iris, Persian iris, gladioluses, pancratiums, fritillaries, crown imperials, or any other kind of bulbous flower-roots, that yet remain above ground, should now be planted, as soon as the weather will permit. Mild dry weather must be chosen to plant these and

all other kinds of bulbous roots; and see that the ground is not too wet.

When it is intended to plant any of the common sorts of the above, or other kinds of bulbous roots, in the borders, they may be planted in the manner mentioned above for the common tulips, &c.

#### FLOWERS TO BLOW IN A HOUSE.

SEVERAL sorts of bulbous roots may be placed upon bulb-glasses of water for blowing in the apartments of a house, such as hyacinths, narcissuses, jonquills, early dwarf tulips, bulbous iris, &c.; the glasses for this purpose are to be had at the seed and glass-shops, being made concave at the mouth, to contain each one root, and are to be filled with soft water, and one root, placed in each glass with its bottom touching the water: placing the bottles upon a shelf or chimney-piece of some light warm room, or in the inside of a warm window, and if where the sun comes it will be an additional advantage; but in severe frost, removed to the interior part of a room where a fire is kept: they will soon shoot their roots down into the water, which, when become very foul and fetid, should be renewed with fresh occasionally: and they will thus blow very agreeably, early in the spring; or may be greatly forwarded if placed in a hothouse.

Likewise may plant various sorts of bulbous and tuberous-rooted flower-roots, in pots for blowing in a house, such as hyacinths, narcissuses of all kinds, early tulips, crocuses, anemones, ranunculuses, or any other spring-flowering kind; having small pots or boxes filled with light sandy earth, plant the roots therein just over their crowns, and place the pots near a window: and when the roots begin to shoot, give occasional light waterings, and they will flower in good perfection at an early season.

#### BLOWING FLOWERS EARLY IN A HOTHOUSE.

MANY sorts of bulbous, tuberous, and fibrous-rooted perennial flowers if planted in pots, and now placed in a hothouse, or any forcing department at work, will shoot and flower very early, without trouble; only to give occasional waterings.—And pots of roses, hypericums, syringas, cytissus, dwarf almond, double-blossom cherry, &c., may also be placed therein, to flower early. See the *Hothouse*.

## CARE OF PERENNIAL FIBROUS-ROOTED PLANTS IN POTS.

DOUBLE wall-flowers in pots, double stocks, and double sweet-williams, also cuttings of double chrisanthemums, and any other of the choicest kinds of perennial plants, in pots, should be well secured from severe frosts. If these plants in pots are placed in frames, let the glasses or other covering be kept over them at all times when the frost is keen, or occasionally in very wet weather; but in mild dry weather the plants must not be covered.

Take care now also of all other choicer kinds of fibrous-rooted perennial plants in general, which are in pots, to secure them from frost; such as the double rose champion, double scarlet lychnis, and all other such like kinds.

Those plants which are in pots should, where there is not the convenience of frames, be plunged to their rims in a dry and warm border, and in severe weather covered with long litter; but if you do not plunge the pots, they should be well defended, or moved into some sheltered place at the approach of severe frost.

## SEEDLING FLOWERS.

Boxes or pots of any tender or choice kinds of seedling flowers should be covered in frosty weather, either with mats, long litter, or fern, or the like, which should be laid a good thickness over them, and close round the sides; or remove them under a garden-frame and glasses, &c.

Likewise beds of the more tender and curious sorts of seedling flowers, in common ground, should also be covered, in hard frosts, with mats or long litter; but remove the covering when the weather is mild.

## PROTECTING FLOWERING SHRUBS.

If you have hardy flowering shrubs or evergreens in pots, you should, to protect their roots from the frost, plunge the pots to their rims in the ground, if omitted doing in November or December: allotting them, for this purpose, a dry warm situation, where water is not apt to stand.

Or, if not plunged as above, place them close together in a warm situation, and in very rigorous frosts apply some straw litter, &c., between and over the pots, to protect the roots.

But any tender or more curious young evergreens, &c., in

pots, should have the protection of frames or occasional covering of mats, &c., in severe weather.

Protect also the roots of the choicer kinds of newly planted trees, flowering shrubs, and evergreens, from frost, if it should set in hard. This is done by laying dry mulchy litter on the surface of the ground, close round the bottom of the stem of each tree and shrub, as far as their roots extend, or rather farther.

Likewise support all such newly planted shrubs or trees as require it, with stakes, that they may not be displaced by the wind.

#### PRUNING FLOWERING SHRUBS, AND DIGGING BETWEEN THEM.

PRUNE flowering shrubs in the clumps or quarters of the shrubbery, or where they require it. This should generally be done with a knife, and not commonly with garden shears, as is often practised; all dead wood should be cut away; also where the branches of different shrubs crowd considerably upon one another, let some be pruned out, and shorten long rambling shoots, and rude luxuriant growths; for, where not intended to form a close thicket, the shrubs in general should be kept clear of each other, so that each kind may be seen distinctly.

After pruning, as above, the ground between the shrubs, if they are not in a thickety growth to overspread the surface, should be digged; observing, as you go on, to clear away straggling or very rambling suckers, rising from the roots; digging the ground regularly, turning in all weeds clean to the bottom; and the whole will thereby remain agreeably neat all winter and spring.

#### PLANTING FLOWERING SHRUBS.

IN settled open weather, you may plant, where wanted, most sorts of hardy flowering shrubs.

Such as roses, honeysuckles, lilacs, and syringas, althæa and spiræa frutex, Guelder rose, Persian lilacs, laburnums, privets, and jasmines, the cinquefoil shrub, and bladder-senna, the double hawthorn, double blossom cherry, and dwarf almond, with double and single flowers, the mezereon and double-flowering peach, hypericum, St John's wort, and scorpion senna, double and single sweetbriar, flowering raspberry, and double bramble; and many other such-like hardy kinds of shrubs may at this time be transplanted, if tolerable mild open weather.

Likewise, may plant some sorts of hardy evergreens, towards

the latter end of this month, if mild open weather, such as pines, firs, &c., though it is not advisable to make any general planting of evergreens at this season. See *February* and *March*.

For a list of the hardy flowering shrubs, evergreens, &c., which may now be planted, see the Catalogue of shrubs at the end of the book.

Respecting the rules and order of planting the various kinds of flowering shrubs, particular regard should be had to the distances, and also to the arrangement or order in placing them, so that the different plants may be readily distinguished; for this is of particular importance in ornamental planting.

Therefore, in the disposition of the shrubs, let the different heights and modes of growth of the various kinds be considered, and placed so that one plant may not overbear another.

The rule is, the taller the plant, the more backward in the border or clump it must be placed, and the shortest should be placed nearest the front, so as the whole may stand in a kind of theatrical order.

The distance which should be allowed between plant and plant, is at least three, to four or five feet: this is to be understood, when they are to be planted in the clumps or quarters of the shrubbery; but those that are intended to be planted in the common narrow borders, must be allowed double that distance at least.

#### PROPAGATING BY LAYERS.

In open weather may continue to lay the young branches and shoots of hardy shrubs, to raise a supply of new plants; laying them into the earth three or four inches deep, with the tops out, most of them will be rooted by next autumn, fit for transplanting.—See the *Nursery*.

#### TRANSPLANTING SUCKERS FOR PROPAGATION.

TRANSPLANT suckers from the roots of roses, lilacs, spiræas, syringas, and various other shrubs, to raise a supply of new plants: for by suckers many sorts of shrubs may be propagated; let these suckers be taken off carefully, with roots to each, and plant some of the strongest into the shrubberies, &c., where they are to remain, and the smaller plant in nursery rows, eighteen inches asunder; they will make good plants in two years' time.

## PROPAGATING BY CUTTINGS.

CUTTINGS of the young shoots of many sorts of hardy deciduous shrubs may also now be planted in open weather, especially towards the latter end of the month, and they will succeed, take root in spring and summer, shoot at top, and form good-rooted young plants by next autumn.

## CARE OF GRASS WALKS AND LAWNS.

TAKE great care now of the grass walks and lawns in this garden; they should be kept very neat by frequently poling and rolling them. Poling should be performed in open, dry weather, which is done with a pliable taper ash-pole, twelve or fifteen feet long, or more, and should be used to break and spread the worm-casts about, whenever they appear on the grass.\* After this, when the surface is moderately dry, let the grass be rolled with a wooden roller, to which all the scattered worm-cast earth will readily adhere, by which means your grass will be rendered agreeably clean, the surface smooth and firm, and of a desirably-neat appearance.

## MAKING GRASS WALKS OR LAWNS.

Now is also a proper time, when the weather is open, to lay turf where wanted, for making or mending grass plats, walks, or lawns.

The best turf for gardens is to be met with on commons or downs, where many sheep, &c., are pastured.—When you go to cut turf, let them be marked out a yard long, and a foot broad: they must be cut about an inch thick, with a proper turving iron; and according as they are cut up, they should be rolled up, the grass-side inwards, as close and firm as possible, for the more ready carrying and moving them without breaking.

Let the ground where turf is to be laid be made as firm and even as possible, by good treading and raking, &c., that it may not settle unequally hereafter; and it would be preferable to have two or three inches of any light, poor soil at top, to prevent the grass from growing rank; level the whole equally, and rake the surface smooth and even every way, and as soon as laid, the whole should be immediately well beaten with a heavy wooden beater, and afterwards rolled with a large stone or iron roller.

\* When the walks and lawns are infested with worms, they may be readily destroyed by watering them with lime-water.



## GRAVEL WALKS.

GRAVEL walks should be continued in decent order, especially in the principal parts of the garden, kept clean from litter, and free from weeds; and let them be now and then rolled in dry open weather.

## PLANTING BOX AND THRIFT FOR EDGING.

Now is a very good time to plant box or thrift, where it is wanted for edging to beds or borders. These edgings may be planted any time this month, when the weather is mild. Both these make close and agreeable edgings, if neatly planted, and well kept afterwards.

But the box is superior to everything for forming the most effectual, handsome, and durable edging.

For the method of planting them, see *October* and *November*.

## PREPARATIONS FOR PLANTING, &amp;c.

TRENCH or dig and prepare such shrubbery compartments, and other parts of the pleasure-ground, where you intend to plant flowering shrubs, this or the next month. Also dig those clumps or quarters where you intend to plant evergreens, in February or March, that they may be in readiness against planting time.

Dig flower-borders and beds, especially such as are the most vacant, that they may be ready to receive the plants, or seeds of flowers, the two following months.

## PLANTING FOREST TREES, &amp;c.

FOREST and ornamental trees may now be planted in dry soils, in open weather; both where designed for woods and coppices, for timber, &c., and for ornamental plantations. For the proper sorts, see the *Lists of hardy Trees* at the end of the book.

## PLANTING HEDGES, AND PLASHING\* OLD ONES.

Now may also plant any sort of deciduous hedges; as privet, hawthorn, whitethorn, hornbeam, beech, elm, elder, alder, willow, poplar, hazel, &c., where wanted.—See *December*.

It is also a good time to plash old naked hedges of any out-

\* The word *plash* is not generally known among gardeners in Scotland; it means to plait or interweave branches.

ward fences or others, that have run up considerably above and become thin or open below.—See *December*.

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## THE NURSERY.

Dig the ground, if open weather, between the continuous rows of young trees and shrubs of all sorts.

But previous to performing this work, should give any necessary pruning to the shrubs and trees, especially the deciduous kinds; then let the ground be digged one spade deep; as you go on, trim off any straggling roots of the trees and shrubs; and in digging, give every spit a fair turn off the spade, that the weeds on the surface may be buried properly.

### TRANSPLANTING AND PRUNING FOREST TREES.

TRANSPLANTING of young forest and ornamental trees in the nursery, and where required, may be performed any time this month, if the weather is open, and the ground not too wet.

Particularly deciduous forest trees, &c., of the hardy kinds, may be removed any time this month, if mild weather; but this should not be generally practised to evergreens, at this season.

Trim up the stems of forest trees and other tree kinds where they require it; this may be done when little else can be done in the nursery; for if it is performed in frosty weather, the trees will receive no harm by the operation, especially the hardy deciduous kinds.

### PRUNING AND TRANSPLANTING FLOWERING SHRUBS.

PRUNE honeysuckles and roses, and all other kinds of hardy deciduous flowering shrubs that want it, training each with a single stem, and trimming their heads as you shall see occasion: that is, either to cut out or shorten all straggling shoots, in such manner as you shall see necessary to keep their heads somewhat to a regular form.

In open and settled weather you may now transplant, where necessary, most sorts of hardy deciduous flowering shrubs, both in the nursery order, and for shrubbery plantations, &c., in a dry soil; but where the soil is apt to lodge wet, there should not be any planted therein before February.

## PLANTING FRUIT TREE STOCKS.

PLANTATIONS of fruit tree stocks, for grafting and budding upon, may be made at any time this month, if favourable, mild, open weather. Many of those raised from seed, &c., last spring, or the year before, will be fit for this, digging them up out of the seedbed, &c., with their full roots, and let them be planted in nursery-rows, two feet and a half asunder, and fifteen or eighteen inches distant from each other in the rows: and when they have attained two or three years' growth, will be proper for budding and grafting.—See the *Nursery*, *October*, for the method of planting; and that of *February* and *March* and *June* and *July* for grafting and budding.

## WORKING IN FROSTY WEATHER.

In frosty weather carry dung, and lay on such places of the nursery as require it.

This may be necessary to some particular quarters as have been lately cleared, and that are intended to be planted again with a fresh stock; and let it be trenched in regularly, one full spade deep at least.

Likewise, in frosty weather, you may prune hardy deciduous trees and shrubs; and when severe frost, protect the different sorts of the more tender or curious young evergreens, &c., as directed under the article *Care of Tender Trees*, &c.

## PREPARING GROUND FOR PLANTING AND SOWING.

In open weather, you should, as much as possible, forward the digging and trenching vacant compartments of ground where young trees and shrubs are to be planted in spring.

Now begin to prepare some ground, where it is not wet, for the reception of stones and kernels of hardy fruits, to raise a supply of stocks, for the purpose of budding and grafting upon.

These, if mild weather, may be sown about the middle or latter end of the month, observing to sow them in beds four feet wide; cover the stones an inch and a half deep at least with earth, and the kernels near an inch; the plants will appear in April and May, when they must be kept clean from weeds; and moderate watering in dry weather will be serviceable, when they are newly come up.

Some of them will be fit for transplanting in nursery rows next November, and the following planting month; or, at least, all of them the second autumn or spring.

Get ready also some ground to sow the seeds, nuts, and berries, &c., of hardy forest trees, ornamental trees, and flowering shrubs.

The ground for this purpose must be chosen in a dry and sheltered part of the nursery. Let it be neatly digged, and divide it in beds three or four feet wide. The seed, &c., may be sown in the latter end of this month, if open dry weather; otherwise, not till February; sowing each sort separate, and earthed in about an inch to two inches deep in the smaller and larger seeds.

#### CARE OF TENDER AND YOUNG SEEDLING TREES.

TAKE great care now of all the tender kinds of seedling trees, shrubs, and other young plants of similar quality, raised from seed, or by other means, last year or before; many kinds will, in hard frost, need some shelter.

Particularly the young seedling plants of the cedar of Lebanon, &c., the arbutus, or strawberry tree, China arbor vitæ, the tender kinds of pines and firs, and the seedling plants of cypress, and such like kinds of young seedling evergreens, which will all need occasional protection in severe weather; and, therefore, at the approach of the first hard frost, the pots or boxes, &c., containing them, should be removed into a garden frame, or some other convenience of occasional shelter; and in the time of hard frosts, the glasses, and other covering, if necessary, put on: but they must be kept constantly open in mild weather.

But such tender seedling plants as are growing in beds, and require shelter in time of frost, should be covered at such time with mats: first erecting some hoops across the bed, and the mats to be drawn over them occasionally for defence of the plants.

Likewise some of the more hardy kinds of young plants may be sheltered in bad weather, by laying some peas' straw, or other long litter, lightly over them; this will protect the tender tops and roots from the frost.

But this covering must not be suffered to remain longer than necessary to defend the plants.

Likewise any curious or tender young evergreens, &c., that are planted in pots, should be placed under shelter in severe frosts; such as arbutus, magnolia, cistuses, China arbor vitæ, kalmias, rhododendrons, &c., placing them in a frame, or where

they may be defended either with glasses or mats, and other covering, if necessary, in rigorous weather.

#### PROPAGATING BY LAYERS.

You may still make layers, in open weather, in many sorts of deciduous trees and shrubs that you desire to increase.

This work of laying down the branches of shrubs and trees to propagate them is very easily performed; and there are a great many kinds of trees and shrubs to be increased by this operation, in the manner following:—

In the first place, it must be remarked, that the young branches that were produced last summer are the most proper parts to be layed, for these will put out roots much freer than the branches that are a year or two older. Observing farther, that as many of the shrub kinds branching out near the earth afford an opportunity of laying them with great facility, but such as run up with tall stems, and those of the tree kinds, require that some strong young plants, principally deciduous, with stems, one, two, or three inches thick, be cut down near the ground a year or two before, to form stools to furnish a supply of shoots near the earth, convenient for laying therein. The ground must be dug about the shrub or tree that is to be layed; and as you go on, bring down the branches, and fasten them in the ground with hooked pegs, observing to lay down all the young wood on each branch into the earth, covering therewith the body of each layer three or four inches deep, and fastening each also with a peg, if necessary; and raise the tops upright out of the earth.

But in laying some hard-wooded trees and shrubs, it is necessary to slit the layer, by making a gash with a knife on the under side, slitting it an inch or more upward; so laying that part in the earth, keeping the gash a little open, which will greatly assist the rooting, by promoting the emission of fibres at the cut part. And this may also be performed to the same advantage in the laying of trees and shrubs in general.

Those which are layed in this or next month will be tolerably well rooted by next autumn, and must then be separated from the tree, and planted in the nursery to get strength

#### PROPAGATING FLOWERING SHRUBS, &c. BY CUTTINGS.

PLANT cuttings of honey-suckles in open weather, to raise some new plants.

Cuttings of many other kinds of flowering shrubs and trees

may also still be planted : and there is a vast number of plants that may be raised by this method. There is hardly any tree-shrub but what may be increased either by this method, or by layers, or by suckers from the root.

But the manner of propagating trees or shrubs by cuttings is this :—

The cuttings must be young shoots of the last year's growth, which must be cut with a sharp knife from the tree or shrub you desire to propagate ; they must be from about six or eight to twelve or fifteen inches long, according to their strength and manner of growth ; let them be planted in rows a foot asunder, and about half that distance in the row ; and every cutting inserted nearly half its length into the ground.

PLANTING CUTTINGS AND SUCKERS OF GOOSEBERRY AND CURRANT BUSHES, TO RAISE A SUPPLY OF NEW PLANTS.

PROPAGATE gooseberry and currant bushes by cuttings of the young shoots of the branches and suckers from the root ; by both of which methods they are propagated with great facility and abundance, though cuttings are often more generally preferred, on consideration that they are not apt to run so much to wood, and produce larger fruit than suckers ; but from general observation I found no very material difference.

When designed to raise them from cuttings, they must be shoots of the last summer's growth, and should be taken from the most fruitful free-growing trees, and choosing the straight clean shoots, cut them about ten, twelve, fifteen, or eighteen inches in length, or more, according to their growth.\* They must be planted in rows, twelve or fifteen inches asunder, introducing each cutting one-third or near half way into the ground.

They will make good shoots the following summer, and the second or third year from planting will bear fruit.

And to propagate them by suckers, they rising abundantly from the root in spring and summer, let them be dug up with the roots, first or second autumn or winter after ; trim any broken part of the root, and shorten the weak tops, then plant them in nursery rows, and they will form good plants in a year or two for the garden plantations.

Observe to train both the cuttings and suckers to single clear stems, ten or twelve to fifteen inches ; then let them branch out at top and form heads.

\* Rub all the eyes or buds off, except three or four at the top of each cutting.

## THE GREEN-HOUSE.

GREEN-HOUSE plants should have fresh air admitted at all favourable opportunities, occasional waterings, and be carefully protected in severe weather.

In mild days, when the weather externally is moderate and calm, let the windows be opened a little for the admission of fresh air about ten or eleven o'clock; and about two or three in the afternoon let them be shut close again. But the time of opening, and the time they should be kept open, must always be determined by the weather; for there are many changes of weather, sometimes in one day, at this season.

In frosty weather, the windows must be kept constantly shut; and, if very severe, let the window-shutters, if any, also be shut every night, and even occasionally in the day time, when the frost is extremely rigorous, and no sun; or in default of shutters, on this occasion, let garden mats be nailed up against all the windows, and remove the small or more tender plants in front, as far from danger as possible.

Keep the plants perfectly clear from decayed leaves, and as clean as possible from any considerable foulness; and every part of the house clean and free from litter of fallen leaves, &c., all of which is essential at this time for the prosperity of the plants in general.

When the weather is foggy, or very wet, it will be proper to keep the green-house close.

Water must be given to such plants as you see require it; but let that be given in very moderate quantities, and always, if possible, take the opportunity of a mild day, and if sunny, the better; in the forenoon, from eleven to twelve or one o'clock, is the proper time of the day for watering at this season; and generally prefer the soft water of a pond, river, or cistern, &c. for this occasion.

But very little water must be given at this season of the year to any of the aloes, sedums, or any other of the succulent plants.

Let it likewise be observed, that such of the woody exotics, as oranges, myrtles, geraniums, &c. as you shall see necessary to water, should have but a very moderate quantity given them at one time, at this season.

In such green-houses, where there is the convenience of

flues, for occasional fire-heat in very rigorous weather, should, in time of continued severe frost, make moderate fires in an evening and morning, just sufficient to warm the enclosed air enough to resist the frost; also in very foggy or moist weather, may make a very moderate fire to expel the damp, which often proves pernicious to some of the more delicate exotics of this department.

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## THE HOT-HOUSE.

### PINES.

At this season the pinery hot-house requires good attendance, for some of the pines will now, towards the end of the month, begin to show fruit; and your assistance is at no time more necessary than when the fruit first appears, especially in one particular, the supporting a proper bottom heat; for if the heat of the bark-bed is not kept up at that time, the young fruit will receive a check more than may be imagined; as, notwithstanding the air of the house can be sufficiently warmed by the flues, yet these plants also require always a moderately brisk growing heat to their roots, but especially when the fruit is young; and without that assistance, they will not advance freely in their first growth, and being checked therein, will be much inferior in size to what they otherwise would have been.

Examine therefore carefully at this time the heat of the bark-bed in which the pots of pines are plunged; and if you find it very faint, take up all the pots, and let the bark be forked up to the bottom. But before you proceed to this, if the heat is found much decayed, or the bark considerably wasted, or become very small or earthy, it will be advisable to add at the same time a little new tan, first removing away some of the wasted bark at top and sides, and then fill up with new bark, working the old and new well together. When that is done, let the pots be replunged again to their rims, in a regular manner, as above. This will enliven the heat greatly; and, if done in proper time, the young fruit will grow freely.

Let the fires be made very regularly every evening and morning, and take care that they are not made too strong, for that would be of very bad consequence; and to avoid this, have a



thermometer placed in the hot-house, as a direction to regulate the degree of heat.

Water should be given to the pine-apple plants once a-week, or fortnight, or as it may seem necessary, and always very moderately; and let as little as possible fall into the heart or between the leaves at this season.

For the conveniency of watering the pines and other plants that are plunged in the bark-bed, a long pipe, made of tin, would be eligible to use occasionally: this should be in three different joints, in order that it may be shortened or lengthened, as you see it convenient: one of these joints should have a funnel made at the largest end, that, by pouring the water out of a handy watering-pot into the funnel, the water is conveyed to the pots in any part of the bed, with greater exactness, without pouring it into the heart of the plants.

Generally have soft water, if possible, for watering the different sorts of hot-house plants; and might have a tub or cistern placed conveniently to the hot-house to hold water occasionally, just to take off the cold chill, at this season, previous to watering.

All other tender exotic plants in the hot-house or stove should be supplied with water as they require it.

The woody kinds will require it often, but those that are of the succulent tribe will require it but seldom; or, at least, but very little must be given them at a time.

Every plant in the hot-house or stove should be kept perfectly clean from dust or any sort of foulness; if any thing of that nature appears on their leaves, let the large-leaved sorts be washed with a sponge, &c., the others by occasionally watering them all over the top.

#### KIDNEY-BEANS RAISED IN THE HOT-HOUSE.

Those who have the conveniency of a hot-house may raise early kidney-beans with little trouble. The early negro dwarf, speckled-dwarf, and dung-coloured, are proper sorts for this purpose.

The method is this:—fill some large pots, or oblong narrow boxes, with rich dry earth, and place them on the top of the surrounding wall of the bark-bed, and upon the coping of the front and other flues, with the bottom raised detachedly two or three inches above the coping, that the heat of the flues may issue freely, and that it may not scorch the earth in the pots, &c., observing to plant three or four beans in each, about

an inch in depth, in the pots; or, if oblong boxes are used instead of pots, have them made about two feet in length and about nine inches in depth, and plant the beans in them along the middle, in a triangular manner, and two or three inches asunder. After having got the planting finished and the earth smoothed, set the pots or boxes as above directed, and the beans will soon sprout and come up.\*

As soon as the plants have sprouted, sprinkle the earth with a little water, which will assist them in coming up: when they are up, water them frequently.

Let the plants be refreshed with proper waterings two or three times every week, and they will vegetate freely and rapidly, and produce a plentiful crop in the months of March and April.

A successional crop may be planted in a fortnight or three weeks afterwards in small pots, to be ready for turning out, with balls of earth, into the larger pots or the oblong boxes.

#### OF CUCUMBERS IN THE HOT-HOUSE.

CUCUMBERS are sometimes raised early, in pretty good condition in the hot-house.

This is effected by sowing or planting the seed in large pots, or oblong narrow boxes, and placing them in some convenient situation in the hot-house, near the glasses; the boxes used for this purpose may be two or three feet long, a foot broad, and a foot deep. Fill the pots or oblong boxes with rich earth, or good vegetable mould, sow or plant the cucumber seed in them, and place them up near the top glasses, behind the back or end flues, or even upon the top of them, with the bottoms of the pots or boxes raised and detached two or three inches, that the heat of the flues may not be confined, but be transmitted freely all around, as observed above in the directions given for the management of kidney-beans. But the best situation for cucumber plants is to place them by means of supports within about fifteen or eighteen inches of the top glasses, nearly under or towards the upper ends of the superior tier of fixed lights.

The seed may either be sown in small pots, and placed in a dung hot-bed, or the bark-bed in the hot-house to raise the

\* Or, what we consider an improvement on the above plan, plant first in pots of the size called No. 32, and afterwards shift into pots of No. 24; in both cases placing a little rotten dung in the bottoms of the pots, and covering with a few inches of rich light mould.

plants, or may be sown at once in the pots or boxes, six or eight seeds in a small patch; or in a box of two or three feet long you may sow two such patches: and when the plants are up, they should be thinned out, leaving two or three of the strongest plants in each place.

Or, if you raise the plants first in small pots plunged in the bark-bed or in a dung hot-bed, let them be afterwards transplanted, with a ball of earth about their roots, into the boxes or larger pots.

When the runners of the plants have advanced to the outside of the pots or boxes, you may fix up some laths to support the vines or runners, which should be fastened to them. Let them have water frequently, for they will require it every other day at least.

#### EARLY STRAWBERRIES IN THE HOT-HOUSE.

STRAWBERRIES may be brought to early perfection in the hot-house; and, if desired, this is the time to begin to introduce therein some pots of good bearing plants.

The scarlet and Alpine strawberries are the sorts that will succeed best; they should be planted in pots, observing to choose young, two or three years' plants, full bearers; take them up with a ball of earth about their roots, and plant one in each pot: but this should be done in open mild weather some considerable time before you place them in the hot-house.—See next month. Or it would be more advisable to have the plants for this purpose potted about Michaelmas, or in October, &c.

Place the pots now towards the front of the hot-house, near the glasses, and let them have water frequently, especially when they are in blossom, and the fruit young; but observing, that when they are in blossom, not to water too freely over the flowers, giving it only chiefly to the earth in the pots.

#### OF FLOWERING PLANTS IN THE HOT-HOUSE.

IN the hot-house you may likewise bring many kinds of flowers to blow at an early season, by placing therein pots or boxes containing the plants, any time this month.

Particularly such as pots of roses and honey-suckles, Persian lilac, hypericums, syringas, African-heaths, cytissus, and other small desirable flowering shrubs; pots of pinks, carnations, sweet-williams, wall and stock July-flowers, &c. and pots or boxes of any kinds of bulbous roots, planted either in earth or sand, also seeds of any moderate-growing curious annual flowers sown in pots.

## FEBRUARY.

## WORK TO BE DONE IN THE KITCHEN GARDEN.

## CUCUMBERS AND MELONS.

WHERE the raising of early cucumbers and melons was not begun last month, it may now be commenced the beginning or middle of this, with a greater prospect of success; observing exactly the same method of making the seed hot-bed, sowing the seed, and general management of the bed and plants, as directed under the head *Cucumbers*, &c. in the kitchen-garden of January.

## RIDGING OUT EARLY CUCUMBERS AND MELONS.

If the cucumber and melon plants, which were raised last month, or beginning of this, have not suffered by any of the accidents that are attendant on them at this season, they will now be arrived at a proper growth for ridging out into a larger hot-bed, finally to remain; a new hot-bed, for one or more larger frames, should therefore be prepared in due time for their reception.

Provide for that purpose, the beginning or middle of this month, a proper quantity of fresh horse-stable dung from the dung-hills in stable-yards, &c. consisting of the warm, moist stable-litter and dung of the horses together; such as has lain some time, but that is moderately fresh, abounding in a good moist steamy heat; taking the short and long together as it comes to hand; and of which provide as much as will make a bed for one or more frames three feet and a half high. The necessary quantity is one tolerable cart-load to every light; so, if for a three-light frame, three loads is requisite, or about thirty large wheelbarrows full; and so in proportion for every such frame.\*

The dung being procured, it would be proper, especially if rather rank and fresh, to fork it up in a heap to remain, eighteen, or twelve days, according to its condition or quantity, that it may ferment to an equal temperature. If possible, let the heap be turned over once in the time; which will let the rank steam and strong stench of the dung pass off; and by mixing

\* For cucumbers at this season, the bed should not be less than four feet at the back, and three and a half at the front; and for melons let the bed be made eight or ten inches higher, as they will now require a rather brisker heat kept up to them during their culture than the cucumbers.

the parts together, it will mellow : and prepare the dung well, by which means it will work kindly, when made up into a bed ; the heat will be steady and lasting, and not so liable to become too violent, or of a burning quality, as when the dung is not previously prepared as above.

The dung being thus prepared, proceed to making the hot-bed : begin the bed by shaking some of the longest dung into the bottom, then take the dung as it comes to hand, and fork it in equally on every part, and beat it down with the fork from time to time, as you go on. In this manner let the bed be carried up neatly and even on every side, three feet and half high, which height may appear considerable at first, but we must allow for settling, as it will probably settle a foot in less than a fortnight.

The bed being finished, put on the frame or frames and lights, which will defend the bed from wet, and bring up the heat the sooner ; tilting the upper end of the lights a little, that the steam may pass off. In a week after the bed is made, if it has settled unequally, take off the frame, and make the bed level, then immediately put on the frame again for good.

After this let the state of the bed be daily examined with good attention ; and when you find the violent heat is over, lay in the earth ; but be sure let the burning heat be over first.

The earth for this purpose should be rich, and it should also be quite dry ; for that is a material article to be regarded at this season. The earth proper for cucumbers may be either any prepared compost of rich earth, light loam, and rotten dung, or of the temperature of light rich kitchen-garden earth ; or may previously prepare a quantity from any of the quarters of the kitchen-garden, provided it be naturally light and dry, and has been well enriched with dung : but these earths should be prepared three or four months before you want to use them, so should, in a dry time, about Michaelmas, be brought in and thrown up in a heap ridgeways, in a dry place, open to the sun and free air, mixing therewith at the same time some good rotten dung, breaking and blending the whole well together ; a due quantity of this compost heap should be carried into some shed, or other sheltered place, open in front to the sun or free air, a month or a fortnight at least before you want it, that it may be preserved perfectly dry for earthing the bed.\*

\* The directions hitherto given for cucumbers and melons, are the same. They will now, however, require to be treated a little differently, particularly in regard to soil, the melons requiring a much stronger soil, than the cucumbers. The soil which we consider the best for the melons, is strong brown loam, from rich old pasture

Then when the bed is in order, lay about half a bushel, or rather more, of earth, just under the middle of each light, raising each parcel of earth in a round hillock, ten or twelve inches high; then let the spaces between the hills, and quite to the sides of the frame be covered with the same sort of earth, only two or three inches thick at this time, while the bed is in strong heat, for fear of burning, as explained below; but which when the heat is become moderate, is by degrees to be augmented till raised as high as the top of the hills, as hereafter directed.

The reason for laying the earth in little hills, and not earthing the bed fully at once, is by way of precaution, in case of violent after-heat, and in which case it will more readily pass off in steam, between the hills, and likewise because we may venture to use the bed some days sooner than if it was to be earthed all over at once to the full thickness; for if the bed should burn after the plants are in, you can more readily prevent the earth, and also the roots of the plants from being burned thereby, by drawing the earth away from round the bottom of the hills if it burns, and supply the places still with more fresh mould.

As soon as the bed is earthed as above, put on the glasses: and by the next day, the hillocks of earth will be warm; if they be, level the top of each a little, so that they may be about eight or ten inches thick; then proceed to put in the plants, the cucumbers and melons separately, in different hotbeds, or distinct frames, &c.

Previous to this, observe, that as having, last month, directed the plants to be pricked into small pots, three cucumbers and two melons\* in each pot separately; and as they are now to be turned out of these pots with the ball of earth entire, and planted, one pot of plants in each of the above hills of earth, I would thereby intimate, in this, final transplanting, that two of the best cucumber plants and only one melon would be the most eligibly sufficient to retain, cutting the others away, either now or after planting; however, in either case, it is advisable, previously to transplanting, that, in order to have the whole ball

land, to which add a portion of light sandy soil, with some leaf mould and some good well rotten dung; and in earthing up the melons the soil should be firmly trodden round the hills, and made as solid as possible, but in doing this, care must be taken not to bruise or injure the roots. The soil for cucumbers may be principally of vegetable mould, made from decayed tree leaves, or any other decayed vegetable matter, to which may be added a portion of light loam. The compost which we used in the royal gardens at Kensington and Kew for early cucumbers was of light loam a few months from the common, one third part; good rotten dung, one third part; leaf mould and peat of equal parts, making together another part: the whole well mixed together

\* Or only three plants altogether.

of earth adhere closely about the roots, to give the pots some water the day before; and the method of planting is this: having some pots of the strongest plants ready, place your hand on the surface of the pot, taking the stems of the plants carefully between your fingers; then turn the mouth of the pot downwards, and strike the edge gently on the frame; the plants, with the ball of earth to their roots, will come out entire; then, making a hole in the middle of each hill of earth, place one pot of plants, with the ball entire, in each hole, closing the earth well round the ball, and about an inch over the top, bringing the earth close round the stems of the plants; then give a very moderate watering towards the outside of the ball of the plants; this done, then shut all the lights down close for the present, till the steam rises again strong; then must be tilted a little behind, in proportion, to give it vent.

The plants being ridged out finally into the beds where they are to remain for fruiting, must be careful to give them fresh air every day, by raising the glasses a little for its admission, and for the great steam to pass off; and it is necessary to cover the lights every night with mats, putting them on about half an hour, or an hour, or little more or less, after the time of sunset, and uncover again in the morning about sunrising: in covering up, never let the ends of the mats hang down low over the sides of the frame, which would stifle the plants, and draw up a hurtful steam.

Air must be admitted to them every day, when the weather is anything favourable, by raising the upper end of the glasses from about half an inch to an inch or two, or in proportion to the sharpness or mildness of the outward air, and internal heat and steam of the bed.

In giving the plants air, it is a good method, at this season, in cutting weather, to fasten a mat across the ends of the lights, where tilted to hang down detachedly over the place where the air enters the frame; the mat will break the wind and sharp air before it reaches the plants, and yet there will be a due proportion of air admitted, without exposing them directly to it; and there will also be full liberty to let the steam pass off.

Likewise, in covering the glasses on nights with mats, if there be a strong heat and great steam in the bed, let the lights be raised a little behind when you cover up; let them remain so all night, and use the mats as above-mentioned, to hang down before the place where the glasses are raised.

One great article to be attended to now is, to support a con-

stant growing heat in the hotbed, so as to keep the plants in a regular growing state. The first thing to be observed toward this is, that in six or eight days after ridging out the plants, provided the heat of the bed is become moderate, it will be very proper to give some outward protection of dry long litter, waste hay, fern, straw, &c., laying it close round the sides near a foot thick, and as high as five or six inches up the sides of the frame; but this will be particularly serviceable if very wet weather, but more especially, if driving cold rains, or snow, as also, if there be cold piercing winds, all of which would chill the bed, and, without the above precaution, would sometimes occasion such sudden and great decay of the heat as to prove the manifest destruction of the plants; whereas the above lining of litter will defend the bed, and preserve a fine heat till the dung begins naturally to decline or decay of itself, which is generally in about three weeks or a month after the bed is made, when the warmth of it must be renewed by adding a lining of fresh hot dung close to its sides.

But for the first week or ten days after the plants are ridged out into this hotbed, mind that their roots have not too much heat; for it sometimes happens that a bed, after the mould and plants are in, the earth, confining the heat and steam more below in the dung, will begin afresh to heat so violently, as to be in danger of burning the earth at the bottom of the hills: and without some precaution is taken, the burning will soon reach the roots of the plants: therefore, for the first week or ten days, let the bottom of the hillocks be at times examined, by drawing away a little of the earth below; and if any burning appear, remove the burned earth, replace it with new, and by drawing some of the earth away quite round, let the hills be kept as narrow as they will just stand, so as to support the plants, and so let them remain till the danger of burning is over; and then put the earth round them again.

When the great heat abates, or the roots of the plants begin to appear through the sides of the hills of earth, then begin to add some fresh, light, rich earth all round them; about three days after you may lay some more; and in two or three days after that,\* you may earth the bed all over, to the full thickness, so as to be equal with the top of the hillocks. But before you lay the fresh earth to the sides of the hills, let it first be laid a few hours, or for one night in the frame, up towards the sides, that it may acquire an equal degree of warmth with that

\* In ten or fourteen days.



in the bed; then, being applied round the hills, as above, it will not be in danger of chilling the roots of the plants.

The next particular care is that of lining the hotbed when the heat declines: therefore, when the heat of the bed begins to decrease much, let a lining of the best hot dung be applied in due time to the back or front of the bed, or to both, if the heat is very much declined. The dung for this purpose should be prepared in the same manner as that for making the bed. Remember, that if there was a lining of dry litter laid round the sides of the bed, to defend it from wet, &c., as before directed, this must first be removed before you apply the lining of the sides of the bed, about twelve to fifteen or eighteen inches wide, according as the heat is less or more declined, and should be raised about four or five inches higher than the dung of the bed,\* to allow for settling: lay some earth on the top of the lining, to keep the rank cutting steam of the fresh dung from coming up that way; which, if it did, it would be apt to enter the frame, at the place where the lights are raised to admit air, and prove of bad consequence to the plants.

#### OF STOPPING OR TOPPING THE ABOVE PLANTS.

The young plants, both cucumbers and melons, should be stopped or topped, if not done before, at the first joint, by pruning off the top of the first runner-bud; which being necessary both to strengthen them in promoting a stocky growth, and cause them to put forth lateral shoots at the first and second joints, to form fruitful runners: and from these, others of the same nature will be produced.

This operation should be performed when the plants have two rough leaves, and when the second rough leaf is about the breadth of a shilling, having the first runner-bud rising at its base: and the sooner this is detached, the sooner the plants acquire strength, and put out fruitful runners.

It is to be done in the following manner:

You will see arising, in the centre of the plant, at the bottom of the second rough leaf, and as it were enclosed within it, the end of the first runner, like a small bud; which bud, or runner, being the advancing top of the plant, is now to be taken off close, and may be done either with the point of a penknife or small scissors, or pinched off carefully with the finger and thumb; or, when it is very small, it may be picked off with the point of a pin or needle; but whichever way you take it off, be

\* Or to the height of the frame.

careful not to go so close as to wound the joint from whence it proceeds.

Having thus pruned or stopped the plants at the first joint, they will by that means very quickly get strength, as will plainly appear in a few days; and in about a week or ten or twelve days after being thus treated, will each begin to send forth two or three runners; which runners will probably show fruit at their first, second, or third joints; for if the main or first runner was not to be stopped as above, it would perhaps run half a yard or two feet in length, without putting out more runners to fill the frame, or probably without showing a single fruit; so that it is upon these lateral shoots or runners produced after stopping the plants, that the fruit is most likely first to appear in any tolerable time in the season; but let it be also observed, that when the said lateral shoots have three joints, and that if any of them do not then show fruit at either of the joints, it will be proper to pinch off the top of such shoots at the third joint, which will promote their putting forth a supply of two or three new shoots, some or all of which will most likely be fruitful; and after this, according as they advance in growth, train the runners along in regular order, cut out casual very weakly vines, and thin others where very irregularly crowded; and thus, if the bed is well managed, and the plants are forward, those of the cucumbers will probably produce proper-sized fruit the end of this month, or beginning or middle of next; but the melons not so soon by six or eight weeks, or not till May or June.—See next month.

#### OF SOWING CUCUMBER AND MELON SEED.

As there may be many persons who did not begin last month to sow cucumbers for an early crop, it will here be proper to take notice, that the beginning, middle, or any time of this month, is still a good time to begin that work, making a seed hotbed for sowing the seed, as directed in January.

Those which are sown early in this month, will, with good management, produce fruit in the end of March or beginning of April; and those sown in the middle or latter end of the month will have fruit the end of April, and will bear plentifully in May and June, &c.

The beginning of this month is a very good time to begin to sow melons for a good crop in the frames.

The seed hotbed which is to be made now, either for cucum-

bers or melons, must be of the same dimensions; and the seed sown, and the plants managed, as directed last month.

But observe, that to be well supplied with either cucumber or melon plants, either to plant in new beds, or to have a reserve in case of accidents to any already planted out, it will be very proper to sow some seed at three different times this month.

Or these may be sown each time in such cucumber hotbeds as are already made, and in cultivation: and when fit to prick out, let it be mostly in small pots, as directed in raising the plants last month, and plunging in the back part of the same bed.

They may be kept there till wanted, either for new, or to supply any deficiency in the present beds.

#### FORCING ASPARAGUS.

HOTBEDS for obtaining early asparagus may be made any time in this month.

For the purpose of forcing asparagus, we must be provided with proper plants; these are previously raised in the natural ground, from seed, as hereafter directed, which being transplanted from the seedbed into other beds in the common ground, and having two or three years' growth there, they are then of the proper size and strength for forcing: observing that the necessary quantity is from about five to six or seven hundred for a bed for a three-light frame, and so in proportion for two or more such frames; for these plants in hotbeds should be crowded very close, in order that, by having as many plants as possible in each frame, they may produce a proportionable supply of asparagus, to recompense sufficiently for the great trouble and expense requisite in forcing.

The hotbeds, for this purpose of forcing asparagus, are made of fresh horsedung, full of heat, and must be made very substantial; provide, therefore, a proper quantity of the above sort of dung, as directed for cucumber hotbeds; fork it up together in a mixed order, into a heat; and in a week or a fortnight, according to the quantity and quality of the dung, it will be of a proper temperature for making the hotbed.

The dung being thus in order, then prepare to make the hotbed, which must be made of proper dimensions, for one or more three-light frames in a range, allowing for it to be three inches wider on every side than the frame, and make it a yard high at least, and level the top even and smooth: then directly,

without putting on the frame as yet, earth it all over, six or seven inches thick, for the immediate reception of the plants, for no time must be lost in making the most of the hotbed in forcing asparagus; but remarking, the frame must not yet be put on; for the heat of the bed being very strong at first, the framing and glasses, if put on close, and thereby excluding the external air, would make it heat too violently.

The bed being made, and earthed as above, then having a proper quantity of asparagus plants, proceed to place them on the surface of the earth: previously raising at one end a small ridge of earth, five or six inches high, against which to place the first course of plants. This done, mark on the surface the width of the frame, and then begin and place the plants against this little ridge of earth, gathered as close to one another as possible, drawing a little of the earth to the bottom of the roots; then place the others against these in the same manner, and so continue laying them one against another, crowded as close together every way as possible to the width of the mark for the frame, from one end to the other of the bed, with their tops or crowns all upright, and of an equal level: then when the whole bed is thus planted, let some moist earth be directly banked up against the outside roots, all around, an inch or two higher than their tops; which done, cover the crowns of the roots all over with rich light earth, about two inches thick, which concludes the work for the present, till the buds or young shoots of the asparagus begin to appear through the earth.

Or in a week, or ten or twelve days after the bed is made and planted, if the heat has become moderate, or if very bad weather, great snow, or excessive rains, &c., may put on the frame and lights; but if a considerably extensive bed, as the heat will continue longer in a violent state, must be cautious in framing it too soon before the buds begin to advance, or defend the top occasionally with straw-litter, &c.

When the buds, therefore, of the asparagus begin to appear through the surface of the earth, then prepare to add another portion of three or four inches' depth of more mould; previous to this, a wreath of thick straw-bands should be fixed round the top of the earth of the bed, close to the edge, both to secure the outsides of this farther supply of earth, and to place the frame on; for this purpose make some large straw-bands or ropes, three or four inches thick, and having a quantity of small sharp-pointed wooden pegs, fix the straw-band down neatly along the top of the earth, next the edge, just in the proper

place to receive the bottom of the frame, for it serves both to secure the second covering of earth, and support the frame when it is put on; when the wreath is thus fixed, then cover the young buds of the asparagus all over with a supply of light earth, three or four inches thick, or as high as the top of the aforesaid wreath, to have it six inches' depth at least in the whole, over the crown of the plants.

Having applied the second addition of earth, then, if you judge that all danger from burning is over, it will be proper to put on the frame; place it upon the wreath of straw-bands, and, as soon as thus placed, put on the lights or glasses of the frame.

After the frame is placed on the bed, it is necessary, if there is a great steam, to raise or shove open the lights at top occasionally an inch or two, to give the steam vent to pass away, and to admit fresh air, but especially when the buds first begin to appear.

Observe, that if, during the time the bed is without the frame, there should happen excessive rains, or great snow, it is proper to cover occasionally with mats or straw, &c.

But it must be remarked, that for the first week or fortnight after the bed is made, and the asparagus planted, that the state of its warmth should be every day carefully examined: for that purpose, thrust two or three long sharp-pointed sticks down betwixt the roots into the dung in different parts of the bed; when upon drawing up the sticks, once or twice a-day, and feeling the lower end, you can readily judge of the degree of heat; which, if found very violent, threatening to burn the earth and scorch the roots of the plants, it must be moderated, by boring, with a long thick stake, several wide holes in the dung, on each side of the bed, also in the earth just under the roots, to admit the air, and to let the rank steam and burning quality of the dung pass off more freely; but, when the heat is become moderate, the holes must be closed again.

Likewise observe, when the heat is moderate, it will be very proper to lay a quantity of dry long litter round the sides of the bed, which will preserve a fine kindly growing heat, and will defend the bed from being chilled by heavy rains, snow, &c.

But in the next place observe, that by the time the frame is put on, or soon after, you must be careful to examine the state of heat in the bed; and if beginning to decline considerably, you should prepare to renew it as soon as possible: which is to be done by applying a lining of hot dung to the sides of it, as directed for cucumber and melon beds.

Fresh air must be admitted in fine weather daily, especially if the heat of the bed is strong, when the buds begin to appear through this last covering of earth ; for fresh air is necessary both to give them colour, and prevent their drawing up too fast and weak : therefore, in fine sunny days, either tilt the upper ends of the lights an inch or two, or shove them a little down, as may be convenient ; but keep them close in all cold or very bad weather, and always on nights.

Continue to cover the glasses every night with mats or straw.

The bed, if made and managed as above directed, will begin to produce asparagus abundantly in four or five weeks ; and, provided the heat be kept up, will continue producing buds in great plenty for about a fortnight or three weeks. A bed for a three-light frame will, for that time, produce three or four hundred buds a-week.

The method of gathering the asparagus in hotbeds is, to thrust your finger down gently into the earth, and break the buds off close to the roots, which they will readily do ; but the cutting them with a knife, as practised in the natural ground, would, by reason of the buds coming up so very thick one under another, destroy as many or more than you gather.

When it is intended to have a constant supply of asparagus in the winter and spring season, till that in the natural ground comes in, you should make a new hotbed every three weeks or a month.

A quantity of fresh plants must also be procured for every new bed ; for those which have been once forced in a hotbed are not fit for any use afterwards, either in a hotbed or the natural ground.

When designed to raise asparagus plants for forcing, should sow some seed every year, in a bed of rich earth, as directed below ; observing, when the plants are one year old, to transplant them into an open compartment, in rows, nine inches asunder, and about the same distance in the rows. When they have two or three summers' growth, they are then fit to take up for forcing ; but if they stand three years before you take them up, they will produce much larger buds.

It is necessary to have three different pieces of ground always employed at the same time with asparagus plants for the above purpose ; that is, one piece for the seedbed with seedling plants, which should never stand longer than one year before transplanted ; the other two pieces to be occupied with transplanted plants ; one to be a year's growth from the time of

planting before the other; by which method of sowing a quantity of seed, and planting out a quantity of plants every spring, you will, after the first three years, obtain a fresh supply of proper plants every year, of eligible age and growth, as above, fit for forcing.

The season to sow the seed is the last week in February, or first fortnight in March: it should be sown in a spot of light rich ground; sow it tolerably thick, and tread it down evenly, then rake it into the ground in a regular manner.—See *March*.

The season to transplant the plants from the seedbed is in March, observing the method as directed in that month.

The season to begin to make hotbeds for forcing these plants is according to the time you desire to have the plants fit for use; for instance, if you desire them at Christmas, begin in the second or third week in November.

Such persons as do not choose to raise the plants themselves for forcing, or such as desire to be furnished with plants for that purpose, till their own are ready, may in either case be supplied with them at most of the kitchen-gardeners near great cities, but particularly those near London, many of whom raise great quantities purposely for forcing.

They may be purchased generally by the rod of ground they grow upon, and about eight or ten shillings per rod is the price: there are generally between two and three hundred roots in a rod; and two and half, or three rods at most, is sufficient for a three-light frame.

These plants, if properly packed up in hampers, or boxes, with straw, may be conveyed to a great distance: I have had them come sixty miles in the winter season for forcing; when they have come very safe, and produced buds plentifully.\*

\* Asparagus is very generally forced upon hotbeds composed of well-fermented dung, and frequently of dung and tree leaves mixed together, which produce a more steady and gentle heat than dung only.

When there is the convenience of a fixed pit, the vegetable may be forced with equal success and less trouble. Much fire-heat will seldom be required. A slight fire at night will generally be sufficient.

For forcing in the hotbed, the dung, or dung and leaves, having been carefully fermented and prepared, let the bed at this season be three feet high in front, and three feet eight or ten inches behind; and put a few rotten leaves upon the surface, and when the frame is put on add a few more, if the depth of the frame will admit. Beat them regularly down with the back of a spade, and over the surface lay four or five inches of light, rich, vegetable mould.

Lift the plants carefully, trim their roots, and lay them upon the bed in regular order, and as closely as possible; mixing a little fine leaf mould amongst their roots with the finger as you proceed. Cover them, to the depth of four or five inches, with some fine light, dry, vegetable mould. Put on the lights, and keep them close till the heat begins to come up.

## MUSHROOMS.

TAKE care that the mushroom beds are still well defended from heavy rains and frost, both of which would destroy the spawn.

The covering of straw should never be less than twelve inches thick on every part of the bed: and at this season, it would be proper to continue some large garden mats, spread over the straw covering, to secure the bed more effectually from wet and cold: and observing, that if the wet at any time has penetrated quite through any part of the covering, let the wet straw be removed, and replaced with some that is clean and dry.

New mushroom beds may be made. For the particular method and management, see *September*.\*

Air should then be admitted, and when the buds begin to come up, air should be admitted, as freely as the state of the weather will allow, by drawing off the lights a few hours every fine day. If the heat of the bed become too violent, it may be moderated by boring round the sides into the centre of the bed with a long thick stick; the holes to be filled up when the heat becomes moderate. When the heat begins much to decline, let linings of hot dung be applied by degrees, as the state of the bed may require. The temperature may be ascertained by one or two sticks kept thrust into the bed, which may be pulled out occasionally, and felt with the hand. The vegetable will come to greatest perfection in a temperature of not less than 50°, and not more than 55°.

Asparagus will seldom require water, when forced in hotbeds; but when forced in fined-pits, however, a more abundant supply will be required. When the shoots are about four or five inches above the surface, they are then in a proper state for using. A three-light frame of ordinary dimensions, filled with good plants, with good management, will produce four or five dishes a-week for three weeks.

For successional crops, a fresh bed will be required every three or four weeks; for which a supply of fresh plants must be kept up in the open ground, as the plants that have once been forced are of no further use.

\* **FORCING RHUBARB.**—There are, we believe, few vegetables at this season that are more generally in demand than rhubarb and sea-kale; and, we may add, that a supply of no other vegetables can be so easily obtained by forcing as these, or that are so much improved by being forced. Abundant supplies of these two much-esteemed vegetables may be procured, in most situations, without much trouble or expense, from the end of November till they come in again in the natural ground.

Where there is the convenience of hothouses, a supply of rhubarb may be had by digging up a dozen or two of their roots with balls, and placing them into a vinery, or any other sort of hothouse, upon the border, closely together, putting a few inches of rich vegetable mould below them, and filling up any spaces between the roots. Lay a little of the mould round the sides, and give the necessary supply of water; if the temperature of the house is as high as 50°, they will soon begin to spring, when, in order to blanch them, they should be covered over with a little soft, dry hay, and over that a blass-mat, which will help to keep the hay dry. If they are put into the vinery when the forcing is commenced, the footstalks of the leaves will be ready for Paris in about a month or five weeks.

Where there is not the convenience of a hothouse, rhubarb may be forced in a frame, upon a slight hotbed, prepared in the same way as directed for asparagus; and the frame may either be covered with wooden shutters, or the lights may be put on; and when the roots begin to spring, cover them with mats or soft hay.

Rhubarb may also be successfully forced, where there is neither the convenience of hothouses or frames, at any time after the month of November, in the open ground, in rows, by placing blanching-pots, or long deep boxes, over the roots, and forming a ridge of hot dung or leaves over them: the dung should be about two or two and a half feet high, and should be protected from heavy rains and snows by a covering of straw, in order that it may retain the heat the longer.



## KIDNEY-BEANS.

THE beginning, or any time this month, you may make a hotbed for some early kidney-beans.

Prepare for that purpose some new horse-dung, as directed for cucumber and other hotbeds; with which let the beds be made about two feet and a half high, and long enough for one or more frames. Make the surface of the bed even and smooth, and put on the frame. When the heat is become moderate, let the bed be covered with rich light earth, seven or eight inches thick: then draw drills from the back to the front of the frame, a foot asunder, and an inch deep. Drop the beans therein, two or three inches apart, and cover them an inch deep with earth.

Or may sow the beans thick in a small hotbed, or in pots therein, to raise the plants about an inch in growth, then transplanted into a larger hotbed, as above, to remain.

The best sorts for this purpose are, the early white dwarf, black, and liver-coloured dwarf kidney-beans, because they come earlier, and do not run so strong or rampant as the other sorts.

When the plants begin to appear, raise the lights a little behind, every mild day, to admit fresh air to strengthen their growth; giving also occasional gentle waterings, continuing the same care in their advancing state, and support a proper heat in the bed: they will thus afford an early produce in April, &c.

But where there is a hothouse, may raise early kidney or French beans, generally with much less trouble, and more certain good success, than in hotbeds, as above.

## SMALL SALADING.

Sow the different sorts of small salading once a-week or ten days, such as cresses, mustard, radish, rape, and lettuce, &c.

These small salad seeds, if open mild weather towards the latter end of the month, may be now sown in beds or borders of natural earth, in the common ground; but, provided you have the conveniency, it will, notwithstanding, be proper to shelter the bed with a frame and lights, or with bell or hand-glasses; or where these are wanting, you may sow the seeds on warm borders, and shelter them at night, and in bad weather with a covering of mats.

Choose for these seeds a spot of dry light ground; dig it neatly, and rake the surface fine; then draw flat shallow drills

sow the seed therein, each sort separate, very thick, and earth it over not more than a quarter of an inch deep; and if intended to cover with glasses, let them be directly put on: and when the plants come up, give air by raising the lights behind, or by taking them off in fine days.

But if the weather should now prove very cold, such as frost, snow, or cold rain, and that a constant supply of these small herbs are wanted, or that they are wanted as soon as possible, or at any particular time, it will, for the greater certainty of procuring them, be still proper, where it can be obtained, to raise them in a slight hotbed.

Make the bed with fresh horse-dung, about eighteen inches, or two feet high; set on the frame, and cover the bed with earth, four or five inches thick.

Sow the seeds thick, either in shallow drills, or on the surface, each sort separate (see *January*); and sift as much fine earth over as will just cover it; put on the lights, and when the plants appear, give plenty of air.

About the middle or latter end of the month, if open and mild weather, you may begin to sow a small salading on warm borders, in the open ground; and if the weather continues mild, it will succeed tolerably well without any covering.

When these plants, both under cover and in the open ground, begin to come up, they sometimes, by rising very thick, raise the earth in a kind of cake upon their tops, which consequently retards their growth; they may be assisted by whisking the surface lightly with your hand, &c., to separate the earth; after which the plants will rise regularly.

When those coming up in the open ground, the latter end of this month, happen to be attacked with morning hoar-frosts, and likely to be a sunny mild day, if before the sun rises full upon them, you water them out of a watering-pot, with the head on, to wash off the frosty rime, it will prevent their changing black and going off.\*

#### CARE OF CAULIFLOWER PLANTS.

CAULIFLOWER plants in frames should have the free air every mild day, by taking the glasses entirely off.

\* Where there is the convenience of hothouses and frames, the most certain and easy method to keep up a supply of small salading, at this season, is, to sow the seeds, in shallow boxes or pans for the purpose, in well decomposed vegetable mould; and place them either into the frames or in the hothouses, in any place not too much shaded, and unoccupied with other plants; observing to sow once or twice every week, or more or less, according to the demand.

About the end of the month, if mild settled weather, you may begin to transplant some of the strongest plants into the place where they are to remain. Plant them in a quarter of rich well-dunged ground, thirty inches or a yard distance each way; but if cold and unsettled weather, defer this planting till next month.

Cauliflowers under hand or bell glasses should also be thinned out towards the end of the month, for planting, as above, if mild fine weather, and the plants tolerably strong; that is, if there are more than one or two under each glass, let all above that number be taken away. But if very cold unfavourable weather, as above observed, defer this work till March, observing, however, when performing it, to take up the weakest, and let the strongest remain under the glasses, to come in for the principal early crops; and draw some earth up round their stems, still continuing the glasses, and give air by tilting one side. The plants which are taken up should be planted in another spot of ground, the same distance as advised above for the frame plants.

In transplanting cauliflowers, if necessary to make the most advantage of the ground, may, on the same compartment, sow a crop of spinach and radishes, a week or fortnight before the cauliflowers are planted: and by the time the latter begin to advance considerably, the other will all be gathered off for use, without having retarded the growth of the cauliflowers.

#### SOWING CAULIFLOWER SEED.

Sow cauliflower seed, the beginning, middle, or any time this month, to raise some plants to succeed the early crops; or, also, in case none were raised last autumn for early plants, or that these have been killed by the severity of the winter; but in order to bring the plants up soon, and to forward them in growth, it will be proper to sow in a slight hotbed.

Make the bed about twenty inches or two feet high in dung, and put a frame on; then lay four or five inches' thick of rich earth over the bed.

Sow the seed on the surface, cover it with light earth, about a quarter of an inch thick, and then put on the glass.

When the plants appear, let them have air every day, by raising or opening the light at the upper end an inch or two; and in mild weather the lights may be taken entirely off in the daytime; for the plants must not be kept too close, for that would draw them up weak.

But where there is not the convenience of a frame for the above bed, you may cover it on nights, and in bad weather with mats.

Sprinkle them with water frequently, if moderate showers of rain do not fall.

#### TRANSPLANTING CABBAGES.

EARLY York and sugar-loaf cabbages, the Antwerp, Battersea, and other cabbage plants, if tolerably strong in growth, should now be transplanted where they are to remain.

If your plants are pretty strong, they may, if mild open weather, be planted out the beginning or middle of the month; but if they are weakly, or much cut by the frost, let them remain two or three weeks to recover, or till the beginning or middle of March.

Choose for those plants a compartment of good ground; and it would be of much advantage to dig in a supply of good dung: then set the plants in rows, two feet to two and a half distance, in the smaller and larger kinds, to attain full growth for the main crop; or some early kinds to cut young in a thinning order, may be planted only a foot and half asunder.

#### SOWING CABBAGES AND SAVOYS.

Sow some sugar-loaf, early Yorkshire, and other summer cabbages, and large autumnal kinds about the middle or latter end of the month, for summer and autumn use. These will succeed the early plants, for they will be fit to cut in July, August, and September, &c.

But if the winter has been severe, and destroyed many of the plants which were sown last August to stand the winter for an early crop, it will, in that case, be proper to sow some of the early seed as soon in this month as the weather will permit; and if a few are forwarded by sowing them in a light hotbed, it will be a great advantage.

Sow also some red cabbages for next winter's supply.

Savoy-seed may be sown, for the first crop, about the middle or latter end of this month.

Those savoys which are now sown will be ready in September, and they will be finely cabbaged by October, and will continue in good perfection all November and December, &c.

Cabbages and savoys for seed may be planted this month, if not done before. Take up the plants in a dry day, clear off all the large leaves, and plant them two feet asunder each way, by

the method explained last month, placing them so deep that no part but the head may appear above ground.

#### EARTHING UP AND SOWING CELERY.

EARTH up late celery in open dry weather, if the plants have stood the winter in tolerably good condition, and are of some advanced length above ground.

About the middle, or towards the latter end of the month, prepare a small bed of light rich earth in a warm border, to sow some upright celery seed in, for an early crop.

Break the earth very fine, and either sow the seed on the rough surface, and rake it in lightly; or first rake the surface smooth, sow the seed thereon, and cover it with light earth sifted over near a quarter of an inch deep; or the ground being formed into a three or four feet wide bed, and the surface raked, then with the back of the rake trim the earth evenly off the surface about half an inch deep into the alley; sow the seed on the bed, and with the rake draw the earth over it evenly, and lightly trim the surface smooth.—But those who desire to have the plants come in pretty forward, should sow the seed in a slight hotbed, under a frame and lights, or hand-glasses; or in default of these, cover on nights and bad weather with mats; being careful, in either method, when the plants are come up, to admit the free air every mild day. The plants raised from this sowing come in for use in June and July.

There should not be many of these early-sown plants planted out, intended for a continuing supply, only a few to come in before the general crop; for they will soon pipe in the heart and run up for seed.\*—See *March, April, May*.

#### RADISHES.

Dig a warm border, the beginning of this month, to sow some short-topped radish-seed, to succeed those sown last month. Dig another piece at the same time, and sow it with salmon radish-seed; they will succeed the short-tops. About a fortnight or three weeks after, let some more of both sorts be sown in an open situation, in larger portions for the main crop, that

\* At this early season we would recommend a small quantity to be sown, either on a slight hot-bed, or in a shallow box, and placed into a frame or hot-house now at work; and to be afterwards hardened, by degrees, till fit for pricking out on a warm border, or rather on a slight hotbed, to remain until finally planted out. A box about a foot square will raise a sufficient number of plants for this sowing, as they are only intended for a few to come in early, before the general crops. They should both be sown and pricked out on very rich mould. If properly managed, they will come into use about the first of August.

there may be a regular and plentiful supply of these roots in their proper season.

Let them generally be sown broad-cast on the rough surface, either in a continued space, or in four or five feet wide beds, and rake them in with an even hand; or in sowing large crops in one continued space, if quite dry light ground, it is eligible, before raking in, to tread down the seed lightly, then rake it in regularly.

You may sow among the great crops of radishes a sprinkling of spinach and lettuce-seed; the spinach will come in after the radish, and the lettuce after the spinach.

Continue to cover the early crops of radishes in frosty weather and cold nights with straw, &c., as directed last month.

If early radishes are required as soon as possible, let some dwarf short-tops be sown in a moderate hotbed, the beginning of this month, in the manner directed last month.

#### TURNIP-ROOTED RADISH.

Sow a few of the small white turnip radish to draw for salads in April and May; they eat crisp, and are agreeably flavoured.—See *March* and *April*.

Or some may be sown in a slender hotbed, to have them come earlier by a fortnight or more.

#### SPINACH.

WINTER spinach will now advance in growth: clear out all weeds, and thin the plants for use as wanted.—See *March*.

Sow spinach about the beginning of this month, if mild weather: let some good ground be got ready for this seed, and sow it thin and regular, either broad-cast and raked in, or in drills a foot asunder.

Spinach may be sown between rows of cabbages, cauliflowers, and beans, or the like, if ground be scarce.

The smooth-seeded, round-leaved kind, is the best to sow now; and if desired to have a constant supply, let the sowings be repeated every fortnight or three weeks.—See *March*.

#### SOWING AND PLANTING LETTUCES.

ABOUT the beginning or middle of this month, if the weather is mild, you may sow several sorts of lettuce-seeds on warm borders. The white and green Cos kind, and the Cilicia and cabbage lettuce, are proper sorts to sow now; you may also sow some of the imperial and brown Dutch lettuces, or any

other sorts; let the seeds be sown moderately thick, and rake them in regularly.

Or, in order to have a few lettuces forwarder for transplanting, you may, early in the month, sow Cos or other lettuce-seeds, in a frame, and cover them occasionally with glasses or mats, on nights and sharp weather; and when the plants are advanced about two inches in growth, they are to be transplanted in the full ground.

But, in order to have a few come in pretty forward for transplanting, there may be a little green and white Cos sown on a gentle hot-bed, which will be ready to transplant a fortnight sooner than those in the full ground.

Lettuces which have stood the winter, closely planted, in warm borders, or in frames, should, about the end of the month, if quite mild weather, be thinned out where they stand too close: let them be thinned regularly, leaving them a foot distance each way, for they will require so much room to grow to their full size; the plants which are drawn out should be planted in an open spot of rich ground a foot asunder; and give a little water as soon as planted.\*

#### CARROTS AND PARSNEPS.

PREPARE some ground, about the middle or latter end of this month, in which to sow carrots and parsneps.

These roots grow largest in light ground, and the farther from trees the better: for they thrive best in open exposure. Let the ground be trenched, one full spade deep at least; but if double digged, two moderate spades, it will be of particular advantage, in promoting long handsome roots, both of the carrots and parsneps; let the clods be well broken, and lay the surface even.

They must be sown separately, each sort in distinct compartments; either dividing the ground in four or five feet wide beds, or remain in one continued plat: sow the seeds on the

\* **FORCING DANDELIONS.**—This well-known plant, when forced and blanched, is much esteemed by some families as a salad, and may be easily obtained, at any season, by collecting a quantity of their roots, and placing them upon a slight hotbed, prepared in the same way as directed for asparagus; and in order to blanch them, they should be covered over with dry sawdust, as they shoot up. When they are fit for use, which they will be in a short time, they should be cut with a small piece of the root, to keep the leaves together. A one-light frame will produce a good quantity.

**FORCING SEA-KALE.**—Abundant supplies of this much-esteemed vegetable may also be had, from November to April, by any of the means described for rhubarb. We, however, consider that it is brought to the greatest perfection, and with much less labour, when forced, than where it is grown in the natural ground.—For particular directions,

rough surface, not too thick, and rake them in regularly; or if a light dry soil, may first tread them in evenly with the feet, pretty close together, then rake them fully into the ground.— See next month.\*

Plant carrots, parsneps, and beets for seed; let them be planted in rows two feet asunder.

#### BEET.

THIS is now the time to begin to sow the different sorts of beet; the red beet for its large root, and the green and white sorts for their leaves in soups, stewing, &c.

Let the different sorts be sown in separate beds, &c., either sown broad-cast, or on the general rough surface, and raked in regularly; or, as beet seed is pretty large, it is an eligible method either to sow it in drills, in order that it may be more regularly covered in the earth all an equal depth, or to dot or dibble it in with a blunt-ended dibble in rows; let drills be drawn with a hoe, about an inch deep, and ten or twelve inches asunder; sow the seed therein thinly, and earth it over an inch thick; and if you sow it by dotting in, have a blunt dibble, and in lines a foot asunder, dot holes an inch deep, and six or eight inches' distance in the row, dropping two or three seeds in each as you go on, and cover them in: and when the plants come up, leave only one of the strongest in each place.

Likewise may now sow the mangel wurzel or German beet, for its large green leaves to boil as spinach, and thick fleshy leaf stalks to dress like asparagus; but the root, though very large, is of little worth for any domestic occasions.

#### ONIONS AND LEEKS.

ABOUT the middle or latter end of this month, you may get some ground ready for sowing onions and leeks.

Choose a compartment for each where the ground is good, and not too wet; and if you dig some good rotten dung in, it will be of great advantage to the plants. Either divide the ground into four or five feet wide beds, or sow the seed in one continued compartment, each sort separate; sow them in a dry day, on the rough surface, moderately thick, as regular as possible, and directly rake it in evenly in a regular manner; or it sown in continued large compartments without dividing into

\* They must be sown in drills; the carrots at twelve or fourteen inches, and the parsneps at eighteen or twenty inches apart. The drills should not be more than one inch deep at this season. The early Horn, and Altringham, are the fittest for this sowing.



beds, if the ground is light and dry, may first tread in the seed lightly, to settle the ground equally, that it may not sink in holes with the feet in raking; then rake it in regularly, as above.

Or there may be a thin sprinkling of leek-seed sown with the onions, the onions being generally at their full growth, and drawn off in the middle of August; the leeks will then have full scope, and grow to a large size.

But when intended to sow leeks for a continuing full crop, or to be afterwards transplanted, they should be sown separate, and moderately thick, in beds about four feet broad.

The leeks are generally fit to transplant in June and July.—Observe the directions there given.\*

#### PLANTING BEANS.

Dig an open quarter of ground the beginning of this month, for a full crop of beans. Windsor, Toker, Sandwich, and other large beans, are proper to plant at this season for the main crop. Plant these large beans in rows a yard asunder, and four or five inches distant in the row, and not more than two or three inches deep.

You may also plant any of the smaller kinds of beans, they are mostly great bearers; such as the long-pods, Mumford's, white-blossom, broad Spanish, &c. (see the catalogue), planting them in rows two feet and a half, or a yard asunder, and two or three inches deep.

Beans may either generally be planted by dibble, or occasionally in drills, the above depth.

\* Take advantage of a dry day, when the ground is sufficiently dry, to point over the ground which has been manured and rough dug in the autumn for this purpose, which will be now well pulverised by the action of the frost and rains; point it over, and let it be well broken with the spade. If no ground has been prepared in the above manner, make choice of a rich piece which has been well manured for the preceding crop. That which has been occupied with celery or cauliflower will answer the purpose well; dig it over, and break it fine.

Any of the following sorts may be sown at this time:—the Strasburg, Spanish, Portugal, James Keeping, blood-red, silver-skinned, &c.; the Strasburg is, however, more generally approved of, as producing the most abundant crops, and as a good keeper. They should be sown in four feet beds, and covered to the thickness of a quarter of an inch, or in shallow drills about ten inches apart. The drill system is that which we prefer, both for neatness and for being much more expeditiously cleaned, as by this method the Dutch hoe can be used to destroy the weeds; and stirring the surface occasionally will greatly promote their growth, particularly when the bulbs are swelling.

A little lettuce and radish may be sown along with them; but this should be done but sparingly. Rake all smooth; but unless the ground is quite dry, we would not recommend treading in the seeds.

A few of the silver-skinned and two-bladed should be sown on a bed of poor soil or under the shade of trees, for pickling.

## SOWING PEAS.

Sow a principal crop of peas the beginning of this month, in an open piece of ground: may still continue sowing a succession of the hotspurs, and other small kinds; and it is now a fine season to sow full crops of the large sort of peas, such as marrowfats, Rouncivals, &c.

For sowing marrowfats, and other large peas, draw drills three feet and a half asunder: but if you intend to set sticks for these large kinds of peas to climb upon for support, draw the drills four feet distant.

Hotspur, and other smaller kinds of peas, should be sown in drills, two feet to a yard asunder; and if you intend to place sticks for them to run upon, allow three feet and a half between the rows.

The drills for sowing peas should be drawn with a hoe, about an inch and a half to two inches deep.

## EARTHING UP BEANS AND PEAS.

BEANS and peas which are up, and advanced from two or three to five or six inches high, should have earth drawn up to their stems, which will strengthen them and protect them from frost. Let this be done in a mild dry day.

## SCORZONERA, SALSIFY, AND HAMBURG PARSLEY.

THE latter end of this month you may sow scorzonera, salsify, and Hamburg parsley.

These plants are in some families much esteemed for their roots, which are the only parts that are eaten, except the salsify, as explained below.

The roots run pretty deep in the ground, in the manner of carrots and parsneps, and are boiled and eaten either alone or with flesh-meat, like young carrots, &c.

These are fit for use from July till March.

But the salsify is estimable both for its roots, as above, and for the young shoots rising in the spring from the year-old plants, being gathered while green and tender, are good to boil and eat in the manner of asparagus.

Dig one or more beds for each of the above, in an open situation. Sow the seed either in shallow drills, six inches distance, and earthed over half an inch, or sown on the rough surface, and rake them in equally; they are all to remain where

sown, and the plants thinned in May or June, to six inches distance.

BORAGE, BURNET, LOVAGE, ANGELICA, &c.

You may sow borage, burnet, clary, and marigolds, orach, carduus, dill, fennel, bugloss, sorrel, chervil, and such like herbs about the middle, or any time of this month, when the weather is open.

Angelica and lovage may also be sown at the same time; they delight in moist situations, but will also grow in any common soil.

Sow all the above seeds moderately thin, and each sort separately, in a border or beds of light earth, and rake them in evenly; or may be sown in drills, six to twelve inches asunder; some to remain where sown, others planted out in summer.—See *June*.

THYME, MARJORAM, SAVORY, AND HYSSOP.

THYME, marjoram, hyssop, and savory, may be sown about the latter end of this month. Let a warm spot of light rich ground, where it is not wet, be prepared for these seeds; dig it neatly, break the earth fine, and make the surface smooth: sow the seeds thereon, each sort separate, and rake them in light and evenly.

They may remain, somewhere sown, and the rest planted out in June, &c.

Or some may be sown in drills, to remain as an edging to a border, &c.

CORIANDER AND CHERVIL.

CORIANDER and chervil, for soups and salads, &c., may be sown any time this month, when mild dry weather; sowing each sort separate, generally in shallow drills, six to nine inches asunder, and covered in evenly with the earth, about half an inch deep, especially the coriander seed.

These plants are always to remain where sown; and as they soon fly up to seed in summer, some should be sown every month, &c.\*

GARLICK, ROCAMBOLE, AND SHALLOTS.

PREPARE some beds of good ground, four feet wide, in which to plant garlick, rocambole, and shallots; of which procure

\* The above small seeds are seldom sown in Scotland before the end of March.

some best bulbs; divide the garlick and rocambole into cloves, and the shallots into off-sets; plant them in rows, lengthways the beds, eight or nine inches asunder, by six inches' distance in each row, and two or three inches deep.

#### SOWING PARSLEY.

THIS is a proper time to sow full crops of parsley, either in drills along the edges of some of the quarters, or borders; or in continued rows, nine inches asunder, as directed the last and succeeding months.

#### POTATOES.

POTATOES may be planted, a few for an early crop, about the middle or latter end of this month, if open weather.\*

Those plants are propagated by planting cuttings of the potatoe: procure some best, middling large potatoes, and divide and cut each into two, three, or more pieces, minding that every piece be furnished with one or two buds, or eyes: then plant in rows two feet asunder, and a foot distant from each other in the row; and three or four inches deep.

The method of planting them is most generally with a large blunt-ended dibble, making a hole for each set the above depth; or sometimes by planting in drills; also by making a small aperture with a spade, for each set, and sometimes, in field culture, are planted in the furrows, as they plough the ground, or in drill furrows after the ground is ploughed.—See *Potatoes*, in *March*.

Or, for early potatoes, some early dwarfkinds may be planted in a hot-bed the beginning of this month.†

\* We would here observe, that it is only in the southern counties of England that potatoes should now be planted, at least to any extent. In Scotland, we seldom plant till the middle of March, except on wall borders; and even then, we plant them often more with a view of forwarding the labour, than that we expect an earlier crop; as we generally find that those planted about the end of March, or beginning of April, are equally early, and with less chance of being cut down with late frosts.

† These are most successfully forced upon beds of hot dung. Choose the early ash-leaved early kidney, or any of the most approved sorts, and, while the dung is undergoing the necessary fermentation for their reception, cut, partially dry, and plant them in boxes or pots among some light dry mould. Place these in any of the hot-houses, or in a cucumber-frame; where they will have sprung two or three inches while the bed is preparing.

When the bed is ready, cover it four inches thick with mould, either rich or otherwise, but, at all events, light and dry, and if sandy, so much the better. In this place the plants in rows about ten inches asunder, and four or five inches apart in the row. Cover them up nearly to the leaves with the same kind of mould, giving the whole a gentle watering, if necessary, and shutting down the lights.

From this time forward, they will require all the air that can be admitted to them with safety during the day. Carefully cover them every night with mats, and keep the temperature at about the same degree as for asparagus-beds.

## HORSE-RADISH.

THIS plant is propagated by cuttings of the root, either cut from the top an inch or two long, or some old roots cut into pieces of that length.

The method is this : first procure a quantity of proper sets, which may be either the small off-sets that arise from the bottom or sides of the main roots, and of which take cuttings off their tops two or three inches long ; or may use also the tops and crowns of the old roots when taken up for use, in cuttings of the above length : or, in default of a sufficiency of crowns or tops of either, you may divide a quantity of old knotty roots into cuttings, in length as aforesaid ; which, if furnished each with two or three buds or eyes, they will make tolerable sets : but give preference to the cuttings of the crowns or tops, if enough can be procured ; observing, that when intended to make a fresh plantation, you should, during winter, &c., when you take the plants up for use, reserve all the best off-sets for planting ; also the crowns of the main roots : but this latter is only practicable in private gardens ; for where the large roots are designed for sale, their tops must not be taken off, which will render them unsaleable in market ; therefore the market gardeners always reserve the strongest off-sets, arising either from the bottom, or emitted from the side of the main root.

Being thus furnished with a proper quantity of sets, then proceed to prepare the ground for their reception : and they may either be planted with a dibble after the ground is dug, or trenched in as you proceed in digging the ground, especially if a light mellow soil.

Choose, however, an open situation, and as light and deep a soil as the garden affords ; which trench regularly, one good spade deep at least.

Then proceed by dibble-planting in the following manner :— Being provided with a long dibble, then beginning at one end of the piece of ground, range a line crossways, and with the dibble make holes about twelve or fifteen inches deep, and be careful to make them all of an equal depth, which you may readily do, by making a mark upon the dibble, according to the above, so thrusting it always down to that mark, making the holes six inches asunder, dropping, as you go on, one set or cutting in each hole, with the crown, &c., upright, taking care to fill or close the holes up properly with the earth, and let the rows be two feet asunder.

The other method of planting by trenching in the sets, is, by opening a trench at one end, in the common method of trenching, two spades wide, and one good spade deep, and then having the sets or cuttings, plant one row along the middle of the bottom of the trench, not planted deep, as in the above method, only just inserted to their tops with the crowns upright, about six inches asunder; then dig the next trench the same width and depth, turning the earth into the first trench, over the rows of sets; thus proceed, trench and trench, to the end breaking all lumpy clods.

By practising either of the above methods of planting horse-radish, the sets will shoot up perfectly straight root-shoots quite to the top, whereby they will be long and smooth, and swell evenly their whole length; and will sometimes attain tolerable perfection in one summer's growth.

When the whole is planted, the ground may then be sown with spinach, which will come up time enough to gather off in April and May, to give the radish full room to grow; for this, having a great depth of earth to shoot through, will not come up till the beginning or middle of May, when the spinach will be mostly all gathered.

They must be kept clean from weeds for about a month or six weeks; after this the leaves will cover the ground, and prevent the growth of weeds.

In the autumn after planting, that is, about Michaelmas, you may begin to take up some of the roots for use; but if they are rather of small size, it will be advisable to let the principal part stand to have another summer's growth, when they will be very fine and large.

When you take up these roots, it should be done regularly, not digging up a root here and there, as we often see practised in private gardens, but beginning at the first row, and proceeding from row to row, according as you want them; observing to throw out a trench close along to the first row of roots, and as deep as the root goes, but not to loosen the bottom thereof, which is called the stool. Having thus cleared the earth away quite to the stool or bottom of the roots, then with the spade, or a knife, cut each root off level, close to where it proceeds from.

All the stools, or bottoms of the roots, must be left in the ground undisturbed; for these yield a large successional supply of new shoot-roots, as above, the succeeding year; and when this production is dug up the old stools still remaining produce

another supply the year after; and thus, being permitted to stand, they continue, as often as the produce is gathered, to furnish a fresh supply the succeeding season, many years.

But care must be taken, when digging up the roots, always to clear the old stool from all straggling or small roots whatever; and, in the summer season, to draw up all small plants rising between the rows.

#### SOWING TURNIPS.

Sow some early Dutch turnip-seed about the middle or latter end of the month, in a warm-lying open spot of light ground; but as these early-sown plants will soon run up to seed before the roots attain any tolerable size, should sow only a small quantity at this time, to come in early in May.—See *March* and *April*.

#### PLANTING LIQUORICE.

Now prepare some deep ground to plant liquorice where required; the ground should have two or three spades' depth of good soil, and also digged that depth, that the root, the only useful part, may run considerably deep in the earth.

Procure sets of the small horizontal roots, which run near the surface of the ground; cut them into lengths of six inches, and plant them by dibble, in rows a yard asunder, by half that distance in the row, placing them wholly within the earth; as soon as planted, may sow a thin crop of onions on the same ground the first year. Keep them clean from weeds all summer; and when the onions come off, hoe the ground well; and in winter slightly dig the ground between the rows.

They must be permitted to have three years' growth, cutting down the decayed stems every autumn or winter, in October or November; and in the third or fourth year, the main roots will be of full length and size; then dig them up in winter, beginning at one end of the ground, and opening a trench two or three feet deep, or quite to the bottom of the first row of roots: so continue trenching the ground, row and row, the above depth, taking out all the roots as you go on, digging them clean up to the bottom.

## FRUIT GARDEN.

## PRUNING.

PRUNING of peaches, nectarines, and apricots, should be forwarded as much as possible this month, before the blossom buds are far advanced. When the buds of these trees are much swelled before they are pruned and nailed, many of them will be unavoidably rubbed off in performing that work.

Examine these trees well, and cut away all such parts as are useless, both in old and young wood, and leave a proper supply of the last summer's young wood, for the next summer's bearing; that is, in respect to useless old wood, all such branches as have advanced a considerable length, and produced no young shoots proper for bearing this year, nor support branches that do, are useless, and should now be cut out, to make room for better; observing that a general successional supply of young bearing wood, of the best well-placed shoots of last summer, must now be retained in all parts of the tree at moderate distances, to bear the fruit to be expected the ensuing season; at the same time cut away all the ill-placed and superfluous shoots, and very luxuriant growths, together with part of the former year's bearers, &c., to make room for the successional bearing shoots, as in *January*; and as you go on, let the supply of reserved shoots be shortened, each according to its strength. Shoots of a vigorous growth should be shortened but little; that is, you may cut off about one-fourth of its original length; those of a moderate growth should be shortened more in proportion, by cutting off about one-third; for instance, a shoot of eighteen inches may be shortened to twelve, or thereabouts; and observe the same proportion, according to the different lengths of the shoots.

But for the more particular method of pruning these trees, see the work of the *Fruit Garden* in *January*.

Nail the shoots or branches straight and close to the wall, at the distance of about three to four or five inches from each other.

And for the method of pruning and ordering young trees of these sorts (that is, such as one, two, and three years old from the budding), see the work of the *Fruit Garden*, both in *January* and *March*.



## PRUNING APPLES AND PEARS, IN ESPALIERS AND WALL-TREES.

PRUNE apples, pears, plums, and cherries, against walls, and in espaliers; and, if possible, let the whole of them be finished this month.

In pruning these trees, observe, as directed last month, that as the same branches or bearers remain many years in a proper fruitful state, continue them trained close and straight to the wall, or espalier, not shortening their ends, but still continue training each at full length as far as the limited space admits, and laying them in about four, five, or six inches asunder.\*

In the next placé, observe, that if the branches be anywhere much crowded (that is, if the bearing or principal branches are closer than four, five, or six inches\* from one another), some should be pruned out: observing, in this case, to take off such as are worst situated, and particularly such as appear to be the most unlikely to bear, by being either worn-out, or, at least, not well furnished with fruit-spurs or studs, as mentioned last month. Likewise observe, that when necessary to make room in any particular part of the tree, to train more regularly any eligible branches which are evidently well adapted for bearing, room must be made for them, by cutting out such barren branches as above described; and in any trees where the general branches are trained considerably too close, and crowding in a confused irregularity, let some of the apparently most un-serviceable and irregular-growing be cut out in a thinning order in different parts of such trees, to make requisite room for training the other more useful and eligible branches in a proper expansion at regular distances.

When any old or large branches are to be taken out, let them be cut off close to the place from whence they arose; or to any eligible lateral branch which they support, and which you shall think convenient to leave: for in setting off either old or young branches, never leave any tops.

After taking out any large branches, let such of those which remain near that part be unnailed, &c., in order to be brought higher or lower, as you shall see necessary, to train them all at equal distances: or when there are several large branches to be taken out in different parts, the whole tree should be unnailed; then you can more readily train the general branches and bearers in exact order.

Next, let it be observed, that where a supply of wood is

\* Or from eight to twelve inches.

wanting, leave some of the best situated of the last summer's shoots, such as directed to be retained in the summer pruning, to fill up the vacancies; and generally leave the leading one at the end of each branch, where room to train them. But all others of the last year's shoots, not wanted for the above purpose, should every one be cut off close to the place from whence they proceed, leaving no spurs but what are naturally produced. The proper fruit-spurs are such as were described last month, being produced on the sides and ends of the branches, short, robust, from about half an inch to an inch or two in length.

Let these fruit-spurs be well attended to in pruning, carefully preserving all those of a fresh, plump, robust growth; but those of a worn-out or rugged, unsightly appearance, or that project considerably long and irregular from the front of the branches in a fore-right direction, should generally be displaced, in order to preserve the regularity of the trees, cutting them off close: and new ones will be encouraged in places contiguous.

Having, in the course of pruning these trees, left most of the general shoots and branches at their natural length, as before advised, in all places where there is full scope to extend them, let them be all trained in regularly in that order, and nailed straight and close to the wall, or nailed or tied to the espalier, about four, five, or six inches' distance.

For the management of young trees of these sorts, see the work of the *Fruit Garden* in *January* and *March*.

#### PRUNING STANDARD FRUIT-TREES.

STANDARD fruit-trees, in the garden and orchard, may be pruned any time this month where necessary: observing only to cut from these trees all dead wood, decayed branches, and casual worn-out bearers as do not promise to bear well, and that crowd the others, and all such as assume a rambling, cross-placed, very irregular growth. Where the branches in general are crowded, let some be cut away in a thinning order, in a regular manner, so that the principal branches may stand clear of each other.

If any old trees are greatly infested with moss, which sometimes overruns the branches, let it now be cleared off; for it much impoverishes the trees and fruit.\*

\* A very effectual method of both destroying moss, and of preventing its growth, is, to syringe the trees with lime-water, which is also a means of destroying and preventing insects.

## PRUNING VINES.

VINES may be pruned now; but the sooner that work is done, the better. In pruning vines, observe to cut out part of the former bearers and long extended old naked branches, to make room for the bearing wood.

The last year's shoots are properly the bearing wood; that is, they produce shoots the ensuing summer; and these shoots, and no others, bear fruit the same season: for the shoots produced in summer immediately from the older wood never bear the same year: care must therefore be taken, in this pruning, to leave a proper supply of the strongest of the last year's shoots in every part of the tree; and take care always to have a succession of young wood coming up regularly, from and towards the bottom and middle, in a progressive order upwards.

Leave the branches or shoots in general at equal distances, at least eight or nine inches from each other.

Every shoot must be shortened according to its strength, from three or four to five or six joints long; and in shortening, generally cut sloping behind, and about half an inch above an eye or bud.

Let all the branches and shoots be trained straight and close to the wall, &c., at equal distances from each other; none closer than the distances above-mentioned.

But for the particular method of the winter-ordering these trees, see the work of *November, January, &c.*

Plant cuttings of vines, to raise a supply of new plants where required.—See next month.

## FIG-TREES.

FIG-TREES may be pruned about the middle or latter end of this month; and may likewise be planted. For particular remarks and directions, see *March*.

## PRUNING AND PLANTING GOOSEBERRY AND CURRANT TREES.

GOOSEBERRIES and currants should be pruned now, if omitted in the former month, both in the standard bushes and those against walls, &c.

In pruning the common standard bushes, observe to cut away all cross-growing branches, and regulate such as advance in a straggling manner from the rest. Or where the branches in general stand so close as to interfere, let them be thinned properly, so that every branch may stand clear of the other, at

some regular moderate distance: and prune out the superabundant lateral and other unnecessary shoots of last summer.—See the *Fruit Garden* of last month and *October*.

Let these shrubs, in standards, be always trained with a single stem, clear of branches, six or eight inches to a foot from the ground, as directed in the former month.

Likewise to currants, &c., against walls, give a necessary pruning and regulation, as directed in *January*, &c.

Gooseberry and currant trees may be planted any time this month, both in standard bushes for the general plantation, at six to seven or eight feet distance, and some against walls, &c., for earlier, later, and superior fruit, but principally of currants; or occasionally a few best sorts of gooseberries, where there is any walling to spare: let the currants be principally the best red and white sorts; and the gooseberries, for walls, allot some of the larger early green and smooth red, or also some white crystal and amber; the whole trained and managed as intimated in *January*, &c.

For the method of propagating and raising these shrubs by cuttings and suckers, see the work of the *Nursery* in this month, or March, or that of October, November, December, &c.

#### RASPBERRIES.

RASPBERRIES, where they remain unpruned, should be completed this month. In pruning raspberries, observe to clear away all the old decayed stems which bore the fruit last year, and to leave three, four, or five of the strongest of last year's shoots standing on each root, to bear next summer: all above that number, on every root, must be cut away close to the surface of the ground, and all straggling shoots between the main plants must also be taken away.

Each of the shoots which are left should be shortened, observing to cut off about one third or fourth of their original length.

The shoots of each root, when pruned, if considerably long and straggling, may be plaited or tied moderately two or three together; for by that method they support one another, so as not to be borne down in summer by the weight of heavy rains or violent winds.

When you have finished pruning, dig the ground between the plants: observing, as you dig, to clear away all straggling growths in the intervals, and leaving none but such as belong

to the shoots which are left to bear.—See the *Fruit Garden* of last month, &c.

New plantations of raspberries may be made this month, where wanted; let them be planted in rows four feet asunder, and let the plants be three feet distance from each other in the rows.—See last month, &c.

#### STRAWBERRIES.

THE plantations of strawberries should now be cleared, and have their spring dressing. First pull or cut off any remaining strings or runners from the plants, and clear the beds from weeds and litter of every sort; then either hoe, dig, or loosen the ground between the plants of those in beds; or may, at the same time, dig the alleys, from which spread some earth between the rows, and close round every plant: this will strengthen them, and make the plants flower strong, and produce large fruit.

Strawberries may be planted about the middle or latter end of the month, if the plants are a little advanced in growth; but the best time is about the middle or latter end of August, if showery or moist weather, or the beginning, or any time in September; they will then bear fruit the summer after; not but those planted now will take root freely, but will not bear any fruit to signify till the next year; observing the proper sets for planting are the young off-sets and runner plants of the last summer, which procure, of the strongest stocky growth, from beds of good plants that are in full perfection for bearing, and not from worn-out, very old stools, taking them up with good roots.—See *Strawberries* in *June*.

Prepare for these plants a piece of good ground, either in the main quarters, or in borders; if loamy, the better: and let some good rotten dung be dug in.

If in the main quarters, divide the ground into beds four feet wide, with alleys at least eighteen inches wide between them; or may be planted in continued rows in borders. Plant the strawberries of the scarlet kinds in rows, one foot three inches asunder, and allow the same distance between plant and plant in the rows.

But the largest kind of strawberries, such as the hautboy, Chili, &c., should be planted eighteen inches distant every way.

The Alpine, or prolific strawberry, should likewise be planted fifteen or eighteen inches distant every way, that there may be room for their runners to spread and take root, this kind of strawberry being different in its manner of bearing from the

others; for the runners which they send forth in summer take root at every joint, and each rooting joint produces blossoms and ripe fruit the same season; and these runners often yield the largest and fairest fruit, which are generally in their utmost perfection in August and September.

But this strawberry commonly begins to bear in June, with the other sorts, and continues bearing from that time till November, and sometimes till Christmas, provided the weather continues open and mild till that time.

Strawberry plants for forcing may now be placed in hotbeds, &c., the beginning, middle, or any time in this month, with good success; having two years old bearing plants in pots, as directed last month, place them in the hotbed, and managed as explained in the same work in January.

Be careful that the strawberries in hotbeds have the glasses opened a little behind, every mild day, when the weather is anything favourable, to admit air to them; and let the plants have moderate waterings.

If the heat of the hotbed falls off much, you should renew it, by applying a lining of hot dung to one or both sides of the bed, as you see it necessary. Cover the glasses every night with mats, or other covering.

Now is also a very successful time to place pots of strawberry plants in the hothouse, or in any forcing-houses, &c., and they will bear early in good perfection.—See the *Hothouse*, end of this month, and *Forcing early Fruit*, page 96.

#### PLANTING FRUIT TREES.

Fruit trees of all sorts may be planted any time this month, when the weather is open.

Let every kind be planted at proper distances, both for walls, espaliers, and in standards, that they may have room to grow without interfering with each other in the space of a few years; which is often the case in many gardens, more particularly wall trees.

Peaches, nectarines, and apricots should never be planted nearer than fifteen feet asunder against walls; nor need they be planted more than eighteen or twenty feet distance.

Apples and pears for walls and espaliers should be planted fifteen to eighteen or twenty feet asunder; but in some cases, twenty-five feet is a more eligible distance. especially for some sorts of free-shooting pears; though it appears considerable at first, yet if grafted, &c., upon free stocks, they will readily fill

that space, and bear considerably better than if confined, so as to require to be often shortened to continue them within bounds; however, generally allow those on dwarf stocks not less than fifteen feet, the others eighteen or twenty feet distance.

Plums and cherries, designed for walls and espaliers, should be planted from fifteen to eighteen or twenty feet distance.

The above distances, advised in planting the different sorts of wall and espalier trees, appear a great way, when the trees are first planted: but in seven years' time, the advantage in allowing them proper room will appear; and it should be observed to allow trees planted against low walls a greater distance than for higher walls, in order that, in default of height, there may be proper scope to extend them horizontally.

For the particular soil and situation proper for the different kinds, see the *Fruit Garden in November*.

Standard fruit trees should generally be allowed thirty or forty feet distance; and let none be planted closer than from twenty to thirty feet distance in a garden, especially full standards; and if an orchard is to be planted, let the larger growing kinds of full standard apples and pears, &c., be thirty or forty feet distant every way.

The rule which we advise is, to plant full standard apples and pears not less than twenty-five to thirty feet distance: or dwarf and other small or moderate growing standards; of these kinds, allow eighteen or twenty feet; and standard cherries and plums, twenty to twenty-five feet apart; and almonds, quinces, and medlars, twenty feet; observing these are the least distances; but where there is good scope of ground to allow five or ten feet more room, it will, in the end, prove a greater advantage when the trees arrive at full growth.

Walnuts and chestnuts should be planted thirty or forty feet apart, or more.

Filberts to be set fifteen or twenty feet asunder.

Mulberry trees, twenty to thirty feet distance.

In planting fruit trees of any kind, let care be taken that they are not planted too deep; for that is more material than many planters may imagine. Open for each tree a circular hole, wide enough to receive the roots freely, without pressing against the sides, and about a spade deep. Then, having the trees ready, being dugged up with a good spread of roots, let the ends of the straggling roots be pruned, and cut off such roots as are broken or bruised; then set the tree in the hole, and see that all the

roots spread freely as they should do ; and in depth, so as the uppermost roots be only from about three or four to five or six inches below the general surface.

Break the earth well, and throw it in equally about the roots, and shake the tree gently, that the earth may fall in close between the roots and fibres ; when the earth is all in, tread the surface moderately, to fix the tree properly.

#### SUPPORTING NEW-PLANTED TREES.

SUPPORT tall new-planted standard fruit-trees with stakes, as soon as they are planted, especially those that are in exposed situations, to secure them firmly in their places, and that they may not be rocked about by the wind, which would greatly retard their taking root.

Dwarf fruit trees, with large branchy heads, should also be secured from the power of the wind ; and those against walls should also be fastened thereto : and, if espaliers, fasten them to the rails.

#### DRESSING FRUIT-TREE BORDERS.

LET all the fruit-tree borders be neatly digged, when you have finished pruning and nailing. If they have been digged before, let the surface be loosened where it has been trampled in doing the necessary work about the trees. This will be of service to the trees, and the borders will appear clean and neat, and they will be ready to sow or plant with what you think necessary.

#### GRAFTING.

GRAFTING may be begun about the latter end of the month, if mild weather. Plums, pears, and cherries may then be grafted ; and you may also graft apples. For the method of grafting, see the work of the *Nursery*.

#### FORCING EARLY FRUIT IN FORCING-HOUSES.

THE beginning of this month, if not done before, may begin to force fruit trees in hot walls, peach-houses, cherry-houses, &c., by aid of fire or other artificial heat ; the proper sorts are peaches, nectarines, apricots, cherries, figs, vines, plums, &c., having young trees for this purpose, that are arrived to a bearing state, and planted a year or two before in the borders, &c., of the forcing departments ; or may have some also in pots to remove therein at forcing time occasionally. The trees may be



planted both as wall-trees and espaliers, training the branches to a trellis erected for that purpose; and some may be in dwarf standards: also some cherries, both in small-headed standards, and half standards, and dwarfs; and vines trained up under the sloping glasses. See *Hothouse, December*.

Let moderate fires be made every evening; or if there is a pit within the forcing-house, in which to have a bark or dung hotbed, may make the bed a week or fortnight before you begin the fires; and if a bark-bed is intended, fill the bark-pit with new tanner's bark; or if a dung hotbed, make it with fresh hot horse dung; and when it has settled down ten or twelve inches, lay that depth of tanner's bark at top. These beds will support a constant moderate warmth, and serve in which to place pots of dwarf cherries and pots of scarlet and Alpine strawberries, which will have fruit very early, and in great perfection and plenty. Continue making fires every evening soon after sunset, and support them till nine or ten o'clock, to warm the air of the house till morning, when the fire may be renewed moderately, but not always constantly the whole day: if there is the assistance also of a bark hotbed, unless it is required to forward the trees as much as possible, and in frosty, and very sharp, cloudy, foggy, damp weather. However, where there is no internal hotbed, must continue a constant, regular, moderate fire-heat.

With this management, the trees will soon begin to advance in blossom-buds, &c., when must be careful to continue a regular moderate heat, as above, and to admit air, and give occasional watering.

Admit fresh air to the trees every moderate day when sunny, especially after they begin to bud and shoot, either by sliding down some of the upper sloping glasses two or three inches, or drawing some of the uprights in front a little way open, shutting all close towards the afternoon, or as the weather changes cold; giving air more fully as the warm season increases, and as the trees advance in blossom and shooting.

Give also occasional waterings both to the borders and over the branches of the trees before they blossom; but when in flower, and until the fruit is all fairly well set, desist from watering over the branches, lest it destroy the fecundating male *pollen* of the anthera destined for the impregnation of the fruit.

The fires may be continued till May, being careful never to make them stronger than to raise the internal heat to about 60° in the thermometer, in peach and cherry houses, and 70° in vine houses; for in vineries, having only principally vines in

forcing, the heat is generally continued stronger, as they bear it in a higher degree, whereby to forward the fruit in earliest perfection.

According as the fruit advances to full growth, continue assisting it by proper waterings; and give it free air every warm sunny day; and when advancing towards ripening, encourage a strong heat by the sun in the middle of the day, by admitting less or more air in proportion, to forward its maturity, and promote a rich flavour.

Thus the fruits will ripen early; some, as cherries, will be ripe in April and early in May; grapes, plums, apricots, peaches, &c., in May and June; being two months, or more in some, before their natural season of perfection in the open ground and full air.

When the fruit is all gathered, remove or open all the glasses to admit the full air to the trees till next forcing season.

In the above forcing departments may also place pots of currants, gooseberries, raspberries, and strawberries.

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## THE PLEASURE OR FLOWER GARDEN.

### TENDER ANNUAL FLOWERS. \*

ABOUT the middle, or towards the latter end of this month, it will be time to begin to prepare for sowing some of the more curious sorts of tender annuals.

The choicest kinds are the double balsams, cockscombs, and tricolors, the globe amaranthus, marvel of Peru, diamond fciodes or ice-plant, egg-plant, stramonium, browallia, &c. (See next month.) All these require the assistance of a hotbed to bring them forward, in order that they may blow early, and in some tolerable perfection.

Therefore, about the middle or latter end of this month, provide some new horse dung, and let it be thrown up in a heap, and in eight or ten days it will be in good condition to make the bed. Let the bed be made about two feet and a half thick of dung, making the top level, and then set on the frame and glass. When the burning heat of the bed is over, lay on the earth, observing that, for this use, it must be rich, light, and perfectly dry, and must be broken pretty small, by rubbing it between the hands: the depth of earth on the bed must be about five or six inches, making the surface level and smooth.

The seed may either be sown on the surface, observing to sow each sort separate, and cover them about a quarter of an inch, or a little more or less, with light earth; or you may draw some shallow drills with your finger, from the back to the front of the bed, and sow the seeds therein, and cover them as above, or may sow them in pots, and plunge them into the earth of the hotbed.\*

When the plants appear, admit fresh air to them every day when the weather is anything mild; and let them have, now and then, little sprinklings of water. Mind to cover the glasses every night with mats.

But in raising the above annuals, if it is required to be saving of hot dung and trouble, and that if there are cucumber or melon hotbeds at work, you may sow them in pots, and place them in those beds to raise the plants, which may be afterwards transplanted or pricked in pots in the same, or into a nursery hotbed to forward them to a proper size.—See *April* and *May*.†

For the further management of these plants, and directions for sowing a general supply of the same sorts, together with several other tender annuals, see the work of the *Pleasure Garden* in *March*.

#### SOWING TEN-WEEK STOCKS AND MIGNONETTE.

THE ten-week stock is a pretty annual; none make a more agreeable appearance in the borders and in pots, &c., and it continues a long time in bloom; and the mignonette imparts a sweet odour. It is now time, about the beginning, and towards the middle and latter end of this month, to sow a little of the seed of each, to raise a few plants to blow early in the summer.

The seed may either be sown in a slight hotbed, or in a warm border, or in a bed or pots of natural earth, for the plants are tolerably hardy; but by sowing the seed at this time in a moderate hotbed, it will bring the plants on much forwarder, and the blow will be stronger, and earlier by three weeks or a month, than those sown at the same time in the natural ground.

But where a hotbed cannot readily be procured, some seed

\* For this purpose it must be rich light mould, and perfectly dry. Vegetable mould of decayed tree leaves is the best. It must be broken fine, or put through small riddles. The depth of mould on the bed should be from five to six inches. Make the surface level and smooth. Draw shallow drills across the bed at six or eight inches apart, and as some of those seeds are very small, they must not be covered deep; about a quarter of an inch of fine leaf-mould, sifted regularly over them, will be sufficient. Give the surface a gentle beat with the back of a spade, and give a gentle sprinkling of water when necessary.

† A sufficient number of plants of these sorts may be generally raised in the above way.

may either be sown in one or more middling-sized pots, placed under shelter of a frame and glasses, or hand-glasses, &c., or toward the middle or latter end of this month, let a small spot of a warm border be neatly digged, and there mark out a bed about three feet broad; sow the seed tolerably thick on the surface; and rake it neatly, or may be sown in drills: then arch the bed over low with hoops, and cover them with mats every night, and in bad weather. But if the above bed of natural earth could be covered with a frame and glass, or with hand-glasses, it would be a greater advantage to the plants.

When the plants have been up about a month or six weeks, they should be transplanted where they are to remain.

But if your plants stand thick in the seed-bed, some of them, when they have been up about three or four weeks, or when about an inch high, may be pricked out, either in a slight hot-bed, which will forward them considerably, and some in small pots placed therein, three plants in each, or others upon a warm border, three inches asunder; and when they have stood a month, all those not potted should be planted where they are to remain.

#### HARDY ANNUAL FLOWER-SEEDS.

ABOUT the latter end of this month, if the weather is mild and dry, you may sow many sorts of hardy annual flower-seeds in borders, and other parts of the pleasure garden.

The sorts proper to sow at this time are larkspur and flos Adonis, convolvulus, lupines, scarlet pea, sweet-scented and Tangier peas, candy-tuft, dwarf lychnis, Venus' looking-glass, Löbel's catch-fly, Venus' navel wort, dwarf poppy, nigella, queen's balm, annual sun-flower, oriental mallow, lavatera, and hawk-weed, with many other sorts.—See the Catalogue of annuals at the end of the book.

All the above seeds must be sown in the places where you intend the plants shall flower, in beds, borders, pots, &c. They must not be transplanted, for these sorts will not succeed so well by that practice. The following is the method:—

Dig with a trowel small patches in the flower-borders, about six inches in the width, at small or moderate distances, breaking the earth well, and making the surface even; draw a little earth off the top to one side, then sow the seed therein, each sort in separate patches, and cover it with the earth that was drawn off, observing to cover the small seed about a quarter or

near half an inch deep, according to their size; but the larger seed must be covered an inch deep at least.

When the plants have been come up some time, the larger-growing kinds should, where they stand too thick, be regularly thinned; observing to allow every kind, according to its growth, proper room to grow.

For instance, the sunflower to be left one in a place; the oriental mallow, and lavatera, not more than three; the lupines four or five in a patch, the convolvulus, the same number; the rest may be left thicker.—See *May*, &c.

#### BLOWING ANNUALS EARLY IN A HOTHOUSE.

Any sorts of desirable annuals of moderate growth may be flowered early in a hothouse, with little trouble, sowing the seeds in pots, and placing them in any part of the house, or towards the front or end glasses; or, to have them as forward as possible, some may be plunged into the bark-bed, &c.

#### PLANTING HARDY HERBACEOUS FIBROUS-ROOTED FLOWERING PERENNIALS.

Now you may plant, where wanted, most sorts of hardy fibrous-rooted flowering plants, both of perennials and biennials, if mild open weather; such as polyanthus, primroses, London-pride, violets, double daisies, double chamomile, thrift, genti-*anelli*, hepaticas, and saxifrage.

Plant also rose-campion, rockets, campanula, catch-fly, scarlet-lychnis, double feverfew, bachelor's-button, carnations, pinks, sweet-williams, columbines, Canterbury-bells, monkshood, Greek valerian, tree primrose, foxglove, golden rods, perennial asters, perennial sunflowers, holyhocks, French honeysuckles, and many others.

In planting the above, or any other sorts, observe to dispose them regularly, and intermix the different kinds in such order, as there may be a variety of colours, as well as a regular succession of flowers in every part during the flowering season.

#### DRESSING THE AURICULA PLANTS.

Now, in settled mild weather, prepare to dress the auricula plants in pots, and add some fresh earth to them, provided it was not done the latter end of January. But this is now a more proper season for performing this necessary work, observing the same method as directed last month; and the sooner it is now done the better.

The choice kinds of auriculas in pots must now be treated with more than ordinary care, for their flower-buds will soon begin to appear; therefore the plants should be defended from frost and cold heavy rains.

This must be done by a covering of mats, canvas, or glass; but every mild and dry day the plants must be entirely uncovered.

#### SOWING AURICULA AND POLYANTHUS SEEDS.

AURICULA and polyanthus seeds may be sown any time in this month; they will grow freely, and the plants from this sowing will rise well. The seeds may be sown in a warm spot in the common ground, or in boxes, or large pots filled with light rich earth; but the pots or boxes are often preferred, because they can readily be removed to different situations, as the season may require.

The seeds must be sown tolerably thick, and covered with light earth, about a quarter of an inch deep.

Place the boxes in a situation well defended from northerly winds, and open to the morning and mid-day sun; in two months or ten weeks' time, they must be removed to a more shady place.

In June or July they will be fit to transplant; for which, see the work of the *Flower Garden* in those months.

#### TRANSPLANTING CARNATION PLANTS.

TRANSPLANT the carnation plants in mild weather, which were raised last year from layers, into the large pots and borders, &c., where you intended them to remain to blow, if not done in autumn; let this be done about the latter end of the month, if the plants are in tolerable strength.

Those intended for pots should generally be some of the choicest fine varieties; and if the plants have been wintered in small pots, or in beds, &c., you may now, if settled mild weather, transplant them finally into the proper-sized pots (twenty-four, or sixteens), to remain for flowering.

Fill, for that purpose, some pots with light rich earth; then having any plants in small pots, turn them out with the ball of earth about their roots, entire; or, if growing in beds, take them up also with balls, or as much earth as will readily hang about their roots; set one plant in the middle of each large pot, and close the earth well about the roots and stem of the plants, giving them immediately a moderate watering, which

will settle the earth close to the roots, and the plants well in their places.

When all is planted, set the plants in a situation well sheltered from cold winds.

Likewise plant carnations in the flower borders, in open weather, the middle or latter end of the month.

#### TULIPS, HYACINTHS, &c.

DEFEND the beds of the more curious or valuable tulips, hyacinths, anemones, and ranunculuses, from frost, snow, and excessive rains; the plants will now begin to appear above ground; and the beds wherein the finest of these flower-roots are planted should now, where intended, and if not done before, be arched over with hoops; and in frosty, or extremely bad weather, let mats or canvas be drawn over to defend the advancing flower-buds.

This, where it can be conveniently done, should not now be omitted to the choicest kinds, when required to have them blow in their ultimate perfection; for although they are hardy enough, yet being protected in their early flower-buds this and next month from inclement weather, the blow will be much finer than if fully exposed; however, this care is not necessary for the common kinds, either in beds or borders.

#### DRESSING AND DIGGING THE BORDERS, BEDS, &c.

Now let the flower-beds and borders in general be thoroughly cleared from weeds, and every kind of litter; for neatness in those parts of the garden is agreeable at all times, but more particularly at this season, when the flowers and plants of most kinds are beginning to push.

Therefore, let the surface of the beds and borders be lightly and carefully loosened with a hoe, in a dry day, and let them be neatly raked, which will give an air of liveliness to the surface, and the whole will appear neat and very pleasing to the eye, and well worth the labour.

Likewise, if any borders, beds, &c., were not dug last autumn or winter, it should now be done, ready for the reception of flower plants, seeds, &c., and that the whole may appear fresh and lively.

#### PRUNING FLOWERING SHRUBS.

FINISH pruning flowering shrubs and evergreens, where they want it.

In doing this work, observe to cut out all dead wood; and where any of the branches are too long, or grow straggling, let them be shortened, or cut off close, as you shall see it necessary; and likewise, where the branches of different shrubs interfere, or run into each other, let them be cut shorter, so that every shrub may stand singly, and clear one of another; then all the different shrubs will show themselves distinctly, and to the best advantage.

When the shrubs are pruned, let the cuttings be cleared away, and then let the ground be neatly dug between and about all the plants, observing to take off all suckers arising from the roots. Nothing looks better in a shrubbery than to see the ground neat and fresh between the flowering shrubs and evergreens, &c., especially in such clumps and other compartments where the shrubs stand distant.

But as sometimes particular parts of a shrubbery are on some occasions required to form a close thicket, in that case very little pruning, or digging, &c., is wanted.

#### PLANTING FLOWERING SHRUBS.

MOST sorts of flowering shrubs may now be safely removed any time this month when it is open weather.

But particularly the Guelder-roses, syringas, laburnum, lilacs, honeysuckles, roses, spiræas, and althæa-frutex, hypericum-frutex, Persian lilac, double-blossomed cherry, double bramble, cornelian cherry, and double hawthorn: you may likewise plant bladder-senna, scorpion-senna, privet, Spanish broom, jasmines, sunach, cistuses, and acacias, with many other sorts of hardy deciduous shrubs, which may now be safely transplanted; for most sorts will take root very freely and soon at this season.

#### PLANTING EVERGREENS.

ABOUT the middle, or any time in this month, if settled mild weather, you may transplant phillyreas, alaternus, yews, evergreen oaks, junipers, hollies, phlomis, savins, vines, firs, cypress, cedars, laurels, laurustinus, pyracantha, arbutus, arbovitæ, cistuses, with most other kinds of hardy evergreen shrubs and trees.

#### DIRECTIONS FOR PLANTING THE VARIOUS SORTS OF SHRUBS, &c

In planting and decorating the clumps and quarters in the shrubbery, care should be taken to dispose the various sorts of flowering shrubs and plants in such order, as that the different



kinds may be easily seen conspicuously distinct from the adjacent walks or lawns. They should not be planted too close together, but generally about four or five feet distance; nor should they be suffered, as they grow up, to interfere with each other; for that would deprive you of the pleasure of seeing the different shrubs to advantage.

When any of the more curious kind of shrubs are to be conveyed to any great distance for planting, great care should be taken to pack them well; they should be tied in bundles, and their roots well packed round with straw, and every bundle packed up in mats.

Likewise any sorts of shrubs obtained from nurseries in bundles should be soon unpacked, and trenched in the ground together by the roots, till they can be planted.

#### CARE OF GRASS WALKS AND LAWNS.

Grass walks and lawns should be kept extremely clean; now the season for mowing begins to approach; pole and roll them every week, in dry open weather; a wooden roller is best to roll with immediately after poling, to take up the scattered worm-casts; and when the grass is thus clean, and the surface dry, it should be rolled occasionally with a heavy roller, to make the bottom firm and smooth.

The edges of the grass walks or lawns should be all neatly cut even with an edging-iron about the end of this month, which will be a vast addition to the neatness of them.

#### LAYING TURF.

Grass turf may be laid any time this month, where wanted, either to make new or mend old work, for it will now grow freely with little trouble; observing to beat it well, and roll it with a heavy roller now and then, to make the surface firm and even.—See last and next month.

#### GRAVEL WALKS.

Keep the gravel walks perfectly free from weeds, moss, and litter of any sort; and let them be well rolled occasionally in dry weather.

#### PLANTING HEDGES.

Plant hedges where wanted, especially deciduous kinds; such as hawthorn, privet, white-thorn, hornbeam, beech, elder, elm, &c.—See *December*, for the method of planting.

Likewise is a proper time to plash old hedges, that are run up naked, or open below.—See also *December*.

PLANTING BOX, &c., FOR EDGINGS TO BEDS AND BORDERS.

Box, for edging to borders, &c., may be planted any time in this month; it will take root in a short time, and there will be no fear of its success; likewise, where there are gaps in any former planted edgings, let the deficiencies be made good; also old overgrown or irregular edgings replanted: for nothing looks worse than ragged and irregular box edgings by the sides of the walks.

For the method of planting box, see the *Flower Garden* for *October*.

Thrift makes a very compact and beautiful edging if planted properly and well kept. This may be planted any time this month, either in a close edging, in the manner directed for box (see *October*), or planted with a dibble, setting the plants near enough to touch one another, so as at once to form a tolerably close edge-row, as aforesaid, or however not above two or three inches asunder; and if you give it two or three good waterings in dry weather, it will grow freely.

Double daisies make also tolerably good edgings, and may be employed both in default of the two former, and to effect variety in particular compartments, and will make a good appearance in April, May, and June, when in flower. Let them be planted nearly close, or not more than two or three inches' distance in the row.

Thyme, hyssop, winter savory, and lavender, are sometimes planted for edgings to borders; but these rather grow out of compass, or get stubby and naked, by close clipping.

But after all, there is nothing makes so neat, effectual, and durable edging as box.

All edgings should be kept very neat and regular, by trimming them at sides and top every spring and summer.—See the succeeding months.

FORCING EARLY FLOWERS, &c.

Where early flowers are required, you may, in the beginning of this month, place various sorts in pots, in hothouses, forcing-houses, &c., now at work, and in hotbeds; such as pots of pinks, carnations, sweet-williams, anemones, ranunculuses, narcissuses, early dwarf tulips, hyacinths, jonquils, and any other ornamental and sweet-smelling flowers, both of the fibrous,

bulbous, and tuberous-rooted kinds, and they will blow early and in good perfection.

Likewise may have pots of roses, and other desirable flowering plants, placed now in the hothouse, or any forcing department.

About London the gardeners force various flower plants for market, which is sometimes effected in boarded forcing-frames, with the assistance of hot dung, applied to the back part thereof; these frames being constructed of strong inch and half boards, made five, six, seven feet high behind, the ends in proportion, and fronted with glass sashes sloping to the top of the back; four, five, or six feet wide at bottom, by one foot at top; the length at pleasure; and in which placing pots of plants and shrubs, hot dung is piled against the back and ends, half a yard wide at bottom, gradually narrowed to a foot wide at top. The dung throws in a fine heat, and the plants flower agreeably at an early time: keeping up the heat when decreased, by the application of fresh hot dung.

Though, since hothouses have become so prevailing, these kind of frames are not generally used.

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## THE NURSERY.

FINISH digging the ground between the rows of all kinds of young trees and shrubs,\* first giving any necessary pruning that may be required.

This work should now be completed as soon as possible, for it will not only destroy all surface-weeds, and render the ground neat and agreeable to be seen, but will be also advantageous to the growth of the young trees and shrubs.

### PROPAGATING BY CUTTINGS, &c.

PLANT cuttings of gooseberries and currants; by which method you may propagate the finest sorts in their kinds, and may also propagate them by suckers.

The cutting for this purpose must be of the last year's shoots, observing to take such as are strong, of straight growth, and cut about ten or twelve to fifteen or eighteen inches in length; plant them in rows, not less than twelve inches asunder, and put each cutting about one-third or half way into the ground

\* *i. e.* These which are to remain in the same ground for another year.

they will soon take root, and will shoot out at top, and form tolerable branchy heads by the end of the summer, and in a year or two after will produce fruit.

By suckers also may now raise these trees in abundance. They commonly throw out many every year from the bottom.—See *Propagating by Suckers*, below.

Be careful to train these trees always with a single stem, six or eight to ten or twelve inches high, before you form the head.

Plant also cuttings or honeysuckles, and other hardy flowering shrubs and trees; as many different sorts may be propagated by that method.

The cuttings must be shoots of the former year's growth: choose such as have strength, cutting them from the respective trees and shrubs in proper lengths; or long shoots may be divided into two or more cuttings, which should not be shorter than six inches, nor longer than twelve. Plant them in a shady place, in rows a foot asunder, at six or eight inches' distance in the row, putting each cutting half way into the earth.

Most kinds of cuttings which are planted now will be well rooted by next October.

#### PROPAGATING BY SUCKERS. \*

MANY kinds of shrubby plants furnish abundance of suckers from the root for propagation, particularly gooseberries, currants, roses, lilacs, syringas, and many other hardy shrubs; and the suckers may now be separated from the parent plants, each with some roots, and planted either in nursery rows for a year or two, or the largest, at once, where they are to remain.

#### PROPAGATING BY LAYERS.

PROPAGATE by layers, this being a tolerable good season to make layers of all such shrubs and trees as are increased by that method: though the best time to do this is some time between Michaelmas and Christmas; but where it was omitted at that time, it may now be done, and most kinds will still succeed.

In making layers of any kind of trees or shrubs, observe to dig round the plant that is to be layed, and as you go on bring down the shoots or branches regularly, and lay them along in the earth, with their tops above ground, fastening them securely there with hooked pegs, and then let all the young shoots on each branch be neatly layed, and cover them three or four inches deep with earth, leaving the top of each tree or four to five or six inches out of the ground.—See last month.

It may be of advantage, in laying some of the more hard-wooded kinds, to gash or slit the layers an inch or two, by an upward cut on the under side, as intimated in the *Nursery* work of *January*.

Most kinds of layers, which are now layed, will be tolerably well rooted, and fit to be transplanted by next Michaelmas; some not till the second year.

#### TRANSPLANTING LAYERS.

TAKE off the layers of such shrubs and trees as were layed down last year, and which still remain on the stools.

Let the layers, as soon as they are taken off, be trimmed and planted in rows in an open situation: let the rows be twelve to eighteen inches or two feet asunder, according to the size of the plants; and put in the plants about twelve or fifteen inches distant in the row.

#### SOWING STONES AND KERNELS, &c., TO RAISE STOCKS FOR GRAFTING, &c.

Sow plum and cherry-stones, &c., if not done in autumn; and also the kernels of apples and pears, to raise a supply of stocks to bud and graft upon.

They may be sown any time this month, in mild weather, but the sooner the better; observing to choose a spot of perfectly clean and light ground to sow them in; let them be sown in beds, three or four feet wide, covering them about an inch deep with earth.

The plants from this sowing will be fit to transplant next Michaelmas and spring.

#### SOWING SEEDS OF SHRUBS AND FOREST TREES.

Sow likewise the seeds, nuts, and berries, &c., of hardy forest-trees and shrubs. These may be sown the beginning or any time of the month, in open mild weather. Prepare beds for this purpose three feet and a half broad: let the seed be scattered or placed thereon as regular as possible; and cover each kind a proper depth with earth; none less than half an inch, nor any much more than an inch and a half deep, except any large nut kinds.

#### TRANSPLANTING FLOWERING SHRUBS.

FLOWERING shrubs of all kinds may now be safely transplanted, any time when open weather, from the seed-beds or nursery

rows, where standing too close, and planted in wider rows, in the quarters, or in beds, &c., as required; and if the weather and time will permit, this work should be completed by the latter end of the month.

#### PRUNING AND TRIMMING FLOWERING SHRUBS.

FINISH pruning or trimming flowering shrubs in nursery rows, according as they may require, whereby to regulate any disorderly growths, and to train the heads in some regular form.

In doing this work, it would generally be proper to prune or train the young plants mostly to short single stems below; and where the heads of any shrubs are very irregular, or run out in rambling shoots, let them be reduced to some order and form, by cutting out or shortening such as may require any regulation, whereby to form a somewhat orderly shape in the general head. Likewise suckers arising from the roots should generally be cleared off, and if carefully detached with some roots to each, the best of them, if wanted, may be planted in nursery rows at proper distances: they will make good plants in two or three years' time; and the mother plants being cleared therefrom, will be preserved in a more regular proper growth.

After the above occasional pruning, let the ground be dug between the rows of the continuing shrubs, if not before done; digging it one spade deep, in a neat regular manner, to remain in good cultivated order all the spring and ensuing summer.

#### TRANSPLANTING AND PRUNING FOREST AND OTHER TREES.

TRANSPLANT young forest-trees, and other tree-kinds, of young growth, according as it may be necessary, from seed-beds or nursery rows, &c., where they remain too close; and let them be quartered out or planted regularly in the proper nursery order, in rows, twelve to eighteen inches or two or three feet distance, as the different sizes of growth and particular sorts require; or nursery trees of larger sizes, if too considerably crowded, &c., may also be transplanted at more eligible distances in rows, two or three feet asunder, finally to remain as long as it is necessary in their nursery growth.

Prune young nursery trees of different sorts, especially of the deciduous kinds, both forest, ornamental, and fruit-trees, according as they may require: cutting away all strong lateral shoots produced on the stems, and prune any irregular growths above, in the branches of the head.

## TRANSPLANTING FRUIT TREES.

FRUIT trees of any kind may also be removed now; and there is no time in the planting season in which they will succeed better, especially if transplanted soon in the month; but all kinds of these trees may, with great safety, be removed any time in the month, when mild weather.

## TRANSPLANTING STOCKS TO BUD AND GRAFT UPON.

MAKE new plantations of stocks, to bud and graft the different kinds of choice fruit upon.

Many of those raised from seeds, &c., last year, will now be ready for this practice.

Let these be planted out as soon in the month as the weather will permit; plant them in rows two feet and a half asunder, and let them be planted at least fifteen inches' distance from one another in the row. They should be planted by line, either dibbling in the small plants, or the larger ones trenched or hoed in with the spade; or otherwise cut out small trenches by lines, placing the plants therein, at the above distance, and turn the earth in upon their roots, and tread it gently along.

## HEADING-DOWN BUDDED STOCKS.

HEAD-DOWN budded stocks, or such young trees and shrubs that were budded the last summer: let this be done with a sharp knife, observing to cut the head off about four inches above the place where the bud is inserted.—See the work of budding and inoculating in *June* and *July*.

## PREPARING FOR GRAFTING.

GRAFTING may be begun any time after the fifteenth or twentieth of this month, provided the weather be mild.

The sorts proper to begin with are, pears, plums, and cherries; and these kinds generally succeed remarkably well, when grafted sometime in the last fortnight of this month.

Apples may also be grafted at the same time, or they may be deferred a fortnight longer, or any time next month.

It should be observed, that, where grafting is to be done, you should begin to prepare for it the beginning or middle of this month.

The first thing to be done towards this work is, to select the grafts: and it must be observed, these must be young shoots, such only as were produced last year; for those that are of



more than one year's growth never take well. These shoots or grafts you may begin to cut from the trees about the middle of any time of this month, in mild weather; tie them in little bundles, each sort separate, and lay the lower ends of them in dry earth, in a warm border, till the grafting time; and if severe weather should happen in the interim, cover them with long litter.

The reason for cutting the grafts so soon is, because the buds will now begin to swell fast; and if the grafts were not to be cut off in proper time, the buds would be too far advanced, and the grafts would by that means not take kindly with the stock, or, at least, not shoot so freely.

Before we proceed to the methods of grafting, it will first be necessary to mention what stocks are proper to graft the different kinds of fruit upon; for instance, apples should be grafted upon stocks raised from the kernels of the same kinds of fruit, *i. e.* any kinds of apples; for the grafts or buds of these trees will not take well upon any other stocks.

It should be observed, that for dwarf apple-trees for walls or espaliers, or for small standards, they should generally be grafted upon codlin apple stocks, raised either from suckers from the root, or by cuttings or layers: for the stocks raised from these are never so luxuriant in growth as those of the larger growing apple-trees; and, consequently, trees grafted upon such stocks will be slower in growth, and can more easily be kept within due compass, so will answer the purpose for dwarfs or espaliers, &c., much better than those grafted on larger growing stocks. Or if required to have them of still more dwarfish growth for small gardens, may use stocks of the Dutch paradise apple, and Siberian crab, &c.

But for the general supply of apple-stocks for common standards, and large espalier trees, &c., they are raised principally from the seed of any sort of apples or wild crabs. The time for sowing the kernels of apples for stocks is either in November or February; but if not sown till February, they must be kept in sand till that time. These are to be sown in beds three feet and a half wide, observing to sow them moderately thick, and cover them about an inch at least with earth. The plants will come up in five or six weeks; and in the autumn or spring following some of the largest plants should be drawn out and planted in nursery-beds; and in the second or third year after, they will be in order to graft upon for dwarfs; but for standards, let them be three, four, or five years old, particularly if you



intend to graft them at the height of four, five, or six feet; or may occasionally graft for standards as low as is commonly practised for dwarfs, and train up one strong shoot from the graft, to form the stem four, five, or six feet high, then topped at that height, to make it put out branches to form the head.

Pears are generally grafted or budded upon stocks raised also from kernels of any of their own kinds of fruits; or occasionally upon stocks raised from suckers of pear-trees; likewise are very commonly grafted upon quince stocks, whereby to have trees of more moderate growth, and to form dwarf trees, and which stocks are generally raised by seed, cuttings, layers, or suckers; and the pears grafted or budded upon these stocks are very proper for walls or espaliers, and occasionally for small standards. Sometimes also pears are grafted upon whitethorn sticks; but this is improper for any general practice, being not so successful as stocks of their own family. The season for sowing kernels of pears to raise stocks, transplanting, and time of grafting, is the same as mentioned above for apples.

Cherries are propagated by grafting or budding them upon stocks raised from the stones of the common black or red cherry, or upon stocks raised from the stones of any other kind of these fruits; but the first two are most esteemed for that purpose, because they generally shoot much freer than any other.

The season for sowing the cherry-stones for raising stocks is October or November, or in the spring; but when not sown till spring, they must be laid in boxes of dry sand all the winter, and sown in February. The stocks will be ready to transplant the first or second year; and the second year after that will be fit to graft or bud, if for dwarfs, for walls, or for espaliers: but for standards they will require three or four years' growth, or more, in order to run up with tall stems; for standard cherries are generally grafted or budded at the height of five or six feet, or at one or two to three or four feet, for dwarf and half standards.

Plums are also grafted or budded upon plum stocks, raised by sowing the stones of any of the common sorts of the same fruit; also raised occasionally by suckers sent up from the roots of any kinds of plum trees.

The time for sowing the stones to raise the stocks is either in autumn or spring; but when they are not sown till spring, they must be preserved in sand till that time; and the middle of February is a good time to sow them. They will soon sprout, and the stocks will come up in a free growth, and must be

transplanted, some of the largest of them in the autumn or spring after sowing, and in two or three years after will be fit to bud or graft upon.

Thus observe as above; let the stocks for grafting, both of fruit-trees and others, be always of the same family or genus as that of the respective trees which are to be grafted.

*Note.* Stocks in general, which are raised from seed, being mostly of a stronger growth, are commonly called free stocks.

#### GENERAL OBSERVATIONS FOR PERFORMING THE WORK.

THERE are several methods of grafting; but we shall only take notice of three or four, which are the most generally and occasionally practised, such as Whip-grafting, Cleft-grafting, Crown-grafting, and Grafting by Approach, or Inarching.

Previous to grafting, you must be provided with a proper grafting-knife, a quantity of strong bass strings for bandages to tie the stocks and grafts firmly together, and some well-wrought clay, to clay them round over the tying to secure them from the air and wet.

Observe that the stocks intended to be grafted, must, previous to the insertion of the graft, be headed down; which, if intended for dwarf trees, for walls or espaliers, must be headed pretty low, *i. e.* within five or six inches of the ground: but if for standards, they may either be headed at five or six feet high, or at one, two, three, or four feet, for dwarf or half standards, or occasionally, for standards some may be headed as low as directed for dwarfs, particularly apples and pears, and so train up one strong shoot from the graft for a stem till it is five or six feet high; then topped or cut off at that height, to cause it to throw out branches to form the head.

#### FIRST, BY WHIP-GRAFTING.

THIS kind of grafting is that the most commonly practised in the nurseries, as being both the most expeditious and successful, and may be performed upon smaller stocks by one or two years' growth, and thereby gain time; for it is effected with the greatest success upon small stocks, from about half an inch, or less, to near an inch in diameter: but commonly prefer small stocks of about half an inch thick in the part intended for the insertion of the graft; and the method of performing the work is this:—

Having your scions or grafts, &c., ready; then begin the work by cutting off the head of the stock slopingly, at a convenient

height, according to the rules above hinted; this done, fix upon a smooth part of the stock, where headed off, and there cut away the bark or rind, with part of the wood, in a clean sloping manner upwards, about an inch and a half to two inches in length, then having the scions cut into lengths of four or five eyes each, prepare one to fit the stock, as above, by cutting it also a little sloping, so as to exactly fit the cut part of the stock, as if cut from the same place, that the rinds of both may nearly join in every part; then cut a slit or tongue about half an inch in length upwards in the scions, and cut a slit the same length downwards in the stock, to receive the said tongue; in that manner fix the graft in the stock, taking care that the sap or rind of both may meet or join as exact and evenly as possible in every part. Having thus fixed the graft, let it be immediately tied with a string of soft bass, bringing it in a neat manner several times round the graft and stock, taking care to preserve the graft in its due position; and let the bandage be neatly tied, and immediately cover the place with some grafting clay, observing to bring the clay near an inch above the top of the stock, and a little lower than the bottom part of the graft, leaving a due thickness on every side of the graft and stock, making it in a roundish oval form, and taking care to close it well in every part, that no wet, wind, or sun can enter, to prevent which is the whole intention of the clay; for without that precaution, the operation would prove fruitless; and in this manner proceed with the rest.

In performing the operation of whip-grafting, some grafters first cut and prepare the scion, and then cut and fit the stocks to that; but it is not material which, provided it be done in an exact and somewhat expeditious manner.

Next it must be noted, that the grafts must be now and then examined, to see if the clay anywhere falls off or cracks: if it does, it must be renewed with fresh clay.

By the last week in May, or first week in June,\* the grafts or stocks will be well united; and then take off the clay, and loosen the bandages a little.

#### SECOND, BY CLEFT-GRAFTING.

THE next general method of grafting is that by clefting the stock, commonly called cleft or slit-grafting, because the stock is cleft, and the graft put into the cleft part; and is performed in the following manner:—

\* In Scotland, by the last week in June, or first week in July.

The proper sized stocks on which this kind of grafting is performed are generally about an inch, or an inch and a half, and even two inches or more, in diameter. First, with a strong knife, cut off the head of the stock very smooth; this done, fix upon a smooth part, just below where headed, and on the opposite side to that, cut away part of the stock, about an inch and a half, in a sloping manner upwards, so as the crown of the stock may not be more than about half an inch broad. This done, prepare your graft or scion, which is done in this manner: observe to cut your grafts into proper lengths, of about six to eight or ten inches, with several eyes or buds to each; then take your sharpest knife, and pare away the bark and some of the wood at the lower end of the graft in a sloping manner, about an inch and a half, or near two inches in length, on two sides, making it to have a wedge-like shape; but let one side of it, which is to be placed outwards in the stock, be left double the thickness of the other side, and with the rind continued thereon. The graft being prepared, take your strong knife, and place it in the middle of the stock, crossways the top of the sloped part, and with a small mallet, &c., strike the knife to the stock, observing to cleave it no farther than what is necessary to admit the graft readily; then place the knife, or some small instrument, a little way into the cleft, at the sloped part of the stock, to keep it open for the reception of the graft, which then directly introduce into the cleft on the upright side of the stock, at the back of the slope, inserting it with great exactness, as far as it is cut, with the thickest edge outwards, and so that the rind may meet exactly every way with the rind of the stock. The graft being placed, then remove the knife or wedge, taking care not to displace the graft; this done, let it be tied and well clayed, in the manner directed as above, in the work of whip or tongue-grafting.

Or if, in this cleft-grafting, you choose to put in two grafts, it may be performed on large stocks, which must be twice cleft, the clefts parallel to each other, and so fix the grafts in the stock, as above.

This kind of grafting may likewise be performed on the branches of trees that already bear fruit, if you desire to change the sorts.

The grafts will be united with the stocks by the last week in May, or the beginning of June; and then take off the clay, and loosen the bandages, and apply fresh clay at the top of the stock.

## THIRD, BY CROWN-GRAFTING.

THE third kind of grafting is known by the name of crown-grafting, as sometimes three, four, or more grafts are inserted round the crown of the stock, in a circular order, introduced betwixt the bark and the wood.

This way of grafting is commonly practised upon such stocks as are too large and stubborn to cleave, and is often performed upon the branches of apple and pear trees, &c., that already bear fruit, when it is intended to change the sorts, or to renew the tree with fresh bearing wood.

The manner of doing this sort of grafting is as follows:—

First, to cut off the head of the tree or stock level, or of any particular branch of a tree which you intend to graft, and pare the top perfectly smooth; then prepare your grafts, which is done by cutting one side flat and a little sloping, about two inches in length, making a kind of shoulder at the top of the cut, to rest on the head of the stock; and pare off only a little of the bark toward each edge of the other side of the graft; then prepare to insert it, which, in this order of grafting, must be effected by introducing the cut part down betwixt the bark and wood of the stock; first slitting the bark or rind from the top downwards, clean through to the firm wood, two inches or two inches and a half in length; and having a small thin wedge of iron or wood, and opening the rind of the stock a little at the top of the slit, introduce the wedge gently down betwixt the wood and rind, far enough to make way for admitting the graft: then drawing out the wedge, insert the graft in that part with the cut sloped side towards and close to the wood of the stock aforesaid, slipping it nearly down the length of its cut part, resting the shoulder thereof, prepared as above, upon the top of the stock; and in this manner you may put four, five, or more grafts, as may seem convenient, upon each stock, and bind them round with strong bass.

When the grafts are all thus fixed, you must then immediately apply a good quantity of well-wrought clay, bringing it close about the stock and grafts, observing to raise it at least an inch above the top of the stock, in a rounding manner, so as to throw the wet quickly off, and prevent it lodging or getting into the work, which would ruin all.

Those trees which are grafted this way, generally succeed prosperously; but for the first year or two after grafting, the grafts being liable to be blown out of the stock by violent winds,

this must be remedied by tying some firm sticks to the body of the stock or branch that is grafted, and the grafts tied to the sticks.

The best time for performing this kind of grafting is in the last week in March, or the first week in April; for then the sap will begin to be more in motion, which renders the bark of the stock much easier to be separated from the wood, to admit the graft.

These grafts will be pretty well united with the stock by the end of May, or beginning of June.

#### FOURTH, GRAFTING BY APPROACH, OR INARCHING.

ANOTHER way of grafting, occasionally practised, is called Inarching, or Grafting by Approach; but is not eligible for any general practice, only chiefly for particular trees, that do not propagate freely by any other method, and for some occasions of curiosity.

The method of performing the operation is this:—

When it is intended to propagate any kind of trees or shrubs by this manner of grafting, it must be observed, that the stock you would graft upon, and the tree from which you would take the graft, must stand so near, or can be placed so near, that the branch you would inarch can, as it grows upon the parent tree, be brought to approach and join readily to a convenient part of the stock, thereby forming together a sort of arch; hence it is called *Inarching*, &c.; for the graft is not to be separated from the mother-plant till some months after performing the operation; nor is the head of the stock to be cut off till that time, except you cannot otherwise conveniently fix the graft.

For instance, either having the stocks and the trees designed for inarching growing in the full ground near together, or have one or both in pots, to place near each other as required; or that you want to inarch some branches of trees, &c., that are three, four, or five feet, or more, from the surface of the ground, and suppose the stocks you would graft upon to be in pots; in that case may erect a kind of slight stage, as high as the branches of the tree; upon this stage the pots which contain the stocks must be placed. Thus far observed, then, in either case, proceeding to the work, take one of the branches you desire to inarch, and bring the body of the said branch to touch that of the stock, at such a convenient height, where the stock and graft is nearly of a size, and mark the parts where the graft and stock will most readily join together; then, in that part of

the branch, pare away the bark and part of the wood, about three inches in length; and in the same manner let the rind and wood be pared off that side of the stock where the branch is to be joined, the same length and breadth, so that both the cut parts may exactly join, rind to rind; then cut a slit upwards in the branch, near an inch long, forming thereby a sort of tongue, and make a slit of the same length downwards in the stock, to receive the said tongue of the branch; then let them be joined, placing the branch with the top upright, slipping the tongue of the graft into the slit made in the stock; and see that the cut parts join in an exact manner, and let them be immediately tied together with some bass, and afterwards cover over the place with a due quantity of well-wrought clay, very well closed, that no air or wet can penetrate.

After this, let a stout stake be driven into the ground, and that part of the stock and graft must be fastened to it, which prevents the graft from being displaced by the wind.

Remember that the stock and graft are to remain in that position for at least fifteen or sixteen weeks, when they will be well united; the graft is then to be separated from the mother-plant, being careful to do this with a perfect sharp knife, cutting off the engrafted branch with a slope downwards to the stock, and, if not done in grafting, the head of the stock must now be cut close to the graft. The old clay and bandage are at this time to be taken off; and at the same time it would be advisable to tie them again gently, and also to put them in fresh clay, which will still be of great service, and let them remain so for a month or five weeks.

By this kind of grafting, you may raise almost any kind of tree or shrub; and it is often practised by way of curiosity, to ingraft a fruit-bearing branch of a fruit-tree upon one of the common stocks of the respective sorts, by which means there is raised a new tree, bearing fruit, in a few months; this is sometimes practised upon orange-trees, &c., by grafting fruit branches on stocks raised to a proper size from the kernels of the fruit.

*Note.* In this method of grafting, the stocks may occasionally be both in the full ground or in pots; the latter is necessary where the branches of the trees you would inarch are not near enough the ground, or for orange and other green-house trees and shrubs; but as for such trees and shrubs as grow in the common ground, and whose branches are favourably situated for that work, there may be stocks placed either in pots, or

planted in the ground near the said trees, &c., or it may be performed on stocks or trees that grow accidentally near.

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## THE GREEN-HOUSE.

THE green-house should have good attendance at this season; both to give the plants occasional waterings and admissions of fresh air, as also, if severe frosts should prevail, to give necessary protection, as in January.

In open mild weather, they will need refreshments of water now and then, and daily admission of external air; but will not now require water all alike, nor all at one time: though all should enjoy an equal benefit of fresh air, by opening the windows every mild day.

Examine, therefore, the tubs and pots separately, to see which want water, and which do not; then let water be given accordingly, only where necessary, and always very moderately; a little will be serviceable, but too much will be of bad consequence at this season.

Oranges, lemons, and myrtles, and most other of the woody plants, will require water frequently; but never give them much at a time, and to none but where absolutely necessary.

The herbaceous kinds will also require occasional supplies of water, but less frequent, and in less quantities, than the woody tribe.

Let the succulent kinds, such as aloes, sedums, ficoides, &c., have water but very sparingly at this time, and only when the earth in the pots is very dry,

Air should be admitted to the plants in the green-house at all times when the weather is favourable; for that is a necessary article, and the plants cannot thrive without it, nor continue in a healthful lively appearance. Every day, when the weather is tolerably mild, let some of the windows be opened a little way, for the admission of air, and take care that they are shut again in due time; that is, about three, four, or five in the evening, according to the temperature of the weather; but if cold sharp air, shut them sooner in proportion.

In frosty weather, keep the green-house close; and if very severe, defend the windows at night, &c., and make occasional fires.—See *January*.



Another thing to be regarded is, to keep the plants of all kinds free from casual decayed shoots and leaves, for those are not only hurtful to the plants while in the house, but appear very unsightly; therefore, whenever such appear, let them be constantly taken off; and if the leaves appear foul or dusty, water over the heads of the plants in a mild sunny day, which will clean and refresh them very beneficially; keep also the pots, &c., and green-house, always neatly clean.

There is another thing which will be of great service to the oranges, lemons, and to the plants in general, and may be performed the latter end of this, or any time next month; that is to loosen the earth in the top of the pots or tubs, and take a little out, half an inch or an inch deep, and add some fresh in its stead; this will certainly prove very beneficial to the plants; and whoever will bestow that little dressing upon them, will see the advantage of it in a short time.

#### ORANGES AND MYRTLES.

WHERE any of the oranges, lemons, and myrtles, &c., have naked or irregular heads, you may now, towards the latter end of the month, if mild fine weather, begin to reduce them to some regularity. The branches or head may either be cut close, or shortened less or more to the place where you desire shoots to rise, to form the head regular, for they will break out in the old wood.

Then when any trees are thus headed down, it would also be an advantage to shift them, especially such as are of a weakly growth, in order to add a little fresh earth about their roots, and the method is this: let the tree be taken out of its tub or pot, but preserve the ball of earth entire; and then trim off with your knife any very matted, dry root-fibres round the outside, and also some of the loose old earth from the bottom and sides of the ball; then, having some fresh compost ready, put some into the bottom of the pot or tub; place the tree therein, fill up round the ball with fresh earth, and give it a little water.

But in heading down any of the green-house plants, if time will not permit, or that you think it not necessary to shift them as above, do not, however, fail to loosen the earth in the top of the tub or pots, and a little way down round the sides, and draw this loose earth out; then fill up the tub again with new compost, and give some water.

But where any orange or lemon-trees are in a very weak or sickly unprosperous growth, it would be advisable, about the

latter end of this month, or any time in March, to prune the heads, and shift them into entire new earth, taking the plant clean out of the pot, all the old earth shaken entirely from its roots, and all mouldy and decayed roots cut off; then let the whole root be washed in water, and plant it again immediately in a tub or pot of new earth, taking care not to place it too deep; and give water moderately.

After this shifting, it would be of great advantage to the same plants, if you have the conveniency of a glass-case, &c., in which to make a hotbed of tan or dung, but tan is much the best; and if in this bed the trees are plunged, they will shoot sooner, and more freely, both in the root and top, to recover good strength, and a renewed head of branches of prosperous growth, early in the following summer.

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### THE HOT-HOUSE.

Fires must be continued every night and morning in the hothouse, and occasionally all day, when severe frosts or cold cutting weather.

Likewise a proper degree of heat must now be preserved in the bark-bed, in the hot-house, wherein the pines are plunged; for many of the plants will now begin to show fruit, and to make the young fruit grow freely, there must be a lively heat in the bark-bed.

Nothing can contribute so much to the fine growth of these young fruit, as a moderately brisk heat in the bark-bed wherein the plants are plunged; for if there be not a proper bottom-heat about the roots of the plants, it is impossible to make the fruit swell to any tolerable size.

Therefore, where the bark-bed was not stirred up the former month, to renew the fermentation, and revive the declined heat, it should now be done, for the heat will consequently begin now to be very faint; and by stirring up the bark almost to the bottom, it will bring on a fresh fermentation therein, by which means the bed will again recover a lively growing heat, and the good effect of it will soon appear, both in the plants and fruit, provided it be done in due time; but if the heat is greatly decreased, and the bark decayed, you may augment it at the same time with about one-third or fourth part of new tan, otherwise defer it till next month, which see.

However, where the work of forking up the bark-bed appears necessary at this time, agreeable to the observations above-mentioned, it should, if possible, be done in the first week in the month; for if it is delayed much longer, the plants and fruit will certainly, for want of a due proportion of heat, be much checked in their growth. Observe, in the first place, to take all the pots out of the bark; then begin at one end of the bed, and open a kind of trench, by taking out some of the bark, and carrying it to the other end; this done, begin at the trench, and with a fork dig and work up the bark, quite to the bottom, taking care to break the cakes or lumps, and mix the parts all well together, and fill up at last with that taken out of the first opening.

When this is done, let the top be made level, and then immediately plunge the pots again to their rims as before. This work is so very necessary, that it should not, on any consideration, be omitted at the time above-mentioned; that is to say, if the bark has much declined in its heat.

The bark-bed being thus treated, will soon renew its heat, and retain the same well for six weeks to come, or thereabouts.

At the expiration of that time, or some time in March or beginning of April, the bark will require to be stirred up again, and refreshed with about one-third, or at least one-fourth part of new tan; the bark-bed after this will retain a proper degree of heat, till the fruit is ripe.—See *March* and *April*.

The bark-bed wherein the succession pine-plants are plunged, should also be examined now with good attention; and if the heat is found to be much decreased, the bed should be treated in the manner above directed.

#### WATERING THE PINES.

The fruiting pine-apple plants should now have moderate refreshments of water, provided there be a good heat in the bark-bed: and when there is a proper degree of heat and moderate moisture together, it will make the young fruit swell very fast.

But in watering these plants, be careful to give it moderately at each time. The rule is this: let the earth in the pots which contain the plants be kept just a little moist, in a middling degree; and if this is observed, the plants and fruit will thrive.

The succession pine-plants, that is, those which are to fruit next year, must also be refreshed now and then with water; in

watering these, let the same rule be observed as just mentioned above.

Remember also to give water at times to the younger succession pines, consisting of the last year's crowns and suckers.

In watering the pine-plants in general in the bark-beds, we should still be cautious that no water, or but as little as possible, fall into the hearts of them, where, being apt to lodge, it would prove detrimental, in some degree, to these kind of exotics, at this season; but, to prevent this, it would be advisable to have such a tin pipe as mentioned last month, to use occasionally in watering them; and would be particularly assistant in watering the plants in the interior parts of the bark-bed.

Such a pipe as above would not only be convenient for watering the pines, but any other exotics placed at a distance, either in wide bark-beds, or in any other situation in the hot-house, &c., and may be performed with greater exactness.

#### OF THE VARIOUS KINDS OF PLANTS IN THE HOT-HOUSE.

In some hot-houses there are kept many other kinds of curious exotic plants, beside the pines, both of the succulent and woody kinds, &c.; and as they are all tender exotics from similar hot parts of America, Africa, &c., nearly of equal temperature, one general degree of internal heat in the hot-house, as is requisite for the pines, is applicable to the whole; and they being all in pots, may be placed in any part of the house where room, except the pines, which must be continued constantly plunged in the bark-bed.

All these kinds of plants should be kept remarkably clean from dust, or any sort of filth that may at any time gather upon their stems, shoots, or leaves; and such should always be washed off as soon as it appears. There is nothing more necessary than cleanliness to preserve the health of all these tender plants; and where any considerable foulness is permitted upon any one of them, it will not only close up those small pores which are so necessary to the growth of all vegetables, but will also promote insects, and render the whole plant unhealthy.

These plants must also be kept very free from decayed leaves; that is, when any such appear, let them be immediately taken off, for they would injure the plants.

Water should also be given to all these plants at times; some will require but very little, and seldom, and others will need it pretty often. Therefore let good care be taken that every

plant, according to its nature, be properly supplied with that article ; but be sure never to give any sort too much at a time ; and in giving it, always make a distinction between the succulent and the herbaceous and woody kinds.

The woody plants, &c., will need water oftener, and more at a time, than the succulent kinds ; for some of these require very little moisture about their roots, and too much would rot the plants.

Let the woody kinds, &c., in general be moderately watered, not less than once or twice a-week ; and it will be serviceable to sprinkle water sometimes all over the head or branches of these plants, especially the coffee-trees, the pimento or allspice, and all the tender acacias and mimosa, &c.

But the succulent kinds, such as the torch-thistles, melon-thistles, ceruses, ficoides, aloes, euphorbiums, and the like, must not be watered oftener than once a-week.

In watering these kinds, let care be taken to give but little at each time, just sufficient to reach the bottom roots.

It will be an advantage to all these tender plants, both of the woody, succulent, and other kinds, when the surface-earth in the pots casually crusts or binds, to stir and loosen it lightly a small depth.

#### ADMITTING AIR.

FRESH air should now be admitted to the pines, and all other plants in the hothouse, at all times when the weather will permit.

But this, however, must only be done, at this season, when the sun shines warm, and the air is quite calm and clear : then it will be proper to slide some of the glasses open a little way, in the warmest time of the day, shutting all close if the weather changes very cold and cloudy, and always in proper time in the afternoon.

The best time of the day for the admission of fresh air, as above, is from about ten or twelve, to one, two, or three o'clock : for the time of opening or shutting the glasses, let the weather be the guide.

#### OF KIDNEY-BEANS IN THE HOTHOUSE.

Now plant some more kidney-beans, of the early white, the dun, and speckled dwarfs, &c., in pots or boxes, and place them in the hothouse, to succeed those planted last month ; or if none was then planted, now is a very successful time, superior

to the former month, for planting a good hothouse crop; and managed as directed in January.

Do not forget to refresh with water those kidney-beans which were planted last month; they will require it two or three times a-week: give also necessary waterings to the young beans advancing for successive crops.

#### OF BLOWING ROSES AND OTHER PLANTS EARLY.

You may now, in the beginning of this month, set pots of roses, hypericum-frutex, Persian lilacs, syringas, and honeysuckles, &c., in the hothouse, or pots of bulbous roots, carnations, pinks, and double sweet-williams, or pots of any other desirable flowering plants, either of the shrub or herbaceous kinds, which you desire, by way of curiosity, to bring to an early bloom, supplying them, when in growth, with plenty of water.

Likewise, about the middle and end of the month, may introduce more of the same sort of flowering-plants, to produce flowers in regular succession.

Likewise may introduce pots sown with seeds of any desirable annuals, of moderate growth, to flower early, such as mignonette, balsams, ten weeks' stock, scarlet sweet peas, candy-tuft, virgin stock, lupines, antirrhinums, &c.

#### MAKING THE FIRES IN THIS DEPARTMENT.

THE fires must be still regularly made in the hothouse every evening, and also in the mornings: and in extremely hard frosts, must be continued night and day, in a proper regular degree in strength and heat, as regulated by the thermometer.

In very severe frost, it will be of much advantage if the glasses of the hothouse are covered every night with mats, canvass, or shutters, or also in the day, when cloudy and the frost rigorous.

#### OF CUCUMBERS IN THE HOTHOUSE.

WHERE it is desired to raise early cucumbers in the hothouse, some seed may now be sown, as directed last month, or young plants planted therein, from any common hotbed.—See *Hothouse for January*

#### EARLY STRAWBERRIES.

LIKEWISE you may now introduce into the hothouse pots of the scarlet strawberries, either to succeed those of last month,

or as a first introduction, as they will fruit in greater perfection than the former. Let them be one or two years old bearing plants; place them near the glasses, or plunge them in the bark-bed, to forward them earlier, giving proper supplies of water.

If some fresh plants are taken into the hothouse every three weeks, you may obtain a constant supply of early fruit till those in the open ground ripen.

Or pots of strawberry plants kept in moderate dung hotbeds to forward them, some may be removed in successive order into the hothouse, they will produce a supply of early fruit in regular succession.

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## M A R C H.

### CARE OF EARLY CUCUMBERS AND MELONS.

EXAMINE the state of the cucumber and melon hotbeds, and see if they are of a proper degree of heat, so as to preserve the plants in a state of free growth.

You must let the heat be lively, but moderate, by which means the ridged-out plants of good growth will show fruit plentifully, and these will swell freely, and grow to a handsome size.

Therefore, when the heat declines, apply a lining of well-prepared fresh hot horse-dung to the back or front side of the bed, as you shall see occasion; but if the heat is not very much declined, it will be proper to line only one side at a time; but line the opposite side ten or twelve days after. Make the linings about twelve to fifteen or eighteen inches wide, and as high as five or six inches up the sides of the frame; but generally narrowing the width towards the top; on which lay two inches' depth of earth over, to keep the steam down for the reason mentioned last month.

Let the plants have fresh air every day, by raising the upper end of the glasses from about half an inch, to one or two inches in height, in proportion to the heat in the bed, and warmth of the weather, always more freely in sunny, calm, mild days, than when cloudy or a sharp external air; and when the weather changes colder, &c., diminish the admission of air, or shut down the glasses if very cold; and always shut close in proper

time towards evening, about three, four, or five o'clock, &c., according to the temperature of the weather.

Refresh them now and then with water; let this be given very moderately, and in a mild sunny day; the best time for doing this is from ten to two o'clock.

Cover the glasses with mats every evening for the night, generally toward sunset, or soon after; and uncover in the morning about an hour, at most, after the time of sunrise; or, if a sunny morning, as soon as the sun shines fully on the frames.

As the early plants, raised last month, will have now advanced considerably into fruitful runners, and show fruit abundantly, especially cucumbers, let the runners or vine be trained out regularly along the surface of the bed at equal distances, and peg them down neatly with small hooked sticks; and according as the young fruit comes into blossom, do not fail, at this early season, to set or impregnate the female or fruit blossoms, with the male flowers, agreeable to the rules and method advised in the work of *April*.

#### SOWING CUCUMBER AND MELON SEED.

Sow in the above, or any new-made hotbeds, the seeds of cucumbers and melons at the beginning, and also about the middle, and towards the latter end of this month, to have a supply of young plants in readiness, either to plant into new beds, or to supply the place of such plants as may fail.

The sorts of cucumber are, the early short prickly, long green prickly, white prickly, long green Turkey, long white Turkey, and Smyrna.

But the first two sorts are commonly cultivated for the early and general crop, the short prickly being the earliest, and is therefore often sown for the first crop in the frames; but the long green prickly is the best to sow for a main crop, either for the frames or hand-glasses, or in the natural ground; it being both a plentiful bearer in long continuance, and the fruit attain the most handsome regular growth, six or eight to ten or twelve inches in length: but there is a new variety of long prickly cucumber now in cultivation, growing ten or twelve to fifteen or eighteen inches long: though, in my idea, those of such extreme length appear less delicate at table, and not always so well flavoured as those of middling growth, as above.

The white prickly, and the long Turkey and Smyrna kinds, are not eligible for any general crop, because they are very indifferent bearers, so should sow only a few by way of variety



## MAKING NEW HOTBEDS TO TRANSPLANT CUCUMBERS, &amp;c.

MAKE hotbeds the beginning of this month, to plant the cucumber or melon plants upon, which were sown the end of January, or any time in February.

Let the dung for this purpose be well prepared, in the manner directed in the two former months, before you work it up into a bed; this should never be omitted, for a great deal depends upon it; make the bed three feet high, or three and a half, beating the dung well down with the fork, as you lay it on the bed: but do not tread it; for a bed which is trodden hard is rendered so compact, that it seldom comes to a kindly warmth, but is apt to heat too violently, to the destruction of the plants. When the bed is finished, put on the frame and lights; and let it be managed, in every respect, as directed in *January* and *February*; and let the plants, either cucumbers or melons, be planted and managed in the manner there directed.

There are many gardeners, and others, who cannot conveniently procure dung to begin to make hotbeds for cucumbers or melons at an early season. Where that is the case, it is not too late to begin now; and a hotbed may be made the beginning or any time of the month, and the seeds of cucumbers and melons may be sown therein; the cucumbers from this sowing will be fit to cut by the beginning of May, but will be in full bearing in the middle or latter end of that month, or June, and continue fruitful all summer, and the melons in July and August.

## CUCUMBERS AND MELONS FOR THE BELL OR HAND-GLASSES.

ABOUT the eighteenth or twentieth, or any time toward the end of this month, is the time to begin to sow the cucumbers and melons which are to be planted under hand or bell-glasses.

They may be sown in any of the cucumber hotbeds now at work; or if not convenient, or there are no such beds yet made, make a hotbed for that purpose, for a one, or two, or three-light frame, according to the quantity of plants required; sow the seed, and manage the beds as directed in the two former months. The plants will be ready for ridging out the middle or latter end of next month, and beginning of May, and the cucumbers will bear in June and July, and the melons ripen in August, &c.

## TRANSPLANTING AND SOWING CAULIFLOWERS,

TRANSPLANT the cauliflower plants which have stood in frames and hand-glasses, or on warm borders, all winter.

Let these be planted in a rich spot of ground. The ground should be dunged with some good rotten dung, and afterwards neatly dug or trenched one spade deep; taking care to bury the dung in a regular manner, in the bottom of the trenches. Observe to plant the cauliflowers in rows thirty inches asunder, allowing them the same distance between plant and plant in the rows.

The ground where this crop of cauliflowers is to be planted may be previously sown with spinach and radishes, if thought necessary, agreeably to the intimations of last month.

Draw some earth to the stems of the cauliflower plants, which are continued under hand or bell-glasses for the early crop; it will strengthen them and forward their growth.

The glasses may still be continued over the plants, but must be kept constantly raised, on the south side, at least two to three or four inches high, on props; or in mild days the glasses may be taken off occasionally, and let the plants enjoy the benefit of warm showers of rain.

If there are more than one or two plants under each glass, let the superabundant be transplanted the beginning or some time of this month; for two plants, at most, under a glass, is sufficient: but if the glasses are small, one plant under each will be enough.

Plant those which you take from under the glasses into an open compartment, at the distance above-mentioned.

Where cauliflower plants were raised from seeds sown the last month, they should now be pricked out into a bed of rich earth, in a warm situation; but where a moderate hotbed can be obtained, it will forward them greatly. Make the bed eighteen inches or two feet high, and put a frame on, or arch it over with hoops; lay thereon six inches' depth of rich earth, prick the plants therein, two or three inches apart, and give them a little water. Put on the glasses, or a covering of mats, every night, but take them off every mild day.

By pricking out the plants on a little bottom heat, as above, it will forward them considerably, fit to transplant for good the middle or latter end of next month, and they will produce their heads in July and August.

Cauliflower-seed may be sown the beginning of this month,

if it was not done in February ; observing to sow them in a slight hotbed, as was then directed ; it will bring the plants up soon, and forward them greatly.

*N. B.* These seeds may be sown in a bed of rich earth, in a warm situation, in the natural ground ; they will grow freely, but the plants will not be so forward, by a fortnight,\* as if the seed was sown on a small hotbed of moderate heat.

The plants from this sowing produce flowers or heads for use in August.

#### BROCCOLI.

Sow broccoli for early crops, &c., to come in for use the following autumn, in October, November, and December, &c.

Choose seed of the early purple ; and some of the cauliflower broccoli, of each of which sow a little about the first or second week in the month, and some more towards the latter end, in an open bed of rich earth, and rake them in ; and when the plants come up, manage them as directed in *April, May, June.* and *July.* †

#### TRANSPLANTING AND SOWING CABBAGES.

TRANSPLANT cabbage-plants, of all kinds, into the places where they are to remain to cabbage. It may be done the beginning, or any time this month ; but if the plants are strong and in good order, the sooner it is now done the better. Let them be planted in good ground, enriched with dung, at two feet or two and a half distance for the sugar-loaf and other forward kinds ; but the large late cabbage plants should be set a yard asunder.

The above distances are to be understood of such plants as are to remain to grow to their full size ; but such of the forward kinds as are to be cut while young may be planted closer : eighteen inches to two feet will be sufficient.

Plant out also the general crop of red cabbage, if not done in autumn, &c. : allow them two feet and a half, or a yard distance.

Sow the seeds of cabbages, of any sort, the beginning or middle of this month, both of early kinds, for successional young summer cabbages, and large late sorts, for autumn and winter crops ; any of the early kinds may now be sown, either for successions, or as substitutes in default of early winter-standing

\* Or three weeks

† It will be early enough towards the end of the month to sow broccoli ; if sown earlier, the plants are apt to button.

plants, or for general summer crops; but the larger sugar-loaf is a fine kind to sow now; also the Yorkshire, Battersea, and imperial, for midsummer and general autumn cabbages; and sow a quantity of the large, hollow, long-sided, and large round cabbages, for late autumn and general winter use in large full growth: let the whole be sown in an open compartment, each sort separate.—See *May* and *June*, &c.

The plants raised from this sowing, if planted out in proper time, will, many of them, in the early sorts, be cabbaged in small heads in June and July, but will be well cabbaged in August and September, especially the sugar-loaf, Battersea, and Yorkshire kinds; but the large sorts not till September and October and continue good all the winter.

Red-cabbage seed should also be sown in the beginning or middle of this month, to raise some plants for winter and next spring service: they will be tolerably cabbaged about Michaelmas, and continue good till the spring.

The red-cabbage seed should be of the true Dutch kind.

In sowing the different sorts of cabbage-seeds, it will be most advisable to sow them in open exposed ground, distant from trees, fences, or buildings: for when sown in such close situations, as is very often practised, the plants are drawn up weak and long-shanked, and are liable to be eaten by vermin.

#### SOWING SAVOYS.

SAVOY-SEED for a principal crop, to serve the family from about Michaelmas to Christmas, should be sown about the middle, or towards the latter end of the month, in an open situation.

But if it is desired to have savoys well cabbaged earlier in autumn, that is, in the end of August, or any time in September, they should be sown in February, or at least the first week of this month.

Sow this seed in an open spot, and not in narrow borders, under walls, &c., for the reason intimated above, in sowing cabbages.

The sorts of savoys are, the green, yellow, and white; but the green kind is to be preferred for the main crop.\*

#### TRANSPLANTING AND SOWING LETTUCE.

TRANSPLANT, if settled mild weather, some of the lettuce plants from the beds or borders, where they have stood all

\* The true Cape savoy is the best.

winter; that is, if they stand too close. In doing this, observe to draw the plants out regularly, and let the strongest remain in the bed or border, at ten or twelve inches' distance; then loosen the surface of the earth between them with a hoe, and clear away weeds and litter.

The plants which are drawn out should be planted in an open spot of rich ground, ten or twelve inches' distance, and let them be watered.

And the Cos lettuce plants that have stood all winter in frames should now, in general, be transplanted into an open spot, at the distance above-mentioned.

Lettuce-seed, of different sorts, should be sown the beginning of this month; and to have a regular supply, let some more be sown about the middle, and a third sowing about the end of the month; and from these sowings you will have a principal supply of lettuce, in young and full growth, in May, June, and July; which will be succeeded by others sown in April, &c.

The proper sorts of lettuce to sow at this time are, the white and green Cos for principal crops: the large imperial, the Cilia, grand admirable, and large white Dutch cabbage-lettuces, are also all most excellent sorts for this sowing, where variety of superior lettuces are required; but any other sort will also succeed; and may also now sow some common cabbage-lettuce, to cut young for salads, till the others are advanced to larger growth.

These different sorts of lettuce should generally be sown separate in beds, borders, or any compartment of ground, in an open situation; and in digging the ground, let the earth be well broken. Sow the seeds on the surface with an even hand, and rake them in lightly, taking care not to draw the earth in heaps.

Or some Cos lettuce, &c., may be sown thinly among the crops of onions, leeks, and carrots; some for transplanting, and others to remain for full growth.

In sowing lettuce, it is of much importance to have seed of good sorts, such as will not soon run; as we may often observe lettuce-plants that spindle up for seed before they attain half-growth, or begin to head, or cabbage, which is a great disappointment.

#### SOWING SPINACH.

Sow spinach to succeed that sown last month: the sowings should be repeated once a fortnight, or three weeks, to have a

regular supply; for the plants of one sowing, in spring and summer, will not continue fit for use longer than that time, before they will run. Let the seed be of the round-leaved or smooth-seeded kind, that being the most proper sort to sow at this season, its leaves being considerably thicker and larger than the prickly-seeded spinach.

Spinach may now be sown to great advantage, in single drills, between the rows of pease or beans, as directed last month.

Hoe or hand-weed the early crops of spring spinach, thinning the plants at the same time, but particularly those sown broadcast, three or four to five or six inches' distance.

The crop of winter spinach, which was sown last autumn, will now be advancing in good perfection for use, and should now be kept clear from weeds, and the earth between the plants stirred with a hoe; and in gathering the plants for use, if they stand close, should thin them out clean by the roots; but if they already stand at wide distances, only crop the large outer leaves as wanted, till they begin to run, then cut them up clean to the bottom.

#### SOWING ONIONS AND LEEKS.

ONIONS and leeks for principal crops may be sown any time this month, and the earlier in the month the better, provided the state of the ground and the weather be favourable. It is however, advisable, in some situations, where the soil is naturally heavy and wet, to defer sowing till the end of the month, or even till the beginning of April.—For directions, see last month.

May occasionally sow a thin sprinkling of the Cos lettuce seed with that of the onions and leeks.

#### SEA-CABBAGE.

SEA-CABBAGE, or sea-colewort, if in request, should now be sown. Choose a light loose soil, and being properly digged, form it into one or more beds, four feet and a half or five feet wide, with wide alleys between; sowing the seed either in drills longways, the beds a foot and a half or two feet asunder, for the plants, either to remain or to transplant; or sow broadcast wholly for transplanting that distance, in June, July, or following spring, in beds, as above.—See *April*.

And when the plants are of one or two years' growth, the beds being previously earthed up a few inches in winter, they produce from the root thick fleshy shoots, which, passing through

a body of soil on the beds, are thereby blanched white and tender, of delicate eating, in proper culinary preparation.

The plants are perennial; the leaves decay in winter; but the roots remain, and produce a succession of young shoots, in the advancing flower stalk and young leaves, in the spring, being the principal edible parts of this kind of cabbage, which never heads, the advanced leaves spreading flat near the ground.

At the commencement of winter, clear away the old leaves, weeds, and litter, loosen the tops of the beds, and then either from the alleys between, or elsewhere, apply a stratum of light loose earth on the beds, a few inches thick, or occasionally some dry, rotted, light, mellow dung; and the plants shooting up in the spring, through this body of soil, the shoots will be long, white, and tender, and should be gathered for use when rising through the surface, or soon after cutting them off within the ground.—See *April*.

#### SOWING BORECOLE.

ANY time in this month you may sow some borecole for the service of autumn, winter, and next spring.

There are two principal sorts, the green and the brown; both very hardy plants of the large open colewort kind, with tall stems, and full heads of thick fimbriate curled leaves not cabbaging, and are desirable open greens for winter, &c.

Let this seed be sown in an open exposure, distant from trees and close fences, as in such situations they are apt to draw up too fast, with long weak stalks; sow it broad-cast, and rake it in evenly: for other particulars, see the succeeding months.

#### RADISHES.

Sow more radish-seed, to raise a supply of radishes to succeed those sown last month.

There should be some of this seed, both of the salmon and short-top kind, sown at three different times this month; that is, at the beginning, middle, and latter end; by which means there will be a due succession of young radishes for the table. Let this seed be sown now, in an open compartment, observing the same method as in the two preceding months.

Thin the early and general crops of radishes, where the plants stand too close, pulling up the worst, and leaving the best plants about two inches' distance, and clear them from weeds, thinning them more afterwards by degrees, in their advanced growth, in drawing them for the table.

In dry, open, warm weather, let the early crops of radishes be sometimes moderately watered, to forward them in a free swelling growth, mild and crisp for eating.

#### TURNIP-ROOTED RADISHES.

Now sow some small round or Indian turnip-rooted radishes; there are two sorts, the white and the red, but the white is preferable to sow for the general supply; it grows small, neatly orbicularly round, like a young Dutch turnip, but delicately smaller, and eats very agreeably in April, May, and June, or any time in summer and autumn.—See next month.

Let the seed of both sorts be sown separately, in an open space of light ground, and rake them in evenly.

When the plants have the first central rough leaves half an inch broad, thin them to about two or three inches.

#### CARROTS AND PARSNEPS.

Sow carrots and parsneps the beginning of this month for the principal crop; that is, if they were not sown the latter end of February.

A spot of light ground, in an open situation, should be chosen for these seeds, for the roots thrive considerably best in such a soil and situation.

The ground should be trenched one good spade deep at least, or rather double dig it. Observe, in digging, to take but thin spits, and be careful to break all clods, that the roots may have full liberty to run down long and straight; for if the earth is not well divided or separated, the sorts are apt to grow both short and forked.

The seeds may either be sown broad-cast all over the surface, or may previously divide the ground into four or five feet wide beds; however, in either method, sow the seeds thinly, with an even hand, and rake them in; but, previous to raking, observe, that if the ground be quite light and dry, the seed may be first trodden in evenly; in doing which, take care to tread the ground over lightly and regular, with the feet pretty close together; then let the seed be immediately raked in moderately. By this method the seed will be buried equally in every part, and the plants will also come up regularly.

But, in sowing those seeds, it will be proper to observe, that where the ground is inclinable to be wet, or apt to bind, it will, in that case, be proper to divide it into beds four or five feet wide, with narrow alleys, about a spade wide between; then



sow the seed. Do not, however, tread the ground as above ; but only stand in the alleys, and rake the seed in regularly, taking particular care not to draw the earth in heaps.

Or in sowing these seeds in gardens, it may be effected by first raking the ground as you advance in the digging ; then forming the ground into four feet wide beds, shove the earth off the surface with the back of the rake, half an inch or an inch deep ; sow the seed, and rake the earth over it, as observed in sowing onions, &c., which see.\*

#### OF FORKING AND DRESSING THE ASPARAGUS BEDS.

This is now the time to begin to spring-dress asparagus beds, which is done by forking or slightly digging them with a three-pronged fork.

This work should be begun about the middle or latter end of the month.

For the purpose of digging or forking these beds, you should be provided with a proper fork, having three short tines, six to eight or nine inches long, perfectly flat, and about an inch broad, and the ends of them rounded and blunt ; however, in want of such, it may be performed with a small, short-pronged common dung-fork.

In forking the beds, be careful to loosen every part to a moderate depth, but taking great care not to go too deep to wound the crowns of the roots.

The above work of forking these beds is most necessary to be done every spring, to improve and loosen the ground, and to give free liberty for the buds to shoot up ; also to give free access to the sun, air, and showers of rain.

The beds being forked, they must afterwards be raked even ; observing, if you do not rake them immediately after they are forked, to defer it no longer than the end of this month, or first or second week in April, for by that time the buds will begin to advance towards the surface.

\* In sowing carrots and parsneps, as well as almost every other sort of crop, we consider the drill-system greatly preferable to sowing broadcast or in beds, as affording an opportunity of cleansing them much more expeditiously, and of stirring the surface of the ground with the Dutch hoe between the rows, which greatly promotes the growth of the plants. Drills for carrots should be fifteen inches apart ; and for parsneps, eighteen inches. The sort of carrots which we prefer for a general crop are the Altringham and Long-red. We consider the end of the month early enough for sowing a principal crop.

## PLANTING ASPARAGUS.

New plantations of asparagus may now be made, this being the proper season to remove these plants; but it may be done any time in the month, when the weather is mild.

In making plantations of these plants, one great article to be considered is, to make choice of a proper soil; choose the best the garden affords; it must not be wet, nor too strong or stubborn, but such as is moderately light and pliable, so as it will readily fall to pieces in digging or raking, &c., and in a situation that enjoys the full sun.

The ground where you intend to make new asparagus beds should have a large supply of rotten or other good dung laid several inches thick, and the ground then regularly trenched one or two spades, and the dung buried equally in each trench, twelve or fifteen inches below the surface of the dug ground.

The ground being dug, and laid level, divide it into beds four feet and a half wide, with alleys two feet wide between bed and bed.

Four rows of asparagus are to be planted in each bed, and ten or twelve inches' distance to be allowed between plant and plant in the row: and let the outside rows of each bed be nine inches from the edge.

Next, let it be observed, that the plants for this plantation consist now entirely of roots, no top; they must not be more than two years old; but most good gardeners prefer those that are only one year, which are what I would choose to plant; as from experience I have found they generally take root much freer, and succeed every way better than two years old plants. If you choose to raise the plants yourself, it is done by sowing the seed any time this month in a bed of rich earth (see page 140); and they will be proper for planting out next spring; or, if you do not choose to lose a year or two in waiting for raising the plants, you may purchase them, ready raised, of most kitchen gardeners near large towns, and in many of the large nurseries in most parts of the country. They are commonly sold at a shilling to eighteenpence or two shillings per hundred.

The following is the method of planting them:—

Strain your line lengthways the beds, nine inches from the edge: then with a spade cut out a small trench or drill close to the line, about six inches deep, making that side next the line nearly upright; and when one trench is opened, plant that be-

fore you open another, placing the plants upright ten or twelve inches' distance in the row.

In planting these plants, observe, they must not be placed flat in the bottom of the trench, but nearly upright against the back of the trench or drill, and so that the crown of the plants may also stand upright, and two or three inches below the surface of the ground; and let them be all placed an equal depth, spreading their roots somewhat regular against the back of the trench, and at the same time drawing a little earth up against them with the hand as you place them, just to fix the plants in their due position, till the row is planted; then when one row is thus planted, immediately, with a rake, draw the earth into the drill over the plants, and then proceed to open another drill or trench as before directed: plant it in the same manner, and cover in the plants as above, and so on till the whole is planted. When they are all planted, let the surface of the beds be raked smooth, and clear them from stones.

At each corner of every bed, let a firm stake be driven into the ground, to serve as a mark for the alleys.

In planting asparagus, it is customary, with such gardeners as are obliged to make the most of every spot of ground, to sow a thin crop of onions the first year on the new asparagus beds: and this should be performed before the beds are raked sowing the seeds, and raking them in; and thus a crop of onions may also be obtained without hurting the asparagus, provided the onions are not suffered to grow just about the plants.

The asparagus being planted, the next care is, when the plants come up, which will be about the latter end of next month, or beginning of May, to keep them clean from weeds; which must be well attended to during the summer season.—For the farther management, see the work of *summer*, and *October* and *November*, and the article, *Of dressing the Beds*, in this month, page 137.

Let it next be observed, that it will be three years from the time of planting before the asparagus plants produce buds large enough to cut for use in any general gathering; though sometimes, in rich, good ground, and a remarkably prosperous growth in the plants in the production of strong shoots, a few of the largest may be cut the second spring after planting; but I should advise to let it be the third or fourth year before you make a general cutting.

A plantation of asparagus, if the beds are properly dressed every year, as directed in the spring and autumn months,

will continue to produce good buds ten or twelve years, or more.

In making new plantations of asparagus, I have sometimes, instead of putting in young plants, as above directed, sown the seed at once in the beds where the plants are to remain; and as by that practice the plants are not disturbed by a removal, they consequently cannot fail of producing a regular crop.

The beds to be four feet and a half wide, and prepared as before directed for the plants; mark out four lines lengthways the beds; when along these lines, at the distance of every nine or ten inches, dot in a few seeds, covering them about an inch deep. When the plants have been come up some time, they must be thinned, leaving only one of the strongest in each place; and carefully clear them from weeds.

A plantation of asparagus, thus raised, will produce buds fit to cut the fourth spring after sowing, but will be very large and fine the fifth year.

As to the method of gathering or cutting asparagus, when advanced to proper growth for the table, it is generally most eligible to be furnished with a saw-edged asparagus knife, having a straight, narrow, taper blade, about six or eight inches long, and about an inch broad at the haft, narrowing to about half an inch at the point, which should be rounded off from the back, and the edge made full of small teeth like a saw; then observing, when the shoots are from about two to three or four inches high, they should be then cut, slipping the knife down perpendicularly close to each shoot, and cut it off slantingly about three or four inches within the ground, taking great care not to wound any young buds coming up from the same root; for there are always several shoots advancing therefrom in different stages of growth.

Plant asparagus for forcing.—See *February*.

#### SOWING ASPARAGUS SEED.

This is now the season to sow asparagus seed, to raise plants, to make new plantations as above, or to raise plants for forcing in hotbeds.

This seed should be sown in the beginning or middle of the month, on four feet wide beds of rich earth. Sow it broad-cast on the surface, then rake it well into the ground, and cast some of the earth out of the alleys evenly over the beds, and rake them smooth: or it may be sown in drills an inch deep, and six inches asunder: the plants will come up in a month or six

weeks, when give occasional watering, in very dry weather, to strengthen and forward their growth; and they must be kept very clean from weeds by a careful hand-weeding at different times in the summer.

They will be fit to plant out for good next spring.—See the article for *Planting Asparagus* in this month, page 138, &c.

When asparagus for forcing is intended to be planted out into beds of natural earth, to acquire a proper growth for that occasion, see that article in the work of *February*.

#### SOWING BEETS.

BEETS may now be sown for a full crop, if not done last month.

All the different sorts mentioned in February may still be sown successfully; the red for its root, and the other sorts for their leaves, allotting them an open situation; and, for the red beet particularly, good mellow ground, that its root may attain a proper large growth. Sow each sort separate, in the order advised last month.\*

#### SPRING-DRESSING OF ARTICHOKEs.

MAKE a general dressing of artichokes about the middle or latter end of this month.

Where the ground has been trenched up, and laid over these plants last month, to protect them from frosts, let it now be levelled down, especially if the plants have begun to shoot tolerably strong; otherwise defer it till next month; observing, as you proceed in levelling down, to dig and loosen all the ground about the plants: at the same time examine the number of shoots or suckers arising on each stock or root, selecting two or three of the strongest outward ones on every stool to remain, and all above that number to be slipped off close with your hand; observing, in performing this work, to open the earth deep enough about each stock or root, that you may readily get to slip the superabundant shoots off clean from the place from whence they arise; minding, as above, to leave at least two or three good shoots, but never more than three, upon each root or stock, closing the earth in again about the root, and also about the young plants, pressing it close about them with your hand.

The shoots which are slipped off will do to make fresh plantations, where wanted; for artichokes are increased by planting

\* The first week of April is early enough to sow red beet for a general crop.

the young shoots, and by no other method; and this and next month is the season to do it.—See as below.

#### PLANTING ARTICHOKEs.

WHERE a plantation of artichokes is intended, let them be planted as soon in the month as you can procure good plants; otherwise defer it till April; observing that those suckers slipped off in spring-dressing the old plants, as above directed, are the proper sets for this purpose.

There are two sorts, the large globe artichoke, and the French or green oval artichoke; but the former is greatly preferable to plant for the general supply, the heads being considerably larger, and the eatable parts more thick and fleshy.

They should be planted in an open situation, and in good ground; also let a good quantity of rotten dung be spread over the piece, and dig it in. And, having provided some best well-rooted suckers, as above, trim any straggling parts of the top and root; then plant them with a dibble, in rows a yard and a half asunder, and two feet, or not more than a yard distant in the row. Give them directly some water, to settle the earth properly about the roots, &c.

The above plantation, if kept clear from weeds, and now and then watered, in dry weather, in the beginning of the summer, will yield good artichokes the following autumn, but will produce more abundantly next year in June, or July, and August, &c.

*Note.* You may sow a small crop of lettuce, radishes, or spinach, &c., the first year, between the rows of the artichokes.

A plantation of artichokes will continue to produce good heads five or six years, and sometimes longer; but it must be observed, that if required to have a succession of these fruits for four or five months in the summer, should make a small plantation every spring; for the old stocks which have been planted a year or two, produce heads in June, or July, and August; and those planted now, produce heads the same year, in August, and September, and October.

#### PLANTING BEANS.

PLANT beans of any kind, for all sorts succeed well from this time of planting; and should now plant full supplies of the best sorts for general principal crops.

This is still a proper time to plant the Windsor, Toker, and Sandwich, and also the long-podded bean, which is a very great

bearer. And the smaller kind of beans may also be planted any time this month, being plentiful bearers, and very sweet eating while young: among which the white-blossom kind is a very full bearer, and a peculiarly fine eating bean.

There should be some of the most approved of the above sorts put into the ground every fortnight, which will afford a regular supply of young beans during the principal season of them.

Plant the large kind of beans in rows a yard asunder, and the lesser kinds thirty inches between the rows. But if it is intended to plant savcys or cabbage plants between them, the rows in general, for all the sorts, should be a full yard asunder.

#### SOWING PEAS, &c.

Sow marrowfat peas once a fortnight, or three weeks at farthest; by which means you will have a constant supply of young peas for the table.

Or, in sowing peas, it is a good rule, when the plants of a former sowing are just coming up, to sow another crop of the same sort for succession, and they will succeed the others in regular order of full bearing.

Any of the larger or smaller kinds of peas, as are mentioned in the former months, may be sown now for general full crops, allowing the distance of a fortnight, or thereabouts, between each sowing. Draw drills for the different kinds of peas at the distance mentioned in February, for the different sorts; and sow them regularly, and cover them with earth about an inch and a half deep.\*

All the sorts of peas should now be sown in open situations, not much under low spreading trees.†

\* Or from two to three inches deep.

† Early peas, forwarded in a slight hotbed, as recommended last month, should, with good management, be ready for transplanting about the end of this month. This may be done a few days earlier or later, according to the state of the weather. A mild day should be chosen; and if cloudy, so much the better. The plants should be carefully raised off the bed, with the small pieces of turf, and as much of the mould as will adhere to them, and planted on the warm border as they are lifted, and as the border is dug. Stretch a line along the trench, and cut it off perpendicularly, to a sufficient depth, in which to plant the patches of peas. Let them be carefully placed along the trench thus formed, planting each patch about a foot or fifteen inches apart in the rows. The rows should be three feet separate. Lay a little fine leaf-mould around each patch. (These require to be planted a little deeper in the ground than they were before.)—As you proceed in digging, break the mould fine with the spade, and lay it carefully up to the plants. To save treading, it is a good plan to stake each row as it is planted, and to protect them on each side by a few spruce branches, which may be removed when the plants are established and the weather becomes more mild.

## EARTHING PEAS AND BEANS, AND STICKING PEAS.

DRAW earth to the stems of such peas and beans as are now up some height ; it will strengthen the plants greatly, and will encourage their growth.

Stick peas, where intended, according as the different crops advance in growth, six or eight inches high.

## TURNIPS.

Sow turnips for a first early full crop about the middle, or towards the latter end of this month, in an open situation, and where the ground is light.

*Note.* Turnips may be sown at the beginning of the month, if required : but those which are sown so early are apt to run up for seed, before they apple, or bulb of any considerable size in the root.

The proper sort to sow now is principally the early Dutch turnip, it being the best sort to sow at this season in gardens, but especially for the first and second crops, or also occasionally for general summer crops, in garden culture.

## CELERY.

If celery was not sown last month, let some seed be sown the beginning of this, to plant out in May and June, &c., for an early crop ; sow some more of the same seed about the middle, or towards the latter end, for the principal crop. The seed should be sown in a bed or border of mellow rich earth, sowing it on the surface moderately thick, and cover it in lightly with fine mould, not more than a quarter of an inch ; or you may rake it in with a light and even hand. Water the bed frequently in dry weather.

Let it be observed, there are two sorts of celery ; one known by the name of Italian or upright celery, the other called celeriac, or turnip-rooted celery. The first is that which is commonly cultivated for the general crops, and of which there are two varieties, viz. common upright celery, with hollow stalks, and solid-stalked celery ; both of which being raised from seed sown as above, are afterwards planted in trenches for blanching their stalks, which are the principal useful parts ; but the celeriac is generally cultivated for its swelling bottom part ; and being planted either on level ground, or in shallow drills



the roots of it swell like a turnip.—See *April, May, June, &c* \*

#### SMALL SALADING.

SMALL salading, such as cresses, mustard, radish, rape, and turnip, should, when a constant supply is wanted, be sown once a week or fortnight, in a warm border; observing to draw some flat shallow drills, three inches asunder, sow the seeds therein, each sort separate, and cover them lightly with fine earth.

For the particular method of sowing these seeds, see the work of last month: and when the plants begin to come up, if the earth cake, so as they cannot rise freely, let the surface be lightly whisked with the hand, or break the surface gently with a light rake, as is there mentioned.

If these young herbs are attacked with a hoar frost appearing on them in the morning, and, if a sunny warm day is advancing, let them be watered to wash it off before the sun comes on them, which will prevent them turning black and spoiling.

#### PURSLANE.

PURSLANE, if required early for salads, &c., should be sown the beginning of this month in a hotbed. Make the bed slight; put a frame on, and earth the bed four or five inches thick; sow the seed on the surface, and cover it about a quarter of an inch with light earth.

Or, where only a moderate supply is wanted, may sow some in two or three largish pots, and placed in a cucumber or any other hotbed now in cultivation.

This seed may be sown in a bed of rich earth, under hand-glasses, about the middle or latter end of the month.

#### SOWING CHERVIL AND CORIANDER.

Sow chervil and coriander, for soups and salads, &c.: draw shallow drills for these seeds eight or nine inches asunder: sow each sort separate, and cover them about half an inch deep with earth.

These herbs are all to remain where sown, and the chief culture they require is to be kept clear from weeds; but as the plants soon run up for seed, should sow a small portion every month.

\* The white and red solid stalked celery are the sorts which we prefer—the former for an early supply, and the latter, being the more hardy, for the winter and spring. We would recommend celery, particularly, for an early supply, always to be raised upon a slight hotbed, and when two or three inches high, to be pricked out upon another slight bed, till ready for planting out into the ridges. When this practice is carefully attended to, good plants will always be had, and will seldom run to seed before fit for use, as is otherwise often the case.

## SOWING PARSLEY.

PARSLEY, if not sown last month, may be sown in a single drill along the edge of the quarters, or borders of the garden: it will make a useful and also a neat edging, if not suffered to grow rank, especially the curled parsley; or if large supplies are wanted for market, it may be sown in continued rows nine inches asunder, or upon the general surface, and trod down, and raked in.

## SOWING BASIL.

BASIL is in some families, used as a soup and salad herb: it is a tender plant, of bushy growth. It is raised from seed: and the middle, or latter end of this month, or in April, is the season to sow it, and the plants will be ready for planting out in May.

But for the greater certainty of success, it will be advisable to sow it in a slight hotbed, and in dry earth; otherwise the seed will rot; and be careful to defend it from wet till the plants are come up.

They are to be planted out in a warm border, &c., in May, and managed as directed for capsicums: see page 147.

## SOWING AND PLANTING VARIOUS SORTS OF POT AND MEDICAL HERBS.

THE seeds of dill, fennel, borage, burnet, bugloss, sorrel, marigold, orach, and clary, together with the seeds of all other herbs of the like kinds, may be sown any time in this month, in a bed or border of common earth separately, and rake them in; most of which may remain where sown if the plants are properly thinned; or some, as burnet, sorrel, fennel, colary, marigolds, borage, may be planted out in beds a foot asunder, in May, June, and July.

Plant offset rooted slips of mint, balm, burnet, tarragon, tansey, pennyroyal, feverfew, and camomile.

In taking off the slips of these plants, be careful to preserve some root to each; plant them nine or ten inches distance from each other, in beds of rich earth.

Sow hyssop, thyme, savory, and sweet-marjorum, at the beginning; but they succeed very well if sown any time in this month. These seeds should be sown separately in beds of rich light earth, and raked in; or may also be sown in shallow drills, six inches asunder, covering them on with fine earth a quarter or half an inch deep, or some may be sown in a single

drill along the edges of borders, &c., where the plants will make useful edgings, particularly thyme and savory, or also hyssop occasionally; as these sorts continue all the year; the sweet marjoram only one summer, and may now be sown for an edging in that season.

These plants may either remain where sown, or may be transplanted, for which purpose they will be fit in June: but if they remain where sown, they should at the above time be thinned to five or six inches' distance, and those which are drawn out may be planted in other beds, &c., six inches asunder.

But those which are sown for edgings need not be thinned.

Plant branch-slips or cuttings of sage, hyssop, thyme, and savory, any time this month.

Plant all the sorts in a shady border, five or six inches apart; they will take root in a short time, and will make good plants in three or four months, if you water them in dry weather; and in September they will be strong and well rooted, and may then be transplanted at proper distances in beds of rich earth.

#### ROSEMARY, RUE, &c.

PLANT slips or cuttings of rosemary, rue, wormwood, and lavender.

It must be also observed, in planting the cuttings of these plants, that principally the young outward shoots produced last year are to be chosen for planting, from about five or six, to eight, nine, or ten inches long, according as they occur, observing to slip or cut them clean off to the parts from whence they proceed.

Let these be planted in a shady border, six inches apart; inserted two-thirds their lengths into the ground; they will take root freely, by observing to water them in dry weather; they may be transplanted into a more open situation about Michaelmas, when they will be well rooted.

Or, if any rooted offset shoots or suckers rise immediately from or near the roots of the old plants, these are particularly eligible for planting.

#### SOWING NASTURTIUMS.

NASTURTIUMS are often used in families; their flowers and young leaves for salads, the flowers also to garnish dishes, and their green berries to pickle.

This is now a good time to sow them; and the sooner in the month, the better.

Observe, that, as of the nasturtium there is the major and minor, the former being of large running growth; and the most productive, is the proper sort for this occasion.

A drill must be drawn for them, as it is practised for peas; the seeds must be dropped into the drill two or three inches asunder, and be covered an inch deep with earth.

When the plants are come up about six inches high, they should have sticks placed for them to run upon: for these plants are of the running kind; or, to have a more firm support, may sow them near hedges, rails, or any other fence.

#### CIVES, OR CHIVES.

Cives, a small species of onion, growing in large tufts, are useful in a family in the spring, &c., as a substitute for young onions, both in salads and culinary purposes; they are propagated by slipping the roots, and this is a proper time to plant them; the method is to part or take off some slips from the old roots, several small offsets together, and plant them in beds or borders, about six to eight or nine inches' distance.

In slipping or parting the above roots, observe to preserve eight or ten of the small bulbs together in a cluster, and in that manner to plant them.

They are to be planted with a dibble, making holes for them at the distance above mentioned, putting one cluster of roots, as above, in each hole, and closing the earth well about them. They will soon take root, and increase very fast into large bunches, of many years' duration.

#### MINT.

THIS is now a good time to make new plantations of mint.

This plant is propagated either by parting the roots, or by rooted slips of the young spring plants, taken up with root fibres at the bottom; also by cuttings of the young stalks next month, and May, &c., but at this season the increasing it by slips, or parting the roots, is most generally practised, and the method is this:—

About the middle, or any time this month, have recourse to such old beds of mint as are well stocked with young spring plants, and there slip and draw up a due quantity of the best shoots properly rooted; draw them up gently, and with the help of your knife at times, to raise or separate them; every plant will rise with tolerably good roots.

Having procured the plants, let them be planted in rows

about six inches asunder, and five or six inches distant in the rows, and let them have immediately a tolerable watering, to settle the earth close about the roots.

The method of propagating mint by roots is this; get a quantity of old roots, and let these be parted in a proper manner; then draw drills with a hoe six inches asunder; place the roots in the drills, cover them about an inch deep with the earth, and then rake the ground.

But when the above mentioned is to be practised, the roots should be procured, and planted either in February or the beginning of this month, or in October or November.

These plants will thrive in almost any soil or situation; they will quickly take root, and grow freely for plentiful use the ensuing summer, &c., and the same roots continue many years, producing a crop annually.

#### CAPSICUMS.

Sow capsicums; the seed-pods of these plants, being of a hot spicy quality, are much esteemed for pickling, and some culinary uses: the large podded kinds are best; but any of the sorts may be used.—*See the Catalogue of Plants.*

They are tender plants, and the seeds require to be sown in a hotbed under frames, &c., about the middle or towards the latter end of this month; and when the plants appear, let them have a large portion of free air, and water them frequently. In the middle or latter end of May they will be fit to transplant, which must be into beds of rich earth in the common ground.—*See the work of April and May.*

But they should be first pricked out from the seed-bed the next month, into another slight hotbed, three or four inches asunder, to forward and strengthen their growth more effectually, for transplanting finally in May; or in default of a hotbed for this purpose, may prick them out on a warm border, the latter end of April or early in May; and either defend the bed with frames, &c., or arched over and covered of nights and bad weather with mats; and the whole may afterwards be readily transplanted with balls of earth to the roots, into the places where they are finally to remain.—*See May and June.*

#### SOWING LOVE-APPLES.

ABOUT the middle or latter end of this month is the time to sow tomatoes, or love-apple seeds; the fruit or apples of these plants are, in some families, much used in soups, and are also

often used to pickle, both when young and green, and when at full growth and ripe maturity.

The fruit, when ripe, is of a beautiful red colour.

The plants are tender; and the seed must be sown in a slight notched, treating the plants as directed above for capsicums.

For the further management of them, see the *Kitchen Garden for May*.

#### GARLIC, SHALLOTS, AND SCALLIONS.

PLANT garlick and shallots: let these be planted in the manner mentioned in the former month; and the sooner they are planted now the better.

The keeping old onions, which begin to shoot in the house, may be planted in the garden, four or five inches asunder, where they will soon take root, and shoot up freely, and will serve to pull up for scallions.

#### SCORZONERA, SKIRRETS, AND SALSIFY.

Sow scorzonera and salsafy where required, if not done in February, and also skirrets; let these seeds be sown thin on separate beds, in an open situation, and raked in; or in drills six inches asunder.

They are to remain in the places where sown, observing to thin them to six or eight inches' distance each way.

*Note*—The skirrets may also be propagated by slips from the sides of any remaining old roots, planting them at six or eight inches' distance.

All these plants are esteemed for their long fleshy roots for boiling, being in perfection in autumn, &c. But the salsafy is in most estimation, both for its root and the top spring shoots of old plants.—See last and next month.\*

#### LARGE-ROOTED PARSLEY.

Sow the seeds of Hamburgh, or large rooted parsley, if they were not sown the former month.

This is cultivated for its large parsnep-like root: let the seeds be sown in an open situation, either in shallow drills, or on the surface, and raked in evenly; when the plants are two or three inches in growth, they must be thinned to six inches' distance, that the roots may have room to swell.

\* We consider the first week of April early enough for sowing these for a principal crop.

## KIDNEY-BEANS.

KIDNEY-BEANS of the early dwarfs may be planted towards the end of this month, if the weather is settled in mild and dry, and the ground not wet; they being tender, both in the seed and plants, should plant only a small portion at this time, in a dry south border of light mellow earth, close under some warm wall.\*—See *Kitchen Garden*, April.

Draw small neat drills for them about an inch deep, and two feet asunder; or may draw a single drill close along the bottom of the wall.

Place the beans in the drills only one or two inches apart, at this early sowing; and earth them in not more than an inch deep.—See *April*.

Or may sow some seed in a slender hotbed, or thick in pots placed in any hotbed now in cultivation, about the end of the month, for transplanting into warm borders the middle or latter end of April, &c.

Sow more kidney-beans in a hotbed or hot-house, &c., to continue therein a regular supply of the early crops to succeed those of the two former months, observing the same methods as there directed.

## CARDOONS.

Sow cardoons in the middle or latter end of this month for transplanting: dig a bed of light earth in a free situation; sow the seed thin, and rake it in evenly; the plants will come up in two or three weeks; and in May or June, &c., must be transplanted finally in an open situation, four or five feet asunder.

But observe when the plants have been come up in the seed-bed about a fortnight or three weeks, they should be thinned where they are too thick, leaving them five or six inches asunder, that they may have room to grow without drawing each other up weak.

They will be pretty strong and fit to plant out in June.—See the work of that month.

## POTATOES.

POTATOES may now be planted any time in open weather; but about the middle, or towards the latter end of this month, is a proper time to begin that work for the principal crops.

\* Kidney-beans are never sown in Scotland in the natural ground before the beginning of April.

These roots thrive best in a moderately light or loose soil, and where it is not wet; and if you add some dung, it will be a great advantage.

In planting potatoes, be careful to procure some good sets; that is, to pick a quantity of the best kinds of potatoes perfectly sound, and of a tolerably large size; these are to be prepared for planting by cutting each root into two, three, or more pieces, minding particularly that each piece be furnished with at least one or two eyes or buds, which is sufficient.

Being thus prepared, they are to be planted in rows, not less than eighteen inches' distance, but will be more eligible at two feet asunder, and to be set twelve or fifteen inches distant in the row, and about three or four deep.

As to the method of planting, it is very commonly performed with a thick blunt-ended dibble, both in gardens and fields; but in the latter, where a light mellow soil, some plant them as they proceed in ploughing the ground, in a row along the bottom of the furrows, four, five, or six inches deep, turning the earth of the next furrow over them. Others first dig or plough the ground, then draw drills with a hoe or plough, about three to four or five inches deep, and so drop the sets in the drills, and cover them in.

To plant them with dibbles, have the dibbles thick and blunt-ended; or those who plant large quantities in fields have dibbles about three feet long, with a cross handle at top, to take hold on with both hands, and the lower end shod with iron, having a foot or shoulder of iron fixed at about four or five inches from the bottom, both to put the foot upon occasionally, to help to thrust it into the ground; and by thrusting it always as far in the ground as the above shoulder, the holes are made all an exact depth.

For large quantities in fields, one person may be employed in making the holes, and another to follow after, to drop in the potato-sets; which work of dropping them may be performed by women, girls, or boys.

#### JERUSALEM ARTICHOKEs.

PLANT Jerusalem artichokes where required.

These roots will thrive in almost any soil, and multiply so exceedingly, that it is not easy to clear the ground of them again; for the least bit will grow. The root, the eatable part of the plant, being large fleshy tubers, bearing some resemblance to a potato, but of a more irregular form, and taste somewhat like



the bottom of an artichoke, (hence probably the name first originated, as they bear not the least resemblance in growth to an artichoke); are in perfection in autumn and all the winter, and are very good and wholesome to boil and eat with butter, &c.

They are raised by sets or cuttings of the roots; preparing the sets and planting them, as directed for potatoes.

Let them be planted in rows a yard asunder, four or five inches deep, and eighteen inches or two feet distant in the rows

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## THE FRUIT GARDEN.

### PRUNING FIG-TREES.

PRUNE fig-trees, this being the best time of the year for performing that work in a general pruning.

Some prune figs the latter end of autumn; but that is wrong; the young bearing shoots being tender, many of them are liable to be killed by the frost in severe winters; and, therefore, if they were to be pruned in autumn, and no more shoots left than what will just furnish the wall, and severe frosts afterwards destroy many of the shoots, you have then no resource left for shoots to supply these vacancies.

The best way, therefore, is to let these trees remain unpruned till this season, leaving the whole supply of young shoots till this time: and if severe frosts should happen in winter, there will be a chance, out of the whole, to find enough that have escaped the frost to lay in to furnish the wall.

In pruning fig-trees, observe, that as they bear only on the young wood, must leave a sufficient supply of the last summer's shoots from the bottom to the extremity, every way, in all parts where possible; and prune out the ill-placed and superfluous thereof, with part of the old bearers and long-extended naked old wood, to have due room to train the proper shoots, so as the tree may be equally furnished with a succession of young bearers, at moderate distances; for these young shoots bear the figs the ensuing season; fig-trees always producing their fruit on the one-year old wood only.

Leave the branches and shoots in general about five to six or seven inches asunder, with all the shoots at full length: being careful to preserve the best middling strong shoots to retain for general bearers, cutting out the improper and superabundant

and useless old wood quite close ; pruning out any very rampant young wood, excessive long-jointed shoots, or very slender infirm growths ; leaving the most promising firm robust shoots to supply the general expansion, with a leading one to each branch.

Take care always, in particular, to train in every year some young shoots, at or near the bottom, that there may be a succession of young branches coming up regularly one after another, to supply the places of casual, long, old, naked branches, which will occur every season in some part or other of the tree ; for such long-extended, naked, old branches, or others not furnished properly with young wood, should now be cut out, that there may be sufficient room to train the bearing branches regularly, and at proper distances.

In cutting out useless large branches of these trees, either any too long extended, or unfurnished with bearing wood, &c., should be either cut off close to the place from whence they proceed, or to some convenient lower young shoot or branch, cutting them quite close, leaving no stump.

The young branches of fig-trees must not be shortened or topped ; but leave each at full length ; for if they were to be shortened, it would not only cut away the part where fruit would have appeared, but also occasion them to run much to wood, and thereby never produce half a crop of fruit ; so only cut off casual dead ends.

The tree being pruned, let the general branches and bearers be directly trained in and nailed to the wall in regular order, extending them horizontally, and nailed along straight and close, at equal distances, six or seven inches from each other.

#### PLANTING AND PROPAGATING FIG-TREES.

PLANT fig-trees where wanted, this being rather the best month in the year for removing them ; for they will now take root in a very short time.

In planting figs, may either procure trained young trees of several years' growth that are arrived to a bearing state, and plant them against the best south walls, at fifteen or twenty feet distance ; or as these trees are propagated, in general, either by the suckers which arise from the roots of the old trees, or by layers, or cuttings, young plants of these may be planted at once, where they are to remain, as above, that they may establish their roots more effectually without being afterwards disturbed by removal, as old plants do not root so freely as young.

therefore, in default of trained trees, some good suckers of moderate growth, and such as are firm and well ripened, may be procured either in the beginning of this month or in October, slipping them off as low as possible, with roots; and plant strong ones at once where they are to remain; and others may be planted in the nursery, for training a few years.

But to raise them by layers, it is performed on the young branches of one or two years' growth, laying them in the earth three to four or five inches deep, with the tops out; and they will be well rooted by next October, when they should be separated from the old tree, and planted either in the nursery, or where they are to remain.

Cuttings of the young shoots may also be planted now, or in autumn; and they will be well rooted by the autumn following, managing them as above.

These trees, in their final planting, should be allotted the best south walls, and planted, at least, fifteen to eighteen or twenty feet distance.

Or, occasionally, fig-trees trained in half or quarter standards with full heads, may be planted detached, in some sheltered sunny situation, permitting their heads to branch out regularly around, and they will, in favourable seasons, produce ripe figs in tolerable perfection.

#### PRUNING APRICOT, PEACH, AND NECTARINE TREES.

WHERE apricot, peach, and nectarine trees still remain unpruned, let them now be pruned and nailed, as soon as possible: they should be finished by the middle of the month at farthest.

The buds of these trees being now pretty much swelled for bloom, are thereby liable to be rubbed off with the least touch; therefore great care should be taken when you prune them; otherwise many of the buds will be displaced.

In pruning these trees, let the same method be observed as in the former months.

Nail the branches even and close to the wall, at equal distances, taking particular care of the blossom-buds, for they are more liable to be rubbed off in nailing than pruning,

#### PROTECTING THE BLOSSOMS OF WALL TREES.

ABOUT the end of this month, some of the wall trees, as the apricots, peaches, and nectarines, will be coming into flowers. At this season, in this precarious climate, it is absolutely necessary in most situations, to protect the blossoms from cutting

winds and frosts. The most simple mode of doing this is by sticking twigs of spruce leaves, ferns, &c., among the branches of the trees, so as to overhang the blossoms. Strong fern cut in the autumn and dried for the purpose, may do pretty well for protecting small detached trees, but when a tree is of full size, the best and cheapest method is to protect it by woollen nets, which are much better than any other sort, and may be had at a trifling expense. When properly applied, they are very effectual in protecting from frost and cutting winds. They should be hung regularly over the trees, and made fast on all sides to the wall and to the ground. They should be stretched out to the distance of fifteen inches from the wall, by a sufficient number of forked sticks, with their butt ends against the wall, and the forked ends to keep the nets steadily out.

In most of the gardens in Scotland, the principal wall trees are protected by screens of a sort of thin muslin, generally known by the name of buntine, made into large sheets, sometimes of a considerable length, and of breadth according to the height of the walls they are to occupy. For hoisting these up and down at pleasure, a set of slight rafters are placed against the wall at regular distances. These are made fast by small iron bolts to gland bats under the coping of the wall, and at the bottom to stakes driven into the ground, about eighteen inches from the wall. A light stretcher, mounted with pulleys, is fixed along the top of the rafters, and three or more stretchers, as the height of the wall may require, are also tied to the screen, one of them along the bottom, and another along the top, with cords for the pulleys. The rafters at each end should have grooves for the stretchers to run in, and the end should be covered in by a thin board between the rafter and the wall. While these screens may be easily and expeditiously raised and lowered, they are at the same time kept perfectly steady, and at a regular distance from the trees, by the stretchers resting on the rafters. The whole being moveable, may be soon erected or taken down. When carefully kept, they will last for many years. They are generally oiled in order to make them more durable, and to admit more light, it being sometimes necessary to use them through the day as well as at night in severe weather.

#### PRUNING PEARS, PLUMS, CHERRIES, APPLES, &c.

FINISH pruning pears, plums, cherries, and apple trees, either against walls, espaliers, or standards.

Pruning of these, and all other fruit-trees, which yet remain

unpruned, should now be forwarded as fast as possible, that the whole may be finished by the middle or end of the month as directed in January, February, &c.

#### PLANTING FRUIT-TREES.

FRUIT-TREES of all kinds may be planted any time of this month, with success, but the sooner in the month the better before they begin to shoot; they will now take root in a short time; and, with the assistance of a little water in dry weather, they will shoot freely.

In planting fruit-trees, either for walls, espaliers, or standards, observe to plant each kind at the distance mentioned in the two former months, and in October, &c.

For the proper soil and situation for the several kinds of fruit, see the work of *October* and *November*.

The method of planting is to open a wide hole for every tree, about a spade deep, or according to the size of the root, and loosen the bottom well. Then prune the roots of the tree; that is, cut off bruised or broken roots, and trim the ends a little of all the very long straggling roots in general, and prune out irregular shoots of the head; then place the tree in the hole; break the earth well, and throw it in equally about the roots; and when all is in, tread the surface gently round the tree.

New planted fruit trees should be well secured from the violence of the wind: if they are tall standards, in exposed situations, let them be supported with stakes; and if wall trees, &c., with largish heads, planted against walls and espaliers, fasten their main branches thereto.

#### PRUNING AND TRAINING YOUNG APRICOT AND PEACH TREES, &c.

Now is the only proper time to head down young wall trees, &c., preparatory to their first training; such as apricot, peach, and nectarine trees, planted against walls any time since last Michaelmas, with their first shoots, from budding at full length; which, when a year old, should always be headed down low, to force out lower branches, to furnish the wall properly quite from the bottom.

This should be done just as the trees begin to push; therefore watch the opportunity, and let them be headed accordingly at the proper time.

The heads should be cut down to about five, six, or seven eyes, or buds, from the bottom; and if there are two shoots from the same stock, let them both be cut down as above.

By this practice the trees will produce some strong shoots near the ground, whereby they will be furnished equally with branches from the bottom to the top of the wall. But if the trees were not to be headed down, as above, they would run up with a stem like a standard tree, and not furnish any branches below, within two or three feet of the bottom; whereby the use of so much of that part of the wall would be lost.

Such young apricot, peach, and nectarine trees, as were headed down a year ago, and having each produced three or four or more shoots the last summer, should now have these shortened to such length as may encourage each shoot to produce two or three new ones the same season.

The method is this: let each shoot be shortened generally in some degree of proportion to its strength; in some pruning off about one half, or third of their original length; and in others a little more or less, according to circumstances of growth and situation on the trees; as for instance, shoots of about two feet may be cut to ten, twelve, or fifteen inches, or a little longer in strong growths, for the strongest shoots should always be left the longest; and those about twelve or fifteen or eighteen inches, pruned to six or eight to ten or twelve inches in length; and so in proportion to the different lengths and degrees of strength, and particular situations of the respective shoots.—See *January, &c.*

By this practice each of these shoots will probably produce two, three, or four new shoots the succeeding summer, so that by Michaelmas each young tree so treated will be furnished with from twelve or fifteen to eighteen or twenty shoots, or more.

The trees may then be pruned, according to the method directed for the older trees of that sort, observing still to shorten the young shoots but in such a manner, as they may both produce fruit and a supply of young wood, as in the full bearing trees aforesaid: that is, generally to prune the weaker shoots about one half, the stronger ones prune about a third or fourth of their length, according to strength, and where situated, and situation of the blossom and wood-buds on the respective shoots; and then nail them straight and close to the wall, three or four to five or six inches asunder.—See *Fruit Garden in January, &c.*

#### PRUNING AND TRAINING YOUNG APPLE TREES, &c.

Any young dwarf apples, pears, plums, and cherry trees, lately planted against walls or espaliers, &c., or still remaining in the

nurse y, with their first shoots of only a year or two old, entire, should now be pruned down to a few eyes, that they may put out some good shoots near the ground, to furnish the bottom of the wall or espalier therewith.

If the heads of these trees are but one year's growth from the bud or graft, let them be shortened to four or five eyes; observing to do it just as they begin to form buds for shooting as before mentioned.

Suppose they are two years from the bud or graft, and the first shoots were cut down, as above, last spring; let the shoots which were produced from them the last summer be also shortened now to six, eight, or ten inches.

The same rule holds good with these, at first training, as mentioned for the apricots and peaches; for it is on shortening properly the first and second years' shoots, from the budding and grafting, that the whole success depends for forming a useful handsome tree, as, when a young wall or espalier tree is well furnished with branches near the ground, those will readily supply you with more in their turn, to furnish the wall or espalier upwards.

But in the common course of pruning apples, pears, plums, and cherries, their shoots and branches are not to be shortened; for after the young trees are furnished with a proper supply of branches below, their shoots must then be trained to the wall at full length, only shortening particular shoots where more wood may be required to furnish that part.

For more particulars in that work, see the work of last month.

#### GOOSEBERRIES AND CURRANTS.

PRUNE gooseberry and currant bushes, where they are not yet done; but let this work be finished the beginning of the month.

Keep the branches thin, and the middle of the trees open, and clear the wood, so as to admit the sun and air freely; by which means the fruit will be large, and well tasted. Observe the rules exhibited in January, February, and October.

Dig the ground between the gooseberry and currant trees, where not done in the two former months, which as they are just advancing in bud, will now be of service, in promoting a plentiful production of large good fruit.

Finish planting gooseberry and currant trees where any are intended, as early in the month as convenient.—See *January, February, &c.*

## DIGGING THE FRUIT-TREE BORDERS.

Dig the fruit-tree borders which are not yet done.

These will be serviceable to the trees, and destroy the weeds; and the borders will appear neat and decent, and will be ready for sowing or planting with some kitchen crops of small growth.

Hoe and loosen the surface of such fruit-tree borders as were dug in the foregoing months, and are not sown with any close crops; as radishes, spinach, lettuce, &c. It will be of some service to the trees, retard the growth of advancing seed-weeds, &c.; and the whole will appear neat for the spring season.

## PRUNING VINES.

WHERE vines are not yet pruned, let them be now done as soon as possible; for when vines are pruned too late, it is seldom that a good crop succeeds.

For the particular method of pruning them, see the work of the two last months, or *November*, &c.

Plant cuttings of vines the beginning or middle of this month; by which means you may propagate any sort you desire; for the cuttings will take root freely.

The cuttings must be shoots of the last year, which if cut from the trees last month or the beginning of this, it will be the more eligible; shortening them to twelve inches in length, or each to about three joints; and in some, where they admit, may let each cutting have about an inch of the former year's wood at its bottom; though this is not absolutely necessary, as they will succeed without that appendage: and may divide long shoots into two, three, or more lengths, as above, for planting.

They may be planted either in nursery rows, or some in the places where they are finally to remain, either against walls, espaliers, or elsewhere; observing to plant them somewhat slanting, and so deep that only one joint or eye may appear above ground, nearly close to the surface.

Vines are also propagated by layers of the young shoots, or occasionally with part of the branch they proceed from; laying them about three to four or five inches deep in the earth, leaving three eyes of the shoot out of the ground, shortening the top accordingly, if too long.

Or may occasionally make layers in large pots, placed near the vine intended for propagation: and either draw the layer shoot through the hole at bottom of the pot, and fill up the pot with earth, or bend the layer down into the top of the pot a



proper depth in the earth; and, in either method, when the layers are rooted next autumn, cut them off from the parent tree; and may remain in the pots a year or two, or till they attain a bearing state; and then, cracking the pot asunder, may be transplanted with the whole ball of earth about the roots; or, some may remain in the pots for fruiting, either in the full air, or for forcing.\*

#### STRAWBERRIES.

DRESS the strawberry beds, if they were not done in the former months; the plants will now begin to push apace; and the sooner this is done the better.

Clear the beds from weeds, and the plants from old runner-strings and other litter; and if the main plants are crowded with young ones from the last year's runners, let them be cleared to regular order; for it is most advisable to keep these plants in single bunches, clear of each other, so that there may be room both to hoe between them, or occasionally to dig round them with a narrow spade or a trowel; and they will fruit in great perfection.

The beds being cleared from litter, loosen the earth between the plants; and if you add a little fresh earth from the alleys, &c., to the beds, it will strengthen the plants, and they will flower strong, and produce large fruit.

Strawberries may now be planted where required. Observe the same method as mentioned in February, &c.

A farther supply of bearing strawberry-plants in pots may still be placed in hotbeds and hothouses, &c., to produce a succession of early strawberries to succeed those of the former months, and to afford a supply of ripe fruit till those in the open ground ripen in June.

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### THE PLEASURE OR FLOWER GARDEN.

#### PRICKING OUT EARLY ANNUALS.

If any tender annuals were sown last month, &c., such as cockscomb, balsamines, &c., make a new hotbed towards the middle or latter end of this, in which to prick them, to forward

\* We greatly prefer plants raised from short cuttings or eyes, in pots, and nursed in frames or pits for one or two years.

their growth. Let the hotbed be about two feet or thirty inches high, and make the top even; then set on the frame; and when the great heat is over, let the earth be put in; let the earth be light and rich, and perfectly dry, and lay it equally over the bed six inches thick; and, when warm, prick the plants therein at three or four inches' distance, each way, or some may also be pricked in small pots, one good plant in each, and plunged in the earth of the bed; giving the whole a little sprinkling of water; then let the glasses be put on, observing to raise them behind a little every day, to admit air and let out the steam; shade the plants from the sun till they have taken fresh root.

When the plants are rooted, and begin to push, they should have fresh air every day; therefore let the upper ends of the glasses be raised an inch, or two, or three in height, to admit it to them; but shut them down towards the evening, and cover them on cold nights with mats; remember to sprinkle them with water occasionally, giving but a little at each time.

Keep up the heat of the bed by occasional lining with hot dung.

Thus these tender annuals are to be continued forwarding in growth till May or June; then finally transplanted into large pots, flower borders, &c.

#### SOWING TENDER ANNUALS.

A HOTBED may be made the beginning or any time of this month, in which to sow the seeds of tender annual flowers, such as cockscomb, amaranthus, egg plant, marvel of Peru, double stramonium, double balsamine, globe amaranthus, ice plant, sensitive plant, &c. (See *List of Annuals*.) Make the bed, and sow the seed, as directed in last month. Or a few plants may be raised in pots in any cucumber or melon hotbed now in cultivation, to a proper size for transplanting.—See *April*.

The plants raised from the above sowings will blow strong and beautiful in June or July, &c., till October.

Remember they are not to remain in the hotbed where raised, but are to be transplanted, some into pots, and some into the borders.—See *April*, *May*, and *June*.

#### SOWING LESS TENDER ANNUALS.

A SLIGHT hotbed should be made in the second or third week of this month, wherein to sow the seeds of the less tender kinds of annual flowers: such as the China aster, India pink, palma Christi, capsicum, French and African marigolds, chrysanthemum.

mum, broad-leaved tobacco, basil, mignonette, and ten-weeks stocks, tree and purple amaranthus, persicarias, love-apple, scabiouses, convolvulus major, and Chinese hollyhocks, &c.—(See *List of Annuals*.)—Or also among these may sow some balsams, marvel of Peru, globe amaranthus, stramoniums, &c.—See *April*.

Observe, they are all only to be raised in the hotbed, and afterwards transplanted into the borders, pots, &c.

Make the hotbed about two feet high; put on the frame, and then earth the bed, five or six inches thick, for the reception of the seed.

The method of sowing these seeds is this: draw small shallow drills from the back to the front of the frame, two or three inches asunder; sow the seeds therein, each sort separate, and not too thick; cover the smallest seed about a quarter of an inch, and the largest near half an inch; or some may be sown in pots placed in the same bed. When the plants are come up, let them have air by raising the upper end of the glasses, or sometimes the front, in mild weather, one, two, or three inches every day: and when they are advanced two, three, or four inches in growth, next month they must be gradually hardened, to bear the open air, by taking the lights entirely off in mild warm days. Refresh them occasionally with moderate sprinklings of water; some of them will be fit to prick out next month, and all of them in May.—See those months.

*Note.* In default of frames and lights for the hotbed, may use hand-glasses, or oiled paper frames; or may arch the bed over, and cover with garden mats, &c., only in nights and bad weather.

Where a hotbed cannot be conveniently obtained, you may, towards the latter end of the month, if fine mild weather, sow some of the above-mentioned annual flower-seeds on a warm border, and cover occasionally in cold nights and bad weather with glasses or mats, &c., as above.

The sorts that will succeed by that method are China asters, ten-weeks stocks, Indian pink, African and French marigold, chrysanthemum, purple and tree amaranthus, persicarias, tobacco, scabiouses, and convolvulus major, mignonette, &c.: sow the seeds thin, each sort separate, and either place hand-glasses, or arch the bed over, and cover every night, and in bad weather, with mats across the hoops. With this management, the plants will come up, and grow freely. Refresh them with water in dry weather: and they will be fit to plant out about the middle

or end of May, or beginning of June, and will flower the latter end of June, and in July, &c., to the end of autumn.

May sow ten-weeks stocks, and mignonette in borders, beds, or pots, &c., both for transplanting, or some to remain, three or four together, for flowering where sown.

Or, for want either of a hotbed, or any of the other above-mentioned conveniences, most of the above seeds will succeed in a warm border next month, without any protection.

For their full management, see the work of the three succeeding months.

#### SOWING HARDY ANNUAL FLOWERS.

Sow in the borders, and other flower compartments, pots, &c., the seeds of the various sorts of hardy annual flowers, such as large and dwarf annual sunflower, oriental mallow, lavatera, persicaria, Venice mallow, larkspur, flos Adonis, sweet sultan, large rose, and blue and yellow lupines, convolvulus major, sweet-scented peas, Tangier peas, and nasturtiums, the Spanish nigella, purple and white candy-tuft, virgin stock, Venus' looking-glass, Venus' navel-wort, double poppy, Lobel's catchfly, dwarf lychnis, snails, caterpillars, and convolvulus minor, ten-weeks stocks, and mignonette, and various others.—See the *List of Annuals*; also next month.

All the above and other hardy annual flower-seeds should be sown, each kind separate, in patches, in the different borders, and flower beds, &c., finally to remain where sown; as also some in pots, of any desirable species or varieties, such as larkspurs, lupines, scarlet and sweet peas, ten-weeks stocks, mignonette, &c., sowing the whole as directed last month: water the patches both before and after the plants are come up; and observing the plants of this tribe sown as above, are principally to remain where sown to flower; but, when a little advanced, let the larger-growing kind be thinned where too thick in growth.

#### GIVING FRESH EARTH TO PLANTS IN POTS.

GIVE some fresh earth to the pots of carnations, auriculas, double wall flowers, double stock July flowers, double sweet-williams, rockets, rose champions, catchfly, campanulas, and scarlet lychnis, and such like plants, which were potted last autumn, or before, and were not dressed last month.

In doing this, clear the plants first from decayed leaves, then take some of the earth out of the top of the pots, but not too deep to disturb the roots of the plants; then fill up the pots

again with fresh earth, and give some water; this will strengthen their roots, and the plants will shoot freely, and produce large flowers.

#### CHRYSANTHEMUMS.

THE cuttings of double chrysanthemums, which were planted in boxes or pots last autumn, and preserved all the winter in frames, &c., should now be planted out singly in the pots where they are to flower; some of them may be planted out next month in the borders among other flowers, where they will flower early and strong, and make a handsome appearance.

#### AURICULA PLANTS.

IF the auriculas in pots, were not dressed last month, let it now be done early in this, as formerly directed.

The fine auricula plants in pots should now be guarded from excessive wet, cold winds, and frost, such weather being hurtful to their flower buds, which are now in forwardness. Therefore continue the pots under frames or hoop arches, where the plants can enjoy the open air, and be defended, when there is occasion, by glasses, or drawing mats over the hoops.

But let the plants enjoy the full air in mild weather, and not be debarred from a warm moderate shower of rain, which will now prove beneficial to their advancing flower buds. When the weather is dry, let them be refreshed moderately with water, just to keep the earth a little moist about their roots, and keep the pots clear of weeds and the plants from decayed leaves.

#### CARNATIONS.

THE carnations which were raised from layers last year, and which are not yet planted into the large pots, borders, &c., where you intend them to flower, should be planted therein the beginning of this month.

Take up the plants with some of their own earth about their roots, and place one plant in the middle of each pot; but if the pots be large, you may put two plants in each; close the earth well about them, and give a moderate watering to settle the earth about their roots. Place the pots where the plants may be defended from cold winds, and water them moderately in dry weather; the others plant singly in borders, &c.

Where any best carnations were planted singly in small pots last autumn, to place under shelter in winter, should now, if not done last month, be transplanted, with the ball of earth

about the roots, into large pots, or borders, &c., to remain for flowering.

The carnation plants which were planted last autumn in the large pots where they are to remain, should now be fresh earthed, if not done in February.

Let the plants first be cleared from dead leaves, then take some of the earth out of the pots, as near to their roots as possible, without disturbing them; then let the pots be filled up with the fresh mould, laying it close round the plants; after which, water the pots to settle the earth.

The fresh earth will be of great service to the plants; it will strengthen them, and cause them to shoot strong, and produce large and handsome flowers.

This is now a proper time to sow carnation seed.—See the work of *Sowing perennial Plants*, in the next page.

#### PROTECTING CURIOUS FLOWERS.

Now protect the flower buds of the more curious kinds of tulips, hyacinths, ranunculuses, and anemones, in beds, from cold driving rains, snow, and frost, which frequently happen in this month. Their flower buds are now advancing apace: therefore, it will be of much advantage to bestow the care of covering them in bad weather, and they will blow large and beautiful in great perfection. Let the hoop-arches be continued over the beds, as mentioned in the former months, ready for the support of occasional covering, when the weather is frosty, and in excessive cold rains, &c., sharp cutting winds, and very cold nights, with large mats drawn over the hoops.

In mild days, let them be constantly uncovered, that they may enjoy the free air; and moderate warm showers of rain will enliven their growth, and be very serviceable.

If the hoops which are fixed across the beds are low, and too near the flowers when advanced in growth, they should be removed, and others fixed higher in their places.

#### HYACINTHS.

HYACINTHS will now begin to advance apace; if the flower-stems are tall, and the spikes of the flowers large and the petals double, you should prepare some sticks to support them; for the large double flowers being heavy, the stalk alone is not able to bear them up. Let a small neat stick be fixed in the ground near every plant, and let their flower-stalks be brought close and fastened thereto neatly with some small soft tying.

## PLANTING RANUNCULUSES AND ANEMONES.

FINISH planting all ranunculuses and anemones; they will blow and make a fine appearance in May and June, after the early planted ones are out of bloom. In dry weather, let the beds be frequently watered after the plants are up, and they will flower tolerably strong.

## SOWING VARIOUS KINDS OF FIBROUS-ROOTED PERENNIAL AND BIENNIAL PLANTS.

PERENNIAL and biennial flower-seeds, of most kinds, may be sown towards the middle and latter end of the month.

It is to be observed, that these kinds do not flower the same year they are sown: but all the sorts of them will flower strong, and in good perfection, the year after.

As every one may not know the meaning of perennial and biennial plants, the perennial plants are those which continue in the same roots many years, producing new flower-stems annually, such as everlasting sunflower, golden-rod, perennial asters, &c. The biennials are only of two years' duration, being sown one year, and flower and perfect their seeds the next, and soon after die, or become of a dwindling growth, such as scabious, Canterbury bell-flower, single sweet-williams, &c.

Many kinds are proper to be sown now, such as carnations, pinks, sweet-williams, wall-flowers, and stock gillyflowers of all sorts; also rose campion, catchfly, scarlet sychnis, columbines, Greek valerian, polyanthus, auriculas, scabiouses, and Canterbury bells.

The seeds of hollyhocks, French honey-suckles, rockets, honesty, or satin-flower, tree-primrose, shrubby mallow, broad-leaved campanula, and fox-gloves, snap-dragon, bee-larkspur, with seeds of most other sorts of perennial and biennial plants, may now be sown.

For an account of the various sorts to be raised from seed, see *Catalogue of Plants* at the end of the book.

All the above, and other hardy perennial and biennial flower-seeds, are to be sown in beds of light earth in the open ground.

Dig a compartment for them in a warm situation, but not in any shady place: divide the ground into beds three or four feet wide, and the beds into as many parts as you have kinds of seeds: sow each kind separate, and let them either be raked in regularly, or covered with earth spread over evenly, the larger

seeds half an inch, and the smaller seeds about a quarter of an inch deep.

But in sowing these kinds, or any other sorts of perennial and biennial flower seeds, you may draw shallow drills to sow them in, proportioning the depth of the drill to the size of the particular seeds, so that each kind can be more regularly covered with the proper depth of earth it requires; which method is more particularly eligible for the larger seeds, such as hollyhocks, &c., but is also very proper, occasionally or generally, for the smaller kinds; or the whole may be sown broadcast on the rough surface, and raked in evenly.

When the weather is dry, sprinkle the beds frequently with water, continuing also the same care when the plants begin to appear; and they will be fit for pricking out in May or June.

For it must be observed, that all the above, and other perennial and biennial plants raised from seed, are to be transplanted; first pricking them out from the seed-bed about the end of May, and in June (see these months), and then about Michaelmas, October, or November, to be transplanted to where they are to remain to flower; or some may remain for final transplanting in the spring.

#### DIGGING THE BORDERS, &c.

Dig such borders, or other flower compartments, &c., as are not yet done, and rake them smooth: they will then be ready to receive the seeds of annual flowers, and plants of others; besides, they will appear fresh and neat.

#### TRANSPLANTING PERENNIAL PLANTS.

WHERE there are vacancies in any of the beds, borders, or other parts of the garden, they may now be filled up with many different kinds of perennial and biennial flower-plants, any time in the month, and will all blow the same year.

Many principal sorts may now be planted, such as lychnises, rose champions, rockets, catchfly, campanulas, carnations, pinks, and sweet-williams, wall-flowers, stock gillyflowers, bachelor's-buttons, and double feverfew; golden-rod, perennial sun-flowers, perennial asters, and French honey-suckles; also columbines, Canterbury bells, monk's-hood, fox-gloves, tree-primroses, scabious, snap-dragon, irises, bee-larkspur, double tagged robin, valerian, and most others of the like sort.—See *September*.

Plant also dwarf fibrous-rooted flowers in the borders, &c.,



they will take root freely in a short time : such as polyanthuses, auriculas, double daisies, double chamomile, London pride, violets, hepaticas, thrift, primroses, saxifrage, and gentianella, lily of the valley, and cyclamen, &c.—See *September*.

In planting the intended different kinds, dispose them variedly ; and the larger growing sorts more or less back, the smaller growths forward towards the front and middle.

Give water at first planting, and afterwards occasionally in dry weather, till the plants are fresh rooted ; by which they will grow freely, and all flower the same year in their proper season.

#### HOEING AND RAKING THE BORDERS.

LOOSEN, with a hoe or small spade, the surface of those beds or borders which were dug and planted with flowers of any kind last autumn, or any time since.

Let this be done in a dry day, hoeing, or lightly digging and stirring the earth carefully between the plants, taking care of the shoots from bulbous roots, &c., which are now just peeping through the surface ; clearing away all decayed leaves of the plants, weeds, and every sort of rubbish, and then let the beds or borders be neatly raked even and smooth.

By thus loosening the surface of the borders, the first growth of seed-weeds will be retarded, and it will greatly promote the growth of the flowers, and the whole will appear clean and agreeable.

#### PLANTING SHRUBS, AND DIGGING THE CLUMPS IN THE SHRUBBERY.

FINISH pruning all sorts of flowering shrubs and evergreens which require it, observing the directions of the two former months.

Dig the ground in the clumps or borders between flowering shrubs and evergreens, if not done in the former months. Let it be done at the beginning of this month, which will prove beneficial to the plants, and the ground being turned up fresh, will appear neat, and the plants will show themselves more agreeably.

#### PLANTING DECIDUOUS FLOWERING SHRUBS, ORNAMENTAL AND FOREST TREES.

WHERE deciduous flowering shrubs or trees are wanted in any part of the pleasure-ground, they may now be brought in and planted, for the most sorts will yet succeed ; such as the

althæa-frutex, spiræas, syringas, roses, guelder-rose, honey-suckles, arbor Judæ, jasmines, common lilac, Persian lilac, mesereons, tacamahacca, laburnums, hypericum-frutex, bladder-nut, sumach, candleberry, myrtle, dog-wood, or euonymus, Virginia dog-wood, double-flowering cherry, dwarf almond, and all other kinds of hardy flowering shrubs, may still be planted.

For a more particular account of the different sorts, see the *Catalogue of Shrubs and Trees* at the end of the book, and in the work of November.

Finish making plantations of all such deciduous ornamental and forest trees as are intended: most sorts may still be successfully removed and planted; such as acacias, larches, horse-chestnut, plane-trees, lime tree, poplar, almond catalpa, tulip-tree, liquid amber, Spanish chestnut, beech, oaks, elms, maples, ashes, birch, walnuts, hiccory, &c., but it is advisable to complete the planting as soon as possible.—See the *Catalogue of Deciduous Trees*.—See also *Forest-Trees*.

#### TRANSPLANTING EVERGREENS.

EVERGREENS of most kinds may be planted any time this month in open mild weather, they will now generally take root the most freely, and advance in a successful growth.

Particularly the arbutus, or strawberry-tree, magnolias, and bays, the evergreen spindle-tree or euonymus, pyracantha, phillyrea, and alaternus, may be transplanted any time this month, when the weather is mild. Plant also, when wanted, laurels, Portugal laurels, laurustinus, evergreen oaks, hollies, and yews; also cytisus, and cistuses, with any other of the like kinds of evergreen shrubs or trees.

The cedars of Lebanon may be likewise transplanted any time in this month, as also pines and firs of all sorts, cypress, junipers, arbor vitæ, and savin.

All other sorts of hardy, or open-ground evergreen shrubs and trees may likewise be safely transplanted at this season.—For a list of the various sorts, see *October*, or the *Catalogue* at the end of the book.

#### DIRECTIONS FOR PLANTING ALL SORTS OF SHRUBS.

ALL flowering and evergreen shrubs, ornamental trees, &c., designed for the shrubbery, and other pleasurable plantations, should be planted at such distances, that they may not crowd each other as they grow up; for they always show themselves best when they stand separate at some moderate distance. And

shrubs of all kinds, designed for detached clumps particularly, should be planted not less than three, to four or five feet asunder; that the different shrubs, according to their growth, may generally remain distinct; but where a thickety growth is required in particular compartments, a closer plantation may be formed of different common shrubs.

Let all tree kinds be also allowed proper room, proportionable to their respective growths, and according to whether they are designed for open or close plantations, or clumps, groves, avenues, or thickets, &c.

In planting shrubs and trees of every kind, let all convenient expedition be made in doing it, so that they may be planted as soon as possible after they are taken up, or brought from the nursery, or elsewhere, that their roots may not be dried by sun and wind; but when the shrubs are brought from any distance, and cannot be immediately planted, untie the bundles, and lay the roots in a trench, and cover them with earth to lie till the places allotted for them are ready to receive them.

In preparing for planting, dig a round aperture for each shrub and tree, from half a yard to two or more feet wide, and a spade deep, capacious enough to receive the roots freely; and loosen the bottom well. Then having the shrubs, &c., ready, prune off broken or bruised roots, with any irregular production off the head; and then place them in the hole upright, break the earth well, and throw it in equally about the roots, which let be covered a proper depth, shaking the plant gently as the earth is filled in, to cause it to settle close between all the roots and fibres; then tread it moderately, to fix the plants firmly in an upright position; making the top of the earth a little hollow, round each shrub, to hold water when given in dry weather; if they are watered as soon as planted, it will settle the earth about all the roots more effectually, and promote their fresh rooting; and it would be of advantage in general, but more particularly to any more tender or curious shrubs, &c., to lay some mulch on the surface to preserve the moisture about the roots in dry weather.

Immediately after planting, fix stakes to such tall plants as require support, and let them be fastened thereto.

#### PLANTING ROSES.

ROSE-TREES of most sorts may still be removed.

Those that are planted any time this month will produce

flowers the same year; but the sooner they are planted the better they will take root, and the stronger they will flower.

But by transplanting these shrubs late in the season, in April and beginning of May, giving plenty of water till fresh rooted, you obtain a late bloom in July, August, and September.

#### PLANTING EDGINGS FOR BEDS OR BORDERS.

PLANT box-edgings; they will now take root soon, and grow freely, provided you water them a few times in dry weather. Where there are any gaps in the former planted edgings, let them now be made good; for ragged and uneven edgings have a disagreeable appearance.

Or where any old edgings of several years' standing have been permitted to run up rude and spreading, nothing in a garden looks more unsightly; and should be taken up, slipped, trimmed, and replanted in a neat regular order.

Thrift, if neatly planted, makes pretty edging to borders, or flower-beds, both in its evergreen property, and as a pretty flowering plant in summer. Plant this where required, by the method directed in the former planting months, and water it at times, in dry weather, till it is well rooted.

Double daisies, London pride, strawberries, &c., are also sometimes used for edgings, as observed last month

#### PLANTING HEDGES.

FINISH planting hedges, where intended, as early in the month as possible; it may still be performed both in evergreens and the late shooting deciduous kinds.—See *October*, *November*, and *December*.

#### CLEANING THE PLEASURE GARDEN.

EVERY part of this garden should be now well cleaned and put into the best order. Give the flower borders, beds, &c., a general spring dressing, by digging, hoeing, and raking; let the edgings of the box, &c., be regulated, where disorderly, and the gravel walks be well cleared from weeds and litter, and occasionally rolled.

Keep the grass lawns, walks, &c., now well cleared from litter and worm-cast earth, which appears unsightly, and spoils the compact evenness of the sward; give therefore occasional poling and rolling, as explained last month; whereby to preserve a clean, even, firm surface, neat to appearance, as then they can be mowed close and regular with greater facility.

Likewise begin mowing grass lawns, &c., in proper time this or next month, before growing too rank; otherwise you cannot cut close, to have a fine even bottom; being careful in this first mowing to cut as close and regular as possible without scoring; for this has a disagreeable appearance.

And let irregular edges of grass lawns and walks be now cut evenly close and regular; which will add greatly to the general neatness.

#### LAYING TURF.

New grass walks or lawns may still be made any time this month.

Turf will grow freely if laid now, provided it is laid down soon after it is cut. It should be well beat after it is laid, and well rolled after heavy showers of rain, which will render the surface smooth and firm.

Or in default of turf for laying walks, lawns, &c., may sow it with grass seed, preparing the ground level, firm, and even, equally in every part, smoothing the surface; then sow the seed thickly; rake it in, with a wooden or other rake, lightly; and directly, or when the ground is quite dry, roll the surface smooth.

#### GRAVEL WALKS.

GRAVEL WALKS should now be kept perfectly clear from weeds, and suffer no sort of litter to lie upon them.

Roll the gravel walks once or twice a week, when fine dry weather, which will preserve the surface firm, smooth, and agreeable to walk upon, and of a desirably neat appearance.

Now is the time to begin to turn gravel walks where the surface is dirty, &c., first giving any necessary trimming to adjoining borders and edgings (see *April*); and then the turning is effected by digging with a spade in a slanting order, turning the surface clean to the bottom, and the fresh gravel below turned to the top, whereby the top foulness, moss, and weeds will be destroyed, and the walks will appear fresh as when first made.

Such gravel walks as were broken up and laid in ridges the beginning of winter, should now, or next month, be levelled down and put into proper form.

But this ridging up of gravel walks several months in the year, gives disorder, in a manner, to the general garden, as well as being a very unsightly and ineffective work; and yet is a

common practice among many gardeners, though erroneous in the intention, and contrary to reason ; as the walks are thereby, in a great degree, rendered wholly useless in every winter season ; when, in some gardens, it must certainly be very incommodious, both to the proprietor and to the gardener ; and in all gardens it has a desolate and disagreeable appearance. The reason some give for this absurd custom is, that it prevents the growth of weeds ; but it has not the intended effect ; so that I should advise that all gravel walks might remain always in their proper form, for constant use, except just turning them in spring, both to turn down the foul surface, and the numerous small weeds and moss, often appearing thereon in that season, and to give the walks a fresh and lively appearance for the spring and summer.

However, where ridging up the walks in winter has been practised, let the ridges be levelled down some time this or next month.

In turning or laying down gravel walks, always choose dry weather, and the work should be done in the completest regular order, the walks being a principal part of the garden.

Gravel walks should be made highest in the middle ; but the rise should be easy, and should come on gradually, from both sides, finishing them off somewhat rounding, being careful not to make them too high, or of a sudden rise in the middle ; for a walk made in that form is uneasy to walk upon, and is also disagreeable to the eye. A gravel walk of twelve feet wide should have a gradual rise of about three or four inches higher in the middle than the sides ; one of twenty-four feet should not have more than six inches' rise in the middle ; and a walk of six feet wide should not have more gradual rise in the middle than two or three inches ; for the method is, that for every foot the walk is wide, allow from about a quarter to half an inch rise in the middle ; and by observing nearly the same proportion in laying walks of different widths, the rise will be sufficient to give it the requisite gradual swell, and to throw off wet ; and if the walk exceeds twenty-four or thirty feet, that allowance should be diminished about one-third.

When a gravel walk is made according to the above dimensions, it will be agreeable to the eye, and a person can walk in any part of it with pleasure ; and there will be slope enough to prevent water lodging on any part of the surface.

In turning old, or laying new gravel walks, observe to tread, rake, and roll them every fifteen or twenty feet as you proceed,

especially sandy loamy gravel, as that and most gravel always rolls more binding and even, while the surface is fresh, neither too dry, nor rendered wet by rain. This work should always be done in dry weather. The method is this:—

When you have advanced with the turning or laying the gravel, about fifteen or twenty feet from the end, let that be firmly trodden all over equally; then smooth it off with the back of the rake, and roll it directly; then lay, turn, or level down as much more, and tread, rake, and roll that, and so proceed to the end of the walk; for gravel never rakes nor rolls so well as when fresh stirred; and therefore should never turn or level down more than can be finished off, or at least trodden down the same day, for fear of rain happening, which, in some, would render it less applicable for raking and rolling completely.

After turning or laying gravel walks, let them be frequently well rolled.

This is also a proper season to make new gravel walks, choosing the best coloured good binding gravel, of middling small size; and should be laid at least five or six inches thick, and for which should make a proper excavation accordingly; and previously to laying the gravel, it would be advisable to lay the bottom with some dry, rubbishy materials, lime-rubbish, chippings of stone, or any rough hard rubbish, or stone rubble, &c., laid three or four inches thick, or more, which both prevents worm-castings on the walks, and admits of the wet draining more effectually from the surface.

In laying new gravel, observe the same directions in forming and laying the walks as in the foregoing intimations.

#### PLANTING FOREST-TREES.

FOREST-TREES of all sorts may still be removed; but any general plantation of these should be mostly performed in autumn or winter, or early in spring; that is, any time in open weather, from October or November, until February.

For the various sorts of forest-trees, see *December*, and the *List of Trees and Shrubs*.

In planting forest-trees for timber plantations, allow them the proper distances for the purposes intended; if for close plantations, or by way of coppices or underwood for gradual thinning and falling for poles and other small purposes, every seven, eight, or ten years, &c., may plant them in close rows, only four, five, or six feet distance; and when they have attained the above-mentioned growth, from the time of planting, proper

for the first thinning, select the handsomest plants at regular distances, to stand for timber, and thin the rest; but when designed to have the whole stand for a full plantation of large standards before any are thinned, plant them at from ten to fifteen or twenty feet distance.

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## THE NURSERY.

### GRAFTING.

GRAFT apples, pears, plums, cherries, &c., this being the principal season for doing that work.

Having procured grafts of the proper kinds, as mentioned last month, also a sharp knife, some new bass, and a proper quantity of well wrought clay, proceed to the work the beginning of the month, and let the same method be practised now as mentioned in the work of the *Nursery* last month.

Grafting may also be performed to any desirable varieties of ornamental trees, &c.

### MANAGEMENT OF FRUIT-TREES GRAFTED AND BUDDED LAST YEAR.

THE fruit-trees which were grafted and budded a year ago, should now have their shoots, which were produced last summer, shortened, that they may send forth lateral shoots or branches, to form a regular head near the stock.—See the *Fruit Garden* of this month and February.

Let this be done just as the shoots begin to push, shortening them to four or five.—See the *Fruit Garden*.

The stocks which were budded the last summer, and in which the inoculated buds still remain dormant, should now have their heads cut off, a little above the budded part; by which means the whole nourishment will go to the inoculated bud which will now soon begin to advance in its first shoot.—See *Budding*, *July*.

In proceeding to this, cut the head of the stock off sloping, behind the inoculated bud, either almost close thereto, or about a hand's breadth above it; which part of the stock remaining above, will serve to which to tie the first shoot from the bud in summer, to secure it from the wind; but must be cut down



close next spring.—See last month, and the article of *Budding* in *July*.

#### SOWING SEED OF DECIDUOUS TREES AND SHRUBS.

Now is the time to sow the seeds of many sorts of hardy deciduous trees and shrubs.

For an account of the various sorts which may be raised from seed, see *April*, and the *List of Trees and Shrubs*, at the end of the book. And as most of the principal seed-shops are generally furnished with many sorts both of British production, and great variety of exotic tree and shrub seeds, every year, from America and other parts, whoever may be inclined to raise any of the sorts from seed, may be supplied with the sorts they desire from the above shops.

The method of sowing the hardy kinds is either in drills, or on the surface, and earthed in a proper depth; or some in large pots, &c., as below.

Dig a compartment for them where the ground is dry and of a loose texture, and in a situation not too much exposed; and let the earth be perfectly well broken, and make the surface level; then divide the piece into beds three feet and a half wide. Sow the seeds of each sort separate, either in drills, or some on the level surface, and covered in with earth, as may seem most convenient, according to the kinds and sizes of the different seeds, kernels, berries, nuts, &c., taking care that each sort be covered a proper depth in the earth; some half an inch, and others an inch or two inches deep, according to the size of the seeds, fruits, or nuts. Or any of the more curious or tender sorts may be sown in pots, to move under occasional protection from cold, &c., or to forward them in a hotbed.

In dry weather, let the beds be frequently sprinkled with water; and when the sun is hot, a little shading with mats will be serviceable to some of the more curious and delicate sorts.

#### PROPAGATING TREES AND SHRUBS BY CUTTINGS.

Trees and shrubs of many kinds may be propagated from cuttings; this is a good season to plant them.

Dig one or more beds, &c., for them, where the ground is somewhat mellow, and not wet; let the earth be well broken with the spade, and rake the surface smooth.

Take off the cuttings, with your knife, from the trees or shrubs that you want to increase; let them be of the last summer's shoots, cutting them off from about six or eight to ten or twelve

inches long, according as they may occur in the different sorts of trees, &c.; plant them in rows, each cutting about half way into the ground, and close the earth well about them; and in dry weather let them be occasionally watered.

The cuttings of most kinds of hardy trees and shrubs that succeed by this method may still be planted, where not done in autumn or last month.

For an account of the principal sorts which may be raised by this method, see the *Nursery in October*.

#### SOWING HARDY EVERGREENS, SHRUBS, AND TREE SEEDS.

THE seeds of most kinds of evergreen trees and shrubs may now be sown; such as the cedar of Lebanon, pines, firs, cypress, juniper, arbor-vitæ, Virginia cedars, &c., this being the proper season to sow these and the like kinds.

The above and most sorts of evergreen tree and shrub seeds, may be obtained, at this season, at the general seed shops, and at many of the nurseries.

Dig a compartment of light ground for these seeds, and divide it into small beds; sow the seed therein, each sort separate, and cover them with light earth, from about half an inch to an inch deep. Watering and shading the beds in dry hot weather will be very necessary, and to continue it occasionally, while the plants are young.

The strawberry tree or arbutus, may be raised from seed; and this is the season to sow it.

But the most certain method is to sow this seed in a hotbed. The method is this; fill some small pots with fresh light earth, sow the seed therein, and cover it near half an inch; then plunge the pots to their rims in a hotbed. Sprinkle the earth frequently with water, and when the plants appear, they should have a great deal of free air.

These seeds will also grow if you sow them in a bed of natural earth, but not so expeditiously, nor so certain.

The acorns of evergreen oak may be sown now; also the seeds of phillyrea and bays, and other evergreens, in beds of light earth, and cover the acorns about an inch and a half, and the others not more than an inch deep.

For a further account of the different sort of evergreens, which may be raised by seed, see the *Nursery* next month, and the *Catalogue of Trees and Shrubs* at the end of the book.

## TRANSPLANTING YOUNG TREES AND SHRUBS.

Most sorts of young trees and shrubs, both deciduous and evergreen kinds, may still be removed, either from the seed bed or other compartments, where they stand too close, and require planting out in wide nursery rows.

In transplanting the various sorts in nursery rows, some of the smaller kinds may first be bedded out in close rows, from six to twelve inches distance, such as the cedars, pines, firs, and such like evergreens, &c., but the larger seedling plants, &c., should be planted in wide rows two feet and a half asunder, and placed about twelve to fifteen or eighteen feet distance in the row.

Watering after transplantation may be necessary in late planting, particularly to some of the tender evergreens, &c.

Likewise to some of the more curious, tenderish sorts, it may be proper to lay some mulch, or some sort of long litter, on the surface, to prevent the sun and wind from drying the earth too much about their roots.

## PLANTING FRUIT-TREE STOCKS.

COMPLETE planting fruit-tree stocks for grafting and budding of the proper sorts mentioned last month, for the different kinds of trees under the article *Grafting*; planting them in nursery rows, two feet, or two and a half asunder, by eighteen inches or two feet in each row.

## WEEDING SEEDLING-TREES AND SHRUBS.

Look over the seed-beds of young trees and shrubs; if weeds appear on them, let them be carefully picked out by hand in time before they mix their roots with those of the plants.

## WATERING SEEDLING-TREES, &amp;c.

In dry warm weather it will be proper to refresh the seed-bed of small young trees and shrubs with water now and then; a little at each time will do.

## DIGGING VACANT GROUND, &amp;c.

ALL requisite digging and trenching of vacant quarters of ground in the nursery, designed for plantations of young trees; shrubs, &c., this spring, should now be completed, as soon as possible in due time for the reception of the respective plants intended; which, in the deciduous kinds particularly, should

be mostly or generally finished by the middle or latter end of this month : and the evergreen soon after that time.—See *April*.

Finish all digging between the rows of young trees, &c., this month ; and also in all parts where planting is intended this spring.

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### THE GREEN-HOUSE.

OPEN the green-house windows every mild day, that the plants may enjoy the fresh air freely ; for now they require that necessary article.

When there is a sharp frost, cutting winds, or a very cold air, the windows should be kept close ; for such weather would ruin some of the tender kinds, and would be of bad consequence to all.

Keep the windows close every night.

Look over the tub or pots every day, and see where water is wanting, and let such as require it be supplied therewith, taking care to use moderation in that case. Water will be serviceable to most of the plants, but especially to all the woody kinds, which will now require more frequent refreshments, if fine mild weather, but always in moderate quantities ; and be still careful in the whole not to give too much water at a time, for that would prove the destruction of many kinds, and would be prejudicial to the plants in general, especially in a cold season and while they are confined in the green-house.

Keep every plant in the house free from decayed leaves ; that is, where such appear, let them be immediately picked off ; for these, if generally permitted to remain, would prejudice the plants ; besides, they appear disagreeable.

If any decayed or mouldy shoots appear on any plants, cut them clean off to the firm live wood.

Where dust, or mouldiness, or any sort of filth, appears on the leaves of the plants, let them be cleared therefrom ; and if the leaves of the oranges, lemons, and other large-leaved kinds, are foul, have a sponge dipped in water, cleaning the leaves therewith, one by one, and let the small-leaved sorts be cleaned by watering, out of a watering pot, all over their heads.

## HEADING ORANGE OR LEMON TREES.

WHERE any orange or lemon trees, &c., have decayed, or irregular unsightly heads, it will now be proper to prune or head them down, as directed last month; at the same time, either give a little fresh earth at the top of the pot, or tub, or shift them out of the pot or tub, with the ball of earth about the roots, in order to replace them again with some fresh earth, either in the same pots, &c., or others a size larger, whereby they will shoot out with greater vigour, so as to appear, with full and handsome heads, by the end of July.

Prepare for this purpose a proper quantity of fresh earth: let this be broken well with the spade, and lay it ready near the green-house.

Then bring out the trees, and prune their heads as you see convenient, and cut out all dead wood.

When this is done, either loosen the earth at top of the pots or tubs, and a little way down round the sides, taking out the loosened mould, and fill up with fresh compost; or it may be more beneficial, if convenient, to shift them into pots, &c., a size larger, with some fresh earth; in which case, let the tree be taken out of its pot or tub, preserving the ball of earth about the roots entire, as above observed; then with a knife pare away from the bottom and sides the dry, matted, and mouldy roots, with a small part of the old earth, equally round the side of the ball; this done, put some fresh earth in the bottom of the pot or tub, and immediately replace the tree, and fill up round the ball with more earth, bringing it at least an inch over the top of the ball.

Give a moderate watering, as soon as they are either fresh earthed or shifted, to cause the earth to settle close about the roots.

Then return the trees to their places in the green-house, and let them be refreshed with water frequently; but let this be given in small quantities, just enough to keep the earth about the roots a little moist.

When they are brought out of the house for the summer season, let them be placed in a shady situation, and supply them well with water in dry weather.

By the above culture these trees will push out, in the parts where headed, many strong shoots, and renew their head, in a regular set of young branches in a good expansion by the end of the summer.

But such orange trees, whose heads are in a very weak or declining condition, should be treated, if possible, as directed for such trees in the work of the *Green-house* last month.

#### HEADING DOWN MYRTLES, &c.

WHERE myrtles, or other similar exotics, have decayed branches, or the heads thin, straggling, and irregular, they may now also be headed down, more or less, as it shall seem proper, and either shift them into some fresh earth, as directed above for the oranges, or some of the top mould within the pots taken out, and a little round the sides; then fill up with fresh earth, and water them.

These trees, with this management, will shoot out again, and in four or five months' time, will be furnished with entire new heads. Supply them duly with water.

#### SHIFTING PLANTS, THAT WANT IT, INTO LARGER POTS.

ANY of the oranges, lemons, myrtles, or other green-house plants, that want larger pots, may be shifted therein, with some fresh earth, any time this month.

In performing this, let each plant intended for shifting be drawn out of its present pot with the ball of earth entire; but let any thickly-matted or dry mouldy roots on the outside of the ball, be pared off with a sharp knife; then set them in their new pots, and fill up the spaces with fresh earth.

Water them immediately after this, and set them in their place in the green-house, and they will shoot freely both at root and top.

#### CARE OF GERANIUMS, &c.

EXAMINE the geraniums, and other plants of a similar growth; the young shoots being somewhat succulent, are more liable to injury from the effects of a severe winter, or great damps, than the harder-wooded exotics, so that sometimes many of them decay or mould; and which, where they occur, should now be pruned away: likewise pick off all decayed leaves.

#### GIVING FRESH EARTH TO THE POTS OF GREEN-HOUSE PLANTS

THE oranges, and green-house plants in general, which do not require shifting, should at this time, if not done last month, have some fresh earth added to the tops of their pots or tubs; it will encourage the plants greatly, and it is soon done.

First loosen the old earth, in the tops of the tubs, or pots,

quite to the surface of the roots, but so as not to disturb them, and loosen it also down round the sides a little way; then rake out the loose earth, and fill up the pots with some that is new, and give them a moderate watering.

#### SOWING SEEDS OF GREEN-HOUSE PLANTS, &c.

A HOTBED may be made the beginning of this month to sow the seeds of tender plants, either of the green-house or stove kinds. The beds should be made either of hot dung, or fresh tanner's bark, and covered with frames and glasses, or if made of hot dung, lay eight, ten, or twelve inches of tan-bark at top, either new or old, both in which to plunge the pots, &c., and to continue a longer regular heat.

The seeds should be sown in pots of light earth, and the pots should be plunged to their rims in the tan, and should be moderately watered at times, as you see occasion.

Where tan cannot be obtained readily, make the bed of hot dung, two or three feet high; set a frame on, and when the burning heat is over, lay on three or four inches' depth of earth; then fill some middling small pots with fine light mould: sow the seeds in the pots, and cover them lightly with sifted earth; then plunge the pots in the earth on the bed, and put on the glasses.

Let the pots in general be frequently sprinkled with water, and when the plants appear, let them have fresh air by raising the glasses behind a little way. Observe to keep up the heat of the bed, by applying a lining of fresh hot dung, when the heat declines much.

#### WINTER CHERRY, OR AMOMUM PLINII.

The winter cherry, or amomum Plinii, is much esteemed for its beautiful red fruit, which it bears in winter. This plant is easily raised from seed; this is the season to sow it, and the method is this:—

Fill some pots with rich earth, sow the seed on the surface, and cover it with light earth, about the third part of an inch: then plunge the pots to their rims in a moderate hotbed, and water them frequently.

When the plants are come up, and about three inches high, they may be planted singly into small pots, and placed in a gentle hotbed, where they will soon take root and grow surprisingly, for they are naturally of a quick growth.

They may afterwards be shifted into larger pots, and placed

in the open air, till the middle of October, and be then taken into the green-house,

#### SOWING KERNELS OF ORANGES FOR STOCKS.

Now is the time to sow the kernels of oranges and lemons, in order to raise stocks to bud any of those kinds of trees upon.

The best method of sowing these kernels is this:—fill some middle-sized pots with very good earth; sow the kernels in the pots, and cover them half an inch deep with earth; then plunge the pots into a hotbed, and let them be frequently watered.—See the *Green-house* next month.

#### PROPAGATING BY CUTTINGS, LAYERS, &c.

PROPAGATE, by cuttings and slips, various shrubby green-house plants, myrtles, geraniums, &c., the young shoots planted in pots, and if placed in a hotbed, will sooner strike root and grow freely; or where there is the convenience of bark beds, either in a hothouse, or under any glass frames, &c., the myrtle cuttings and other similar sorts being planted in pots, and plunged therein, may be struck very expeditiously; or also, if at the same time some are covered with a bell-glass, it would still more expedite their rooting: giving proper waterings.

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### THE HOT-HOUSE.

#### NURSING AND SUCCESSION PINE PLANTS.

THE treatment of nursing and succession pine plants, at this time, being so similar, we shall take them both under one head. If the weather in the end of last month has been unfavourable for renewing the tan-beds and shifting the plants, or if it was thought rather early to do so, we would advise it to be done as early as convenient this month, according to the directions given for last month. Attention must be paid to the temperature, keeping both divisions, as steadily as possible, about the same degrees as last month, or rather increasing as the weather improves and the season advances. Air must be freely admitted, as the state of the weather will allow. As the season advances, the plants will require water in greater abundance. Such of them as are just newly shifted, and particularly such of them as have been disrooted, will not require much water until



the plants begin to grow, and their roots have reached the sides of the pots. When this has taken place, they should be regularly supplied in clear dry weather, and in more or less abundance, as the plants may appear to require. In clear weather, it is very desirable to syringe them occasionally overhead, to refresh their foliage, and to keep them clear of dust.

#### FRUITING PINE PLANTS.

THE plants occupying this department having been regulated as directed last month, the principal things to be now attended to are, the temperature and the regular supply of the roots with water and nourishment. The temperature of the house should be gradually raised to seventy-two or seventy-five degrees, allowing it, from the effects of sun heat, to rise to eighty or eighty-five degrees per two or three hours about the middle of the day. In cloudy weather, it is sometimes desirable to increase the fire-heat medium a few degrees for an hour or two, about the middle of the day, to facilitate a change of air, fresh air being at all times most desirable, and to be admitted as freely, for a few hours every day, as the state of the weather will allow. The flues and paths of the house should be abundantly sprinkled with water every night, in order to have a fresh, humid atmosphere, which is particularly congenial to the nature of the pines. In clear weather, let them be occasionally syringed overhead when shut up in the afternoon.

As the plants proceed in growth, and in the formation of their fruit, they may sometimes have additional nourishment supplied to their roots, by forming a ring of turf round the margin of the pots, and filling it up with rich mould, adding a top dressing of sheep or other rich dung. This top dressing will encourage the emission of the roots from the bottom of the stems. Besides the regular supply of water, the roots should be occasionally watered with liquid manure.

#### FORCING VINES.

If success has attended the management of this department, the fruit should be set about the middle of this month. The temperature should be continued with regularity about seventy five degrees, and allowed to rise to eighty or eighty-five degrees with sun heat. Air should be freely admitted every day, being given and taken away by degrees. When the fruit is set, let the engine be freely applied twice or thrice a-week, or even

every night, when the house is shut up, if the weather is clear. Let the flues and borders be regularly sprinkled with water. Let the roots be regularly supplied with water, and occasionally with liquid manure. The directions given last month for pruning and training should be duly attended to throughout this month, to prevent all unnecessary waste of the strength of the vines by shoots, which may not be necessary for a future crop, and which only tend to shade and confusion. As the shoots reach their required length, let them be stopped. Such as have been stopped, if vigorous, will shoot again. The laterals should be allowed to run on four joints, and then shortened to one; and so on, as they push, till they stop, which they will generally do before the fruit begins to colour. When the proper shoots have ripened nearly to the extremity, the lateral shoots may be cut off, at one joint above the originally shortened part.

#### FORCING PEACHES.

THE temperature should be kept as regular as possible at fifty-five degrees, allowing an advance, from sun heat, of five or ten degrees about the middle of the day. Air should be admitted freely at every opportunity. This, at all times, is particularly necessary to peaches, as from their habits they are impatient of confinement; and as the shoots, if drawn up weak, will fall a prey to insects and diseases more readily than any of the other hothouse plants. The process of thinning the fruit should be continued until the shoots be fairly formed. The quantity removed should be in proportion to the apparent want of vigour in the tree, to bring them to maturity. The tree should also be disbudded, and deprived of all superfluous wood; that their vigour may be preserved, both for maturing the fruit and the wood left for future crops. The shoots selected to remain should be neatly and regularly laid in to the trellis as they advance, to prevent their being broken by syringeing, or any other accident, care being had, in tying them, to give sufficient room for expansion. Water should be supplied to the roots more liberally as the fruit advances, but still with due caution until the fruit be fairly stoned. The syringe should be freely and unremittingly applied to refresh and nourish the leaves, and keep down that dreaded enemy the red spider. Should the green fly make its appearance, fumigate with tobacco, as directed for last month.

## FORCING CHERRIES.

CONTINUE the regular supplies of air and water directed for last month, after the stoning of the fruit. As the fruit approaches maturity, however, the supplies of water are to be gradually withdrawn.

## RAISING EARLY FLOWERS, FRUITS, &amp;c., IN THE HOTHOUSE.

Pots of any desirable flowering plants may still be introduced in the hothouse, to forward an early bloom, such as pinks, hydrangea, roses, hypericum, and many others.—See *February*, &c.

Also pots of strawberries and vines, as in the two former months, to continue the supply of early fruit.\*

Likewise a few more kidney-beans, &c.—See last month and *January*.

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A P R I L.

## WORK TO BE DONE IN THE KITCHEN GARDEN.

## MAKING HOTBEDS FOR CUCUMBERS AND MELONS.

HOTBEDS for cucumbers and melons may still be made both for successional crops to succeed the early ones; and if none were made in the two last months, it may still be done with success, to have early cucumbers in May and June, &c., and melons in August.

Observe the same methods of making the bed, sowing the seed, planting and managing the plants, as in the three former months.

## MANAGING THE BEDS OF EARLY CUCUMBERS AND MELONS.

LET the cucumber and melon hotbeds, which were made a month or two ago, be carefully examined, and see if they are of a proper degree of heat.

This should be particularly attended to at this season, for

\* In pine-stoves where vines are trained in from without, and conducted up under the rafters, they will now be well advanced in young shoots, which should be carefully trained in regular order, and pruned as directed in the vinery.

these plants will not yield fine fruit, nor a plentiful crop, if the beds are destitute of a proper heat.

Therefore, when you perceive the heat of the beds to be much failed, let it be renewed as soon as possible. This must be done by adding a lining of hot dung to the sides of the beds, in the manner as directed in the three former months.

This will greatly enliven the heat of the beds, by which means the plants will be preserved in a growing state, and the fruit will set freely, and they will also swell kindly, and will grow to a handsome size.

Air should be admitted to the plants every day. This is done by raising the upper ends of the lights of the frame with props, observing to raise them more or less, in proportion to the heat in the beds, and according as the weather will permit; raise the glasses from one to two or three inches high: but in cloudy days, when there is a sharp air, or high winds stirring, raise the lights but little at such a time, or sometimes not at all, if very cold.

For the purpose of raising the lights to admit the air, &c., you should be provided with wooden props, one for each light, which should be made wedge-formed, making one end six or eight inches thick, sloped off to nothing at the other; and with those you can readily raise the lights to what height you shall judge proper, according to the warmth of the bed, or temperature of the weather.

Let mats be thrown over the glasses every evening, about sunsetting, and take them off again in the morning, about an hour or so after it rises, or as soon as the sun shines fully on the glasses, when sun-shining weather.

Water the plants occasionally; the cucumbers will require it often, that is, provided there be a good heat in the hotbed, and the weather mild and sunny, when a moderate watering, once every four or five days, or a week, will be requisite; but let this article be applied in moderate quantities.

Melons should also be watered moderately at times, for they will require it occasionally: but when these plants are about setting their fruit, they should be watered very sparingly at that time, as much humidity would retard its setting, and prevent its swelling freely.

Let decayed and damaged leaves be taken off as soon as they appear on the plants, either cucumbers or melons; also let all decayed male flowers be taken away; sparing always a sufficiency of the fresh blossoms for the office of impregnation, as below

In hot days, when the sun is fierce, so as to occasion the leaves of the melons or cucumbers to flag, it will be proper to shade them for two or three hours, during the greatest heat, with a thin mat, or with a little loose hay srewed thinly over the glasses.

Impregnate, or set the young fruit of cucumbers with the farina of the male blossom.—The flower of cucumbers and melons are male and female, separate, on the same plant, and females produce the fruit; the males are often erroneously called false blossoms; and many persons, in consequence of that notion, pull them off; but they are so far from being false bloom, that they are by nature designed to impregnate the female flowers, to render them fruitful; for the antheræ in the centre of the male blossom being furnished with a fine powder, which being dispersed on the stigma in the centre of the female, the fecundation is effected, and the fruit, in a day or two after, will begin to swell, and which, in cucumbers, will generally, in about a fortnight, or within a few days under or over, according to the state of growth of the plants, be arrived to a proper size for cutting, or gathering for the table, in young green fruit; so that without the assistance of the male blossom, the females, having the embryo fruit at their base, wither and decay, and the infant fruit turns yellow and drops off.

Therefore it is of importance to preserve a sufficiency of the male flowers, for the purpose of impregnating the females; and in the early culture of cucumbers, &c., it is eligible to carry some of the males to the female flowers, observing, for this purpose, to detach some new expanded male blossoms with the stalk to each, and holding the stalk between the finger and thumb, and pulling off the petal or flower leaf surrounding the male organ; then with the remaining antheræ, or central part, touch the stigma in the centre of the female, twirling it about, so as some of the farina or male powder of the antheræ may adhere thereto; a little of which being sufficient to effect the impregnation.

The operation is essentially necessary to be performed by hand to early plants at this season, that are shut up in frames. before the lights or glasses can be admitted sufficiently open to give free access to a large current of air; or flying insects, such as bees, &c., all of which assist in conveying the farina of the male bloom to the females, as is evident in plants exposed to the open air.

The above operation of fecundating, or, as the gardeners

term it, setting the fruit, should be performed the same day the flowers open, and are fully expanded : which is the most essential period of their generative effect.

The female or fruit-bearing flowers are readily distinguished at sight from the male ; the former having always the germen or embryo fruit placed immediately under the base of the flower ; or, in other words, the embryo fruit issues forth with the flower bud on its top, visible from its first eruption from the stem of the plant ; but the male blossom is placed immediately on the top of its foot-stalk without any appearance of germen, or fruit under its base.

The same operation of impregnating or setting the fruit, as above, may also be practised on melons ; which will have the same effect as in cucumbers ; but as melons are only eatable when ripe, it will be five or six weeks before they attain full size, and mature ripeness.

MAKING HOTBEDS TO PLANT OUT CUCUMBERS AND MELONS,  
UNDER BELL OR HAND-GLASSES.

MAKE hotbed ridges, about the middle or latter end of this month, for the cucumber or melon plants raised last month, in order to be planted under hand or bell-glasses.

These hotbeds, for hand or bell-glasses, should at this time be made the greatest part above ground, not digging deep trenches, as is often practised, wherein to make them ; for by that practice, you cannot readily line the beds quite down to the bottom when the heat declines. The making them in trenches in May, when either but very moderate linings, or sometimes not any at all, will be required, is not improper ; but at this season do not make trenches deeper than about six inches.

Each bed or ridge should not be less than two feet and a half thick of dung, but if made a yard high will be more eligible, by supporting a more durable heat, and should be three or four feet wide.

But where there is plenty of dung, it will be best to make them four feet wide ; and if there are more than one range to be made, may extend them parallel near one another, allowing a space of at least three or four feet between.—See *May*.

The beds being made as above directed, then may either earth them directly, or in two, three, or four days after, when the dung will be settled, and the heat arises to the top of the bed, laying the earth eight inches thick on every part.

When this is done, mark out the holes or places for the plants at three feet and a half asunder: then set on the bell or hand-glasses, one over each hole, and keep them close down till the dung has thoroughly warmed the earth; then, forming that under each glass a little hollow, proceed to put in the plants.

Let two melon plants be set for each glass, but you may plant three cucumber plants under each: observing, if possible, to remove and plant them with a ball of earth about their roots, so as they may not feel much check in their growth by removal.

As soon as they are planted, let them be moderately watered, to settle the earth about their roots, and directly set on the glasses; and if sunny weather, and the sun powerful, shade them a little with a mat over each glass; and the waterings should be afterwards occasionally repeated once or twice a week, according to the degree of warmth in the bed, and temperature of the weather; but let moderation be always observed in performing this work, especially when newly planted.

Continue to shade the plants occasionally from the sun, when it is powerful, till they have taken good root in the new earth; but when the plants are able to bear the sun without flagging, let them enjoy it freely.

Let the glasses be covered every night with mats: this should be constantly practised till the end of May or beginning or middle of June.

Give air to the plants moderately, every warm sunny day, by raising one side of the glasses with a prop about an inch, or a little more or less occasionally, shutting close towards evening and all night.

#### SOWING CUCUMBER AND MELON SEEDS.

Sow the seeds of cucumbers and melons the beginning of this month, to raise some plants to ridge out, under hand or bell-glasses, in May.—See the directions of last and following month.

#### LETTUCES.

TRANSPLANT *Cos* and *Cilicia* lettuce, or any other sorts that require it, where they stand close, both those of the winter standing, and such as were sown in February, or early in the last month.

Choose a spot of good ground for these plants, and if moderately dunged, it will prove beneficial to their growth: dig the

ground evenly one spade deep, and rake the surface smooth, then plant the lettuces about ten or twelve inches distant each way; water them immediately, and repeat it occasionally in dry weather, till they have taken good root.

Sow Cos and cabbage lettuce; also the seeds of the large admirable cabbage lettuce, which is singularly fine; likewise the Cilicia and imperial, or any other sorts of lettuces, may be sown any time this month.

Dig a spot of rich ground for them in an open situation; sow the seed equally, and not too thick, and rake them in lightly.

Repeat the sowings once a fortnight or three weeks, that there may be a regular succession.

#### SMALL SALADING.

Sow small salading, generally about every week or fortnight; the sorts are cresses, mustard, rape, and radish.

Dig a bed, &c., of light mellow earth for these seeds, and rake the surface fine. Draw some flat shallow drills; sow the seeds therein, each kind separate, and cover them lightly with earth.

Water them moderately if the weather should be dry, which will greatly promote their growth.

If those in the open ground are attacked with hoary morning frosts, and if a sunny day, water it off before the sun comes strong on the plants, as in the last month.

#### RADISHES.

THIN the general crops of radishes where they have arisen too thick, leaving the plants about two or three inches asunder, and clear them from weeds.

Radish seed, both of the short-topped and salmon-coloured sorts, should be sown at three different times this month; by which means a constant supply of young radishes may be obtained, allowing about twelve or fourteen days between each time of sowing; choosing at this time an open situation for this seed: sow it evenly on the surface, and rake it well in, and the plants will come up in a few days at this season, and be of a proper size for drawing in three or four weeks.

The crops of early radishes, in general, should be often watered in dry weather; this will promote their swelling freely.



## TURNIP-ROOTED RADISHES.

WHERE the turnip-rooted or small round radishes are required, some seed may still be sown any time this month, both of white and red sorts; but most of the white.

They should be sown in an open compartment of light ground; and when the leaves of the plants are about an inch broad, they should be thinned about two, three, or four inches distance.

But as to the large Spanish turnip-rooted radishes, both black and white sorts, the principal season for sowing them is in June and July; and those from that sowing will be fit to draw in August, September, and October, when they will eat very mild; but of these, the black is most generally known, and best for principal culture.—See *July*.

Hoe and thin the turnip-radishes sown last month to three or four inches distance.

## SPINACH AND BEETS.

Sow spinach for a successional crop in May and June: it will yet succeed, and may be sown any time this month.

Where a constant supply of this plant is required, you should sow some seed once a fortnight, as the spring sowings soon run up for seed; observing the round-leaved spinach is still the proper sort to sow now, which may be sown either broad-cast and raked in, or in shallow drills.

Hoe the spinach which was sown in the former month, especially that of the broad-cast sowings, and thin the plants out to three, four, or five inches distance.

Beets, if omitted sowing before, may still be sown, of the different sorts, in the early part of this month.—See *March*, &c.

## GARLICK, SHALLOTS, AND CHIVES.

MAY still plant garlick, shallots, and chives, as directed in the two last months.

## KIDNEY-BEANS.

PLANT kidney-beans, of the early kinds, the beginning or middle of this month.

Choose a compartment of lightish dry ground for them, where it is defended from cold winds, and open to the sun; draw drills an inch deep, and two feet or thirty inches asunder: drop the beans in the drills two inches apart, and draw the earth

equally over them ; do not cover them more than an inch deep ; for, if covered too deep at this early time, they are very liable, many of them, to rot, especially if much rain falls ; and the plants would rise thin and straggling ; and for the same reason should, at this time, plant them principally in settled dry weather.

About the middle or twentieth to the latter part of this month, may plant kidney-beans for a first main crop ; the proper sorts are the speckled dwarfs, dun coloured, Battersea, and Canterbury dwarfs ; allotting them a free situation and lightish good ground ; and planted in drills an inch deep and drills two feet and half asunder.

#### ASPARAGUS.

Fork asparagus beds which are not yet done. Let this work be finished the first week in this month, for the buds or young shoots will now be forming below in great forwardness.—See *March*.

Rake the beds smooth immediately after they are forked.

Asparagus may yet be planted where required, for the plants will now take root very freely ; but let this work be finished by the middle of the month, for these plants will not succeed well if planted later.

Let the same method be observed in planting them as mentioned in the former months.

Sow asparagus seed, if omitted last month, to raise plants for new plantations, where required, or for forcing.—See *Asparagus* last month.

#### DRESSING AND PLANTING ARTICHOKEs.

Where artichokes were not dressed and slipped last month, it should now be done, for they will now have made their spring shoots, which will be shot up a little height through the ground.

Let the same method be observed in dressing them, as directed in *March*.

Plant artichokes where wanted ; they will yet succeed and have fruit the following autumn, provided you plant them soon in the month.—See *March*.

Choose a piece of good ground for these plants, in an open situation, and lay some good rotten dung thereon, and dig it in a proper depth. Let young plants be procured and prepared as in last month, and set in rows, four feet and half asunder,

and not less than two feet, nor more than a yard distance from each other in the rows, giving a good watering.

#### PLANTING AND SOWING CABBAGES.

PLANT out for full crops. Clear from weeds, and earth up the crops formerly planted. This will greatly promote their growth. Of those sown for succession crops in February and March, the largest may be pricked out into nursery beds, to get strength for final transplantation. Water them immediately, and occasionally repeat this in dry weather. The plants left in the seedbeds, having been cleaned of weeds, should have a plentiful watering to settle the earth about their roots. For successional crops, a few of the same kinds mentioned for last month, should be sown about the beginning and end of this month.

#### SAVOYS.

TRANSPLANT for full crops, according to the directions for cabbages in the preceding article. Likewise sow at the beginning and end of the month for full autumn and winter crops.

#### BRUSSELS SPROUTS

MAY be sown at the beginning and end of the month, for full crops.

#### BORE-COLE.

Sow curled bore-cole, sometimes called brown cole and green cole, for there are two principal sorts, one green and the other of a dark red or brown colour, are a sort of loose cabbage or open colewort kind, as they never close, or turn in their leaves to form any close head, and are excellent for winter and spring.

These greens are greatly esteemed for their being so very hardy as almost to resist the severest cold; and they boil very green and tender, and eat extremely sweet, both in their large top-heads, and the sprouts which arise from the sides of the stalks, which naturally run up tall, and furnish, besides the top-head, numerous side sprouts, their whole length, next spring.

The seed may be sown any time this month; the earlier it is sown now, the more time the plants will have to grow strong and tall, both to produce large heads, and great abundance of side sprouts; but for a more particular account, see the work of *May*.

## CAULIFLOWERS

THE early cauliflower plants under hand-glasses should have earth drawn up to their stems. This will be of great service in promoting a strong forward growth.

The hand or bell-glasses may still be continued over these plants on nights, and cold wet weather: but in warm days, and when there are warm rains, let them be at such times exposed to the free air: but when the plants are considerably advanced in growth, the glasses should be raised proportionably high on props; first drawing a border of earth, two or three inches high, or more, round each plant; then place the props upon that, and set the glasses on the props; but toward the end of this month, or beginning of next, if the plants are grown considerably large, the glasses should be taken entirely away.

Where any of the winter standing cauliflower plants in frames, borders, &c., were not finished planting out last month, let it now be done as there directed.

Young cauliflower plants raised from seed sown last month, should now be pricked out into nursery beds, or some in a hot-bed, to forward them for final transplanting.—See *March*.

The cauliflower plants which were raised from seed early this spring, should be planted out for good, some of the strongest about the latter end of this month, and the rest in *May* and *June*.

Make choice of a piece of good ground for them in a free situation; some good rotten dung should be spread over the piece, and dug in. Put in the plants about two feet or thirty inches distant from each other every way.

Water them immediately after they are planted: and in dry weather repeat the waterings frequently till the plants have taken good root: they will produce some middling heads in *July*, &c.

## BROCCOLI

Sow broccoli the beginning or middle, and towards the latter end of this month, to come in for autumn, winter, and early spring supply; choose some early purple, to come in for autumn, and late purple to stand the winter, and a proportional supply of the white or cauliflower broccoli; sow them in an open space of light rich ground, each sort separate, and rake them in evenly; the plants will soon come up, and be fit to plant out in June.

If any early plants were raised in the former months for autumn use and beginning of winter, let some of them be now pricked out into nursery beds, to get strength for planting out finally early in June, &c.—See that article in the work of the last and following months.

Now, early in this month, mark for seed some of the best spring-heading broccoli, if not done in March, and permitted to remain for seeding; ripening in August.

#### ONIONS AND LEEKS.

ONIONS and leeks may be yet sown in the beginning of the month, for they will not succeed well if sown later, but especially the onions, which will not bulb effectually: or may now sow onions on a light, poorish soil, to produce small bulbs for pickling.

For the method of preparing the ground and sowing these seeds, see *Onions* and *Leeks* in February.

#### CELERY.

THE young celery plants, which were sown in February or March for an early crop, will be fit to prick out now, some in the beginning, and others toward the middle or latter end of this month, into a nursery bed of rich light earth, or in a hotbed, to bring them forwarder.

Prepare a spot of rich ground, form it into three or four feet wide beds, and rake the surface smooth; then thin out a quantity of the best plants from the seedbed, and plant them into the above, at about three inches distance; or may also prick some of the earliest into a moderate hotbed, to forward them: then give a moderate watering, and repeat it at times till the plants have taken fresh root.

The plants should remain in these beds a month or six weeks, to get strength before they are planted out finally into the trenches.

As these early sown plants, after they become fit for use, will not continue long before they will run up for seed, there should not be any larger quantity of them raised or planted out.

Sow some celery seed in the first or second week of this month, to raise some plants for a general crop, and to succeed those which were sown in March.

Dig for this purpose a bed of rich light earth, and make the surface even; sow the seed thereon moderately thick, and rake it in lightly: and in dry weather give frequent moderate water-

ings, both before and after the plants come up, which being very essential, should not be omitted.

#### SOWING CARDOONS.

WHERE cardoons are required and if the sowing of them was omitted last month, it may be done the beginning of this: observing the same method as directed in *March*.

And for their further culture, see the work of *May*, *June*, and *July*.

#### CARROTS AND PARSNEPS.

CARROTS may yet be sown for a full crop; but in order to have tolerable sized roots in some reasonable time in summer, let the seed be sown the beginning of the month.

Where, however, a supply of young carrots is required, it is proper to perform two different sowings this month; the first sowing should be in the beginning, and the second towards the latter end of the month.

Parsneps may also still be sown in the beginning or middle of this month; but if sown later, the crop will not succeed well, at least not to have large swelling roots in full growth.

For the method of sowing both carrots and parsneps see the work of *March*.

#### SOWING NASTURTIUMS.

Sow nasturtium seed: draw a drill or drills, about an inch deep, and a yard asunder, or a single drill under any fence, &c., on which to train the plants in their running growth; sow the seed moderately thin, and cover it in regularly with the earth.—See *March*.

#### SOWING POT-HERBS, &c.

THYME and sweet marjorum should now be sown, if not done last month: also savory and hyssop.

Choose a spot of light rich earth for these seeds, and having dug the ground evenly, and divided it into compartments, sow the seeds on the surface, each sort separate, and rake them in lightly; or may be sown in small drills, as observed in *March*.

Parsley, chervil, and coriander, may yet be sown; draw shallow drills for these seeds; sow them in the drills, each sort separate, moderately thick, and cover them with earth about a quarter to half an inch deep.

Sow borage and bugloss where wanted; also clary, angelica

lovage, scurvy-grass, carraway, and carduus; burnet, sorrel, and marigolds, fennel and dill, may likewise be sown now, the beginning, middle, or any time this month, each sort separately, in any beds or borders of common earth, either sown on the surface, and raked in evenly, or in shallow drills, six inches to a foot asunder.

#### PLANTING POT AND SWEET HERBS.

PLANT rooted slips of balm, penny-royal, and chamomile, &c., in the herbary, or places where they are to remain, six to eight or nine inches distance.

Mint succeeds very well, planted any time this month; the method of planting it now is both by slipping the young plants, and by cuttings of the stalks.

By young plants.—Proceed to some old mint beds, and slip off a proper quantity of the strongest young shoots that are about from three or four to five or six inches high, drawing them up carefully with a little root to each slip, then plant them in rows, allowing six inches between each row; and let them be set about four inches apart in the lines. Water them as soon as they are planted, and repeat it frequently in dry weather, till the plants are well rooted: and they will soon advance in quick growth, for plentiful use all the summer, and to gather for drying, &c.

By cuttings.—When the spring shoots in the old beds, &c., have advanced from about six to ten or fifteen inches high, cut off a quantity, and divide them into lengths of about half a foot; plant them in rows as above directed, and give a good watering: they will readily grow and multiply exceedingly.

Root-slips of tansey and tarragon may yet be planted; likewise pot marjorum, burnet, chives, and sorrel.

They should be planted where they are to remain; allowing eight or nine inches distance between plant and plant.

Plant top slips of sage; they will grow freely.

Let the slips be now of the young shoots of last summer, those of the same year not being fit till next month or June; slipping off a quantity of about five, six, or seven inches in length, and plant them in a shady border, at four or five inches distance, inserting them into the earth almost to their tops; water them frequently in dry weather. They will make good plants by August or September; and may then be taken up, and planted in beds of good earth, at ten or twelve inches distance every way.

Thyme, hyssop, savory, and winter marjorum, grow freely from side slips or cuttings, planted any time this month; or by slipping the roots and top together, or divided into rooted offsets, planting and managing the whole in the same manner as above directed for the sage.

This is also still a good season to plant and to propagate by slips, lavender, for its flowers to distill, &c., also rue, rosemary, and lavender cotton, in smaller portions, for domestic occasions: all propagated by small branch slips or cuttings of the young wood; and may also plant wormwood.

Let the slips or cuttings be shoots of last summer, four or five to six or eight inches long. Plant them in a shady border, about six inches asunder, and each about half way in the ground. Let them be frequently watered. In September they may be taken up, and planted where they are to remain, allowing them a foot distance.

*Note.*—Rooted full plants of all the above herbs and aromatics, may also be planted now for immediate occasions.

#### CAPSICUMS, LOVE-APPLES, AND BASIL.

Sow capsicum and love-apples for their fruit to pickle, and for soups, &c., also basil, if omitted last month, the beginning or middle of this, being still a proper season for that work, sowing them in a hotbed, as directed in *March*.

#### TURNIPS.

TURNIPS may be sown any time this month for a full summer crop; this seed is of a quick growth, and the plants will appear a few days after the seed is sown.

Let this seed be sown in an open spot of ground, moderately thin and as equally as possible; tread it down regularly, and rake it in with a light and even hand.\*

Hoe and thin the early turnips which were sown the two former months, leaving the plants seven or eight inches distant from each other.

#### SCORZONERA AND SALSIFY.

Sow scorzonera and salsify about the middle of this month, for the principal crop. These which are sown earlier than that time, are apt to run up for seed before the roots acquire their

\* We greatly prefer the drill system for turnips: let the drills be about an inch deep and a foot or fifteen inches apart.



due size, especially the scorzonera, and are thereby rendered useless.

Sow them separately, in open situations, and rake them in, or sow in drills, twelve or fourteen inches asunder.

They will require thinning in May or June to five or six inches distance, and the roots will attain perfection in autumn, and continue good all winter till spring following; are by many much esteemed, both to boil and eat like young carrots, and in soups, &c., and the salsafy likewise for its young top shoots in spring.

#### PURSLANE.

PURSLANE may be sown now, if warm dry weather, on a bed of light rich earth, in the common ground. Sow it either in drills six inches asunder, or evenly on the surface, and rake it in lightly and regular. Water the bed often in dry weather, and shade it from the hot sun till the plants are come up, and have gotten a little strength.

But if cold or very wet weather, sow some either in a hot-bed, under shelter of glasses, or in a warm dry border, and defended from cold, &c.

This plant being of a moist cold nature, is by many people much esteemed to use in summer salads.

#### BEANS.

PLANT more beans: this should be done at two or three different times this month, allowing twelve or fourteen days between each time of planting; in order thereby to have a plentiful regular supply of young beans in good perfection.

The long podded beans are a proper kind to plant at this time. This bean is a remarkably great bearer; it is also a very fine eating bean, if gathered while young; and is a very profitable bearer for the use of a family. They may be planted any time this month, allowing the distance of two feet and half, or a yard between the rows.

The Windsor bean, Toker, and the Sandwich, or any of the large kinds of beans, may yet be planted.

Let these be also planted in rows, a yard at least asunder.

But in planting the above, or any other large kind of beans, if you allow the distance of three feet and a half between the rows, you might then have a row of savoy between, planted next month, or June; and if four feet asunder, may plant two rows

either of those or spring-sown cabbages, to come in for autumn and winter service.

The white-blossom beans are great favourites with many people; they may also be planted any time this month. Let the rows be two feet and a half asunder.

These beans are but small, but none excel them for eating whilst young; and they are plentiful bearers, for their stalks are generally loaded with pods, from the very bottom to the top.

Any other sorts of beans required to increase the variety, may now be planted, such as the scarlet-flowered, &c.

Draw earth to the stems of all sorts of beans which are come up; this should be done when the plants are from about three to four or five inches high, and it will greatly strengthen and forward their growth.

#### PEAS.

Sow peas to succeed those sown in March. Where a constant supply of peas is required, there should be some sown at least every fortnight or three weeks.

The marrowfat and Spanish moratto, being of the large kinds, are both very fine eating peas and great bearers, and are very proper kinds to sow at this season; likewise the rouncival is a fine large pea for a late crop; but any other of the large kind of peas may be sown any time this month.

The hot-spurs, or any of the smaller kinds of peas are also proper to be sown now, if required: also any of the dwarf sorts; for most sorts will succeed if sown any time in this month.

Draw earth to such rows of peas which are come up and advanced a little height. This will strengthen the plants, and forward them greatly in their growth.

The earthing should always be performed for the first time when the plants are about three or four inches high.

Set sticks to peas where you intend it, for them to climb upon. This should be done when the plants are about five or six inches high, observing to have sticks of a proper height; that is, for the marrowfat and other large peas, they should be six or seven feet high; but those of four or five feet will do for the hot-spurs, and other small sorts of peas, placing two rows of sticks to each row of peas.

## POTATOES.

POTATOES may yet be successfully planted, if it was omitted in the last month; but they should be planted the first or second week in this month, that they may attain good perfection for use forward in autumn, and full growth by October.

For the method of planting these roots, see the work of *March*.

## DESTROYING WEEDS.

WEEDS will now begin to appear plentifully, from seed, in every part of the garden. The utmost diligence should be used to destroy them while they are young, before they get the start of the crops; especially towards the middle and latter end of this month, when, if a forward season, they will be advancing in rapid growth.

Pay particular regard, at that time, to your small crops; as onions, carrots, parsneps, and the like; weeds grow much quicker than they do; and if they are not weeded in time, either by small hoeing or hand weeding, the weeds will soon overtop the plants, and occasion much labour and trouble to clear them.

Take the opportunity of dry weather, and hoe the ground between the rows of beans, peas, cabbages, and cauliflowers, and other crops that stand wide, to destroy the weeds.

A large piece of ground may soon be gone over with a hoe, when the weeds are small; but when they are permitted to grow large, it requires double labour to destroy them.

## SEA-KALE.

MAY yet sow seed of the sea-kale, as directed last month, if then omitted.

Or, where required, may also transplant year-old plants, now advancing in shoots, either from seed beds or former pricked out beds, or transplanted rows, &c., and planted for a crop where wanted, in beds finally to remain.—See *March*.

## GOURDS AND PUMPKINS.

Now you may sow the seeds of vegetable marrow gourds and pumpkins.—See the *List of Plants*.

The fruit of these plants being sometimes used, both when quite young, and in their more advanced and mature growth, for culinary purposes, a few may be raised for these occasions.

With respect to sowing the seeds of any of the above sorts, it is to be observed, that, in order to bring the plants forward, to produce fruit as soon as possible, and to ripen early in autumn, they must be sown in a hotbed, either under a frame and lights, or in a smaller hotbed for one or more hand or bell glasses, &c., earthing the bed five or six inches thick; and, in either of which, sow the seed about half an inch to near an inch deep, and directly put on the glasses, observing also, to throw a mat, &c., over the bed on nights. When the plants appear, give plenty of air every day, by raising the glasses; for they must be brought by degrees to bear the open air fully, to harden and prepare them for transplanting in May.

But these seeds should not be sown until about the middle or third week in the month; and they will be ready to transplant by the third or fourth week in May, which is as soon as they can generally thrive in the full open air.

But if required to have any of the curious sorts of these plants to produce ripe fruit as early as possible, sow the seed as above, about the middle of the month, either in the places where they are to remain, upon holes of hot dung, covering them with hand-glasses until the end of May, or may be raised in a hotbed, as before directed, and planted out under hand-glasses; or for want of such, plant them close under a warm fence in May.

But for the method of their further culture and proper places to plant them in finally, see the work of *May*.

However, as to the common pumpkin, it being rather too rampant to raise as above, and is more advisable to sow it in May, in the place where the plants are to remain; as may likewise any of the gourd kinds.—See *May*.

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## THE FRUIT GARDEN.

### PLANTING FRUIT TREES.

FRUIT trees may yet be planted where required. The sorts which will now succeed are apples, pears, plums, and cherries. But rather than lose a season, you may also venture to plant apricots, peaches, and nectarines, or any other sorts of fruit trees; for most sorts will yet take root tolerably well, though probably they will not shoot so freely, nor be able to resist the

drought in the summer so well as those which were planted a month or two sooner. Observing, however, that where late planting is from some cause unavoidable, and having a previous knowledge thereof, it would in that case be highly proper to take up the trees some time before, to check their shooting, and lay them by the roots in a trench of earth, till they can be planted.

Where, however, it is intended to plant any of the above kind of fruit trees now, let them be planted the first or second week in the month, if possible, for they will not take root so well, nor grow prosperously, if planted later.

When they are planted, let every tree have a large watering; it will cause the earth to settle in close among their roots, and prepare them for striking forth fresh fibres. Let the waterings be repeated in dry weather, about once a week or fortnight.

New planted trees in general, but particularly such as are planted late in the spring, should be frequently watered in dry weather; but once in a week or ten days, or thereabouts, will be often enough. In doing this, give a sufficient watering to reach the roots effectually; and let their heads be sometimes watered as well as their roots.

To preserve the earth moist about the roots of new-planted trees, let some mulch be spread on the surface of the ground, round their stems: this will keep out the effects of sun and wind, and the earth will retain a due moisture, with the assistance of a moderate watering now and then.

#### DESTROYING INSECTS ON FRUIT TREES.

INSECTS often do much damage to fruit trees, if not prevented. This is the time they begin to breed on the buds, leaves, and new advancing shoots of young trees, and also frequently on those of older growth. Proper means should be used to destroy them in time, before they spread over the general branches.

Wall trees in particular, more especially peaches and nectarines, &c., being the most liable to their depredations, should be frequently looked over.

Where you perceive any of the leaves of these trees to have a crumply, deformed appearance, clammy, &c., it is a certain sign of insects. Let the worst of these leaves be taken off as soon as they appear: and if the ends of any of the young shoots are also attacked, prune away such infected parts: and if furnished with a garden watering engine, it would be greatly serviceable therewith to dash the branches with water in dry wea-

ther; which, and the other above precautions, if proceeded to in time, will do a great deal in preventing the mischief from spreading considerably.

Or where wall trees are much infested, first pull off all the curled or crumpled leaves; then get some tobacco-dust, and scatter some of it over all the branches, but most on those places where the insects are troublesome. This should be strewed over the trees on a morning, and let it remain. It will greatly diminish the vermin, and not injure the leaves or fruit.

But fruit trees are also sometimes attacked by insects of the caterpillar tribe, contained numerously in a minute embryo state in small webs, deposited on the branches, &c., animated by the heat of the weather, soon overrun and devour the young leaves, whereby neither the trees nor fruit prosper in growth; which should therefore be attended to occasionally, especially in young trees, picking off the webs, &c., before they animate considerably; and if accommodated with a watering engine, above suggested, might play the water strongly upon the trees; so as, in the whole, to diminish the increase and spreading depredations of the vermin as much as possible.

#### FINISHING ALL PRUNING.

ALL winter pruning that still remains to be done should now be wholly completed, in all kinds of wall and espalier trees, and others, as soon as possible, especially in the forward-blossoming wall trees, &c., as apricots, peaches, nectarines, which will be considerably advanced in blossom buds, and probably some in full bloom, and therefore should be forwarded in the pruning with particular care, finishing the whole early in this month.

Likewise in cherries, plums, pears, and apples, that still remain unpruned, lose no time now in forwarding that work, first the cherries and plums, then the pears and apples.

And any vines and figs not pruned, give particular attention to have these finished as soon as possible, in the beginning or middle of this month at farthest.

#### PROPAGATING VINES.

MAY still plant cuttings of vines to raise a supply of new plants; and for the method, see the work of *March*.

Vines are also propagated by layers; and it is not yet too late to lay them: observing that the one or two years' shoots are the proper parts to lay, laying them three or four inches

deep in the earth, together sometimes, where convenient, with that part of the branch the shoots proceed from, leaving about three buds of the young shoots out of the ground.

They will be well rooted by Michaelmas; then they may be separated from the old plants, and planted either in a nursery bed for a year or two, or where they are finally to remain.

#### BEGINNING THE SUMMER DRESSING OF VINES.

VINES against the walls should be looked over about the latter end of this month; they will, by that time, if a forward season, be advancing in numerous spring shoots, and the useless ones should be displaced.

In looking over the vines, observe, at this time, to displace only such shoots as appear to be absolutely useless; there generally arises many small shoots from the old branches; but as these, from the old wood, seldom produce grapes the same year, therefore let most of them be rubbed off close, except in such places where a supply of new wood is, or will apparently be wanted, which should be well attended to, and leave for the present all the shoots which arise from the last year's wood, or the same year's bearers: but where two shoots arise from one eye, take the worst away, the remaining one will grow stronger, and its fruit be superior in proportion.

Let it be observed, that this dressing or displacing of useless shoots is, at this early time, to be performed chiefly with the finger and thumb, rubbing the shoots off close.

The useless shoots being cleared away, the useful ones, when of due length, should be trained close to the wall, in a regular manner, so that each may equally enjoy the advantage of the sun and air, to promote its growth, together with that of the fruit.

By the above early regulating the grape vines, the bunches of grapes will advance freely in their proper growth, larger, more regular, and ripen sooner in greater perfection, than when the vines are suffered to run into confusion; besides, the work can be performed considerably sooner, and with much greater requisite correctness, regularity, and essential effect, both to the vines, and prosperity of the fruit.

The vines in the vineyard should now have stakes placed to them. If it was not done before, let this be done the beginning of the month.

Fix the stakes firmly in the ground; then let the vines be tied to them neatly, and at regular distances.

The ground between the rows of vineyard vines should be kept perfectly free from weeds; for keeping the surface of the ground quite clean between the vines in this order of culture, proves of particular advantage in promoting a forward or free growth in the advancing young fruit.

Therefore, when weeds make their appearance, let the hoe be applied to them in a dry day, and destroy them before they arrive at any considerable growth.

For protecting the blossoms of wall trees, see the foot notes on this subject in *March*.

#### RUBBING OFF THE USELESS BUDS OF WALL TREES.

BEGIN to look over apricot, peach, and nectarine trees, about the latter end of this month, and rub off the new advancing ill-placed fore-right shoot buds, and other irregular growths, and such young shoots as are evidently useless or unnecessary.

That is to say, all shoots which are produced directly fore-right, on the front of the branches, should be rubbed off close. And, likewise, all such shoots as arise in parts of the tree where they are evidently not wanted, and such as are situated in places where they cannot be regularly trained to the wall, should also at this time be displaced, or others thinned, where greatly superabundant.

But let it be observed that all regular placed side shoots and leaders, and such others which are anywise properly situated for laying in, must be left; and should, when of a due length, in the two succeeding months, be trained to the wall, close and in a regular manner.

For more particulars respecting the summer dressing of these trees, see *May* and *June*.

#### THINNING WALL FRUIT.

THIN apricots, where they are produced too thick on the trees, especially where they are in clusters; and the young fruit a little advanced in growth, nearly as big as the largest peas, or the end of a little finger, which they sometimes are, in forward springs, by the latter end of this month, which will be time enough to begin that work.

Observe, in thinning them, to leave the most promising and best shaped fruit; but do not leave the fruit so close together as, in their advancing growth, to thrust one another off the branches.

Begin at one side of the tree, and look over the branches



regularly one by one; and single out in each branch the fruit which you would leave at proper distances, and let all the rest on that branch be cleared away; then go to the next, and so proceed from branch to branch, in a regular manner.—See next month.

The young green fruit thinned off as above may generally be saved for tarts, for which they are excellent; and will now be highly acceptable for that occasion.

#### GRAFTING.

GRAFTING may yet be performed, if required.

The sorts which will yet succeed are some of the late kinds of apples, pears, and plums; but they must be grafted the beginning of the month; for they will not succeed well if done later than that time.

#### OF THE NEW-GRAFTED TREES.

NEW-GRAFTED trees should now be often looked over, to see if the clay keeps close about the grafts, it being apt to crack, and sometimes fall off. Where you find it any way defective, so as to admit the air and wet to the graft, let the old clay be taken off, and add some new in its stead.

All those shoots which rise from the stock below the graft must be taken off constantly, as they are produced; these, if permitted to remain, would rob the graft of nourishment, and prevent it shooting freely.

#### NEW-BUDDED TREES.

Look also over new-budded trees; that is to say, those that were budded last summer; they will now begin to advance in their first shoots, proceeding immediately from the inoculated bud, which, having remained dormant from its insertion in the stock last summer till this season, will now push forth each one strong shoot, to form the beginning of the future new tree of the desired sort. Examine, therefore, the young shoots, and look with a careful eye for insects, which sometimes attack them, if very dry weather. If the leaves curl up, insects are the cause of it; and, if not prevented, will spoil the shoots in their first growth. Let the curling leaves be carefully picked off; it will prevent the mischief spreading farther.

Suffer no shoots to remain that come from the stock. Let them be taken off as often as they shoot out, leaving nothing that may draw nourishment from the bud-shoots of inoculation

## STRAWBERRY BEDS.

STRAWBERRY beds should now be kept perfectly free from weeds. The runners produced from the plants should be constantly cleared away as they advance. But where new plantations are wanted, let some of the first produced runners remain till June to form young plants, then to be transplanted, as directed in that month.

Water the beds of fruiting plants frequently, in dry weather, towards the latter end of the month, when they begin to advance for bloom; for, if they are not supplied with that article, in a dry time, the fruit will be smaller, and of less abundant production.

## EARLY FRUITS IN FORCING.

LET the same care be taken of the early fruits of all kinds now in forcing, as directed last month and February.

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## THE PLEASURE OR FLOWER GARDEN.

## TENDER ANNUAL FLOWER PLANTS.

MAKE a new hotbed, wherein either to sow seed, or transplant young plants of the best kinds of the early raised tender annuals, which were sown in February, or beginning or any time in March.

Such as cockscombs, double balsams, and globe-amaranthus, egg-plant, double stramonium sensitive plant, and diamond ficoides, or ice-plant, and marvel of Peru, &c.

Where these curious plants are required in any tolerable degree of perfection, they must, at this time, be brought forward, by the assistance of a regular and due degree of hotbed heat under frames and glasses; and where that is properly attended to, the plants will be large and beautiful by the middle or latter end of June, or the beginning of July.

Therefore, such of those tender annuals as were raised by sowing at the end of February, or any time last month, should now have another hotbed, in which to prick or plant them to forward their growth as above; and as directions are given in March, that such of these tender plants as were raised early be pricked out from the seedbed, in a new hotbed, three or four

inches asunder, and which distance being sufficient room for them to grow for about three weeks or a month, when they will be so far advanced in their growth as to interfere with each other; they must then be allowed a greater distance, either by transplanting the whole, or by thinning and removing some of them into another fresh hotbed, which may be made any time in this month, as you shall see occasion, in regard to the growth of the plants.

Make the hotbed for the above purpose of the best hot dung, such as has been first very well prepared; and let the bed be made two feet and a half high, and set a frame and glasses thereon, raising the lights behind to pass off the rank steam.

When the burning heat of the bed is over, lay in the earth; this must be light and rich, not sifted, but very well broken with the spade and hands, and must be laid six or seven inches thick on every part within the frame: and when the earth has been on the bed twenty-four hours, it will then be in a right condition to receive the plants.

The hotbed being ready, then take up the plants, either wholly, or part of them in a regular thinning order, very carefully out of their present bed, with a ball of earth, or as much as will conveniently adhere about their roots, and plant them in the new bed, about six inches distant each way; or some also in pots singly, and plunged in the hotbed; then give the whole a light watering, to settle the earth properly about their roots; directly put on the glasses, and let the plants be shaded from the sun till they have taken fresh root, by throwing a single mat over the glasses at those hours when the sun is so powerful as to occasion the plants to flag. Observe to raise the glasses behind a little way every day, to let the steam of the bed pass freely off; and if there should be much steam in the bed, let the glasses be also raised a little at one corner at nights, and hang a mat before the place; and when the plants have struck fresh root, and begin to push, let them have air admitted freely every mild and calm day, to strengthen them, by raising the upper ends of the lights one to two or three inches; but must be shut down every night, provided there be no great steam; and let the glasses be always covered every night with mats.

Remember to refresh the plants often with moderate waterings, for it will greatly promote their growth.

When the plants have advanced in height near to the glasses, then let the frames be raised at bottom, about six inches, in

order to give them full liberty to shoot; and, according as the plants rise higher, continue to raise the frame in proportion, in the manner as directed in the work of next month. At each time of raising the frame, observe to close up the vacancy below, by laying some litter round the bottom of the frame.

For the particular method of managing the above frame, see the work of *May*.

The above practice of occasionally raising the frame, according as the plants advance in height, is only principally necessary where it may be required to have any particular larger growing sorts of these tender annuals drawn up in a strong growth and tall stature, as was formerly in much request, such as the giant cockscombs, tricolors, &c., which sometimes, by that means, are run up four to five or six feet high; and in the cockscombs, the stem-crowned by a very large crested flower-head; but as the culture in drawing these kinds in tall growth being attended with a great deal of particular care and trouble, it is not now so generally practised as formerly, especially as the same kinds of plants in moderate growth are more conveniently raised, and better adapted for general occasions.

But where there is the convenience either of a drawing frame or glass case, for the purpose of drawing the tall growing cockscombs, tricolors, and other curious annual plants, it may be effected to greater advantage.

The drawing frame is either one entire deep frame, or composed of two, three, or more different frames, all of the same length and breadth; and each about nine or ten inches deep, except the frame of the glasses, and that must be twelve inches deep in front, and eighteen at the back: and being all of equal dimensions in width and length, made in a very exact manner, to fix one to the top of another, appearing as but one frame, when all thus joined; and are to be made use of in the following manner:—

Begin first with the deepest frame; then when the plants have reached the glasses, let the said frame be taken up, and in its place set one of the others, and immediately fix the deepest frame upon that, as above; and then, when they have filled that space, let another frame be added; observing, as above, to let the deepest or sloping frame be always placed uppermost, in order to receive the glasses.—For a description of the glass-case for this occasion, see *Flower Garden of May*.

As to those cockscombs, tricolors, balsams, and the like kinds,

which were sown in the middle or latter end of March, they will now be ready to prick out.

They must, in order to bring them forward, be pricked out upon a new hotbed; therefore, let one be prepared for them the beginning or middle of this month, making it about two feet, or two and a half high in dung. Set on a frame, and lay in five or six inches depth of rich earth; then removing the plants from the seed-bed, prick them in this at three or four inches distance from each other; give them a very moderate watering, put on the glasses, and shade the plants carefully from the sun, till they have taken good root. Let the glasses be raised every day, as occasion requires, to let the steam out, and also to admit fresh air to the plants.

These plants are to be managed, in every respect, as directed above for the early raised plants of the same kinds.

Sowing any of the above kinds of tender annuals, if omitted in the two former months, may still be done: and the plants raised from this sowing, may be brought to flower in July, August, &c.

The sorts which you may yet sow are cock'scombs, tricolors, balsams, globe amaranthus, egg plants, and also the ice plant, or any other sorts, observing the same method in sowing as directed in *February* and *March*.

#### PRICKING OUT AND SOWING LESS TENDER ANNUALS.

A SLIGHT hotbed should also be made now to prick some of the second class, or less tender annual plants upon, which were raised last month.

The principal sorts are, marvel of Peru, China asters, India pinks, ten-week stocks, mignonette, French and African marigolds, and chrysanthemums, likewise common balsams, basil, capsicums, and love apples, yellow sweet-sultan, persicaria, tree amaranthus, purple amaranthus, prince's feather amaranthus, love-lies-bleeding amaranthus, convolvulus major, scarlet convolvulus, palma Christi, scabious, alkekengi or winter cherry, tobacco plant, zinnia, Indian corn, gourds, &c., all of which, if pricked out upon a moderate hotbed, may be forwarded considerably to a flowering state.

Therefore, where convenient, in having a proper supply of hot dung and frames, &c., it is advisable to prepare a moderate hotbed about the middle or any time of this month, to prick out a quantity of the principal sorts of the above; make the bed only about two feet thick of dung; and having set on a

frame, earth the bed six inches thick ; then draw out of the seed-bed some of the strongest plants, and prick them in the new bed, three or four inches distant, and give a little water ; and likewise prick some in pots, placed also in the hotbed ; then put on the lights, and allow shade from the sun, till the plants have struck root ; being careful to admit fresh air daily, and repeat the waterings occasionally. Or, in default of frames, &c., to place over the above hotbed, may cover with an awning of mats ; or also in want of hotbeds, may prick them in a bed of natural earth, about the latter end of the month, fix some hoops across, and let the mats be drawn over them every night, and also occasionally in the daytime, when the weather is very cold, by drawing them over the north side particularly, to break off the cutting air, and leave the front next the sun open. The plants are to remain in these beds about a month, or five or six weeks : then let them be taken up with a ball of earth about their roots, and planted in the borders, or where they are to remain to flower ; and plant some of the more curious sorts in pots.

The seeds of French and African marigolds, and chrysanthemums, may yet be sown ; likewise balsams, marvel of Peru, China aster, and India pink, love apples, capsicums, ten-week stocks, mignonette, and of all the other kinds before mentioned. See *Second Class of Annuals*.

Let the above seeds be sown in a moderate hotbed, in the first or second week of the month ; let the bed be often refreshed with light sprinklings of water, both before and after the plants appear. Where there is no frame to spare, the beds may be arched over with hoops, and covered with mats every night, and in bad weather. When the plants appear, let them have a great deal of free air, by taking the covers entirely off every mild day ; but let them be sheltered at night, and in bad weather, as aforesaid.

Towards the middle or latter end of May, the plants will be fit to prick out, which must be into beds of light earth in the natural ground ; and when they have stood there a month or five weeks, they must be taken up with balls of earth, and planted in the borders, pots, &c.

Where there is not the conveniency of hotbeds in which to sow and raise this class of annual flowers, may sow most of them in a warm border ; especially towards the middle or latter end of the month, or when the weather is become settled and warm, or sown in the beginning or middle of the month, and defended on cold nights, &c., with mats.

## SOWING HARDY ANNUALS.

HARDY annual flower seeds may yet be sown in the borders and other parts of this garden, in the places where they are to remain to flower, and in pots, &c.

The sorts which will yet succeed are, convolvulus major and minor, the Tangier and sweet-scented peas, Moldavian balm, white alysson, cyanus, and nasturtiums; likewise lupines, larkspur, flos Adonis, and sweet sultans, poppy, hawk weed, also candy tuft, dwarf lychnis, nigella, alkekengi, Lobel's catchfly, Venus' navelwort and looking glass, virgin stock, snails, hedgehogs, caterpillars, scarlet pea, crown pea, winged pea, dwarf and large annual sunflower, persicaria, belvidere, and lavateras, oriental mallow, strawberry spinach, xeranthemum, and all other kinds of hardy annuals.—See the *List of Plants*.

Let the above hardy annual seeds be sown in small patches in the borders, beds, pots, &c., to remain in the manner mentioned in the two former months; or some virgin stocks may be sown in a drill for an edging.

Let them be frequently watered in dry weather, both before and after the plants come up.

When the plants have been up about a fortnight or three weeks, let all the larger growing kinds be thinned where they have risen too thick; observing to clear away the weakest, and leave the strongest plants standing; allowing each kind, according to its size, full room to grow.

For example, most of the sorts, except the sunflower and persicaria, &c., should be left several in each patch, some more, some less, according to their nature of growth: but leave only one plant of the sunflower, persicaria, and belvidere, in each patch; and of the lavateras, oriental mallow, and strawberry spinach, leave only two or three plants in each place.

Any of the smaller or moderate growing kinds of the above annuals may also be sown in pots, as scarlet and sweet peas, candy-tuft, lupines, larkspurs, ten-week stocks, mignonette, virgin-stock, convolvulus minor, &c.

## TEN-WEEK STOCKS AND MIGNONETTE.

MAY now sow ten-week stocks and mignonette in any warm border, or bed of light earth, or in pots, &c., for transplanting, sowing either on the surface separately and raked in evenly, or covered in lightly with fine earth; or may sow them thin in drills; they will soon come up, and be fit for transplantation in

May and June; or some of each of these may be sown in small patches in the borders, and in pots, &c., to remain; and the plants thinned, especially the stocks, to three or four in each patch.

#### CARE OF HYACINTHS AND OTHER CHOICE FLOWERS.

HYACINTHS and tulips, ranunculuses and anemones, will now be coming fast into bloom.

The more curious and valuable varieties of these flowers, which are planted together in beds, deserve particular care. Heavy rains, cutting or strong winds, and sharp frosts, would do them much harm; and the sun, if permitted to shine upon them fully, would bring on the decay of the flowers in a short time. If they are therefore screened from all these occasionally, by a covering of hoops and mats, it will not only preserve the beauty of the flowers, but will continue them longer in bloom. The hoop must be kept constantly over the beds; and the mats, or canvas, always in readiness, in order for drawing on whenever it is necessary for the defence of the flowers. Observing, the hoops or arches should now be erected higher, to admit of viewing the flowers more readily, which may be effected by nailing them to stakes arranged at a due distance on each side of the beds.

When the plants are in bloom, let the mats be drawn over the hoops every sunny day, about nine or ten o'clock, and let them remain till four or five in the afternoon, and then take them off again.

The mats should also be drawn on at all times when it rains hard, and when the winds are strong, for such weather would beat down the flowers and break their stalks.

The flowers should also be sheltered every night when there is an appearance of bad weather.

Observe, however, the above care of covering, &c., is only advised for some of the finest or more valuable sorts in beds, to continue their bloom beautiful as long as possible; and as to the common sorts, whether growing in beds together, or dispersed about the borders, &c., leave them to nature; they will also blow freely, only of shorter duration, in full beauty, than those that are occasionally defended as above.

Where the stalks of hyacinths run up in large heavy flower-spikes, and are not able to bear up their flowers, let them be supported, by placing a short stick to each plant; and the stalk then neatly fastened to the stick.



## CARNATIONS IN POTS.

THE best carnations in pots must now have a good share of attention, and should be encouraged as much as possible in their growth.

Keep the pots perfectly free from weeds, and the plants from decayed leaves, and let the earth on the surface of the pots be stirred, if it binds hard; for this will encourage the plants to shoot, and will also give an air of neatness. Water the pots often in dry warm weather, for they will require it moderately every second or third day, which should not be omitted, otherwise the plants will shoot weakly, and produce but slender flower stalks.

When the flower stalks have advanced near a foot long, let them be supported with neat straight sticks.

## SOWING CARNATIONS.

Now is still a proper time to sow the seeds of carnations and pinks.

But these seeds must be sown in the first or second week of the month; either in an east border, or let some small spot of rich light ground be neatly dug, and divided into beds about three feet broad, making the surface even. Sow the seed on the surface tolerably thick, each sort separate; and either rake them in lightly, or if the surface is first raked, and the seeds then sown, cover them a quarter of an inch deep, or thereabouts, with fine light earth.

These beds, if the weather should prove very dry, should be often sprinkled with light waterings, and in about two, three, or four weeks, the plants will appear.

For the further management of the plants, see the work of the preceding and following months.

## PLANTING CARNATIONS.

CARNATIONS, not yet finally planted into the borders, beds, or pots where intended they should remain to flower, may still be done, but should be performed in the beginning or middle of this month at latest; removing them with balls, and watered as soon as possible.

## PLANTING AND SOWING POLYANTHUSES.

POLYANTHUSES may still be planted, and also propagated by rooted slips: and the seed may be sowed.

But these works should be done in the first or second week in the month, otherwise the seedling plants particularly will not get strength enough to flower strong next year.

Let this seed be sown on a border of light earth, not much exposed to the sun; sow it pretty thick, and rake it in lightly with an even hand.

When the plants come up, keep them clean from weeds, and give occasional light waterings in dry weather; in July or August prick them out on a shady border, three inches asunder, giving them some water.

Such polyanthuses as were raised last year from seed, will, many of them, be now in bloom, and should be carefully looked over, and the best flowers marked, in order to their being transplanted to a place by themselves, or for propagation by rooted offsets.

#### MANAGEMENT OF POTS OF PERENNIAL PLANTS IN GENERAL.

GIVE fresh earth to such pots of perennial plants as were not dressed and new earthed in March. The method is this; first loosen the earth on the top, and down round the sides of the pots a little way; then take out the loose earth, and clear away all decayed leaves from the plants; this done, fill up the pots again with some rich new compost, and then give the whole a gentle watering.

The plants will receive great benefit from this dressing; and where it was not done in March, it should not be put off longer than the beginning of this month.

Or where the plants of these kinds are in small pots, and stand in need of shifting into larger pots and fresh earth, it may still be performed early in the month: in doing which, turn each plant out of its present pot, with the ball of earth entire, trim the outside roots, and pare away some of the old earth; and having fresh mould in the new pot, place the plant therein, fill up with more new earth, and give water.

Remember, in dry weather, to supply all plants in pots with water: this is a material article, and should not be omitted.

#### PLANTING AND PROPAGATING PERENNIALS, &c.

MOST sorts of perennials and biennials of the fibrous-rooted tribe may yet be planted; and many sorts propagated by offsets, &c.

The sorts which may yet be planted are, golden-rods, Michaelmas daisies, perennial asters, and perennial sunflowers; also

Canterbury bells, columbines, Greek valerian, scabiouses, campanulus, catchfly, rosecampion, rockets, lychnises, bachelor's buttons, sweetwilliams, pinks, carnations, wallflowers, holyhocks, and French honeysuckles, peach-leaved bellflower, foxgloves, tree-primrose, double feverfew, everlasting peas, fraxinella, saxifrages, gentian, crimson cardinal flower, double lady's smock, double ragged robin, and lychnidea. Likewise polyanthuses, primroses, auriculas, double daisies, double chamonile, thrift, London pride, gentianella, with most other sorts of the fibrous-rooted plants, may still be safely removed.—See the *Catalogue*.

#### DAHLIAS.

At present the double dahlia is the most fashionable perennial in this country; and the extent of its culture, and the perfection to which it has been brought within the last ten or twelve years, are truly astonishing. They are easily propagated by dividing the roots, or by cuttings, and by seed for new varieties. In dividing the roots, care must be taken to preserve an eye, or bud, to each section; otherwise, though the tubers will throw out roots, they will produce no stems or shoots. They will grow freely in any sort of soil, but thrive best in a rich loam. They may either be planted on the spot where they are to flower, about the beginning or middle of this month, or potted and forwarded in frames or pits till the middle of May, and then planted where they are to flower. The latter method is preferable, if an early blow is desired. If planted at first where they are to flower, they must be protected when they come up, till all danger of frost is over. When planted in clumps, some nicety is required in the arrangement of the sorts, so as to have a proper mixture of colours, and particularly to have the tallest growing plants either in the centre or at the back of the clump, according as it is to be viewed from one side only, or on all sides. The roots should be planted about three or three and a half feet apart each way.

Let all the above kinds of plants be taken up now carefully, with small balls of earth about their roots, if possible, and plant them in the places where wanted, and water them; repeat the waterings in dry weather; and the plants will all flower this year, each at its respective time of flowering; and, in the perennial sorts, the same roots continue many years, and flower annually; but the biennials, in most sorts, only flower one year in good perfection.

Many of the above perennials, not much advanced for flowering, may also still be propagated by offsets, &c

#### SOWING PERENNIALS AND BIENNIALS.

Now sow such perennial and biennial flower seeds as are intended to be sown this season.

The sorts proper to sow now are wallflowers, stock July flowers, sweetwilliams, columbines, campanula, tree primrose, and Greek valerian; likewise hollyhocks and French honeysuckles, with the single catchfly, rose campion, scarlet lychnis, and the seeds of most other sorts of hardy fibrous-rooted perennials and biennials, as are mentioned in the *Catalogue* at the end of the book.

These seeds may either be sown on borders, or in three or four feet wide beds of rich earth, and raked in, or covered evenly with earth; the largest seed not more than half an inch to an inch deep, nor the smaller less than a quarter of an inch; or the larger seeds may be sown in drills.—See *March*.

The beds wherein the above, or any other sorts of perennial and biennial flower seeds, are sown, must be frequently watered moderately in dry weather; this should be practised both before and after the plants are come up, by which means the plants will rise stronger, and grow away freely.

#### TUBEROSES.

PLANT some tuberoses, in a hotbed, or in a hothouse, the beginning of this month, they will succeed those in bloom which were planted in March.

But if none were planted in that month, this now is a very good time to begin to put in some of these roots.

Procure some good sound roots from the seed shops, when they come from abroad; for those roots are seldom propagated in this country, as they are too tender to prosper in the common ground, so that there are great quantities imported every year from Italy. Having procured the roots, let the looser outer skins be taken off; and if there be any offsets, let these be also taken away: then plant the roots in pots of rich light earth, one root in a pot, inserted an inch or two below the surface of the earth; then set the pots either in a moderate hotbed, plunging them to their rims in the earth of the bed, or in a bark bed of a hothouse, &c.

To those in a hotbed admit only a small portion of air into the bed, till the roots begin to shoot; and they must have but

very little water till they come up; then water them moderately twice or thrice a week; and admit fresh air every day, by raising the glasses; and as the stems of the plants rise in height, the frames should be raised accordingly, that they may have full liberty to shoot; for the stems generally rise a yard or more high. Towards the middle or latter end of May, the glasses may, in fine days, be taken entirely off; which, by admitting the free air, will strengthen the plants; but put them on every night, and also in the daytime, when the weather happens to be very wet or cold.

But those that are placed in a hothouse require no farther care than occasional waterings and fresh air, in common with the other plants of that department; and in which they will flower in good perfection, with much less trouble than in a hotbed.

Those roots which are planted now will begin to blow in June or July; at which time the plants may be moved to where you think proper, either in the open air, or into any apartment of a house; they will continue to flower for about a month or six weeks.

#### CARE OF AURICULAS IN BLOOM.

AURICULAS will now begin to blow; care must therefore be taken to protect the curious sorts in pots from rain and wind, and also from too much sun.

The farina or mealy dust which overspreads the surface of those flowers, contributes exceedingly to their lustre and beauty; this must therefore be preserved upon them; the least shower of rain would easily wash it off; it is also liable to be blown off by the winds; and the sun, if permitted to shine freely on the flowers, would occasion them soon to fade.

Therefore, where it is required to have the more curious or choice varieties blow in the best perfection, the pots containing the plants should, according as the flowers begin to open, be immediately removed, and placed on the shelves of the auricula stage, or where the flowers may be protected occasionally from such weather as would deface the bloom. The stand or stage should have from three to five or six ranges of shelves, about six inches wide, rising theatrically one above another, from the front: having the back generally placed against a shady wall, pale, or other building; it must be constantly covered at top, water tight, sloping to the back part; but the front or two ends

must only be covered occasionally, by having some canvas or mats fastened to the top of the front and ends, by way of curtain, so contrived that it may be readily let down and drawn up at pleasure, which, when the air is very sharp, or in high winds, or driving rains, must be let down to shelter the flowers; but when the weather is mild and calm, let the front be constantly open. Or this may also be used occasionally to shade the flowers from the sun, where it has access in the heat of the day. observing, however, generally, not to let the screen remain longer than is necessary for the defence of the flowers.

Watering must likewise be observed during the time the plants are on the stage; let them therefore be examined, at least once every day, to see where water is wanted; and let such pots as stand in need of that article be immediately supplied with it. In doing this, let no water fall on the flowers, for that would also wash off the aforementioned farinaceous bloom, and greatly deface their beauty.

Let the water be always given in moderate quantities.

Keep the surface of the pots perfectly neat, free from weeds and every sort of litter: suffer no decayed leaves to remain on the plants, but let such, as soon as they appear, be taken off.

By thus placing your auricula pots on a covered stage, it not only preserves the flowers much longer in beauty, but you also more readily view them, and they show themselves to much greater advantage than when placed on the ground.

#### SAVING AURICULA SEED FOR PROPAGATION.

WHERE it is intended to save seed from auriculas, in order for sowing, whereby to obtain new varieties, let the flowers of which you would save it be marked when they are in full bloom, and removed off the stage as soon as the flower begins to fade, and plunge them in a border where the plants can enjoy the morning sun freely till about ten or eleven o'clock, but not longer.

Water them often in dry weather, and suffer no weeds to grow in the pots or near them; likewise take care that they are at no time too much shaded with any large growing plants, but let them enjoy the free air, and the benefit of showers of rain.

The seed will be ripe in the end of June, and in July, when you must gather the seed pods as they ripen, otherwise the seed will soon scatter upon the ground.

## PROPAGATING AURICULAS BY SLIPS.

AURICULAS are also increased by the offsets or suckers which rise from the roots and sides of the old plants; and this is a proper time to slip them off and plant them.

They will now readily take root, and as the plants are now in bloom, you have the opportunity of seeing the flowers, and taking the slips from the plants of those you like best, observing to slip them off close, with as much root-part as possible.

Plant the slips either in a shady border, for two or three months, then potted, or let each slip be planted singly, in a small pot of fresh earth, and set the pots in a shady place, and then give the whole a moderate watering; repeating it often in dry weather. But in the common auriculas, for the flower-borders, &c., the slips may be planted, the smaller either in a shady border till autumn, especially the smaller; or the strong slips, planted at once in the borders or beds to remain.

The propagating these plants by slips is the only method to increase the sorts you like; for the slips or suckers will produce exactly the same kind of flowers as those of the plants from whence they were taken: which is not so with the seedling plants; for the principal intention of florists by raising them from seed is to procure new sorts; for there are always new varieties obtained from seed; and, perhaps, out of some hundreds so raised, not one proves exactly like the original or parent plant from which the seeds were saved, or probably but very few that have the properties requisite for a real good flower; but the curious in flowers are well satisfied with the acquisition of one or two new varieties that have all the due properties; and, as above hinted, when any new variety is thus obtained, the next care is to propagate it by the slips or suckers which arise from the side of the main plant.

## CARE OF SEEDLING AURICULAS, AND SOWING AURICULA SEEDS

SEEDLING auriculas, which were sown last autumn, or this spring, now demand attention; these plants, when newly come up, or while quite young, will succeed best if they have some protection from the full sun in the heat of the day; they must therefore be shaded from it occasionally.

If they were sown and raised in pots, boxes, or tubs, these should be removed to a shady border towards the latter end of this month: the place should be open to the morning sun till

about nine or ten o'clock, but shaded the rest of the day, and watered often in dry weather.

Such auricula plants as were raised last year from seed will now, many of them, begin to flower, when you should examine them; and such as produce the largest flowers, and have good colours, should be marked and planted in pots for stage flowers: but the common flowers, that is, those that have but ordinary colours, &c., should be mostly planted in the borders, among other low flowering plants; and those which are planted in pots should, in the following year's bloom, be again examined, when you will be more able to judge of their properties; and those of them that do not merit a place among stage flowers should be transplanted into the common borders.

*Note.*—Auricula seed may still be sown: but it must be done in the first or second week in this month; may either be sown in an east border, to have only the morning sun, or in large pots, &c., placed in such a situation.

#### BALM OF GILEAD.

THIS is the time to sow seeds of balm of Gilead, and may also plant cuttings of the stalks; these plants are of the perennial kind, and the stems and leaves remain all the year, if protected in winter; are much esteemed for the agreeable scent of their leaves, and make very proper furniture for the beds and borders of this garden in summer, as they rise in a branchy, bushy growth, two or three feet high; but the flowers being very small, make no ornamental appearance, which, however, is compensated by the odoriferous fragrance of the plants.

The plants being rather of a tender quality, requiring protection in winter of a green house or garden frame, some are commonly kept in pots for that occasion, and of which a part may, in this or next month, be transplanted with balls into some principal borders.

The seed may be sown either on a hotbed or in a bed or border of natural earth, in a warm situation; but it will be most advisable to sow them on a moderate hotbed, as the plants raised by this method will be brought greatly forward in the spring; observing the same method of sowing the seed and managing the plants as directed for the less tender or hardier sorts of annual plants, such as China aster, India pink, African and French marigold, &c.

The balm of Gilead may likewise be propagated by cuttings of the stalks, and where the plants have been preserved in



frames, or in green houses, all winter, some of them will have stalks proper for that method of propagation ; or, if they are not now furnished with stalks, they will have produced strong ones by the middle of June : cut off some of the strongest, and divide them into lengths of six inches, and plant them either in large pots, several in each, and may be placed in a hotbed to expedite their rooting : or plant them in pots in the open air, and shaded ; or may be planted in a shady border, four or five inches asunder, observing, in the whole, to give proper waterings, and they will readily take root, and be fit to transplant in two months.

When intended to preserve the plants all winter, they must be potted, in order to be placed either in a green house or in a garden frame, defended occasionally with the glasses and other coverings in severe weather, and they will continue green all winter.

#### PLANTING EVERGREENS.

EVERGREEN shrubs and trees, of many sorts, may yet be planted. But this should be completed by the middle of the month, or as soon after as possible.

Most sorts will yet bear removal successfully, such as hollies, bays, evergreen oaks, and yews ; laurel, Portugal laurel, and laurustions ; phillyreas, alaternuses, and pyracantha ; evergreen cytusus and cistuses of all sorts ; also the arbutus, or strawberry tree ; evergreen cassine and magnolias ; arbor vitæ, and rhododendron ; likewise pines, firs, cypress, junipers, savins, cedars, &c.

Open for each shrub, &c., a circular hole of proper width and moderate depth, and let the bottom be loosened ; then bring in the plants, set them upright in the holes, and let the earth be very well broken and filled in about the roots in a regular manner ; and when all is in, tread it down gently round the extreme parts and stem of the plant ; then make the earth at top somewhat hollow, in order to contain water.

In transplanting large evergreens, if the plants can be conveniently taken up, and brought with balls of earth about their roots, it should be done, placing them in the holes, with the balls entire.

When all is planted, give a good watering to settle the earth about their roots ; then lay some mulch on the surface round each plant ; this will prevent the sun and wind from drying the earth too fast about their roots.

Stakes should be placed to such tall shrubs and trees of the above as require support; and this should be done as soon as they are planted; let the stakes be firmly fixed in the ground, and fasten the stem of the plant securely to them in an upright direction.

#### PLANTING FLOWERING SHRUBS.

WHERE flowering shrubs are much wanted, they may yet be removed; but this should be done in the first or second week of the month, or as soon as possible.

The althea frutex, lilac, Persian lilac, hypericum, and privet, will yet bear transplanting; also the bladder and scorpion senas, honeysuckles and jasmynes; syringas and laburnums, and most other hardy deciduous shrubs and trees.

When they are planted, water them well; and repeat it once or twice, if the season should be very dry.

#### PROPAGATING FLOWERING SHRUBS AND EVERGREENS.

For the methods of propagating flowering shrubs and evergreens, see the work of the *Flower Garden and Nursery in March*; as also the *Nursery* of this month, *June, July, October, and November*.

#### MANAGEMENT OF GRASS WALKS AND LAWNS.

Grass walks and lawns, and other compartments of grass in the garden, should be kept in perfect good order.

Roll them frequently, and let the grass be regularly mown: observe to cut it always close, and as even as possible: this should be particularly regarded; for when the lawns and walks are so badly mown, that every stroke of the scythe appears, they make a very disagreeable appearance.

To keep short grass lawns, &c., in tolerable good order, they should be mown sometimes once a week, but generally not less than once a fortnight, or three weeks at farthest. However, never suffer grass in this garden to grow rank, but apply the scythe to it in proper time; then the mowing may be performed with expedition and exactness, and with greater ease to the mower; generally taking opportunity of dewy mornings, as early as possible, while the moisture or dew remains, which should be particularly regarded in mowing of short grass in gardens, otherwise it will be impossible to mow it close and even.

Rolling of principal short grass lawns, &c., is also very neces-

sary, and should be frequently performed, as it not only preserves the sward firm, smooth, and clean, of more agreeable appearance; but it also renders the grass much easier to mow with proper regularity: and it would therefore be eligible to have the grass sometimes well rolled a day or two previous to mowing.

Where worm-casts abound considerably on your grass, let these first be broken, and spread about with a pliable pole in a dry day, before you use the roller: when that is done, let the grass be regularly rolled; and the worm-casts being broken small, and scattered about, they will readily stick to the roller, provided it is done while they are somewhat moist, not too wet. By this method the grass will be made perfectly clean, and you will be able to mow it to greater exactness.

The edge of the lawns, grass walks, &c., should now be neatly edged, or cut even with an edging iron, if omitted last month; or at least have the rough edges trimmed close and even with a knife or shears: but this should now be particularly practised to those edges next gravel walks, and should always be done just before the gravel is to be turned or new laid down; and afterwards occasionally.

#### GRAVEL WALKS.

GRAVEL walks should now be broken up and turned, where it was not done in March; for it is time now to put them into the best order for the spring and summer season.

By breaking up and turning gravel at this season, it will not only destroy weeds and moss, but the walks will appear with a fresh and lively surface, that will render them very agreeable both to the sight and to walk upon during the summer, &c.

But before you begin to lay or turn the gravel, the edges of the walks, if they are grass, should be first neatly trimmed in close, or edged even with an edging iron, &c., as above directed: or if the sides are planted with box, it should be gone over with the garden shears; and if there be borders next to the walks, they should also be neatly dug, or hoed, and cleaned, and the surface raked smooth, and you will then proceed in a workman-like manner; for when the edges are trimmed, and the borders put into proper order, it is a very great addition to the beauty of the walks.

In turning and laying gravel walks, let the same method be observed now as mentioned in the last month: do it in dry weather; and as you advance with the turning or laying the

gravel, observe to tread, rake, and roll the surface regularly every fifteen, twenty, or thirty feet; for gravel always hinds a great deal the better when it is fresh stirred; the roller will then have the greater effect in rendering the body of the walk firm, and the surface close and smooth.

Roll the gravel frequently after it has been turned or new laid; twice or thrice a week will not be too often; but never omit rolling the walks in general once in that time. Frequent rollings will render the walks firm and beautiful, and will also, in a great measure, prevent the growth of weeds and moss.

Gravel walks ridged up in winter should now be levelled down, as above.

Make new gravel walks where intended, laying the gravel generally about five or six to eight or ten inches thick; though as the two last-mentioned depths would probably take up more gravel than could be conveniently obtained in many places, in which case may allot the more moderate depth of three or four to five or six inches, and in making of which, let the same method be observed as directed in March, in laying or making new gravel walks.

#### EDGINGS OF BOX AND THRIFT.

Box may yet be planted, where it is wanted, for edgings to beds or borders: and it will take root and grow freely, with the assistance of a little water in dry weather.

Thrift may also be planted. This will make an agreeable edging, if planted close and neat.

Where box-edgings want trimming, it should now be done, although this is not the general season for clipping these edgings; but notwithstanding, when they appear uneven, let them now be sheared, and they will then appear neat till midsummer.

Likewise, where edgings of thrift have grown very broad and uneven, let them be cut in evenly on each side, and they will soon shoot and appear green again, in proper regularity.

Where any of the above edgings have, for want of care, grown into rude disorder, they should be taken up, slipped, and replanted in a close regular manner.

#### STICKING AND TRIMMING FLOWERING PLANTS.

Go round and place sticks to all such plants as require support, and let them be well secured before they take an awkward growth; which work should be continued occasionally, according as the plants advance in height.

Fix the sticks upright and firmly in the ground; let the stems or stalks of the plants be brought near the sticks, and tied neatly to them; let the ends of the tyings be also cut off close.

The sticks should be well proportioned to the natural height of each plant: for it looks ill to see a tall stick set for the support of a plant of low growth.

Take off all straggling, broken, and decayed shoots from the plants of every kind, and let decayed leaves be cleared away whenever they appear.

#### CLEANING AND DRESSING THE BORDERS. &c.

FIRST destroy weeds in every part before they grow large: they will now rise numerous in the borders, &c.

Let these be destroyed by the hoe or hand, as it is most convenient; but where the plants stand wide, let the hoe be used, it being the most expeditious method.

Let your hoe be sharp: take the advantage of a dry day to use it, cutting the weeds up clean within the surface; and let every part between the plants be stirred; and as you go on, let all dead leaves and straggling shoots be taken off.

Then rake the borders, &c., over neatly with a small rake; clearing away, at the same time, all the weeds and litter, and let the surface be made perfectly clean and smooth; and they will thus have a requisite, fresh, orderly appearance, agreeably for the spring season.

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### THE NURSERY.

#### SOWING EVERGREENS, FLOWERING SHRUBS, AND TREE-SEEDS.

FINISH sowing the seeds of evergreens and all other tree and shrub seeds, which are intended to be sown this spring. In the evergreen tribe most sorts may still be successfully sown, such as pines and firs of all kinds, cedars, cypress, junipers, and bays; also the acorns of evergreen oaks, and the seeds of most other hardy evergreens.

All the above, and other seeds of the like kinds, may be sown, in beds of light earth in the common ground; or may sow cedars, pines, &c., in small quantities, in boxes or pots, for the conveniency of moving them to different situations, according to the season of the year.

Likewise most kinds of hardy deciduous tree and shrub seeds, both of our own growth, or from America and other foreign parts, may also still be sown in this month; but the sooner in the month this is done the better.

All these seeds of most sorts of hardy shrubs and trees, both of the evergreen and other kinds, may be sown in beds of light earth, in the common ground, choosing for their reception a moderately light pliable soil.

Prepare beds to sow them in, three or four feet broad; the earth must be broken fine, and the surface laid perfectly even.

*Note.*—If some of the more tender or choicer kinds of these shrub or tree seeds, nuts, &c., are sown in pots, and the pots plunged in a moderate hotbed, it would forward their growth, and would be particularly advisable for some of the very hard-seeded or nut kind of the more tender sorts; but where there is not that conveniency, let them be sown in beds, as above, in the common ground: and in which most of the North American seeds, and of the temperate European parts, will succeed.

Sow the seeds of each sort separate, either on the surface in a regular manner, pressing the larger kinds down a little into the earth with the back of the spade, and cover each kind according to its size, a proper depth, with light earth, from about half an inch to one or two inches deep: or may be sown in drills, a proper depth, as above, especially the larger seeds.—See *October* and *November*.

*Note.*—The seeds of the arbutus, or strawberry tree, may also be sown now, as directed in *March*.

#### THE MANAGEMENT OF SEEDBEDS.

Water occasionally the seedbeds of all kinds of trees and shrubs, in dry weather; but this must be practised both before and after the plants begin to appear.

Observe at all times to water these beds with moderation; a little and often must be the rule. Likewise be very careful not to apply the water over hastily at any time, for that would be apt to wash the earth away from the seed, and also from the young plants now beginning to come up; being particularly careful of the more tender and delicate sorts: generally let the refreshments of water be repeated moderately once every two or three days in warm dry weather; for this will be of great service to all such kinds of seedling plants.

Shade will also prove very beneficial in the middle of hot sunny days, to many of the choice kinds of seedling trees and

shrubs, about the time of their first appearing, and for some time after.

These young plants may be shaded from the sun occasionally, by fixing hoops across the beds; then let mats be drawn over the hoops as often as occasion requires.

Where there are boxes, pots, or tubs of seedling plants, let them be placed in a shady situation, about the middle or towards the latter end of this month, where they may have the morning sun only.

All beds of seedling trees and shrubs whatever must be kept perfectly clean from weeds.

This should be carefully attended to, for the weeds are much quicker of growth than the young seedling plants of trees and shrubs, and would soon get the start of them if permitted to stand, and would do much damage. Therefore let the weeds, as soon as they appear in the beds, be cleared out, before they get to any great head, performing it by a very careful hand-weeding.

#### CARE OF NEWLY PLANTED ARTICLES.

WATER new plantations of the tenderer kinds of young evergreens and flowering shrubs, &c., but in particular those which were lately planted out from the seedbeds; these must not be forgotten in dry weather.

Once a week will be often enough to water any new plantations, even in the driest season, and to those that are but lately planted: but such as have been planted in autumn, or early in the spring, will require but very little watering.

Cuttings, either of fruit or forest trees, flowering shrubs, or evergreens, which were planted last autumn or this spring, must also be watered now and then in dry weather.

#### TRANSPLANTING.

EVERGREENS, of most sorts, both seedlings and others, remaining in too close growth, may yet be transplanted; but this should be forwarded as much as possible in the beginning of this month, or wholly completed by the middle in all the requisite principal plantings.

Pines and firs of all kinds, cedars, cypress, and the like kinds, will yet bear removal very well. Likewise phillyreas, alaternuses, phlomis, and pyracantha; also bays, hollies, and evergreen oak; cistuses, and cytisuses; arbutus, magnolias, and many other sorts of evergreens.

They should be planted in nursery rows; which, for small seedlings, may be in rows from six to ten or twelve inches asunder; but for larger plants, set them in rows two feet and a half or a yard distance, and fifteen or eighteen inches in the row.

As soon as they are planted, it will be of much advantage to give a good watering, to settle the earth about their roots.

Likewise any deciduous shrubs, and trees of the late shooting kinds, that require thinning out or transplanting, may also still be removed, performing it as early in the month as possible, planting them the above-mentioned distances in the nursery rows.

For the methods of planting all the above kinds in nursery rows, see the two last months.

#### NEW GRAFTED TREES.

EXAMINE new grafted trees; the clay is sometimes apt to fall off or crack, so as to admit air and wet to the grafts.

When this is the case, let the old clay be taken entirely off, and immediately apply some more that is fresh and well wrought. Let this be perfectly well closed in every part, so that neither wind nor wet can enter.

Where there are any shoots produced from the stocks below the grafts, let them be rubbed off close; for these, if permitted to grow, would starve the grafts; and be careful also to eradicate all root suckers.

#### NEW BUDDED TREES.

BUDDED trees should also be looked over about this time; for those that were budded last summer will now be making their first shoots, and therefore demand some attention.

These first shoots from the inoculated buds are, in some seasons, apt to be attacked by insects or blights: and these, if not prevented, will hinder the young shoots greatly, and sometimes entirely spoil them; but by a timely attention, the injury may be, in a great measure, prevented: that where the ends of the young shoot appear crumpled, and the leaves curled up, let them be carefully taken off, for they are full of small insects. By this practice the vermin may be prevented from spreading farther.

Likewise observe, that all shoots which put out from the stocks, besides the proper inserted bud, must be also rubbed off constantly as they are produced, that the whole efforts of the stock may go to the support of the bud-shoots only.



## HOEING AND WEEDING.

Hoe and destroy weeds between the rows of young trees; they will now rise abundantly from seed; but by applying the hoe to them while young, they may be very expeditiously destroyed.

Choose dry weather always to destroy weeds by hoe; let the hoe be sharp, and take the advantage of the weeds while they are small, and cut them up clean within the surface of the ground.

There is nothing like destroying weeds in due time; for when they are suffered to grow large, they are constantly hurtful to all young trees and shrubs, and in particular to those plants which are not far advanced in their growth. Besides, they appear very disagreeable, and require double labour to extirpate them.

Likewise all seedbeds, and others of young trees and shrubs in close growth, where not room for the hoe, should be carefully hand-weeded, according as they may require, in proper time, before the weeds spread considerably.

## GRAFTING.

Grafting may still be performed upon fruit trees; but it must be upon the latest shooting kinds of the different sorts; and it must be done the first and second week in the month, otherwise it will mostly be ineffective.

Graft hollies with cuttings of the variegated kinds. The first fortnight in this month is the proper time to perform that work on these plants.

The common green holly is the proper stock to graft the variegated kinds upon: and the stocks for this purpose must not be less than three or four years' growth from the seed; but those of five and six are very proper for this use.

Get some good cuttings or grafts, of the best variegated kinds; they must be shoots of the last summer's growth. Let them be grafted with exactness, according to the general method of whip-grafting.—See *Grafting in the Nursery of March*.

Likewise graft any other curious varieties of trees on stocks of their own kind.

But in most fruit trees and other deciduous kinds, where any grafting remains to be done, no time should be omitted in forwarding it early in the month, before the graft shoots begin

to advance much in the spring buds, otherwise the work will prove unsuccessful.

#### INARCHING.

INARCHING may also be performed now on evergreens, and on any kinds of trees or shrubs that you desire to propagate that way.

This method of grafting is only principally intended for those kinds of trees and shrubs which are not easily raised by common grafting or budding, or from seed, layers, or cuttings, or by any of the other general methods, for most sorts may be propagated by inarching.

But this may be practised on almost any kind of trees and shrubs, as may be thought convenient, either by way of curiosity, or otherwise.

The evergreen kinds may be inarched any time in this month; but the other sorts generally succeed best when inarched at the beginning.—See *March*, &c.

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### THE GREEN-HOUSE.

#### GIVING AIR TO THE GREEN-HOUSE PLANTS.

THE green-house plants now require a large portion of free air; and this article should be admitted to them every day, when the air is anything mild.

Most of the plants will now be shooting freely; they must not, therefore, be kept too close, for that would weaken the shoots, and render the plants in general so extremely tender, that they would not be able to bear the open air well when they are first brought forth for the summer season.

Therefore open the green-house windows every morning, more or less, when the air is mild and calm, about an hour or two after sunrising, and let them continue open till within an hour or less of the sun's setting; that is, if the air continues mild till that time of the evening.

#### WATERING.

WATER must now be duly given to the plants, in general, according as they stand in need thereof.

The orange and lemon trees will require that article often.

Also the myrtles, geraniums, oleander, amomum Plinii, and cistuses, African heaths, protea, diosmas, and all other plants of the woody kinds, will require to be frequently refreshed with moderate waterings.

Also any herbaceous exotics, of the green-house tribe, must have moderate waterings occasionally.

But the green-house plants in general must be often looked over, to see where water is wanted; and let all such pots and tubs as stand in need of it be properly supplied therewith, for this is now a very necessary article.

But in watering the green-house plants, let it be given to all kinds with moderation, but especially while they are in the house, and particularly the more succulent kinds.

As to the succulent plants of this department, such as aloes, sedums, opuntias, euphorbias, crassulas, cereuses, mesembryanthemums, &c., they being naturally replete with humidity, do not require much water; giving it only moderately at times, when the earth in the pots appears very dry: as too much moisture would rot some of the very succulent kinds of these plants.

#### SHIFTING PLANTS INTO LARGER POTS.

ORANGE, lemon, citron, and myrtle trees, and any other of the green-house plants, may still be shifted into larger pots where they require it.

Let those plants which are to be shifted be brought out of the house in a mild day: then take them out of the pots or tubs, with the ball of earth entire about their roots, and let any dry, matted, and decayed roots on the outside and bottom of the balls be neatly cut off, and let some of the old earth on the outside be taken away.

Then, having some fresh earth ready, let some be put into the bottom of the new pot or tub; set the tree, with its ball, as above prepared, in the middle, and fill up the pot or tub with the fresh compost, raising it quite over the top of the ball an inch or two thick.

According as the plants intended are thus fresh potted, &c., let them be immediately well watered, to settle the new earth close about the ball and roots; then return them to their places in the green-house, and water them moderately, as occasion requires.

## FRESH EARTHING THE PLANTS.

THOSE plants which are not to be shifted this year into larger pots should have a small augment of fresh earth, if not done last month, by taking some of the old earth, out of the top of the pots or tubs, to a little depth, and some fresh and rich compost applied in its stead, which will refresh them greatly.

This will be remarkably serviceable to orange, lemon, and citron trees, and the like kinds, and to all other plants in the green-house; and it should not be omitted now, if it was not done before.

Let the earth first be loosened on the top of the pots or tubs, quite to the surface of the uppermost roots, and take it out; then loosen the earth a little way down round the sides, and take that out likewise; then fill up the pots or tubs with the new earth, and give a little water to settle it properly.

## TRIMMING AND CLEANING THE PLANTS.

LET no decayed leaves remain on any of the green-house plants; but let such, as soon as they appear, be taken off, for these make the plants appear unsightly, and are also hurtful to them in some degree.

Likewise, when decayed shoots appear, cut them off close, as also any shoots of a weakly straggling nature may be pruned less or more, or cut quite away, as it may appear necessary.

Let no weeds grow in the pots or tubs; keep them free from moss, and let no sort of litter be seen about them.

Where the leaves of orange and lemon trees, &c., have contracted any foulness, they must now be made perfectly clean.

For the large-leaved sorts, have some soft water in a watering pot, and a piece of sponge; dip this in the water, and clean the leaves therewith, one by one. It will clean the surface, open their necessary pores, and be greatly serviceable to the plants; and let the myrtles, and other small-leaved kinds, be cleaned from dust, &c., by syringing them occasionally.

## HEADING DOWN OR PRUNING MYRTLES, &amp;c.

WHERE myrtles, or other woody green-house shrubs of similar growth, have straggling or irregular heads, they may be headed down, or have the straggling branches pruned to some regular order; by which means they will put out plenty of strong shoots nearer the stem, and form full and regular heads in two or three months' time.

Likewise geraniums, &c., where any have very irregular heads, or of thin straggling growth, they may have the shoots pruned to some orderly extent; or long stragglers shortened to form the head more regular, and that they may shoot out laterally in a more compact, equal, branchy manner.

#### INARCHING.

INARCH shrubby exotics, whereby to propagate any particular sort; this being the proper time to perform that method of grafting on any of the green-house trees or shrubs.

Orange, lemon, and citron trees may be propagated by that method; also pomegranates, and many other sorts.

But this method is not adapted for any general practice, only on particular occasions; or principally on such plants as cannot be easily raised any other way, and occasionally by way of curiosity.

By way of curiosity, or as required, you may inarch a branch of an orange or lemon tree that has young fruit on it, on one of the common orange stocks, and it will be well united by the end of August, and may then be separated from the mother plant; and there will be a new tree, with fruit on it, raised in the space of four or five months' time.—See *Inarching*, under the article *Grafting*, in the *Nursery*, *February*.

#### PROPAGATING BY SEEDS, CUTTINGS, &c.

MAY still sow seeds of any of the exotics of this department, which succeed by this method of propagation; generally giving them the aid of a hotbed, either that of tanner's bark or hot dung, as may be convenient, and defended under frames and lights.

Sow also, where required, the kernels of oranges, lemons, and citrons, to raise stocks, on which to inoculate the cultivated varieties of these trees, for propagating the respective sorts.—See the method advised last month.

Propagate various sorts of green-house plants, by cuttings, layers, and suckers; and if the cuttings, particularly, are potted and placed in a bark bed, in the stove or elsewhere, it will greatly facilitate their rooting.

Young orange stocks for budding raised last year, if in pots too small, should now be shifted into larger; and if then placed in a hotbed or barkbed, under a deep frame and glasses, it would forward them greatly in growth, and draw them up in tall straight stems, two or three feet high, raising the frame as

they advance in growth ; and give air every day, and proper waterings ; and in June, should be inured by degrees to the full air, exposing them fully thereto in the latter end of that month, or in July : some of the strongest will probably be of proper growth for budding in August, or most of them at that time the year following.

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## THE HOTHOUSE.

### MANAGEMENT OF THE STOVE PLANTS IN GENERAL.

In some pine houses, or stoves, there being, besides the pines, many other curious and tender exotic plants, these must also have their share of attention.

Where any of these plants stand in need of larger pots, let them now be shifted into such, filling up the pots with new earth. Then, if there be room in the bark bed, let the pots be immediately plunged to their rims therein ; and by the assistance of the kindly heat of the bark, the plants will send out roots very freely into the fresh earth, which will give them strength, and make them healthy, and of a lively colour.

Water must also be given to these plants at times ; some sorts will require it pretty often. The coffee tree, and all the woody kinds, should be refreshed with moderate quantities of water, every three or four days ; also the herbaceous kinds occasionally ; but the succulent kinds do not require so much water, giving only a little now and then.

Where any of the pines, coffee tree, or other stove exotics, have contracted much dust, or other foulness considerably, let it be cleared off as soon as possible, for it would prove prejudicial to the tender plants confined in this department, by closing those minute pores so essential to vegetation, in preserving a healthful lively growth ; also where any pines, &c., are infested with small incidental insects, should use timely precaution to extirpate these destructive vermin.

### PROPAGATING STOVE EXOTICS.

Now propagate various sorts of exotics of this conservatory, by cuttings, layers, and suckers, according to the nature of the different kinds ; planting them in pots, and plunge them in the

bark bed: which will promote their rooting freely in a short time.

Likewise sow seeds of any kinds of hot house plants raised by that method; sow them in pots, and plunge these in the bark bed.

Also in the hot house, you may expeditiously strike cuttings both of many sorts of green house plants, as myrtles, &c., likewise of any curious shrubs of the open ground, plunging the pots in the bark bed.

#### NURSING AND SUCCESSION PINE PLANTS.

THESE having been regulated as directed for February and March, should now be growing rapidly. In clear weather they will require to be regularly supplied with water at the roots. They should also be occasionally syringed over head, when shut up in the evening, to refresh their foliage and keep them clear of dust. The temperature may now be gradually increased to seventy-five degrees, and allowed to exceed that from sun heat ten degrees or fifteen degrees during the day. Air should be freely admitted according to the state of the weather.

Most of the plants having been shifted as directed for February and last month, will not require to be shifted again before the beginning of May. Only such as have not been ready then, may now require to be shifted. If the bed have been properly prepared with fresh tan for the plants, when they are shifted, it should supply a genial heat to their roots till they are again ready for shifting. But in case of the heat declining much before they are ready for shifting, it may often be considerably augmented by carefully introducing a top dressing of fresh tan over the surface of the bed among the pots.

But in shifting these plants, observe that where any appear in a sickly condition, or are infested with insects, or seem to have bad roots, it will in such cases be proper to clear away all the old earth from the roots of the plants; and trim the roots or fibres pretty close; and also if the bottom of the main root appear in a decayed or bad state, let the affected part be pared away a little with a sharp knife, in a transverse manner. or as you may see occasion, and strip off some of the lower leaves, then immediately replant them in pots of entirely fresh earth.

## FRUITING PINE PLANTS.

WATER should be plentifully administered to the roots every second or third day, in order to swell off the fruit to a good size. Liquid manure should be occasionally substituted for the water, as serving the purpose both of watering and nourishment. Or, where the strength of the top dressing recommended for last month may appear exhausted, a coating of dung may be applied to the surface of the pots, to be washed down by the regular waterings. Nourishment is particularly necessary at this period for the support not only of the fruit but of the suckers which it may be desirable to leave for plants. These will now be fast forming, and make rapid progress when formed.

Such of the suckers as are emitted from the roots, should be destroyed, as making bad plants from their aptitude to strike into fruit prematurely. The suckers, denominated gills, which sometimes appear upon the footstalks of certain varieties, should also be destroyed as useless. Also, of the suckers of the stem, only one or two should be spared, unless when the number of plants is a greater object than the excellence of the fruit.

On the debated question whether crowns or suckers are best for plants, we may state that crowns make the handsomest, and surest bearing plants; but suckers are generally to be preferred for strength.

## FORCING VINES.

THE temperature should be continued as regularly as possible at the same degree as recommended for last month, but allowed from sun heat during the day to exceed the fire heat medium five or ten degrees. When the berries have reached the size of garden peas, the operation of thinning and of tying up the shoulders of such branches as require it, should not be neglected. This is of the utmost consequence not only to the free swelling of the berries, but to their excellence in every respect.

Tie up the required shoulders with fresh matting. Fix one end of this about one-third from the extremity of the shoulder, or where the shoulder will be most equally balanced—introducing a split of wood longitudinally under the shoulder, to diffuse the pressure, in case the shoulder be very heavy. Raise the shoulder as far as required, and tie the other end of the matting to the wires or shoots of the vines. To avoid confusion from tying, and to save trouble, the under tiers of shoulders may be extended and kept up by the insertion of slender splits of wood,



having notches at each end, in which two opposite shoulders may rest.

Then, with a pair of proper grape scissors, cut out the most immature of the berries, and also such a quantity of the more perfect of them, as will allow the remainder full scope to expand. The operation may be completed at two different periods. The number of berries to be cut out must depend upon the nature of the vines, the number of branches upon them, and the size that the berries attain when fully matured. Those which set their fruit thickly; those which produce berries of a large size; and those which have a considerable abundance of bunches, will require to be freely thinned, both in the berries, and particularly in the case of the abundance of bunches, by the entire removal of many of these. The musket, the tokay, and sweet-water, will not generally require so much thinning as some of the other sorts. But such compact growing sorts as the Ham-burghs, should be more freely thinned. In general, if fine fruit is the object, the great danger is on the side of thinning too little. For our own part, we have never had occasion to regret having thinned at least one-third of both bunches and berries—but, often, that we had not thinned them more. Of course, it will be understood that in the thinning which is here directed, it should be the finest of the bunches and berries which are spared.

Water should now be abundantly supplied both to the roots, and also over the leaves, by means of the syringe. This will materially forward the swelling of the fruit, and invigorate the vines.

#### FORCING PEACHES.

THE temperature should be kept about fifty-five degrees, or gradually raised so as to reach sixty degrees, by the time that the fruit shall be completely stoned. After that, all danger is over, provided that the trees be in a healthy state.

The final thinning of the fruit should then be proceeded with. Where fine fruit is an object, it should be thinned, upon healthy trees, to the distance of ten or twelve inches apart: but where the trees are rather weak, not above half that quantity, or even less, should be left. Where particular portions of a tree may seem weakly, these should be thinned with equally unsparing hand; it being exceedingly bad management to allow any portions of a tree to be outstripped and swallowed up by the other parts.

Water should now be much more abundantly supplied than hitherto, especially at the roots. The syringe should also be frequently applied over the leaves, in the morning or evening. Let this be done with considerable force, so as to displace any insects that may attempt a settlement.

The pruning and training in of the young shoots should be continued as directed for last month, and all water shoots removed, and laterals, unless where they are necessary to fill up acancies.

#### CARE OF PLANTS FORCING IN THE STOVE.

To plants now forcing in the stove, &c., such as kidneybeans, strawberries, flowers, &c., be careful to give proper waterings; and early in this month introduce more for succession.

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### MAY.

#### WORK TO BE DONE IN THE KITCHEN GARDEN.

##### MELONS.

MELON plants still require particular care; those which are in frames, as well as those under hand or bell-glasses.

The early plants in frames will now show fruit plentifully, and some will be set and swelling; therefore, in order to procure a sufficient quantity of those fruit for a full crop, the plants must, at this time, have all possible assistance of the best adapted culture.

One principal thing to be observed is, to preserve a proper degree of heat in the beds, by occasional linings of hot dung, while the fruit is about settling, and for some time after; for a kindly warmth is also necessary to promote the swelling of the fruit after they are set; for it should be observed, that although there be often very warm days in this month, yet there sometimes happen very cold nights, and unfavourable weather, in cutting north-easterly winds, &c., which make it so necessary to preserve a due heat in these beds; for if the weather should prove cold, and at the same time there is but little warmth in the beds, the melons will not set nor swell kindly, but most of them will turn yellow and go off. Therefore, when it is per-

ceived that the beds have much declined in their heat, immediately apply a lining of well prepared hot dung to one or to both sides of the bed, according as there may be occasion.

The advantage in adding the above fresh lining to such beds as are much decayed in their heat, will soon evidently appear, in the growth of the plants and fruit.

Fresh air must be admitted to the plants every day when the weather is calm and mild; for this will strengthen them, and promote the setting and free swelling of the fruit. This article of air must be admitted to the plants by raising the upper ends of the lights with props, gradually one, two, or three inches, according as the power of the sun and warmth of the day increases, and shut them by degrees in the afternoon, and quite close about four or five in the evening; or sooner, if the weather should change cold.

The glasses must be covered every night with mats 'all this month. Let the mats be thrown over them a little before sunset or soon after in the evening; but when the air is cold, they may be spread over sooner.

About six or seven in the morning, let the mats be taken off; or, when it is a warm sunny morning, they may be uncovered as soon as the sun reaches the glasses; for the plants should not be kept too long close covered, nor in darkness, the power of light being very essential to their growth.

Water should also be given at times to the melon plants in frames, for they will require it in proper moderation, provided there be a good heat in the bed, and the weather be tolerably warm and sunny. Let this article be given very moderately, and not too often, for too much moisture would chill the young fruit, and prevent their setting. Once a week or ten days will be often enough to water them; and the value of one or two pots of water to a three-light frame will be sufficient.

Choose always a moderately warm day to water them; and about eight or nine in the morning, or three or four in the afternoon, are now the best times in the day to do that work. Shut down the lights immediately after watering; and if the sun shines, throw a mat over for half an hour, then take it off again, and give air directly, if sunny. Observe, in watering these plants, it is not advisable to water them generally all over the leaves, especially when the fruit is setting; so should water between the runners in different parts of the bed with a watering pot, without the rose or head, and placing a flat piece of tile or oyster shell, &c., water upon this both to prevent the earth

from being washed from any of the roots by the force of the water immediately from the spout of the pot, and to make it spread more effectually; being careful in this, to let as little as possible touch the fruit that are about setting, or newly set, and do not give too much water near the head or main stem of the plant.

Where the plants advance very near the glasses, it will be necessary to raise the frame from about three to six inches; this is done by placing bricks or square pieces of wood under each corner of the frame.

According as the melons set, observe to place a piece of tile under each young fruit: for this will preserve them from the damp of the earth of the bed.

OF MELONS TO BE RAISED UNDER BELL AND HAND-GLASSES  
AND OILED PAPER FRAMES.

FINISH making the hotbed ridges to plant the melons upon, which are to be covered with bell or hand glasses, or with frames covered with oil paper; for which see the work of *June*. The plants for this purpose being raised from a sowing in March, or beginning of last month, will be now of a proper size for final transplantation into the above hotbeds, which, if possible, should be completed in the first or second week of this month.

These ridges must be made of the best hot stable dung: preparing, first, as directed in the two former months, for other hotbeds. And they may now be made, either in trenches three or four feet wide, and twelve or fifteen inches deep, or on level ground; but by making them mostly above ground, it will afford an opportunity of adding a lining to recruit the heat when it declines; however, in either method, let the hotbed ridges be made a yard wide at least, though four or five feet would be more eligible, and two feet and a half high; and where two or more ridges are to be made near together in a parallel order, allow the space of four feet between, and which space, if filled with any waste, moderately warm dung, and earth at top, in about a month or five weeks after will give a larger scope for the roots and runners to extend, and the additional moderate heat thereof, enlivening that of the beds, will greatly assist the setting of the fruit.

The ridges being made, get some good earth; and if this be light loam, and has been mixed with one fourth part of very rotten dung some months before, it will be better for this purpose; but, in default of loam, any rich garden earth will do.

The earth is not to be sifted, but very well broken, and mixed together with the spade, and then laid not less than six to eight or ten inches thick, all over the top of the ridge.

Then mark out along the middle, the holes for the plants, allowing the distance of four feet between; and set a bell or hand-glass over each, and keep them close down till the earth under them is warm, and then bring in the plants, which, if now in pots, having only three at most in each, turn them carefully out, with the ball of earth entire, and make a hole in the earth where each glass stands; place one pot of plants, with the ball into each hole; close the earth very well about the ball, and also about the stems of the plants; give every hole a little water, and immediately put on the glasses.

Shade the plants from the sun, for the first two or three days, from about eight to four o'clock; but, after that, let them have more and more sun every day, till they are able to bear it fully without flagging.

Let them have air every warm day, by tilting the warmest side of the glasses, but keep them close shut down every night. The glasses must also be covered every night all this month with mats.

Those plants now planted out will produce ripe fruit, some about the end of July; but the principal crop will be in August and September.

When any of the melon plants have filled the bell or hand-glasses, the runners must then have liberty to run from under them; but they must not be trusted out before the latter end of this month, or beginning or middle of next; being guided in this by the temperature of the weather, which, until settled in warm and dry, must be very cautious in training out the plants.

If, therefore, about the last week in this month, or beginning of next, the plants have advanced considerably in runners to the extent of the glasses, they should be trained out, provided, however, the season is become warm, dry, and settled, not else, before the middle of June; raising each glass upon three props, about two inches and a half high, and let the ends of the vines or runners be trained out at regular distances; being careful to cover the ridges every night, and in all bad weather, with large mats.

But when the vines of these plants are trained from under the hand-glasses, it would be of great advantage to place oiled paper frames over some of the beds, previously removing the hand-glasses; these frames remaining constantly night and day

and they admitting the light and heat of the sun sufficiently, will prove effective beneficial shelters.—See *June*.

#### MANAGEMENT OF CUCUMBER PLANTS IN FRAMES.

CUCUMBER plants in frames will now be in full perfection of bearing; they must therefore be carefully attended.

Still support a moderate heat in the beds, by the application of linings of hot dung, &c., where necessary.—See the two last months.

These plants will require to be often refreshed with moderate waterings, generally not less than twice a week; and a morning and afternoon are the most proper times for watering them at this season.

The plants must also be allowed proper admission of free air every mild day, for the sun has now great power, and if the glasses were to be kept too close, it would destroy the plants. Therefore, raise the upper end of the lights every warm, sunny morning, about seven, eight, or nine o'clock, according to the temperature of the weather; and according as the heat of the day increases, continue raising the glasses a proportionable height, from one to two or three inches.

The lights must be shut close down every evening, about five or six o'clock; but in cold evenings shut them down an hour or two sooner.

Shade the plants from the sun in very hot, sunny days. The time to do this is from eleven to two o'clock.

Where the glasses are pretty close to the plants, it will now be advisable to allow them a larger space of room, by raising the frame three or four to five or six inches at bottom; the plants will then enjoy the air more effectively, grow stronger, and stand the sun with less danger of scorching their leaves. Continue covering the glasses every night with mats all this month, generally covering up towards sunsetting, and uncover soon after its rising in the morning.

The early cucumbers will now be in full production of fine fruit, which, when about four or five, to six or eight inches long, are fit to cut for the table.

In the cucumbers now in bearing, should still continue to impregnate, or set the young fruit, according as it comes into blossom; generally the same day that the flower expands, or second at farthest, in the forenoon, while the generative organs retain their fertilizing property in the fullest degree; for this is

particularly essential in this business.—See *Cucumbers in March and April*.

#### CUCUMBERS TO BE PLANTED UNDER HAND OR BELL-GLASSES.

CUCUMBERS may now be planted out on hotbed ridges, under hand or bell-glasses.

The plants being raised for this purpose, in March, or last month, should be planted out the beginning and middle of this : and they will begin to bear about the beginning, or towards the middle of June, and will continue bearing till the cold weather in autumn destroys the plants.

The hotbeds for this purpose must be made of good hot dung, as formerly observed ; and may be made either on level ground, or principally now in wide trenches, as they will not require to be lined.

If the latter is intended, choose any compartment of good ground in the full sun ; there dig a trench, a yard wide, and twelve or fifteen inches deep, laying the earth that comes out neatly all along the side of the trench. Fill this trench with fresh hot dung, and raise it from six to eight, ten, or twelve inches above the surface of the ground ; for the beds should be at least two feet thick of dung. Then cover the bed with the excavated earth of the trenches, six or eight inches thick over the top of the dung ; levelling the rest of the earth close along each side of the bed, corresponding with that at top ; the whole forming the bed like a sort of ridge.

But when intended to make these hotbed ridges on level ground, let them be full four feet wide, and earthed with rich earth, as above.

Then, in either method, as soon as the bed is earthed, mark out the holes for the plants, exactly along the middle, three feet six inches distance, and directly cover each place with a hand-glass ; and in a day or two the dung will have warmed the earth, ready for the reception of the plants.

Proceeding then to the planting, form the earth under each glass a little hollow, circularly, and in each place, under the said glasses, hole-in three good plants, observing if the plants were pricked in pots last month for this occasion, plant them as above, with the ball of earth about the roots entire ; or, if not in pots, remove and plant them with as much earth as will readily adhere about the roots : give them directly a little water ; then let the glasses be immediately put on, and shade the plants from the sun till they have got root.

Let the plants have air every day, when it is calm and mild, by tilting the warmest side of the glasses, and let them be refreshed with occasional moderate waterings: and when they have, in advanced growth, filled up the glasses next month, train them out in a regular order.—See *June*.

They must be covered every night with mats, until the middle of June.

But where good plants cannot be readily procured to plant in the above beds, let some seed be put in early in the month; the plants will soon come up, and will come into bearing at a very acceptable time in June and July.

The hotbed being made and earthed as above directed, mark out the holes for the seed, three feet and a half asunder; and in the form of a shallow basin, only about an inch and a half deep, and nine or ten inches wide. In the middle of each of these holes, sow eight or nine seeds, half an inch deep, and then put on the bell or hand-glasses. After the plants have been up ten or twelve days, they must be thinned, leaving only three of the strongest in each hole, drawing a little earth about their stems; and give a light watering, to settle the loosened earth below close to the roots; managing them afterwards according to the foregoing directions, and they will begin to bear some fruit in the third or fourth week in June.

#### CUCUMBERS TO PICKLE.

Sow cucumbers for pickling, &c., either generally now in the natural ground, to remain for the principal crop of picklers, &c., or occasionally in a hotbed, if coldish bad weather, to forward them for transplanting into the open ground next month, which is generally as soon as the plants can stand the full air in this country.

However, in regard to sowing this crop in the open ground, it must not be done generally till towards the middle or latter end of the month; or if the season is coldly unsettled, or very wet, as has often been the case of late years, defer sowing till the last week in this month, or the first in June, allotting for this purpose a piece of rich free ground, digging it regularly, in a level order, and divide it into beds of five or six feet wide, allowing twelve inches between bed and bed for an alley; then mark out the holes for the seed, along the middle of each bed, allowing three feet and a half between hole and hole; loosen the places for the holes, breaking the earth well, and form each in a small concave hollow, with the hand, like a shallow basin,



about an inch and a half deep, and ten or twelve inches over; and sow in the middle of each hole eight or ten seeds, covering them near half an inch deep with earth.

After the seed is sown, if the weather should prove hot and dry, it will be proper to sprinkle the holes with water: but this must be given very moderately, just enough to moisten the earth a little, for too much moisture in the earth would rot the seed: but when the seed is germinated, and the young plants coming up, give water freely in dry warm weather.

When the plants have been come up about a fortnight, they must be thinned, and leave no more than three or four of the best plants in every hole.

But in sowing picklers, if a cold wet season, in which these seeds, sown in the natural ground, either rot or make but little progress; or that, in order to forward both the seed and young plants a week or fortnight in growth, it would, in either case, be proper to sow the seed in a slight hotbed, just to raise the plants more effectively and forwarder in their young state, till about a week or ten or twelve days old to a fortnight at most; then to be transplanted finally into the natural ground: the method is as follows:—

Having a supply of proper horse stable dung, of good moderate heat, make a hotbed the width of a garden frame, or not less than a yard wide, for hand-glasses, and half a yard high, and the length in proportion to the quantity of plants you would raise; as soon as the bed is thus made, either set on the frame, and lay in the earth, or, being previously earthed, may use hand-glasses; or, in default of these, an awning of large mats occasionally: observing, in either method, to earth the bed directly only about three or four inches thick; and then, as it is advisable generally to transplant these plants when quite young, in little clusters together, sow the seed accordingly; that is, either sow some in small pots, several seeds in the middle of each, and plunge them in the hotbed, or for larger or considerable supplies, sow in the earth of the bed, in little clusters, with a thick blunt-ended dibble, or with your fingers contracted, make holes about an inch wide, and half an inch or near an inch deep, and about an inch and a half asunder, dropping six or eight seeds in each hole, and cover them in with earth; this is called dotting them in: or instead of this you may draw drills across the bed: the seed to be sown in the drills, observing to sow them quite thick, not generally all along the drills, but rather in little patches, six or eight good seeds in each, so

close as to almost touch, and cover them half an inch deep with earth; allow a clear space in each drill of two inches between each patch or cluster of seed, and let the drills be two or three inches asunder: by thus sowing the seed in clusters, as it were, the plants will rise in bunches for transplantation in that order, as below: continuing, in the interim, to defend the bed, either with the frame-light or with hand-glasses; or, in want of these, with mats, as before intimated, every night and all bad weather; and give occasional gentle waterings.

Then, when the plants have been come up about six, eight, or ten days, and show the rough leaves in the centre, it is proper to plant them out, if the weather is settled: for in this order of culture, as after removal from the hotbed, they not having the aid of further artificial heat, it is most successful to plant them out while in that young state of growth, as aforesaid, taking them up in clusters as they grow, with the earth about their roots; and in that manner let them be planted in the places where they are to remain, allotting one bunch of plants to a hole, and giving them immediately some water; they will quickly strike root, without hardly feeling their removal; observing, however, that if the weather should at that time prove unfavourably cold, may continue them, under occasional shelter, in the bed a week or more longer, till the season settles in warm.

#### PLANTING AND SOWING GOURDS AND PUMPKINS.

PLANT out from the hotbed the gourds and pumpkins which were sown in April: it may be done any time towards the middle or latter end of this month.

But as the fruit of these plants is not of much estimation or value for any material culinary uses, or other economical purpose, should only raise a few, where any are required, either for any domestic occasions, both in the quite young green growth of the fruit, and when of full maturity; or some chiefly by way of curiosity, for the great variety of the fruit in its numerous different and singular shapes, sizes, colours, stripes, and variegations, &c., from two or three inches' growth, as in the orange and pear gourds, to one, two, or three feet, or more, in different sorts, in round, oval, hemispherical, bottle-shaped, barrel-shaped, star-shaped, and of various other forms.

Some of them may be planted out in the common ground, in a warm situation, about the middle of this month, when the

weather is settled in warm; they will grow freely, and produce ripe fruit in August; and the common pumpkin is often sown or planted upon old dunghills; they will spread wonderfully, and produce much large fruit.

But in order to have any particular sort produce fruit earlier in summer, it is effected by planting some out, the beginning or middle of the month, upon holes of hot dung, under hand or bell-glasses, or other occasional shelter: dig some holes, two feet wide, and about a spade deep, in the places where the plants are to produce their fruit, filling the holes with new horse dung, covering that six inches deep with earth, and so plant your gourds, &c., or may sow the seeds, and cover them with the above glasses, or with oiled paper frames, &c., till they begin to run; then may discontinue the shelters.

However, in default of dung or glasses, for holding them out as above, may plant any of the gourd kinds, or others, in the full ground, in a warm situation, as aforesaid, towards the middle of the month, when settled warm weather, and the pumpkins, &c., may be planted anywhere.

Observe to plant some of the orange, and other small gourds, near to a wall, or other fence, or against an arbour, &c., and when the plants begin to run, let the vines or runners be neatly trained, and fastened up close to the wall, pales, &c. Where this is practised, the plants, together with the fruit, will make an agreeable appearance in the months of July, August, and September.

Or some of the gourds, and others of the moderate running kinds, may also be occasionally supported with stakes; that is, when the plants begin to run, let a tall firm stake be fixed in the ground near each plant; and according as their vines advance in length, let them be trained up carefully round the stakes.

But the pumpkins, and large kinds of gourds, should now be planted out, or seed sown in any open compartment, or upon dunghills, &c., setting them eight or ten feet distance; and the plants, in their advancing growth, permitted to extend upon the surface of the ground.

The seed of gourds and pumpkins may still be sown in the first or second week, or any time in the month, either at once in the full ground, or upon holes of hot dung, as above, to remain; or in a hotbed for transplantation, as in last month; and when the plants have got rough leaves, one or two inches broad, they should be planted out in the open ground.

But in default of hot dung, &c., sow them now in the common ground at once, in the places where they are to remain.

#### KIDNEY BEANS.

Now plant a full crop of kidney beans, to succeed those planted in April.

Any of the dwarf kinds may now be planted: but the best and most profitable for this plantation are the black speckled dwarfs, Battersea and Canterbury white dwarfs; or also a few dun coloured, and large white.

Draw drills for them an inch deep, and two feet and half distance; place the beans in the drills two or three inches asunder, draw the earth evenly over them, and let the surface be lightly raked smooth.

Plant also the scarlet runner, or any other of the running kinds of kidney beans.

Most of the running sorts are exceeding profitable for the service of a family, for they are surprising great bearers; but in particular, the scarlet flowering bean; and there is a variety of this, that differs from it only in colour, which, both in the seed and flowers, is white: but their manner of growth, mode of bearing, and pods, are similar: and both the varieties being very plentiful bearers in long continuance, are very proper for this plantation: the large white Dutch runners are also very proper to plant now, are excellent beans, the pods of considerable length, but the plants do not continue long in production, like the scarlet, &c.

All the running or climbing sorts of kidney beans, extending considerably by their runners, and requiring support of tall sticks or poles, &c., must be allowed more room to grow than the dwarf kinds; so that the drills for these large sorts must be three feet six inches distant at least, and about an inch and a half deep, or a single drill along any vacant wall, paling, building, &c.

Place the beans in the drills three or four inches asunder, and cover them equally with earth.

When the plants are come up, and begin to push their runners, then let some tall sticks or poles be placed to each row, for the plants to climb upon. The runners will soon catch hold, and will twine themselves naturally round the sticks or poles, to the height of eight or ten feet, or more; or if any are planted in a row close against a wall, or any high fence or building, may suspend strong packthread from above, six inches

distance, fastened tight at both ends, the lower end of which may be tied to a stick thrust into the ground; and the runners will readily ascend round the strings.

There is much advantage in planting these running kinds, especially the scarlets, &c., for a lasting crop; for those that are now planted will begin bearing in July or August, and continue producing plentifully till October.

Though, as in many families these are not so much esteemed for general use as the dwarf sorts, they should be planted in smaller or larger portions accordingly, and generally most of the dwarfs for the main crop: nor are the running kinds so much cultivated by the market gardeners, as large quantities would require great trouble to stick them, and are not generally so saleable as the dwarf beans.

However, in private gardens, should generally cultivate tolerable crops of the runners, more or less, for the supply of a family, as during the season they will be always in ready production: two sowings, one this month and another in June, will furnish plentiful supplies of young pods, in constant succession, from July till the middle or end of October.

#### CAPSICUMS FOR PICKLING.

THE capsicums for pickling which were sown and raised in a hotbed, in March or April, should now be transplanted into the full ground.

But as these plants are tender, and being raised in a hotbed, must not be planted out till settled warm weather, or towards the middle or latter end of the month.

Dig a spot of rich ground for their reception, and rake the surface smooth, then put in the plants by line, a foot asunder every way, and water them.

#### LOVE-APPLES, FOR SOUPS, &c.

PLANT out tomatoes, or love-apples, from the hotbed where raised, about the middle or latter end of the month, to produce fruit in autumn, for pickling, soups, &c.

These plants being trailers, and very luxuriant and rambling in their growth, must therefore be planted close to a wall, pales, or espaliers; and when they begin to branch out, must be trained, and nailed to the wall or pales in the manner of a wall-tree, or may be trained to strong stakes.

Observe, they must be planted against a south wall or other south fence, or in some sunny exposure; for if planted in the

shade the fruit would not ripen. Any wide vacant spaces between wall trees would suit them well, and will produce ripe fruit in August or September, &c.

One stout plant in a place is sufficient. Water them as soon as they are planted, and shade them from the sun till they have taken root; and a little shelter of hand-glasses, &c., in cold nights, for the first fortnight, would be very serviceable.

#### ASPARAGUS.

ASPARAGUS will now be fit to cut for use.

In cutting the shoots of these plants, it should be observed, that, when they are advanced about two or three to four or five inches above ground, they should be gathered; but those about two to three or four inches are generally in prime order, while the top bud or head remains compact; which when permitted to run, soon becomes open and loose, and of less estimation.

When proceeding to cut or gather them, be careful to thrust your knife down close by the side of the shoots you intend to cut, lest you wound or destroy any young buds that are coming up in succession, and do not yet appear; cutting the shoots off slanting, about three or four inches within the ground.—See *April*.

Let the beds of these plants be now carefully cleaned from weeds, which, at this season, will be advancing very numerously, and should therefore either give a careful hand-weeding; or, with a small hoe, taking opportunity of a dry day, cut up all weeds clean within the surface, and they will soon all die effectually.

#### TRANSPLANTING LETTUCE.

In moist weather, transplant Cos lettuce and other kinds which were sown the two former months.

Choose a rich spot for these plants, in a free open situation, not encumbered with spreading trees, &c., which would draw the plants up slender, without forming good hearts; dig the ground neatly, and rake the surface smooth; then put in the plants in rows, ten or twelve inches asunder, and give some water to settle the earth about their roots; giving also occasional after-waterings, till the plants have taken root.

Such lettuces, in young plants, of two or three inches advance, as are intended to remain where sown, to attain full growth, should now be thinned regularly, in proper time, about a foot or fifteen inches distant; or any among other crops, as

onions, leeks, carrots, &c., must be thinned more considerably, or generally, not less than two or three feet asunder.

#### SOW LETTUCE-SEED.

Sow lettuce-seed; this should be done at two or three different times this month, that there may be a constant supply of these plants in good perfection, in successional order in the proper season, which, from these sowings come into full growth in July and August, to succeed those of the spring-sown crops.

The white and the green Cos lettuces, *Ægyptian*, spotted Cos, *Cilician*, and *imperial*, are all proper kinds to sow now: or occasionally the grand admirable, large white Dutch, and the brown Dutch, &c., so in the whole may choose the most desirable.

An open situation must be chosen in which to sow these seeds where the ground is light and rich; sow each sort separate, and rake them in light and evenly.

The beds wherein these seeds are sown must be often refreshed with water in dry weather, to promote a free growth, both in the seed and young plants.

#### TYING UP EARLY LETTUCE.

EARLY Cos lettuce, of some advanced growth, beginning to heart a little, may, in some of the largest plants, have the leaves tied up together moderately, with a string of bass, which will forward their cabbaging and whitening in the heart sooner for use, and render them more crisp and tender for eating.

#### SMALL SALADING.

Sow cresses, mustard, radish, rape, and other small salad seeds often.

When a constant supply of these small herbs are required young, there should be some seed of each sort put into the ground once every week or fortnight.

Observe, if the weather proves hot and dry, it is proper to sow these seeds now on a somewhat shady border. Draw shallow drills, and sow the seeds therein very thick, and cover them lightly with earth. In dry weather, give them a moderate watering every other day.

## SPINACH.

SPINACH may still be sown, where required in continued succession, sowing generally the round leaved sort, and mostly in an open situation.

In some families spinach is required in succession all summer, or in continuance some part of that season; in which case, some seed should be sown every twelve or fourteen days, as the plants of the summer sowings soon run up to stalks, in a useless growth: sow the seed moderately thin, and rake it well into the ground; or may occasionally sow it in shallow flat drills, twelve to fifteen inches asunder, covering in the seed regularly.

Hoe and thin the young spinach of last month's sowing; eradicate all weeds: and where the plants stand thick, thin them moderately, in some regular order, especially those produced from the broad-cast sowing, not so material in those growing in drills.

Should now, the beginning or middle of this month, if not done, leave some best sorts of spinach to run for seed, both of the winter crop, of the triangular-leaved kind, and early spring-sown plants of the round-leaved, to have a proper supply of seed of both varieties.

## TURNIPS.

Sow more turnips: they will come in at a fine season; fit to draw for the table by the middle or latter end of June: but will be in excellent order till the beginning of August.

Allot an open compartment of mellow ground; and, while fresh turned up, sow the seed, moderately thin and equally in every part; tread it evenly down, and rake it in regularly.

Hoe and thin the turnips which were sown the last month: cut up all the weeds, and thin the plants regularly, to seven or eight inches distance.

This work of thinning should always be performed when the rough leaves are about the breadth of a man's thumb, or before they grow much larger, as the work can then be effected with greater expedition and regularity.\*

## CLEANING AND THINNING CARROTS AND PARSNEPS.

CARROTS and parsneps will now be advancing fast in their

\* General crops of turnips should always be sown in drills, about an inch deep and not less than twelve or fifteen inches apart.



growth, and should be properly encouraged: clear them from weeds, and thin the plants out to due distances.

This work may be done either by hand or hoe; but, for large crops particularly, small-hoeing them is the preferable method, both as the most expeditious, and by loosening the surface of the ground with the hoe, it will greatly promote the free growth of the plants.

However, at any rate, let these plants be cleared from weeds, and thinned out to proper distances, that they may have full liberty to grow at top and swell at bottom. Thin out, therefore, the general crops, to about six or seven inches distance at least, and cut down all weeds. There is great advantage in allowing these plants room enough, for then their roots will be large, long, and straight; the parsneps in particular, if thinned from above seven or eight to ten or twelve inches distance, the roots will swell considerably larger, and attain their utmost perfection.

Such crops of carrots, however, as are intended to be drawn gradually for the table while young, need not be thinned at first to more than four or five inches distance; as by a gradual thinning out the larger for use, the rest will gain more and more room daily.

But the main crops of carrots that you intend shall remain to grow to full size, should be thinned to the proper distance at once, from above six to seven or eight inches distance.

#### SOWING CARROTS.

CARROT-SEED may still be sown where required: it will grow freely, and the plants will come up soon, and they will be ready in young growth to draw for the table by the latter end of July, or soon in August, and continue in fine order all the autumn season.

#### ONIONS.

THE crops of onions should, towards the middle or latter end of this month, be perfectly well cleared from weeds; and the plants intended for the main crop of bulbous should be thinned in proper time from about three to four or five inches distance; being careful to leave the strongest plants.

This work may either be performed by hand or with the small hoe; the latter is the quickest method, and by stirring the ground with the hoe, &c., it is of great service to the growth of the plants, having for this purpose a small one-hand hoe, about

two inches broad ; observing in the main crops designed wholly for full bulbing, to thin them regularly to at least about three or four inches distance.

But where a supply of young onions are wanted for thinning out by degrees for various domestic occasions, both as young cibols and in small bulbous growths, there should be a crop reserved unthinned for that purpose ; but observing to thin them regularly as you draw them for use, leaving a sufficiency for a tolerable crop, of the most promising plants to stand for full bulbing.

#### HAMBURGH PARSLEY, SCORZONERA, AND SALSIFY.

THE young crops of Hamburgh, or large-rooted parsley, scorzonera, and salsify, must now be carefully cleaned from weeds, and the plants should be thinned or hoed out to proper distances, that their roots may have room to swell ; thinning them about six or seven inches asunder.

The seeds of scorzonera and salsify should now be sown for the winter crop. Sow them in the first or second week of this month, in an open spot of ground, each sort separate, and rake them in.

These plants when sown early, are apt to run up for seed, before they are hardly fit for use. But those that are sown now will not run, and their roots will be in excellent order for the table by Michaelmas, and continue good till spring following.

#### CABBAGES AND SAVOYS.

TRANSPLANT spring-sown cabbage and savoy plants for autumn and winter use, also red cabbages.

These should be allotted an open situation : or some may be planted between rows of early cauliflowers, or wide rows of garden beans, or French beans.

But where there is ground to spare, and clear of other crops, it will be more advisable to allot all these kinds of plants an open compartment by themselves. Plant them out, if possible in moist weather, in rows two feet or two and a half asunder, and about two feet distance in the lines ; and as soon as they are planted give each a little water.

Draw earth about the stems of early cabbages, and others, this will strengthen the plants greatly, and will also bring them forward in their growth.

The earliest cabbages will now be well advanced in growth,

have formed tolerable full hearts, and begin to turn their inner leaves for cabbaging; they may be greatly assisted and brought forward by tying their leaves together. Get some bass, and go over the plants row by row, and let such of the forwardest with fullest hearts, as begin now to turn their leaves the most concavely inward, in order for heading, be tied. In doing this, observe to gather all the leaves up regularly; and then, with some bass strings, tie them together; but do not tie them too tight, for that would occasion the plants to rot.

This will bring the plants forward for use sooner by a week or fortnight than they would naturally be of themselves; and they will be much whiter in the heart, and more tender to eat.

Sow sugar-loaf cabbage-seed, and any other close, quick-hearting kinds, for summer and autumn, coleworts, and young autumn cabbages.

Likewise sow some savoys to plant out in July and August for a successional winter crop.

#### EARLY CAULIFLOWERS.

THE cauliflowers that were defended with hand-glasses all winter and spring, being now of considerably advanced growth, should have the glasses wholly discontinued, if not done the end of last month.

Look over early cauliflowers often, about the middle or latter end of the month; some of the plants will then begin to show their flower-heads in the centre; and as soon as these appear, they should be screened from the sun and wet, which would both occasion them to open, and change their peculiar whiteness to that of a yellowish hue.

Therefore, as soon as a flower appears in some advanced growth, let some of the largest leaves be broke down over it. This will answer the double purpose of shading the head from the sun, and defending it from wet, whereby the cauliflowers will be preserved in their natural whiteness, and will be close, firm, and beautiful.

These plants should in very dry weather be occasionally watered; for this will cause the heads to grow to a larger size.

#### TRANSPLANTING CAULIFLOWERS.

TRANSPLANT, if not done last month, the young cauliflower plants raised this spring from seed.

For the reception of these young plants, let a piece of the richest ground be chosen, and spread thereon some good rotten dung, and then dig the ground one spade deep, and as you go on, let the dung be regularly buried.

The plants are to be set in this compartment at two feet, or two feet and a half each way asunder; and they must be watered as soon as they are planted.

There may be sown, if you choose it, on the same ground, between the cauliflower plants, a thin crop of spinach, or a thin sprinkling of salmon radishes, &c.

#### SOWING CAULIFLOWER-SEED FOR A MICHAELMAS CROP.

Sow cauliflower-seed; the plants that are raised from this sowing will come into use in October, and will be in high perfection the greatest part of November, and sometimes longer.

This is what the London gardeners call the Michaelmas cauliflowers.

Observe, the seed for this crop must not be sown till about the 24th of this month; at which time prepare a three or four feet wide bed of rich earth, in a free situation.

Get some good seed of the last year's saving; sow this equally, moderately thick, and rake it in carefully, and sprinkle the bed often in dry weather with water.

When the plants have got two or three leaves an inch broad, they should be pricked out into a nursery-bed to attain strength for final transplantation.——See *June* and *July*.

#### BROCOLI.

BROCOLI seeds, both of the purple and white kinds, must be sown in this month, for the second principal crop for use the following winter and spring.

It will be advisable to sow a little of this seed at two different times this month, in order to have a proper supply: therefore sow some seed of both kinds in the first week in the month, and more about the twentieth or twenty-fourth; the plants raised from these sowings will produce their heads probably some in December and January; and the others more generally in February, March, and April, but in greatest perfection the two last named months; and after the main heads are gathered, the stalks of the purple sort particularly will yield abundance of excellent sprouts, but rarely any from the white, or cauliflower broccoli.

These seeds must be sown in a bed or border of rich earth,

in an open exposure, each kind separate, and rake them in regularly.

But in order to have brocoli produce heads before Christmas, that is, in October, November, and December, you must sow some seeds of each kind in March, or beginning or middle of April, which see.

#### BORE-COLE.

Sow bore-cole, otherwise brown-cole, for next autumn, winter, and spring use, if not done in March and April.—For directions, see last Month.

#### SOW AND PLANT SAVOYS.

Sow savoy seed for a latter crop: the true green savoy is the best sort to sow now, for it is the hardest to stand the winter.

This seed may be sown any time in the month, and will come in very well for a late crop; but to have a good crop of full-beaded plants, let the seed, if possible, be sown in the first or second week in the month; the plants will soon come up, and will be fit to transplant in the end of June, and in July, and beginning of August. Generally sow the seed in a free, open exposure, and rake it in regularly.

The plants raised from this sowing will be tolerably well cabbaged by November, and will continue good till March.

Plant out some early sown savoys, two feet distance, to cabbage in September and October, &c.

#### PLANTING AND HOEING BEANS.

PLANT more garden beans for latter crops in July, August, and September.

The Windsor, Toker, and Sandwich kinds will yet succeed tolerably well; and the long-pod sand white-blossom beans are also very proper to plant any time this month.

But where a constant succession of young beans are desired all the summer season, there should be some seeds put into the ground at three different times this month, allowing ten or twelve days, or not exceeding a fortnight, between each planting; and at this season it will be of advantage to allow them a situation where the ground is moistest, if there is a choice of soil, planting them in rows a yard asunder.

Hoe the ground between the rows of advancing young beans,

cutting up all weeds, and draw earth about the stems of the plants.

#### MANAGEMENT OF BEANS IN BLOSSOM.

Now it will be proper to top such beans as are in bloom, to promote the free setting of the pods.

This should, in the beginning or middle of the month, be particularly practised to the early crops, provided it was not done last month.

By this practice the pods will set sooner, and swell faster, and be better nourished, and come in almost a week sooner than if the plants were permitted to run; for having no advancing top to nourish, their whole effort goes to that of the fruit.

But let this be performed to beans in general now in full blossom; observe to let the stems be first advanced to such a due height, as to have a sufficient quantity of pods; the early Mazagan bean may be topped when about two feet high, and the larger sorts should be topped when from about two feet and a half or yard, to three and a half high, according to the growth of the different varieties.

But with respect, however, to the small early beans, if you would have them come in as early as possible, you should top them as soon as the blossom at the bottom of the stalks begin to open.

#### SOWING PEAS.

Sow likewise more peas. To have a regular supply, let some be sown at least twice in this month; but where constant supplies of young peas are much wanted, three or four sowings will not be too often, and there will be the greater chance of success in the late sowing.

The best sorts to sow now are the marrowfats; also may sow the Spanish moratto, green and white rouncivals, being fine large sorts; likewise any of the hotspur kinds, and Prussian peas, &c.; and those that are sown any time in this month will sometimes yield tolerably good crops toward the latter end of July, and in August, &c.

This is now a proper time to sow any of the dwarf kinds of peas. These sorts seldom grow above two or three feet high; some not above fifteen or eighteen inches, but are mostly great bearers; the pods small but numerous; and the peas, while young, eat sweet and good; and generally those sown at this season will be more productive than the larger kinds, though

not so advisable to sow in large quantities for any principal crops. Sow them in drills two feet, or two and a half asunder.

Now hoe, and let some earth be drawn up about the stems of the crops of peas which were sown in April, for this will strengthen the plants greatly.

The early hotspur peas now in blossom, in warm borders, may be topped, as directed for the beans; it will cause the pods to set and swell more freely, and will be fit to gather sooner.

#### STICKING PEAS.

CONTINUE also to place sticks to rows of peas, according to the advancing growth of the different young crops, for the plants to climb upon in their natural order, in an upright growth; which, where intended, should generally be done when they are about six or seven inches high.

There is great advantage in allowing sticks of a proper height, for the different sorts of peas to climb upon; for the produce is generally not only much superior, but more abundant, often double the quantity, or more, than those that are permitted to run upon the ground.

The sticks for this purpose should be from four or five to seven feet high, according to the growth of the different sorts of peas; the sticks should also be very branchy, or well furnished with small lateral branches, that the plants may readily take hold without falling on the ground; and should be prepared in a fanned manner, so as the side branches extend only the way of the rows.

They should be placed on the most sunny side of the rows; at least towards the east or mid-day sun, where the position or range of the rows admit; for the sun will naturally incline the plants that way, and they will more readily catch the sticks; and the sticks should be placed at such distances in the rows as the branches of each other may meet.

This work is very practicable in private gardens, but would be endless labour for large crops in fields, &c., for supply of the markets.

#### ENDIVE.

Sow endive for an early crop: principally some of the white, and a small portion of the green, and if required in constant succession, it will be advisable to sow some seed at two different times this month, and when the plants of each sowing are

about three or four inches in growth, plant out some of the strongest a foot distance.

But never depend on the sowings of this month for a main standing crop, the plants being apt to run up soon to seed the same year; however, where a few early plants are required, may sow a little seed about the beginning or middle of the month, and more towards the latter end; the plants of the first sowing will not continue fit for use long; but the second sowing will not run so soon.

But the season for sowing the principal autumn and winter crops, is in the beginning, middle, and latter end of June, and in July; and the plants from those sowings attain full growth in August, September, and October, and generally continue, without running for seed, till next spring.

This seed should be sown in an open spot of rich earth; it must not be sown thick, and take great care to rake it evenly into the ground.

#### SOWING POT-HERBS, AND OTHER AROMATICS, &c.

PARSLEY seed may still be sown, where it has been omitted in the spring; as may also the seeds of most other pot-herbs, if not done in March or April; but should also be sown early in the present month.

Sow more purslane seed, where the plants are in request either for culinary uses, or salads, &c.; this should be done in the beginning of this month, to succeed that which was sown in April. This seed will now grow freely, in a bed of light rich earth, in the open ground; rake the surface even, then draw shallow drills six inches asunder. Sow the seed moderately thick, and cover it about a quarter or half an inch with earth.

Where coriander is constantly wanted, it will now be proper to sow a little more of the seed, for that which is sown early is apt to run: sow it in drills six inches asunder.

Sow chervil, where wanted, it will still succeed: let this seed be also sown in shallow drills, and cover it lightly with earth, or sown broad-cast and raked in.

May also still sow borage, sorrel, burnet, fennel, dill, marigolds, nasturtiums, &c.—See *March* and *April*.

The seeds of thyme, savory, hyssop, and marjorum, or any other aromatic or sweet herbs, may also still be sown; but let this be done the beginning of the month, observing the same method of sowing as directed in *March* and *April*.



## PROPAGATING AROMATIC PLANTS BY CUTTINGS AND SLIPS.

PROPAGATE aromatic plants by slips or cuttings; most sorts of them will still succeed.

The sorts proper to plant now are sage, savory, and hyssop: marjorum, and lavender; and the slips or cuttings of these sorts will now grow very freely.

Choose for this purpose the best young side shoots, of some tolerable strength, and slip or cut off a quantity, about five, six, or seven inches long; strip off the under leaves, then plant them in a shady border, &c., five or six inches apart, inserted two-thirds of their length into the ground, and in dry weather moderately watered.

Plant also, where required, slips or cuttings of rosemary, rue, and wormwood. Let the cuttings or slips of these plants be six or eight inches in length; and plant them five or six inches asunder, in the shady border, inserting each cutting more than half way into the earth.

Sage, of the different sorts, may now be very successfully propagated by slips of the young side shoots, detached about six inches long, pulling away the under leaves: plant them in a shady border, almost to their tops, six inches asunder, and watered; they will soon strike root, and shoot at top, and form bushy plants the same summer; observing, that if in their first growth, any spindle up to flower, cut that part off close, to make the plants grow more stocky below, and to branch out full and bushy.

## MINT.

MINT may also be planted now, where new beds are wanted.

Procure sets for this purpose, either rooted young plants or cuttings of the stalks, as directed in the two last months; they must be planted in beds or borders, in rows six inches asunder, by four inches in the row, and give them some water to settle the earth well about their roots.

## SUPPORTING PLANTS FOR SEED.

Now support the stems or stalks of such plants as were planted for seed.

The onions and leeks, in particular, will now require this care; for the stalks of these plants will be run up to a good height: and if they are not secured in due time, the winds and heavy rains will break them down.

The best method of supporting the stems of these plants, is to drive some firm stakes into the ground, along the rows of plants, placing the stakes about two or three yards asunder in the row : then let some thin long poles, or strong lines, be fastened from stake to stake close along each side of the seed-stalks.

Support likewise the stems of cabbages, savoys, and broccoli, which are for seed ; having some stout stakes, let one or two be driven into the ground, close to every plant, and the principal stems be tied thereto securely.

#### SOWING RADISHES.

Sow more radishes ; the salmon kind is very proper for this sowing ; but sow also some short tops and small white turnip-radish ; choose an open situation, sow the seed thin and rake it in properly.

It is proper to sow three different times this month, to continue a proper succession ; but must be often watered in dry hot weather, both before and after the plants are come up.

Hoe, or weed and thin the advancing young crops of turnip-radishes, &c., as in last month.

#### PLANTING RADISHES FOR SEEDS.

TRANSPLANT radishes for seed when the roots are just in their prime, in the first and second weeks of the month ; and if showery weather, it will be a particular advantage.

Choose for this purpose of the common radishes, the long, perfectly straight rooted, and with short tops.

Have also some regard to the colour of the root, that is, if the common red, or short-topped radish ; those that are of a clear pale red are preferable, as they generally eat more crisp and mild than those of a dark red colour ; and when intended to save seed of the salmon radish, although these will be naturally of a pale red, yet, to preserve the sorts, it will be proper to plant the palest coloured roots.

The principal reason why radishes for seed are directed to be transplanted is, that, having drawn up a quantity for that purpose can readily judge of the goodness of the root, taking only what are of the right sort.

Plant them by dibble in rows in an open situation : the rows must be two or three feet asunder, and the plants must be set about two feet from one another in the row ; let them be well watered as soon as they are planted, to settle the earth properly

about the roots. They will shoot up strong stalks and ripen seed in September.

Likewise turnip-radishes for seed, either transplant or leave where growing; some best well-shaped roots, orbicularly round, good-coloured, of neat moderate growth, and small tops.

#### PRICK OUT AND PLANT CELERY.

PRICK out from the seedbed some of the celery plants which were sown in March.

Dig for this purpose one or more beds of light rich earth, and rake them even; then draw out of the seedbed some best plants in a thinning manner, and prick them in the other beds, three to four or five inches distance: give directly a moderate watering, and repeat it occasionally till the plants get fresh root: and, being thus planted, they are to remain in growth a month, or five or six weeks, to acquire proper strength; then transplanted finally into trenches to remain for blanching, by landing up in their advancing growth.—See *June, July, &c.*

Let those remaining in the seedbed be watered, if dry weather, to settle the earth about the roots, loosened, in thinning out the above.

Plant out celery in trenches of the earliest sowing of February and March.—See *June.*

#### SOWING CELERY.

Sow celery seed for a principal latter crop: this should be done in the first or second week of the month.

Dig a bed of light rich earth, and lay the surface perfectly even; then sow the seeds and rake them in lightly with a very even hand.

In hot sunny weather it would prove very beneficial to shade the bed every day, from ten to three o'clock, till the plants appear.

Likewise, let the bed, in dry weather, be refreshed every other evening with a light moderate watering.

The plants from this sowing will be fit to plant out into trenches in July, August, and September, and to take up for the table from October till Christmas, and for a spring supply.

#### CARDOONS.

THE cardoons which were sown in March or April, should now be thinned where they have risen too thick, that the plants may have room to grow and get strength by next month, when

they should be planted where they are to remain for landing up to blanch.

These plants should now be thinned to about four or five inches distance ; or some may be pricked six inches distance on a nursery bed, to remain till next month, when the whole should be transplanted finally.

#### DESTROYING WEEDS.

Now let more than common care be taken to destroy weeds among crops of every kind, and in every part throughout the ground.

There is no work in the kitchen garden that requires more attention now than this ; for weeds are at no time more detrimental to crops than the present, especially among all close-growing crops of small young plants. It should, therefore, now be one of the principal works in this ground, to destroy them before they grow large, to overrun and be detrimental to the advancing young crops, and require double labour and perplexing trouble to eradicate them, especially among close crops of small plants.

But, in particular, let the crops of onions, leeks, carrots, parsneps, lettuce, and all other small crops that grow pretty close, be timely cleared from weeds. That is, let the weeds be cleared away, either by hand-weeding or small hoeing, before they begin to spread, or overtop the plants, which they would soon do, when once they begin to run ; and in that case would do much damage to the crops.

Besides, when weeds are suffered to grow large among any small crops, so as to mix and entangle with one another, and with the plants, it renders the work of hoeing or weeding them extremely tedious, and very troublesome to perform.

But weeds between rows of peas, beans, and kidney-beans, cabbage, cauliflowers, and such other crops as stand distant in rows, there can be nothing more easy than to stop their progress, because there is room between the plants to admit a large hoe ; and with such an instrument a person may go over a large piece of ground in a little time.

#### WATERING NEW-PLANTED CROPS.

WATERING in dry weather, is now a very needful work to all newly transplanted crops, both in young seedling pricked-out plants, and others of larger growth, finally transplanted : such as cabbages, cauliflowers, lettuce, celery, &c., always giving a

watering at planting, where water is conveniently situated, and the quantity of plants not too considerable to render the work very laborious and tedious; repeating the waterings till the plants take root and grow.

This work proving so very beneficial in accelerating the fresh rooting, and setting the plants off in a free growth from the beginning, it should never be omitted, where convenience of water and time permit.

But watering would also be of much advantage occasionally to young plants of various sorts remaining in seed beds, and others of continuance therein, in very dry hot weather at this season.

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## THE FRUIT GARDEN.

### WALL TREES.

WALL-TREES will now, in general, begin to make strong and numerous shoots; and they should be regulated, and trained the right way, before they grow into confusion.

Apricots, peaches, and nectarines, in particular, demand this care now, and also plum and cherry trees.

Let all these trees be looked over some time this month, as early as possible, before they advance considerably into disorder in the first shoots, and cleared from all such of the new shoots as are useless and ill placed; at the same time, be particularly careful that a plentiful supply of all the best, well placed, useful shoots be retained, and, when of due length, trained in close and regular to the wall.

All irregular placed, fore right, and other disorderly placed and superfluous shoots, must be displaced; these being such as are produced either from the front of the branches, in a fore right direction, or otherwise so irregularly situated or superabundant, as they cannot be properly trained in with the requisite regularity, therefore become useless, and the most irregular and improper should now be cleared away.

Likewise all very luxuriant shoots are, for the general part, to be considered as of the useless kind; that is, such as are remarkably more vigorous and rambling in growth than the generality of the other shoots of the same tree, and should be mostly displaced, unless any shall seem necessary in particular parts to

fill a vacancy, or furnish a future supply of wood ; in which cases some occasional shoots of these kinds should be left, and all the others of them cleared off quite close.

And being careful in selecting and retaining a plentiful supply of the most proper, well placed shoots, in all parts of the tree for training, and, at the same time observing, that where they appear superfluous, or in too great abundance in any part, and that it is obvious they are absolutely not all wanted, or cannot be converted to useful training, if left till winter pruning, the superabundant, though of proper growth and well placed, as they cannot be all trained with proper regularity, should be displaced in a somewhat regular thinning order, taking out what are, apparently, the most improper and unnecessary, leaving a plentiful abundance of the best and most promising shoots for training ; and by thus clearing the tree early of unnecessary young shoots, the regular figure of the tree is all along preserved, and the remaining supply of shoots, as well as the fruit, will receive all proper nourishment.

But generally leave a double or treble sufficiency of the best side-shoots, that are of a kind and moderate growth, and which are well situated for laying in ; as likewise the terminal shoot of each branch, and all trained in close to the wall, in regular order.

For it is particularly necessary to leave as many of the well placed shoots of apricots, peaches, nectarines, and morrello cherry-trees, as can be conveniently laid in ; for these trees principally produce their fruit upon the one-year-old shoots ; that is, the shoots that are produced this summer bear fruit next year. Therefore it is most necessary at this season to leave a sufficient quantity of the well situated and kindly growing shoots, that there may be enough to choose from in the general winter pruning.

Likewise observe, that all these shoots, now retained, when about eight, ten, or twelve inches long, must be nailed up close, and as regularly as possible to the wall, and each at full length ; they should not be shortened at any time of the summer, for that will prove of worse consequence than may be generally conceived.

For were those shoots to be shortened while in their principal summer's growth, it, by stopping their shooting in length, would cause them to produce from their sides a number of useless shoots, one almost from each eye, which would not only prove hurtful to the principal shoots in their future production,

but would also occasion so full a shade as to prevent the sun, and free air, rains, &c., from having due access to the present fruit, to promote its growth in a regular manner; for, although a slight shade proves necessary in promoting the free growth of all kinds of wall-fruit, yet a too full shade of wood and leaves together is greatly retarding and unfavourable to its general prosperity, and contrary to the original intent of having wall-trees.

With regard, however, to shortening the young shoots of these trees at this time, it may in some cases be practised to particular shoots, in the latter end of this month, or in June: for instance if there is any considerable vacant space either in young or old trees, may shorten one or more of the strongest of the neighbouring shoots, situated in, or contiguous to, the place where wood is wanted: shortening them to three or four eyes, and they will soon after shoot out again, the same season, probably, a shoot from each remaining eye or bud, to furnish the vacancy more effectually.

In the earlier summer dressing of wall-trees this month, when the first shoots do not exceed one, two, or three inches long, most of the requisite pruning may be performed by rubbing off the useless shoots with the finger and thumb, without the use of a knife; but when more advanced in a woody growth, the knife only must be used.

#### APPLES, PEARS, PLUMS, &c.

APPLE, pear, plum, and cherry trees, either against walls or espaliers, should also be looked over some time towards the end of this month; for these trees should also be divested of all useless and ill-growing shoots of the year, and the necessary proper ones trained in regularly.

In this pruning of these trees, in the wall and espalier order, let all shoots produced fore-right from the front of the branches be taken off close; likewise the superfluous shoots, or such as rise in parts of the trees, where not wanted, and such as cannot be regularly trained in, should also be taken away.

But observe, that although these trees mostly continue bearing many years on the same branches, and do not require a general annual supply of young wood, as in peaches, nectarines, &c., it is proper to leave, in different parts, some of the best placed, moderate growing side-shoots, but particularly in the most vacant places, to train in between the main branches, and a leading one to each branch; for it is essentially eligible to re-

tain a moderate supply of the best regular-placed shoots at this time, to choose from in the general winter pruning.

The shoots which are now left, must also, when of proper length, be trained in close to the wall, or espalier; and each shoot must be laid in at its full length, for the reason before observed for the apricot and peach-trees, &c. Besides, the apple, pear, plum, and cherry trees, should never be shortened, only in particular cases, for the reasons explained in winter pruning of these trees.

Where, however, there is any great vacancy, it may be proper to shorten some of the adjoining young shoots of the year to three or four eyes, the latter end of this month, or in June, to promote their producing a supply of lateral shoots the same season, to supply the vacant parts.

Young wall and espalier trees, that are advancing in a training state, should also be attended to now in their early shooting, to displace the improper and ill-placed growths, and retain all the well-placed proper shoots for regular training, both for an additional supply of branches in the general formation of the trees, and to form future bearers for production of fruit.

#### THIN APRICOTS, &c.

Thin apricots, peaches, and nectarines, where the young fruit are set too thick upon the trees.

These trees in favourable seasons, sometimes set superabundant crops of fruit, often in thick clusters, and considerably more in general than they can supply with full nourishment; so that if the whole, or too many, were retained, they would not have room to grow, and the greater part would be small, and not attain good perfection of maturity. Besides, the great superabundancy of fruit would draw most of the nourishment, that the trees would not be able to produce a general sufficiency of proper shoots, capable of bearing any tolerable production of good fruit the year or two following; and likewise if left too close, they having short impliant foot-stalks, would thrust one another off the branches in their advancing growth.

Therefore, where these fruits are produced too thick upon the trees, let them now be reduced in a thinning regularity to a good moderate full crop on each tree; and the sooner this is done the better it will be for the trees, and also for the remaining fruit.

This thinning should be performed in a careful manner, looking over the branches regularly; and single out, on each branch,



the fruit that it is proper to leave ; selecting the most promising and best shaped, having some regard also to those that are best situated on the branches. Each kind, according to its size of full growth, must be left at such distances, that every one may have sufficient room to swell, and grow freely to its full maturity accordingly : as for instance, suppose a tree is in general good condition of growth, and allowing the bearing shoots or branches to be of three different sizes, that is, the strong, middling, and weakly, may retain upon the strongest two or three of the fairest and best placed fruit, upon the middling shoots no more than two, and only one or two upon the weaker shoots ; not generally leaving two or more nearer together than within three, four, or five inches, according to their respective sizes, when of full growth.

Where the above distances, and quantity of fruit left upon the different branches, are nearly observed in thinning, they will bring each kind to due perfection ; and the trees will shoot freely, and produce a sufficient quantity of good wood to produce fruit next year.

This should be the method of thinning the common sizes of these kinds of fruit ; but the smaller kinds may be left closer and a great number of each kind may be left upon the different branches ; such as the early masculine apricots, the nutmeg peaches, and early nectarines.

The young fruit that are thinned off are excellent for tarts, &c., particularly the apricots, but the others are also eligible.

#### DESTROYING SNAILS.

SNAILS often make great havoc among the choice kinds of young wall-fruit, where they are not interrupted ; they particularly frequent the apricots, nectarines, and peach-trees, and will do mischief to those kinds of fruit, if not prevented.

These trees should be often looked over early in a morning, and in an evening, and after showers of rain ; at which times these creeping vermin come forth from their holes to feed upon the fruit, and may then be readily taken and destroyed.

#### CLEANING THE FRUIT-TREE BORDERS.

THE borders where wall and espalier-trees grow, should be kept remarkably clear from weeds : for these not only appear disagreeable and exhaust the nourishment, but afford harbour for snails, slugs, and other crawling insects to the detriment of the fruit

Therefore, when weeds appear in these parts, and where there is room to admit of hoeing between any crops that may be growing on the borders, let a sharp hoe be applied to them in a dry sunny day, by which you may soon stop their progress; and as soon as hoed, rake off all the weeds and rubbish, leaving a clean smooth surface.

#### INSECTS HURTFUL TO FRUIT TREES.

WHERE small insects annoy any of the wall-trees, let some means be used to destroy them before they increase and spread themselves considerably, in which they would do great mischief to the trees and fruit.

When once these destructive small vermin attack but one single branch of a tree, they would, in a very short time, overrun the whole, if not stopped, and spoil the young shoots, and destroy the leaves; and when once the leaves of a tree are gone, there is but little good to be expected, either in the growth of the shoots or the fruit that year. Therefore, as soon as insects or blights appear upon the wall-trees, it is advisable both to prune away such part of the young shoots that are much infested therewith, and to detach the worst of the infested leaves, such as are crumpled, shrivelled, or much curled up, clammy, &c., then strew some tobacco dust over all the branches and leaves, repeating it occasionally, which will contribute towards destroying and preventing the vermin from multiplying. And sometimes lime dissolved in water, and the parts watered therewith, proves effective in some degree.

Watering, however, with common water, wall-trees, &c., thus infested with insects, often proves beneficial, provided it is repeated in dry hot weather, and the water thrown against the trees with some force, especially from a watering engine, described below.

#### ENGINE FOR WATERING THE BRANCHES OF TREES.

FOR the purpose of watering the branches of infested wall-trees, in dry hot weather, there is nothing so convenient as a hand-watering engine, generally made of tin, or sometimes of copper, of small or larger dimensions, worked by means of a small single-handed pump, fixed therein, to discharge the water in a stream from a pipe to turn in any direction.

By the help of this small engine, a person may stand on the walks, and with great ease and expedition throw the water in a strong stream against any part of the wall trees, from the bot-

tom to the top of the wall, and is the readiest, most expeditious, and effectual method of watering the branches of these trees, for the engine will throw the water with such considerable force against the trees as to displace caterpillars, and other insects, and will effectually clear the leaves and branches from dust, cobwebs, and from any sort of filth they may have contracted and if the waterings are often repeated, in dry weather, where insects at any time appear, it will greatly diminish their increase, and prevent their spreading considerably.

This engine may also be used occasionally in watering the branches of espalier trees, and young or old standard trees, where attacked by insects; also occasionally in watering different parts of the garden in a dry season.

These watering engines are made of tin and copper, and some of wood; and may be had, the two former, at most of the tin and copper manufactories, but those of copper are, certainly, the most durable; as also those of wood, which are generally made at the hydraulic engine makers, &c.; but the tin ones are considerably the cheapest in purchase; small ones of the more simple construction are sold at about eight or ten, to twelve or fourteen shillings; others on a complete plan, more convenient and effectual, are from one to two or three guineas; but those of copper, for greater durability, are much dearer.

The most eligible sorts are such as have the pump and discharging pipe fixed in the vessel for containing the water, of which some are of moderate size for carrying about by the hand; but the larger ones are fitted upon a low, light, two or three wheeled carriage, for the more conveniently moving to different parts, and contains above four times the quantity of water, and capable of discharging it in a stronger stream, to a much greater extent: but the smallest sorts, of the most simple construction, consisting only of a small pump, and a fixed discharging pipe, are, when used, placed either in a large garden watering pot, filled with water, or in a pail or tub, &c., convenient for small gardens.

#### WATERING NEW-PLANTED TREES.

New planted young fruit trees should now, in dry hot weather, be well watered at the roots about once a week; or also occasionally all over the branches.

## VINES.

VINES now shoot vigorously, and will produce, besides bearing and other useful shoots, numbers that are altogether useless, which must now be cleared away.

It is not every summer that is favourable to the ripening of grapes; but it is in every one's power to give them great assistance, by a right ordering of the vines, both at this early time and hereafter; and where this is properly executed, the bunches of fruit will be forwarded accordingly in the largest growth, and most early and perfect maturity.

To do this, the vines must now be perfectly well cleared from all sorts of useless shoots of the year; and at the same time, all the fruit bearing, and other well placed useful shoots, should be nailed up regularly, and close to the wall.

This work should be done before the shoots begin to entangle, or any way interfere with each other; for there is a great deal of advantage attends this early dressing, both in affording an opportunity of performing the work with more expedition and regularity, and for the greater benefit of the trees and fruit: observing, that all the immediate bearing shoots which now discover the advancing young bunches of fruit upon them must be left; and such other shoots as have strength, and are very well situated for training in, for the purpose of bearing fruit next year, must also be left in places where they are apparently wanted, and can possibly be trained in. But all weak, straggling shoots, such particularly as often rise immediately from the old wood, should most generally be all cleared away, except in casual vacancies where no better occur; and even strong shoots that are destitute of fruit, and either appear too numerous, or rise in places where they are evidently not wanted, or are not well placed for training, should be mostly displaced, or thinned in some regulating order; being, however, careful to leave in every part as many of the best growing well placed shoots, as can be commodiously trained in with some degree of regularity.

Then let all the fruitful and other proper shoots now retained be nailed up close to the walls in regular order; generally all at their full length for the present, where room to extend them; and let every shoot be laid in straight and clear of another, in a regular manner, so that all the branches and fruit may equally enjoy the advantage of the sun and free air.

After this, observe that all improper or unnecessary shoots

that rise in any part of the vines must be constantly rubbed off according as they are produced, or only retain occasional ones of proper growth, in places where particularly wanted to supply vacancies, &c., and generally detach all those small twiggy shoots that often arise from the eyes of principal shoots of the same year, taking them off close.

The above early summer dressing of vines in respect to pruning, may be effected with the finger and thumb, while the shoots are quite young and herbaceous ; as the useless shoots may then, without a knife, be very expeditiously rubbed off close to the mother wood.

#### VINEYARDS.

THE vines in the vineyards should also be gone over now : and this should be done some time between the middle and end of the month.

All the shoots that have fruit upon them, and others that are strong and well placed, for the service of another year, must now be trained up close and regular to the stakes, but observing previously to clear away all useless and unnecessary young growths, such as all very small, or weak dangling shoots, taking them off close ; likewise stronger shoots, barren of fruit, and where superfluous or too abundant, or rise in places not wanted, or cannot all be trained with regularity, must also be detached, either on some parts wholly, or others in a thinning regulation ; retaining, of the useful kinds, all the good shoots, in present fruit, and of the others that are strong and well placed, select a moderate sufficiency of the best, that in the whole there may be a proper choice in the general winter pruning for next year's bearers : then having, as above, cleared out all the improper, let the proper shoots be trained up in a regular manner to the stakes, or trellis, in each respective row of vines, so that each may receive an equal benefit of sun and air, to promote the growth of the fruit, and strengthen the general shoots.

The vines after this must be constantly cleared from all improper shoots that are afterwards produced, that the fruit may not be too much shaded, but enjoy the requisite influence of the sun to forward its growth and good maturity.

Keep the ground between the rows of vines perfectly clear from weeds, during the summer season, by occasional hoeing, which is essentially necessary for the advancement of the fruit ; for by keeping the surface properly clean and smoothly even whereby to admit or receive the influence of the sun more effec-

tually, to continue it dry and warm, contributes greatly in forwarding the grapes in proper growth, to ripen sooner in greater perfection of maturity.

#### STRAWBERRY PLANTS IN BLOSSOM.

THE strawberry plants will be in full blossom this month ; therefore, if the weather should prove very dry, the beds should be often watered to encourage the fruit to set freely and abundant.

During the time these plants are in blossom, the bed should be well watered in dry weather about three times a week ; which, being a very needful work, should not be omitted, otherwise there will be but a scanty crop of strawberries, and these will be small and not generally of a regular growth.

Strawberry beds, in which the plants have been generally kept to distinct bunches on each main stock or head, should, in some principal sorts, have the grossest advancing runners of the year trimmed in close, to encourage the flowers and fruit more effectually ; but observing in this, that when a supply of young runner plants of the above are required for new plantations, leave a proper sufficiency of the best for that occasion.—See *June*.

Or any strawberries in edgings to beds or borders, &c., or growing near walks, the advancing runners should be occasionally trimmed within proper bounds.

#### EXAMINE NEW-GRAFTED TREES.

EXAMINE the fruit-trees of all sorts that were grafted this spring : when the graft and the stock are well united, there is no further occasion for the clay.

This is generally well effected by latter end of this month, at which time the clay may be taken away ; but let the bandages remain two or three weeks longer.

Displace all shoot-buds arising from the stock below the grafts.

#### NEW-BUDDED TREES.

Look also to new-budded fruit-trees ; that is, the trees which were budded last summer ; they will now be advancing strongly in the first shoots, and should be occasionally looked over, in order to take off all shoots that rise from the stock, below or above the bud-shoot of inoculation.

This should be constantly practised as often as any shoots

appear: and let them be rubbed off quite close; then the stocks having nothing to supply but the aforesaid inoculated bud-shoot, it will advance in stronger growth accordingly.

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## THE PLEASURE OR FLOWER GARDEN.

### HYACINTHS, TULIPS, &c.

CONTINUE to defend the beds of the more curious and capital kinds of hyacinths and tulips, now in flower, from the full sun, heavy rains, cold nights, and all inclement weather; and also the choice kinds of ranunculuses and anemonies, which are now in bloom.

If, for the defence of the choicest kinds of these flowers, hoop arches, &c., were placed across the beds the former months, let the mats or canvass be always ready for drawing over the said arches, when there is occasion to shelter the plants.

The mats, &c., should be drawn over every day, when the sun shines, about nine or ten in the morning, and be taken off about four or five in the afternoon. The mats must also be drawn over the hoops to defend the flowers from heavy showers of rain, when such at any time happen.

Where this shading and sheltering these kinds of flowers is regularly practised, it will preserve them a long time in their fullest beauty, at least a fortnight or three weeks longer than if they were to be fully exposed; and they will also be much finer.

Mind that the hoops which are fixed across the beds for the support of the mats be not too low, for that would hide and darken the flowers too much, and render the bloom less brilliant.

The more preferable method of preserving the bloom of these plants in the best perfection is, by having, in April, arranged on each side of the bed, some stout stakes, fixed upright in the ground, two feet distance from one another; and each stake stand three or four feet high; to these let hoop arches be fixed across the bed; the coverings of mats or canvass are to be drawn over them occasionally, and there will be air sufficient to preserve the flowers strong, and their colours lively.

Some persons who are curious in cultivating the choicest sorts of these kinds of flowers, erect an awning, or shade, of hoops and mats, over the beds, high enough to walk under; taking care that the mats come low enough on the sides, to keep off driving rain, and the mid-day sun from darting upon the bloom.

But this kind of high shady frame is only occasionally erected, principally over the beds of some finest capital tulips and hyacinths; it is soon constructed, and the expense of the materials is but trifling, and a little pains should not be spared to preserve the beauty of the choicest kinds of these desirable flowers.

#### HYACINTHS PAST FLOWERING.

WHEN hyacinths are past flowering, and the leaves beginning to decay, let the roots then be taken up; but in particular the fine double kinds.

As soon as these roots are taken up, they should be spread to dry and harden, in a somewhat shady dry place upon a mat, or on some clean dry ground, or the floor of an airy room, &c., for a fortnight or three weeks, then trimmed, cleaned, and deposited upon shelves, or in boxes till autumn, for replanting.

#### TULIPS DONE BLOWING.

WHEN tulips are past flowering, it would be proper that the seed-pod be separated from the top of the flower-stalk, especially the principal capital varieties; for the fine kinds of tulips should not generally be permitted to ripen seeds, for these would draw nourishment, and in some degree weaken the root.

When the leaves and stalks of tulips have done flowering, and begin to wither and decay, the roots should be taken up, especially those intended, and which should generally be practised every year in all the more estimable curious sorts in particular.

Some of the early blowing kinds will probably be ready for this by the last week in the month; if they be, let them be taken up in a dry day, and clean them well, and take off all the loose outer skins. See also *June*, &c.

Then spread the roots on a mat, in a dry shady place, to harden a little; and after this, let them be put in bags or boxes, till the season for planting them.



## BULBOUS FLOWERS IN GENERAL DONE BLOWING.

SPRING crocus roots of all sorts, and snowdrops, crown imperials, and all other forward blowing bulbous flower-roots as have done flowering, should also, where intended, be taken up when their leaves decay.

This should be constantly practised to such as have stood unremoved two or three years, and increased by offsets, into large bunches, and that you desire to have the several kinds of bulbs produce large and handsome flowers; for when the roots are taken up, all the small roots or offsets are to be detached from the principal ones, and reserve only the largest roots by themselves, to plant again in the proper places, to blow next year; and by the offsets you obtain a considerable increase.

Or, however, the crocuses and snowdrops, and other similar kinds of common bulbs, may occasionally remain unremoved two or three years; though the more estimable kinds of common bulbs in general, should mostly be taken up, at the decay of the flower-stalks and leaves (this or next month, &c.), once in two or three years, at farthest; especially, if, by the increased offsets, they are grown into large clusters; as if permitted to remain longer in that state, their flowers, though probably more numerous, would be considerably smaller, and less beautiful in colour and general appearance; besides, by taking up the bulbs once in that period of time, and detaching the offsets, an increase is gained, and the main bulbs are preserved separately in their respective proper sizes and degree of strength for full flowering accordingly.

Though in most of the capital varieties of fine tulips, hyacinths, bulbous iris, jonquils, polyanthus-narcissus, and of other similar bulbs, they should generally be taken up every year after the flowers are decayed.—See below, *next page* and *June*.

The roots in general, when taken up, must be properly dried in the shade, and afterwards put up till planting time, which is September, October, November, or any time, in open weather from September till February.

## AUTUMN FLOWERING BULBS.

THE autumnal bulbs, or such as flower only in autumn, continuing in growth in the root and leaves till this season, when generally about the latter end of this month, or in June, the leaves decay, at which period, the roots having done growing,

not drawing any nourishment from the ground, is the most proper time to take up, remove, or transplant them as may be required: and it is generally necessary that these bulbs be taken up every two or three years at most, to separate the increased offsets from the main bulbs; and by these offsets you gain an increase of roots, some of which will flower the following autumn, and most of them the next year; and by divesting the main roots of the offsets, they will constantly flower much stronger.

The colchicums and autumnal crocus will be in condition for the above practice of removing or transplanting by the end of the month or beginning of next; and also the yellow autumnal narcissus, and such other autumnal flowering bulbs, whose leaves now decay.

They must be taken up in dry weather, and the small offsets carefully separated from the main root; and they may then either be planted again immediately, or may be spread upon a mat, out of the sun, to dry, they may then be put up till the last week in July, or the first week in August, when they are to be planted again, for flowering the same year, in August and September, &c.

#### REASONS FOR TAKING UP BULBOUS ROOTS AFTER FLOWERING.

By this method of taking bulbous roots of any kind out of the ground, soon after flowering, and the stalks and leaves decay, either annually in the choicest kinds, or in the others once in two or three years, it both affords the opportunity of separating the offsets for increase, and of preserving, thereby, the main bulbs distinct, in their proper degree of full growth and strength, for flowering in the best perfection: and by being thus taken up and retained two, three, or four months out of the ground, the more estimable kinds being housed, are preserved from all accidents by the weather, &c., and being a kind of respite, as it were, from action, they generally blow stronger in proportion the year following.

Besides, it is necessary to take up all kinds of the more curious bulbous roots once a year, in order to separate the small offsets from each of the principal roots, particularly tulips and hyacinths; but narcissuses, jonquills, irises, common tulips, &c., and all other common kinds of bulbs, may occasionally remain two, or even three years without removal. It will, however, be proper to take up every sort once in the above time; and there is no time so proper as when the leaves and flower-stalks of the

different kinds begin to decay, for then the roots are in a state of rest; but if permitted to remain three weeks or a month after that period, they would put out fresh fibres, and begin to form the bud for the following year's bloom; and if they were then to be taken up, it would, in some measure, check the next year's flower; and some sorts would scarcely flower at all, or but very weakly, the following season.

#### CARNATIONS.

CARNATION-PLANTS in pots should, at this time, have all the assistance of culture, to encourage them to shoot with vigour.

The stalks now advance apace for flowering;—sticks should be placed for their support, provided it was not done before. Let the sticks be straight, and long enough, and thrust them carefully down close to the plant; then let the flower-stalks, according as it advances in growth, be tied neatly to them in two or three different parts.

Clear the plants also from decayed leaves, if there be any, and stir the surface of the mould a little: this done, add a sprinkling of fine fresh earth over it, bringing it close about the plants, and immediately give the whole a moderate watering.

Observe, that, in order to have large and handsome flowers, all buds which rise from the sides of the stalks below, should now be taken off, leaving none but the top buds: this is the method practised by florists.

The pots should now be placed where the mid-day sun does not come; and in dry weather they must be watered once in two days.

#### MANAGEMENT OF TENDER ANNUALS.

THE cockscombs, balsams, globe amaranthus, egg-plants, stramoniums, and other tender curious annuals, must now be removed, once more, into another new hot-bed, the beginning of this month.

This is principally to be understood of such of these kinds of plants as may be required to attain full perfection as soon as possible, and for such as are intended to be grown to a large size; and in that case, they would now need the assistance of one more hot-bed, about two feet thick.

As soon as the bed is made, set on the frame and glasses, which will bring up the heat soon, and the bed will be ready to receive the plants in five or six days; observing, previously, to lay in about three or four inches depth of earth.

The plants, if not potted last month, should now, in the principal kinds, have that performed, before placing them in this bed. The pots must be about the middle size, and the plants placed in them, when the bed is just in right order to receive them.

Having the pots and some fresh earth ready, put into each pot about three or four inches depth of earth; then take up the plant, each with a ball of earth about its root, and place one plant, with its ball entire, in the middle of each pot, and fill up the vacancy with fresh earth, within half an inch of the top of the pot, and let them be moderately watered.

Place the pots immediately upon the hot-bed, close together, and let the cavities between be perfectly filled up with earth, according as the pots are placed upon the bed,

When the pots are all in, put on the glasses, observing to tilt them up a little at the back of the frame every day, to let in fresh air to the plants, and that the strong steam from the heat of the bed may transpire.

The plants must be shaded occasionally from the sun for the first week or ten days; let mats be spread over the glasses the first three or four days, about eight or nine o'clock in the morning, and taken off about four or five in the afternoon; but after this, let the plants have more and more sun every day, till they are able to bear it fully, without shrinking or flagging their leaves, &c.

Be sure to admit air every day to the plants, and particularly when there is a good heat, and when there is much steam: for if this is not observed, the steam will destroy the leaves of the plants, and would, in that case, make an awkward and unsightly appearance.

They must be duly supplied with water, during the time they are in this bed; and they should have a moderate quantity given them, at least once in two days.

Observe, as the plants advance in height near the glasses, to raise the frame, to give them full room to grow; this should be done in the manner mentioned in the last month, especially where required to have some principal sorts grown to a tolerably large growth and stature.

## PRICKING OUT TENDER ANNUALS WHICH WERE SOWN LAST MONTH.

WHERE any of the above tender annual plants, such as cocks-combs, tricolors, &c., were sown in April, they should now be pricked out the beginning of this month.

They must be pricked out on a hot-bed, observing the method directed in the former months.

## LESS TENDER OR HARDIER FLOWER PLANTS.

PLANT out the less tender, or hardier annuals, into the natural ground, and some in pots; this may be done any time after the middle of the month, if the weather is settled in tolerably warm, taking advantage of a moist season if rain happens.

Those which were pricked out last month on a slight hot-bed, as there directed, will be arrived to a good size for planting out towards the latter end of this month.

The African and French marigold, and chrysanthemums, are of these kinds; also the marvel of Peru, China aster, India pink, ten weeks stock, and the common kinds of balsams the capsicums, and mignonette: likewise persicaria, and the tree and purple amaranthuses; scabiouses, egg-plant, love apples, and Chinese hollyhocks, &c.—See the *List of Plants*.

All these; and others of that tribe, may now, towards the middle or latter end of the month, be planted out in the beds, borders, and other parts of the Pleasure Garden, or some into pots, and they will make an agreeable appearance in the following months, till October.

Generally, if possible, take opportunity of a showery or moist time for planting them out; otherwise, if dry weather, an afternoon, or towards the evening, is the preferable time of the day for transplanting them; though, if very dry hot sunny weather, it would be most advisable to defer the transplanting till the weather changes; then observing, in the work of planting, to dispose the different sorts in a varied order, in the borders &c., that the flowers may display a proper diversity.

Then let the whole be directly watered; and if dry weather, repeat it moderately every evening or two, till the plants have struck root.

Some principal sorts should also be planted in pots, to place occasionally for decorating any particular compartment, generally planting but one good plant in each pot; or some of the ten-weeks stocks and mignonette may be planted, three or

four in a pot together, each sort in separate pots: all well watered and shaded, if dry weather.

But where those annuals of the above kinds were not pricked out last month on a hot-bed, or beds of natural earth, it may now be done the beginning of this; or some of the strongest or more hardy may be planted out finally in the borders, &c., or otherwise prick the whole first out from the seed-bed into nursery-beds of rich earth, there to remain for a month, to get strength, and then to be planted out for good in the borders.

The nursery beds, in which to prick these plants now from the seed-bed, should be about three feet wide: rake the surface smooth, and put in the plants about four or five inches distant each way, and water them.

Then, if dry weather, it would be a great advantage to shade them occasionally, which might be more conveniently practised for small quantities by placing some hoops across the beds, and let mats be drawn over them occasionally, to shade the plants from the mid-day sun, till they are rooted; and the mats may also be used in cold nights to shelter the plants.

There is a great deal of advantage in pricking out these plants timously in this manner from the seed-bed, because they can be very conveniently watered and shaded from the scorching sun till they have taken good root and acquire strength; and can be also occasionally sheltered in cold nights till they are strong and hardened by degrees to bear the open air fully, night and day; and when of advanced growth, can be readily transplanted with balls of earth into the borders, &c.

They will have acquired a proper degree of growth and strength for final transplanting, in about four or five weeks after they are pricked out; the plants must then be taken up with small balls of earth, which will readily hang about their roots, and be planted carefully, with the balls entire, into the places where they are to remain.

#### SOWING LESS TENDER, OR HARDIER ANNUALS.

THE seed of ten-weeks stocks, mignonette, China asters, and India pink, may still be sown. You may also, where omitted in the last two months, still sow the seeds of African and French marigolds, balsams, chrysanthemums, and any other annuals of this class; but this should be done the first or second week in the month.

These seeds may now be sown in a bed or border of rich

light earth, into the natural ground; and if often refreshed with water in dry weather, and sheltered with mats in cold nights, the plants will come up soon and will grow freely, though they will now succeed without any shelter. But if sown on a slight hot-bed, it will bring the plants on forwarder for planting out finally, a week or fortnight sooner, and will flower sooner in proportion.

The plants from this sowing will be fit to plant out next month, and will come into flower in July and August, and continue till the cold weather destroys them.

#### SOW SEEDS OF HARDY ANNUALS.

Sow the seed of hardy annual flowers in the borders; there are several sorts that will still succeed.

These are lupines, sweet sultan, and flos Adonis, the white and purple candy-tuft; Lobel's catchfly, and dwarf lychnis; dwarf poppy and virgin stock; Venus' navel-wort, and Venus' looking-glass; snails and caterpillars: the seeds of dwarf and large annual sunflower, lavatera, and oriental mallow, may also be sown now; likewise nasturtiums, and convolvulus major and minor, the Tangier and sweet scented peas, scarlet peas, scarlet beans, and any other of the tribe of hardy annuals.—See the *Catalogue*.

All these must be sown in small patches, &c., in the borders and other places where you would have them flower, directed in the two former months; for these sorts do not succeed so well by transplanting.

Let the patches be often sprinkled with water in dry weather, and the plants will come up strong, and produce their flowers in June, July, August, and September.

The climbing kinds of these plants must have sticks placed for them to climb upon, when they begin to run or extend in length; such as nasturtiums, convolvulus major, scarlet peas, scarlet beans, the sweet scented and Tangier peas, &c.

May likewise sow ten-weeks stocks, and mignonette, in beds, borders, pots, &c., both to remain, and for transplanting.

#### AURICULAS AND POLYANTHUSES.

TAKE good care of the auricula plants in pots, when they are past flowering, especially those which flowered upon a covered stage, &c.

Let the pots according as the flowers fade, be immediately removed off the stand or stage, and place them in the full air

upon a clean level spot, where the plants can enjoy the morning sun only, till nine or ten o'clock; and there let them remain till September.

Keep the pots and the ground where they stand perfectly clear from weeds; and where decayed leaves appear on the plants, let them be immediately taken off; and in dry weather refresh the pots often with water.

Offsets of auriculas may now be detached and planted in a shady border till autumn, then transplanted in pots, &c.—See *April*.

Remove the boxes or tubs of seedling auriculas and polyanthes to a shady place, provided it was not done before; the place must be open to the morning sun only.

They must be often sprinkled with water in dry weather, and kept very free from weeds.

#### CARE OF SEEDLING BULBS.

The seedling tulips and narcissuses, and other seedling bulbs, coming up this year, should be screened from the mid-day sun, when scorching hot.

#### PROPAGATE DOUBLE SCARLET LYCHNIS, &c.

Now propagate perennial fibrous-rooted plants, by cuttings of the young flower-stalks.

The double scarlet lychnis, and several other such like curious plants, which rise with strong firm flower-stems, will grow freely this way; they will sometimes, in a forward season, be of a proper growth for this purpose, towards the latter end of this month, and moist weather is the best time to plant them; and the method is this:—

Let some of the young flower-stalks be cut off close, and divide them into proper lengths; each length must have three or four joints; and they are to be planted in a shady border of rich light earth, about four inches asunder; and two joints of the cuttings are to be put into the ground, and the rest left out. Close the earth well about them, and then let the whole have a moderate watering: and, if covered down with hand-glasses, it will greatly forward their rooting.

There are several other sorts of the fibrous rooted perennial plants that may be increased by this method; such as lychnidea, double rockets, and many others.

By this method of propagation, and by bottom offsets, the young plants retain the property of the respective parent plant,



in regard to double flowers, colour, &c., which is not attainable with any certainty by seed.

#### DOUBLE WALL-FLOWERS.

PROPAGATE double wall-flowers, by slips of the young shoots of the head; the plants raised by this method will retain the double property and colour of the flowers, in all respects the same as the parent plant from which they were slipped.

Choose for this method of propagation, such slips of the young shoots of the year as are of a somewhat robust growth, from three or four to five or six inches long; and let them be carefully slipped off, or occasionally cut with a knife from the mother plant, in a moist or cloudy day; or otherwise in the evening or morning, especially if hot sunny weather.

Take off the leaves at the bottom of the slips rather more than half way up, so that there may be two, three, or four inches of a clear stalk, according to the length of the slip. Twist the stalks a little at bottom, and then plant them.

They are to be planted in a shady border, or in pots, three, four, or five inches asunder, and put into the earth up to the leaves, and then give them some water.

Do not forget to refresh them often, in dry weather, with moderate waterings, and they will soon strike root, produce shoots at top during the summer, and form little bushy-headed plants by the end of September, when they may be taken up, with balls of earth about the roots, and planted in pots, in order to be moved into shelter in time of severe frost in winter, and they will all flower next spring.

The wall-flowers which were raised last year from seed will now be in flower, and some of them will probably be double: for it sometimes happens, when the seed has been saved from the finest single flowers, that one plant in ten or perhaps twenty or thirty, &c., will come double; and at other times not one in a hundred, and sometimes in five hundred, will prove multiple.

Therefore where double flowers of a deep blood colour offer among the seedling plants, now is the time to propagate that sort by slips, as above directed.

For the greater chance of having double wall flowers from seed, the florists are careful to save the seed, if possible, from such single flowers, as are situated near double ones; though we do not pretend to say this has any particular effect; especially, as in the full doubles the multiplicity of petals excludes

all the generative parts of influence ; however, if any of those single ones happen to have five or six petals or flower leaves, they are more particularly preferred as the best from which to save seed.

The beginning of this month is still a proper time to sow wall flower seed for flowering next year.

#### TUBEROSES.

PLANT some tuberosé roots to blow in autumn.

Get some middling pots ; and fill them with light earth ; plant one root in each pot ; then place the pots upon a hotbed, plunging them in the earth, or tan bark, &c.

Keep the glasses over them, but raise them behind every day, to let out the steam.

Give very little water till the roots begin to push, then let them be moderately watered about three times a week : and at the same time let the glasses be tilted a good height at the back of the frame, to admit a considerable deal of free air also to them ; for this is necessary to strengthen the flower stalks, as they rise in height, as the stems grow three or four feet high.

Observe when the plants have risen near the glass, to raise the frame, as directed for the tender annuals, that they may have room to shoot in a firm upright growth.

But where there is the conveniency of a hothouse, or stove, these plants may be brought to greater perfection with much less trouble.

The roots are to be planted in pots as above ; and the pots are to be plunged to their rims in the bark bed, watering them as above mentioned.

As these plants rise with a single stem three or four feet, they will sometimes require support, the stalk being terminated by a long spike of many filaceous white flowers of great fragrance.

#### TRANSPLANTING SEEDLING, PERENNIAL, AND BIENNIAL FLOWER PLANTS.

TRANSPLANT or prick into nursery beds some of the seedling perennial and biennial flower plants which were sown in March ; some sorts will be grown to the proper size to remove by the third or fourth week of the month.

Sometimes the wall-flowers, in particular, and stock July-flowers, will be ready to transplant by that time ; and also

columbines, and sweet williams, single scarlet lychnis, rose-campion, and catchfly, and pyramidal campanulas, or Canterbury bells, and Greek valerian, with the tree primrose, fox-gloves, French honeysuckles, and hollyhocks, and such other sorts as were sown early in the spring, and are advanced two, three, or four inches in growth.

They must all be planted now into nursery beds, where they must remain to get strength, before they are planted out for good.

Dig for this purpose a spot of good clean ground, and divide it into beds, three feet and a half broad, and rake the surface even.

Then put in the plants by line, six inches distant each way, and each sort separate. As soon as they are planted, let them be moderately watered to settle the earth well about their roots.

All these are to remain in the nursery beds till September or October, or some till the spring, then to be planted out for good; they will all flower next year, and make a fine appearance.

#### SOWING BIENNIAL AND PERENNIAL FLOWER SEEDS.

MANY sorts of perennial and biennial flower seeds may yet be sown; but this should be done in the first or second week in the month, and the plants will soon come up strong, and attain a proper growth for pricking out in July, into nursery beds to obtain strength for final transplanting in autumn, &c., and will all produce flowers abundantly the next summer.

The sorts which still succeed are the different sorts of stock July-flowers, wall flowers, sweet williams, and columbines, carnations, and pinks, likewise scabiouses, Canterbury bell-flowers, hollyhocks, and French honeysuckles and most other sorts: choose for these seeds a compartment of mellow ground, where least exposed to the full sun; dig it neatly, and form an even surface; and then mark it out into as many beds or parts as there are kinds of seeds intended to be sown.

Then the seeds are to be sown thereon as equally as possible, and raked in with an even hand, that the plants may rise regular, and of an equal thickness in every part.

Or the sowing of all these kinds of seeds may be occasionally performed according to the following methods, by which the seeds will be covered in equally, and the plants will rise regularly.

The ground being dug, and neatly raked, divide it into small beds three feet wide; and, with the back of the rake, turn the earth to the depth of half an inch off from the surface of the bed into the alley; sow the seeds carefully on the surface, each sort separate; and then, with the teeth of the rake, draw the earth that was turned off the bed evenly over them in a spreading manner. Then let the beds be very lightly gone over with a rake, just to smooth the surface, and draw off any stones.

Or they may be sown either in small narrow common drills, or in flat shallow drills, drawn with a small hoe, held with the edge horizontally, forming the drills the width of the hoe, and from about a quarter or half an inch to an inch deep, according to the size of the different seeds; which sow regularly along the bottom of the drills, and cover them in evenly with the earth.

#### CLEARING THE GENERAL PLEASURE GROUND FROM WEEDS.

In the general pleasure ground, the borders, beds, shrubberies, &c., should now be diligently cleared from weeds in every part where they appear; they are now of quick growth, and will soon get a-head, if not disturbed in due time.

They are not only hurtful to the plants, but appear disagreeable, especially where they are suffered to advance in any considerable growth.

Therefore make it a rule to cut them off as soon as they appear, either by hand or hoe; where there is room for the hoe, let that instrument be used in dry days, and then let the borders, or other parts, be neatly raked, to draw the weeds and all other litter off, to have a clean even surface.

#### GRASS AND GRAVEL WALKS.

CONTINUE to mow grass plats, lawns, walks, bowling greens, &c., frequently, before they grow very rough: they will now require mowing, generally about once a week or fortnight, in the principal garden lawns, plats, and other grass compartments, whereby to keep them in tolerably decent order, cutting close and even without scoring; and they should also be occasionally heavy rolled.

Gravel walks should also now be kept in complete good order; continuing them always thoroughly cleared from weeds; and occasionally swept to clear away all loose litter; and likewise frequently well rolled; or generally not less than once or twice a week.

After showers of rain, the gravel walks should, at this season, have occasional good rollings, with the heaviest roller ; for this will make the body of walks firm, and render the surface very close and smooth.

New grass lawns, walks, and other compartments may still be made by laying grass turf ; well watered, if dry weather.— See the *Spring months*.

Likewise new gravel walks may be made ; and old walks turned and new laid, as directed in March, &c.

#### CARE OF FLOWER BORDERS, BOX EDGINGS, &c.

THE general flower borders and other similar compartments of the pleasure ground, &c., should now be carefully continued in the most perfect good order.

For as the plants and flowers will now be fast advancing in their various different growths, the borders, &c., should be kept neatly clean from weeds and all rubbish litter, and the plants from decayed leaves ; and let any irregularity, or disorderly growths in the plants, be properly adjusted ; also any of advanced growth, appearing in want of support, should be sticked and neatly trained in upright regularity ; and, occasionally, light hoe and rake the borders, to give the surface a clean, fresh appearance ; and, in the whole, the plants and flowers will thus show themselves to the best desirable advantage.

And where box edgings, &c., of the above borders, and other compartments, are grown disorderly, let them now be trimmed, or clipped neatly at top and sides, in proper regularity.

#### SUPPORTING FLOWER PLANTS.

Now begin to place sticks to all such flowering plants, &c., as appear in want of support ; many sorts will need this assistance in their advancing growth in the present and next month.

In proceeding to this business, should generally have the sticks proportioned, in some degree of length, to the size and natural height of the different plants they are to support ; and, in placing the sticks, to fix them down on that side of the plants in which they can be least seen ; for although the intent is to keep the plants upright and firm in their places, yet to conceal the means, as much as possible, by which it is effected ; and similar care should also be observed in tying up the plants to the sticks ; and to perform it in the neatest manner ; and thus the plants will advance in proper regularity of growth and best perfection of flowering.

Likewise climbing and trailing plants should have timely support of sticks or stakes proportioned to their nature of growth ; and their stems or shoots conducted thereto in a proper manner.

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## THE NURSERY.

THE great care of the nursery now is, to destroy weeds in every part wherever they appear, to give water duly to all such plants as require it, and occasional shading to some tender seedlings.

The seed-beds of all young trees and shrubs should now, in particular, be kept remarkably clear from weeds ; and this must always be done by a very careful hand-weeding, and occasionally small hoeing between such as are in rows.

### WATERING SEEDLING PLANTS.

OBSERVE at this time, if the weather should prove dry, the seed-beds of evergreens and curious flowering shrubs and trees, in which the young plants are coming up this year, or that have just risen, or expected to rise soon, &c., should be often refreshed with water.

In watering these beds, apply it moderately, and not too hastily, lest it wash away the earth, and expose the tender roots to the sun, which would be apt to scorch them in some degree, and stint the seedlings in their first growth.

Therefore let the water be given frequent and moderate ; or, generally, about three gentle waterings a week, or every other evening, will be sufficient.

### SHADE SEEDLINGS.

THE tenderer seedling evergreens, such as pines, cedars, cypress, and many other sorts, newly come up, or just rising, and which are somewhat delicate while in their infant state, if now occasionally shaded from the sun in the middle of hot days, it will prove very beneficial to their growth.

### WATER NEW PLANTATIONS.

THE plantations of small young tender evergreens, and the more curious sorts of flowering shrubs, &c., which were trans-

planted in March, and last month, should, if the weather now proves dry, be often watered.

This is a very needful work in dry weather, and to the more curious and valuable sorts particularly, the waterings should be performed moderately, at least once or twice a week, during any very dry time in this month, till they take good root, and show signs of a free growth.

Likewise, observe to continue some mulch on the surface of the ground, over the roots of some of the more curious or tender kinds of these shrubs which were planted this spring; for this will be of great service in preventing the sun from drying the earth too fast about their young radical fibres; and they will not need watering in dry weather oftener than once in six or eight days, only till they have taken good root and begin to grow freely.

But those in pots will require to be more frequently watered in dry weather.

#### PROPAGATE EVERGREENS, &c., BY LAYERS.

About the latter end of this month begin to propagate such evergreens and other shrubs by layers of the young shoots of the same year, which do not succeed well by layers of the older wood.

This method of laying is now principally to be understood of such kinds as do not put out roots freely from any but the young shoots of the same summer's growth; it, however, may also be practised occasionally on any other evergreen kinds; and in some forward shooting sorts the shoots will probably be advanced to a proper growth for that purpose by the latter end of this month, though generally they will be of a more eligible growth in June, &c.

However, at the proper time, when the young shoots are from six or eight to ten or twelve inches long, let some of the pliable branches, that afford the strongest and best young shoots, be brought down gently to the ground, and there fastened securely with strong hooked pegs; then let the young shoots thereon be laid into the earth, two or three inches deep, leaving about two or three inches of the top of each shoot out of the ground.

As soon as they are laid, give a moderate watering to settle the earth properly about them; then lay a little mulch, or some long litter thinly on the surface.

After this, let the earth be very moderately watered in dry

weather, every five or six days; for a moderate degree of moisture will promote the emission of roots, and encourage their growth, according as they issue from the layers.

Though this method of laying in the young wood is more generally adopted, principally for such evergreen and other shrubs as do not readily put forth roots from the elder shoots, yet it need not be confined to any particular sorts; for there are many kinds that may be propagated by the same practice, and the trial may be made on any such sorts as you desire to increase.

The proper time to perform this work is from about the latter end of May, or beginning or middle of June, to the end of July according as the shoots of the different sorts of shrubs arrive to a proper growth for laying; and many of them will be well rooted, proper to be separated from the mother plant, by the beginning of the following October.

#### NEW-GRAFTED AND BUDDED TREES.

Look over the new-grafted trees about the last week in this month; and at that time, if the grafts have begun to shoot freely, the clay may be taken off, for there will be no more occasion for it; and at the same time let the bandages be loosened.

Let no shoots remain that rise from the stocks below the grafts; but as soon as they appear, let them be immediately rubbed off, that the grafts may have the full nourishment, and more effectually shoot in a strong free-growth.

Examine the trees which were budded last summer: all the shoots from the stock must be constantly taken off as they are produced, for these would draw the nourishment from the young shoots now advancing from the buds of inoculation.

All suckers from the roots both of young grafted and budded trees, should also be rooted out.

#### DESTROYING WEEDS BETWEEN THE ROWS OF TREES AND IN SEEDBEDS, &c.

The ground between the rows of all kinds of young trees and shrubs should now, in general, be kept extremely clear from weeds.

These now rise abundantly and very fast in every part; but whenever they appear between the rows of young trees and shrubs, there is nothing easier than destroying them at a great rate, by applying a sharp hoe to them in dry days.



Likewise, all seed-beds of young trees and shrubs should be very carefully kept clean from advancing weeds, both by occasional small hoeing where the plants grow in rows, and by hand-weeding where in close growth, &c., and in all of which, should give particular attention to eradicate the weeds before they overrun the young plants.

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## THE GREEN-HOUSE.

### BRINGING OUT THE GREEN-HOUSE PLANTS.

TOWARDS the middle and latter end of this month, if moderately settled warm weather, may begin to remove many of the more hardy kinds of green-house plants into the open air.

The myrtles, oleanders, geraniums, and amomum Plinii, may be safely ventured abroad at that time; and also the tree-wormwood, Indian bay, olives, and the large magnolia; candy-tuft-tree, shrubby-aster, jasmynes, cistuses, and double Indian nasturtiums; and many other of the like hardier plants.

The orange, lemon, and citron trees, and all the other tenderer kind of green-house plants, should also be brought out now, towards the latter end of the month, if fine settled weather; but if cold unsettled weather prevail, let them remain till the beginning of June.

Generally, when the plants are first brought out of the green-house, it would be advisable to place them in a warm situation, where the wind can have but little power; and after about ten or twelve days, they will be somewhat hardened to the open air, and may then be removed to the places where they are to remain for the summer.

Let every plant, as soon as brought out for the summer season, be cleared from decayed weeds and dead wood: and let the whole be perfectly well cleaned from any kind of filth that may appear on the leaves, branches, or stems, and water their heads all over, as observed below.

Likewise, if not done a month or two ago, let the earth in the tops of all the pots be stirred to some little depth; take out the loosened earth, and fill up the pots, &c., with fresh mould: this done, let the whole be moderately watered; and at the same time, let some water be given all over the heads of the

plants: for this will cleanse the leaves and branches thoroughly from dust, and will greatly refresh the whole plant, be of great advantage, and make them assume a lively appearance.

#### ALOES, SUCCULENT PLANTS, &c.

THE American aloes, sedums, Indian figs, and other hardy kinds of succulent plants of the green-house, may also be brought forth the end of this month, if the weather is settled in warm and dry.

Where the leaves of any of these plants are decayed, or decaying, let them, as soon as they appear, be cut off close with a sharp knife.

#### SHIFTING INTO LARGER POTS.

ANY of the green-house plants that want larger pots may still be shifted into them the beginning or any time this month; but the sooner the better.

Having the pots or tubs, and some fresh compost ready, let the plants be brought out and shifted, according to the following method:—

Let each plant, intended for shifting, be taken out of its present pot, or tub, with the ball of earth entire; then pare off all the dry matted roots round the outside and bottom of the ball; and also let some of the old earth be pulled away, without loosening the ball, and immediately set the plant in the new pot, and fill it up with the fresh compost, and give it some water.

When the plants are set out for the summer season, let those which are shifted be placed in a shady situation, there to remain for a month or six weeks, and then may be removed to the places allotted for them during the summer.

The oranges, lemons, and citron trees which are not shifted this season, or that do not require shifting should now be treated in the following manner, provided it was not done in April

Loosen the earth on the top of the tubs or pots, quite to the uppermost roots, and also a little way down round the sides. This done, take out all the loosened soil, and immediately fill up the tubs and pots with some good fresh earth; then give a moderate watering, and the work is finished.

Such a dressing as this will now be a very great advantage to these kinds of plants; it will not only promote a healthful fine green colour of the leaves, but will also add new strength and vigour to the general growth of the plants, and cause them

to flower and fruit strong and abundantly, and to produce strong and handsome shoots.

#### ADMITTING FRESH AIR.

OBSERVE that during the time the plants remain in the green-house this month to admit a considerable share of fresh air to them every day, in order thereby to harden them to it by degrees, so that they may be able to bear the full air effectually when brought out.

Let all the windows and doors be open every mild day, to their full extent; and towards the middle of the month let them continue open also a-nights; that is, when the air is perfectly still and warm; but if a cold unfavourable season, admit the night air with precautionary moderation accordingly, till more settled warm weather.

#### WATERING THE PLANTS.

REMEMBER to supply every plant, according to its kind, with a proper share of water.

The oranges, lemons, and myrtles, and all the woody plants, will now require that article pretty often. The large pots or tubs will, in warm weather, require it about twice a week, and the small pots will need a moderate watering every two days.

Some of the succulent plants require but very little water; but it will be proper to give the whole a moderate refreshment now and then.

#### PROPAGATING GREEN-HOUSE PLANTS BY LAYERS.

MANY kinds of green-house plants may be propagated by layers; and this is still a proper time to lay them.

Myrtles will succeed very well this way, and also jasmines, pomegranates, oleanders, and many others of the shrubby kinds.

Choose for this purpose some of the pliable young branches, or strongest shoots thereof, properly situated for laying; let these be brought down gently, and making an opening in the earth of the pots, &c., either their own respective pots, or, where not conveniently practicable in these, in others placed near enough for that purpose, and in either of which laying the proper shoots in the earth, securing them down with hooked pegs, and cover the laid parts about three inches thick with earth, leaving two, three, or four inches of the top out in an uprightish position.

Then lay a little mulch or some mowings of short grass, or

the like, on the surface, to preserve the moisture; and do not forget to refresh them often with gentle waterings.

Some of the plants thus laid will be effectually rooted the same summer, but will be mostly well rooted by Michaelmas for transplanting; such as are not, must be permitted to remain till near that time twelvemonth.

But if any of the pots containing these plants were plunged in a hotbed, the layers would readily put out roots the same season, and be fit to take off the following autumn.

The general method of propagating myrtles is by cuttings of the small young shoots of the year; for which see the work of *June* and *July*.

#### PROPAGATING BY CUTTINGS.

MANY sorts of green-house exotics may still be propagated by cuttings of the young shoots of last year, such as geraniums, myrtles, &c., planting them in pots; and if plunged in a hotbed or bark-bed in the hot-house, it will strike them in a short time, though the geraniums will strike without that assistance either in the pots or borders, &c., at this season.

But in myrtles, &c., and any hard woods that root reluctantly by cuttings, may, when plunged in the bark-bed as above, be covered down close with a hand-glass, which will greatly forward the emission of roots.

#### OF STOCKS WHEREON TO BUD AND INARCH ORANGES, &c.

If the young orange stalks, which are raised from kernels, sown in March, are come up about three or four inches high, it will be proper to transplant them.

They should be planted singly, in small pots, and then plunged in a fresh hotbed, either of dung or tan bark, under a frame and glasses.

Let them be watered as soon as planted, and let them be shaded from the sun in the middle of the day.

Give them also fresh air, by raising the glasses every day.

Keep up the warmth of the bed by moderate linings, if dung notbeds; but if bark-beds, no lining will be required; and give frequent moderate waterings.

According as the plants rise in height near the glasses, the frame must be raised; and provided there be a moderate warmth continued in the beds, and the earth in the pots kept moist, the plants will, in three months, be advanced a foot and a half high.

Inarching may still be performed on orange and lemon trees,

where required ; and it may be done any time in the month, observing as directed in *April* and *March*.

#### PRUNING IRREGULAR HEADS.

WHERE any myrtles, geraniums, lemons, oranges, or any other of the woody green-house plants, have shabby, straggling naked heads, or of very irregular growth, may, in the beginning of this month, have a regulating pruning, either in the general branches of some, cutting them down a little more or less, to promote a production of lateral shoots in summer, to renew the head in a more full regular order ; or, in others, to prune or reduce casual disorderly growths, or any straggling or rambling irregularities, as it shall seem necessary.

Or where any of the above kinds have dropped their leaves, as sometimes occurs by over watering in winter, &c., or by the effects of cold in that season, it would be proper to cut them down a little, as above, in some regular order, which will make them push more freely in a production of young shoots and new leaves.

Likewise, if any assume a weak, sickly-like habit, or unprosperous growth, prune the tops down a little, and either shift them into new pots and some fresh earth, or loosen the earth in their present pots ; add some fresh mould at top and give water.

Or any myrtles, &c., having decayed heads, or having dropped their leaves, may be turned out of the pots, and planted in the full ground till September, to recover.

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#### THE HOT-HOUSE.

FIRES should be mostly discontinued, except very cold unfavourable weather happen, when it may be occasionally necessary to make a moderate fire in the evening ; but still continue a constant bark-bed heat, supported in a proper degree agreeably to the intimation of last month ; and the other principal care of the hot-house now is to keep the plants clean, and to supply them duly with the two necessary articles of water and fresh air.

## PINE APPLES.

THE pine-apple plants in general will now require a moderate refreshment of water every four or five days ; and either in a morning from eight to nine or ten o'clock, or about three or four in the afternoon, are the best times of the day to perform the watering at this season.

In watering these plants, take particular care not to apply it too hastily, nor to give them too great quantities at any one time ; for that would not only damp the heart of the bark, but would also loosen the plants in their pots.

Fresh air is the next very needful article ; and the plants should now be allowed a considerable share of it every warm sunny day.

Slide some of the glasses open a little way, every hot day, about nine o'clock ; and as the heat of the day increases, continue to open them somewhat wider, that a proportionable share of fresh air may be admitted ; and shut the glasses again in the same order, about three, four, or five o'clock, according to the temperature of the external air and state of the weather.

Where the young pine-plants, that is to say, the crowns and suckers of last year, were not shifted into larger pots in April, it should now be done the beginning of this month.

The plants must be turned out of the small pots carefully, with the ball of earth entire, and having placed two or three inches depth of fresh mould in the larger pots, plant them therein, one in each pot ; fill it round the ball with more fresh compost, and give directly a little water ; but in shifting these plants, observe if any of them appear of a sickly unprosperous state, let such be entirely cleared from the earth about their roots, and pull off some of the lower leaves ; then trim the fibres quite close, pare the bottom of the main root, and let the whole plant be washed ; which done, plant it into entire new earth.

The plants being all shifted, let them be immediately plunged into the bark-bed as before ; but before you plunge them, the bark-bed must first be stirred up to the bottom, adding, at the same time, if not done in the two last months, about one third, but not less than one fourth, part of new tan, mixing both very well together, and then immediately plunge the pots to their rims.

These young plants must also be duly refreshed with gentle waterings ; and let them have fresh air every warm day.

## GENERAL CARE OF ALL EXOTICS IN THE HOT-HOUSE.

CONTINUE also the care of the general plants in the hot-house department : supply them duly with proper waterings ; and if any want shifting into larger pots, let it be done now as soon as possible, keeping the whole clear from decayed leaves, &c., and if any casual irregularities occur in the shoots or branches, prune or regulate them, as may be required, and cut away any decayed parts ; observing the same general directions as in the two or three last months.

## PROPAGATING THE PLANTS.

You may still propagate by cuttings, suckers, seeds, &c., such plants as you would increase, planting or sowing them in pots, and plunge them in the bark-bed.

Likewise cuttings of green-house exotics, or of any other curious plants, being planted in pots, and plunged in the bark-bed in this department, it will soon strike them.

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JUNE.

## WORK TO BE DONE IN THE KITCHEN GARDEN.

## MELONS.

THE melon-plants, which are in frames, should still be moderately shaded in the middle of the day ; that is, when the sun shines vehemently.

This should now be particularly practised where the plants do not stand the sun well, but shrink or flag their leaves considerably ; or also where the plants are situated very near the glasses ; as the full noon sun would be apt to scorch the leaves, and, in some degree, shrink and exhaust the juices of the vine, or runners and roots ; whereby the advancing young fruit would be greatly checked, and take an irregular growth, and become stunted and ill-shaped.

Therefore, let some thin slight shading of mats, &c., be spread over the glasses every day, when the sun shines fiercely, but this need not be done before about nine, ten, or eleven o'clock,

according to the heat of the sun, and the mats may be taken off again about two or three.

In doing this work, observe to lay only the thickness of one single mat over the lights, or a thin shade of strawy litter, &c., for the plants must not be darkened by too full a shade ; but a slight shade in hot sunny days will be of great service both to the plants and fruit.

Let these plants have also a great share of fresh air every day, by raising or tilting the upper end of the lights, at the back of the frame, two or three inches.

Moderate refreshments of water, at times, will also be very serviceable to these plants now, but in particular to such as are growing in beds where there is but a shallow depth of earth, or that the mould is of a lightish temperature.

In that case the plants will, in hot weather, require to be moderately watered once or twice a week ; and, in doing this, take care to give but very little water near the main stem or head of the plants.

But in beds where there is twelve inches' depth of good mellow loamy compost, or other good, temperate, fertile earth, the melon plants will require but moderate supplies of water, once in a week or fortnight, as you shall see occasion ; keeping the earth but very moderately moist, especially while the plants are about setting the general crop of fruit ; as too much humidity would prevent its setting, make them turn yellow, and go off ; but when a sufficient supply is set, and advanced a little in growth, may water more freely ; never, however, considerably, as much moisture proves also hurtful to the roots and main stem of these plants, being apt to make them rot and decay.

Continue to cover the glasses every night with mats, till about the middle of the month.

#### BELL-GLASS MELONS.

THE melon-plants which are growing under bell or hand-glasses should now have full liberty to run out.

Let each glass be raised and supported upon three props, about two or three inches high, and lay the vines or runners out carefully, and in a regular manner.

Continue to cover them every night with mats, till about the middle of this month ; and then, if warm settled weather, the covering may be entirely laid aside, except the weather should prove very wet ; in which case the coverings may be used occasionally.



There is nothing more prejudicial to these plants than too much wet, for this would not only chill the young fruit, and prevent its setting and swelling, but would also perish many of the roots of the plants.

Therefore, when the weather at any time happens to be very rainy, it would be proper to defend these plants as much as possible from it; and this must be done by still continuing the glasses, and applying a covering of good thick mats, or canvass supported upon hoop arches, fixed across the bed.

#### OILED-PAPER FRAMES FOR MELONS.

WHERE it is intended to cover any of the hand-glass melon ridges with oiled-paper frames, it should be done in the first or second week of this month; the melon-plants designed for this purpose being generally first ridged out under hand or bell-glasses; and when they have advanced in growth, so as the runners require training out, the glasses are then removed, and the paper frames placed over the bed.

These kinds of frames will be of great protection to the plants and young fruit, if cold and wet weather should happen about the time the fruit is setting; and they will also screen the plants from the too great heat of the sun.

These said frames should always be placed upon the ridges, as soon as the plants begin to advance from under the hand or bell-glasses; the glasses must be first taken away before the frame is placed on the bed, as before observed.

By this method a good crop of melons may be always obtained, provided the frames be properly constructed, and the paper securely pasted on, and well oiled with linseed oil.

Such persons as are not provided with bell or hand-glasses, may, with the assistance of these frames only, raise good melons, provided the plants be first raised by sowing the seed in a hotbed, under a frame and glasses, in March or April, as there directed, and planted out in a new hotbed the beginning of May, and the aforesaid papered frames immediately placed over the bed as soon as the plants are planted therein, and be covered with mats every night till the middle or latter end of this month.

However, those who have the convenience of hand-glasses should always place these over the plants when first ridged out, and to remain till about the beginning or middle of this month, when the plants will have filled the glasses; they should then be entirely taken away, and the papered frames put on.

These frames are made of thin slips of wood, and are constructed in the manner and form of the ridge or roof of a house, or arch-ways; they should be made firm but light.

Each frame should be ten or twelve feet long, and three to four feet and a half wide at bottom; narrowing gradually on both sides to a sharp ridge at top, or formed in a rounding arched manner; making the whole two feet and a half, or a yard high. In performing it, a bottom frame is constructed with two inches and a half wide slips of deal, framing it of the above length and width; and then have either straight inch and half wide rafters carried from both sides a foot asunder, fixed at top to a longitudinal middle ridge rail, or have arch-form ribs or rafters placed in the same order; and upon these the paper is to be pasted, first drawing packthread both ways, as directed below, for the better support of the paper.

On one side of the frame there should be one or two pannels, made to open on hinges; and each of these pannels must be eighteen inches or two feet wide, making either only a widest one in the middle; or, if two, make them within two feet of each end of the frame.

These pannels are convenient to be opened occasionally, to examine the plants and fruit, and to do the necessary work about them; which is better than to take the frames off upon every occasion.

The frame being made according to the above dimensions, get some paper to paste upon it. The best sort for this purpose is the large demy printing paper, or the largest sized thick writing paper; and two quires of such paper will cover at least one of the above frames.

But before the paper is pasted on, there should be some small twine or packthread, drawn at equal distances, along the frame, cross-ways the ribs or slips of wood, drawing it firmly round each of them, and then draw some more contrary ways across that; this will support the paper more securely both against the power of wind and rain.

Then let the paper be neatly pasted upon the frame; and when it is perfectly dry, then oil it in the following manner:—get some linseed oil, and a light soft pliable brush, such as painters use; dip the brush in the oil, and brush the paper all over lightly with it. The oil will render the paper more transparent, and make it proof against rain.

These frames should always be made, that is, papered, some time before they are to be used; for the oil should be perfectly

well dried in the paper before the frames are placed out upon the ridges.

#### FILLING UP THE SPACES BETWEEN THE MELON RIDGES.

WHERE hand-glass melon ridges, made mostly above ground, are in two or more ranges parallel, at some distances, it would be of good advantage to fill up the spaces between, with any moderately warm dung below, and earth above : or the same may be applied as a lining to a single ridge, if thought expedient : it, in the whole, would forward and improve the plants, and promote fruitfulness.

But this, if not done before, and where intended, and conveniently practicable, having sufficiency of proper dung, it would be advisable to adopt the application as above, as soon in the beginning of this month as possible ; and for which occasion a supply of any middling fresh and older mulchy dung together would be eligible, applying it firmly as high as the dung of the beds, just to throw in a gentle bottom heat, and form a larger scope above, covering it at top with a stratum of earth, for the additional extension of the roots and runners of the plants ; which, by these assistances, would be much forwarded and strengthened in their growth, and would greatly encourage the setting and free swelling growth of the young fruit.

#### CUCUMBERS IN FRAMES.

TAKE good care of the cucumber plants in frames ; they must be well supplied with fresh air and water.

These plants in hot weather will require to be watered every two or three days ; and morning and afternoon, or, towards the evening, are the best times of the day, at this season, for watering these plants.

Let the plants have air freely every day, by raising the upper ends of the lights or glasses two or three inches upon props ; but it will be advisable to shut the lights down of nights the greatest part of this month.

And in hot sun-shiny days it is advisable to shade the plants with garden mats, or some loose straw litter, spread thinly over the glasses, during the hottest time of the day.

About the middle, or towards the latter end of this month, you may either raise the frame high enough to let the plants run out from under it, if it should seem necessary ; training the extended runners upon the top of the linings or retain them wholly within the frame, especially if unfavourable weather.

## CUCUMBERS UNDER BELL-GLASSES, &amp;c.

THE cucumber plants which are under hand or bell-glasses must now be suffered to run freely from under them.

Each glass should be raised upon three or four props, and the vines and runners of the plants must be trained out with care and regularity.

Let these plants be also duly assisted, in dry weather, with water; they will require it moderately about three times a week.

## PICKLING CUCUMBERS.

THE cucumber plants which were sown the latter end of last month, in the natural ground, to produce picklers, &c., should now be thinned. This should always be done when the rough leaf begins to advance in the heart of the plants.

In doing this work observe to leave in each hole but three or four at most of the best strongest plants, though three would be the most only eligibly sufficient. Let the rest be drawn out with care, and clear away all weeds.

Then earth up the stems of the remaining plants, within a little of the seed leaves, pressing them gently asunder at regular distances from one another, and immediately give each hole a light watering to settle the earth; the plants after this will get strength, and grow freely.

Let them be often refreshed with water in dry weather; in which they will need a little every day.

## SOWING AND PLANTING PICKLING CUCUMBERS.

CUCUMBER seed may still be sown where required; and the first week in the month is not too late to sow a full crop of picklers. If you put the seed into the ground any time between the first and tenth day of the month, it will succeed; but where a main crop is depending, it is advisable to sow the seed early in the beginning of the month.

The plants raised from these sowings will come into bearing about the beginning or middle of August, and they will yield fruit plentifully all the remaining part of that month, and great part of September.

Having intimated last month, in regard to forwarding a crop of pickling cucumbers, that it would be advisable to raise a quantity of plants in a slight hotbed, sowing the seed about the middle, or third or fourth week in that month, or very early in

this; and where that was practised, they will now, those sowed in *May* particularly, be of proper advance the beginning of this month, for final transplanting, which should generally be performed when they are but a few days old, or a week or fortnight's growth at most; or when beginning to push their first central rough leaves.—See *May*, for the method of planting.

#### CELERY.

TRANSPLANT celery into trenches to remain to blanch.

That which was sown early will be grown to a proper size for this purpose by the first or second week of this month when it should be planted; and some of the second sowing should be planted out towards the middle or latter end of the month for a general crop.

Choose for these plants a piece of rich ground in an open situation; mark out the trenches by line fifteen or sixteen inches wide; and allow the space of four feet between trench and trench, which will be sufficient for the early plantation.

Dig each trench neatly, about six or eight inches, or only a moderate spade deep, laying the earth that comes out equally on each side, in a level order, in the intervening spaces; then dig the bottom level: or first, if thought necessary, lay the thickness of four or five inches of very rotten dung along in the bottom of each trench, and let the bottom be neatly dug, burying the dung equally a moderate depth; then put in the plants.

Plant them in one single row, just along the middle of each trench, allowing the distance of five or six inches between plant and plant in the row; as soon as they are planted give them some water, and repeat it occasionally till they have taken root.

#### ENDIVE.

TRANSPLANT endive for blanching; some of the first sown plants of *May* will be ready for this by the middle and towards the latter end of the month.

An open spot of good ground must be chosen for these plants; let it be neatly dug one spade deep, and rake the surface smooth.

Then put in the plants by line, about a foot asunder every way, and let them have some water as soon as they are planted.

But there should not be any considerable quantity of this early sown endive planted out: that is, not to deceive yourself in planting a full supply for a continuing main crop; for the plants, if they were sown in *May*, or before, will most of them

be apt to run to seed before they arrive to any tolerable state of maturity.

Sow endive-seed now for a first principal crop, and to succeed those which were sown in the former month.

The best endive to sow for a full crop is the green curled sort: this sort is not only the best for general use in its thick, close, stocky growth, but the hardiest; for it will endure wet and cold in winter better than any other kind. But you may likewise sow, as a variety for salads, &c., some of the white curled sort.

Likewise sow some broad-leaved Batavian endive; this is the best sort for strewing, &c.; it grows very large, in a somewhat upright growth, and, if tied up, will cabbage well, and be very white, and eats also well in a salad; but this sort is not so hardy, for it soon rots in a wet season, the latter end of autumn and beginning of winter, and a moderate frost will kill the plants.

Let all these sorts of endive-seed be sown in an open spot, not too thick, and rake it in equally. It will be proper to sow some of this seed at two different times this month, the beginning and middle or towards the latter end, which is the only way to have a regular supply of good plants.

But for the main autumn and winter crop, generally sow about the second and in the third or fourth week in the month; for that which is sown earlier is very apt to run up for seed early in autumn, and before the plants arrive at full growth.

#### LETTUCES.

THE lettuce plants which were sown in April and May should now be transplanted into an open spot of good ground.

Let this be done in moist weather, for these plants will not succeed well if planted out in a dry time; but where there is necessity of planting them out, in dry weather, let the following method be practised:—

Draw, with a small hoe, some small shallow drills, about a foot asunder, and then plant one row of lettuces in each drill, setting the plants also a foot from one another, and give them some water.

By placing these plants in drills, they can be more conveniently watered, in the most effectual manner, than if planted on a level ground, for the moisture will be much longer re-

tained ; this is therefore the best method of planting them at this season.

Thin, and clear from weeds such young lettuces as are to remain where sown ; leaving the plants about a foot asunder ; but those among other crops, as onions, &c., thinned doubly and trebly at that distance.

Sow lettuce-seed to raise some plants to supply the table in July, August, and September.

The best kinds to sow now are the Cos, Cilicia, and imperial lettuce, the brown Dutch, and great white Dutch cabbage lettuce.

But it will be advisable to sow some seed of each of these sorts, or such of them, or any others that are approved of, and there will be a greater chance of having a constant supply of good plants in variety, and regular succession.

It will be necessary to sow some of these seeds twice this month, that is, a moderate crop in the first or second week, and a similar sowing in a fortnight after.

#### RADISHES.

Sow a succession of salmon and short-top radish the beginning of the month, and more about once a fortnight, to obtain a regular succession in young growth, all this and next month, if a supply of young ones are required during that period ; observe as in the last month, &c.

Likewise may be sown now for succession, some of the small white turnip radish, in an open situation ; and towards the middle or latter end of the month you may sow a moderate portion of the large black or Spanish turnip-rooted radish, to draw in August and September.

#### SMALL SALADING.

Sow cresses and mustard, and other small salad seed, at least once every week or fortnight.

These seeds must now be sown in a shady border, or otherwise shaded with mats in hot sunny days ; and the places where they are sown should be often refreshed in dry weather with water ; and this should be practised both before and after the plants begin to appear. See *July* and *August*.

## PRICKING OUT CAULIFLOWERS.

THE cauliflower plants, which were sown in May for the Michaelmas crop, should, about the third week in this month, be pricked out in a nursery-bed of rich earth.

Prepare for them a bed three feet and a half wide in an open situation, then put in the plants about three inches asunder, and give them a little water to settle the earth well about their roots.

It would be of good advantage to shade them from the hot sun occasionally in the heat of the day, till they have taken good root; and they must also be occasionally watered, if the weather should prove dry.

The plants are to remain in this bed a month or five weeks, to get strength, and then to be planted out for good in July, in the places where they are to remain to produce their heads in October and November, &c.—See *July*.

## CARE OF EARLY CAULIFLOWERS NOW ARRIVING AT PERFECTION.

CONTINUE to look over the plantations of early cauliflowers now and then, in order to break down some of the large leaves over the young heads, according as they appear in some advanced growth.

Those plants which are still advancing in growth, or part coming into flower, should, in very dry weather, be well watered, which will keep the plant advancing in an enlarging state of growth, and they will produce large flower-heads accordingly.

If they have one or two hearty waterings, that is, about half a watering-pot to each plant, gradually, so as to moisten the earth as far as their roots extend, they will want no more.

## TO SAVE CAULIFLOWER SEED.

To save cauliflower seed, should now mark some of the best earliest plants arrived to full perfection, with the largest, white, and closest flower-heads, which must not be gathered, and the plants left in the same place; they will shoot up into seed-stalks in July, and early in August, and ripen seed in September.



## TURNIPS.

Now sow a full crop of turnips for autumn use.

The seed may be sown any time in this month; but some time between the tenth and twenty-fifth of the month is the best time to sow the principal autumn crop.

However, let the seed be sown, if possible, in a dripping time, at least, when there is a prospect of rain falling soon, or immediately after sow in drills twelve or fifteen inches apart. Take good care to sow this seed equally, and moderately thin, tread it down evenly, and rake it in immediately.

Hoe the turnips which were sown in May, and thin the plants in a regular manner.

This work should always be begun when the plants have got rough leaves, a little more than an inch broad; for then the work can be performed with expedition and regularity, with greater advantage to the growth of the plants.

Let the hoeing or thinning be done with some regularity leaving the plants at least eight or ten inches distant from one another.

## CARROTS AND PARSNEPS.

THE crops of carrots and parsneps now demand particular care.

They must be cleared thoroughly from weeds; and let the plants, where they stand too thick, be hoed or thinned out to proper distances in due time; for it is a great advantage to these plants to allow them timely room to grow.

Let them be thinned regularly, allowing six or eight inches distance from plant to plant.

But in thinning the carrots, it will be proper to observe the same rule as directed in May; that is, let those crops which are to stand to take their full growth, be allowed the same distance above mentioned; but where the carrots are intended to be drawn while young, thin them only about four or five inches distance from one another at present; and when arrived to about half an inch size, may thin them by degrees for use to the above distance.

## RED BEET.

THE crop of red beet should be thinned and cleared from weeds, that the roots may have sufficient room to advance regularly in their proper swelling growth.

The seeds of these plants being sometimes sown in drills, or rows, ten inches or a foot asunder; and where that method was practised, you can now more readily clear out the weeds and thin the plants; observing to thin them to ten or twelve inches distance in the rows, so that they may stand that distance every way from one another; also, where the seed was sown broadcast, so as the plants stand promiscuously, they must likewise be cut out to the above distance, and the roots will grow to a large size accordingly.

#### WHITE AND GREEN BEET.

WHITE and green beet are cultivated only for their leaves, which are used in soups, and occasionally to boil and use in the manner of spinach, &c., as is likewise the *mangel wurzel* beet; also, sometimes, when the leaves of the large white beet are grown to full size, they are stripped to the mid rib, which part being thick and fleshy is peeled and stewed, and eaten like asparagus.

These plants must also be allowed good room to grow; for their leaves spread a great way; let them therefore be thinned to at least six or eight inches, or the large white sort the same distance advised for the red beet.

#### ONIONS.

CLEAN the crops of onions, and where the plants stand too close, let them now be properly thinned the beginning of this month.

This may be performed either by small hoeing or hand; but the former is the most expeditious for large crops, and by the hoe stirring and loosening the earth, proves very beneficial to the growth of the plants. However, by either method be careful to have it done in proper time; and let the plants be thinned with proper regularity, leaving the most promising plants for the continuing crop, at least three inches asunder, or four or five inches in those designed for the full crop of larger bulbs: and let all weeds be effectually eradicated.

But if any secondary crops are intended to be culled out gradually for use while young, they need not be thinned but moderately, or in some only just thinning them a little by hand where they grow very thick, or in clusters; and afterwards in drawing them occasionally for use, thin them regularly, leaving a sufficiency of the best plants to stand to full bulb.

## LEEKs.

Now transplant leeks; the plants will be grown to a proper size for this purpose by the third or fourth week in the month.

Observe, for this purpose, to draw a quantity of good plants from the seed-bed, trim the fibres of their roots a little, and the straggling tops of the leaves, then planted in an open spot of ground, in rows eight or nine inches asunder, and about six inches from one another in the row, inserting most of the shank or neck part into the ground.

## BROCCOLI.

Prick out from the seed-bed the young broccoli plants which were sown in April or May.

Dig for them a bed or two of good mellow ground, and rake the surface even; then put in the plants three or four inches asunder every way. Water them immediately, and repeat it occasionally in dry weather.

Let them remain in this bed about a month, or five or six weeks, and then plant them out for good.—See *July*.

Sow more broccoli seed. This sowing should be performed in the first or second week of the month; that is, if to succeed the plants of those sown in May, for a late crop next spring: but if none was then sown, it is most necessary to sow some early in the first week this month.

The plants raised from this sowing will produce tolerable good heads next February or March, &c.

## BORE-COLE.

THE brown-cole, or bore-cole plants which were sown in the beginning of last month, or in April, should now have a quantity thinned out from the seed-bed, and pricked into a nursery-bed. Set these plants four inches asunder each way, giving them a moderate watering when planted, and afterwards occasionally, if dry weather, and there let them grow about a month or five weeks, by which time they will have acquired strength, and must then be planted out where they are to remain, the distance as below.

Likewise let a quantity of the forward bore-cole plants, which were raised in March or April, be planted out finally to remain, in rows two feet and a half asunder, and water them.

## KIDNEY-BEANS.

PLANT another crop of kidney-beans: they will succeed those which were planted last month.

Any of the dwarf kinds may still be planted any time in this month. But in order to have a regular supply, it will be proper to plant a crop in the first week; and let some more be planted about the twentieth, and towards the latter end of the month.

The climbing or running kinds of kidney-beans of any sorts, may also, where required, be planted now.

The best kind of runners to plant at this time are the scarlet blossom, and large white kind, and also the white Dutch; these sorts are exceeding good bearers, and none better to eat.

These running kinds should be planted in the first or second week of the month, if for a full crop; though they will succeed any time in this month, but the sooner the better; and those which are planted early in the month will begin to bear in July, but more abundantly in August, and in the scarlet, and the large white variety thereof, will continue till October.

In planting the different kinds of kidney-beans, do not fail to allow each sort room enough; let drills be opened for the running kinds at least three feet and a half, or four feet asunder; and allow for the dwarf kinds two feet, or two and a half distance between drill and drill, drawing the drills now an inch and a half deep, and put in the beans directly, especially if dry hot weather, and earth them in regularly.

But in planting any kind of kidney-beans, it will now be proper, if dry hot weather, and the ground is very dry, to water the drills well before you put in the beans. This should not be omitted in a dry time, as it will promote the free sprouting of the beans, and they will rise sooner and more regularly.

Now draw some earth to the stems of the kidney-beans which were planted last month; for this will strengthen the plants, and bring them forward greatly in their growth.

Likewise place sticks, or poles, &c., to the running kinds of kidney-beans, which were planted in May; and let this be done in proper time, as soon as the plants begin to send out their runners, for they will then readily catch their supports; generally twining to the right, contrary to the apparent motion of the sun.

## ASPARAGUS.

ASPARAGUS still continues in perfection, observing to cut or gather the shoots, as directed last month.

But let it be remembered, it is advisable to terminate the general cutting for the year soon after the twentieth or twenty-fourth of the month, otherwise it will weaken the roots: for so long as you continue to cut the produce, the roots continue sending up new shoots, though every time smaller; and if continued late in the season, would greatly exhaust themselves that the future produce next year, &c., would be diminished in proportion.

Before the asparagus runs up to stalks, you should now clear the beds perfectly from weeds; for that work cannot be so readily done after the stalks have shot up to a great height.

Great care should now be taken to keep the asparagus planted last spring perfectly clear from weeds.

And the young plants which were sown in the spring will now be up, and should be carefully hand-weeded.

## PEAS AND BEANS.

PEAS may still be sown, and you may also plant beans.

Though those peas and beans which are planted at this season do not always succeed in bearing abundantly, it will, however, where there is ground at liberty, be worth the trial to put in a few of each, at two or three different times in this month; and if the season should prove somewhat moist, there will be a great chance of reaping a tolerable crop from them in August and September.

The best beans to plant now are the middling and small kinds; none better than the white blossom, Spanish, longpods, mumsford, mazagan, and the like kinds. I have gathered plentifully from these sorts at Michaelmas.

But the large kind of peas such as marrowfats, &c., may still be sown; and it will be also proper to sow a few of the best kinds of hotspur and dwarf peas.

Observe, that if the weather and ground be very dry, it will be proper to soak the peas and beans for a few hours in water taken from a pond or river: or, otherwise, water the drills well, previous to sowing, &c., then sow or plant them; and by this means they will come up sooner, in a more regular manner together.

Let these late crops be sown and planted in the moistest part

of the ground, where convenient, but not in a shady place, for in such a situation the plants would draw up, and come to nothing; and remember to allow them sufficient room between the rows, for much depends upon that at this time of sowing.

Top your beans which are now in blossom, observing the rules mentioned last month.

#### SAVOYS AND CABBAGES.

Now is the time to plant a crop of savoys and cabbages for autumn and winter service.

Likewise plant out the red cabbages which were sown in the spring, and they will be cabbaged by October, &c.

In planting out all these kinds take opportunity of moist or showery weather, if possible, which will be of considerable advantage; planting them in rows two feet and a half asunder, by two feet distance in each row; and if dry weather, give water at planting, &c.

But in gardens, where there is no ground vacant from other crops, or where there is a necessity of making the most of every piece of kitchen ground, you may plant the savoy and cabbage plants between rows of forward beans, and early cauliflowers, or such like crops as stand distant in rows, and are soon to come off the ground.

#### SOWING CABBAGES AND COLEWORTS.

You may now sow cabbage seed, of the sugar loaf, Yorkshire, and other quick heading sorts; the plants from this sowing will come in both for small hearted young colewort cabbage the latter end of next month, and in August, &c., and to cabbage in fine young heads in September, October, November, and December.

Sow also, about the middle of the month, some of the above cabbage kinds to plant out for early autumn coleworts.

#### PLANTING POT-HERBS AND OTHER AROMATIC PLANTS.

PLANT out from the seed-bed, the young thyme, savory, sweet marjorum, and hyssop.

The plants will be ready to remove about the third or fourth week in the month; but let it be done, if possible, in a showery time. Prepare some beds for that purpose, three feet and a half broad; rake the surface smooth, and then put in the plants.

Plant them by line ; setting them six or eight inches asunder every way, and water them.

Or some of these plants may be occasionally planted in edgings, along the sides of any particular beds or borders, &c., such as thyme, savory, sweet marjorum, and hyssop.

But when this is intended, you may occasionally sow the seed in that order in the spring ; sowing it in small drills, and so permitting the plants to remain where thus sown.

Plant out also the borage, burnet, sorrel, clary, marigold, angelica, and carduus, and all other pot and physical herbs that were sown in the spring or last autumn.

Plant them a foot or fifteen inches distance every way.

Or some may remain where sown, and thinned, where too thick, to proper distances, as above.

But the borage succeeds best without transplanting ; only observing to thin the plants six or eight inches to a foot distance ; and the marigolds may also be treated in the same manner ; but these will succeed well enough either way.

Plant where wanted, slips of sage : take the young shoots of the year, and they will take root tolerably well, any time in this month ; plant them in a shady border.—See *May*.

The slips or cuttings of thyme, savory, and hyssop, may also still be planted where required : also cuttings of mint.

Likewise plant, where required, slips or cuttings of the young shoots of lavender, and lavender-cotton, rue, rosemary, and the like kind of aromatic plants.

Let the above slips or cuttings be planted in a shady situation ; and, in dry weather, let them be now and then moderately watered ; if this be done, not one in ten will fail.

Plant also cuttings of mint where beds of new plants are wanted ; but should be done early in the month, taking cuttings of the young green stalks, or top shoots, five or six inches long ; plant them in a shady border, and well watered.

#### GATHER MINT AND OTHER HERBS, &c.

GATHER mint, balm, and other aromatic herbs, towards the end of this month, for drying, when the plants are nearly of full growth ; and also for that purpose gather all such physical plants as are now in advanced growth, as above.

These sorts of plants, when intended to gather them for long keeping, distilling, or principal medical purposes, &c., are generally in best perfection for those occasions when well ad-

vanced to full growth, and nearly beginning to advance for flowering.

They must be cut in a dry day, and, those for keeping, immediately spread, or hung up in a dry airy room, out of the reach of the sun, where they may dry gently, as the full sun would exhaust them too much, and render them of little effect.

Cut peppermint for distilling; and also spearmint, penny-royal, and the like kinds.

These and all other plants that are intended to be distilled should also be gathered for that purpose, when they are arrived almost to full growth, and beginning to flower, as just above observed; therefore, if they are not yet in proper growth, defer cutting them till *July*.

#### CAPSICUMS, LOVE APPLES, AND BASIL.

PLANT out capsicums, love apples, and basil, if not done last month: see the methods there directed; and choose, if possible, showery weather for planting them.

#### WATERING IN GENERAL.

WATER in dry weather, all the different kinds of plants which have been lately planted and pricked out: this should be duly performed till the plants have taken root.

Likewise, in very dry hot weather, give occasional watering to small young plants remaining where sown; also to seed-beds lately sown, and to others, where the plants are coming up, or advancing in small young growth.

#### SCORZONERA, SALSIFY, AND HAMBURGH PARSLEY.

THIN and clear from weeds the crops of scorzonera, salsify, skirrets, and large-rooted parsley; which perform either by hand or small-hoeing; thinning out the plants six inches distance; and cut up all weeds.

#### GARLICK AND SHALLOTS.

GARLICK and shallots, if required for early use, some may be taken up.—See *July*, &c.

#### CARDOONS.

PLANT out cardoons into the place where they are to remain to blanch.

These plants must be allowed a considerable space of room



to grow, in order that they may be conveniently earthed up to the proper height.

Choose a spot of good light soil for them, and let trenches be prepared for them in the same way as for celery. Let the trenches be four or four and a half feet apart, centre from centre; dig out the trench about a spade's depth, and twelve or fourteen inches wide; lay a few inches of rotten dung in the bottom; dig it in, incorporating it well with the soil, and plant the plants with a line, along the centre, at twelve or fourteen inches apart.

Let them be watered as soon as planted, and at times, till they have taken root.

The reason for setting the above plants at so great a distance from one another, is, as before said, in order both that they may have full scope for their large growth, and that you may be able to obtain a sufficient quantity of earth between them, to land them up to a due height for blanching; for when the plants arrive at their full growth, they are between three and four feet high, and should be earthed up by degrees considerably towards their tops, first tying the leaves of each plant close together with hay bands, &c.—See the work of *August, September, and October*.

These plants are a species of artichoke (*Cynara*), their leaves being very like them; but it is the stalks of the leaves only of the cardoons that are used, which is principally in soup and for stewing, &c.; but they must first be rendered perfectly white and tender, by landing up as above-mentioned, otherwise would be intolerably bitter.

#### RADISHES AND SPINACH.

Common and turnip-radishes and spinach may still be sown at two or three different times this month, if a constant supply of these plants are required: choose an open space of ground, and as soon as digged, sow the seed, each kind separate, tread them down, and rake them in evenly.

Thin and weed the crops of radishes and spinach, which were sown last month.—See *April and May*.

## THE FRUIT GARDEN.

## APRICOT-TREES AND PEACHES, &amp;c.

WHERE the apricot, peach, and nectarine trees, were not looked over last month, in the young shoots of the year, to give the requisite regulation of summer pruning and training, it must now be done.

This work should be proceeded in the beginning of the month, and followed with the utmost diligence till the whole is completed; for were these trees suffered to remain long in the wild confused manner that they naturally grow into at this season, it would not only prove detrimental in a great degree to the trees, but would also very much retard the growth and ripening of these kinds of fruit.

Therefore let these wall-trees be now, in general, gone over; taking care to clear away all the ill grown and ill placed shoots; for this will not only strengthen, but make more room to train the useful shoots in a proper manner to the wall.

That is, selecting a plentiful supply of all the best growing well placed shoots, to retain in all parts where they can be trained in regularly; prune out all the irregular placed foreright shoots, and others not eligibly situated for regular training; likewise very rank luxuriant of-remarkably more vigorous growth than the general shoots of the same tree; also cut out any ill formed, and thick, spongy, and other improper and apparently useless growth; and, where the general proper shoots are over abundant, cut away the worst of the superfluous productions, in a thinning regularity, so as to leave a plentiful abundance of the best in all parts of the tree; and let all the others, as above, be pruned quite close to the places whence they originate.

In this manner proceed in the summer pruning and regulation of these trees, in the young shoots of the same year only; by cutting out the irregular placed and improper, as above; and being particularly careful to leave a sufficiency of the best shoots, to have a plentiful choice in winter pruning for bearers next year; at the same time pruning out only the evidently superfluous or overabundant thereof; retaining as many of the best regular placed, kindly growing, side-shoots, as can be conveniently laid in with some proper regularity, and with a terminal or leading shoot to each branch; that in the whole there may be an abundance to choose from in winter for next summer's

bearers, as aforesaid ; and let them all be trained in now, close to the wall, in a neat regular manner, generally at their full length.

It would be improper to shorten the shoots at this season, for the reasons mentioned last month, but they should be laid in at their full length, in all parts where practicable : or only shorten any extreme shoots that extend beyond the limited bounds of the respective tree ; or occasionally so shorten any particular shoot, in vacant parts, to gain a supply of laterals the same year to furnish the vacancies.

Let the shoots, in general, be laid, or nailed in, as regularly as can be ; and take particular care to train them in such a manner as the leaves may afford a moderate shade, in hot sunny days, to the fruit : for all kinds of wall fruit thrive much the best under a slight coverture of leaves : the leaves will also shelter the fruit somewhat from the cold night air.

#### THINNING WALL-FRUIT.

THIN the wall fruit, where it is produced thick, and still remaining too close upon the trees.

This is to be understood principally of apricots, peaches, and nectarines, and which should be completed the beginning of the month ; and in thinning them, let the same rule be observed now as that mentioned in the last month of the same kinds of fruit.

#### APPLE-TREES, PEARS, PLUMS, &c.

THE apple, pear, plum, and cherry trees, both against walls and espaliers, will now have made strong shoots ; and where it was not done in May, it is now full time they were gone over and properly regulated.

Let those trees be looked over with very good attention, and let them now be properly cleared from all useless and unnecessary shoots of the year ; that is to say, let all singularly luxuriant shoots, wherever they appear, be taken off close : all fore-right shoots must also be taken away ; and also such shoots as are produced on parts of the trees, where they cannot be properly trained in ; and such as are absolutely not wanted for a supply of wood, must all be displaced : at the same time being careful to retain a moderate supply of the best regular placed shoots in different parts of the trees to train in to choose from in the winter pruning, by the rules explained below, viz.

That in ordering these trees, it must be observed, that there

is no need to leave a general supply of young wood, as in peaches, nectarines, &c., which bear their fruit always upon the one year old shoots, and in consequence thereof there is a necessity to leave every summer a general supply of young wood in every part of the tree; for, as in apples, pears, plums, and cherries, their branches do not begin to bear till they are two or three, and some four or five years old; that is, the branches of cherries generally begin to bear at one and two; the plum and apple at two or three; but those of the pear are at least three; but are sometimes four or five years before they begin to bear; and when the said branches of all these kinds have arrived to a fruitful state, the same bearers continue bearing for many years, so that, as above hinted, there is no occasion, after the trees are once furnished fully with bearing branches, to leave such a general and constant supply of young wood annually as in the trees above mentioned: but, notwithstanding, it will be proper to leave, in every tree, some of the best grown and well placed side-shoots, and particularly in the most vacant places, and towards the lower parts, together with the leading one to each branch, if room; and this select reserve of the present shoots should not now be omitted; for some of these will very probably be wanted to supply some place or other of the respective trees, in the winter pruning.

And where there appears to be an absolute want of wood in any part of these trees, do not fail, in that case, to leave, if possible, some good shoots in such vacant parts.

It is always the best method to leave in a moderate way, a full sufficiency of the best shoots at this season; they will be ready in case they should be wanted to fill any vacancy, or to supply the place of any casual unfruitful branches, useless, or dead wood, when you come to prune in winter; and such shoots as are not then wanted can be very easily cut away; and there is nothing like having enough of proper young wood to choose from at the principal pruning time.

Let all the shoots which are now left be trained in at their full length, and nailed or otherwise fastened up close to the wall or espalier, in a regular manner all summer.

But in pruning the cherries in wall-trees, it should be observed of the Morello cherry, in particular, that as this sort most generally bears or produces the fruit principally in the greatest bundance on the one year old shoots, should therefore at this pruning retain a general supply of the present shoots of the

year, to train in abundantly for next year's bearers, similar to peaches, nectarines, &c.

#### SUPPLYING VACANT PARTS OF WALL-TREES WITH BRANCHES.

At this season it will be proper to observe that where there is any vacant spaces in wall or espalier trees, it is now a most eligible time to prepare to furnish them with the requisite supply of wood in such parts, the same year, by pinching or pruning short some contiguous young shoots.

For example, if two, three, or more branches may be wanted to fill the vacancy, and suppose there be only a young shoot produced in or near that place, it will, in such case, be proper in the first or second week of the month to shorten the said shoot, or shoots, to three, four, or five eyes, according to their strength; and by this practice each shoot will send forth two or three, or perhaps four lateral shoots the same season, to fill the vacancy.

The above method of shortening the young shoots of the same season may likewise be practised on young trees, to procure a supply of branches to form the head of a proper expansion as soon as possible.

#### NEW-PLANTED TREES.

EXAMINE new-planted fruit-trees, that is, such as were planted last autumn, winter, and spring; in particular, standard trees: see that they be well secured, so that they cannot be rocked about by the wind, to disturb their roots.

This should be duly attended to, but particularly such standard trees which have tall stems and full heads; for it will evidently appear that those trees which are secured will make stronger shoots than those that are not; likewise take care to keep the earth well closed about the bottom of the stems of new-planted trees, that the sun or wind may not have access, that way, to dry the earth near the roots.

Look to the young wall and espalier trees planted last autumn or spring, and which were headed down in the spring; they will have made some strong shoots, and the said shoots should now be nailed to the wall, both to train them timely in regular order, and to secure them from the power of the wind.

Water must still be given in very dry weather, to new-planted trees, but in particular to such as were planted late in the spring.

Likewise to late-planted young wall-trees, &c., in the full

sun, it would be of much advantage to continue some mulchy dung on the ground over the roots, to keep out the parching heat and driving winds.

## VINES.

THE vines against the walls which were not looked over, and properly regulated last month, will now require it very much.

Where this work was omitted in the former month, it should now be forwarded with all convenient expedition, otherwise it would be impossible to procure, at the proper season large and well-ripened grapes; for when the vines are permitted to run into disorder, it is a great disadvantage to the fruit, for the bunches of grapes will not only be small, but will also be irregular, and the grapes will ripen late, and will not be full flavoured.

Therefore, where it was not done in May, let the vines be now, in general, gone over; and let them be thoroughly cleared from all the useless shoots, as described last month, and then let all the useful shoots be immediately nailed in close to the wall, in a regular and neat manner.

Observe now, in ordering the vines, as in the last month, to nail in all the strong shoots as have fruit upon them; and all such other shoots as are strong, and rise in parts of the wood where wanted, must likewise be left, and laid in close; but clear away all small weak shoots in every part; and likewise take off all such shoots as are barren, or without fruit, that rise in places where not wanted, or cannot be readily trained in.

Those vines which were looked over, and regulated in May, should now be looked over again.

In doing this, observe to clear away all improper shoots that have been produced since last month: and to rub off all those small shoots which rise from the sides of the retained principal shoots of the same summer, and from the old wood; except, in the latter, any good shoots rise in vacant parts, where they can be regularly trained.

## VINEYARDS.

THE vineyard still demands a good share of attendance; the vines must not be suffered to run into confusion, for in preventing this depends the whole success.

Therefore let the bearing shoots be trained to the stakes with

some degree of regularity, so that every shoot may enjoy the same benefit of the sun, and free air. At the same time displace all weak and straggling shoots, and all such as cannot be trained in properly to the stakes.

Destroy weeds in the vineyard; this is also a very necessary work, for it is absolutely a very great advantage to the growth and timely ripening of the grapes, to keep the ground near the vines clean from all weeds, &c., and rake off all litter to have a clean even surface, which is a particular advantage.

#### BUDDING OR INOCULATING.

BUDDING, or inoculating, may be begun upon several sorts of fruit-trees, towards the latter end of the month.

The sorts proper to begin upon are the early kinds of apricots, peaches, and nectarines.

Cloudy weather best suits this work; but if no such weather happens, it must be forwarded at all convenient opportunities; or occasionally in a morning or evening.

The proper stocks on which to bud the above kinds of fruit-trees are principally those of the plum raised from the stones of the fruit; and when two or three years old, are of a proper size to bud upon; or these stocks may be also raised from the suckers of plum trees, and by layers thereof.—See the work, *Of Budding*, next month, for the different sorts of stocks, and the work of February, where are directions for raising them both from seed and suckers.

The buds must be inserted generally but one in each stock, at about six inches from the ground, if the tree is intended to be a dwarf for the wall, &c.; but for a standard, the budding may be performed at the height of three, four, five, or six feet.

But the manner of performing this operation is inserted in full in the work of the nursery for *July*.

#### STRAWBERRIES.

THE strawberry beds must now be duly supplied, in dry weather, with water, as the plants will now be in blossom, and the fruit setting and advancing in growth.

The waterings should, in a very dry time, be repeated every two or three days, from the beginning till about the middle of the month; for about that time the principal crop of most kinds of strawberries will be about setting and swelling to their respective sizes: and while the fruits are taking

their growth, the plants should be encouraged, by keeping the earth in the beds always in a middling degree moist, and the advantage will plainly appear in the size, as well as the quality of the fruit.

#### PLANTING STRAWBERRIES.

WHERE new plantations of strawberries are wanted, it will, about the middle or latter end of the month, be a proper time to provide some young plants for that purpose.

Remember, generally, at this time, to choose principally the young plants of the same year, formed at the joint of the runners, that issue from the sides of the old plants.

In choosing the plants, let them be taken from such strawberry beds as bear well and produce large fruit.

Choose a parcel of the stoutest plants of the same summer's growth, as above hinted, taking them carefully up with the roots.

Trim the roots a little, and cut off the strings or runners from each plant; then let them be immediately planted.

They may be planted, some in the beds or places where they are finally to remain; but it would rather be advisable to plant a principal quantity in a nursery-bed, in a shady situation; a shady border will be a proper place: put in the plants five or six inches asunder; and give a gentle watering to settle the earth to their roots.

There let them remain in growth till September or October; by which time they will be strong, and in fine order to transplant, and are then to be planted out for good; they must then be planted fifteen inches asunder every way.

The above method of procuring strawberry plants at this season is not commonly practised; but is much the best way, for the plants will be much stronger and finer by September, than they can be procured at that time from the old beds, and will bear sooner.

Or for immediate bearers, you may, any time in this month, plant out some of the young runner plants of the Alpine or prolific monthly strawberry; they will bear fruit the same year, both on the present plants and their runners, in August, September, and October; and in mild seasons, this sort of strawberry will bear till near Christmas, if in a warm border, or defended under frames and glasses.



## PRESERVING CHERRIES FROM BIRDS.

HANG up nets before early cherry-trees, against walls, to protect the fruit from sparrows, jays, and other devouring birds.

Likewise, where large nets can be conveniently drawn over some of the choicer kinds of standard cherry-trees, it should be done the beginning of this month.

## DESTROYING SNAILS AND OTHER INSECTS.

DESTROY snails; look for them in a morning or evening, and after showers of rain in particular, upon the apricot, peach, and nectarine trees: otherwise these vermin would gnaw and eat the fruit.

And where small destructive insects, or vermicular blights prevail in any kind of wall-trees, &c., annoying the leaves, tender young shoots and fruit, and greatly retarding their growth, should continue to use every probable means to extirpate them as much as possible, as intimated in the two immediately preceding months.

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THE PLEASURE OR FLOWER GARDEN.

## TRANSPLANTING ANNUALS.

Now plant out all the hardier kinds of annual flowers, as also many of the tenderer sorts into the borders, beds, and other different parts of the garden where they are to remain for flowering.

The sorts proper to plant out now are French and African marigolds, chrysanthemums, persicaria, the tree and purple amaranthuses, the egg plant, stramonium, palma Christi, love-apples, Jacobæa, yellow sultan, nolana prostrata, scarlet convolvulus, and the tobacco plant.

Plant out also the marvel of Peru, balsams, and capsicums, the China asters, Indian pinks, Chinese hollyhocks, mignonette, and ten-week stocks, with the large convolvulus, and such like sorts; but the last generally succeeds best when sown where it is to remain: also, among the above, may plant in

the borders, &c., for the greater variety, some of the common sorts of cockscombs, and globe amaranthus, &c.

Observe that all the above and such other annual plants as are now to be transplanted, should, if possible, be removed in a showery time.

Let them be carefully taken up with balls, or at least with as much earth as will readily hang about their roots; and in that manner plant them in the beds, borders, pots, or other parts of the garden.

As soon as planted, give every plant a little water; and in dry weather repeat the watering occasionally, till they have all fairly taken root.

Observe, according as the different kinds of these plants advance in height, to let them be properly supported with sticks; for the beauty of these sorts depends greatly in being neatly trained with upright stems.

#### TENDER ANNUALS.

THE prime cockscombs and globe-amaranthus, double balsams, double stramoniums, and egg-plant, and such other curious annuals will now need to be often refreshed with water.

These plants being in pots, and still under frames and glasses, will in hot sunny weather, require watering almost daily, or, at least, three times a week; applying it generally of a morning or afternoon, or towards the evening.

The plants must also be allowed a good share of fresh air every day, either by raising one end of the lights, or drawing them open two, three, or four inches, &c.

The early balsams that are in flower, and grown to any tolerable size, and also the combs and such like, as are pretty strong, and of the requisite advanced growth, may be brought into the open air, towards the middle or latter end of this month.

#### HARDY ANNUALS.

If any of the patches of hardy annuals in the borders remain too thick, let them now be thinned in the order directed last month, and give water.

May still sow some quick-flowering annuals to blow in autumn, such as ten-week stocks, candy-tuft, virgin stock, mignonette, &c.

## TULIPS, CROWN IMPERIALS, JONQUILS, &amp;c.

TULIPS will now be mostly, in general, past flowering, and their leaves decaying; it is then proper time to take up the roots where intended, and to separate the offsets.

Let this be done in dry weather; and as soon as they are taken up out of the ground, spread them upon mats a little in the shade from the mid-day sun, to dry.

When they are thoroughly dried, and somewhat hardened, let them be very well cleaned, and separate all the offsets from the large roots; and then put up each sort, separately, in bags or boxes, or upon shelves; and the whole kept in some dry apartment till September, October, or November; at which time plant them again.

Take up also, where it is intended, the roots of crown imperials, narcissus, and jonquils, snow-drop roots, and the roots of spring crocus, and such other bulbous roots as have done blowing, and whose leaves decay, and which shall seem necessary to be taken up, agreeably to the hints given last month, of the utility of taking up bulbous roots soon after they have done flowering.

Let them, as soon as taken up, be separated from the increased parts; that is, from the small roots commonly called offsets; and these, after another year's growth, will also produce flowers; when the offsets are taken off, let the roots be spread thin each sort separately, upon mats to dry; when that is effected, part the offsets from the principal bulbs, and let the whole be cleaned, and put up till the season for planting, which may be done in September or any time in October, November, and beginning of December, in open, mild, dry weather; but you may plant the small offsets a month or two sooner, or directly in beds.

This is also a proper time to transplant bulbous roots that have done blowing, and whose leaves are on the decay.

That is, the bulbs, when their stalks and leaves decay, may then be taken up, and the offsets all taken away from the main roots: then prepare and dig the ground; when that is done the principal roots may either, if thought convenient, be immediately planted again in the beds, or borders, &c., where they are to blow, or retained for autumn planting.

All bulbous roots, of the choicer kinds, particularly such as the capital varieties of tulips, hyacinths, &c., should generally be taken up annually soon after they have done flowering both

in order to separate the offsets, and to new-prepare the beds; and the most proper time for this is shortly after their flowering is past, when the leaves and stalks decay; for as then the bulbs cease growing, draw no nourishment, and being in an inactive state, is most certainly the only eligible time to remove bulbous roots either for keeping out of ground several months, or to plant again soon after.

The common sort of bulbous roots, when taken up and parted from the offsets, may then either be planted again directly, or may be dried and cleaned, as before said, and put in boxes, and kept three, four, or five months.

But the fine tulip roots, and hyacinths, in particular, should be kept above ground till about Michaelmas time, or a month longer: for they will shoot much stronger, and produce larger flowers than the roots that are in the ground all summer.

And also the crown imperials, orange lilies, narcissuses, bulbous iris, jonquils, and the like, that are taken up at the decay of the leaves, will likewise bear to be kept above ground several months; depositing them in some dry apartment till the season for general planting in autumn, &c.

#### GUERNSEY LILY, AND OTHER AUTUMNAL BULBOUS ROOTS.

MAY now transplant or remove any of the autumnal-flowering bulbs; such as Guernsey and Belladonna lily, &c.; the leaves will now be decayed, which is the proper time to remove them.

But these need not be taken up oftener than once in two or three years, especially the Guernsey lily, which is then most necessary to be done to separate them from the increased parts, or offsets; and by taking them up and parting them, and then planting them into a new prepared bed, or singly in pots of new compost, it will encourage them greatly, and they will shoot and flower much stronger.

They may either be replanted directly, or soon after removal, or housed till July or August, and then finally planted; and which, in the full bulbs, will all flower the same year, in autumn: and the offsets, after having one or two years' growth, will also flower in perfection.—See *July* and *August*.

These roots should generally be planted in pots of light sandy earth; or some in beds of similar soil; but it is most advisable to plant a principal part in middling pots, for the convenience of placing them under shelter in cold or bad weather, in autumn and winter.

They commonly flower in September and October; at which time those in beds should be sheltered occasionally, in very wet and stormy weather, either with a frame and glasses, or a covering of hoops and mats; and those in pots may be placed in a green-house, or a frame, &c.

And during the winter season, the beds or pots wherein the roots are deposited, should be sheltered with a frame and glasses; or the pots, &c., removed into a green-house, or frame, &c., as above advised, in their flowering state.

#### RANUNCULUS AND ANEMONE ROOTS.

THE ranunculus and anemone roots, that are past flowering, should also, as soon as their leaves begin to wither, be taken out of the ground.

There is a great deal of care required in taking up these roots, as being small, and nearly the colour of the earth they grow in: it should be done in a dry day, and when the ground is also pretty dry; or, for the greater certainty of finding all the roots, especially the anemones, and their small offsets, may sift the earth of the bed as deep as they are planted, which may be more readily effected if a light meliorating soil, paring it up neatly an equal depth, and so search for the roots among the little lumps of earth and stones that remain in the sieve.

When the whole of both sorts is taken up, let them be properly dried and cleaned, then deposited in boxes, &c., and place them in a dry room, till the time for planting them again in autumn and spring.

#### HYACINTH ROOTS.

If any of the early flowering curious hyacinth roots which were out of bloom last month, were then taken up, and laid sideways into a ridge of dry earth to plump and harden, they will now be in proper order to be taken up and housed.

Take them up in a dry day and clean them; then spread them upon mats in a dry place for a few days; and put them up in close and dry boxes, till September or October, &c.; then plant them again.

Where any hyacinth roots of the fine double kinds still remain in the beds where they blowed, they should be taken up in the beginning of the month, or when their leaves decay.

## MANAGEMENT OF AUTUMNAL FLOWERING BULBS.

THE beginning or middle of this month is still a proper time to take up, or transplant most kinds of bulbous roots as blow in autumn.

In particular, colchicums, autumnal crocuses, and narcissus, Guernsey and Belladonna lilies, &c., and such other autumnal flowering bulbs, or tuberous roots, whose leaves are decayed, and the roots not in a growing state.

When the roots are taken up, let all the offsets adhering to the remaining bulbs be taken away; the roots may then be planted again directly, or may be kept out of the ground some time; but not longer than the end of July, or till the first or second week in August; because, if kept longer out of the ground, they will not blow with any tolerable degree of strength in autumn, as all these sorts commonly flower in September and October; generally unattended by leaves, which come up soon after the flowers fade.

## CYCLAMENS.

THIS is a proper season to transplant cyclamens: the leaves being now decayed, may take up the roots and part the offsets, if any; then new-prepare the mould and plant them again.

The principal varieties of this small, but delicate flower, should mostly be planted in pots, for moving to occasional shelter; or some hardier sorts may also be planted in the ground, under protection of a warm south wall, &c.; for if in a more exposed situation, the roots would be liable to suffer in winter, and not flower well.

But when these roots are planted in pots, they may be moved into a green-house, or placed under a garden-frame in winter.

This plant generally begins to flower in February or March, and some in autumn and winter; grows but a few inches high; but the flowers are of curious structure, and delicately beautiful.

## PROPAGATE FIBROUS ROOTED PLANTS.

PROPAGATE perennial fibrous rooted flowering plants, by planting cuttings of the young flower stalks.

By this method, the double scarlet lychnis, lychnideas, double rockets, and several others of the like perennial plants, may be increased.

Let some of the stoutest flower-stems be cut off close to the

head of the plant; cut these into lengths of three or four joints each; plant them about four inches asunder, in a shady border putting two joints of the cuttings into the ground, and water them as soon as planted.

It will be a good method to cover the cuttings close with hand-glasses; for this will greatly promote their taking root, giving them necessary waterings.

#### TRANSPLANT SEEDLING PERENNIALS AND BIENNIALS.

TRANSPLANT from the seed-beds, the wall-flowers, stock July-flowers, sweet-williams, carnations, pinks, and columbines, &c., which were sown in March or April.

They must now be planted into nursery-beds about six inches asunder, and give them a good watering, to settle the earth properly about their roots.

The plants are to remain in these beds till autumn or spring, and are then to be planted out for good, into the borders or spaces where they are to remain, and in which they will all flower the next year in their respective seasons. Though, as to the stocks in particular, they having long naked roots, it is advisable to plant some at once where they are to remain in beds, borders, pots, &c.

Transplant also the hollyhocks, tree primrose, foxgloves, and pyramidal campanulas, Canterbury bells, and Greek valerian, single rose-campion, rockets, scarlet lychnis, and such other perennial and biennial plants as were sown two or three months ago.

These must also be planted about six inches apart in nursery-beds, there to remain till September or October, &c., by which time they will make strong and handsome plants; and may either then be taken up and planted out where they are to remain to flower, or some may remain till spring for final transplanting.

They will all flower next summer, and will make a beautiful appearance, provided they are properly disposed in a varied order in the borders and other compartments of the garden.

#### CARE OF BLOWING CARNATIONS.

TAKE care of the choice stage carnations; some of the forwardest will, probably, towards the latter end of the month, begin to break their outer cup or flower pod for flowering, but more generally not till July; at which time some particular sorts of the larger bursting flowers will probably require some

attendance, in order to assist their blowing in proper regularity.

One great article, in the beauty of this curious flower, is to have it open regularly; but this the larger bursting flowers do not always effect without some little assistance of the hand: therefore, in order to facilitate the equal opening of the flower pod, and more regular expansion of the petals, in such flowers particularly which discover a tendency to burst open irregularly, may carefully slit the pod or flower-cup, a little way down at top, on the opposite side, in two or three different parts, so as to promote the flower spreading regularly each way round.

This should be done just as the flower begins to break the pod, with a small pair of narrow-pointed scissars, cutting the pods therewith a little way down from each notch or indentation at the top.

But take good care not to cut the pods too deep at first, but rather open it but a little at each place; and, in a day or two after, if that is not sufficient, cut it down a little more.

But in doing this take care to leave so much of the bottom part of the cup entire as will answer the purpose of keeping all the petals, or flower-leaves, regularly together, that they may expand equally every way, in a circular order; and to assist which some florists bestow great pains in placing and spreading out the petals of the flower as much horizontally as possible, in proper regularity, in order both to enlarge the circumference and to dispose the flower leaves in a particular manner, to show the stripes and variegations to the best advantage; and generally place a sort of collar of stiff paper under the flower, on which to spread and support the petals more effectually regular.

However, the above care is only required or practised occasionally in some of the principal large flowers, or more generally of those of the bursters, than the whole flowers, which most commonly open more regularly, and form handsomer flowers than the others, with less trouble.

Though, as very probably these flowers will not be sufficient in blow before next month for the above practice, where it may be occasionally intended, the same intimations relative thereto are equally applicable at that time.

Remember that as the capital sorts of carnation plants in pots designed for stage flowers will be now considerably advanced towards flowering, it is proper, some time this month, to place them upon the allotted stage or stand, accordingly to remain



for flowering; but the top of the stage must not be covered until the flowers are open, and then the cover must constantly be kept on, to defend them from the sun and heavy rains.— See *July*.

The pots must be pretty often watered; they will require it at least three times a week. The rule is, to keep the early always moderately moist.

Likewise, let the flower-stalks of these plants, as they rise in height, be neatly tied up to the sticks. The stalk should be tied in several places, bringing it to touch the stick; but do not tie it too strait.

All other carnations, both in pots, beds, borders, &c., should now have the flower-stalks well supported as above: and where any are not yet sticked, it will now be most necessary to be done as soon as possible.

#### PLANTING CARNATIONS AND PINK SEEDLINGS.

THE carnation plants and pinks, raised this year from seed, will be ready by the middle of the month to be removed from the seed-bed into a nursery-bed.

Prepare for that purpose a bed or two, or as may be required, of good earth, three feet and a half wide, break the clods well, and rake the surface of each bed even.

In each bed, put in six rows of plants by line, placing them six inches asunder in the row. Water them gently as soon as planted; and in dry weather repeat the waterings at least once every two days, till they have taken good root.

In ten or twelve weeks' time, if advanced in full growth, they should be removed again into another bed; they are then to be planted a foot asunder each way. Some of them may also, at that time, be planted out into the borders among other plants.

They will all flower next year, and, when in flower, should be examined with good attention: for out of the whole there will no doubt be some new, and also very good flowers, and these are to be then increased by layers, pipings, or cuttings, slips, &c., according to the general method: laying and piping is a sure method to propagate the sorts you desire; for the layers, &c., raised this year, will flower next summer, and produce invariably the same sort of flowers, similar in colour, stripes, and every character to those of the mother plant; but it is not so with the seedlings; for if you sow the seed of the finest carnation or pink, &c., it is probable you will not obtain one flower in return like the original, and, perhaps, not many that can be

reckoned very good flowers, so variable are they from seed; and on the contrary, there will sometimes, as above said, come many new and valuable flowers from seed; so that sowing some seed every year is the only way to obtain new varieties; and these increased and continued the same by layers and pipings, &c, as above remarked, and as directed below.

#### LAYING CARNATIONS.

PROPAGATE carnations by layers. This work is generally begun about the middle of this, and continued, according as the shoots of the plants become fit, till the end of next month: observing the proper parts for laying are principally the young bottom shoots of the same year, when about five or six inches long, and their stems of some tolerable strength: and which are to be layed, the flower part into the earth, as they remain in growth on the parent plants.

The general method of performing the operation of laying the plants is this:—

In the first place, provide some rich light mould, in a wheelbarrow or basket, and a parcel of small hooked sticks, or pegs, cut about three or four inches long, with which to peg the layers down; together with a sharp penknife.

Having these ready, clear away the weeds, and any litter about the plants; then stir the surface of the earth a little; and where necessary, occasionally, may add thereon as much of the above provided light mould as will raise the surface round each plant to a convenient height, so as to receive the shoots or layers readily.

When this is done, proceed to prepare the shoots in order for laying, in the following manner;—

Pull off the leaves of the lower part of the shoot; but let those above, and which grow upon the head of the shoot, remain, only cutting away about two or three inches of the tops evenly; then about the middle of the shoot, on the under side, fixing upon a joint, place your sharp knife towards the lower part, cut half away into the joint slantingly upward, slitting the shoot accordingly from the said joint, rather more than half way up towards the next joint above.

Then make a small neat opening in the earth one or two inches deep, and lay therein the stem and slit part of the shoot, with the cut open, and the top an inch or two out of the earth, and secure it there with one of the hooked sticks, raising the top of the shoot gently upright, and so as the slit at bottom

may keep open; then cover in that part and the body of the shoot with more of the same mould; and in that manner proceed, laying all the shoots of each plant or stool.

As soon as all the shoots belonging to one plant are layed, give them a gentle watering, which will settle the earth regularly about all the layers.

The waterings should be, in dry weather, often repeated; but let it be done with moderation, and always lightly, so as not to disturb or wash the earth from the layers.

In six weeks' time, or thereabout, the layers will be finely rooted, and are then to be taken off from the old stools and planted, some of the best singly into small pots, and the rest into nursery-beds, there to remain till October; at which time part may be taken up with balls of earth about their roots, and planted in the flower borders; and some of the principal sorts plant in small pots; and the others may remain in the nursery-beds all winter; and in which season some of the choicer sorts in pots may be placed in garden frames, or where they may be protected in time of hard frosts, snows, &c., and in the latter end of February, or in March, or April, are to be finally transplanted, some into larger pots, and the rest into the borders, &c.

They will all flower in good perfection next summer, and afford a supply of layers for further increase.

#### DOUBLE SWEET-WILLIAMS AND PINKS.

DOUBLE sweet-williams and pinks may also be increased by laying down the young shoots as above.

The shoots of those plants will be ready for laying towards the latter end of the month: and are to be prepared and layed in the same manner as the carnations.

The layers of carnations, pinks, double sweet-williams, and the like, raised this year, will all blow next summer.

#### PROPAGATING PINKS AND CARNATIONS BY PIPINGS OR CUTTINGS.

PROPAGATE also pinks and carnations by pipings or cuttings of the young shoots, which is a neat and expeditious method of propagating, and is more peculiarly adapted for pinks; and by which they may be very quickly raised in great abundance, as is the practice of the London gardeners, who raise great quantities annually of all the capital sorts for Covent-garden, and other markets of that city.

The operation is commonly called piping, and is performed

by planting the detached top part of the young bottom shoots, of the same year's growth, as follows :—

About the beginning or middle of this month, the plants will have made proper shoots for this operation ; however, any time in this month to the end of July, the pipings may be taken off, observing you are to take only the young upper part of each shoot ; and if the piping or cutting hath, when taken off, two or three full joints, it is sufficient ; taking them off either with the hand, pulling the head of the shoot gently, it will readily part and come out of its socket, about the third joint from the top ; hence it is called piping, cutting away any soft tender part at bottom close to the joint ; or may detach them expeditiously with your knife, cutting them close below a joint, with generally about three joints to each : and then let them be trimmed and planted as follows :—

Having produced a quantity of pipings as above, pull away the lower leaves, and let the top leaves of each be cut pretty short, evenly together, and the lower end of the piping cut to two or three short, distinct, full joints, cutting the bottom part even, close to that of the lowermost joint ; they are then ready to be immediately planted, which should be in a bed, border, or largish wide pots, &c., of light rich mellow earth ; previously sifting, or well breaking and raking the earth very fine, and make the surface level and smooth.

Then proceed to planting them : take the pipings one by one between the finger and thumb, thrust them gently near half into the earth, or as far as the leaves, and about an inch and half asunder, without making any previous hole, especially if the earth is fine, the pipings will readily make way for themselves ; and as soon as a quantity is thus planted, give directly a gentle watering to settle the earth closely about each piping.

Then if these pipings are covered closely with hand-glasses, it would be a great advantage in forwarding their rooting. Or to have some rooted as soon as possible, they may be greatly forwarded by plunging the pots in a bark-bed of a hot-house, &c., or other hot-bed ; covered also with hand-glasses : shaded and watered ; however, they will also root tolerably in the full air, without these assistances of glasses, &c., proper for transplanting in six or eight weeks.

Let them be shaded from the sun from about nine or ten in the morning, till three or four in the afternoon : or some being planted in a shady border will not require shading ; and the

whole must have occasional watering, just to keep the earth moderately moist.

Thus the pipings will readily put forth roots, and advance in growth: when give those under glasses full air; and the whole plenty of water: and in a month, to five, six, or eight weeks, according where situated, as above, they will be of proper advance for transplanting into nursery-beds.—See *July*, &c.

*Note*.—Pinks may also be propagated by slips of the one year's side shoots of last summer, planted some either occasionally now, or principally in March, April, May, &c., detaching them three or four to five or six inches long; and planted clean down to their top leaves, and water them.—See the spring months.

#### TRAINING AND ORDERING FLOWER PLANTS.

CONTINUE to support with sticks all the tall growing flowering-plants, and long stragglers and climbers, according to their growths.

This work should be duly attended to, for there is none more necessary, in a flower-garden, than to have the general flowering plants standing firmly in their places, and neatly trained in an upright growth.

Likewise to climbing plants give proper support of sticks, &c., for they will now require that assistance.

Go round now and then among the perennial and biennial plants, &c., that are now flowering, and such as are still to come into flower; and when any grow disorderly, trim and train them to some regularity, cutting out or reducing any very rude rambling growths, and too long straggling shoots, whereby to continue the plants in some regular order; detaching also withered leaves, and decayed flower-stalks, &c.; and let such plants as require support have sticks, and tie them thereto in a regular manner.

Examine such plants as branch out so as to form heads. They should be somewhat assisted in their own way: that is, let all shoots that rise from the main stem stragglingly near the ground be cut off close: and any shoots from the head, that advance in a straggling manner from all the rest, should also be reduced to order.

Many of the larger kinds of annual plants should be treated in that manner; in particular the African and French marigolds, chrysanthemums, and such other similar large plants of rude branchy growth.

For by training these kind of plants each with a short single stem below, and cutting away any very irregular growth above, they will form handsome full heads, and blow more agreeably regular.

Cut down the decaying flower-stems of all such perennial plants as are past flowering, cutting them off close to the head of the plant, and clear the plants from dead leaves.

But where intended to save seeds from any of the seed-propagating kinds, leave, for that purpose, some of the principal flowering stems.

#### CUTTING BOX EDGINGS.

Cut box edgings: the beginning or middle of the month is the proper time to begin that work. It should be done in moist weather, or soon after rain; otherwise, if cut in hot dry weather, they are apt to become brown and unsightly.

These edgings should be cut very neat, even at top, and both sides; and should not be suffered to grow higher than two or three inches, nor broader than two.

Where the edgings of box are kept to near that size, they look exceedingly neat; but where permitted to grow four, five, or six inches in height, and perhaps near as much in breadth, they then have a very clumsy appearance, and make the beds and borders appear low and hollow.

#### REGULATING THE FLOWER-BORDERS, &c., AND SHRUBBERIES.

The general flower-borders, beds, shrubbery-clumps, and other ornamental compartments of flowers and shrubs, &c., in this garden, should always be continued remarkably neat in the best regular order; and kept very clean from weeds, and any disorderly growth of the plants regulated.

The above should generally be very well attended to in principal gardens: having particular care to exterminate all weeds in their first appearance, in any considerable growth, either by hoe or hand occasionally, performing the hoeing on dry days, cutting the weeds up clean within the surface; at the same time trim and regulate any disorderly growths in the flowering plants, &c., then let the borders be neatly raked.

The clumps or quarters that are planted with flowering shrubs and evergreens should also be kept exceedingly neat and free from weeds.

Examine the evergreens and flowering shrubs: where any have made remarkably strong disorderly shoots, they should

have the said shoots reduced to order, either by cutting them close, or shortening, as it shall seem most proper, so as to preserve a moderate regularity in the heads.

#### WATERINGS.

LATE-PLANTED shrubs and flowering plants should still be now and then watered in dry weather, likewise all the new planted annuals, and the seedling biennials and perennials lately planted or pricked into nursery beds.

Water also, in dry weather, all the pots of carnations, pinks, double sweet-williams, double walls, double scarlet lychnis, lychnideas, double rockets, rose-campion, and campanulas : and all other plants that are contained in pots.

They will want water at least three times a week, but in particular the small pots ; for these, containing but a small portion of earth, will consequently require to be often refreshed with water.

Likewise let the earth in the top of the pots, if inclining to bind, be lightly loosened to a little depth ; for this will not only appear neat, but will also encourage the plants.

Remember also to give water in dry weather to seedling auriculas and polyanthususes, and to all other small young seedling plants ; likewise to cuttings, layers, pipings, &c.

#### AURICULA PLANTS.

THE auricula plants in pots should, where it was not done last month, be now placed upon a shady border to remain all summer.

The pots must, in dry weather, be often watered ; the plants kept clean from decayed leaves, and the pots from weeds.

#### MOWING GRASS WALKS AND LAWNS.

Mowing of grass walks and lawns should be duly performed, according as they want it, before the grass grows rank.

The principal garden lawns, grass plats, &c., should generally be mowed about once a week or fortnight ; and if this be done in a complete manner, it will keep almost any compartments of grass in tolerable good order.

The edges of grass walks and lawns should also be kept trimmed in occasionally, very close and even, for this will add greatly to the beauty and neatness of them ; and should be particularly attended to in the edges of lawns, &c., immediately adjoining gravel-walks, and principal flower borders, &c.

## GRAVEL WALKS.

GRAVEL-WALKS should also, at this season, be kept extremely neat and clean, and frequently rolled.

Let all large weeds in these walks be cleanly picked out, and sweep the surface occasionally, to clear off all loose litter; and let the principal walks be rolled at least once or twice a week, with an iron or stone roller. But a good iron roller for that work is not only much easier for men to draw along, but will also make the surface of the gravel more equally firm, and smoother than any other.

## CUTTING HEDGES, &amp;c.

It is now time to begin to cut hedges, &c., towards the middle or latter end of this month, where it is required to have them kept in the neatest order, as several sorts will have shot out considerably, and want trimming; but remarking, those cut now will require cutting again the beginning or middle of August.—See *July* and *August*.

Therefore, to keep the principal hedges in neat, regular order all summer, they should have a first clipping some time this month, and a second and last cutting in August, as they will not shoot any more, or but very little, after that time the same year.

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THE NURSERY.

## INOCULATING APRICOTS, PEACHES, AND NECTARINES.

BEGIN to inoculate apricots, and also the early kinds of peaches and nectarines. This work may be begun towards the latter end of this month.

The above trees generally succeed the best when budded upon plum stocks, which have been previously raised from stones of the fruit, or suckers from the roots of plum-trees; and when they are two or three years old they will be of a right size for budding.

Mind that the cuttings, from which the buds are to be taken, be cut from fruitful healthy trees, and such as shoot moderately free.—See *Nursery* next month for the method.



## MANAGEMENT OF NEW-BUDDED AND GRAFTED TREES.

EXAMINE the trees which were budded last summer: the inoculation buds will now have made strong shoots, and probably some of the most vigorous will require support in their advanced growth, by the middle or latter end of this month; or more especially any in exposed situations.

In that case provide some straight clean sticks, about two or three feet long; and for dwarf-trees drive one down by each tree that has made a vigorous shoot: or in standards, tie them to the stem, in proper length above; and then in both of which tie the inoculation shoots to the stakes at two different places, and this will prevent their being broken or separated from the stocks by the wind.

Where it is required to have any of the above young trees form full heads as expeditious as possible, you may now, early in this month, to such as are intended for walls or espaliers, pinch or prune the young shoots produced the same year, from the inoculation bud, to four, five, or six inches, and they will soon put forth three or four lateral shoots the same year, near the stock, in the proper place, to commence the first formation of wall and espalier trees; it may also be practised occasionally to standards.

Look also to the grafts: remove any remaining clay balls, and loosen the bandages; and where any have made remarkably vigorous shoots, of some considerable length, and seem to need support, let some stakes be placed, as above, in the budded trees, and then let the strongest shoots be tied up neatly to them.

## INOCULATING AND LAYING ROSES.

INOCULATE roses: this is occasionally practised upon some of the curious sorts, which do not increase freely by the more general mode of propagating roses, by suckers from the root; for some sorts are often very barren of suckers, such as the moss, provence, &c., and therefore, where an increase of such kinds is wanted, it may be produced by inoculation; and this is the proper time.

They may be budded upon stocks of any common roses; but the best are the Frankfort and damask kinds.

Or roses of the above nature may also be occasionally propagated by layers of the present young shoots of the branches, according to the following intimations:—

## PROPAGATING HARDY EXOTIC TREES, &amp;c., BY LAYERS.

MAKE layers in the young wood of hard-wooded exotic trees and shrubs, particularly the evergreen kinds, or any other that do not root freely in the older wood.

Observing that it being the young shoots of the same summer's growth that are now to be layed, let such lower branches of the respective tree or shrub, as are best furnished with proper young wood, be bowed down gently to the ground, and secured there with hooked sticks; then let all the principal young shoots on each branch be layed about three inches deep in the earth, leaving at least two or three inches of the top of each shoot out of the ground.

They must be watered in dry weather, that the earth about the layers may be kept always a little moist in a middling degree; and many of the layers will be well rooted by Michaelmas, and fit for transplantation.

By this practice of laying the young wood, although adopted principally for some hard-wooded evergreens and others that do not root freely in older shoots, &c., may also, by the same means, propagate almost any sort of trees and shrubs: however, for the more general kinds, the common season for laying is either in autumn, after Michaelmas, or in February or March, choosing at these times the preceding summer's shoots.

## WATERING SEEDLING PLANTS.

GIVE water in dry weather to the beds and pots, &c., of small young seedling trees and shrubs.

This should be particularly practised to the seedling young cedars, cypress, pines, firs, and junipers; also to bays and hollies, evergreen oaks, and arbutus; and to all other small evergreen seedling plants; as also of the more curious or principal deciduous kinds, as well as to those of the herbaceous tribe.

In the above watering of these young plants, generally apply it moderately, not to wash the earth away from their roots which are yet but very small and tender. Two or three moderate waterings in a week, of a morning or afternoon will be sufficient.

## SHADING SEEDLING PLANTS.

THE beds of small young tender seedling plants should also be shaded in very hot days from the sun; but in particular the

tender exotic tribe, both several of the choicer evergreens and deciduous tree and shrub kinds, and to some of the more delicate herbaceous plants.

But they must not be shaded too close, nor yet too long at a time ; for that, in much continuance, would draw the plants up weak and tender ; so generally give only a slight shading from about eleven to two or three o'clock.

#### WEEDING AND HOING YOUNG PLANTS, &c.

WEED also with great care the seed-beds of young plants of every kind ; for weeds will at this time rise as fast as in April and May, and no labour should be spared to destroy them in time before they grow large ; but above all, in the seed-beds of small young plants, for there they are most liable to do the greatest damage.

Likewise now diligently destroy weeds by hoeing between the rows of nursery trees, shrubs and other plants, in dry weather, cutting them clean out of the ground.

#### WATERING AND MULCHING NEW PLANTED TREES.

WATER the choicer sorts of new planted young trees and shrubs, that is, such as were planted late in the spring. They should, where time would permit, be watered in dry weather about once or twice a week.

Do not forget, however, to give water now and then to the choicest evergreens which were transplanted in March and April, and frequently to all plants in pots.

Likewise, let some mulch be kept upon the surface of the ground, about the choicest kinds of new-planted young trees and shrubs, where the ground lies open to the scorching sun and drying winds ; for this is certainly of very great service. It will not only save some trouble in watering, by its preserving the moisture longer in the earth, but it will also protect the roots from the drying winds and sun ; by which means the plants will be able to shoot more effectively, both at root and top in stronger free growth.

#### TRANSPLANTING SEEDLING PINES AND FIRS.

In this month you may thin and transplant some of the young pines which were raised this season from seed.

This must not be done till towards the latter end of the month ; for the plants will not be fit to bear removal till

about that time, and it should be performed only in showery weather.

The pricking out these young seedling plants at this season is practised occasionally, both by way of thinning the seed-beds a little, and that the pricked out plants may gain some advanced growth by the end of summer.

Prepare for them some beds about three feet broad, and prick the young plants therein about three or four inches asunder every way, and then let them be watered.

They must be shaded from the mid-day sun till they have taken root, which is to be done by fixing some hoops across the bed; and every sunny day let mats be drawn over the hoops in the forenoon about ten o'clock, and taken off again in the afternoon about three or four.

Where this is duly practised, the plants will soon take root; and those which are pricked out at this season will get strength by Michaelmas, to enable them to endure the winter's cold better than if they remained in the seed-bed.

But the pricking out the plants at this season is only advised principally where the plants stand very close in the seed-bed.

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## THE GREEN-HOUSE.

Bring out all such plants as are still remaining in the greenhouse, the beginning of the month, except the more tender succulent kinds, which generally let remain till the middle or latter end.

When the plants are all brought out, let them be immediately cleared from dead or decayed leaves, and cut out any casual damaged shoots or branches and dead wood, and to give occasional regulating pruning in any very disorderly growths.

Then let the earth in the top of all the pots be stirred; and where it was not done in the former months, let a little of the earth be also now taken out of each pot, and then fill up the pots again directly with some new compost, and give each a little water.

When this is done let the head of each plant be immediately watered all over, for this will cleanse the leaves and branches

from dust, and will also refresh the plants, and make them appear lively and more agreeable to the sight.

#### MANAGEMENT OF ORANGE AND LEMON TREES WHEN BROUGHT OUT.

TAKE care of the orange and lemon trees. They will be now in bloom, and should be properly encouraged.

They should be well supplied in dry weather with water.

It should be given to these plants about three times a week at this season in dry weather, but once every two days will not be too much.

And to encourage these plants to shoot and flower strong, it would be proper to bestow one or more little dressings upon them as soon as they are brought out of the house.

That is, let the earth in the top of the tubs or pots be once more carefully stirred up or broken, and then over this spread a sprinkling of new mould; when that is done, give a light watering to settle the earth again close to the roots of the plants.

#### CARE OF ORANGE TREES IN BLOOM.

EXAMINE also the quantity of bloom upon the orange and lemon trees. They sometimes produce the flowers in considerable clusters, much more than is proper to be left to come to fruit; and this may now be regulated by taking off many of the blossoms.

But this must be done with care and regularity. In the first place observe the condition of the tree; and, according to its strength, leave a greater or less number of blossoms; but observing, at the same time, to leave a plentiful supply in moderation, to have the greater chance, out of the whole, of their setting a requisite production of fruit; therefore, thinning the flowers only principally where very thick or close, or in clusters, taking out the smaller, and leaving the most promising, strong, larger blossoms in proper abundance and regularity on their respective branches to furnish a moderate plenty of good fruit according to the different parts of the tree in some tolerable equality in the general production; for although the economical value of the oranges produced in this country is of but small consideration, they, in their different degrees of growth on the trees are beautiful, and agreeably ornamental.

And by thus thinning the superabundant blossoms, where considerably too numerous, will prove of greater advantage both to the growth of the trees, and the present, and future young

fruit now in embryo, to be expected from this year's bloom; for by thinning the superfluous moderately in a proper degree, leaving a sufficient abundance of principally the most promising best flowers, in some regular order, both for their ornamental appearance in growth and good production of fruit, succeeding their termination, the young fruit in embryo will thereby set more kindly and regular accordingly, in a competent plentiful production and good growth, and the trees being but moderately loaded with flowers and a progeny of young setting fruit, they will continue their natural growth in a free regular manner, and thereby nourish and bring forward their general fruit, in a proper regularity, in a handsome size of maturity.

The blossoms thinned off are valuable for making orange-flower water.

#### SHIFTING INTO LARGER POTS.

WHERE any green-house plants are in want of larger pots, they may yet be shifted into such, this being still a proper time, the beginning of this month to do that work.

In doing this, mind to turn the plant out of the pot with a ball of earth entire about its roots, and then pare off any very dry thickly matted roots round the outside of the ball, and take away also a little of the outward loose old earth round the side, and from the bottom; then place the plant into the larger pot, and fill up the pot with the new earth.

After that, give some water; this will make the earth settle in properly about the ball, and close it well about all the extreme roots.

When this is done, let the plant be removed to a shady situation, and where it is somewhat defended from strong winds. The plants are to remain there a few weeks, and then be removed to an open exposure.

#### WATERING THE GREEN-HOUSE PLANTS.

REMEMBER now, in dry weather, to let all the green-house plants be properly supplied with water.

They will, in general, want water in dry weather every two or three days; for, as their roots are all confined within the small compass of a tub or pot, they consequently can receive no nourishment but from the earth contained therein. It must, therefore, be a universal rule to keep the earth in the said pots or tubs at this season always moist.

But in very dry scorching weather, a watering once a day

will be requisite to many of the plants that are contained in small pots particularly.

If some mowings of short grass, or some dry moss, are spread upon the top of the earth of the tubs or pots of orange-trees, &c., it will preserve the moisture, and defend the roots of the plants from the sun and drying air, &c.

#### PLANTING CUTTINGS OF MYRTLES.

PLANT cuttings and slips of myrtle; that being the best and most ready method to propagate these plants.

This should be done in the third or fourth week in the month; the shoots of the year will then, generally, be advanced to a proper growth for this business.

In the first place, having either some largish wide garden-pots, or wide earthen pans, six inches deep, with holes at bottom, and fill them with good light earth; then proceed to take off the cuttings or slips; choose such shoots as are about three or four inches long; of the best firm growth: either cutting them off clean from the parent plant, or smaller ones slipped off neatly; pull away the under leaves, about two thirds up each shoot, and cut even any broken or ragged part at bottom, preserving the top entire; then plant them in the pots one or two inches asunder, and each cutting full two-thirds into the earth; and let them, as soon as planted, be lightly watered.

Then place the pots in a garden frame, and put on the glasses; or rather cover them down close with hand or bell-glasses, which will more effectually forward their rooting; shading the glasses with a mat every sunny day, from about ten till three or four o'clock; till the plants have taken root, which will be about five, six, or eight weeks' time.

But if the pots or cuttings could be plunged in a bark-bed in the hot-house, or in any hotbed, it would strike them considerably sooner; or also when plunged in a bark-bed, &c.; if covered down close with a hand-glass it would promote their rooting still more expeditiously.

Continue to give them water moderately about two or three times a week.

When they have got root, and begin to shoot at top, take away the glasses by degrees, that the plants may enjoy the free air, and not draw up weak.

Any young myrtles, &c., raised last year from slips or cuttings, still remaining thick in the nursery pots, should early in this month be transplanted singly, either into small pots or

some planted in beds in the full ground, six or eight inches asunder; giving the whole proper watering; they will grow strong in handsome bushy plants by September, then all potted off separately.—See *September*.

#### PLANTING CUTTINGS OF GERANIUMS, &c.

PLANT also cuttings of geraniums; all the shrubby sorts of this plant may be increased by that method; and also the African sage-tree, amber-tree, cistuses, and many other exotic shrubs.

The cuttings of these sorts may in some be three, four, or five, to six, seven, or eight inches long; others, of small slight shooting exotics, will not probably be more than two or three inches, and must be detached accordingly; plant them in pots, each sort separately, several or many in each pot, according to size, both of the pots and nature of the cuttings, and inserted two-thirds their length, and directly watered; treating them as above in the management of myrtle cuttings.

But cuttings of geraniums will also strike in a bed, border, or pots in the natural ground shaded from the full sun, and watered: or cuttings of these, and various other shrubby greenhouse exotics, may be planted in a bed or pots of light good earth, either under a frame and lights, glass-case, &c.; or covered down with hand-glasses, giving occasional waterings, and shaded in hot sunny days, many will strike root and grow; and in three months may be transplanted into separate pots.—See *September*.

But in the whole, a slight hotbed, or the bark-bed of a hot-house, in which to plunge the pots of cuttings, would greatly promote their early rooting.

#### PROPAGATING SUCCULENT PLANTS.

Now is the time to begin to prepare to propagate succulent plants by cuttings.

The sorts generally raised that way are euphorbiums and ficoideses; all the kinds of cereuses, sedums, and Indian fig, and such like kinds.

Therefore, when it is intended to propagate any of the above plants, or other succulent kinds, let some cuttings be now cut off from the respective plants, two or three to five or six inches in length, or more, according as they may occur on the different sorts of these kinds of exotics, in their peculiar growths; and as some sorts run up with tall naked stems, without branches



such as torch-thistles, &c., the top is sometimes cut off for planting, and the parent plant afterwards throws out side shoots, serving for future cuttings: then observing, that as most sorts of succulents are replete with moisture, which will flow considerably at the cut part at the base of the cuttings, they should, previously to planting, be laid upon a shelf in the green-house, &c., a few days till the cut humid part at bottom, where separated from the plant, is dried and healed over; otherwise, would be apt to rot in the earth, by the flowing moisture issuing at that part.

In planting them, it should generally be observed, that, on account of their succulent nature, to allot them a dry light sandy earth, or any light soil, in pots smaller or larger, as required; inserting one, two, three, or several in each pot, according to the size and nature of the cuttings.

Then either all placed in a moderate hotbed, or bark-bed; or some hardier sorts in a frame, under glasses, such as sedums ficoideses, or Indian figs, &c., but the whole, and more particularly the tenderer sorts of euphorbiums, cereuses, opuntias, and torch thistle, &c., would be greatly forwarded in rooting more effectively sooner, by aid of a bark-bed, &c., under glasses; observing, however, where placed, to continue the whole defended with glasses from falling wet and the full external air, and give occasional shading with mats in hot sunny days, till the cuttings are rooted; opening the glasses a little to give vent to internal moist vapour; and when the cuttings have struck, admit fresh air daily, and give a little water.

#### DECAYED MYRTLES.

Any myrtles, or geraniums, &c., with decayed heads, or that have dropped their leaves, may be pruned down a little, more or less; and some may be turned out of the pots and plunged into the natural ground, that they may recover sooner and more effectually, well watered, and repotted again in autumn.

#### INARCHING, &c.

INARCHING may still be performed upon orange trees, where it is desired to propagate them this way.

Lemons may also be inarched now; likewise citrons, pomegranates, and the curious kinds of jasmines, may still be propagated by that method of grafting.

## LAYERS OF GREEN-HOUSE SHRUBS.

Now make layers of green-house shrubs: there are several sorts that may still be propagated by that method; such as myrtles, jasmines, pomegranates, granadiles, and oleanders, and many other shrubby kinds.

In performing this method of propagating now, may either lay generally the young shoots of the same year, which will be of proper length by the middle or end of the month, and will the most readily succeed; or also, occasionally, any clean-growing moderate shoots of last summer.

Let, therefore, any eligibly placed proper branches and shoots be chosen: bow them down carefully, and let the young wood as above, be layed either in their own pots, or others placed near, and give proper occasional waterings; they will be rooted by the end of summer for transplanting.

## TRANSPLANTING SEEDLING EXOTICS.

Now transplant into separate small pots any young seedling exotics of the green-house, early raised this year, of some advanced growth.

Having for this purpose, some small pots filled with light mellow earth; set one plant in each pot, and give water moderately.

Then, in most kinds it would be of good advantage to plunge them in a bark-bed or other hotbed, under glasses, just to run them off a little at first; but, in default of this, place them either in a garden frame, glass-case, or green-house, &c.; or, at least, in some well sheltered situation in the open ground, shading them from the full sun, and give proper air to those under glasses, and the whole frequently watered.

## ORANGE STOCKS FOR BUDDING.

ORANGE stocks in hot-beds, &c., drawing up to proper stems for budding, give plenty of air daily, and proper waterings; and according as they advance in height near the glasses, raise the frame five or six inches, that they may shoot freely in a clean straight firm growth.

## THE HOT-HOUSE.

## GENERAL CARE AND MANAGEMENT OF.

THE hot-house should now be particularly attended to; the plants will often want water; must have also fresh air admitted daily, being two very essential articles; and still continue the bark-bed heat, but no fires.

The pine-apple plants of mature growth, now advancing in fruit, will want very regular attendance. These plants must now, for one thing, be duly supplied with water; they will, in general, require a little every three, four, or five days; but make it a rule never to give them too much water at one time.

All other plants in the hot house or stoves will also require frequent refreshments of water at this season.

Admit also to the pines, and other plants in the hot-house, a good share of fresh air. This must be done every warm day, for, without a due portion of air, the pines will not nourish their fruit well, nor the other plants be prosperous; therefore, in warm fine weather, about eight or nine in the morning, let some of the glasses be opened; that is, either draw some of the top glasses a little down, or slide some of the upright glasses in front a little way open, five or six inches to a foot width, or more, according to the heat of the day.

But the glasses must all be shut close every night; and the proper time to shut them is about four, five, or six in the evening, or earlier, if the air changes cold.

## CARE OF THE SUCCESSION PINE-PLANTS.

TAKE care also of the succession pines: that is, the plants which are to produce the fruit next year, and others advancing in younger growth in succession to these; all of which, as well as the plants now in fruit, must have a due share of attention.

These plants are sometimes placed in a detached stove or pit by themselves. Where this is the case, mind to allow them, every warm day, the benefit of fresh air, in the same proportion as advised above for the fruiting plants.

## PINE APPLES BEGINNING TO RIPEN.

Now as some of the forwardest pine-apples will be gradually arriving to full growth, and begin to ripen, be careful in this to give such of the plants but very moderate waterings at that period, as too redundant humidity would spoil the flavour of the ripening fruit.

The maturity is discoverable by the fruit, in most sorts, changing yellow, some of a blackish green, or dark greenish-yellow; and all generally imparting a fragrant odour; being careful at these tokens of mature growth to gather them for use just when they attain perfection, and before they become dead ripe, and lose much of their peculiar rich vinous flavour; generally cutting them from the plants with about six inches of the stalk thereto, and with the crown of leaves at top adhering, which, when the fruit is served up to table, is then to be separated, and returned, if wanted, for planting, as each such crown will form a new plant, and produce fruit in two years.—See *July* and *August*, &c.

## PROPAGATING HOT-HOUSE EXOTICS.

CONTINUE the propagation of the exotics of this department by seed, suckers, slips, layers, cuttings, offsets, crowns, &c., in pots of light earth, and plunge them into the bark-bed.—See *April*, *May*, and *July*, &c.

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JULY.

## WORK TO BE DONE IN THE KITCHEN GARDEN

Now prepare such pieces of ground as are vacant, in order to receive such seeds and plants as are proper to supply the table with necessary productions in autumn and winter; many crops will now require inserting, both by sowing and planting, some for temporary succession, and others more extensive for longer continuance, in full crops, for the above mentioned seasons: and should give very diligent attention to have them put in now in proper time, according to the directions for the different sorts under their respective heads.

## PLANTING SAVOYS AND CABBAGES.

Get ready, in particular, some good ground, to plant out a principal crop of savoy and winter cabbages.

Let an open spot of ground be chosen for these plants; and let it be properly dug, and immediately put in the plants. Let them be planted in rows two feet asunder, which at this season will be room enough, except for the large kind of cabbages, which should be planted two feet and a half distance each way. —A watering at planting will greatly promote the fresh rooting of all these plants.

## PLANTING BROCCOLI.

TRANSPLANT also a full crop of broccoli. The plants must now be planted where they are to remain; and for that purpose dig a piece of the best ground; and if previously dunged, it will be of greater advantage to this crop.

Let the plants be set in rows, allowing, at least, two feet between each row, and generally the same distance from one another in the row. Give them water as soon as planted; and if the weather should prove dry, let the waterings be repeated once every two or three days, till the plants have all taken root.

But for these plants, and also cabbages and savoy, and such like kinds, if showery weather happen at this time, should be particularly careful to take that opportunity to plant the principal crops; which will be an advantage to the plants, and will save much trouble in watering.

## SOWING BROCCOLI SEED.

Now sow also some broccoli seed to come in for a late spring crop. This is to be the last sowing, and should be done some time before the tenth of the month.

This seed should now be sown in a bed of rich mellow earth; and, in dry weather, should be now and then moderately watered; this will bring up the plants soon, and forward them in their growth.

The plants raised from this sowing will be ready to plant out for good in the middle and towards the latter end of August and beginning of September, and will produce small heads in April, and in the beginning of May.

## TRANSPLANTING ENDIVE.

PLANT out now to supply the table in autumn, a parcel of the strongest endive.

Endive requires good ground; and if dunged, it will be additional advantage; let it be regularly digged, and the rough surface raked even; then put in your plants the distance of a foot every way from one another, and water them as soon as planted. In dry weather the waterings must be repeated once in two days, till the plants have taken root.

## SOWING ENDIVE SEED.

Sow also some endive seed. The sowing is to raise a supply of plants for use the end of autumn, and for the principal winter crop.

Choose principally the green curled kind for the main crop: and may also sow some of the white curled sort, and the large Batavia endive, observing, of the green kind particularly, that for the greater certainty of procuring a regular supply all winter of good endive, it will be proper to sow some seed of that sort at two different times this month. Let some, therefore, be sown some time between the first and tenth; and sow the next parcel about the eighteenth or twentieth of the month. Dig for this purpose, a small, or moderate compartment of good light ground; directly sow the seed thinly, each sort separate, tread it down regularly, and rake it in with an even hand.

Give occasional watering, in dry weather; this will bring up the plants soon, and they will rise regularly.

## KIDNEY-BEANS.

PLANT a late crop of kidney-beans. Either the dwarf or running kinds may still be planted, or some of both; but most of the dwarfs for any main crops.

But the seed must be put into the ground the first week in this month, particularly that designed for a full crop; and may plant more about the middle and latter end of the month of the dwarf kinds, to continue the succession of beans in gathering till Michaelmas or longer; as they will, in mild autumns, continue till the middle or end of October; they may be planted in any situation where ground is vacant; dig the ground, and directly, when it is fresh turned up, plant the beans in rows, the distance advised in the former months.

But in planting these beans, it will now be proper to observe the following precaution :—

That is, if the weather be at this time very hot, and the ground also very dry, it will in that case be adviseable, before the beans are planted, either to water the drills, or lay the beans to soak in river or pond water, about five or six hours, and then, in either method, to be immediately planted.

But this soaking of the beans is only to be practised occasionally when the ground is very dry, and also in very dry hot weather; otherwise, in a more moderately dry season, it is better only to let the drills be very well watered, and then the beans may be immediately planted, and covered in with the earth about an inch to an inch and a half deep.

#### CAULIFLOWERS.

In the general crops of cauliflowers some will be still in good perfection, but do not require any particular care, only to break down some of the large leaves over the advancing flower heads to preserve them from the sun, rains, &c., close and firm, and in their white colour, &c.

Or any late spring-planted crops, advancing in growth for flowering this and next month, may be assisted by hoeing between and drawing some earth up about the stem of the plants.

The cauliflower plants which were sown in May, for the autumn crop, must now be planted out where they are to remain.

In planting this crop, it would be of essential advantage to take opportunity of showery or moist weather, if such should happen in proper time; plant them in rows, two feet, or two and a half asunder; and the same distance in the row; let them be directly watered, and afterwards at times till they have taken good root.

This plantation will begin to produce their heads in the beginning or middle of October; and will continue, sometimes coming in gradually, till the middle or end of November, or till near Christmas, if an open mild season.

#### SMALL SALADING.

Sow, where required, the different sorts of small salad herbs; such as cresses, mustard, radish, &c.

Where these small herbs are daily wanted, there should, in order to have a constant supply of such as are young, be some seed sown at least once every six or seven days.

This seed must either still be sown in a shady border, or shaded from the sun; sow them in drills; and in dry weather daily watered, otherwise the plants will not come up regularly.

#### ONIONS.

Sow some onions to stand the winter. This must be done in the last week of the month, and not before.

But the principal sowing is directed in next month; though it is proper to sow a few now, to afford some to draw also in autumn and beginning of winter; and may sow both of the common and the Welch onion; the latter stands the severest frost.—See *August*.

For this purpose dig a compartment of rich ground, and divide it into beds four feet broad. Immediately sow the seed tolerably thick, and let it be trod down evenly, and then raked in. The plants will soon rise, and will get strength by Michaelmas, to enable them to resist the winter's cold; when they will be very acceptable both to draw in autumn and winter, and in the month of February, March, and April, to use in salads, and for other purposes.

Mind, when the plants are come up, to let them be timely weeded, otherwise the weeds, which will rise numerously with the onions, would soon get the start, and destroy the whole crop

#### CARROTS.

In the first or second week in this month you may sow some carrot seed, to raise some young carrots for the table in autumn and winter.

The carrots raised from this sowing will come into use after Michaelmas, and will be very fine in October and November, &c., and continue good till the following spring.

Choose an open situation and light ground, which dig a proper depth, and directly, while fresh turned up, let the seed be sown moderately thick, and rake it in evenly.

When the plants are come up an inch or two high, let them be cleared and thinned to six or eight inches distance.

#### TRANSPLANTING CELERY.

Now is the time to plant a full crop of celery. Choose an open plot of deep soil for this purpose; dig out trenches about sixteen or eighteen inches wide, and from eight to twelve inches deep, and let the trenches be four feet apart, centre from centre. Lay six or seven inches thick of good rotten dung in the bottom



and dig it in ; or if the subsoil is bad, lay a few inches of rich vegetable compost over the dung, lift the plants carefully with a planting trowel, preserving a ball of earth at the root of each plant, and plant a row along the centre of each trench about seven or eight inches apart, plant from plant. Give a good watering when planted, and let this be frequently repeated in dry weather.

#### LANDING UP CELERY.

LAND or earth up the crop of early celery planted into trenches last month, or in May : break the earth moderately well with a hoe or spade, and trim it up neatly to both sides of the rows of plants, three or four inches high, repeating the earthing at this time about once a week, to have some blanched as early as possible. The earthing must be performed in dry days.

#### TURNIPS.

THE beginning and middle, or almost any time in this month, is a fine season to sow turnips, for the service of autumn and winter ; that is, the plants raised from this sowing will come in for drawing in September, and improve in growth in most excellent order from about Michaelmas till Christmas, and, if a moderate winter, will continue good till the following spring. It will be a great advantage, if there fall some rain, to take the opportunity of such times to sow the seed.

In sowing this seed, choose an open situation ; dig the ground, and sow the seed while it is fresh digged ; great care should be taken not to sow it too thick ; sow it as regularly as possible, and take the same care in raking it into the ground.\*

This seed is very small ; two or three ounces will sow ground enough for a middling or large family ; as that quantity of seed will sow at least fifteen or sixteen rods or poles of ground ; for when sown in fields, the common allowance is about a pound, or a pound and a quarter, or at most a pound and a half, to an acre of ground.

Hoe the turnips which were sown in June : do this in dry weather ; cut down all the weeds, and thin out the plants to at least seven or eight inches distance.

\* We always sow turnips in drills at twelve or fifteen inches apart, or a little more or less according to the size the turnips are intended to be grown. They are much more conveniently and expeditiously cleaned in this way.

## PLANTING OUT LETTUCES.

THIN and transplant lettuces; the Cos, Cilicia, imperial, and all the sorts of cabbage-lettuce, and brown Dutch kinds, &c., which were sown last month will now all want to be thinned to a foot distance, and a quantity transplanted.

For planting lettuces, generally allot them a spot of the richest ground; dig it neatly, and let the surface be raked even; then put in the plants by line; set them the distance of twelve or fifteen inches from one another, and the same distance between the rows.

Water them as soon as planted; and at times, till they have all taken root.

## SOWING LETTUCES.

Dig also a spot of the best mellow ground, and sow some lettuce seed, the Cos, Cilicia, imperial, large white, and the brown Dutch cabbage-lettuces, or some of each, are still the most proper kinds. Sow some in the first or second week, and let some more be sown in the last week in the month.

These two sowings will raise a proper supply of good plants to furnish the table regularly; the latter part of August, and all September till October, &c.

## SOWING WINTER SPINACH.

Now get ready some ground to sow some winter spinach, the latter end of this month, or beginning of August.

The best sort to sow for this crop is the prickly-seeded or triangular-leaved spinach; this being generally the hardiest to endure the cold and wet in winter. But this crop must not be sown till the last week in the month, and even then it is only advised where the soil is but moderately fertile, that the plants may get strength before winter. But in warm rich ground, the first week in August is time enough; for, sometimes, when sown sooner, the plants grow too rank, and run to seed the same autumn, or early in the spring.—See *August*.

Choose for this seed a clean dry-lying compartment of good mellow ground, that enjoys the winter's sun, and let it be neatly digged; and sow the seed directly, or soon after, while the surface of the ground remains fresh, mellow, and moist; sowing it in drills twelve or fourteen inches apart, moderately thick; and, if dry ground, tread the seed lightly down in the earth, and directly rake it well into the ground in the most regular manner.

## TURNIP-ROOTED RADISH.

Now is the very best time in the whole year to sow the large black turnip-rooted radish, for autumn and winter.

There are two sorts, one black, and the other white, and are generally known by the name of the black and white Spanish radish.

The black sort is in most esteem, is the best, and the most generally known and cultivated; grows as large as ordinary turnips, and very hardy to stand the winter, and is by many people much admired, for autumn and winter, to slice in salads, or eat alone, raw: the seed may be sown any time this month, sowing some in the beginning of the month, for autumn; and sow the principal winter crop, between the tenth and twentieth; they should be sown in an open space of fresh digged ground broadcast, and trod down, and raked in regularly.

When the plants have been come up some time, they must be hoed out to about six or eight inches distance; they will then have proper room to swell, and will be ready to draw for the table in September and October, attain full growth by November, and will continue good all winter.

Sow also some small Italian turnip-radish for autumn, principally of the white sort, and a smaller portion of the red; and those sown last month should now be thinned about three inches asunder.

## SOWING SHORT-TOP AND SALMON RADISHES.

Sow short-top and salmon radishes any time in the month to draw in August, if required; but for a good autumn crop to draw in September, sow some also of each sort in the last week of this month; let them all be sown in an open exposure, in new digged ground, and raked in equally.

## SOWING COLEWORTS.

This is now the time to sow a full crop of coleworts, to serve the family in autumn and winter, and some to stand till the spring, when the savoy and such like greens are all consumed.

What is to be understood by coleworts is any sort of cabbage-plants, which, when their leaves are from about as broad as a man's hand till they begin to cabbage, are most desirable open greens to use under the name of coleworts.

To have good colewort plants, sow some seed of the best sort of Yorkshire, Battersea, or sugar-loaf cabbage, and Ant-

werp kind: for these sorts being of a quick, close-hearting nature, even in their young growth, and boil most tender and sweet, are superior for coleworts; the large kinds of slow-hearting cabbage are improper; and the common, open, or field coleworts are now banished most gardens; and the advantage of sowing, for this purpose, the above sorts of cabbage-seed, is, that such plants as are not used by way of coleworts, may be permitted to stand to cabbage; and such of them from this sowing, as do not run up to seed in the spring, will cabbage at a very early time.

To have coleworts in plentiful succession for autumn and winter use, sow some seed the first fortnight, and towards the latter end of this month; and from these sowings they will be fit to plant out next month, for use in September, October, November, December, &c.

But let it be observed, that for a crop of coleworts to stand for general spring use till May or June, without running, the seed must not be sown before the fourth week in this month, or beginning of August, as if sown sooner they will be apt to fly up to seed early in spring.

As to the order of sowing and planting these different crops of coleworts, prepare for each sowing an open spot of good ground, and divide it into beds three or four feet wide. Sow the seed therein moderately thick, and rake it in regularly. The plants will come up in a week or ten days, and will be grown pretty strong in August and September, and are then to be transplanted. They must be planted out in rows a foot asunder, and about six or eight inches distant from each other in the row; but see the work of August and September.

#### PULLING FULL-GROWN ONIONS.

EXAMINE, towards the latter end of this month, the forwardest crops of bulbing onions; if any are at full growth, and their leaves begin to wither, take the roots out of the ground.

But it is rare that these roots are properly bulbed enough in full growth this month: in which case, by no means pull those intended for long-keeping onions, but permit them to continue in growth till August, and till the leaves begin to decay considerably: if however, any happen to be fully grown by the latter end of this month, manage them in the following manner; which will serve also as directions for the same work next month, when the onions in general will be fit to draw for keeping.

These roots must be taken up in dry weather; and as you

take them up pull off the gross part of the stalks and leaves, only observing to leave to each onion about three or four inches of the stalk. As soon as taken up, they should be spread to harden upon a clean and dry spot of ground, open to the sun; and there let them lie a week or fortnight, remembering to turn them once every two or three days, that they may dry and harden regularly.

When they have lain the proper time, they must then be gathered up, in a dry day, and carried into the house.

They must be laid up in a dry room; but let them be first well cleaned from earth and all loose outer skins, then bring them into the house in dry weather, spread them evenly on the floor, and let them be frequently turned over the first two or three weeks.

Let the windows of the room be kept constantly open in dry weather, for about a week or two after the onions are housed; and after that admit no more air, but keep the windows constantly shut; only observe to turn the onions over now and then, and pick out any that are decayed.—See *August*.

#### PULLING GARLICK AND SHALLOTS, &c.

PULL up also garlick and shallots, and rocambole, when full grown. This is known by the leaves; for when the root is swelled as much as it will, the leaves will then change yellowish, and begin to wither and decay; at which token of maturity the roots may be pulled up.

Observing, however, to let the main crops of these bulbs, designed for long keeping, have their full growth; that if they still continue growing, permit the whole to remain till next month; or only in the mean time, to draw some for present supply as occasionally wanted.

#### MELONS.

TAKE care now of the melons; and, in particular, of the lants in frames, whose fruit is beginning to ripen.

These plants must now be allowed a large share of fresh air every day, and occasionally shaded in hot sunny weather; but where the fruit is ripening give very little water, for much moisture would spoil the flavour; however, in very hot dry weather, the melon plants will require to be, at times, moderately watered, less or more, according to the nature and depth of earth upon the beds.

Therefore, in watering melons, should generally have some

attention to the nature of the earth and general depth on the beds; where a competent depth of at least eight, ten, or twelve inches of good rich substantial earth, the plants will need but moderate watering, and should be observed accordingly where the fruit is advancing to maturity and ripening; especially as the proper depth of good earth will retain the moisture of some considerable continuance; and the plants will fruit better, and not at any time require so much watering, as those in a smaller depth of earth, or that of a less substantial nature; and the less water there is given in moderation, on the necessary occasion, the more effectually the melons will set, and advance in growth, and ripen with a richer flavour.

But as the melon plants in general will now require necessary occasional watering, less or more every week, in warm sunny weather, let the precaution intimated last month be observed in that business.

Admit a large portion of air every day, by raising the glasses behind two or three inches.

Likewise give occasional shade, in hot sunny weather, from nine or ten to two or three o'clock.

Where any melon plants are considerably crowded with a superabundance of unnecessary, or useless unfruitful vine, prune out thinningly the superfluous and unprolific, and all the small fruitless runners; and if the leaves are very thickly placed darkening the fruit, cut some out also in a thinning order.

As in the frame melon plants the fruit will now be attaining full growth, and ripening, should now be careful to cut or gather them when of proper maturity, before too mellow ripe.

#### TO PROTECT MELONS FROM MUCH RAIN.

THE weather sometimes happens at this season to be very wet; when that is the case, the melon plants should, at such times, be occasionally protected.

The plants which are in frames can be readily sheltered, in such weather, with the glasses: but the plants which were planted out under hand or bell glasses are more exposed, and cannot be so readily sheltered; but as these plants are now full of fruit, all possible means should be used to protect them when the weather happens at this time to be uncommonly wet.

For the protection, therefore, of the bell or hand-glass melons, there is nothing more effective than the oiled paper frames, such as directed in the preceding month.

These frames are to be kept constantly over the beds; and

they will not only defend the plants from cold and wet, but when the weather happens to be very hot, they also answer the purpose of screening the plants from the too great power of the sun; and at the same time admit its influence through the pellucid oiled paper, both as to the light and heat in a proper degree, to promote the growth of the plants and fruit.

But where there is not the convenience of such frames, let some other method be practised, to defend the bell-glass melons.

For one thing, let the fruit, or at least as many of them as are swelled, or are swelling, be covered with the bell-glasses, that is, either move the fruit carefully under their own glasses, or, where there are any spare glasses, let them be brought and placed over the best fruit.

Or in default of the above conveniences to protect the hand-glass melons occasionally in very wet weather at this season, or cold nights, &c., may arch the beds over with hoop-bends, or any pliant rods, fixed in a low, arched form; and then when great rains happen, or an appearance of a cold night air, or wet falling, draw some large thick garden mats over the arches, or large strong canvass, such as that of old sail-cloth, and if painted will more effectively defend the plants from wet and cold.

But these kinds of covering of mats or canvass are only to be used occasionally, and not to remain on longer than just to defend the plants from heavy rains, and when there happens to be a cold night.

#### CUCUMBERS.

CUCUMBER plants now also demand care, and none more than those which were planted under hand or bell-glasses.

These plants will now be in full bearing, and therefore must be well supplied in dry weather with water. They will require it, in a dry time, at least once every other day, and sometimes in very hot dry weather they will require it daily, or every morning and evening, still continuing the glasses over to defend the head and main stems of the plants, having them raised below upon props.

Likewise attend to the cucumbers in frames; the glasses must now either be opened considerably, or occasionally drawn off every day in fine warm weather, according to the season; and in which may sometimes remain wholly off; or otherwise, if rather unfavourable weather, or much rain, may continue the glasses, and give plenty of free air above; and they may

thus be continued either occasionally, or generally, whereby to preserve the plants and fruit in a free clean growth; but in dry weather give plentiful watering; and when the glasses are kept on occasionally as above, raise one end to admit a large portion of free air to the plants.

In both the above crops of cucumbers, continue the runners trained along in some regularity, clear away all decayed leaves; and where very crowded in vine or runners, cut out, in a thinning manner, the most unfruitful and weakly; and the plants will continue fruitful till September, &c.

Continue to gather the fruit for the table of proper moderate growth, not too large, while of a bloomy-green colour.

#### CUCUMBERS FOR PICKLING.

ATTEND also to cucumber plants which were sown or planted in the natural ground to produce picklers.

The vines will now begin to advance, and should be laid out in regular order; but, where not done before, it would first be proper, early in the month, to dig and loosen the ground lightly between the holes of plants, not going too near to disturb the roots: and, as you proceed, draw some earth between and round the stems of the plants, in each hole, pressing it down gently, in order to make them spread different ways, also, to draw the earth up round each hole, to form a basin, to contain the water when given in dry weather, and let the runners of the plants, in advanced growth be trained out in proper regularity.

These plants must also, in dry weather, be well supplied with water; which in a very hot season, will be necessary every day.

#### ARTICHOKES AND CARDOONS

ARTICHOKES will now be advancing fast to perfection in full-grown heads, which, and the plants together, may be assisted in their present and future growth, by a little occasional culture.

On this occasion, it may be proper to intimate, that if desirous to have large full-sized artichokes, may to encourage the principal top-heads, cut off most of the lower small ones, or side suckers, in their young growth, or the size of large eggs; and these, in some families, are also prepared for the table—See *August*.

The maturity of full grown artichokes in perfection for the table is generally apparent by the scales of the head opening detachedly asunder and before the flower appear in the centre.



Likewise, observe generally, that according as all the full-grown artichokes on each stem are gathered for the table, to cut or break down the stems close to the ground, which, in some degree, encourages a bottom growth more effectually, in forming strong new shoots against winter.

Where cardoons are in request at the proper season, and where they were not planted out last month, it should now be done the first week in this.—See *June*.

#### GATHERING SEEDS.

GATHER seeds of all sorts according as they ripen.

Let this be done always in perfect dry weather, cutting or pulling up the stems with the seeds thereon, and dispose them spreadingly in some airy place where the full air and power of the sun have free access, in order to dry and harden the seed in a proper degree: observing to turn them now and then; and when they have lain a few days, or a week, or fortnight, according to the nature of the different sorts, the seed should then be beaten out, and well cleaned from the husks and rubbish, and put up in boxes or bags.

#### LEEKs.

TRANSPLANT leeks: choose a piece of good ground, and it will be an advantage to the plants to dig in some mellow rotten dung.

When the ground is dug, may either proceed to plant the leeks in continued rows; or mark out beds four feet and a half broad. Then draw up a quantity of leeks from the seed beds: choose the strongest plants, and trim the roots, and cut off the tops of their leaves; then plant them either in continued rows nine by six inches asunder, or in beds as above, six rows in each, and six inches distance in the rows.\*

#### GATHERING HERBS FOR DRYING AND DISTILLING.

GATHER mint and balm, pennyroyal, sweet-marjorum, as also carduus, hyssop, sage-tops, lavender-spikes, marigolds, and camomile flowers; and other aromatics which are now advancing towards flowering, in order to dry, to serve the family in winter.

\* We prefer planting leeks in continued rows, twelve or fourteen inches apart, and five or six apart in the rows. In planting, make the holes large; insert the greater part of the plant into the holes, but do not press the mould about their stems; draw merely a little mould into the holes to cover their fibres. Ed.

These kinds of herbs should always be cut for the purpose of drying when they are in the highest perfection, nearly of full growth, and coming into flower; and some when in full flower, as lavender, marigolds, and camomile, for their flowers only. Let them be cut in dry weather, and spread or hung up in a dry airy place, out of the reach of the sun, that they may dry gently.

Likewise gather spearmint, peppermint, pennyroyal, lavender flowers, and other herbs to distil. Many of the proper kinds will now be arrived to full growth, and advancing into flower; and that is the proper time to cut all such herbs as are intended for the purpose of distilling.

#### PLANTING SAGE AND SAVORY, &c.

PLANT now, as soon as possible, slips of sage where it was omitted in the former months, and also the slips of hyssop, winter savory, lavender, rue, and such like herbs.

Choose such young side-shoots of the branches for slips as are about five, six, or seven inches long, of proper strength; they must be planted in a shady border, inserting them two-thirds of their length into the earth; give water at planting; and in dry weather must be often repeated.

#### GATHERING FLOWERS OF MEDICAL AND POT-HERBS

GATHER some camomile flowers, and the flowers of marigolds and lavender, to lay up for the future service of the family.

Let them be gathered in a dry day, and spread to dry in a shady place; then put them up in paper bags ready for use, as occasionally wanted, also lavender-spikes for distilling, &c.

#### SOWING AND PLANTING PEAS AND BEANS.

Sow a moderate successional crop of peas and beans in the beginning of this month; and put in a smaller crop about the middle, or towards the latter end, to try the chance of a late crop in September, &c.

The smaller kinds are properest to sow and plant now: such as the dwarf peas, Charlton, and golden kinds, &c., and of beans, choose the white blossoms, long pods, small Spanish, and maza-gan beans, and the like sorts.

Let the same methods be observed now in sowing and planting those crops as advised last month.

#### WATERING.

WATERING should at this time be duly practised in dry weather, to all such plants as have been lately planted out, till they

have taken root ; likewise to seed-beds lately sown, and where small young seedling plants are advancing.

This work should generally, at this season, in sunny weather, be done in a morning or towards the evening. The proper hours, in a morning, any time between sun rising and eight or nine o'clock ; and between the hours of four and eight or nine, in an evening ; as the watering at these times has greater effect, by the moisture having time to settle gradually into the earth, before much exhaled by the great power of the full mid-day sun.

#### CLEARING THE GROUND.

CLEAR the ground now from the stalks and leaves of all such plants as have done bearing.

In particular, clear away the stalks and leaves of the early crop of cauliflowers, and let the ground be hoed and made perfectly clear from all manner of rubbish and weeds.

Likewise pull up the stalks and haum of such beans and peas as have done bearing, and all such other plants as are past service, clearing away also all decayed leaves of cabbages, artichokes, and also such like rubbish litter, which both appear disagreeable, and afford harbour to noxious vermin ; and let all large weeds be at the same time cleared off the ground.

The ground will then appear neat, and will also be ready to dig, in order to be sown or planted with autumn or winter crops.

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### THE FRUIT GARDEN.

#### WALL TREES.

IN gardens where there are wall-trees that have not yet had their summer pruning and nailing, that very needful work should now be done in the beginning of the month ; otherwise, the fruit upon such trees will not only be small and ill-grown, but will also be greatly retarded in attaining proper maturity, as well as be of very inferior flavour, in comparison with the true flavour of these fruits.

And besides retarding the growth and debasing the taste of the fruit, it is also detrimental, in a very great degree, to wall and espalier trees, to neglect the summer ordering and nailing entirely till this time ; and in particular to apricots, peaches,

nectarines, and such like trees as produce their fruit principally upon the one-year old shoots.

Besides, it causes great perplexity to the pruner to break through and regulate such a thicket and confusion of wood ; requires treble the pains and labour, and cannot be executed with such accuracy as when the work is commenced early in the summer.

There is a very great advantage in beginning betimes in the summer to train the useful shoots in a proper direction ; and at the same time to clear the trees from all ill-placed and luxuriant and superfluous shoots ; for when the useless wood is timely cleared out, and the useful shoots laid in close and regular to the wall, the sun, air, and gentle showers, will have all along proper access, not only to promote the growth and improve the flavour of the fruit, but also to harden or ripen the shoots properly, which is absolutely necessary to their producing good fruit and proper wood next year.

But, however, where there are wall trees still remaining unregulated, do not fail to let that be done in the beginning of this month.

In doing this, observe, as is said in June, to cut out all very luxuriant wood, foreright and other ill-placed and obviously superfluous shoots ; but mind in particular to leave in the apricot, peach, and nectarine trees, figs, morello-cherries, &c., as many of the well-placed moderate growing shoots as can be conveniently laid in : and let them, at the same time, be all nailed in close and regular to the wall.

Do not shorten any of the shoots at this time, but let every one be laid in at its proper length, where room admits.

Look also again over such wall and espalier trees as were ordered and nailed the two last months : and see if all the proper shoots which were laid in last month keep firm in their places ; and where there are any that have been displaced, or are loose, or project much from the wall, let them be now nailed in again close in their proper position.

Likewise observe if there has been any straggling shoots produced since last month, in places where not wanted, let them now be displaced.

#### MANAGEMENT OF FIG-TREES.

FIG-TREES, if not yet had the summer regulation, should be regulated in the beginning of this month : cutting out only fore-right, and other ill-placed shoots, and any of very rampant

growth; but retain as many of the well-placed side and terminal shoots as can be conveniently laid in to have plenty to choose from in winter pruning, for next year's bearers, training them all at their full length; and nail the whole in close, straight, and regular to the wall.

#### VINES.

VINES should also be now looked over again, in order to clear them from all such shoots as have been produced since last month.

In vines, many small shoots generally rise, one mostly from every eye of the same summer's main shoots which were laid in a month or two ago; and the same small shoots must now, according as they are produced, be all displaced to admit all possible benefit of the sun and free air to the advancing fruit.

All other shoots, wherever placed, that have been lately produced, must also now be rubbed off close; and all such shoots as shall rise any time this month, should, according as they come out, be continually taken off, except where any good sizeable shoots advance in or near any vacant parts where a supply of young wood appears necessary; in which case it is proper to retain them, and train them in regularly.

Where the above regulation is duly practised, the bunches of grapes will be large and perfectly grown, and every bunch will also ripen more regular, and much sooner than where the vines are neglected and permitted to be overrun with useless shoots.—See *May* and *June*.

#### DESTROYING WASPS AND SNAILS ON WALL-TREES.

In early wall-trees, having fruit beginning to ripen, towards the middle or latter end of this month, hang up some phials filled with sugared water or beer, &c., in order to catch and destroy wasps, and other devouring insects, before they begin to attack the choice ripening fruit.

Let at least three such phials be placed in each of the largest trees; and in the lesser trees not less than two; and this would be more particularly expedient this or next month, in the early apricot, peach, and nectarine trees, and such like choice kinds; for the insects which generally begin to swarm about the ripening fruit of wall-trees, will, by the smell of the liquor be decoyed into the phials and drowned.

The phials should be often looked over in order to empty

out such insects as are from time to time caught therein. They should also be often refilled with a fresh quantity of the above sweetened liquor.

Continue also to destroy snails on wall-trees, &c., early in a morning and in an evening, and after showers of rain.

These vermin do most damage to the choice wall-fruit, and now in particular to the apricots, peaches, and nectarines; which trees should now be often diligently looked over, in order to take and destroy them.

#### BUDDING FRUIT-TREES.

BUDDING may now be performed in apricots, peaches, and nectarines, plums, cherries, and pears, any time in this month in most sorts; but the general principal budding may be performed successfully any time from about the middle of this to near that of next month at farthest.

Let every sort be budded upon its proper stock; apricots, peaches, and nectarines, should be budded upon plum stocks, they generally make the strongest and most lasting trees, when budded upon stocks raised from plum-stones; though all these sorts will also grow upon stocks of one another, raised from the stones of their respective fruits; and the peaches and nectarines succeed also upon almond stocks raised the same way; but the plum-stock is always preferable for the general supply.

Pears may be budded upon pear-stocks; and these must be raised by sowing the kernels, as directed in the work of the *Nursery*. Pears also succeed well upon quince-stocks, and are more generally adopted, on which to bud pears to dwarf them for wall trees, &c., and will bear sooner.

Cherries are to be budded principally upon cherry-stocks, which must be also raised by sowing the stones.

And plums should be worked principally upon stocks of their own kind, raised from the stones of the fruit.

Such cherries, plums, or pears, as were budded last summer or grafted in the spring, and miscarried, may now be budded with any of the same kinds of fruit; for these trees will succeed either by grafting or budding.

Budding generally succeeds best when performed in cloudy weather, or in a morning or an evening; for the great power of the mid-day sun is apt to dry and shrink the cuttings and buds in some degree, that the buds would not so readily part from the wood of their respective shoots proper for insertion.

However, where there are large quantities to be budded, it must be performed at all opportunities.

In performing this work, it must be observed, that where the trees are to be raised for walls and espaliers, the budding must be performed low in the stock : that is, the height of five or six inches from the ground and at five or six feet for standards : but for the method of performing this work, see the work of the *Nursery* for this month.

Budding may also be performed occasionally upon trees that bear fruit.

What is meant by this is, where there are wall or espalier trees, that produce fruit not of the approved kinds, such trees may now be budded with the sorts desired ; and the budding is to be performed either upon strong shoots of the same summer, or upon clean young branches of one or two years' growth or more, and several buds may be inserted in each tree, in different parts ; by which means the wall or espalier will be soon covered with the desired kinds, and in two or three years after budding they will begin to bear.

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## THE PLEASURE OR FLOWER GARDEN.

### COCKSCOMBS, TRICOLORS, AND OTHER CURIOUS ANNUAL PLANTS.

Bring out now the cockscombs, tricolors, double balsams, and all other curious annuals as have been kept till this time in frames or in glass-cases.

When they are brought out, let them be immediately well cleared from all decayed leaves ; and at the same time stir the earth a little in the top of the pots, and then add a sprinkling of sifted earth over it.

When this is done, let the tall growing kinds be each immediately supported with a neat straight stake of a proper height, and let the stem of the plant be tied neatly to it in different places.

Then let every plant be immediately watered, not only in the pots, but let the water be given all over the head of the plants ; this will refresh them and clear their leaves from dust, and make the plants in general have a more clean, lively

appearance; they are then to be placed where they are to remain.

They must, in dry weather, be very duly supplied with water, and this must be practised in general to all such annuals as are planted in pots.

#### TRANSPLANTING ANNUALS INTO THE BORDERS, &c.

WHERE there are any kinds of transplanting annual plants still remaining in the nursery-beds, &c., they should in the beginning of the month be taken up with balls, or with as much earth as you can about their roots, and planted in the borders or places allotted for them to blow: observing, in this business, if showery weather happens in the proper time, it would be of essential advantage to take that opportunity in their transplantation.

Let every plant as soon as planted, be immediately watered, and such as have long stems must be supported with stakes.

#### THE CARE OF CHOICE CARNATIONS.

CONTINUE the attendance and care of the choice kinds of carnations to supply those in pots with proper waterings, and to support the flower-stalks both of these and all others in general in an upright growth.

In some choicer kinds, observe their flower pods; and as they begin to break for flowering, if any seem to advance irregularly, they may be assisted by opening the pods a little on the opposite side, as directed on the last month to promote the regular spreading.

To preserve these carnations longer in beauty, they should, when in bloom, be protected from wet and the mid-day sun, and from the depredations of vermin, such as earwigs, &c., which eat off the flower petals at the bottom.

The most ready method to do this, is to place the pots where they can be occasionally shaded and sheltered; but principally upon some kind of elevated stand or stage, which should be a slight wooden erection, having a platform about two feet, or two and a half high, and wide enough to contain two or three rows of pots; the length in proportion to the number of pots intended to place thereon; and to have the top covered with an awning supported at a convenient height to defend, but not to hide the flowers, and constructed with small rafters, in the manner of the roof of a house, or archway, a foot wider than the stage, and supported upon a row of posts on each side, or upon only one row of posts, erected along the middle.



The posts must be about two inches square, and stand about five or six feet asunder, of proper height to support the roof in such a manner as to defend the flowers from wet, and the scorching heat of the sun, and at the same time to admit of viewing them with pleasure.

The roof is, when the plants are in bloom, to be covered with painted canvass or oiled paper; or for want of these, with some large thick garden mats. And to prevent the approach of creeping insects, the bottom posts are sometimes placed through perforated, small leaden or earthen cisterns, which being filled with water, prevent the vermin from ascending the stage.

But in default of the opportunity of having such a stage as above, a temporary one may be made by ranging two rows of planks, either upon short posts half a yard high, or large garden pots turned the mouth downwards: and if these latter are placed in wide earthen pans of water, it will retard the progress of creeping insects from ascending to the flowers.

Do not forget to refresh the pots of these carnation plants in general with frequent waterings; they will require some every day or two in very hot weather.

Likewise observe to continue the flower-stalks of these plants tied up neatly to the sticks placed for their support.

#### SENSITIVE PLANTS.

THE sensitive plants, where any have been raised in the hot-beds of tender annuals, should still either be continued if but of small size, to forward their growth, or otherwise protected under glasses, &c., whereby to preserve their sensitive property, which is generally the most lively when kept in a hot-house.

But being raised as above, to some advanced growth, they may, during the summer, be preserved in a green-house, glass-case, or garden-frame under glasses; for when fully exposed to the open air, they lose much of their sensation, in which consists the principal merit of these plants, chiefly for curiosity.

These plants are singularly curious on account of their leaves consisting each of numerous minute pinnae, which, on the least touch, quickly contract themselves, and do not recover again in less than an hour.

#### LAYING CARNATIONS AND DOUBLE SWEET-WILLIAMS.

CONTINUE to lay carnations to propagate them; and also double sweet-williams.

This work may be performed any time in this month; but the sooner it is done the better; and the same method is to be practised now, as directed in June.

Examine the layers from time to time, and see they keep securely in their places; where any have started, let them be pegged down again in their proper position.

Let them, in dry weather, be often watered; and let this always be done with moderation.

#### TRANSPLANTING CARNATION LAYERS.

TAKE off and transplant such carnation layers as were laid about the middle or toward the latter end of June. They will, by the last week in this month, be tolerably well rooted.

Let them at that time be examined, and if they have made tolerable roots, let them be taken off with great care, cutting them clean off to the old stool, and raise them carefully out of the earth with as full roots as possible; then let the lower naked part of the stalks be cut off close to the slit rooty part of the layer; and cut off the tops of the leaves, and let them be immediately planted.

The layers may either be planted in beds, or the choicest kinds planted singly in small pots; and set the pots immediately in a shady place; and let the whole be directly watered and this repeated occasionally till the plants have taken fresh root. They are to remain in growth in the beds or small pots till October, &c., or following spring, then to be transplanted with a ball of earth about the roots into larger pots, borders, &c., where they are to remain to blow.

But the layers of the common kinds of carnations, should, when taken off, be planted in beds of rich earth.

Let the beds be three or four feet wide, and rake the surface even; and then plant the layers in rows, about six inches asunder, and let them be directly watered, continuing them in this bed to get strength till October, November, or February, or March: they are then to be taken up with balls, and planted in the borders.

#### PROPAGATING PINKS BY PIPINGS.

STILL may plant cuttings or pipings of pinks, &c., the beginning or middle of this month for propagation, in the manner related in June, taking the young shoots of the year; they will yet take root freely. See *June*.

## TRANSPLANTING PERENNIAL PLANTS.

TRANSPLANT where it was not done in June, the perennial and biennial plants, which were sown in March, or April, &c.

The wall flowers and stock July flowers in particular, will now want transplanting from the seed-bed, and also the sweet-williams, columbines, Canterbury, or pyramidal bell-flowers, with the Greek valerian, tree primrose, single scarlet lychnis, and rose campions; French honeysuckles and hollyhocks, carnations, pinks, rockets, scabious, campanulas, and all others of the perennial and biennial kinds.

They should now be planted in nursery beds. Prepare beds for that purpose, three feet and a half broad; rake the surface even, and then immediately put in the plants, each sort separate, five or six rows in each bed, and about six or eight inches asunder in the row: let them be directly watered, and occasionally afterwards, till they have struck good root.

Let them remain in these beds to acquire a proper growth and strength for a final transplantation next October, November, or in the spring; then taken up with balls, and planted in the borders, or where intended; or some of the more curious may also be planted in pots: all of which will flower in perfection next year.

But of the stock July flowers, I would advise to plant a good portion at once, where they are to remain in beds, borders, or pots, as explained in June.

## AURICULA PLANTS IN POTS.

Look now and then to the choice auricula plants in pots. When dead leaves at any time appear upon the plants, let them be immediately taken off, and let no weeds grow in the pots.

The plants will also in dry weather require to be pretty often watered, and this must not be omitted.

Where any of the above plants furnish strong bottom offsets from the root, they may be detached and planted in a shady border, giving proper waterings.

TRANSPLANTING THE SEEDLING AURICULAS AND POLY-  
ANTHUSES.

TRANSPLANT the seedling auriculas which were sown last autumn, or early in the spring, as also the polyanthuses that were sown in the spring season; for it is now time to move them out of the seed-bed.

Choose a spot for them, well defended from the mid-day sun. Let the ground be very neatly dug; rake the surface even, and immediately put in the plants.

Let them be planted about four inches asunder, each way, observing to close the earth very well about them; and let them be gently watered. They must after this be kept clear from weeds, and in dry weather should be moderately watered every two or three days during the summer season.

#### TAKING UP BULBOUS ROOTS.

TAKE up bulbous roots where necessary to be done, agreeably to the hints given in the two former months.—Many sorts will now be past flowering, and their leaves will be decayed, and may then be taken up in order to separate the offsets from the principal roots; such as crown imperials, lilies, bulbous irises, and narcissuses; some late tulips and hyacinths, and many other bulbs.

Let them be taken up in a dry time, and separating the offsets from the larger or parent bulbs; some, or the whole may occasionally either be planted again soon after this removal, or more generally the main bulb; and larger offsets, properly dried, cleaned, and put up till October or November, when the borders and beds may be more conveniently dug, and the roots regularly planted.

The small offsets which are taken at any time from bulbous roots, should, as many as you want, be planted by themselves in a nursery-bed, and there remain a year or two to gather strength, and then are to be planted out among the other proper roots in beds or borders.

#### SCARLET LYCHNIS, &c.

THE double scarlet lychnis, and several other plants of the like kind, may still be propagated by cuttings.

The cuttings must be of the youngest flower-stems, or such as are not become hard and ligneous, and should be planted the beginning of this month, otherwise they will not root freely: they are now to be prepared and planted in the manner mentioned in the last month, and to be treated in every respect as there directed.

#### MOWING GRASS WALKS AND LAWNS.

Mow grass walks and lawns regularly in proper time, before the grass grows very rank, performing it generally in dewy

mornings, or when the grass is wet, about once a week or fortnight, which will keep the grass mostly in tolerable good order.

The grass walks, lawns, &c., should also be now and then rolled, to render the surface firm and even, and is a great addition to the general requisite neatness of all ornamental lawns, and other grass compartments; likewise proper rolling also renders the grass much easier to be mown; and with much more exactness and expedition.

The edges of grass bounding gravel walks, shrubby clumps, borders, &c., should be kept trimmed in close and regular.

#### GRAVEL WALKS.

GRAVEL walks should also be kept exceedingly clean and neat. Let no weeds grow, nor suffer any sort of litter to remain upon them; and let them also be duly rolled.

To keep these walks in decent order, they should, at this season, be generally rolled at least once or twice every week.

#### CUTTING BOX EDGINGS.

CONTINUE to cut or clip edgings of box where it was not done the former month.

Let this be done in a moist time: for when box is cut in dry hot weather, it is apt to change to a rusty brown hue, and make a very shabby appearance; observe in clipping these edgings to cut them regularly even at top and both sides; and to keep them pretty low, and do not let them get too broad.

Never let them grow higher than about two or three inches at most, and very little broader than two; they will then appear neat.

#### CLIPPING HEDGES.

Now also clip hedges in general, if not done in June. In doing this work, it should be observed, that such hedges as are trimmed in the beginning of this month will most generally need to be cut again in six weeks or two months' time.

Therefore, when only one cutting in a season is intended, any requisite clipping may either be performed now, any time this month, or deferred until the latter end thereof, or beginning or middle of August, according as opportunity or convenience may suit, agreeable to the above intimations; but where there are regular hedges of horn-beam, elm, lime, thorn, privet, yew, holly, or such-like edges in gardens, either by way of fence or

ornament, they should, in order to keep them perfectly neat and close, be clipped twice in the summer.

The first clipping should be performed about Midsummer, or within a fortnight before or after that time; and the second should be done in the beginning or middle, or, at latest, towards the latter end of August; and as they will not shoot again the same year, they will remain in close neat order till next summer.

#### REGULATING THE FLOWER BORDERS, SHRUBBERIES, &c.

CONTINUE to keep proper regulation and neatness in the general flower-borders, shrubberies, and other similar compartments; all which, at this season, should be preserved in the completest good order.

In the general principal flower-borders, beds, &c., should have particular attention to eradicate all weeds by hoeing or hand-weeding, as may be convenient, in proper time, in their early advancing growth; and carefully adjust any irregularity and unseemly disorder in the flower-plants; then let the borders and other compartments be run over with the rake neatly, clearing off all the loose weeds and other rough litter; forming a clean even surface; and thus the borders, &c., and their various flowers, will have a neat orderly agreeable appearance.

The clumps and other compartments planted with flowering shrubs and evergreens should also be kept very clean from weeds, especially where the shrubs stand wide enough to discover the ground, which when weeds appear, should be hoed, and then neatly raked.

Look at this time over the flowering shrubs and evergreens, and, with a knife, let such as are grown rude be trimmed.

That is, where any shrubs have produced strong and rambling shoots, so as either those of the different shrubs interfere considerably with each other, or of any particular shrubs, extending very disorderly in a rude, rambling, or straggling growth, let the shoots of such shrubs be now either cut out, shortened, or reduced in some order, to continue the head of the plant somewhat regular: and also that every shrub may be seen distinctly, without crowding upon one another.

Continue to stake and tie up the stems of such flowering plants as stand in need of support.

There are now many sorts that demand that care, and it should always be done in due time before the plants are broken by the wind, or heavy rains, or borne down by their own weight,

or become of any very irregular growth. And in staking or tying up the different kinds, observe, as said in the last month, to let every stake be well proportioned to the height of the plant it is to support; for it looks ill to see the naked ends of stakes or sticks standing up high above the plants.

Observe also to let the stems of the plants be tied up in a neat regular manner to the stakes, according to their nature of growth: and let the tying be also done in a neat manner, not suffering long ragged ends of the tying to hang dangling in sight: this is often disregarded, but it has a slovenly appearance.

Go now and then round the borders, and cut down the decayed flower-stalks of such plants as are past flowering.

But this is now principally to be understood of the perennial and biennial fibrous-rooted plants: many of these kinds will now be gradually going out of bloom, and the flower-stalks decaying; and which, according as the flower declines (except in such where seed is wanted,) should generally be cut down close to the head of the plant; and, at the same time clear each plant from decayed leaves; and thus the plants, though past flowering, will appear more lively and decent, and the advancing flowers of others will show to greater advantage.

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## THE NURSERY.

### BUDDING.—DIRECTIONS FOR PERFORMING THAT WORK.

Budding or inoculating trees and shrubs may now be performed in general, both upon fruit-trees, and various others occasionally, to propagate their different varieties; allotting each sort the proper stocks on which to bud them, generally of their own family, or nearly allied.

May now inoculate apricots, peaches, and nectarines in general, towards the middle of the month; and the proper stocks on which to bud these sorts are principally those of plums, raised most generally from the stones of the fruit, as directed in the work of the nursery for February, March, October, and November, &c.; and when the stocks are in the third year's growth, or when from about half an inch, or a little less, to about an inch in diameter, in the place where the bud is to be inserted, they are then of a proper size for that operation.

These stocks may also be raised occasionally by layers, to obtain stocks of some particular sorts of plums, more peculiarly favourable for some choice sorts of peaches, &c., than the chance seedling stocks.

And may now also bud plums, pears, and cherries; and let these sorts be also budded upon proper stocks.

Plums should be budded upon plum stocks, raised from the stones.—Pears succeed best when budded upon pear and quince stocks, raised by sowing the kernels; but the quince stocks are also raised from cuttings, or by layers or suckers from the roots of the trees.

The quince is the proper stock whereon to bud pears that are intended to be dwarfs for walls or espaliers; and those for full standards should be budded on pear stocks, or upon quince stocks for small standards, and on which they will generally bear sooner.

In performing the operation of budding fruit-trees, regard must be had whether the tree is intended to be a dwarf for the wall or espalier, or for a standard; and must be accordingly performed lower or higher in the stock; but remember that the head of the stock is not now to be cut off.

Where the trees are intended for the wall or espalier, the budding must always be done near the ground; that is, choose a smooth part of the stock at about the height of six or eight inches, and in that part of the stock let the bud be inserted.

This is the proper height to bud the stocks, in order to raise dwarf-trees, or common wall-trees, and for espaliers; they will then readily furnish the wall or espalier, from the very bottom, with proper bearing wood.

But when it is intended to raise standard trees, either common detached standards or for walls, &c., the budding must be performed higher in the stocks.

To raise full, and half standards, the stocks may be budded at the height of three, four, or even six feet. But for this purpose mind to choose stocks that are grown to a proper size, for this must always be observed when the stocks are to be budded at that height; or, for dwarf standards, may bud lower in the stocks, six to twelve or eighteen inches.

The manner of performing the work of budding, or inoculating, is this:—

In the first place, be provided with a proper budding knife, with a flat ivory haft. The haft should be somewhat taper, and quite thin at the end; which knife and haft is to be used as



hereafter directed ; and also provide some new bass mats for bandages ; and let this, before you use it, be soaked in water.

In the next place, you are to provide a parcel of cuttings of the respective trees from which you intend to take the buds ; these cuttings must be shoots of the same summer's growth, and must be cut from such trees as are in health, bear well, and shoot freely, minding to choose such shoots as have middling strength, and are free in their growth, but not luxuriant.

Having your cuttings, knife, bass, and every thing ready, then proceed in the following manner :—

Having recourse to the proper stocks for budding, the buds are to be inserted into the side one on each stock, at the height before explained ; the heads of the stocks to remain entire for the present, and continued till next spring ; only, preparatory to the budding, to cut away now any lateral shoots from the stock, near where the bud is to be inserted : then, in a smooth part of the side of the stock, with the above mentioned knife, make a cross cut into the rind or bark quite to the firm wood ; then from the middle of the cross cut, let another be made downwards, about an inch and a half or two inches in length, so that the two cuts together form a T, in which insert the bud.

Then get one of your cuttings or shoots, and take off the bud in this manner :—

You are to begin toward the lower, or biggest end of the shoot ; and in the first place, cut off all the leaves, but observing to leave part of the foot-stalk of each remaining ; then, about an inch below the lower bud, or eye, make a cross cut in the shoot, almost half way through, with the knife slanting upward, and with a clean cut bring it out about half an inch above the eye or bud, detaching the bud with part of the bark and wood thereto. Then immediately let that part of the wood which was taken off with the bud be separated from the bark in which is contained the bud ; and this is readily done with your knife, placing the point of it between the bark and wood at one end, and so pull off the woody part, which will readily part from the bark ; then quickly examine the inside to see if the internal eye of the bud be left ; for if there appears a small hole, the eye is gone with the wood, and is therefore useless for inoculation ; but if there be no hole, the bud is good, and is to be immediately inserted in the stock ; observing for the reception of the bud, to raise gently with the haft of your knife the bark of the stock on each side of the perpendicular slit, from the cross cut above, and directly introduce the bud with the bark-side outward, in-

serting it gently in between the bark and the wood, placing it as smooth as possible, with the eye of the bud in the middle, and with its central point upwards; observing, if the bud be too long for the incision in the stock, shorten it accordingly, when inserted, by a clean cut of the knife, so as to make it slip in readily, and lie perfectly close in every part.

Having thus fixed the bud, let the stock in that part be immediately bound round with a string of new bass mat, beginning a little below the cut, and proceeding upwards, drawing it closely round to about an inch above the top of the slit; but be sure to miss the eye of the bud, bringing the tying close to it below and above, only just leaving the eye of the bud open; tying the bandage close and neatly; and this finishes the work for the present.

In three weeks or a month after the inoculation is performed the buds will have united with the stock, which is discoverable by the bud appearing plump; and those that have not taken will appear black and decayed: therefore let the bandages of those which have taken be loosened; and this is done in order to give free course to the sap, that the bud according as it swells, may not be pinched; for were the bandages suffered to remain as first tied, they would cramp the buds, and spoil them. To prevent this, it would be most advisable to loosen them all in about three weeks, or, at farthest, a month after budding: which concludes the work till next March; as until which time the bud remains dormant, then it shoots forth with vigour.

At that time, i. e. the beginning of March, you are to observe that as the heads of the stocks are still remaining, they must then be cut down near the place of inoculation, that the whole nourishment may go to that part, for the growth of the advancing bud shoot to form the future tree; therefore, observing to cut down or head each stock either about a hand's breadth above the insertion of the bud; and this part of the stock left above, may remain till next spring; and will serve whereto to tie, for support, the main shoot, which the bud of inoculation makes the first summer; or you may head the stock down at once almost close near the bud, or but a little above, cutting behind it in a slanting manner upward. See new-budded trees in *March*, &c.

After this heading down of the stocks, the buds will soon after push forth strongly, one shoot from each, generally advancing in strong growth, two or three feet long the same year.

The most general season to bud or inoculate is from about the beginning and middle of this month, till near the same time in August, according to the forwardness in growth of the shoots of the different trees you would bud from; and this you may always easily know by trying the buds; and when they will readily part from the wood, as above-mentioned in the work, it is then the proper time to bud the several kinds of fruit, and other trees and shrubs that will grow by that method.

#### EXAMINING TREES WHICH WERE BUDDED LAST SUMMER.

Look over the trees which were budded last summer, and let all the shoots that arise from the stock, besides the bud shoot, be displaced; for these would rob the proper shoot of some nourishment.

The buds will now have made vigorous shoots; if any seem to require support, let them now be properly secured, either with stakes, or tied to that part of the stock left above the bud, when headed down.

#### GRAFTED TREES.

Grafted trees should also be at times looked over, in order to displace all such shoots as are at any time produced from the stocks, &c.

Examine also if any of the grafts have made such vigorous shoots as to require support, and let them be secured.

#### TRANSPLANTING SEEDLING FIRS.

This is now a proper time to thin and transplant some of the choicest kinds of seedling firs and pines.

But this is to be understood principally where the plants stand very thick in the seed-bed, and it is better (though at this season it is attended with trouble) than to suffer them all to remain in the seed-bed till the spring, because, where they stand very thick, they would be apt to draw, and spoil one another.

They will succeed very well when transplanted at this time, but require particular care to shade and water them.

Beds must be prepared for them about three or four feet broad; the surface must be raked even, and then put in the plants about three or four inches apart, and let them be immediately gently watered.

The plants must be shaded every day from the sun, until they have taken root: and this must not be omitted, otherwise

the full sun would soon exhaust their essentials of vegetation; and let them also be duly supplied with proper waterings in dry weather; both till fresh-rooted, and afterwards occasionally; but always moderately.

They will soon take root, provided they are duly treated as above directed; and will get some strength by Michaelmas, to enable them to endure the cold in winter; and those which remain in the seed-bed will have more room to proceed in a stronger growth, giving them directly a good watering, as soon as the others are thinned out, to settle the loosened earth close about their roots; and they will be mostly of proper growth for planting out as above, in autumn or following spring.

But, to repeat the caution, be sure to let such seedlings as are transplanted at this time be properly shaded from the sun, or all will be lost.

#### INOCULATING AND LAYING CURIOUS SHRUBS.

**INOCULATE roses.** This is to be understood principally of some of the curious kinds, such as the moss Provence, and others that seldom produce suckers, or at least but very sparingly; for it is by suckers, from the root that most of the common kinds of roses are propagated.

Therefore such kinds of roses as send up no suckers may be propagated by inoculation, and this is the proper time.

The budding is to be performed upon stocks raised from rose suckers that have been transplanted, from any of the common kinds.

Some sorts of roses as do not produce suckers may also be propagated by layers which should be layed in the autumn season; or some of the same year's shoots may be layed at Midsummer and the beginning of this month; and they will sometimes be rooted by Michaelmas.

Jasmines of some particular sorts being propagated principally by budding, such as the Italian and some other curious kinds, may now be performed in general any time this month; the common white Jasmine is the proper stock upon which to bud most of the sorts.

Some of the curious sorts of Jasmines may also be propagated by layers, but which should generally be laid in the spring, the young branches of the last year; or if some of the young shoots of the same year be laid in June, and beginning of this

month, they will sometimes put out the roots the same season, well rooted by autumn.

And some of the curious sorts may also be propagated by cuttings, particularly that called Cape Jasmine; but these should be planted in pots plunged in a hot-bed. This sort must be kept in the green-house all winter.

This is also the proper time to inoculate many other curious kinds of trees and shrubs, such as are occasionally propagated by that process.

#### WATERING.

WATERING in very dry weather must still be duly practised in the seed-beds of trees and shrubs, &c.

These beds of the more delicate kinds of small young seedlings, will, in a very dry time, require to be watered, at least once every two or three days; and it will be a great advantage to the growth of the young plants in general; but let the waterings be done with moderation; not to water too heavily, or to give too much at any one time.

#### CLEANING AND REGULATING THE NURSERY.

SHOULD continue proper care to keep the nursery clean and in decent regular order: let weeds be diligently eradicated wherever they appear in advancing growth; and particularly in the seed-beds of small young plants of any kind.

Nothing is so destructive in seed-beds as large weeds; they should be therefore always taken out with care, before they grow to any great head; for if permitted to grow considerably, and continue in a large over-running growth, they will do the young trees and shrubs of every kind more injury in two or three weeks at this season, than they would be able to recover in twelve months.

Let the nursery in general be kept always as clean as possible from weeds, for this will not only be an advantage to the plants, but it also looks well to see a nursery clean.

When weeds appear between rows of transplanted trees, such may be at all times easily and expeditiously destroyed, by applying a good sharp Dutch hoe to them in dry days.

One thing is to be particularly observed in the article of weeds; viz. not to suffer them in any part of the nursery to stand to perfect their seeds, for was that permitted, the seeds would shed upon the ground, and lay a foundation for a seven years' crop.

## THE GREEN-HOUSE.

## ORANGE AND LEMON TREES.

ORANGE and lemon-trees should now be well attended when the weather is dry, in order to supply them with water at least two or three times a week; or sometimes every day in very hot dry weather.

Where any orange and lemon trees have now a great crop of young fruit set upon them, should be looked over with attention, in order to thin the fruit, where they are produced considerably too close to one another in clusters.

In doing this, mind to thin them regularly, leaving no fruit too near to one another in clusters; and let the number of fruit on the different trees be proportioned in some degree to the particular strength and growth of each, leaving, however, a plentiful supply in moderation; thinning them only where in clusters, and where very thickly set; and generally leave the principal supply chiefly on such shoots or branches as have apparently strength enough to bring them to some tolerable proper size; and let the number of fruit on each branch be proportioned accordingly, being careful to leave the forwardest, most promising, and best placed fruit, not too many on a weakly tree, and observe a proper medium in general.

Those trees which have now a sufficient quantity of fruit set upon them may be divested of all flowers that afterwards make their appearance, if wanted for domestic occasions, so as there may be no unnecessary growth to exhaust the nourishment which is now so necessary to the growth of the new-set fruit.

REFRESHING THE ORANGE AND LEMON-TREE TUBS WITH  
NEW EARTH.

WHERE the pots or tubs of orange-trees were not lately refreshed with some new earth applied to the top a small depth in the former months, that work should now be performed; it will be of great use in forwarding the growth of the new-set fruit, and it will also greatly enliven the plants, and do them much good.

In doing this take care to loosen the earth in the top of the pots or tubs to a little depth, and take some out; then fill it up again directly with fresh earth, and give it some water.

## PROPAGATING VARIOUS EXOTICS BY CUTTINGS, &amp;c.

PLANT cuttings or slips of myrtles, to propagate them; also geraniums and African sages, cistuses, and several other exotic

shrubs, which may be propagated by planting cuttings of the young shoots thereof any time in this month ; but if done the beginning of the month, there will be the greater chance of their succeeding.

Several sorts will readily take root in common earth, without the assistance of artificial warmth, and particularly most of the shrubby kinds of geraniums ; but all the sorts of cuttings may be greatly forwarded if planted in pots, and plunged in a moderate hot-bed.

In choosing the cuttings, &c., let them be taken from such trees as are healthy and strong, and shoot freely. Choose proper shoots ; these should now be principally of the same summer's growth, taking them off in proper lengths, about three, four, or five, to six or eight inches ; but the myrtle cuttings not more than about three or four inches long ; and the geraniums may be five, six, or eight inches.

Having procured such cuttings as above, let the leaves be taken off more than half way up, and then plant them.

But although the above cuttings, and several others of the hardier sorts of green-house shrubs, will take root without the help of artificial heat, and particularly, as above hinted, all the shrubby kind of geraniums, also the myrtles, &c., which will grow in a bed or pots of common earth ; yet, if planted in pots and plunged in a gentle heat, either of any common hot-bed, or the bark-bed in the stove, &c., it would greatly forward their rooting.

However, when a hot-bed cannot be readily obtained, and that it is intended to propagate the myrtle, geranium, or any other of the common green-house shrubs, by cuttings, let some wide earthen garden pans, or otherwise large pots of rich light earth be prepared.

Into those pots let the cuttings be planted, at about two, three, or four inches apart, according to their size of growth, and the quantity intended of the different sorts of plants ; inserting each cutting two-thirds into the earth ; or small myrtle cuttings within an inch of their tops ; others of larger sizes inserted with the tops, two, three, or four inches above ; but the geraniums, and some others of similar growth, will succeed by much larger cuttings than myrtles, and other hard-wooded shrubby kinds.

As soon as they are planted, give a moderate watering, and this settles the earth close about every plant.

Then immediately place the pots either in one of the common

garden frames, and put on the lights, or you may cover down each pot with a hand or bell glass.

After this the cuttings are to be occasionally shaded with single mats, in the middle of hot days when the sun shines, till they are rooted, and must be moderately watered.

But, as before observed, the cuttings of most sorts of geraniums in particular, being planted either in a shady border, or in pots placed in a similar situation, or occasionally shaded, they will mostly soon strike root, and grow freely at top.

It is the best method to plant the myrtles and all other cuttings and slips of green-house plants in pots, &c.; and then, if they should not happen to be well rooted before winter, the pots with the cuttings can be moved into the green-house.

For some farther particulars in planting myrtle cuttings, see *June*.

#### PLANTING CUTTINGS, &c., OF SUCCULENT PLANTS.

THIS is also a proper time to plant cuttings and slips of most kinds of succulent plants.

Particularly euphorbiums; all the sorts of ficoideses and sedums, with the torch thistle: and the other kinds of cereuses, and also the Indian fig; and many other succulent kinds.

The method of propagating these kinds of plants is easy enough; it is done principally by cuttings; and the management of them is this:—

In the first place, it will be proper to observe, that the cuttings of many of these kinds of plants will take root tolerably free in a bed or pots of light compost, without the help of artificial heat; but yet the assistance of a moderate hot-bed would make them more certainly take root, and in a much shorter time; either placed in a bark-bed of a hot-house, &c., or upon any common hot-bed, either made of dung or tan-bark; the latter is the best; but where that is not, dung will do. Make a bed for a frame, or some hand-glasses, and cover the dung four or five inches deep with light earth, or with old tan-bark.

Next, let it be observed, that as many of the succulent plants differ widely in the manner of their growth, no particular length can be properly assigned the cuttings, but must be taken as they can be found, from two or three to six, seven, or eight inches in length, according to the growth of the particular plants.

Having fixed upon the cuttings, let them with a sharp knife be separated at one cut, from the mother plant, or some sorts slipped off, and then be immediately laid in a dry place in the



green-house, &c., out of the sun, till the bottom, or cut part be dried or healed over; because, if they were to be planted before that was effected, the moisture from the wound would, in the very succulent kinds, rot the cutting in that part.

When they have lain a few days, or probably, in some of the most succulent kinds, a week or more, they will be in proper order for planting: let some pots be filled with dry light compost; this being done, plant the cuttings in the pots, several in each of the smaller cuttings, or in some larger sorts, plant them singly in small pots, and close the earth well about them.

Then immediately plunge the pots to their rims, either in the hot-house bark-bed, or in a common hot-bed, under the glasses, and shade them with mats, in the middle of sunny days, till the cuttings are rooted, and give now and then a little water.

But as, in default of a hot-bed, many of the green-house succulent cuttings will take root in any common light earth, they may either be planted in such, or in pots, plunging these into the earth, and cover them either with hand-glasses, or a frame and glasses, managing them as above.

Likewise suckers of succulent exotics may be planted now, such as those of aloes and many other sorts, in pots of light soil; watered and placed in a shady situation till they strike fresh root.

#### WATERING AND CLEANING THE GREEN-HOUSE PLANTS.

In dry weather, the green-house plants in general should be very duly supplied with water; as the earth in the pots, &c., will now dry very fast, and require to be often moistened.

Some of these plants will require a little water, in dry weather every day; particularly the plants in small pots. Others will need a refreshment every other day; and some once in three or four days, according to the size of the different pots or tubs, and as they are less or more exposed to the sun. Let them, therefore, be looked over every day, and let such as want water be accordingly supplied with that article.

But let this be now particularly observed in such places where the plants are exposed to the full sun; for in such a situation the plants will want to be very often watered, or mostly every day when very hot weather.

Let the plants be cleared from decayed leaves; and let all the pots and tubs be also kept always very clean and neat, clearing away all rising weeds, and any sorts of loose litter; and loosen and freshen the surface of the earth in the pots, &c.

## SHIFTING INTO LARGER POTS.

WHERE any of the green-house plants, young or old, are in want of larger pots, they must still be removed into such.

In performing this operation, mind to take the plant out of the present pot, with the ball entire ; and then, with a sharp knife, pare off any decayed or dry matted roots on the sides and bottom of the ball of earth ; and at the same time take away a little of the outward old earth, both from the sides and bottom of the ball.

The ball being thus trimmed, set the plant immediately in the larger pot, and fill up all around with some fresh earth, and then give some water.

The pots are then to be removed to a somewhat shady situation, not immediately under trees, &c., but where the plants may enjoy the free air above, and umbrous protection from the sun in the great heat of the day ; and supply them with proper waterings.

LOOSENING AND GIVING SOME FRESH EARTH TO THE POTS  
IN GENERAL.

At this time it will be proper to examine the earth in all the pots and tubs ; and where it is inclinable to bind, let the surface be carefully loosened to a little depth, breaking the earth small with the hand ; and add, at the same time, if not lately done in any of the preceding months, a little sprinkling of fresh earth, and then lay the surface smooth.

This little dressing will do the plants, at this time, more good than many people might think ; but in particular to such plants as are in small pots.

But this might now be practised on all the pots and tubs in general, and it would very much refresh all the different sorts of plants, and have a neat appearance of good culture.

## PROPAGATING GREEN-HOUSE PLANTS BY LAYERS.

THIS is still a proper time to make layers of many kinds of shrubby exotics of the green-house. Let it be observed it is the shoots of the summer's growth that are the most proper parts to lay now.

Many sorts may be propagated by that method, and a trial may now be made on such kinds as you desire to increase ; but let it be done in the beginning of the month.

By that method you may propagate myrtles, jasmines, pomegranates, oleanders, granadillas, and such like shrubs

## BUDDING ORANGE AND LEMON TREES.

ABOUT the middle, or towards the latter end of this month you may begin to bud orange and lemon trees.

These trees are propagated by inoculating them upon stocks raised from the kernels of their fruit procured in the spring; and such as are found in rotten fruit are as good as any for this purpose.

These kernels must be sown in the spring (that is, in March or April), in pots of rich earth; then, in order to forward the vegetation of the seed, that the plants may soon come up, and advance in a clean free growth several inches high the same year, it is advisable to have the pots plunged in a hot-bed; and in two, three, or four weeks at farthest, the plants will come up, when they must be allowed some air and water at times; in six weeks or two months after the plants are up, they may be transplanted singly into small pots, or may remain till next spring, if very small, and not growing very thick together.

They must be planted singly, into halfpenny or three farthing pots, at the same time giving them some water; the said pots are to be plunged into a new hot-bed, observing to give air by raising the glasses behind, and shade them in the middle of sunny days; the glasses are to be kept over them constantly, till about the first or second week in August; but observing as the plants rise in height, to raise the frame, that they may have full liberty to shoot; but in August, as above said, they are to be exposed by degrees to the open air; this must be done by raising the glasses to a good height, and afterwards taking them quite away.

With this management, you may raise them to the height of eighteen or twenty inches (especially the second year), by the middle of August they must be removed into the green-house about a week or ten days before Michaelmas, placing them near the windows, and there to remain all winter.

Then in the spring (that is, about March or April), it will be of much advantage to shift them into large pots; then to plunge the pots in a gentle hot-bed managed as above, it would bring them forward greatly; but observing to begin in the latter end of May to harden them to the air, and to let them enjoy the free air more fully in June and July; and then exposed wholly thereto in August, that they may harden in a proper degree before winter.

The young plants, thus managed, will in the second or third

summer, be fit to be inoculated, which must be in the third or fourth week in July, or first week in August; at the time of budding it will be proper to take them into a green-house, or where they can be defended from too much rain, and enjoy the light, and plenty of air. When in the green-house, &c., it will be proper to turn that side of the plants wherein the bud is inserted from the sun; and, when the sun shines freely upon the plants, it will be proper to screen them with mats during the greatest heat.

But in order to make the buds take more freely, you may plunge the pots into a moderate hot-bed of tanner's bark a fortnight or three weeks, made in a glass-case, or green-house, or any deep bark pit which can be occasionally defended at top with glasses, giving plenty of free air; but removing them out of the bark-bed, after remaining therein the above time.

The plants must be kept in the green-house all winter; but in spring, about the month of March or April, it would be of essential advantage to prepare a moderate hot-bed, in a glass-case, made with tan-bark, if it can be had; if not, a bed of hot dung, and lay some earth, or rather tan thereon, to plunge the pots in: into either of these beds, the pots are to be plunged; observing at this time, to cut the head of the stock off two or three inches above the bud. In this bed they must be well supplied with water, and fresh air admitted every day, by raising or sliding some of the glasses a little way open. By the middle or latter end of July, the buds will have made shoots perhaps a foot or eighteen inches, and sometimes two feet long, or more; at which time you must allow them more and more free air every day; and so begin in August to expose them fully, to harden them, so as to be able to stand in the green-house all winter among the other plants.

Any young orange or lemon-trees, or other foreign trees or shrubby plants from Italy, &c., that were planted in the spring, and plunged in a tan-bed in a glass-case, &c., to forward their rooting, and production of top shoots, should now have a large portion of free air admitted, frequently watered, and in very hot sunny days be moderately shaded.

## THE HOT-HOUSE.

EVERY calm and clear day, admit air freely into the hot-house.

For now, as the pine-apples in particular will begin to ripen, fresh air is a very necessary article. This is needful to improve the flavour of the ripening fruit, and also to promote the growth of those which are still swelling, and will prove materially beneficial to the exotics in general of this department. So that at this season, let the glasses be drawn open some considerable width, increasing the portion of air as the heat of the day advances.

The pines must also, in general, be very duly supplied with water. They will need it pretty often, but let moderation be at all times observed.

But in particular, such plants whose fruit is beginning to ripen must be very sparingly watered; but it will, notwithstanding, be proper to allow them some, though too much would very much debase the flavour of the fruit.

## OF PROPAGATING THE PINE-APPLE PLANTS.

PINE-APPLE plants are propagated both by planting the crown or head of leaves which grow on the top of the fruit, the suckers at its base, and by suckers from the root of the old plants. Either or all of those methods are equally eligible; each fruit or apple produces at top one crown or head, and sometimes several small suckers at its base; and the old plants mostly always furnish a supply of bottom suckers; all which productions, being detached and planted, take root freely, become the proper successional plants, and in two years will produce fruit in full perfection; and at the same time a progeny of crowns and suckers, as above, for a further succession to succeed the old plants, which never produce fruit but once.

These several productions for propagation, either the crowns at the top of the fruit, suckers at bottom, or suckers from the old plants, are generally fit to take off for planting when the fruit is ripe; and those annexed to the fruit are to be separated at the time the fruit is served at table, especially the crowns, and reserved for the purpose of propagation, managing them as hereafter directed: and the suckers arising immediately from the plants may be taken off any time when they are arrived at

the proper state of growth; which, like those on the fruit, is also commonly about the time the fruit has attained to its due perfection of ripeness, or very soon after; they being generally, arrived to the due maturity, to be separated from the mother plant, when they are about four or five, to six or seven inches long, and their lower part assumes somewhat of a brown colour.

But observing, that in consequence of any of the old fruiting plants not furnishing bottom suckers, or that the suckers are very small, and that it is required to have as large a supply of young plants as possible, you may, as soon as the fruit is cut, take up the pots of such plants out of the park-yard, cut down the leaves, to six inches at the bottom, pull off also the under leaves round the bottom of the plant, and then take a little of the old earth from the top of the pot, fill it up again with some fresh compost, and give some water. Then replunge them in a tan-bark or dung hot-bed, where there is a tolerable brisk heat; and, from time to time, moderately watered.

The old plants, with this management, will soon put out some good suckers; and when they are grown to the length of about four, five, or six inches, they are then to be taken off from the mother plant, and prepared for planting.

The management of the suckers in general, as also of the crowns, with respect to the purpose of propagation and order of planting, to furnish a succession of new plants, is as follows:—

The crowns which arise upon the top of the fruit and any suckers at the base, are to be taken off when the fruit is served at table, separated by a gentle twist: then, if wanted for propagation, returned to the gardener's care to prepare for planting, taking off some of the lower leaves towards the rooting part; and then lay the plants on a shelf, either in a greenhouse, or shady part of the stove, or that of some dry room, till the part that adhered to the fruit is perfectly healed, which is generally effected in a few days, and are then to be planted as below.

The root-suckers should be taken from the old plants, when the lower end changes somewhat brown, and take off some of their under leaves; then lay them in a dry place till the part that joined to the plant is healed and become dry and firm, which will require five or six days.

They are then, both crowns and suckers, to be planted in the following manner:—

Being furnished with some small pots, and having some proper compost previously prepared, of light rich garden earth,

mellow surface loam, and rotten dung, having been all well incorporated together, fill the pots therewith; which done, let one crown or sucker be planted into each pot, fix it properly, and let the earth be well closed, and give each a very little water, just to settle the earth equally about the bottom of the plants.

Then let the pots be directly plunged to their rims in the bark-bed, which should be of a tolerable good heat to make them strike.

But for want of conveniences for a bark-bed, you may make a hot-bed of new horse dung to strike the suckers and crowns, and it is a very good method.

This bed should be made for one, two, or more garden frames, according to the number of plants. The bed must be made at least two feet and a half, or three feet high of dung; and as soon as it is made put on the frame; and in five or six days, or at least when the burning heat is over, lay in as much tan-bark, either new or old, or any kind of dry earth, but tan is preferable, as will cover the bed all over, about five or six inches thick.

Then when the dung has warmed the bark or earth, and having planted the crowns and suckers accordingly, let the pots be plunged in it to their rims, and put on the glasses, observing to raise them a little every day, to let out the steam and to admit air, and shade them from the mid-day sun; and give occasional moderate waterings.

They will thus soon emit radical fibres, strike root in the earth, and advance in growth.

#### CARE OF RIPE PINE-APPLES, AND THE CROWNS OF THEM, FOR PLANTING.

As the pine-apples will now ripen apace, care should be had to gather them when in due perfection, and before too ripe; generally cutting them in a morning; each with several inches of the stalk, and with the crown of leaves at top, till served at table.

Observe, however, when the pine-apple is to be eaten, that as the crown of leaves which grows at top, and any young suckers at the base, being proper for propagating the plants, when taken from the fruit, they, if particularly wanted for increase, should be saved in proper care, in order for planting.

These generally make strong and healthy plants; but before

the crowns, &c., are planted, let them, as soon as taken from the fruit, be laid in a shady place, in the stove, or green-house, &c., till the bottom is quite dry, and then planted singly in small pots, and treated as directed above in the general management of the crowns and suckers.

#### SHIFTING THE SUCCESSION PINE-APPLE PLANTS.

Now shift the pines which are to produce fruit next season, into the pots where they are to remain.

But this need not be done till the last week in the month; or may, with equal propriety be deferred till the beginning of August: however, if thought convenient, the first-mentioned time, let the pots, and a proper quantity of new compost, be provided, and brought to the place where the plants are: then having all things ready, let the pots with the plants be taken up out of the bark-bed, and let them be shifted according to the following method:—

In the first place put some compost into each new pot, to the depth of two, three, or four inches. Then let each plant be taken out of its present pot, with the ball, if possible, entire, and place it immediately into the larger pot, and fill up round the ball with more of the compost, and let the top of the ball be also covered therewith an inch deep.

In this manner let the whole be shifted, and let them be immediately gently watered, and then plunge them directly again into the bark-bed.

But the bark-bed must be first stirred up with a fork to the bottom to revive the declining heat; and at the same time observing, that if the bark is much wasted, or is become very earthy, and not likely to produce a due warmth, you should add about one-third, or at least one-fourth of new bark or tan, which should be previously provided in proper time accordingly; removing some of the most earthy parts of the old at top of the bed, throw in the new tan; fork up the old and new well together; and then let the pots be plunged to their rims, and let them be placed in a regular manner; that is, place the largest plants in the back row, and so on to the lowest in front.

Likewise, as above, the younger succession pines may also be occasionally shifted into larger pots. See *August*.



## CARE OF HOT-HOUSE PLANTS IN GENERAL.

LET the general care both of the pines and all the other tender exotics of the stove or hot-house be continued, as in the two former months; giving a large portion of fresh air daily, and frequent waterings, &c.

Continue also to propagate, by cuttings, layers, and suckers, such plants as you would increase, plunging the pots thereof in the bark-bed.

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AUGUST.

## WORK TO BE DONE IN THE KITCHEN GARDEN.

## WINTER SPINACH.

Now prepare some good ground, where it was not done last month, to sow a full crop of winter spinach; and for early and general spring supply.

This must be done some time in the first or second week in the month, not later; though in a warm-lying rich ground, it would be time enough to sow in the second week; however, at any rate do not omit sowing at the above proper time, that the plants may attain an eligible good growth before winter; but if sown much sooner in rich ground, they are apt to get rank, and sometimes fly up to seed before that season, or early in spring. Choose a piece of rich mellow ground for this crop, that lies tolerably dry in winter, and open to the winter sun; let this be neatly dug, and immediately sow the seed in shallow drills twelve inches apart, and tread it down evenly, and then rake the ground.

Observe, it is the prickly-seeded, or triangular leaved kind that is to be sown now, for plants of this sort will best endure the cold and wet in winter.

When the plants are come up, and got leaves an inch broad, or but little more, they must then be thinned and cleared from weeds. This may be done either by hand or small hoeing, observing to thin the plants regularly, leaving them the distance of three or four inches from one another; they will then have proper room to grow stocky, and to spread and gather strength,

to be able to endure the cold. Besides, when spinach is allowed room to spread regularly, the plants will produce large and thick leaves.

This crop will produce leaves for gathering the same year in October, November, and during the winter, in open weather, and all the spring months till May.

#### SOWING CABBAGE SEED.

Sow early and other cabbage seed, to produce plants for the service of next summer. Also sow the large autumn kinds to succeed the summer crops, and for autumn and winter supply the following year.

The proper early sorts to sow now, are the early dwarf, early and large sugar-loaf, and Yorkshire kinds, and the early Battersea, and the Antwerp cabbage, &c. See the *Catalogue*.

But this early seed must not be sown until some time between the 6th and the 12th of the month; nor must it be sown later, there being an advantage in sowing it just at that time; for was the seed to be sown sooner, many of the plants would be apt to run to seed in March; and was it to be sown later in the month, the plants would not get proper strength before winter.

Therefore, at the time mentioned, dig an open spot of rich ground, and mark out beds, three feet six inches broad, then sow the seed moderately thick, each sort separately, and immediately rake it in with a light and even hand.

Sow also the seed of the large oblong hollow, large round, the drum, or large flat-headed cabbage, the long-sided, and other large late kinds, in the beginning of the month, for a full crop of large cabbages, both to succeed the early and successional months' crops of the smaller kinds next summer and for general autumn service this time twelvemonth, and for several months after.

But the seed of the large late kinds may be sown three or four days sooner than the Yorkshire and other early kinds of cabbages, as they are not so apt to run to seed in the spring, &c.—See the *Kitchen Garden Catalogue*.

Sow also red cabbage, to raise plants for cabbaging in full growth next year in autumn.

Likewise, for winter or spring coleworts, it will now be proper to sow some seed of the sugar-loaf and Yorkshire cabbage, at the time above-mentioned. See *Coleworts*.

## BROCCOLI.

PREPARE some ground in the beginning of this month to plant out a successional crop of broccoli for winter and next spring supply. An open quarter, not shaded by trees, should be chosen; and spread some rotten dung over the piece, and dig it in regularly a moderate spade deep; and this will be of great advantage to the plants.

These plants are now to be planted in rows two feet asunder; and allow the same distance between plant and plant in the row, and give each plant a little water, repeating it two or three times in dry weather to forward their rooting, that they may acquire a large growth before winter; and they will produce fine large heads accordingly, some in winter, but in greater perfection in the spring.

Draw the earth about the stems of the broccoli which were planted out last month; for this will strengthen the plants, and promote their growth.

## SAVOYS.

FINISH planting savoys the beginning and middle of this month. Plant them in rows two feet asunder, and set the plants at the same distance from one another in the row. This plantation will come in at a good time, will be handsomely cabbaged in November, December, &c., and the plants will continue in excellent order to supply the table till after Christmas.

## SOWING WINTER AND SPRING ONIONS.

GET ready some ground, where it was not done last month, to sow a good crop of winter and spring onions.

This being the most eligible season to sow the general crop to draw in young growth for winter and spring service, and some for early heading summer onions, must be done in the first, but at farthest the second week in the month; and for that purpose choose a clean dry lying spot; and when the ground is digged, mark out beds three feet and a half, or four feet broad; then sow the seed tolerably thick, in a regular manner; then tread it in, and rake the ground evenly, that the seed may be equally covered, and the plants rise regularly in every part of the beds.

The plants from this sowing will supply the table with young onions the early part of winter and all the spring, for salads and other uses, and continue till April or May; and if you let some of them stand till June, they will bulb and grow to a tolerable

size, but will soon after run up into stalks for seed ; so that in their bulbing growth are principally for present use in that season, as they are not proper for keeping onions.

Sow also some Welch onions, both as substitutes in case the others should be destroyed by the frost, and to have a more certain plentiful supply ; for the Welch onions will survive almost the severest winter ; notwithstanding their blades will sometimes die down to the ground in November, or December, the roots remain sound, and new leaves will sprout up again in about six weeks or two months after the others are decayed.

Let this sort be also sown in beds as directed above, for it is the best method ; then a person can stand in the alleys and readily weed and clean the plants without treading upon them.

These Welch onions never bulb at the roots ; but as they are so very hardy as to resist the hardest frost when the common onions would be all killed, it is therefore advisable to sow a few of them every year at this time, as they will be found to be very useful to draw for young ciboules in the months of March, April, and May, and even continue till the spring-sown onions come in.

But it is advisable also, to sow a portion of each sort about the middle, or towards the latter end of the month, for late supply in the spring, as they will not run so soon to seed in that season as the others.

#### SOWING CARROT SEED.

CARROT seed may now be sown in a moderate portion, to raise some plants to stand through the winter for spring use ; sow some in the first week, but let a farther supply for the main spring crop be sown in the second or third week in this month. The plants raised from these sowings will supply the table at an acceptable time the succeeding spring.

Let this seed be now sown in beds of light mellow earth. Do not sow it too thick, and take care to rake it in regularly.

#### SOWING RADISH SEED.

RADISH seed may be sown twice this month to raise a succession of plants for autumn service. Sow it in an open spot ; and in dry weather let the ground be sometimes watered. If you sow this seed in the beginning of the month, the plants will be ready about the beginning and middle of September ; and that sown about the middle, or towards the latter end would

be fit to draw towards Michaelmas, and will continue tolerably good all October.

The proper sorts of the common radish to sow at this time, for autumn crops, are the salmon or scarlet kind, and the short top radish; but prefer most of the former at this season.

Sow also some of the small white Italian turnip-rooted radish, or likewise some of the red sort, both to come in next month, when they will make a pretty variety at table, and eat very agreeable in salads or alone. Also in the beginning of the month you may sow a crop of black Spanish turnip radish for autumn and winter.

#### SOWING CAULIFLOWER SEED.

CAULIFLOWER seed should be sown towards the latter end of this month, to raise some plants to stand over the winter in young growth, to produce the early and general crop next summer.

The proper time to sow the seed is some time between the eighteenth and twenty-fourth of the month; and it must not be sown sooner than that time, otherwise the plants will be apt to button (as it is called) or flower, in winter, or early in the spring, in their infant state, in which the flowers never exceed the size of an ordinary button, and thereby you are disappointed of having an early crop in full growth at the proper season; or if sown later the plants will not acquire a proper strength to resist the winter's frost; therefore mark the above time: but the London gardeners, who raise prodigious quantities for public supply, generally sow their main crop on a particular day (the twenty-first of this month), having from long experience proved that to be the most eligible period of sowing this crop of cauliflowers for next summer's general supply.

But in order to have a more certain crop and regular supply of cauliflowers, it will be proper to sow some seed at two different times this month.

The first and main sowing must be at the time above mentioned; and the general rule is to allow the distance of three or four days between the first and second sowing.

The first sown plants are principally for the earliest and first general crop, and a quantity of which should be planted out for good, in the latter end of October, under bell or hand-glasses. Some of the same plants should also, at that time, be pricked thick in garden frames, to be defended occasionally from frost, &c., all winter with glasses, for final transplantation in the spring; or, in want of frames, &c., a parcel may be planted or

pricked close under a south wall, three or four inches asunder, to remain and take their chance, without any other shelter during the winter, for spring transplanting, as aforesaid; and they will sometimes stand it tolerably well: but, if you choose it, you may also at that time plant a parcel of the first sown plants in a bed or border, and arch it over with hoops, in order to be occasionally sheltered in bad weather with mats, till transplanting time next spring.

But the cauliflower plants raised from the second sowing are also proposed to be wintered in garden frames, or under occasional protection of mats, or in warm borders, all principally for spring transplanting into the open ground in March and the beginning of April, to furnish a successional general crop. See *October* and *November*.

But let it be observed, that if you have no bell or hand-glasses, or that you do not intend to plant out any plants under such glasses in October, as above, but that you either intend or are necessitated to winter them all in frames, or on warm borders, you, in that case, need make but one-sowing, which should be, as before said, some time between the eighteenth and twenty-fourth of the month.

But here it will be proper to set down in what manner the plants, both from the first and second sowing, provided you sow twice, should be managed until they are fit to be transplanted into the beds or places where they are to remain all winter. And, to begin with the seed:—

The seed is to be sown as above directed, either all at once, or at two different times, as you shall think necessary, according to the above intimations; observing at the proper time to let a small spot of clean rich ground be neatly dug, and mark out a bed three feet and a half broad, immediately sow the seed, and rake it in with particular care; or otherwise, you may first rake the surface smooth, and with the back of the rake shove the earth evenly off the surface of the bed, half an inch deep, into the opposite alley, in a ridge along the edge of the bed; then sow the seed, and with the rake, teeth downward, in its proper position, draw the earth on the bed with a kind of jerk, making it spread evenly over the seed: or in another method of sowing, the bed, when digged, being just raked smooth, sow the seed, and sift over it about a quarter of an inch depth of light earth. In dry weather let the beds be from time to time moderately watered, and lightly shaded in hot sunny days; this

will make the plants come up soon, they will rise equally, and all take a regular growth.

When the plants are come up, continue in dry weather to water the bed moderately, at least every two days.

Then, about the twentieth, or some time between the twenty-fifth and latter end of next month, the plants should be pricked out from the seed-bed: at that time let another rich spot be dug for them in a sheltered situation; and mark out a bed the same breadth as above: into this bed the plants are at that time to be pricked about two or three inches apart, and shaded from the sun, and occasionally watered, till rooted.

But in pricking out these plants from the seed-bed, especially those designed for planting out finally, under hand-glasses in October, that if they are now rather of a tardy small growth, it would be eligible, where convenient, to prick some of them in a slender hot-bed, to bring them on forwarder, of proper size and strength by the above mentioned time, that they may be more effectually able to resist the cold in winter.

This bed need not be made above fifteen or eighteen inches thick of dung; lay the thickness of six inches of earth all over the surface and put in the plants as above.

In either of the above beds, the plants are to remain until the last week in October, or the first week in November, and then to be transplanted into the proper places to stand the winter.

The first sown plants in particular, or, if you have but one sowing, the largest of these are at that time to be planted out for good in rows, and covered with bell or square hand-glasses, observing to place three or four of the strongest plants under each glass: the glasses to stand three feet distance from one another, and the rows four feet asunder.

But if you desire to make the most advantage of the above glasses, you may plant four or five plants or more, under each; and in the spring thin out the worst, leaving but one, or at most two, of the strong plants under each glass; and those that are thinned out are to be planted in another spot in the open ground, as directed in February and March.

The plants intended to be wintered in frames, may be planted or pricked at once from the seed-bed into beds for the winter, to be covered with frames, &c., setting the plants three inches asunder, or previously pricked into nursery beds, the same distance in which to grow in strength till the end of October, or first week in November, and then to be transplanted into their winter quarters, in four feet wide beds of light rich earth, in a

sunny situation, setting the plants three inches apart; and one or more frames, according to the length of the bed, placed thereon, to be protected occasionally with glasses, as before suggested, and as directed below, and in the winter months: or observe, that if the plants are at that time rather backward in their growth, it would be proper to make a slender hot-bed for them in the following manner:—

A place is to be prepared for the bed, where the plants may have the full winter sun.

Let a trench be dug about six inches deep, and the breadth of a common cucumber or melon frame, and the length of one, two, or more frames, according to the quantity of plants.

Then get some new hot dung, and with this let a bed be made in the above trench, making it about eighteen inches thick of dung, and set on the frame, and earth the bed the depth of five or six inches with rich light earth, and here the plants are to be set in rows from the back to the front of the frame, three inches distance; and as soon as planted let them be moderately watered.

Then put on the glasses; but leave them open about a hand's breadth, that the steam which the dung will occasion may freely pass away; and when the plants have taken root, let the lights be taken quite off every mild dry day.

The plants, with the assistance of the above slight hot-bed, will soon take root, and, if they are small, will forward them greatly, so as to acquire a due degree of strength before the time of the severe weather begins.

They are to remain in this bed all winter; for the heat is only intended to strike the plants and set them agoing at first; for it will not last above a fortnight.

Although I have mentioned the planting the above plants on a moderate hot-bed, yet where the plants are tolerably forward in their growth, they will not need that assistance, and may be planted at once in a bed of natural earth, defended as above, with a frame and glasses, setting the plants the above-mentioned distance, moderately watered at planting: continuing the glasses till the plants strike root, then to have the free air in mild dry days, and afterwards managed as hinted below, and in the winter months as aforesaid.

In one or other of these beds, the plants are to remain all winter; and are, during that time, to be defended in rainy and severe weather, by putting on the glasses; but in mild and dry days no covering must be over plants; they must have the free



air at all such times, and are to continue with this management till the latter end of February, or beginning or some time in March, or some occasionally till the beginning of April, if a cold backward spring, and according to the state of growth of the plants, then to be transplanted into the quarters of the kitchen garden.

Or, for want of a sufficiency of frames and lights, or that of garden hand-glasses, the cauliflower plants are sometimes preserved through the winter in tolerably good condition, in a bed of common earth, under occasional protection of an awning of large garden mats, &c. : the bed being in a warm dry situation, and cradled or arched over with hoop bends, or pliant rods, to support the said covering, drawing the mats over in time of excessive rains, frosty and snowy weather; or also, in severe frosts, an additional covering of long straw-litter over the mats.

And may also often preserve these plants over winter, by planting them in a border close under a warm south wall, pricking them three or four inches asunder, and planted out finally in the spring.

For their further general management, see *September, October, November, December, &c.*

#### ASPARAGUS.

LET the plantations of asparagus be well cleared, and kept at this time perfectly free from weeds; in particular that which was planted in beds last March or April.

Also let the seeding asparagus, which was sown in the spring, be kept very clean; and this must be done by a very careful hand-weeding.

#### CELERY.

TRANSPLANT now a principal crop of celery into trenches for blanching; let an open quarter of good ground be chosen; mark out the trenches, and prepare them in the manner directed in the last two months; and selecting some strong stocky plants, trim off any long straggling tops of the leaves and the end of the roots, and then plant one row in each trench.

Observe to set the plants six or seven inches distant in the row.

Immediately after they are planted, let them be watered; and, if the weather should prove dry, the waterings must be repeated duly every other evening until the plants have taken root.

Continue to earth up the former planted celery, according as the plants advance in height, which should now be properly attended to in those planted in trenches the two last months.

Let this be done in dry weather, and when the plants are also dry : let the earth be well broken, and lay it up lightly to the plants ; observe to earth them up a due height on each side ; take particular care not to break down their leaves, and also not to bury the hearts of these plants.

Let the landing up these plants be now repeated once a week or fortnight, according as they shoot in height.

#### ARTICHOKE PLANTS.

EXAMINE NOW the artichoke plants, both of the old plantations, and those planted last March or April.

Many of these plants will now be in fruit : and besides the principal or top fruit, there will sometimes rise several small lateral heads or suckers from the sides of the stems ; but in order to encourage the principal heads to grow to a large size, most of these small side shoots may now, as intimated last month, be displaced.

This practice is necessary, if you prefer one large handsome head to three or four small ones ; but when you practise this, the suckers or side heads should always be taken off before they exceed the size of a common large egg ; and these, in some families, are used in culinary preparations for the table.

These the gardeners about London call suckers ; they gather them as above, and tie them in bunches, and carry them to market, where they have a ready call for them, in that of Covent-Garden and Spitalfields, &c.

Though some persons, less anxious about the size of the main heads, permit the laterals to remain to advance to full growth in succession.

Remember, as said last month, to break down the stems of the artichokes, as soon as you cut the fruit.

#### SMALL SALAD SEED.

CONTINUE to sow, in succession, several sorts of small salad seeds ; such as mustard, cresses, radish, rape, and turnip.

When a constant supply of these is wanted, there should be some seed of this kind sown once every week or fortnight.

Let them be sown in a shady border, or where they may be

occasionally shaded with mats, from the mid-day sun, till the plants come up : draw flat shallow drills, sow the seeds pretty thick, and cover them about a quarter of an inch ; in dry weather they must be duly watered.

#### SOWING LETTUCE-SEED, AND ORDER OF TRANSPLANTING.

Sow lettuce-seed, at two different times this month, for use both this autumn, and the following winter and spring.

The principal sorts of sowing now are the green and white Cos lettuce, Cilicia, imperial, brown Dutch, common, white, and hardy green cabbage lettuce ; but you may also sow some of any of the other kinds. See the *Catalogue*.

The first sowing is to be performed some time before the tenth of the month, and is to raise plants for supplying the table in September, October, and November, &c.; the second sowing must be done some time between the fifteenth and twenty-first of the month ; and the plants raised from this sowing are some to be planted out in September and October, for winter supply ; and in others, such as Cilicia, brown Dutch, common white, and hardy green cabbage lettuce, some may be both transplanted into beds or borders, and a principal supply remain where sown and thinned moderately, to cut for use, thinningly, as wanted in winter or spring ; and a good quantity of the Cos and other lettuces to be planted out in September and October upon warm borders, in order to stand the winter, to supply the table next March, April, and May.

Let each sort of this seed be sown separate ; take care to rake it evenly ; and in dry weather it will be proper to water the bed or border now and then where the seed is sown.

Or some of the plants raised from both the first and second sowing, particularly the brown Dutch and common cabbage lettuce, &c., may in October and November be planted in shallow frames, to forward them for winter service, in which season they must be covered every night, and in all wet, or other bad and cold weather, with the glasses, and in hard frosts they must also have a thick covering of dry litter (such as straw or fern) laid over the glasses, and about the outside of the frames. If thus properly managed, some will be tolerably well cabbaged in small heads in December, January, and February ; at which time they will be highly acceptable.

But if in October or November some stout plants of lettuce are transplanted from the open ground with balls of earth to their roots, in a bed of rich earth under frames, &c., or some

into a moderate hot-bed defended with a frame and glass as above, it will forward them to a handsome size in winter.

However the principal supply of plants raised from the above sowings are designed chiefly to remain in the open borders, beds, &c., for their general uses as above.—See *September*, *October*, and *November*.

#### PLANTING LETTUCES OF LAST MONTH'S SOWING.

PLANT out a quantity of the different sorts of lettuce, which were sown last month, to supply the table in autumn. See *September* and *October*, &c.

Let these have an open free situation; dig the ground, and while fresh turned up, put in the plants directly, or as soon after as possible, in this hot season, in rows twelve inches asunder: give them directly a little water; and in dry weather they must be watered as occasion requires, till they have taken root.

#### FENNEL, CARDUUS, AND ANGELICA.

ABOUT the middle of this month you may sow seeds of fennel, carduus, and angelica.

The seeds which are sown now are to raise plants for the next year's use; and by sowing them at this season they will come up stronger in the spring; though they will also grow very well by a spring sowing in February or March, &c.

#### CARE OF THE GENERAL CROPS.

TAKE care now of the general crops, to give them necessary culture of hoeing and hand-weeding, so as to eradicate weeds from among them in every part effectually, in proper time before the weeds are much advanced, and that none stand to seed.

This should be well observed in every part of the ground; not only among all the crops, but also in vacant pieces of ground; for weeds are not only hurtful to all crops, but exhausting to the soil and unsightly to appearance; and every weed that is suffered to stand to scatter its seeds upon the ground lays the foundation of hundreds for the year to come; therefore every opportunity should be taken to destroy them before they arrive to that maturity.

This is easily done among all wide standing crops, where room for the hoe; taking advantage of dry days and with a sharp hoe, a person may soon run over a great deal of ground; and the hoeing also, by loosening the surface, is beneficial to

the plants, and it, both among crops and vacant parts, improves the fertility of the soil.

But among all those crops that do not admit the hoe give the most careful attention to exterminate weeds timely by hand-weeding, before they overrun the plants, and require double labour to clear them out effectually.

Generally, let all large seedy weeds, that have been hoed or pulled up, be raked up and cleared away, that they may be root again, perfect their seeds, and scatter them on the ground

#### TRANSPLANTING AND SOWING ENDIVE.

PLANT another parcel of endive, principally of the green curled, for the main crop; also some Batavia endive. Choose an open situation, and let it be properly dug; then draw out of the seed-bed some of the strongest plants, trim the extreme end of their roots, and weak straggling tops of the leaves, and then plant them twelve inches each way from one another.

Water them as soon as planted; and in dry weather let the waterings be repeated once every two or three days, until the plants have taken root.

The endive, which was planted out in June and July, will, in this month, be full grown, and the plants should be tied up to promote their blanching.

Choose a dry day to do this work; then get some fresh bass, or slender osier twigs, examine the plants, and let a parcel of the largest full-hearted be tied up in a proper manner; observing to gather the leaves up regularly in the hand; and then with a piece of the bass, &c., tie them together in a neat manner, a little above the middle; but do not tie them too tight.

Sow some green curled endive the beginning of this month, to plant out the middle and end of September, and in October for a late spring crop.

#### EARTHING UP CARDOONS.

THE cardoons which were planted out in June will now be arrived to some considerable height; and it will be proper to begin to tie up some, and land up some earth round the plants, in order to blanch or whiten them, and render the stalks of the leaves crisp, tender, and mild tasted for use; and, as they rise in height, let the earthing be accordingly repeated.

For their further management, see *September* and *October*.

## BULBING KEEPING ONIONS.

EXAMINE the main crops of bulbing onions, they will now in general be fully bulbed towards the middle of this month; when their stalks and leaves begin to fall and wither, the roots have had their full growth, and must then be taken up. Let this be done in dry weather; immediately spread the roots to dry, and manage them as directed last month.

## GARLIC AND SHALLOTS.

GARLIC and shallots must also be taken up as soon as they have had their proper growth. This is also known by their leaves, which, when the roots have done drawing nourishment, will begin to wither.

## HERBS TO DISTIL AND DRY.

GATHER herbs to distil, such as spearmint, peppermint, pennyroyal, &c. This must be done now the beginning of the month, before the stalks and leaves grow too old and juiceless; they being in best condition for this purpose just as they are coming into flower, because they are then just in their prime.

Gather also herbs to dry, to serve the family in winter; such as mint, balm, pennyroyal, sweet marjorum, and other aromatics, now at full growth. They should be cut in a dry day and spread to dry in an airy room: but lay them out of the reach of the sun. When properly dried, tie them in bunches, and hang them up in a dry room for use as occasionally wanted.

## SOWING COLEWORTS.

WHERE it was omitted last month, you should now sow York-shire, or Battersea and sugar-loaf cabbage seed for coleworts.

Or likewise where any was sown last month, it is proper to sow some more now, both for proper succession in winter, and to remain in good perfection all the spring season without running to seed; as sometimes those sown sooner are, many of them, apt to fly up to seed in March, and April: but the plants from this sowing will stand, advance to proper growth, both for spring coleworts, and early summer cabbages.

But this must be done in the beginning, or before the middle of the month, otherwise the plants will not get strength for general transplanting in any tolerable time before winter; and will serve both for the supply of the ensuing winter and spring.

See *July*.

## TRANSPLANTING COLEWORTS.

EXAMINE the colewort plants which were sown in July: let them be looked over about the middle, or towards the latter end of this month; and see where the plants stand very thick, to let some be drawn out regularly, and plant them out finally into open compartments.

Let them be planted in rows, fifteen inches asunder; and set the plants eight or ten inches distant in the row.

By this practice, the plants remaining in the seed-beds will have more room to grow to a proper size for planting out in general next month; and those which are now transplanted will come into use three or four weeks sooner than the plants which are left in the seed-bed until September.—See *July* and next month.

## PROPAGATING AROMATIC PLANTS.

PROPAGATE, where wanted, the different sorts of aromatic plants; the slips or cuttings of the branch shoots of many sorts may still be planted, and will grow but where any admit of slipping from the bottom with roots, it will be more successful.

Particularly the slips of sage, hyssop, winter savory, and marjorum, will still succeed, but must be planted in the beginning of the month. Let the slips or cuttings be about five, six, or seven inches long, planted in a shady border, and in dry weather duly water them, and may also plant in the beginning of the month slips of lavender, rue, rosemary, wormwood, and southernwood.—See *May*, *June*, and *July*.

But in procuring branch slips or cuttings of the above aromatics, examine also below, as you will sometimes find shoots arising from or near the roots of the main plants, where they have been planted pretty low, that their branches touch the ground; and if any such bottom shoots could be slipped off with roots, it would, at this time, be a particular advantage.

Cuttings also of the young shoots, from six or eight, to ten inches long, may be planted in a shady border, and occasionally watered.

## MANAGEMENT OF AROMATIC PLANTS.

Now, in the beginning of this month, it will be proper to cut down the decayed flower-stems of many kinds of aromatic plants, such as hyssop, savory, sage, lavender, and all other such like kinds.

At the same time it will be proper to shorten all the straggling young shoots, in order to keep the plants within due compass, which will also make them produce numbers of new short shoots; and they will, by that means, form close snug heads before winter.

But this work should, if possible, be done in a moist time; and with a knife let the decayed flower-stems, and the long weak straggling shoots or branches, be trimmed pretty close.

The plants, after this, will soon begin to put out new shoots, in a close, bushy growth; and these will get strength, and make the plants appear neat all winter.

#### GATHERING SEEDS.

GATHER seeds in due time, according as they ripen: many sorts will now attain maturity, such as cabbage, savoys, broccoli, borecole, turnips, spinach, and various others.

Let this be done in dry days, cutting, or pulling up the seed-stalks, place them in the full sun, against a hedge or wall, &c., that the seed may dry and harden properly; or spread some upon mats or large cloths, in order to protect or remove them more conveniently, if possible, from rain, if it should happen, and let the whole be frequently turned: then after having lain a week or a fortnight, or as long as necessary, let the seeds be thrashed or rubbed out, and well cleaned.

Then spread the seed thin upon cloths, in a dry place; where let it lie a day or two to harden it properly: it is then to be put up in bags or boxes.

#### SOWING CORN-SALAD AND CHERVIL.

THIS is now a good time to sow the seeds of corn salad, or otherwise lamb lettuce, for winter and spring service; and also the seeds of chervil for the same occasion.

Both these plants will come up the same autumn, and are very hardy, and will be fit for use all winter and the spring season; when some more seed of each sort should be sown to succeed the autumn sown plants; which in both sorts are always to remain where sown: and if they come up too thick let them be thinned out to three or four inches apart.

The lamb lettuce or corn salad, being hardy to stand the winter, is commonly used for winter and early spring salads, both in composition with common lettuce, &c., and as a substitute for those where deficient; and the chervil, both for salads, and soups, &c.



Sow each sort separate: and the seeds of both sorts may either be sown in drills, or broad cast, and raked in.

#### RIPENING MELONS.

TAKE particular care now of the ripening melons: if there should at this time happen to be much rain, the roots of the plants, and all the best fruit, must be well defended from it; and this is to be done by the methods proposed for their protection last month.

In hot dry weather give the advancing succession crops of melons occasional waterings: observe as in *June* and *July*.

#### CUCUMBER PLANTS.

CUCUMBER plants also demand good attention at this time; particularly the crops which were sown or planted in the open ground, to produce fruit to pickle, &c.

These plants must, in dry weather, be remarkably well supplied with water, at least three or four times a week. Let them not want for moisture in dry hot weather, and the plants will not fail to produce fruit abundantly: generally commence fruiting for gathering in the beginning, but in full bearing towards the middle of the month, and continue till about the same time in September, then mostly decline in production, both in quantity and quality of the fruit.

Let the plants be also looked over in a regular manner, two or three times in a week, in order to gather a sufficiency of the young fruit according as it becomes fit for the purpose of pickling; for when once the fruit have come to the proper pickling size, they will soon grow too large for that use.

Likewise let the cucumbers of the frames, and bell or hand-glass crops be also supplied plentifully with water, and they will continue bearing good fruit till the middle of next month.

May now sow a few long prickly cucumbers in small pots, and protected occasionally under glasses, to plant into a hot-bed the end of this, or beginning of next month, under a frame and lights, to produce fruit in October and November; or for the same occasion may plant cuttings, or make layers of young shoots of some present bearing plants.—See *September*.

#### SOWING TURNIPS.

THIS is still a proper time to sow turnips for a late crop. But let the seed, if possible, be sown in the first or second week in the month, and there will be no fear of success; but I would not advise to sow later than the second week, as the

crop which is sown after that time seldom succeeds well in respect to the growth of the roots, which would be very late and of but small size.

In sowing the seed, take opportunity, if possible, of moist weather, or while the ground is fresh digged, sowing moderately thin, and rake it in regularly.

Hoe and thin the turnips which were sown last month; in which take advantage of dry days; and let it be done before the plants are too far advanced in their growth: generally when the rough leaves are about the breadth of a man's thumb; then the work can be done with expedition and regularity.

Let the plants be thinned out to the distance of about six or eight inches.

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## THE FRUIT GARDEN.

### VINES.

Look over vines again, both in those against walls and in vineyards, and let them be once more cleared from all useless productions. All shoots whatever that have been lately produced either from the old or young wood must now be entirely displaced; for such are quite useless; and if left, would darken the fruit very much, and greatly retard its growth and ripening: therefore let all such shoots be rubbed off quite close.

Examine also, at the same time, with good attention, all the bearing and other proper shoots; and where any have started from their places, let them be immediately fastened close to the wall, or stakes, in their proper direction, that every shoot and bunch of fruit may have an equal advantage of sun and air to forward their growth and good maturity in best perfection.

Likewise examine the fruit; and where any bunches of grapes are entangled in each other, or with the shoots, let them be relieved, so that every bunch may hang in its proper position.

You may now, if you choose it, in the beginning of this month, top all the shoots that have fruit on them, and all others that have advanced above the top of the wall, or any way beyond their due bounds.

## THE VINEYARD.

GIVE now every possible assistance to forward and improve the production of the vineyard, by clearing the vines from all useless shoots, as above, and to train the others along neatly, in close regular order, whereby to admit the influence of the full sun equally regular to the whole, which is essentially necessary to promote the free growth and timely ripening of the grapes.

And should also diligently exterminate all weeds effectually between the rows; cutting them down in their early growth; and afterwards rake the ground, clearing away all the loose weeds and rubbishy litter, forming in the whole a clean smooth surface.

For, in vineyards, a clean surface answers, in a great degree, the purpose of a wall, by returning the sun's heat upon the vines and fruit, that the grapes will ripen sooner; and acquire a rich flavour.

## WALL-TREES.

WALL-TREES still demand attention; particularly peaches, nectarines, and such like kinds.

Let them be once more carefully looked over, and see whether all the branches and shoots remain secure in their proper places. Where any have been displaced by winds or other accidents, let them be nailed up again in a secure and neat manner; and where any of the shoots are loose, or project considerably from the wall, or have extended in length, let the whole be nailed in close and securely.

To have the shoots all lay close and regular to the wall is a very great advantage to the fruit; and besides it is beneficial to the trees and always looks decent and agreeable.

Likewise observe, at the same time, where any straggling shoots have been lately produced, and let all such be now taken off, that there may be no useless wood to darken the ripening fruit too much from the sun.

## CLEARING THE BORDERS ABOUT FRUIT-TREES.

LET all the fruit-tree borders be now kept remarkably clean; let no weeds grow, nor suffer any kind of litter to remain upon them.

By keeping these borders neat, it is not only agreeable, in the greatest degree, to the eye, but a clean smooth surface

throws up a reflection of the sun's heat, in some degree, on the trees, which certainly greatly promotes the ripening, and improves the flavour of the fruit.

#### FIG-TREES.

TAKE care of fig-trees : the figs will now be full grown, and will begin to ripen, and therefore require a due share of sun to promote their ripening, and to give them their true flavour.

All the strong shoots must therefore be now laid in close to the wall ; but take care to use the knife on these trees but very little at this time. Cut off no shoots but such as grow directly fore right on the front of the branches ; lay in all the fair-growing side-shoots, and leading or terminal shoots of the general branches ; for these young shoots that are now laid in are to bear the fruit to be expected next year ; and therefore, as these trees produce their fruit upon none but the year-old shoots, be careful to leave enough at this time to have a plentiful choice ; for what is not wanted to lay in at the general season of pruning can at that time be easily cut away.

But, whatever you do, be sure not to shorten any of the shoots, but lay in every one at full length ; for the shoots of these trees must never be shortened, because they are the only bearing wood for next year ; and as they bear principally towards their upper ends, shortening would destroy the best fruitful parts thereof, and throw them into a redundancy of useless wood the following summer.

Observe to lay them in regularly, not across one another, and then let them be well secured, for the wind and rain has great power over these trees on account of their broad leaves.

#### NEW BUDDED TREES AND BUDDING.

Go over the stocks or trees which were budded in July, and let all the bandages be loosened.

This should generally be done in about three weeks, but never exceed a month, after the budding is performed ; otherwise, as the inoculation bud will swell, the sap will be stopped in its regular course, and the parts about the bud will be pinched, and swell irregularly.

Likewise in trees budded last year, now advancing in their first shoot, examine that part of the stock below the inoculation ; and where there are any shoots sent forth in that place, let them be taken off close.

Budding may still be performed, and will be successful in most sorts of stone fruit, as peaches, nectarines, apricots, plums, &c.; but this must be done in the beginning, and not later than the middle of this month.—See the *Nursery* and *Fruit-Garden* for *July*.

#### DEFENDING WALL-FRUIT FROM INSECTS, &c.

CONTINUE to defend the choice wall-fruit from insects and birds.

Birds are to be kept off by fixing up nets before the trees of such fruit as they would eat. This is a sure defence against those devourers; therefore it will be well worth while for such persons as have nets to fix them up before some of the choicest fruit, particularly grapes, figs, and late cherries.

Wasps and flies are also to be guarded against, for these insects will devour or spoil the most delicate fruit at a surprising rate, and, if not prevented, make great havock.

The only method to prevent this is to continue to place baits in different parts of the trees to catch them; that is, have a quantity of large phials filled with sugared or honey water, or beer, &c., as advised last month, and hang three or four in each of the principal trees; this will greatly protect the fruit: for the sweetness of the liquor will entice the insects to neglect the fruit, and they will continually hover about the mouth of the phials; numbers will daily creep in to drink; and, when once they enter, not one in a hundred can get out again.

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### THE PLEASURE OR FLOWER GARDEN.

#### WATERING AND GENERAL CARE OF ANNUAL PLANTS.

TAKE care now of the annual plants in pots; they must in dry weather be well supplied with water; let them be watered at least three or four times a week; but in very hot dry weather they will need watering every day.

Likewise continue to support such annuals as require it with handsome stakes, or sticks, and let the stalks or stems of the plants be neatly tied to them according as they advance in height.

Where large decayed leaves appear on these plants, let them

be immediately taken off, for nothing looks worse; trim or regulate any disorderly growths; and keep the plants always clear from weeds, and pull up decayed flowers.

#### WATERING AND GENERAL CARE OF PERENNIAL PLANTS IN POTS.

In dry weather give water also pretty often to all the perennial flower-plants in pots.

But this must be done in general; that is, those plants which are past flowering will want water as well as those which are now blowing, and such as are still to bloom.

Take care now of all such perennial plants in pots as have done blowing; let the flower-stalks, when the flowers decay, be immediately cut down; loosen the earth in the top of the pots; take some out, replace it with the same quantity of new; give a little water, and then set the pots in a shady border for the remainder of the summer.

#### PROPAGATING FIBROUS-ROOTED PERENNIAL PLANTS.

Now is the proper time to increase many of the double-flowered and other desirable fibrous-rooted perennial plants done flowering, by slipping and parting the roots: and the proper time to begin to do it is about the middle or towards the latter end of the month.

Many sorts may now be increased by that method; particularly the double rose campion and catchfly, double scarlet lychnis, and double rocket: also the double ragged robin, bachelor's button, gentianella, polyanthus, auriculas, double daisies, large heart's-case, campanula, and several other such like kinds of fibrous-rooted perennials.

The method is this; where the plants have grown into large tufts, let the whole of each root be taken up entirely out of the earth, then let it be parted, or divided into as many separate plants as you shall see convenient, but not into very small sets: but in parting them, take care to do it in such a manner as every plant or slip so separated may be properly furnished with roots.

When the root is thus parted into several slips or distinct plants, let every such slip or plant be trimmed, by cutting off any straggling or broken parts of the roots, pick off any dead or broken leaves, and trim the other parts as you shall see necessary, and then plant them.

Or others may be occasionally slipped as they remain in the

ground, by detaching the outside offsets, with roots to each as above.

They, in the whole, by either of the above methods, should generally be planted in a shady border, or where they can be occasionally shaded with mats in hot sunny days, till they have taken root. Let them be set about six inches apart, close the earth well about them, and give some water; and let the watering be occasionally repeated, till the plants are fresh-rooted, and during the summer.

These will all take root in a short time, get strength, and make tolerably good plants by the latter end of October and November; at that time, or in the spring, they may be taken up with balls, and planted some in pots, and the rest in borders. They will all blow next year, in spring and summer, &c., in the different sorts.

#### SAXIFRAGE.

THIS is now a proper time to propagate saxifrage.

The double white saxifrage produces its flowers in the spring season, in April or May, and makes a beautiful appearance.

They are easily propagated by the small granulous offset roots, which they produce plentifully; they are generally planted in pots, but may also be planted in the borders or beds, planting several of its small roots in a little cluster together, that the flowers may come up in bunches; otherwise they will make but little show.

The pyramidal saxifrage makes a most beautiful appearance when in bloom; it is propagated by offsets, which arise from the sides of the plants, and they may now be taken off, and either planted in borders or pots, and will flower next year.

Likewise the thick-leaved purple, and some other dwarf kinds, &c., of saxifrage may also be propagated by offsets or slips.

#### AURICULA PLANTS.

THE auricula plants in pots should, some time in this month, be shifted into fresh earth.

For that purpose, provide a quantity of fresh light compost; let this be sifted, or otherwise broken very small between the hands, and then be laid ready.

Then prick off all decayed leaves of the plants; detach any considerable increased offsets; turn the plants out of the pots, trim away some of the earth from its roots, or, if old plants,

clear away the earth entirely : cut off any decayed part at bottom of the main root, and let the extreme fibres be trimmed, this done, fill the pots nearly with new compost immediately, set one plant in the middle of each, close the earth well about the root and bottom part, and fill up the pots properly with more compost.

When the whole are thus planted, let them be moderately watered, and set the pots in a shady place, or shade them occasionally from the sun with mats, and water them in dry weather till the plants have taken root.

Plant offsets of auriculas : if any are produced on the old plants, either in plants or borders, &c., they may now be detached and planted.—See *May*.

#### SEEDLING AURICULAS, &c.

The seedling auriculas and polyanthuses should now, where it was omitted last month, be pricked out from the seed-bed.

Dig for them a bed or border in a somewhat sheltered, shady situation, rake the surface even, and then put in the plants, about three or four inches asunder, being careful to close the earth neatly about the roots, &c., and give them a moderate watering.

The waterings must, if the weather should prove dry, be repeated moderately every other day till the plants have taken fresh root.

#### SOWING AURICULA AND POLYANTHUS SEED.

This is a good time to sow auricula seed ; and it will also be proper to sow the seed of polyanthuses.

These seeds may either be sown in a border of light earth, or in boxes, or large wide pots, or flat wide garden pans, &c., and for which purpose, either prepare a bed or border exposed only to the morning sun : sow the seed and rake it in ; or, first smooth the surface, sow the seed, cover it in with fine earth a quarter to half an inch deep : or fill some pots or boxes of light earth about the middle or latter end of the month,—let the seeds be sown pretty thick, and cover them in with fresh earth about a quarter of an inch deep.

The boxes or pots must then be set where only the morning sun comes, stand there till the end of next month, and then be removed where they can have the full sun.

The auricula seed will probably not grow before the spring, but the plants will then come up earlier and stronger than those



sown at that season; giving occasional protection in winter from frost and other inclement weather.

But the polyanthuses will sometimes come up the same season, and will stand the winter well, and will be fit to plant out early next summer, when they will have time to grow strong, so as to be able to produce strong flowers the spring after.

#### CARNATION LAYERS.

CARNATION layers, that have been laid five or six weeks, will be well rooted, and should be cut from the old root, and planted into beds or pots.

But in order to protect the layers more readily in winter, it will be advisable to plant a parcel of the best plants in small pots, particularly some of the choicest kinds.

For that purpose, let a quantity of moderately small pots be procured of the sizes 32's or 48's, and fill them with good earth; then take off the layers, trim their tops a little, cut off the naked bottom end close to the root, or slit part, which was made in laying; then plant one layer in each pot, and immediately give a little water.

Then set all the pots in a shady situation, and give water as occasion requires, till the plants have all fairly taken root.

When the plants are firmly rooted, let the pots be then removed into a more open situation, and remain there until the latter end of October, when either place them in a warm situation for the winter, or for the principal sorts may form a raised bed of some dry light compost, in which to plunge the pots, prepared of any light dry earth, mixed with sand, ashes, or any light warm soil, formed into a bed the width and length of a garden frame, or of two or more lengthways, raised a few inches above the common level of the ground when thus prepared; then, at the above time (October), plunge the pots to their rims in the bed, close together, and in which to remain all winter to protect the roots more effectually from frost: and to be defended in bad weather with the glasses, &c.

But the glasses are only to be put on in severe frosts, snow, and much rain; and must be taken off constantly in mild and dry weather.

*Note.* Where frames and glasses are wanting, the pots may, at the above time, be plunged in a bed prepared as above; then place some rods or hoop-bend arches across the bed; and having some good thick mats always in readiness, let these be drawn over the hoops to shelter the plants in severe frosty weather.

By plunging the pots into the bed of compost, it preserves the plants more securely from frost; for it then cannot enter so easily at the sides of the pots to hurt the roots.

The plants are to remain in either of the above situations, and in the same pots, till the latter end of February, or the beginning or some time in March; they are then to be turned out with the ball of earth to their roots, and planted into the large pots, where they are to blow.—See *February* and *March*.

But the common carnation layers, that are intended to be planted in the borders, should be managed in this manner:—

When the layers are all well rooted, they are then to be separated from the old plants, trimmed as above directed, and planted in a bed or border of rich earth. Let them be set about six inches distance every way from one another, and directly watered, and the waterings must be occasionally repeated; and if very hot weather, and the bed, &c., open to the sun, it would be of much advantage if the plants could be shaded from the mid-day sun till well rooted.

The layers are to remain in this bed or border until October or November, to gain strength, and then some may be transplanted into the borders, and others remain for transplanting in the spring.

#### LAYING CARNATIONS.

THIS is still a proper time to lay carnations and double sweet williams; but this must be done in the beginning of the month.

Take off all such layers of double sweet williams as were laid five or six weeks ago, and manage them as directed for the carnations.

#### PLANTING OUT PINK PIPINGS, &c.

WHEN the pink pipings, &c., which were planted in June and July, are well rooted and advanced in growth, let them in the beginning and middle of this month be thinned out and planted in three or four feet wide beds, in rows six inches asunder, and give proper waterings: the rest will be fit to plant out next month, and they will all acquire proper strength for flowering moderately the following year, but in greater perfection the second summer.—See *June*.

They will obtain a good bushy growth by the end of October, when, or in November, or the following spring, some of the strongest may be transplanted with balls into the borders, &c.

## SOWING SEEDS OF BULBOUS FLOWERS.

Now sow seeds of bulbous flower-roots, to obtain new varieties : such as tulips, hyacinths, narcissuses, iris, crown imperials, fritillarias, and lilies, the seeds of martagons, crocuses, and of any other bulbs.

These seeds may be sown, about the middle or towards the latter end of the month.

They may be sown either in boxes, pots, or beds, &c. ; but the convenience of boxes or pots is, they can be removed readily to different situations, as the season requires ; boxes, &c., for this purpose, may be of any moderate size, about twelve or fifteen inches, or more, in width and length, by eight or ten deep : or larger wide garden pots are equally eligible.

They must be filled within an inch and a half of the top with fine light earth, making the surface smooth ; then sow the seeds thereon moderately thick, and cover them with sifted earth, about half an inch deep.

The boxes or pots are then to be moved to a somewhat shady situation ; and, if the weather proves dry, must be at times lightly watered : they are to stand there till the latter end of September, and then to be removed to a warm part of the garden in the full sun.

But these seeds may also, if you choose it, be sown in beds of light earth, and will succeed equally well, with a little care of shading occasionally in hot sunny weather, and some sheltering in winter from frost. The beds must be prepared in a dry warm situation, and should be about three feet broad.

The boxes, &c., or beds, must be defended in winter from severe frosts and great snows ; and this is to be done by laying dry litter over and about the outsides of the boxes, or on the surface of the beds.

The plants will begin to appear about the latter end of next March, or in April, &c., and must then be kept clear from weeds, and in dry weather refreshed often with water.

In June and July their leaves will decay, and then the surface of the earth must be cleared from weeds and litter, and about half an inch of fresh earth strewed over the surface of the pots, boxes, or beds.

Thus let them remain till the same time the second summer, and then it will be proper to transplant them.

Then at that time prepare a bed or two in a clean dry-lying

spot, and where the earth is light, and each bed to be three feet broad.

Then take up the roots out of the seed-bed, and immediately plant them into the beds prepared for them; let them be placed in rows four inches asunder.

The most ready method will be to draw neat drills, with a small hoe, making them about two inches deep, and place the roots in the drills an inch or two in distance; or if very small, may be scattered thinly along the drills, and draw the earth over them the depth of one or two inches.

The next summer, at the same time, the roots are to be removed again, and must then be set three or four inches each way apart.

Thus the seedlings are to be treated every summer till they are brought to a state of perfect flowering; observing at each removal to allow more and more room.

When they are brought to a proper size of growth for flowering, they are then to be managed as the other old roots.

But it will be several years before some of the roots arrive at that state, particularly the tulips, which never begin to show a flower till the sixth or seventh year; but the advantage of raising this and other choice bulbs from seed is, that when the seedlings are raised to a flowering state, and begin to break into stripes or variegations, or discover other peculiar properties, according to the different species, there will every year appear among them many new flowers.

This is the advantage of raising them from seed; and likewise among the new flowers there will sometimes be some that greatly excel by the lustre of colour, tinges, and regularity of stripes, &c.

However, as the raising of bulbous roots from seed is a very tedious process, and so long before they begin to flower, many persons not having patience to wait the time, are deterred from proceeding in the business; and it is practised principally by those who are particularly curious in these kinds of flowers.

#### SOWING ANEMONE SEEDS, &c.

Sow anemone seed, and the seed of ranunculuses, and spring cyclamens.

It will be most advisable to sow these seeds principally in boxes or large wide-mouthed pots, or flat garden pans.

The pots or boxes to be filled with rich, but very light earth the seeds are to be scattered thereon pretty thick, and covered

lightly with sifted earth, not more than a quarter of an inch deep.

The boxes or pots, with these seeds and plants, are, both before and when they are come up, to be managed as above directed in the management of the seedling bulbs.

#### REMOVING BULBOUS ROOTS.

This is still a proper time to remove or transplant, if required, several sorts of late flowering bulbous roots, now out of bloom, such as the roots of martagons and red lilies; the stalks and leaves of white lilies also now decay; and that is also the most proper time to remove these bulbs.

When the roots are taken up, the offsets must be all separated from them; and, when this is done, the principal roots may either be planted again now in the proper places, or may be dried and cleaned, and put up till October, and then planted.

But the best of the offsets should be planted again soon, in nursery-beds, each sort separate, and there to remain a year or two; and then may be planted among the other flowering roots.

Though as the martagons and other lily kinds having large squamous or scaly bulbs, the scales thick, fleshy, and succulent, they do not keep well long out of the ground, like the solid and tunicated bulbs; therefore, after being taken up, and the offsets detached, it would be proper to replant them, either directly, or as soon after as convenient; or where these bulbous roots are grown into large bunches, the outward offsets may occasionally be detached without removing the main roots.

May also remove, where necessary, bulbs of the Persian and English bulbous irises, where it was omitted last month: and the bulbs of narcissus, spring crocuses, and jonquils, fritillarias, and most other bulbs whose leaves are decayed, and the roots have not put out new fibres, may still be removed, if required, either for fresh transplanting them, where necessary, or to separate the increased offsets when grown into large bunches.

For, as observed in the two or three former months, it is necessary to take up the best sorts of bulbous flower roots at least once every two or three years, in order to separate the increased parts or offsets from the large or principal roots; and it should always be done as soon as the flower and leaves fade, or at least in a short time after; for at that period the roots are

at rest, and draw no nourishment, but will bear removal without the least check.

But, on the contrary, when the roots are permitted to remain in the ground any considerable time after the decay of the stalks and leaves, they will all send out new fibres, and even at that time begin to form the bud for the next year's flower; and if the roots were after that to be taken up, they might receive so great a check by the removal, that some sorts would not produce flowers the succeeding year; or, at least, if they did, the flower would be very weak and of inferior appearance.

#### TRANSPLANTING SEEDLING PERENNIALS AND BIENNIALS.

TRANSPLANT into nursery-beds the seedlings of wall-flowers, stocks, sweet williams, carnations, and pinks; also columbines, scabiouses, and other seedling perennial and biennial plants as are still remaining in the seed-bed.

These should be transplanted in moist weather; and the sooner the better, that the plants may have time to root, and get some strength before winter. Let a border be dug for them, or else dig some beds three or four feet broad, and immediately put in the plants about six inches distance from one another, and let them be directly watered.

When the plants have stood in the above beds or borders about two months, or till the end of October, or any time in November, &c., or next spring, a quantity may be then transplanted into the flower borders, and other parts of the pleasure ground, to remain to blow next year.

#### CLIPPING HEDGES.

Now clip or cut hedges. All sorts may now be clipped or cut; such as holly, yew, privet, hornbeam, elm, lime, and also thorn, and all other sorts.

This is the only proper season to cut such hedges as are only cut but once a year; because those hedges that are trimmed now will not push out any more shoots to signify this summer; so that they will not want cutting again till next year.

But such hedges as were clipped in the beginning, or middle of last month, or before, will want clipping again in the middle or latter end of this month; which should be performed accordingly, or next month at farthest; not permitted to remain in rough disorder all winter.\*

\* The practice of clipping hedges with shears is now very generally superseded by the use of the hedge bill, which both makes better work, and is much more expeditiously done.

## CUTTING BOX AND THRIFT EDGINGS.

CLIP box edgings, in which take opportunity, if possible, of moist weather: keep these edgings cut pretty low, and do not let them grow too broad.

Edgings of thrift should also at this time be trimmed a little, for they will now begin to want it; that is, where it was not done last month, should now cut off all the decayed flower stalks: and where the sides have grown uneven, let them also be cut to some regular order, either with a pair of garden-shears, or, if much overgrown, may be cut in with a sharp edging-iron.

The garden shears for clipping box edgings, &c., should be in good order, very sharp at the points, that you may be able to cut the sides and top in a clean neat manner.

But this ought to be done in moist weather, if possible, particularly the cutting in the sides, &c., both of box and thrift edgings; as, if too closely trimmed in a dry hot season, they are apt, soon after, to assume a withered disagreeable appearance.

## GRASS AND GRAVEL-WALKS, &amp;c.

CONTINUE to mow grass walks and lawns, and let this be done once a week or fortnight, according to the growth of the grass, which in pleasure gardens should always be kept down short, close, and even.

Let the walks and lawns be also sometimes poled and rolled, which is as necessary occasionally as mowing, to keep the grass perfectly clean and neat; and the work of mowing can also be thereby effected with much greater ease and expedition; and the cutting performed in a more close, clean, orderly manner, to form a regular even surface.

In mowing of short garden grass, take always opportunity of dewy mornings, or moist weather while the grass is wet; for short grass cannot be mowed with any tolerable despatch and exactness when dry; and always, soon after mowing, let the cut grass be swept up clean, and carried away.

Gravel walks should always be kept very clear from weeds, and occasionally swept from any scattering loose litter, and these walks should also be rolled at least once or twice a week.

## GENERAL CARE OF FLOWER BORDERS, &amp;c.

THE flower borders, beds, and shrubbery compartments, &c., of the garden, should be continued always exceeding neat.

These borders, and other similar ornamental compartments,

should be now and then gone over with a sharp hoe, in order to loosen the surface and cut up any weeds that appear.

After this they should be raked over neatly, drawing off all weeds and litter, and the surface raked even and regular, which will thereby appear fresh and clean, of a neat agreeable order.

Likewise look over the plants in the borders, or other parts of the garden; and where there are any that discover a very disorderly growth, let them have some proper regulation in trimming and tying, &c.; where any branches or shoots, &c., advance in an irregular or straggling manner, let such be cut off close or shortened, or others tied up as it shall seem necessary; and cut out all decayed flower-stalks.

Where the shoots of rambling flowering plants interfere with each other, they should be shortened, so that every plant may stand single: they always appear to the best advantage when they stand clear of one another.

Take off all withered leaves, and let the main stems and flowers be well supported with stakes or sticks, in an upright direction, and climbing sorts according to their growth.

When any shoots hang dangling, cut them off near the stem of the plant.

Where French and African marigolds, chrysanthemums, or other strong-branching annual flowers, produce rambling shoots near the ground, they should be trimmed up close to the stem several inches upward from the bottom.

This will cause them to form handsome and regular heads, and to show themselves to greater advantage than if the branches were permitted to spread near the ground.

#### GATHERING FLOWER SEEDS.

GATHER the seeds of such flowers as are now ripe, in a dry day, both of all sorts of annuals and biennials, and of such perennials as may be required; spread them on mats to dry in an airy place where the sun can come.

When they are well hardened, beat or rub them out, and put them in paper or canvass bags, or into boxes, till the season for sowing them.

#### PLANTING AUTUMNAL BULBS.

PLANT autumnal flowering bulbs, if any are now out of ground, such as colchicums, autumnal narcissus, Guernsey lily, and other amaryllises, autumnal crocus, &c., planting them in beds or borders of light earth, and some Guernsey lily, &c.



also in pots; they will all blow or flower the same autumn; some the latter end of this month, and the others in the next month, and October.

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## THE NURSERY.

### HOEING AND CLEANING THE NURSERY ROWS.

TAKE advantage of dry days to hoe and destroy the weeds between the rows of young trees and shrubs of all kinds. Let this always be done in due time, before the weeds grow to any considerable size.

For when weeds are permitted to stand too long, it will require double labour to cut them down; and large weeds, when they are cut, will, if not raked off the ground, or well shaken about, many of them, take root and grow up again.

### WEEDING AND WATERING SEEDLINGS.

SEEDLING trees and shrubs of all sorts should also now be kept perfectly free from weeds; for these, if permitted to grow in seed-beds, would do much damage.

In very dry and hot weather, it will still be proper to water the beds and pots of small, young, tender seedling trees, and it will at this time be a great advantage to the plants.

Likewise often water all plants in pots.

### PRUNING AND REGULATING DISORDERLY GROWTHS IN TREES AND SHRUBS.

Now is a good time to trim evergreens, and such other shrubs as want it in the nursery. In doing this, observe to take out vigorous shoots, or shorten them so as to form a more regular head; and cut away any low straggling under-growths.

Where forest trees or any others have made any vigorous shoots from their stems, or very rambling growths in the head, it will be proper to cut such shoots off close.

### TRANSPLANTING YOUNG SEEDLING TREES.

In the beginning of this month, if the weather be a little moist and cloudy, you may transplant seedlings, pines, and firs, from the boxes and beds where they were sown.

It is now to be observed, as hinted last month, that it is not meant to make a general transplanting; but only where the plants are any ways crowded in the seed-bed, it will be proper to transplant some, that they may not stand to spoil one another. Observing the same method as mentioned last month.

#### PREPARING GROUND FOR GENERAL TRANSPLANTING.

THE ground where a new plantation of young trees or shrubs is to be made in autumn, should now be kept clear from large weeds; and if there be any now of large growth advancing to seed, hoe them up, and rake them off the ground, and carry them away.

Towards the end of this month it will be time to begin to trench such vacant pieces of ground as are to be planted in autumn with any kinds of trees or shrubs: and in order that the ground may be better improved by the rains, sun, and dew, it will, in digging, be most proper to lay it up in rough ridges, till the time for planting in October and November, &c., and then it can be expeditiously levelled down.

#### BUDDING.

Now go over the stocks that have been budded three weeks or a month, and let the bass be untied, that the parts about the bud may not be pinched.

Budding may also still be performed; but it must be done in the beginning or middle of the month at farthest, otherwise it will not prove successful.

#### CHERRY AND PLUM STONES.

PRESERVE cherry and plum stones, &c., for sowing, to raise stocks for budding and grafting.

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### THE GREEN-HOUSE.

#### SHIFTING INTO LARGER POTS, &c.

TOWARDS the middle or latter end of this month, let all such green-house trees and shrubs, &c., as are in want of larger pots, or a refreshment of new earth, be shifted, this being a good time for doing that work.

For that purpose provide a quantity of fresh earth, and some proper sized pots or tubs ; these being ready, let such plants be taken up out of their pots with the balls whole, then trim off very dry, matted, and mouldy fibres of the roots, which spread about the side and bottom of the ball, and trim away part of the outward loose old earth.

Then having put in a little fresh earth in the new pots, set one plant in each, and fill it up properly with the new compost, and give it a moderate watering ; so proceed with others, and remove the pots or tubs where the plants can be shaded somewhat from the sun, and sheltered from violent winds.

This is also now a very proper time to shift all kinds of succulent plants that want larger pots ; such as euphorbiums, sedums, aloes, and the various other similar sorts. Observing generally on this occasion to allot most of the succulent tribe a light dry soil ; a sandy earth, or any similar light compost is eligible, in which to plant them, on account of their fleshy succulent nature, and great humidity of most of these kinds of plants.

Take them out of the pots and trim off some of the outward old earth with care from the ball, and trim the straggling fibres of the root ; set the plants immediately into the new pots, fill it up equally round with new light dry compost, and directly give each a little water.

Then set the pots in a shady place, and the plants will soon take root. Some of the tender kinds may be placed in a garden frame, and the glasses drawn on at times to protect the plants from heavy rains, if such should happen before they take root.

If these plants are shifted at the beginning or middle of this month, they will have fixed themselves again tolerably well in fresh rooting in two or three weeks.

#### PROPAGATING ALOES, &c.

THE first or second week of this month is a proper time to slip or detach suckers or bottom offsets of aloes, and other succulents from the old plants, to propagate them.

The slips or offsets are to be planted singly, in small pots ; the pots must be filled with some very light dry compost. These being ready, plant one in each pot, and close the earth firmly about the root of the plants, and water them moderately.

When all are planted, set the pots where they can be de-

fended from the mid-day sun, and in dry weather let them have now and then a moderate refreshment of water; thus the plants will be rooted in a short time.

#### WATERING.

Do not forget in dry weather to give water to all the pots and tubs of oranges, lemons, and to all the other green-house plants; and let this be always given in due time, before the earth in the pots or tubs becomes very dry.

But take particular care of the fruiting orange and lemon trees, and do not let them want for moisture, otherwise the young fruit lately set will drop off or become of stunted growth.

#### FRESH EARTHING.

To orange and lemon-trees, &c., it would be a great advantage to add a little fresh earth to the top of the tubs or pots, provided it was not done in any of the former months during the summer.

In doing this, the earth in the top of the tubs or pots should be loosened almost to the surface of the roots, and the loosened earth be taken out; then let the pots or tubs be directly filled up again with fresh rich earth.

When this is done, let every tub or pot have a moderate watering; and this settles the new earth close to the roots.

This should be done in the beginning of the month; and it is of such service to these plants, that if neglected before, the doing of it should not be omitted now.

The above dressing would also be of much service to any other green-house plants at this season, where not done any time within the last two or three months.

#### INOCULATING ORANGE TREES, &c.

INOCULATE orange, lemon, and citron trees, for this is the only proper season to perform that operation on these trees; but it must be done in the first, or at farthest in the second week in the month. The proper stocks to bud these upon are such as are raised from the kernels of the same sort of fruit. See the *Green-House* for *March*, *April*, *June*, and *July*.

## THE HOT-HOUSE.

## GIVING AIR AND WATER.

CONTINUE to admit a large portion of fresh air into the hot-house daily ; for the benefit of the plants in general in this department ; observing the rules as in June and July, &c.

Likewise, let all the plants have water pretty freely two or three times a week, or as often as it may appear necessary, to keep the earth in the pots always in a moderate degree of moistness.—See *July*.

## SHIFTING PINE-APPLE PLANTS.

THE succession fruiting pine-apple plants, which are to bear the fruit to be expected next year, should now, where it was not done last month, be shifted into the large pots, where they are finally to remain to fruit.

The pots for this purpose should be those called twenty-fours or sixteens ; but if large plants, have principally the latter sized pots.

Let this shifting be done, if possible, in the first or second week in the month, that they may have time to make new roots, and establish themselves in a free growth by October, ready for being placed in a new bark-bed in the fruiting-house, where they are to remain to fruit.

In shifting these plants observe to let a proper quantity of fresh earth be brought and laid ready ; or any light, mellow, rich garden mould will do ; but if a prepared compost of rich kitchen-garden earth, fresh light loam, and a portion of thoroughly rotten dung, all worked up together in a ridge, exposed in the full sun and air some months before, it will be the most eligible soil for these plants.

The earth being ready, then bring the new pots for the reception of the plants, and, as you proceed in planting, put as much of the new earth into each pot as will cover the bottom two, three, or four inches deep, according to the size of the pots and plants ; and then having taken the plants in their present pots out of their bark-bed, with care turn out each plant with its ball entire ; and placing it in the new pot, fill up the vacancy with fresh earth, and immediately give a moderate watering.

When all is planted, let the bark-bed be stirred up with a fork at the bottom: at the same time let a good quantity of new tan be thrown in, and fork up both well together.—See *July*.

This being done, let the pots immediately be plunged again to their rims, and refresh them now and then with water.

Likewise after shifting, it would be beneficial to give a slight shade of mats over the glasses in hot sunny days, from about ten to two or three o'clock.

#### GENERAL CARE OF PINE APPLE PLANTS.

The principal care of the pine-apple plants now in general is to allot them a large admission of fresh air every warm day, and to supply them properly with frequent necessary moderate waterings.

But observe, particularly, in the plants now in full fruit ripening, to apply the occasional waterings the most moderately, that too much moisture may not affect the flavour of the fruit.

According as the fruit attains full maturity, should generally give proper attention to gather it while in good perfection, before too ripe, and the high flavour much evaporated.

#### PROPAGATING PINES

As the pine-apples will now ripen apace, should, accordingly as they are cut or gathered for the table, give the old plants the necessary care, to assist their production of a supply of bottom suckers for an increase of new plants; in which let them be managed as directed last month: and the suckers are also to be treated according to the method there mentioned.

Likewise take care of the crowns on the tops of the pine-apples; these also serve for propagation: when the fruit has been served at table, the crown should be taken off with a gentle twist, and this, where convenient or is required, may be returned in order to be planted.

The management of the crowns now is also the same as in the last month.

## SEPTEMBER.

## WORK TO BE DONE IN THE KITCHEN GARDEN.

## MUSHROOMS.

THIS is now a principal season to begin to provide mushroom spawn, and to prepare proper supplies of hot dung for making mushroom beds, in which to plant the said spawn for the production of mushrooms.

These beds should be made of the best warm horse stable-dung, and about the beginning, or any time this month, is the proper time to provide a necessary quantity, ready for that purpose; taking the long moist litter and short dung together, and the whole well intermixed.

But before you work the dung up in a bed, it should be tossed up mixedly together in a heap, that the whole may ferment equally, and to remain till the first great heat is over; this is generally effected in a fortnight or three weeks' time, according to the quantity; it will then be in right order, and you may proceed to make the bed.

But before you make the bed, it is proper to provide a sufficient quantity of good mushroom spawn; this is a material article: and a proper quantity must be procured to plant into the bed to produce the mushrooms, for this spawn contains the plant in embryo.

This is frequently found in the dung of old cucumber or melon, or other decayed dung hot-beds; it is also often to be met with in horse dunghills, which have lain several months; spawn is also to be found in pasture fields and meadows, and should be searched for in those places where you see mushrooms rise naturally; but I generally prefer the spawn found in dung, either in old hot-beds or in old dunghills, or dungy composts, &c., as greatly superior to the field spawn, both for the greater certainty of being the true salutiferous sort, and for the general superiority of its production in good fleshy mushrooms.

I have often found excellent spawn in some old dunghills and compost heaps; such as we commonly see piled up in large heaps in the lanes, or on commons near farm fields; and you will generally find it most of all in those dung heaps which consist chiefly of horse stable dung, observing to search in such as appear to have lain for several months; and may also often find

most excellent strong spawn in horse-mill tracts, where horses are employed constantly under shelter in turning mills, &c. or in stable-yards, where horse dung has lain some considerable time in the dry; also in covered horse rides, in livery stable-yards, inns, &c., where horses are exercised; the places being thickly littered with short stable dung, fine cakes of spawn are often found towards the sides.

Spawn is commonly found in searching as above, in lumps of dry rotten or half rotted dung; is a white fibrous substance, running and spreading itself in the said lumps of dry rotten dung; appearing of a white stringy or filamentose nature, and, if of the true sorts, has exactly the smell of a mushroom.

Let these lumps be taken up carefully, dung and spawn together, observing to preserve the pieces as entire as possible, laying them at the same time in a wheelbarrow or basket with the same care: when you have gathered enough for your purpose, let the lumps be laid in a dry place, and covered with some dry litter, or garden mats, till the bed is ready.

But if the pieces of spawn are wet, or very damp, you may lay them thinly together in a dry shady place, where they may dry leisurely; then cover them as above.

I have been obliged often to buy my spawn of the market gardeners in the neighbourhood of London, but particularly those called the Neat-house gardeners, near Chelsea; also about Lambeth and places adjacent; where many of the gardeners' labourers go about at the proper season and collect great quantities for sale. It may, if closely packed up in hampers, be safe conveyed to a great distance. I have more than once sent it above a hundred and fifty miles.

It is sold from about two or three to six or eight shillings per bushel; though sometimes, when plentifully procured, is sold for quarter the last mentioned price.

When you have obtained the spawn, you may then begin to make the bed as soon as the dung is in a right condition for that purpose.

Choose a dry lying place, either in the melon ground, wherein to make the bed, or on any other dry sheltered situation; and the bed should be made generally wholly upon the surface of the ground: or occasionally in a shallow trench only six inches deep, and to the width and length of the intended bed; and the excavated earth of the trench, if a rich, light, mellow soil, will serve to earth the bed.

Mark out on the ground the width and length of the bed,



which must be at least three and a half to four feet wide, and as long as you shall think convenient, from fifteen or twenty to fifty feet, or more, according to the quantity you intend to raise, and is to be made ridgeways, like the roof of a house, about three and a half to four feet high.

Bring in the dung, and lay the bottom of the bed to the full extent; and as you advance in height, draw both sides in gradually from the bottom, till you bring, as it were, to nothing at the top.

As you proceed in making the bed, observe to shake and mix the dung well together, but do not tread it, but beat it down firmly with the fork, and permit the whole to settle gradually of itself.

Thus let the bed be carried on, till you have raised it to the height of at least three feet and a half, or four feet high, finishing the whole in the form of the ridge of a house, as aforesaid.

Having made the bed, you must let it remain for at least a fortnight or three weeks, or a month, according to its substance and extent, before you put in the spawn, or at least till the heat is become quite moderate; for the bed will be very warm in a day or two after it is made, and will continue in a great heat for many days; and if the spawn was to be put in while the heat is strong, it would be entirely destroyed; therefore have two or three long sticks thrust down into the dung, to pull up occasionally to try the heat; which be sure let be quite mild, reduced to a very low warmth, before you venture the spawn in: for this is very delicate, impatient both of too much heat, severe cold, and copious moisture.

Remember, after the bed is made, that if there should happen to fall much rain before it is ready for the spawn, to cover the whole a good thickness at the top with long dry litter, or garden mats, for much wet would spoil the bed.

When the bed is in a due condition, let the spawn be brought out in a dry day, dividing the large lumps into smaller, and plant it in rows lengthways of the bed, observing to begin the first row within about five or six inches of the bottom.

Plant the pieces of spawn in the dung, observing to put them just within the surface of the bed, and let them be put in about five or six inches asunder; when you have finished one row, begin another six or eight inches from the first, and so proceed till you have planted the whole.

When this is done, let the surface of the bed be made quite

smooth, by beating the dung gently with the back of your spade. Then let every part of the bed, from the bottom upward, be covered with some rich dry earth about an inch and a half thick ; let this also be made quite smooth by using the spade as above.

Or sometimes the spawning is performed by placing the spawn upon the surface of the dung, making first a layer of earth along the bottom three or four inches width and two thick : so placing the first row of spawn upon the dung close along the upper edge of the layer of earth, then earth over the spawn the above thickness, continuing the layer of earth six inches up the side of the bed, place more spawn, as before ; and so proceed with the rest, finishing as above.

Likewise the spawning is sometimes effected by first earthing the bed all over an inch and half, or two inches thick, then inserting the spawn into the earth close down to the dung, and then add a little more earth over the whole, not more than an inch thick, smoothing the surface evenly.

Then, in either of the above methods, let the whole be covered with some clean dry straw, or dry long stable litter, a foot thick at least, to keep out the wet and cold ; observing, however, if you have any doubt of the bed recovering a vigorous heat again soon after being spawned and closely earthed over, which confines the heat and hot steam, you may cover it only but a quarter or half the thickness at first, or not at all for a few days or a week or fortnight, if a very substantial bed, and the weather is dry ; but if rain falls, defend it above with the straw, or dry long horse stable litter ; for if the bed is now suffered either to have too much heat or wet, all is lost, so delicate is the spawn—and requires therefore the greatest precautions in the first setting off, being careful, however, agreeable to the foregoing hints, to cover the bed all over in due time with dry litter, the full thickness above mentioned ; which must be continued constantly over the bed in all weathers, night and day, and thus the bed, with proper care, will begin to produce mushrooms in five or six weeks.

During the present season, and all winter, the bed must be kept constantly covered, night and day, as above, to defend it securely from wet and cold : and in time of heavy rains, severe frost, or snowy weather, the depth of covering should be augmented with more dry straw, and over this spread some large garden mats or canvas cloth, which should remain constantly all winter.

And when heavy incessant rains fall, or great falls of thawing snow, examine the covering; if the wet has penetrated quite through, remove the wet straw; and apply some clean and dry next the surface of the bed.

Or, after the bed has been spawned and covered some considerable time, and the mushrooms do not seem to come freely, or that the warmth of the bed appears spent, may remove the covering, except a little next the bed, and apply upon this a quantity of warm dry horse stable litter, near a foot thick, and other dry litter over that; and this will promote a fresh moderate heat in the bed, and prove very beneficial.

But these beds, in the summer season, may sometimes have the covering of litter taken off for a short time, when a very moderate warm shower, and in very hot weather may now and then have little sprinklings of water.

These beds generally begin to produce plenty of good mushrooms in five or six weeks after being spawned; and will continue sometimes bearing for several months.

The spawn, when it begins to run, spreads itself very fast every way, and the plants will rise thickly, in a successional order, all over the bed.

But sometimes a mushroom bed will not begin to yield any plants till two, three, or four months after it is made; but when that happens, it may be assisted by applying a good thickness of long warm stable litter, as above intimated, to revive the declining warmth, and set the spawn in motion.

When the bed is in full production, it should be examined two or three times a week to gather the produce; turning off the straw covering very carefully; and generally gather most of the mushrooms while of moderate size, or not exceeding a middling large growth, or before they become large flaps, especially for most principal culinary purposes; though, on some occasions, are required in large flaps, and in others in small button growth, the size of ordinary round buttons, larger or smaller as they may occur—detaching them clean to the bottom by a gentle twist; not cut them to leave the stump, it being apt to become magotty, infectious to the successional plants; and as soon as gathered return the covering.

I have sometimes planted mushroom spawn on the late cucumber ridges, made in March, April, and May, and in a month or two after, introduced the pieces of spawn along the top edges of the bed into the earth, and covered the places outwardly with a little short dry litter: and thus the spawn has succeeded and

produced a great number of mushrooms in August, September, and October.

#### PLANTING AND SOWING LETTUCES.

THE different sorts of lettuces which were sown in August, for autumn, winter, and spring use, should be planted out at different times of this month into the beds and borders where they are to remain.

Let some good rich light ground be dugged for each of these crops; observing, the crop for the same autumn and beginning of winter service should be planted out the beginning and middle of this month, in any bed or border, in rows ten or twelve inches asunder; but those of the late August sowings, intended to stand the winter, for spring supply, are to be planted out towards the latter end of this month, in three feet wide beds, or in borders, in rows six inches distance, and give a moderate watering as soon as planted.

Also about the last week in the month, dig a warm south border under a wall, &c., for a principal supply of these plants to stand over the winter; rake the surface even and smooth; then let some of the best plants be taken up from the seed-bed, pick off broken and decayed leaves, and trim the ends of their roots a little, and put the plants in rows, six inches asunder by four inches in the rows.

If the plants survive the winter, part may be thinned out regularly in the spring, and planted in a more open exposure; the rest may remain in the border to cabbage early.

But observe, if no lettuce seed was sown in the third or fourth week in August, to raise plants for the borders, as above, you must not, in that case, omit to sow some for that purpose, some time in the first week of this month, which indeed will be soon enough, in warm rich grounds.

#### SOWING LETTUCE TO PLANT IN FRAMES FOR SPRING USE.

ABOUT the beginning or towards the middle, or not later than some time between the 10th and 15th of this month, you should sow some lettuce of different sorts to plant in frames, &c., in October, to stand the winter for use next spring, and early in the summer.

These may be protected in frosty or very wet weather, by covering them with glasses and other covering, when necessary; and if those which are planted in the open borders should be cut off, these will be ready to supply their place.

The best lettuces for this purpose are principally the green and white Cos; and may also sow some white, and hardy green cabbage lettuce, brown Dutch and Cilicia; but sow most of the Cos kinds to plant in frames, &c. (See *October*); and the seed should be sown in a bed or border of rich earth, in a warm situation.

#### PLANTING LETTUCES IN FRAMES FOR WINTER USE.

To obtain lettuces in some tolerable perfection for the table in the winter months, you should, about the latter end of this month, prepare one or more beds of rich earth, in a part of the garden where the ground is driest, and lies well to the south sun.

Make the beds the length and width of one or more shallow cucumber or melon frames.

Then let some good plants of the brown Dutch, best stocky Cos, and common cabbage lettuce, be taken up from some transplanted beds, with balls of earth about their roots, and planted therein, about six or eight inches asunder each way, and watered.

When the weather begins to grow cold, next month, &c., you may put the frames over the beds, and cover them with the lights occasionally, and other covering in cold nights, and when the weather is severe.

These, by the above management, will be moderately well cabbaged, fit for the table, in November and December, &c.; and by planting more in October, and beginning of November, you will have these sorts of lettuces, if a moderate winter, tolerably well cabbaged, in small heads, in January and February, and in preferable perfection in March.

But if, in November and December, some large plants are planted as above, in a moderate hot-bed, under a frame and glasses, they will more effectually attain a larger growth, and cabbage in better perfection.

#### CAULIFLOWERS.

THE cauliflower plants which were sown in August will require to be planted out in a nursery-bed about the middle or 20th of this month.

Let a bed be prepared for them in a well sheltered part of the garden, where it lies well to the sun.

Prepare the beds four feet wide, or the width of a garden-

frame, in the same manner, and observe the same rules as mentioned the last month, in the article of *Cauliflowers*.

Mind to draw out some of the best plants from the seed-bed, rejecting such whose stems are crooked and black; and clear the plants from decayed and damaged leaves.

Plant them in rows about three or four inches asunder, and allow near the same distance between plant and plant in the row, observing not to plant them so deep as to bury their hearts, for that would destroy them.

When you have planted the whole, give the plants a little water to settle the earth to their roots; observing not to apply the water too hastily, so as to break their leaves, or wash the earth into their hearts.

Then, if the plants are small, or backward in growth, you may place a frame on the bed, and also put on the lights; but the glasses are now to be continued only for a few days, till the plants have taken root; observing till that period to shade them from the sun; but when they have got root, the glasses are to be taken entirely off, and are to be used only occasionally for a month to come; but if there should happen cold nights or heavy rains, it will at such time be proper to put on the lights, to defend the plants therefrom; for too much moisture would prove very prejudicial to these young plants, and would occasion their shanks to become black and rot.

When they have been in this bed a month or five weeks, they may either occasionally be transplanted into other beds, protected with frames, &c., as above, to remain all winter; or if not very luxuriant in growth, may be continue in these same beds, only some may be planted out finally under hand-glasses next month. See the work of *October* and *November*.

#### MICHAELMAS CAULIFLOWERS.

SOME of the cauliflowers which were planted out in July for the Michaelmas crop will begin to show their heads about the end of this month, or beginning of next.

Let these be encouraged as much as possible, early in the month, by hoeing between, and drawing some earth up round the stem of each plant, and keep them clear from weeds.

If the weather in this month proves very warm and dry, it would be of advantage to form the earth like a basin round each plant, and pour water therein; this will encourage them to grow freely, and produce large heads in *October* and *November*: for

if they are stunted now in their free growth for want of moisture, their heads will be small at the proper season.

#### PLANTING BROCCOLI, CABBAGE, AND SAVOYS.

TRANSPLANT your last crop of broccoli the first or second week of this month, into the place where they are to remain to produce their heads.

Dig a piece of rich ground for these plants in a warm situation, and plant them in rows a foot and a half asunder, and observe the same distance between the rows, which will be sufficient room for this late plantation.

Likewise, at the above time, plant out some of the stoutest cabbage plants of the sugar-loaf and York kinds, &c., of the summer and early autumn sowing, for small heading colewort cabbages next month, and the two following; also some late savoys for small-hearted plants towards spring.

Hoe the ground and destroy the weeds between the broccoli, cabbages, and savoys, which were planted out the former months, and let some earth be drawn up round their stems.

#### YOUNG CABBAGE PLANTS.

THE young cabbage plants which were sown the first or second week in August for an early and principal crop next summer and autumn should be pricked into nursery beds. Some of the forwardest about the beginning, and the rest in the middle or latter end of this month.

Choose a piece of good ground for them in a sheltered situation; dig it neat and evenly, and lay it out in beds three feet and a half, or four feet wide.

Thin out the plants regularly from the seed-bed; observing to take the strongest first: the smallest may be left in the seed-bed a fortnight longer, to increase in strength.

Plant them in rows lengthways of the bed, about four inches asunder in the row, and four to five or six inches between the rows, according as the plants, in their respective kinds, are of smaller or larger growth; closing the ground well about their stems, and leave the surface smooth.

When you have finished planting, give them some water; and if the weather is dry, repeat it twice or thrice for the first week or ten days, by which time the plants will have taken good root.

#### COLEWORTS.

THE first or second week in this month you should plant out some of the forwardest of the cabbage colewort plants, which

were sown in the latter end of July and in August, into the places where they are to remain both for the autumn and winter and early spring service : and in the middle or latter end of the month plant out the rest for a general spring crop.—See *July* and *August*.

Let these be planted in a free situation of new digged ground, in rows eight or ten inches distant in the row : the rows should be twelve or fifteen inches asunder. They will be fit for use, some of them in October and November of the first plantation ; the others will succeed them in regular order, both for winter, and spring service.—See the work of *July* and *August*.

#### PLANTING CELERY.

PLANT out more celery the beginning of this month into trenches for a successional winter crop, and about the middle and latter end of the month plant out a quantity for a late winter crop, and for spring supplies.

Prepare some trenches for these plants where the ground is light and driest. Let the trenches be marked out ten or twelve inches, or about a spade wide, and to be digged out five or six inches deep, and allow a space of thirty inches, or three feet, between the trenches, which will be sufficient for this late crop : dig out each trench lengthways, a spade wide and a moderate depth, as above, laying the earth evenly in the spaces between, which assists in landing up the plants when of proper growth.—See *July* and *August*.

Then procuring a quantity of the best celery plants for planting, trim the roots and long tops of the leaves, and plant one row in each trench. Let the plants be set about five or six inches asunder in the row, and water them directly.

#### EARTHING UP CELERY.

EARTH up the crops of celery which are planted in trenches, according as they advance in growth, that they may be blanched of a proper length.

The first crops will now be considerably advanced, and should be earthed up higher accordingly. The other crops in proportion to their growth.

Let this work be done when the plants are dry, and in due time, as you see they require it, according to their advanced growth : using, for this purpose, the earth between the rows, break it properly, and lay it to the plants with care, so as not to break the stalks or bury the hearts.



## TYING UP ENDIVE TO BLANCH.

TIE together the leaves of endive to blanch the plants white, tender, and mild tasted; observing generally to perform it in dry weather, and principally to the largest full-sized plants, of good stocky growth and full in the heart; and in doing this work, gather up the leaves evenly in your hand, and tie them together with a string of bass, or small osier twig, a little above the middle of each plant.

## PLANTING ENDIVE.

PLANT out endive the beginning of this month for a general winter crop; let these be planted in a dry spot in a warm situation, allowing them a foot distance each way.

And about the middle, or towards the latter end of this month, you should plant out some endive on a warm border, or some other dry sheltered compartment, to remain till December, and after Christmas before you begin to blanch it.

This, if it survives the frost, will be acceptable for salads, and other uses, in January, February, and March.

## LANDING UP CARDOONS.

THE cardoons will be advanced to some considerable height by the beginning or middle of this month; you must then begin again to prepare to blanch them higher accordingly.

The first step towards this work now is, to tie their leaves close and regular together, to admit of landing up earth around each plant; for as the plants will be now arrived to a large tall growth, and their leaves will spread much, so that the earthing cannot be completely done till they are tied up, this you must do either with strong bass bandages, small hay bands, or thin pliable ropes of straw, or long litter, &c.; observing to gather the leaves up regularly together, beginning near the bottom, and tie each plant closely together as high as you shall think proper to earth them, which should be advanced two feet high, or more, by degrees.

Then let the earth be very well broken, and lay it up about them as high as they are tied; remembering that every plant be earthed singly, laying the earth up quite round the plant, and at the same time observing to pat it gently with the back of the spade, both to fix it in its due place and position, and that wet may readily run off.

Those earthed up now will be fit for use in October, Nov-

ember, and December, and the two succeeding months, but in severe frost should be covered with dry litter; which, as the plants are of considerable height, should be applied accordingly; or in some fully branched plants, may, at the approach of severe frost, loosen the earth below on one side, and turn them down towards the ground, as the covering can then be more readily applied.

#### SPINACH.

THE spinach which was sown in August should now be cleared, and thinned out to proper distances.

This work may either be performed by hand or hoe; it is not material which, provided the weeds are destroyed, and the plants left regular.

In dry weather, small hoeing them is the most expeditious method; but if the weather is moist, it will be best to perform that work by hand.

Let the plants be thinned out regularly to the distance of three or four inches; observing to leave the strongest; or the plants may be left closer, and thinned out by degrees for use; and let the whole be perfectly well cleared from weeds.

Where spinach was not sown last month, it may still be done; and, in a rich warm soil, will succeed tolerably well; but must be done in the beginning of the month.

Or also where a proper full crop was sown last month, a smaller portion may be sown the beginning of this, to succeed the other in the spring; and will stand longer before it runs to seed at that season.

#### YOUNG WINTER ONIONS.

THE young winter onions which were sown the end of July, or the beginning, or towards the middle of August, will now want weeding: let this be done in due time, before the weeds get the start of the plants; for, in that case, they would do the crop much injury, and also render it very troublesome to separate the weeds from them; and should therefore now be properly attended to with particular diligence.

This work must be entirely done by hand, and with great care; otherwise many of these young plants will be drawn out with the weeds; for the onions are not now to be thinned.

Where the sowing of onions was omitted last month, you may still sow some seed; there will be a chance of their succeeding, particularly Welch onions; but it must be done in the

first week in the month; or may also sow a few of both sorts to succeed those of the August sowing in the spring and beginning of summer; as they will stand longer before they run for seed.

#### TURNIPS.

Hoe the turnips which were sown the last month; let this be done in a dry day; and let your hoe be sharp, and of a middle size.

Cut the weeds up clean, and let the plants be hoed out regularly, six or eight inches distant. See *August*.

#### SMALL SALADING.

LET the different kinds of small salading be sown once a week or fortnight, as you may see it necessary, where a regular succession is required; the sorts are cresses, mustard, radish, and rape.

These seeds may now be sown in any free situation, where the earth is light and rich.

About the middle or end of this month, begin to sow these seeds on a warmer border, under a south wall, or other fence of the same aspect.

Towards the end of this month, if the weather should prove very wet and cold, you should begin to sow some small salad herbs on warm borders, or otherwise in frames, and cover them with the lights occasionally; or you may sow them under hand or bell glasses, for these plants will make but poor progress if they are not protected in cold weather, especially in cold nights.

These plants generally rise best when they are sown in drills; but the drills must be shallow, or may be sown broad cast: sowing each sort separate, and very thick, and the seed covered not more than a quarter of an inch with light earth. See the spring months.

#### CHERVIL AND CORN SALAD.

Sow chervil and corn salad the beginning of this month, if not done in August, for winter and early spring use, the former for soups, and both of them also for salads. See *August*.

#### GATHERING RIPE SEEDS.

GATHER seeds in dry weather of such plants as now ripen, such as lettuce, leeks, onions, cauliflowers, &c., which you

must well attend to in these kinds particularly, according as they acquire maturity, and before attacked by the autumnal rains or mildew.

As cauliflower seed ripens late, when most other seeds of that nature are gathered, it is apt to be attacked more greedily by the green birds and chaffinches, &c., should at that time, the beginning, or towards the middle of this month, be well watched, to chase away the above kind of birds, which otherwise would devour most of the best seed.

According as the seed ripens, as it seldom attains that perfection all together, cut off the seed branches, and place them in the full sun, to harden the seed in a proper degree; then should be thrashed or beat out of the husks, cleaned and bagged up, and deposited in a dry apartment.

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## THE FRUIT GARDEN.

### PEACHES.

Go over your peaches, nectarines, and other wall-trees, and see that all the branches keep firm in their proper places; if any be loose, or project from the wall, let them be fastened up in their due position.

This prevents their being broken by winds: and when the whole lies close and regular to the wall, then all the fruit can equally enjoy the benefit of the sun to ripen it; and it also appears decent and agreeable to the eye.

Where any of the ripening fruit are too much covered with the leaves, let some be displaced; for although a moderately slight shade or coverture of the leaves is requisite and beneficial to the growth of all fruit, yet, in its more advanced state particularly, too full a shade is of disadvantage, in some degree, so far, that the fruit would not attain either its peculiar colour or flavour, in full perfection.

But the removing of leaves is only to be practised where they are uncommonly thick, and darken the fruit much; and in that case they are only to be thinned regularly, still preserving a slight covering of leaves over the fruit.

### VINES.

Look over your vines again, to see that the grapes enjoy the necessary advantage of sun and air, to promote their ripening.

Where the bunches of grapes are too much shaded, let some of the leaves be taken off; and where any of the bunches are too close confined between the branches, or entangled with each other, let them be loosened, so that each may hang fair in their proper position, as observed in August.

If the vines have produced any late shoots in the last month let them be taken off wherever they appear; for they are useless, and if left on, they would cause confusion and irregularity, and also darken the fruit, and retard its maturity.

For as grapes will now be ripening, they should have all possible benefit of the sun to forward them, and give a rich flavour.

Protect ripe grapes from the birds, wasps, &c., by bagging the best bunches in crape, gauze, or paper bags, as explained below.

#### PROTECTING WALL-FRUIT FROM WASPS, FLIES, AND BIRDS.

CONTINUE to hang up phials of sugared or honey water, beer, or other strong-scented liquor, &c., to catch the wasps and flies which still detrimentally infest the choice wall-fruit, as peaches, nectarines, pears, plums, &c., and will also do much mischief to the grapes; as will also the birds: therefore, besides the bottles of sweetened liquor, let also some small bags, made of thin crape or gauze, be put over some of the finest and ripest bunches of grapes. These bags should be made just so large as to contain one bunch of fruit; this will effectually keep off the insects, and also the birds; which would devour these fruits at a vast rate.

But the birds you may keep from the fruit by fixing nets before the trees, or hanging up scare-crows of feathers, or in extensive walling, discharging a gun or pistol occasionally; but the most certain method to preserve some of your finest bunches of grapes from all devourers, is to bag them as above directed.

Or, for want of crape bags, &c., may use those of white paper, but these do not succeed so well, for the sun is then too much excluded from the fruit; and in wet weather the paper being wetted, it adheres to the bunches, and damages the berries: whereas the sun and air have free access through the crape, and when wet they will very soon become dry again; and if wet weather continues, no inconvenience attends them by means of the bags.

Hang up phials of sweetened liquor-water also upon the

choice kinds of fig-trees,—for wasps and other insects generally swarm about these trees, to feed on the ripening fruit.

You should also watch birds very well, or they will pick and spoil many of the best figs.

#### GATHERING APPLES AND PEARS.

Now begin to gather autumn apples and pears for keeping, according as they arrive to mature growth; many of the autumn sorts will be ready to take down for that purpose towards the middle or latter end of the month; but for present service, several sorts will be of eligible growth to pick here and there off the trees any time this month, occasionally as wanted.

However, most of these autumn kinds which now attain mature growth serve both for present supply and for keeping a moderate time; but not all winter, like the winter apples and pears, as some will probably not keep above a month or six weeks, others a month or two longer; in all of which there are many very good fruit.

This work of gathering the above kinds should generally be done in a perfectly dry day; and be sure to let the fruit be also quite dry before you begin to pull them; and all the fruit which are for keeping should hang their full time on the trees, but especially the late autumnal pears and apples, not till dead ripe, but of full growth.—See *October*.

About the latter end of this month many of the winter fruits will be fit to gather; but if the weather is fine, let them hang on the trees till *October*.

When the apples and pears have hung their full time on the trees, they will easily quit the wood on being handled; and when they begin to drop off apace, that is a certain sign of their maturity, and that they may be gathered.—See *October*.

#### PREPARING FOR PLANTING.

BEGIN towards the end of the month to prepare the ground where new plantations of fruit trees are to be made.

If an entire new border is intended for wall trees, &c., it is of importance to add a good supply of thoroughly rotten dung, and the ground to be worked to the depth of at least eighteen inches or two feet: and if it is light dry soil, it would be an advantage to add also some fresh loam or other good substantial fresh mellow earth, from a pastured common, or field, &c., but particularly to the places where the trees are to stand.—See next month.

As several sorts of fruit-trees will now appear to have declined all growth, by the leaves beginning to discover some signs of decay towards the latter end of the month, they may be removed for planting; such as some forward kinds of peaches, apricots, cherries, &c., and being thus early planted in autumn, they will very quickly take root the same season, to their particular advantage against winter and next spring; give a good watering at planting, &c.

#### STRAWBERRIES.

Now is a proper time to plant strawberries; and, if moist weather, it may be done at any time in the month: but, if the weather be very dry and hot, it will be proper either to water them plentifully, or not begin planting till the middle, or towards the latter end of the month.

The strong young runner plants of the same year, taken from beds that bear well, are the proper sets for planting; such as advised next month and in June: and if any were then (June) planted out in nursery beds, as there directed, they will be now in fine order for this plantation; or young offsets, produced at the sides of the old plants, are also eligible.

The plants are to be allowed good ground; and generally for the principal supply, allot a situation in the full sun, for the advantage of ripening the fruit in the best perfection; let the ground be well dunged and neatly digged, and lay it out into beds four feet broad, allowing alleys between the beds from eighteen to twenty inches to two feet wide, for the convenience of going in occasionally to weed and water the plants, and gather the fruit.

These plants should be set in rows lengthways the beds; the rows to be twelve or fifteen or eighteen inches asunder, and the plants to be set at the same distance from one another in the rows.

Or they may be planted in borders along the front and back of espalier trees, or under walls, hedges, &c., or some may be planted by way of an edging to borders, or where convenient: the wood strawberries will succeed both in shady situations, near bushes, trees, &c., and in a free exposure: but the other sorts should generally be allowed an open sunny exposure.

It would be most advisable to perform this work of planting in all the sorts, principally in moist weather, if possible; especially if done early in this month; but not so material if later.

The principal sorts of strawberries for general planting, are—the scarlet strawberry, the hautboy, the large Chili strawberry, the white and red wood strawberry, the pine-apple strawberry, and the Alpine or most prolific strawberry, which is remarkable for its fruitfulness; for the plants continue to produce fruit from June to October, or November; and if then sheltered with a common frame and glasses, will sometimes, if open mild weather, continue in a small production till near Christmas: but generally allot most of the scarlet and hautboy kinds for the principal supply; and, of which, more abundantly of the scarlet for the main plantation.

The old strawberry beds will now openly require to be kept clear from large over-grown weeds; or, towards the latter end of the month, may begin to prepare for their winter dressing.—*See October.*

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## THE PLEASURE OR FLOWER GARDEN.

### PLANTING HYACINTHS, AND TULIP ROOTS, &c.

In the third or fourth week in this month it will be time to begin to prepare for planting the choice hyacinth and tulip roots for an early spring bloom.

Let the beds, &c., for these bulbs be digged or trenched one or two spades deep, breaking the earth fine, and lay the surface even: and let the beds be three feet and a half, or four feet wide, laid somewhat moderately rounding, and rake the surface smooth.

Then, either the latter end of this month, or in October or November, plant the bulbs in rows, lengthways the bed, six to nine inches asunder, and the same distance in the row; but not nearer than six inches, and about three inches deep.

As to the method of planting in beds, may either draw drills with a hoe, placing the bulbs bottom downwards in a row along each drill, and cover them in with the earth; or may be planted in holes made either with a thick blunt-ended dibble, or the large bulbs occasionally holed in with a garden trowel: or instead of either of the above methods, may with a spade or rake, trim the earth evenly off the surface of the bed, into the alley, the depth required to plant the roots, which then place at a



proper distance upon the surface of the bed, pressing them gently, with the hand, a little into the earth; then with the spade cast the earth out of the alley evenly over the roots, the depth as above.

May also plant some in the flower borders, and in pots, boxes, &c., likewise hyacinths in bulb glasses of water.—See *October*.

Any other bulbous roots may likewise be planted towards the middle and end of this month.

#### RANUNCULUSES AND ANEMONES.

Now also, about the middle, or towards the latter end of this month, begin to prepare the beds for the best ranunculuses and anemone roots; and may then either be planted at that season, or any time after, till the end of October or November, in open, mild, dry weather: either in separate beds, alone, or some in assemblage in the borders, &c.

Let these roots be planted each sort separate, in rows lengthways the beds, not less than six inches asunder, by four, to five or six inches distant in the row, and about two inches deep.

The above distance is more room than what is generally allowed to ranunculuses and anemone roots: but when planted closer, the plants shoot up in a crowded manner, draw each other up weak and the flowers never grow so large, nor show themselves to such advantage, as when they stand more distant.

#### SOWING ANEMONE AND RANUNCULUS SEED.

THE beginning of this month is still a proper time to sow the seeds of anemones and ranunculuses, where it was not done in August.

For that purpose, being furnished with one or more largish wide pots, or flat earthen garden pans or boxes, &c.: fill them with rich light earth, making the surface even; then scatter the seeds thereon moderately thick, each sort separate, and cover them with light fine earth, not more than a quarter of an inch deep.

The plants will come up in about six weeks or two months, when they must have a warm sunny situation, and should be protected in winter, occasionally, from excessive rains, snow, and hard frost; but they sometimes, when sown thus late, do not come up till the spring.

About the Michaelmas twelvemonth, they should be transplanted into a bed of common earth, and in the spring following.

they will flower, when, perhaps, they will afford you several new flowers that are double, and of fine colours.

As for the single flowered kinds, the best of them may be deposited in clusters about the common borders, &c.

#### CARNATION LAYERS.

TAKE care now of the carnation layers ; where there are any still remaining on old plants, and properly rooted, let them be transplanted now as soon as convenient, some time before the latter end of the month, that they may have time to take good root before winter.

The choicest kinds of these layers you may plant in small pots for the more readily protecting them in winter. The layers of the common sorts you may plant into nursery beds in a warm situation, and some of the strongest layers may be planted out at once into the borders, or where you intend them to flower.

Any carnation layers as were planted off as above, last month, or early in this, should, if a warm dry season, have occasional waterings.—See *June, July, &c.*

#### AURICULA PLANTS IN POTS.

AURICULA plants in pots demand attention at this time ; and particularly those that were shifted last month, to give occasional waterings ; but, if they were not then shifted, it may not be effected.

These plants should, if the weather proves at this time very dry, be now and then moderately watered ; but, if there should fall much heavy rain about the end of the month, it will be an advantage to defend the capital sorts occasionally ; for incessant and excessive wet at that time might prove rather injurious in some degree to these plants, on account of their natural succulency.

To protect the choicest kinds of these plants in bad weather the most effectually during the winter, let the pots, about the latter end of this month, or in October, be placed close together in a bed, open to the full sun ; then to form a low awning across with hoop bends, or rods, &c., and when autumnal and winter rains, or snows, &c., are excessive, let some large thick mats, or canvass, be drawn over to defend the plants ; or the pots may be set close together in a garden frame, and the glasses put on as occasion requires, which will be more effectual ; but let them be fully exposed in all moderate dry weather.

However, it may be proper to observe, that as the above means of occasional shelter may not always be conveniently attainable, these plants are hardly enough to stand the winter without that assistance; only it is of good effect in preserving them more effectually in proper strength and good state of growth, that they may flower in best perfection.

But where there are no such conveniences as above, it will in that case be proper, at the end of the month, to place the pots in a warm border; and in heavy autumnal and winter rains and snow may turn them down on one side, with the plants towards the sun, to prevent them receiving too much moisture.

Auricula offsets may still be detached and planted.

#### AURICULA SEED.

The seed of auricula may still be sown, when not done in August.

These seeds should at this time be sown in large white pots; or in boxes filled with earth. Let the earth be light and rich, and broken very fine, and the seed should be sown tolerably thick, and covered a quarter of an inch, or thereabouts, with earth.

The pots or boxes should be placed out of the mid-day sun, till towards the end of this month, and then set in a warm situation.

The auricula plants raised from this sowing will flower the next spring twelvemonth.

#### TRANSPLANTING PERENNIAL PLANTS.

Dig and prepare borders towards the latter end of the month for planting various perennial and biennial flowers; and in which may then transplant some of the strongest and best plants which were raised in the spring and beginning of summer, or before, according to the different sorts.

They may be transplanted any time after the middle of the month: such as carnations, pinks, and sweet williams; also the seeding wall-flowers, stock gilliflowers, and columbines, with many other sorts, both seeding plants, and such as were raised from slips, offsets, layers, pipings, &c.

In selecting the above, or any of the various different sorts or perennials, &c., for the decoration of your borders, or other flower compartments, generally choose a proper variety, more or less and if not furnished therewith in your own garden, may obtain

them as required at most of the nurseries;—observing in either of which, to prefer those of the fullest good growth according to their kinds: and as many sorts both of seedling plants, and others raised from layers, pipings, slips, offsets, &c., may now be readily transplanted with small balls of earth about their roots, it should be done accordingly, and the plants will thus scarcely feel any check by removal; or let others be removed with as full roots as possible, planting the whole, in the allotted places, in a varied order; and give directly an immediate watering to settle the earth closely about the roots.

They will soon take root the same season, and will all flower next year in good perfection.

#### SOWING SEEDS OF BULBOUS FLOWER ROOTS.

THE seeds of tulips may still be sown, and also the seeds of hyacinths and crown imperials, with the seeds of fritillars, and of most other bulbs.

These seeds may be sown in beds or boxes: they will succeed in either; let the earth be rich and light, and broken very fine, and lay the surface perfectly smooth.

Then sow the seed separately on the surface, and tolerably thick, and cover them with light sifted earth, near half an inch deep.—See *August*.

#### CLIPPING AND PLANTING BOX EDGINGS.

CLIP box edgings where it was omitted in the two former months, but let this be done as soon in the month as possible, that the box may have time to recover a little before winter.

Now is the time to begin to plant box where new edgings are intended; but, if very dry hot weather, this should not be done in any considerable extent till towards the middle of the month: or however, if but moderately warm weather, or somewhat moist season, it may be planted at any time now when required, or opportunity serves, as there is no time in the year in which box will take root sooner; giving a good watering as soon as planted.—See *October*, &c.

Likewise where there are edgings of box that have been suffered to run up too high and broad, in a rude growth, they may now be taken up and replanted in regular order; observing, when taken up for that purpose, to let a quantity of the best plants of short bushy growth be planted or slipped, with roots to each slip; the root and top properly trimmed, and

immediately planted again in a close, low, neat edging.—See *October*, &c.

This is also a good time to repair any former planted box edgings where wanting; therefore, where there are any gaps or deficiencies, let them now be mended: the box will be rooted in a month after planting, and the edgings will then appear neat all winter.

For the method of planting these edgings in either of the above cases, see *October*.

#### TRIMMING AND PLANTING THRIFT EDGINGS.

Cut or trim thrift edgings, where grown disorderly or sprung out considerably in an irregular manner; in which case cut in the two sides evenly, and cut off any remaining decayed flowers, and let any irregularity at top be reduced to proper order.

Likewise may now plant edgings of thrift; either planted close in the method of planting box, or by dibble, so as to form a regular edging, or planted only about two inches asunder; well watered.

#### CLIPPING HEDGES.

FINISH clipping all such hedges as still remain untrimmed; and let this be done in the beginning of the month, before the shoots get too hard.

In clipping hedges, always take particular care to have the shears in perfect good order, that you may be able to make both neat and expeditious work. Let the sides of the full grown hedges be always clipped in nearly to the former year's cut, and as straight as possible: for it looks ill to see the sides of garden hedges much wavered by irregular clipping; and generally observe to clip a hedge in such a manner, as it may run somewhat narrowing upwards, that the top may be gradually a little narrower than the bottom, and keep a good eye in cutting the top regularly even.

Observe, in clipping young hedges under training, to have particular care not to cut them too close down above, but run the top off regularly, so as the stronger and more moderate shooting plants may advance as equally as possible; and cut the sides with similar care.

#### GRASS AND GRAVEL WALKS, AND LAWNS.

Mow grass walks and lawns, and let this be always done in proper time, never permitting the grass to grow rank, for that

not only appears disorderly on principal garden lawns, &c. but when grown very rough, it cannot be cut with proper regularity, to form a close even surface; and generally observing, at this time, to mow as close and even as possible; whereby to have a close, firm, regular bottom, against winter, that it may remain agreeably neat all that season.

Likewise let the rough edges of all grass lawns, &c., adjoining gravel walks, and principal borders, and other similar compartments, be also cut close and neat, with a pair of grass shears, cutting in the loose grass close to the firm edge, which gives an additional neatness in the general appearance.

Roll gravel walks, at least once or twice every week, for they will not look well, nor be agreeable to walk upon, without they are well rolled; and let these walks be always kept very neat, not suffering weeds or any litter to appear on them; and should be occasionally swept clean from all loose litter, leaves, &c., before they are rolled.

#### REGULATING THE FLOWER BORDERS, SHRUBBERIES, &c.

Continue keeping the general flower borders, and other similar districts always very clean, and in the most neat order,—hoeing and clearing away all weeds, decayed flower stalks, dead leaves, and other rubbishy litter; and occasionally rake the surface clean and smooth.

On this occasion, should now eagerly go round the borders and shrubbery compartments about once a week, and cut down the decayed flower stems of such plants as are past flowering; for it looks ill to see dead stems standing up among the growing plants, or such as are still flowering in their proper season.

And should also now look over the plants in general, both of the herbaceous and shrubby tribe, to regulate any disorderly growth, such as where any very strong rambling, or long run-away shoots occur, or any of a disorderly straggling nature; and either cut them out, or prune them to some regularity, according to their order of growth, clearing out also all decayed parts, and large glaringly withered leaves, &c., that the whole may thus be continued in some tolerably regular order, of a clean, neat, lively appearance.

Continue also to tie up to stakes such plants as need support or have been overturned by winds, or borne down by heavy rains, &c.: training them in an upright orderly manner, secure in their places, and in proper regularity.

About the middle or latter end of this month, begin digging vacant beds and borders, &c., or such where the plants have mostly declined flowering, both to prepare them for the reception of any plants or roots intended; also to kill weeds most effectually, and to give a clean neat appearance.

PROPAGATING FIBROUS ROOTED PERENNIAL PLANTS.

This is the time to slip and plant out many kinds of fibrous-rooted perennial plants, to increase them; such as rose campanion, scarlet lychnis, catchfly, and campanulas, &c.

Where these plants are grown into large tufts, it will be proper either to take the roots entirely up and part them, or slip the outward offsets as the plants remain in the ground; and plant some of the best slips again in the borders, or places where they are to flower; the smaller slips may be planted together in a bed, to remain to get strength.

Likewise, for increase, may now slip or part the roots of daisies, polyanthus, and auriculas, gentianella, London pride, Christmas rose, white saxifrage, thick-leaved purple saxifrage, double camomile, and thrift, heart's-ease, &c., dividing or slipping them as above: and the largest offsets may plant finally in the borders, pots, &c., and the smaller ones in nursery beds; or, of the above, the double white saxifrage, is very commonly planted in pots, both on account of its small granulous roots being more readily preserved together, and for moving in the said pots, when in bloom, to adorn fore courts, &c.; and is occasionally planted in little clusters in some principal borders.

The double rocket, likewise, where it was not taken up and parted last month for increase, may now be done; the double bachelor's buttons, with the double feverfew, may also now be managed in the same manner.

The leonurous, double ragged robin, golden rod, perennial sunflowers, and all other perennial fibrous-rooted flower plants that have done flowering, may likewise now be propagated by parting their roots; this being a good season to remove most sorts.

Now is also a good time to transplant the various knobbed and fleshy rooted plants; and also to propagate them by slipping or parting their roots; such as peonies, fillipendula, cyclamen, winter aconite, dens canis; and the different sorts of flag irises, monk's-hood, fraxinella, and all other such like plants, may now be taken up and parted where necessary, and transplanted into places where wanting.

## TRANSPLANTING FLOWERING SHRUBS.

TOWARDS the latter end of this month it will be time to begin to transplant many sorts of hardy shrubs and trees where wanting.

But more particularly the evergreen kinds; as for the deciduous sorts, that is, those that shed their leaves in winter, it will be advisable to defer any principal removal of them till about the middle of next month, when they will have finished their year's growth, determinable by their leaves decaying; and from that time to the middle or end of March, you may, in open weather, transplant all kinds.

But, however, when there is any planting particularly wanted to be done, you may venture to remove most sorts of shrubs any time after the twentieth of this month, giving a good watering as soon as planted; and there will be no hazard of their succeeding.

Let all such shrubs or trees as are transplanted at the above time have a good watering, not only at planting, but if very dry weather, and exposed to the full sun, repeat it once or twice; they will not want any more, and they will soon strike root the same season.

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THE NURSERY.

BEGIN now, where not done in August, to prepare, dig, and trench the ground where you intend to plant out a nursery of young stocks for fruit trees; and also where you intend to plant nursery rows of young forest trees; and any kinds of hardy shrubs, the next month, or November, &c.

By getting the ground for new plantations ready at this time, it will not only forward the business greatly, but also prepare the ground the better to receive the advantage of rains, to mellow and moisten it, which will be a great advantage to the plants in expediting their early rooting more effectually the same season.

## TRANSPLANTING EVERGREENS.

TOWARDS the end of this month you may begin to remove or transplant, in the nursery order, &c., where necessary, many kinds of evergreen shrubs and trees, as those transplanted at this time will freely take root.



Particularly the common and Portugal laurels, *laurustinus*, *phillyreas*, *pyracantha*, and *arbutus*, and many other kinds.

Observing as soon as planted, if dry light ground, it would be of advantage to water them freely, to settle the earth close to their roots.

#### TRANSPLANTING DECIDUOUS SHRUBS AND TREES.

In the last week of this month you may also begin to prepare for nursery transplanting, many kinds of deciduous shrubs and trees; being such as shed their leaves in winter.

Particularly such hardy trees and shrubs, whose leaves at that time began to decay, discovering that the plants have finished their summer's growth and may be safely removed, especially if the weather be somewhat moist. But in removing any kind of shrubs or trees at this early season of autumn planting, if the ground and the weather prove very dry, it would be beneficial, as soon as transplanted, to give them a good watering; though, if very dry weather, it will be better to defer all planting till next month or November.

There is, however, great advantage in making early plantations next month, or November; that is, in transplanting soon after the leaf decays; the plants having time to prepare for taking fresh root before the frost sets in hard to prevent it; besides, such trees and shrubs as are transplanted early in the autumn planting season will be so well established by next summer, that the drought at that time cannot hurt them.

At this time, however, it is not advised to perform any general nursery transplanting of deciduous trees and shrubs, but only such whose leaves are decayed, or in a decaying state, notifying the declined growth of the trees, &c., for that year; and that it is required to have any such of particular sorts transplanted as soon as possible, in the latter end of the month, not sooner.

Likewise some sorts of young fruit trees, whose leaves are now decayed, may also be transplanted in the latter end of this month if necessary, to forward part of the business at the earliest period of autumn planting; but perform no general planting till the next month, or November.

#### STOCKS TO GRAFT OR BUD ON.

PREPARE ground for transplanting a nursery of fruit-tree stocks, for grafting and budding: either those raised from seed in the spring, or from cuttings, layers, or suckers.

If in the last week in this month the leaves of any are decayed, may begin to plant some into the quarters, or where intended, especially if moist or showery weather; otherwise not to perform any general transplantation till the following month; they must be planted in rows two feet and a half asunder, and the plants to be set fifteen or eighteen inches distant in the rows.

#### PROPAGATING TREES AND SHRUBS, BY CUTTINGS.

Now begin to plant cuttings, of the young shoots of such trees and shrubs as will grow by that method.

By cuttings, the best gooseberries and currant trees are abundantly raised: and towards the latter end of this month is the proper time to begin to plant the cuttings; which must be the same year's shoots, of straight, clean growth; cut off in proper lengths about eight, ten, or twelve to fifteen or eighteen inches; and plant them in nursery rows twelve or fifteen inches asunder, by half that distance in each row.

May plant also in the latter end of this month cuttings of honeysuckles; choosing firm young shoots, and cut them into lengths of about nine, ten, or twelve inches; and plant them in rows ten or twelve inches distant, and six or eight inches in the row; and generally insert each cutting full half into earth.

Many other kinds of flowering shrubs and trees are raised by cuttings of the same year's shoots; and the middle or latter end of this month is the time to begin to plant cuttings of many of the hardy kinds.

This is rather the best time in the year to plant cuttings of laurel and Portugal laurel.

These cuttings may be planted in a shady border any time in this month, but about the middle or towards the latter end is rather the best time to do that work.

In taking off these cuttings, choose the moderate strong shoots of the same year's growth, about ten or twelve inches long; and cut off the leaves at bottom, and half way up the shoots; and then plant them in a shady border, inserting each cutting as far into the earth as the leaves are stripped off, and water them.

#### PROPAGATING BY LAYERS.

MAY now begin the general propagation of many sorts of trees and shrubs by layers, towards the middle and latter end of this month.—See *Nursery, October.*

## CHERRY AND PLUM STONES TO RAISE STOCKS.

Sow cherry and plum stones, or preserve them to sow in October, to raise stocks to graft and bud upon.—See *October*.

## GENERAL CARE OF YOUNG NURSERY PLANTS.

SHOULD now give particular good attention to all seed-beds and nursery plantations of young plants of trees, shrubs, &c., to have them thoroughly clean from weeds this month, whilst the dry warm weather continues, before the heavy autumnal rains set in considerably.

In this business should most carefully attend to clearing from weeds all seed-beds and seeding rows of small young plants, by occasional hand-weeding and hoeing, as they may admit; and, taking opportunity of dry days, hoe between transplanted nursery rows of the different kinds of young trees and shrubs, to cut down and exterminate the present growth of autumnal weeds, cutting them up radically out of the earth that they may be destroyed effectually.

Continue giving water occasionally in dry weather to all plants in pots; also to any newly transplanted young trees and shrubs, both in pot and the full ground.

Towards the latter part of the month begin to pot off singly young tender plants raised this year, and remaining too thick together in beds or pots, &c., and that require moving to some protection in winter.

And, likewise, towards the latter end of this month, begin to remove tender young trees, shrubs, and other plants in pots, &c., to some warm situation, or place of occasional shelter from frost.

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THE GREEN-HOUSE.

## ORANGE AND LEMON TREES.

IN the last week of this month, or sooner, if the nights prove cold, it will be proper to remove the orange-trees, and many other green-house plants, into their winter quarters; but if fine weather, they may remain a week or a fortnight longer.

Let, however, the orange and lemons in particular, and such

like tenderest kinds, be taken into the green-house at the first approach of cold nights; for one sharp night would make their leaves change their fine green colour; and they would hardly be able to recover it again all winter.

Therefore, at the time mentioned, if cold unfavourable weather prevails, take the opportunity of a dry day, and carry into the green-house the oranges, lemons, and other plants of the more tender kinds, and particularly all the tender kinds of succulent plants; likewise the geraniums, which having soft succulent branches, a touch of frost would injure them considerably; placing the whole in some tolerable order, till all the other plants are housed next month, then placed regularly together for the winter.—See *October*.

When the above plants are in the green-house, let the windows be opened every mild day to their full extent; but if frost happen, or cutting winds sharply cold, or very damp foggy weather, keep the house mostly shut, more or less, but generally always close of nights.

At the time of removing the plants into the green-house, or some time before, if any appear of irregular growth, either in some ill-placed rampant shoots, long runaway ramblers, disorderly straggling growths, or the head irregularly crowded, let them be pruned a little, with careful observation, to some regularity in the general branches; cutting out also any decayed parts, and small withered or dead leaves.

Continuing, however, proper care of the general collection, both in those removed into the green-house, and such as still remain in the open air; giving necessary waterings, but more moderately towards the end of the month; and if the earth in any of the pots binds hard, loosen the top, and apply a little fresh mould.—See *October*.

And let any green-house plants in want of larger pots be shifted therein the beginning or middle of the month, nor defer it much later, if possible, that they may have time to strike some fresh root before winter.

Or any young green-house plants raised this year, or before, from seed, slips, suckers, cuttings, &c., such as geraniums and myrtles, growing several or many too closely together in pots, or any in beds of natural earth, or under frames and glasses should now be all transplanted into small pots, singly, the beginning or middle of this month, and properly watered. Or, if any are very small, may plant two, three, or more, in a pot.

But such of the above plants raised from slips, cuttings, &c.,

as are not yet properly rooted, or not much advanced in top growth, may remain in their present pots till next spring or autumn.

Where any young myrtles, &c., of one or two years old, from cuttings, where bedded into the full ground in May, to gain good strength in the summer's growth, should now be transplanted with balls of earth to the roots into proper sized pots, one plant in each, for removing into the green-house or in proper frames under glasses, next month, giving them water at planting, and afterwards occasionally.

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## THE HOT-HOUSE.

### PINE-APPLE PLANTS.

If the succession of pine-apple plants, which are to produce their fruit the next year, were not shifted into larger pots the last month, that work should be done the first or second week in this month at farthest; otherwise the growth of the plants will be greatly retarded.

In shifting these plants you must observe to preserve the ball of earth entire about the roots, placing them with particular care into the larger pots, and fill up the pots with fresh compost; then stir up the bark-bed, to renew the heat, as directed last month; plunge the pots again therein to their rims and give the plants a very moderate watering.

But in shifting and ordering these plants let the same rule be observed as advised in the two last months.

But where the plants were shifted a month or five weeks ago, and at that time no fresh tan added, it will now be proper to examine the heat of the bark-bed, wherein the plants in general are plunged: and if you find it is very weak, stir up the bark to the bottom with a fork, and plunge the pots again immediately to their rims.

This will revive the heat of the bed, and will continue it in a good condition till the next month, when they must be removed into the fruiting-house, in a new bark-bed, made wholly of fresh tan, where they are to remain, to perfect their fruit next summer and autumn.

Younger succession pines, advancing in proper growth, to succeed the above, if not only lately shifted, and in want of

larger pots, should also be shifted therein as above.—See the two last months and *October*.

#### ADMITTING AIR, AND WATERING.

You must observe to admit air to the plants in general in the hot-house or stove departments, every day at this season, in warm sunny weather, by sliding open either some of the top lights, or upright glasses, or both occasionally, more or less, according as the heat of the day increases and decreases: shutting all close in due time towards the afternoon or the evening.

The pine-apple plants will require moderate refreshments of water, once in three or four days, if hot summer weather and there is a brisk heat at bottom; but if the heat in the bark-bed is weak, once in a week will be sufficient; especially after the middle of this month.

#### ADDING FRESH TAN.

ABOUT the latter end of this month you should begin to procure a proper quantity of fresh tan from the tan-yards, to be ready to renew the bark-beds in the hot-house and stove, &c., the next month.

For this purpose you should provide as much new tan as will be equal to one half at least of what the bark-pit will contain, though sometimes two-thirds or more is required, according as the old bark is more or less wasted; but generally provide a sufficient quantity, rather to have to spare than be deficient at the time it is wanted for immediate application in the hot-house pit as above.

When the tan is brought in, let it be thrown up into a heap, and let it lie for ten or twelve days to drain and ferment, before it is put into the hot-house.

But if it is very wet, as is sometimes the case when newly thrown out of the tan vats, it should, provided the weather be dry, be spread abroad thinly where the sun comes, to lie two or three days, that the sun and air may draw off or exhale the grossest of the moisture; for if put in too wet, it will be a long time before it will acquire a proper degree of heat.

The tan or bark for the above purpose should be fresh, such as hath been about a fortnight, or three or four weeks, out of the tan-pits; and also observing, that as some of the tan is pretty large, and some quite small, the middle sized bark is what should be chosen.—See *October*.

## CROWNS AND SUCKERS OF PINE PLANTS.

THE bed wherein this year's crowns and suckers are plunged should be kept to a good heat, by which means the young plants will make good roots before winter.

If they are in a good bark-bed, the heat will not yet want any augmentation : but if the pots were placed upon a dung hot-bed, either let a lining of fresh hot dung be applied to the sides of the bed, when you find the heat is decreased ; or, if the bed is much sunk, apply at present some fresh hot dung at top, fifteen or eighteen inches thick, or more, laying, at top of this, several inches of light earth, or tan, and in which replunge the pots.—See *July, August, and October*.

And about the latter end of this month it will be proper to lay some dry long litter or straw round the outsides of the frames, which will keep out the frost, and preserve a kindly growing heat in the bed.

When the nights begin to be cold, let some mats be thrown over the glasses every night.

Raise the glasses a little in the middle of the day, to let out the steam, and to admit air to the plants.

Give these young plants also occasional moderate waterings.

## GENERAL CARE OF THE PLANTS IN THE HOT-HOUSE.

CONTINUE the care of all other tender plants in the hot-house or stove ; let them be carefully looked over, two or three times a week, to see where water is wanted, as some will require it every two or three days, and the generality will need to be refreshed twice a week, if hot weather, particularly all the woody and most of the herbaceous kinds, but less in the succulent plants.

Observe nearly the same care in the general management as in the two or three last months, both in giving air, watering, cleaning, and shifting, where necessary, into fresh earth, or larger pots ; as also to propagate by cuttings, layers, suckers, &c.

## PREPARING COMPOST.

PREPARE compost for the various plants of this department.

For the pines procure a quantity of light rich kitchen garden earth, and, if possible, an equal portion of good light surface loam, from a pasture-common or field, &c., adding also a supply of dry rotten dung ; blending the whole well together in a heap,

in the sun and full air ; and if it remains thus several months, and turned over two or three times, it will be an additional advantage.

Likewise, for the most of the shrubby tribe and herbaceous plants, in the hot-house, prepare a compost of any good light garden earth, and light mellow surface loam, and dry rotten dung.

But for the succulent tribe, should have a composition of the lightest dry soils ; for as those plants themselves abound in humidity, rich or moist strong soils would occasion them to rot, especially those of a more fleshy, succulent growth.

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## OCTOBER.

### WORK TO BE DONE IN THE KITCHEN GARDEN.

#### PLANTING EARLY BEANS.

THE latter end of this month you may plant some beans for an early crop the succeeding summer.

Those which are planted now, if they survive the winter's frost, &c., will come in for use the end of May, or beginning of June.

The mazagan bean is the best to plant at this season, for they will come earlier than any other, and are excellent bearers, though but of humble growth ; and they will stand the winter better than the larger sorts ; though as the beans are very small, and as they should be gathered for use while quite young, otherwise will be rank tasted, they are not eligible to plant for any considerable crops, only a sufficiency to furnish the earliest production ; planting a moderate portion now, to have a chance of some to gather in the earliest season ; but not to depend on those wholly, as the plants in their early infant state, in winter, are liable to be cut off by severe frost ; so should reserve a larger planting for next month or December, and if they happen all to succeed, they will supply the table in regular succession.

A warm border under a south wall, or other south fence, is the best situation to plant these beans in at this season.

Plant them in rows across the border ; that is, provided the border is five or six feet wide ; and observing that the rows are



to be two feet and a half asunder, which will be room enough for this sort ; and the beans to be planted about two or three inches distant in the rows, and an inch and a half, or not more than two inches deep.

You may also put one row lengthways of the border, within two or three inches of the wall ; these will sometimes outlive the winter, when those at a great distance from the wall are cut off.

But if the border is narrow, you had better plant only one or two rows lengthways, that is, one row near the wall, and, if the border admit of two rows, plant the other two feet and a half from the first.

They may be planted either with a blunt dibble, inserting them in an inch and a half, or near two inches deep ; or, for these small beans, it would be rather more eligible to draw drills that depth, and drop the beans therein ; drawing the earth over them an equal depth, as above.

In planting early beans, it often proves very successful first to sow the beans pretty thick in a bed of light earth ; and when come up an inch or two in height, transplant them into warm borders, and other similar compartments.

The method is this : dig a bed about three or four feet broad of good earth, in a warm situation ; this being done, draw the depth of about an inch and a half, or near two inches of earth equally off the surface, to one side ; this done, scatter the beans about an inch asunder, and immediately cover them with the earth which was drawn for that purpose off the bed ; or otherwise you may either with a small spade, or a common hoe flatways, draw broad drills across the bed, and scatter the beans pretty thick in the drill, and draw the earth equally over them ; and thus if severe frosts should prevail before they come up, or in their infant state, while remaining all together in this bed, or till danger from frost is past, they can be readily protected from frost with frames, &c., or with hand-glasses, mats, or litter, till fit to transplant.

When the beans are come up an inch, or an inch and a half, or two inches high, or but very little more, they should then, if mild weather, be transplanted in the above-mentioned borders, but many generally remain in the seed-bed to have occasional protection from frost till towards the spring, then planted out ; taking them carefully up out of the seed-bed with their full spread of roots, and as much earth as will hang about them ; pull away the old beans at the bottom, and trim the end of the

perpendicular root; and then planted in rows, at the same distance and in the manner above directed, observing to close the earth well about every plant, they will soon take root and grow freely.

By the above practice of sowing the first crop of these early beans thickly together to have occasional protection for future transplanting, proves often of good advantage; as, either before the plants are ready to be transplanted, or after they have obtained a proper growth for that purpose, they can all be retained in the bed till danger from frost is past; and thus, both the seed occasionally and the young plants, by being all contained closely together within a small compass, can be readily protected in winter from frost by placing a frame or some other covering over them, and by that means be preserved; when those in the open ground are sometimes killed, or greatly damaged by the frost; and the plants thus preserved can in proper time be soon transplanted.

Besides the advantage of protecting them in their early minor state, the beans by transplanting generally come into production several days or a week sooner.

#### SOWING PEASE.

MAY NOW sow a first moderate crop of early pease, to have a chance of an early production next summer, in May and June: they may be sown in the middle or latter end of the month, and the produce will come in at an early season, provided they escape the frost; but however, if they are sown any time in the month, it will not make a great difference; and indeed those sown in the latter end of the month will have the better chance to succeed.

The earliest hotspurs are the proper sorts of pease to sow at this time. Choose such seed as are new, plump, and sound.

There are several sorts of the hotspurs; such as the golden, the Charlton, the Reading, and the master, &c., all very good pease, and plentiful bearers, and produce good handsome sized pods, well filled; and of which the Reading and master hotspur are the longest, but not quite so early as the others: and therefore either the Charlton, golden, and a variety thereof, called Nichols' early golden, are generally preferable to sow for the first early crops.

A warm south border, under a wall or other fence, is the proper situation: and in which the pease must be sowed in drills about an inch and a half deep, either lengthways or across the

border, according to its width; if but narrow, have only one drill lengthways, one or two feet from the wall, &c.; sow the pease therein moderately thick and regular, and directly earth them over, not more than an inch and a half deep; but where the border is four, five, or six, to eight, or ten feet broad, it will be proper to have the drills crossways; observing, however, if there are wall-trees, let the drills be three or four feet asunder, especially if intended to place sticks for the pea plants to run upon; in which, that distance being necessary, both to give room for their growth, and to give sufficient space between the rows to admit the free air and sun to the trees, in the advanced growth of the pease.

In the latter end of this month or any time in November, may sow some early dwarf pease thick together, in a bed or warm border, or in pots; in order to have occasional shelter from frost, for transplanting when an inch or two high, either in a hot-bed for forcing, or remain as a reserve till towards spring, to plant under a warm wall after danger when the frost is over, to come in as substitutes in case those planted in the borders are killed by the severity of the winter.

#### TRANSPLANTING AND SOWING LETTUCES.

LETTUCES for the winter service, of the August or early September sowing; stout plants of the Cos, hardy, and common cabbage lettuce; brown Dutch and Cilicia kinds, should, in the beginning or middle of the month, be planted out in beds of rich light earth, in a sheltered situation six or eight inches asunder: they will supply the table before and after Christmas.

Likewise may plant some stout plants in frames, to attain greater perfection for winter use. See last and next month.

Lettuce plants designed to remain where sown for winter use, should now be cleared from weeds, and thinned where too close.

The Cos and other lettuces which were sown in the middle of September, to be planted in frames or under hand glasses, and in warm borders, to stand the winter for spring use, and to plant out in that season for an early summer crop, should now be transplanted into the places where they are to remain all winter; this may be done about the middle or latter end of this month; or as soon as the plants are fit, advanced two or three inches in growth.

Choose a light rich spot for these plants, in a dry, warm situation, and where it lies well to the sun.

Mark out a bed or beds for them, the width and length of one or more cucumber frames, and lay the surface somewhat sloping to the sun, and rake it even.

Plant the lettuces therein, about three inches distant each way; close the earth extremely well about each plant: take care that they are not planted too deep, and let the surface of the ground between the plants be left perfectly smooth; then give them a moderate watering, to settle the earth to their roots.

Then put on the frames, and cover them with the glasses in cold nights, and in frosty or very wet and cold weather; but have the free air in mild dry days, &c.; by which means these may be saved, and will be ready to plant out in the spring, as a sure substitute, in case those which were planted in the open borders are killed; and if both succeed, they will supply the table in successional order.

You may also plant some of these lettuces under bell or hand-glasses, either alone, set three or four inches asunder, to the extent of the glasses, or pricked under those where cauliflower plants are planted; placing them round the outside of the cauliflower plants; (See *Cauliflowers*); and in the spring must be transplanted into the open ground: or if not accommodated with frames and glasses, or hand-glasses, &c., you may plant them in a bed in a warm situation, and then place a low awning across, and cover with mats occasionally, in cold nights, heavy rains, frosty and other inclement weather. Or in want of the above conveniences, prick a quantity in a south border, close under the wall, &c.

Likewise the lettuce plants which were sown the end of August or beginning of September, to stand in the open air all winter for next spring and early summer supply, should be transplanted into the places intended, about the middle or some time in this month.

These you may plant in warm borders, to stand the winter without covering; and if the winter should prove mild, they will cabbage early in the spring.

Let these be planted four or five inches apart, and plant one or two rows close under the wall, which will sometimes live through the winter, in a firmer state than those at a greater distance and more exposed to the severity of the weather.

Sow a few hardy cabbage lettuce, common cabbage, and brown Dutch, and some Cos, in a warm dry situation the beginning of this month, either to have protection of a frame, &c., or to stand the winter without covering; and if they

survive the frost, will afford a very seasonable supply early in spring.

#### CAULIFLOWER PLANTS.

CAULIFLOWER plants which were planted in frames the last month, to forward them for final transplanting the latter end of this month under bell and hand-glasses, must be constantly uncovered night and day for the greatest part of this month, unless the weather should prove very wet and cold; then, in that case, put the glasses on every night, and even in the daytime, during the time of heavy rains; but let the plants at such times have air, by setting up the lights considerably behind.

In the last week in this month transplant finally some of the best cauliflower plants into a warm quarter of rich ground, under hand-glasses, in rows four feet asunder, where they are to remain to produce their heads early next summer.

These are to be covered with hand or bell-glasses all winter, generally planting three, or four, to five, or six plants under each glass; and if they all survive the winter, then in the spring to thin them, leaving only one or two of the stoutest plants in a place; and those thinned out are proper to plant in another compartment, to succeed the hand-glass crop. See the spring months.

The ground for this early bell or hand-glass crop of cauliflowers should be rich and light, in a warm situation, and where water is not apt to stand in winter. Let some good rotten dung be spread over the place, and then let the ground be dug one spade deep, and well broken, taking care to bury the dung regularly.

Then mark out the ground into beds three feet wide, and allow alleys a foot wide between the beds, for the convenience of going in to take off, and put on, or raise the glasses. Set your line along the middle of the bed, from one end to the other; and at every three feet and a half mark the places for the glasses, and for each glass put in three or four more plants, towards the middle, within four inches of each other, and close the earth well about their roots and stems, then give them a very moderate watering, just to settle the earth to the roots.

When the whole is planted, bring your hand or bell-glasses, and set them ready; observing to place one glass, over every patch of plants, as above.

The glasses are to be kept constantly close down over the plants, till they have taken good root, which will be effected in

about a week or ten days; then raise one side on props, either of small pieces of wood, stone, or brick-bats, &c., about two or three inches thick, or notched wooden pegs, or forked sticks; placing them on the south side, one prop under each glass. In this manner the glasses are to remain night and day, except in frosty weather, when they must be let down quite close; but if the months of November and December prove mild and dry, and the plants are much on the growing order, it will be proper to set the glasses off in fine dry days, and keep them always over the plants in nights and rainy weather; but in keeping the glasses over to defend the plants from excessive or incessant rains, if open mild weather, they must be raised two or three inches on the warmest side with props above hinted, to admit air to the plants.

But if you are not provided sufficiently with hand or bell-glasses, or frames, you may plant some cauliflower plants out for good on a warm border, where they will sometimes survive the winter, and produce good heads.

But where this is obliged to be practised, it will also be proper to put in a parcel of the plants, close under the wall, setting them about four inches apart, and these will have a chance to live, if those at a greater distance from the wall should be destroyed, and in the spring the superabundant may be thinned out and transplanted into an open spot of ground.

The cauliflower plants which are to be kept all winter in frames should also towards the end of this month, if not done in September, be transplanted into their proper winter beds of light rich earth the dimensions of one or more garden frames, as explained in August; and the frames at the same time be placed over them.

But observe, if the plants are now but small, or backward in their growth, it will be an advantage to make a slight hot-bed in a trench: making it only about eighteen inches thick of dung, covering the top five or six inches deep of earth, and put in the plants. See *August*.

The plants are now to be set in either of the beds three or four inches asunder, moderately watered, put on the glasses close for a week, which will forward their taking fresh root sooner and more effectually; then give air by first tilting or shoving them down three, four, or five inches, the first three or four days or a week, and should then be drawn quite off every mild dry day, (see *August*); and are to be defended all winter

occasionally with the glasses, according to the directions given in each month.

Or, for want of frames and glasses, may plant some in a bed arched over with hoop-bends, or rods, and defended every night, and in bad weather with mats.

#### PLANTING CABBAGE PLANTS AND COLEWORTS.

About the middle or latter end of this month, you may plant out some of the strongest early cabbage plants, in the place where they are to remain for cabbaging early next summer.

Choose a piece of good ground for these plants, in a dry lying situation full to the sun; and let some good rotten dung be applied; then dig the ground regularly one spade deep, burying the dung equally that depth, as you proceed in the digging.

The plants are then to be planted in rows eighteen inches distant in the row, and allow the same distance between the rows, which will be room enough for this early plantation, as most of them will be used before they grow to any considerable size.

Or some may be planted out closer, in rows only twelve or fifteen inches asunder, to thin out early in small hearted young growth, about April and May.

But let the principal supply of the early cabbage plants remain in the nursery beds in a warm situation, till January, February, or March, before you plant them out for good; for it sometimes happens in severe winters, that many of the plants which are planted out early into a more open exposure, are killed by the frost.

In that case you can have recourse to the nursery beds to make good the effects, or to make new plantations.

Where there are cabbage plants that still remain in the seed bed, let a quantity be transplanted into nursery beds the beginning of this month, that they may have time to get some strength before the frosty weather begin, planting them in a warm situation, in rows five or six inches asunder, by three or four inches in the row.

Coleworts of the cabbage kinds should now be finished planting for spring supply. See *September*.

#### HOEING BROCCOLI, CABBAGES, AND ALL THE YOUNGER CABBAGE TRIBE.

GIVE now a general hoeing in dry days to the younger late planted broccoli, cabbages, and all the young cabbage tribe of some advancing growth in their transplanted state: both to kill

weeds, and to loosen the soil, whereby to forward and strengthen the plants.

This would now prove very beneficial culture, not only to the late planted advancing young broccoli, and cabbages, but also to coleworts, savoy, borecole, &c.; taking opportunity of dry weather, and with a good hoe cut up all rising weeds, loosing the ground neatly between and about the plants, and hoe some earth closely about their stems; and this will forward and strengthen their growth as much as possible before winter; and render them more able to stand the rigours of the weather in that season.

#### WINTER SPINACH.

WINTER spinach must now be kept exceeding clean from weeds; for if these are permitted to grow, at this time, they would soon over-run the plants, and totally destroy or greatly injure the crop. These plants are at this season best cleared by hand, particularly where there is chick-weed, and such like spreading or running weeds.

Where the spinach was not properly thinned last month, let that work be now done in a proper manner, and do it in the beginning of the month.

In doing this, observe to clear away the worst, and leave the strongest plants standing at the distance of about three to four or five inches from one another.

Or the plants may only be moderately thinned now, in order to admit of thinning out some, for use by degrees, this and the ensuing winter months, and in the spring.

In this month some of the spinach of the August sowing will be fit to gather; observing, if the plants were left too thick, let some be thinned out regularly by the root for use; but if the plants were more properly thinned, gather only the outward large leaves, and the others will advance for use in a successive order.

#### ENDIVE.

CONTINUE every week to tie up some full grown endive plants for blanching.

Choose a dry day to do this, observing always to make choice for this purpose of such plants as are quite or nearly full grown. Let the leaves be gathered up regularly, and close in the hand, and then, with a piece of strong bass, tie them neatly together.



Some people blanch or whiten endive by laying boards or tiles flatways on the plants. The plants will whiten tolerably by this method, but not so regularly effective and full in growth as those whose leaves are tied together as above directed.

Plant out the late crop of young endive the beginning of this month, if not done in September, in a warm dry south border, for late winter and spring supply.

Or to preserve late young endive in winter more securely, both from rotting by great wetness of the ground, and from the effects of frost, may, in the beginning of this month, prepare a sloping bank of light earth in a warm situation, the sloping side fronting the south sun, raised two or three feet higher behind; and having some good middling endive plants, deposit them, in the common method of planting, into the south side of this sloping bed, tolerably thick or close, that it may contain a proper quantity; and, in the ensuing winter, at the approach of severe weather, may place a frame and glasses over the bed, or cover the plants occasionally with mats, or thickly with dry long litter in rigorous frosts; they will thus more effectually continue in some moderate growth, and be not so liable to rot as in the common level ground, where inclinable to be very wet in winter season; and being also warmer situated in the sloping bed full to the sun, and having occasional protection as above, will be better preserved in frosty weather.

#### DRESSING THE BEDS OF AROMATIC PLANTS.

Now clear the beds of aromatic plants from weeds, and let them have the winter dressing.

This must be particularly observed in the beds of sage, savory, thyme, marjorum, and hyssop; and also the beds of mint, balm, tarragon, tansey, camomile, pennyroyal, burnet, and sorrel; and all other beds of aromatics, and potherbs.

These are now to be treated in the following manner:—

Cut down all the decayed flower stems close to the head or the plants, or to the surface of the ground, according to the nature or growth of the different sorts, and at the same time clear the beds very well from weeds and litter, and carry the whole off the ground.

After this, it would be proper, in beds where the plants stand distant from one another, to lightly dig or loosen the ground between them; or, in old beds, it would be a great advantage to get some very rotten dung, and let it be broken small, then spread a sprinkling of it equally over the surface

of all the beds ; however, where room, as above, having a small spade or trowel, dig lightly between such of the plants as will admit, taking care if any are dunged, to bury the dung a little depth in the ground ; and at the same time, if they are in beds with alleys between, dig the alleys, spreading a little of the loose earth upon the beds, leaving the edges full and straight.

Thus the beds will appear decent all the winter, and the plants will reap much advantage from such a dressing, as will be seen in spring, when they will begin to shoot.

But the bed of close growing running plants, as mint, peppermint, and pennyroyal, and such like creeping rooted herbs, will not well admit of digging ; therefore let the stalks, if any, be cut down close to the ground ; then hoe, rake, and clear the beds from weeds, and then dig the alleys, and strew some of the earth evenly on the beds.

This will both give a proper cultural neatness, and protect the roots of the mint, &c., and the rains will wash in the virtue of the earth which was thrown out of the alley, and the whole will greatly enrich the beds and strengthen the roots ; and in the spring the plants will rise with vigour.

#### RAISING YOUNG MINT AND TARRAGON IN WINTER.

WHERE young mint and tarragon is required in the winter season, preparations should now be made to raise some.

For that purpose a slight hot-bed must be made towards the end of the month for a one or a two-light frame, or according to the quantity required ; and make it about two feet or two and a half thick of dung.

Then set on the frame, and cover the bed about four to five or six inches deep with earth ; get some roots of mint, and either place them in drills, or lay them close together upon the surface, and cover them with earth about an inch thick, and plant the tarragon by making apertures in the earth ; and give each a moderate watering.

Put on the glasses and observe to raise them behind every day to admit air.

The plants will come up fit for use in a fortnight, or three weeks, and afford a gathering of young green shoots in great plenty, for a considerable time.

#### PLANTING AND SLIPPING HERBS.

PLANT out early in this month any aromatic plants where wanted ; such as thyme, hyssop, sage, winter savory, and pot

marjorum; choosing good rooted young plants, and plant them in four feet wide beds, or in any warm borders, in rows a foot asunder.

May also divide and plant roots of mint, in drills six inches asunder, and an inch and a half deep.—See *March*, &c.

Likewise may slip and plant balm, tansey, tarragon, marjorum, burnet, sorrel, pennyroyal, camomile, &c., preserving the slips of a tolerable size, with good roots to each, and plant them in rows a foot asunder.

#### WINTER DRESSING THE ASPARAGUS BEDS.

As the asparagus stalks have now done growth, and the seed berries ripe, where required to save the seed, they should at any time this month, or beginning of next, be cut down, and the beds have the proper winter dressing.

Let the stalks or haum be cut down close to the surface of the beds; carry them immediately off the ground; then with a sharp hoe cut up all the weeds, and draw them off the beds into the alleys.

This done, stretch the line, and with a spade, mark out the alleys, from about eighteen inches to two feet wide, according to the width they were first made.

Then dig the alleys one spade deep, and spread a considerable part of the earth evenly over the beds; and, as you advance in digging, let the weeds, which were raked off the beds into the alleys, be digged into the bottom, and cover them a proper depth with earth. In digging these alleys, observe to do it in a neat manner; that is, let an equal quantity of earth be laid over every bed, and make the edges of the beds full and straight; the alleys should be digged all of an equal depth, and the surface of the beds be left even and regular.

But as old asparagus beds will need an augment of dung once in two or three years, and that when designed to assist them therewith, this is the time to do it; but the manure or dung must be applied before the alleys are digged, or the beds landed up.

The dung for that purpose must be very mellow, rotten, and none is more proper than the dung of old cucumber or melon beds: this must be spread over the beds when the haum and weeds are cleared off; let this dung be well broken, and lay it an equal thickness, or at least one to two or three inches, in every part; point it in a little with an asparagus fork: then dig the alleys as above directed, and spread a due quantity of

the earth of each alley over the dung and surface of the beds, as above directed.

When the asparagus beds have thus had their winter dressing, if dry-lying ground, there may be planted in each alley a row of coleworts, or cabbage plants; set the plants six or eight inches distant in the row.

In this situation such plants will, in severe winters, sometimes survive the frost; when those which are planted in open or level spots are destroyed.

Or there may occasionally be planted in each alley a row of early garden beans.

The asparagus which is intended for forcing should also now have their stalks cut down, and the weeds drawn off the beds into the alleys, as above, in the common asparagus beds; then dig the alleys to bury the weeds, and, as you proceed, spread a little of the earth also over the beds.

But that which is to be digged up for forcing this winter need not have any thing more done than to cut down the haum or stalks of the plants.

The seedling asparagus which was sown last spring should also now have a little dressing.

That is, to clear the bed from weeds, and then spread an inch or two in depth of dry rotten dung over the bed, to defend the crowns of the plants from frost.

#### FORCING ASPARAGUS FOR WINTER USE.

WHERE forced asparagus is required for use in winter, may now begin to make hot-beds for raising the first crop, for gathering in November and December; and for the method, see *February* and *December*.

If a constant succession is required all winter and spring, a new hot-bed, planted with fresh plants, must be made every three or four weeks, from the beginning or middle of October, to the end of February or March; which will furnish a constant supply of asparagus from November till the arrival of the natural crops in the open ground, in April or May.

Or when required to have forced asparagus as early as possible in the beginning of winter, may make a hot-bed, and plant some asparagus roots therein in the middle or latter end of September, and they will begin to afford a production of small or moderate shoots for gathering in the second or third week in November.

## EARTHING UP CELERY AND CARDOONS.

CELERY should now be very duly earthed up according as it advances in height, in order that the plants may be well blanched a due length before severe frosts attack them.

Therefore take advantage of dry days, and earth them up properly on both sides of each row. Let the earth be well broken, and lay it up to the plants, with care not to break the leaves or bury the hearts of them, landing them at this time considerably high, according to their growth.

Likewise to cardoons now give a general full earthing, in open dry weather, and when the leaves of the plants are dry.

In earthing these plants, observe, at each time, first to tie with a hay band their leaves close together, gathering the leaves up regularly.

Then let the earth be well broken, and lay it up equally of a proper thickness, and some considerable height about every plant.—See *September*.

## SMALL SALAD HERBS.

WHERE a constant succession of small salad herbs is required, continue to sow the seeds accordingly; particularly mustard, cresses, radish, and rape; as also cabbage lettuce, to cut while young.

Let these seeds be sown now in a warm situation, full in the sun.

But towards the end of the month, if the weather is cold, it will, for the greater certainty of having a constant supply of small salad, be proper to sow the seed in frames, to be defended with glasses; and for which prepare a bed of light earth in a warm situation, for one or more shallow frames; and if laid a little sloping to the sun, by raising the back part three or four, to five or six inches, it may be an advantage; break the earth fine, and rake the surface smooth, ready for sowing the seed.

Then either draw flat shallow drills from the back to the front of the frames, about three inches asunder: sow the seeds therein pretty thick, and cover them with earth not more than a quarter of an inch deep, only just covering the seeds; or may smooth the surface with the back of the spade, sow the seed, each sort separate, thickly all over the bed, then with the spade smooth it down lightly into the earth, and sift fine mould over it thinly, not more than half a quarter of an inch thick, or only

just to cover all the seed evenly, and as slightly as possible, at this season.

The bed must be sheltered every night by putting on the glasses, and also in the day time when the weather is very cold or excessively wet.

Or, occasionally, for the above purpose, a sloping bed may be prepared, ten or twelve inches higher in the back than the front, sloping to the south sun; set on the frame, sink the back part, &c., eight or ten inches, that the surface of the bed may be every where equally within eight or nine inches of the glasses, to enjoy the greater benefit of the sun in cold weather.

But in want of frames, the above salad seeds may, in cold weather, be sown in a warm border, under hand or bell glasses.

*Note.*—Small salad will sometimes, when the season is mild, grow free enough all this and next month in the open air, especially on warm south borders; however, where these herbs are constantly wanted, it will, for the greater certainty of having a proper supply, be advisable to begin to sow some seed of each kind either in frames or under bell or hand glasses, as above.

#### SOWING RADISH SEED.

You may now sow a small crop of short top and salmon radishes, the beginning and towards the latter end of this month; the plants raised from those sowings, if the winter proves tolerably mild, will advance in growth, ready for drawing, some probably next month, or in December and towards Christmas, or after, if open weather, and if they should fail, the value of a little seed is not much, and is worth the trial.

But this seed must now be sown on a south border, or some warm dry situation, open to the sun; and in order to have a chance of regular succession, sow some both in the beginning, and about the middle, or towards the latter end of the month. Let each sowing be moderately thick, and rake the seed well into the ground with proper regularity.

#### SOWING CARROT SEED

A LITTLE carrot seed may also be sown in the first or second week in the month, on a warm border; as sometimes, from this sowing, there will be a chance of having a few young carrots early next spring, provided the frost in winter is not very severe.

Though as there is but little dependence on this crop, should only sow a small portion for a trial.

## DIGGING UP CARROTS, PARSNEPS, AND POTATOES, &amp;c.

In the latter end of the month begin to dig up the main crops of full-grown carrots, some best parsneps and red beet, &c., and such other carrot-shaped esculent roots, to preserve them in sand, to be at all times ready for winter service.—See *November*.

About the middle, or towards the end of this month, begin to dig up the general crops of potatoes to house for winter use, for the roots will be now arrived to full maturity, and should be taken up as soon as possible; which as having now attained their full growth, that if properly housed in a dry close place, defended from wet and frost, they will keep good till next spring and summer.—See that work directed in *November*.

## DIGGING AND TRENCHING GROUND.

Such spaces of kitchen garden ground which are now vacant, should, where intended, be dunged, and also digged and trenched, that it may have the true advantage of fallow from the sun and air in the water season.

But in digging and trenching those pieces of ground which are to lie in fallow till the spring, that of each trench should be turned up in a rough ridge longways; for, by laying the ground in this form, it not only lies much drier, but also the frost, sun, and air can have access more freely to mellow and enrich it, than if laid level: and in the spring, when you want to sow or plant it, the ridges are soon levelled down, and the soil thereby also improved and ameliorated.

The method of ridging or trenching ground is this:—

Let the trenches be marked out two feet, or not less than two spades wide; and beginning at one end of the piece, open a trench the above width, and one full spade deep, or one spade and a shovelling, or two moderate spades deep, according to the depth of good soil, or, as may be occasionally required; and let the earth of this trench be carried to the other end, of where you intend to finish or fill up the last trench.

The first trench being thus opened, then proceed to mark out another; which done, pare off the top with all the weeds and rubbish thereon, into the bottom of the first; then dig this second trench, turning the earth into the open trench, throwing it up ridgeways, longitudinally, as above-mentioned; and when you have dug to the end of the trench, may either shovel up the crumbs or loose earth at bottom, throwing it up upon the

other earth of the ridge; or otherwise double dig it; that is, without shovelling up the crumbs, dig the trench another spade deep, if the depth of good soil admits, casting the earth upon that of the first spit; then proceed to a third trench, and pare and dig it as before; and so proceed with every trench to the end.

Such compartments of ground as are occasionally to be dunged, should previously have the dung spread evenly over the surface, and then should be equally buried a spade deep, not more, in the bottom of each trench as you advance in the digging.

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## THE FRUIT GARDEN.

### GATHERING WINTER PEARS AND APPLES.

WINTER pears and apples should in general be gathered this month. Some will be fit to take down in the beginning of the month, others will not be ready before the middle, or towards the latter end.

To know when the fruits have had their full growth, you should try several of them in different parts of the tree, by turning them gently upward; if they quit the tree easily, it is a sign of maturity, and time to gather them.

But none of the more delicate eating pears should be permitted to hang longer on the trees than the middle of this month, especially if the nights be inclinable to frost; for if they are once touched with the frost, it will occasion many of them to rot before they are fit for the table, even if ever so good care is afterwards taken of them; and therefore, on the general part, let neither apples nor pears remain longer on the trees than the middle, or towards the latter end of this month, for they will get no good after that time.

Observe, that in proceeding to gather the principal keeping fruits, both of the apples and pears, generally choose a dry day and when the trees and fruit are also tolerably dry, from about ten or eleven o'clock till three or four in the afternoon; observing likewise, that the capital fruits designed for long keeping should all be carefully pulled one by one, and put into a basket, taking care to lay them in gently, that they may not bruise one another.



According as the fruits are gathered, let them be carried into the fruitery, or some convenient, dry, clean apartment; and, if room enough, it would be proper to lay them carefully in heaps, each sort by themselves.

Thus let them lie together about a week or fortnight, especially the principal keeping sorts, in order that the watery uices may transpire; as this will make them keep better, and also render their flavour much finer for eating, than if they were aid up for good as soon as they are gathered.

When they have lain that time, let all the choice keeping fruit be then carefully wiped one by one with cloths, and lay them up where they are to remain upon shelves and other compartments in the fruitery, &c., and thickly covered with clean dry straw.

Some of the finest eating pears and apples you may also pack up in baskets, hampers, or boxes, &c., observing to put some clean wheat straw at bottom, and also round the sides of the baskets or boxes; and when they are filled, lay some straw at top, and then cover the whole with dry straw, a considerable thickness, to exclude the damps and free air; for this is of considerable advantage in promoting their sound keeping.

The more inferior or common kinds, for more immediate and general supply, may be laid on the shelves and floor of the fruitery; first laying some clean straw, then lay the fruit upon this, observing, if there is plenty of room, to let them be laid only two or three layers thick, otherwise may lay them in several layers one upon another; covering the whole with dry clean straw, a foot thick at least, to exclude the damp air, frost, &c.; whereby the fruit will keep much better than if they remained open, or but thinly covered, as the damps and air, when fully admitted, hasten the decay of the fruit.

#### PRUNING AND NAILING.

ABOUT the end of this month you may begin to prune peaches and nectarines, if their leaves are dropped; and you may also prune and nail apricots.

Before you begin to prune, it will be proper to unnailed the greatest part of the smaller branches; then you can more readily use your knife, and also can conveniently examine the shoots, to see which are fit for your purpose, and which are not.

But I would observe, that if the leaves are not wholly or

mostly fallen, it would be more advisable to defer proceeding in any, general or principal pruning till next month, as while the leaves are remaining on the trees you cannot readily discover or judge properly of the shoots, what are necessary to retain or cut out; however, where any trees are defoliated, and it is thought convenient to commence pruning, let it be done according to the following intimations, which will be equally applicable in the ensuing months.

In procuring these trees, observe that, as they will now mostly abound in numerous young shoots retained last summer, the superabundant of which, and the irregular and improper, must now be cut out, and to leave in every part a general supply of the best and most regular placed of the said shoots at moderate distances, that is, three or four to five or six inches asunder, and in such regular order below and above, lower and higher on the general branches, as they may seem advancing one after another, quite from the bottom, as observed on former occasions, in order that every part of the wall, from the bottom to the extremity, every way of the tree, may be regularly furnished with them; for these bear the principal supply of fruit next year; and observing, at the same time, that some proportionable part of many of the former bearers, and naked unfruitful wood, must be cut away, in a shorter or longer extent, as may appear necessary, to make room to train the young supply, pruning them less or more, as may seem expedient; either generally cut to some best well placed lateral young wood they support, and this retained both as a terminal leader to each branch thus pruned, and for next summer's bearing; or any of the said past bearers that are of improper growth, or not furnished with bearing wood, cut quite out, retaining young below to supply their places: for these trees always produce their fruits upon the shoots of the last summer's growth, that is, principally upon the one year's old shoots, except occasionally on small spurs on the two or three years' wood.—See *January*.

But in the course of pruning these trees, observe, by the above rules, to cut out casual naked old wood according as it becomes useless, that is, such branches as advance of considerable length, and are not properly furnished with young bearing wood.—See *January*.

In the next place, observe the young shoots must not be crowded, or left too close together; therefore examine with good attention, and where the shoots stand too thick, let some

be accordingly cut out ; but in doing this, be careful to select and retain a sufficiency of the most promising and best placed shoots, for the general bearers, at proper regular distances as above, cutting all the others out close.

The next thing to be observed is, that all these retained shoots must now for the general part be more or less shortened : and this is done principally to encourage them to produce next summer, as well as fruit, a due supply also of bearing shoots properly situated, to train for bearers another year.

For by shortening these shoots in the winter pruning, it makes them more certainly produce next summer a successional supply of lateral shoots in proper places ; and the shoots which are then produced bear the fruit to be expected the year after that.

But in shortening the shoots, mind to let every one be shortened according to its growth and original length ; for instance, a shoot of about a foot long may be pruned to about seven or eight inches, or a little more or less, according to its strength ; one of fifteen or eighteen inches in length, cut to about ten or twelve ; and a shoot about two feet long may be cut to about fifteen or eighteen inches ; and so in proportion to the length and strength of the different shoots, leaving the strong shoots the longest.

The general rule of shortening the fruit shoots of these trees is to cut off from about one half to one third or fourth of the original length of the shoots, according to their strength ; being careful, however, not to prune below all the blossom buds, except where you prune principally for wood, in which case cut shorter accordingly ; but for fruit, observe, always, in shortening, to leave a proper length, according to the situation of their respective blossom buds ; the weak shoots are to be pruned shortest, and the strong left longer in proportion.

But such peach, nectarine, and apricot trees as in general produce strong and vigorous unfruitful shoots, must be treated accordingly ; the shoots of such trees must be left somewhat closer than in moderate shooting trees, and must also be shortened less in proportion. The rule to be observed in these is, to cut out close the most rampant shoots, and retain the more moderate growth, at only three or four inches asunder ; and in shortening them, cut off no more than about one fourth of their original length ; or some of the most vigorous shorten but very little, and some not at all.

This is the only method of pruning to bring a vigorous shoot-

ing tree to good order, so as to produce moderate shoots, such as will bear fruit.

For the more wood you cut out of a vigorous tree, and the more the shoots are shortened, the more vigorous will the tree shoot.

By what is above hinted, the pruner will not be at a loss to know in what manner peach, nectarine, and apricot trees are, according to their different growth, to be treated in the article of pruning; and the rule here mentioned is to be observed at all times in the winter pruning.

*Note.*—Observe, that where any of the shoots, now retained for the supply of general bearers, have produced any small lateral shoots, from their sides, these should generally be cut off close to the principal shoot, except in casual vacant spaces, where may occasionally retain one or more of the best firm growth.

Likewise, generally observe in pruning these trees, that in shortening the shoots, to mind, if possible, to cut them at a leaf or wood-bud; distinguishable from the blossom buds by being long and flat, and the others being round and swelling, or otherwise prune to a twin-bud; meaning where one or two blossom buds arise at the same eye with a wood-bud: either of which rules being necessary to be observed in shortening, in order that each may produce a leading shoot next summer, forming a terminal leader to each of the said main shoots or bearers; for a fair leading shoot, produced at or near the extremity of a bearing shoot or branch, draws the sap more freely, and the branches more effectually produce free growing, regular sized fruit of full growth,

Observe further, in pruning these trees, that as we often see on the two year old branches some short shoots, or natural spurs, about an inch or two in length, and on the said spurs there are frequently several blossom buds, but they more generally occur in the apricot in particular, though they frequently appear in the others, and are all equally eligible to retain for fruiting: but have observed some pruners cut these entirely away; I however declare against that practice; for some of these short natural spurs produce handsome fruit, both in apricots, peaches, and nectarines.

But on the other hand, it will be proper to leave only such of these spurs as are well placed, and promise by the blossom buds to bear fruit; and such as are naked, and also such as advance considerably long in a fore-right direction, should be removed.

For some more general particulars in pruning these sort of trees, see the work of *January* and *February*.

When you have finished pruning any one of the above trees, let that generally be nailed to the wall in a proper manner, before you begin to prune another; for it is much the best method to nail every tree according as you advance in the pruning.

But some direct to leave these trees unnailed till the beginning of March; but this not only looks ill to see the shoots hang dangling from the wall—the long vigorous shoots are liable to be broken by the winds, &c.; and by leaving the tree unnailed till March, it is losing the opportunity of forwarding that business at convenient times in the winter pruning season, before that of the spring commences, when a considerable deal of other necessary work is required; and besides, the blossom buds will be then so much swelled, that many of them would be unavoidably displaced by nailing up the shoots.

I would therefore advise, as above intimated, to have every tree nailed, according as it is pruned.

In nailing them, continue the general branches arranged more or less horizontally, nowhere laid in across one another, but let every branch be laid in clear of another, in a parallel order, and the supply of young wood trained in similarly at three or four, to five or six inches distance, according to the state or growth of the tree, and the general shoots; and let every shoot or branch be laid perfectly straight and close to the wall.

For the purpose of pruning and nailing wall-trees in an effectual and neat manner, you should be provided with a perfect sharp knife, rather less than the middle size; and such as is narrow, and but very moderately hooked at the point; also a large knife, and a small narrow hand saw, for the more readily cutting off large useless old or dead branches, and also a chisel, to use occasionally in cutting out larger unserviceable old wood.

Then for the nailing, should have a very handy light hammer, with a perfect flat face, scarcely an inch broad, and clawed or forked behind; and a quantity of the proper garden wall nails, which are of a shortish robust make, not too fine pointed, but such (where brick walls) as will drive into the bricks of the wall occasionally, as well as in the mortar joints both of brick and stone walls; but for nailing to palings, either these or a thinner sort will be proper.

The next requisite is a quantity of cloth listing, or shreds,

and these should be neatly cut into proper regular breadths and lengths; generally about half an inch to an inch broad, and about two to three or four inches long, adapted to the sizes of the different shoots, and smaller and larger branches, and generally cutting the ends even, to have the whole in some little regularity: for in nailing the trees, it would look slovenly to see too broad or over long shreds applied promiscuously to the young shoots and smaller branches; or others with long, unequal, dangling ends hanging down.

#### PRUNING PLUMS, CHERRIES, PEARS, AND APPLES.

PLUMS, cherries, pears, and apple trees, upon walls and espaliers, may also be pruned in the latter end of this month, provided, as before observed, the leaves are mostly all down.

The method of pruning these trees may be seen in the work of the fruit-garden next month; where it is fully inserted according to the successful practice.—See also *January* and *February*.

#### TRANSPLANTING FRUIT TREES.

TOWARDS the latter end of this month you may safely transplant most sorts of fruit trees.

Where a new plantation is to be made, either for the wall or espalier, the borders should be trenched one or two spades deep, if the depth of good soil admits; but, at any rate, it should, either in the natural soil, or augmentation, be dugged one full spade depth of good garden earth; and it would be of great advantage to the trees, if some rotten dung is added, and worked in at the same time; but in already cultivated borders of good earth, may, at present, only dig an aperture for each tree; however, for a general new plantation, if the borders are not naturally of a good mellow fertile soil, or are of a light poor quality, some fresh surface loam, or other substantial good earth, from a common or field, &c., applied, and worked in with the side of the borders, would prove very beneficial; but if a sufficient quantity cannot be conveniently obtained for the whole, may apply one, two, or three wheelbarrows full, together with some rotten dung, in each place where the trees are to be planted; this will promote the growth of the trees greatly at first setting off, which is of much importance; and, as most fruit trees are generally prosperous in a moderate loamy soil, that in applying additional earth, as above if any of a proper loamy nature is easily attainable, it may

prove of some preferable advantage; but in default of such, any other good earth that can be the most conveniently attained will also be very successful on this occasion.

However, where the ground is already of a good quality, as that of any common kitchen garden, &c., the above assistances will not be needful, as the trees will prosper sufficiently well in any tolerable good mellow earth of that nature.

In making plantations of fruit trees, either for the wall or espalier, you should observe to plant them at proper distances that there may be sufficient scope to train and extend them properly, in their advancing growth, for many years to come, without interfering much with each other, as is often the case in gardens, where the trees have been planted too close: so as in a few years they meet and confuse one another.

The distance which should be allowed to peaches, nectarines, and apricots, is at least twelve to fifteen feet from tree to tree; though eighteen feet would be a preferable distance for a principal plantation, whereby to have full scope of extension in their advanced growth of the horizontal branches.

Plums and cherries should be allowed the same room to run; though plums will require rather more than cherries.

Pears and apple trees, for espaliers, should be planted fifteen to eighteen, or twenty feet asunder, or, in extensive premises, if you allow these trees, at least, twenty feet distance; but especially pears that are grafted or budded upon free stocks, it would in the end prove of greater advantage: for although it appears a great distance when the trees are first planted, they will effectually fill that space.

But with regard to the planting these trees in espaliers, that is, the apple and pears, it should be observed, that the former if grafted on paradise or codlin stocks, on which the trees become dwarfish, or of moderate growth, need not be planted more than twelve to fifteen or eighteen feet apart; and the same of pears on quince stocks.

Full standard trees, either apples or pears, should be planted at least twenty-five or thirty feet distance in the row, and the rows not less than thirty to forty feet asunder, especially for a full or continued plantation; and where sufficient ground-room, forty feet asunder; and plums and cherries not less than twenty or twenty-five feet distance, on the same consideration.

But standard apples, pears, &c., grafted upon dwarfish stocks, to form dwarf and half standards, may be planted at only half the above distances.

## PLANTING GOOSEBERRY AND CURRANT TREES.

MAY begin planting gooseberry and currant trees about the middle, or towards the latter end of the month.

Where it is intended to plant these shrubs in a full plantation by themselves, allow them proper room, in rows eight or ten feet distant, and at least six feet between plant and plant in the row.

At this distance they will have full scope to grow without encumbering one another, you will have room to dig and hoe between the trees, and also to prune them, and gather the fruit; and the berries will grow large, and ripen freely, and there will also be room to plant or sow many sorts of kitchen plants between them.

But it is also proper to plant some of both sorts in a single row round the quarters of the kitchen garden, six, seven, or eight feet distant from each other in the row.

Also they may be planted in single cross rows, to divide the kitchen ground into wide compartments of twenty, thirty, or forty feet width, or more, and should set them about six to eight or ten feet distance in each row.

## PRUNING GOOSEBERRIES AND CURRANTS.

PRUNE gooseberries and currants about the end of this month; and the ground about them may then be dug, which will render the whole decent for the winter season, and will be of great service to the trees; though, if the leaves are not yet fully decayed and fallen, it will be advisable to delay the pruning till next month or December; but shall here give the general directions in some tolerable extent, particularly adapted for the assistance of those who may occasionally need some intimations in that process; as it will be equally applicable in practice the following months, &c.

Proceeding in this pruning, it must be remembered, that, as the gooseberry and currant trees produce their fruit both on the young wood, and principally on the two, three, and several years' old branches, generally all along the sides thereof, the same general bearers, young and old, of proper regular growth and expansion, must therefore be continued as long as they remain fruitful, and of proper regularity;—and, from which, to prune out any very irregular growths, and such as are too crowdingly abundant, pruned thinningly; also casual declined unfruitful branches and decayed wood; together with the



superfluous, or over-abundant and irregular young shoots of last summer, now remaining numerous on the general principal branches ; but retaining a selection of the said young shoots of best orderly growth, in all vacant or most open void spaces, laterally below and above, between the general mother branches, one, two, or more on each branch, as may seem necessary, at proper distances lower and higher, in some regular order ; and generally a terminal or end one to each of the said branches, by the rules hereafter suggested : and which general intimations should be observed both in the common standard bushes, and in those trained to walls, &c.

Thus in pruning the common standard bushes, should keep them trained to a single stem below, and the head or general expansion of branches kept open and in some equal regularity, and orderly extent around and above ; always kept moderately distant, clear of one another ; that where any are too crowdedly abundant, should prune them thinningly to some regular order ; or others of disorderly growth, either cross placed, running confusedly across one another, or any rambling extensively out of bounds, below or above ; or others out-growing the limits of the general expansion, as also any very reclining low stragglers, and under growths, &c., pruning the whole to proper regularity ; either by cutting some of the most irregular clean out, or others pruned in less or more to some regular placed lateral young shoot or similar orderly branch, having a terminal shoot for a leader ; so as the general regular branches may terminate each in a leading shoot, and the whole stand at least five or six inches asunder at the extremities.

Generally in this regulation of winter-pruning, displace all suckers arising from the roots and shoots produced on the main stem, whereby to keep every tree trained with a single stem clear of branches below, at least six or eight to ten or twelve inches upwards from the bottom.

And it will be observed by experience, that by continuing the trees in some proper regularity, agreeably to the above and following general intimations, they in return will always produce abundant crops of fruit in best perfection in full growth and good quality.

In young trees of the above, such as are still under training, or not yet furnished with a proper expansion of branches, should be careful to retain some best well-placed strong shoots in proper parts below and above, whereby to form the head of branches accordingly, in the requisite expansion ; cutting

out close the superabundancy and irregular; likewise cut out all lower under growths, and clear away all bottom suckers, in order that each tree may be trained with a clean single stem, six or eight to ten or twelve inches, as above intimated: and the retained shoots designed for forming the head should mostly remain entire, to advance as soon as possible to a proper extent of growth; or only shorten any particular shoot which outgrows the others considerably, that the whole may advance in some regular equality together.

But in the full grown standard bushes of gooseberries and currants some general regulating pruning will be necessary every year, any time from the latter end of this month, or more generally November or December, &c., till February or beginning of March, both principally to reduce the superfluous and irregular young wood of the preceding summer; and, occasionally, in some of the general expansion of the main branches, to cut out casual, decayed, and declining old wood appearing of a naked unfruitful state, and others of disorderly growths pruned to proper regularity, as it may seem expedient; leaving some advancing young wood below; or where it may seem necessary to supply the place of the old now cut away on the above occasion.

Should generally observe, that when any considerable vacant or void space occurs, and that one or more principal branches may seem wanted to supply the deficiency, should be careful to retain some strong, well-placed lower young shoots in or near the vacant parts, to advance in full growth, whereby to form the requisite supply of branches to furnish the vacancies in proper regularity.

As most of these bushes of some advanced growth will now abound in numerous young shoots, produced last summer on the sides and ends of the general main branches, as before observed, many of which being superfluous, or too abundant, and others irregular or disorderly, they should accordingly, in this pruning, be cut out (by the rules below explained); and of such as are well placed, and of best orderly growth, a proper selection should be retained both laterally lower or higher on the respective branches, in vacant or wide open spaces between, and generally a terminal, or end one, to each branch.

The rule to be observed on this occasion is, that as most of the general principal branches will have produced two, three, or several more shoots the preceding summer, all now remain-

ing; consisting generally of one at the end of each branch, and others placed laterally along the sides, one under another, and as, probably, not more than one or two, &c., may now be proper to retain on each of the said branches; that is, one or two best placed of the lateral or side shoots, of good orderly growth, left in void or vacant spaces, lower or higher on the branches, as may seem most expedient to supply the places in eligible regularity; and most generally one at the extreme end, to terminate, and form a leader to each branch, as before observed; either naturally terminal, or any branches advanced too considerably in length, prune them in more or less, to some proper lateral shoot, to remain for its terminal leader; and all others of the said shoots, as are superfluous, or unnecessary, and others irregular and improper, cut clean out close to their origin; or, in currants particularly, may prune some of the small laterals to short snags or spurs, not exceeding an inch long, as these will also produce fruit; but generally cut close most of the strong growths of the superfluous and irregular both in the gooseberries and currants.

And generally observe, that, in the regular supply of the above retained proper shoots, both laterals and terminals should mostly, in the gooseberries particularly, remain entire, or only shorten any as are too considerably extended or irregular in growth toward the extreme part; and in the currants, which being more extensive shooters, they may have most of the long extreme shoots, &c., shortened one-third, or more, to keep the head more compact, and within moderate extent, above and below; but not in general shorten the lower laterals of moderate growth, only such as may be of much superior length.

That, as in the general course of this pruning, both in the occasional regulation of the old and young wood, it being essentially proper, as before remarked, to retain, if possible, in all the general main branches, a last summer's shoot, as a terminal or end leader to each, it should be carefully adopted, where practicable, both in such branches as occasionally require shortening, and in those which remain entire.

For when any branch being either superiorly extended beyond the general expansion, or in any other irregularity, &c., and requires shortening or pruning to order, it should not be cut to a naked stumpy end; but, if possible, pruned in less or more to some competent lateral young shoot thereof, or otherwise to some similar placed lateral branch furnished with such

a shoot ; and either of which to remain to supply the place of the part cut away, terminating in a leading shoot within the proper limits ; and in the general regular branches as do not want shortening, and are furnished naturally with a terminal or end shoot, the said branches should be retained entire together with the said terminal shoot, one to each branch ;—and of the other general shoots, retaining only some select laterals as may be necessary, agreeable to former intimations, cut out the superabundancy.

Likewise by the foregoing general rules of pruning these fruit shrubs, let their heads, or expansion of branches, be generally kept within some orderly form and regularity ; which may always be eligibly effected, by occasionally pruning casual long rambles, or straggling out-growing branches and shoots ; either cutting them in, less or more, to some orderly lateral young wood ; or any very irregular, cut clean out : reserving some well placed shoots to supply their place in proper regularity.

Finally, let it be generally observed, that with respect to the requisite supply of young shoots now reserved agreeably to the foregoing order of pruning, they, as before advised, should not in general be much shortened, especially on the gooseberries : though some pruners cut the whole very short, both in gooseberries and currants ; but this is not advisable for general practice, or only where required to keep the head of branches low and close, and in a compact expansion ; this, however, by cutting short, occasions their shooting more vigorously next summer, in numerous superabundant strong shoots, in a close thickety growth, detrimentally to the full growth and timely ripening of the fruit in good perfection.

It therefore would be advisable to shorten moderately, or in the gooseberries particularly, retained either mostly entire, or only prune such as are very superior in length ; or, in general, not cut more than about one-third of an ordinary shoot, and a strong one about one-fourth ; but the currants, being of more open growth and extensive shooters, may be shortened more generally and more in proportion than the above, especially the long terminal shoots, and others of very extensive growth ; whereby to form the head in a closer moderate expansion ; but the advancing lateral placed moderate shoots, shortened more sparingly, or smaller growths not at all, but mostly remain entire.

However, it would be advisable in the gooseberries particularly, as just above observed, to practise shortening only

occasionally; that is, for instance, where any particular terminal shoots, or others advanced extensively in lengths beyond most of the general expansion, or any as recline much in a pendent manner downwards, as often occurs in some sorts, or in any other irregular direction, may generally prune such shoots, less or more accordingly, to some regular order; retaining most of the others at their full length.

And thus, by observing some proper moderation and regularity in pruning the general reserved shoots, the trees of both these sorts will shoot more moderately accordingly the following summer; whereby the general branches will remain more open and detachedly distinct, in a proper degree to admit of full access to the beneficial influence of sun and air, &c.; by which the production of fruit will be superior, larger, and forwarder in growth, and ripen sooner in its proper flavour.

Having thus far concluded the essential observations for pruning the common standard bushes, it remains to give some intimations relative to pruning those trained to walls, or palings, &c.; for which shall refer to the work of the *Fruit Garden* in the two ensuing months, and *January*.

#### PROPAGATING GOOSEBERRIES AND CURRANT TREES.

PLANT cuttings and suckers of gooseberries and currants; being the most general and plenteous method of propagating these shrubs.

The proper cuttings for planting must be shoots of the last summer's production, of straight clean growth; let them be taken from healthy trees, and such as are remarkable, according to their kinds, for bearing the finest fruit: let each be shortened from about ten to twelve or fifteen to eighteen inches long, according to its strength.

Let them be planted in rows ten or twelve inches asunder, inserting each cutting one third, or near half way in the earth.

#### DRESSING THE STRAWBERRY BEDS, AND MAKING NEW PLANTATIONS.

THE strawberry beds should, some time in this month, have their winter dressing.

Choose a dry day to do this work; let all the runners or strings be cleared away close to the head of the main plants; then let the beds be thoroughly cleared from weeds, and let all the rubbish be carried off the ground.

Then, if there be room between the plants, by having been

kept to distinct heads, or single bunches, which is greatly preferable, let the earth be loosened to a little depth with a small spade or with a hoe; not to disturb the roots: and others, if the plants are in beds, with alleys between, line out the alleys the proper width, and let the alleys then be regularly digged a moderate depth: and spread some of the earth over the beds, neatly between, and close about every clump of plants.

And this, in the whole, will prove very beneficial culture, in promoting strength, and a plentiful production of large fruit.

In dressing these plants, it would be of much advantage to preserve the main plants singly, not permitted to spread over the whole surface of the bed, but kept as it were in single or distinct bunches or heads; and they will produce larger and finer fruit accordingly.

#### PRUNING RASPBERRY PLANTS.

**PRUNE raspberries.** In doing this, let it be observed, that all the old stems or bearers, that produced the fruit last summer must now be cut out, for these, wholly decaying in winter, never bear but once; and therefore a general successional supply of the young sucker stems produced from the root last summer, in succession to the old, must now be selected for the next year's bearers, to produce the fruit to be expected the following summer; and to make room for which, let all the old stems, above intimated, be cut down close to the ground; and selecting three or four to five or six of the best strongest young shoots on each main root or stool, let all the rest above that number be cut away close to the surface of the earth; and at the same time let all the straggling shoots thereof between the rows be eradicated.

Each of the shoots which are left to bear must be shortened; the rule in shortening these is—to take off about one fourth, or one third, or thereabouts, of the original length of each shoot according to the different growths, generally cutting them near the top part, at the bending, or a little below.

When the plants are pruned, clear away the cuttings, and then dig the ground.

In digging, observe to take up and clear away all straggling shoots and roots between the rows as do not belong to the main plants. This digging will strengthen the roots, &c., and the ground will lie clean and neat all winter.

## PLANTING RASPBERRIES.

THIS is a good season to plant raspberries, where a new plantation is wanted.

Observe, it is the young shoots or suckers which arise every summer from the old roots that are proper plants for the propagating of them, and for a fresh plantation.

They should be planted in an open situation, and where the ground is good; and if you dig in some very rotten dung, it will be an advantage to the plants, and promote a production of large fruit.

In choosing the plants for this plantation, observe to take the outward young offset sucker stems, or occasionally the suckers produced between the main stools, that are of some tolerable strong growth, all of the last summer's production, not less than two feet, but more eligible of three or four feet long, with strength in proportion,—digging them up with full roots, preferring those with roots the most fibrous, for this is material in those plants; and, as sometimes one, two, or more buds appear formed on the root near the bottom of the stem for next summer's shoots, such plants are particularly to be chosen, though, as this does not always occur, choose good plants as above.

Having procured the plants, consisting each of one strong shoot well rooted, shorten the shoots a little, and let the ends of the roots also be trimmed, and cut away any hard, woody root part; then put in the plants in rows four or five feet distant, and let them be planted a yard distant from one another in the row; they will produce some fruit next summer, but more abundantly the second year.

## PROPAGATING FRUIT TREES BY LAYERS.

By layers of the young shoots, may propagate vines, mulberries, figs, filberts, &c., laying them bendingly into the earth, three, four, or five inches deep, with the tops out, and they will be all well rooted by this time twelvemonth.

Or vines, &c., may also be layed in pots, one layer in each, of the young shoots, either drawing the layer through the hole at bottom, filling up the pot with earth, or introduced bendingly at top into the earth in the pot the depth as above.

## THE PLEASURE, OR FLOWER GARDEN.

## AURICULA PLANTS.

THE auricula plants in pots must be now removed to a sheltered dry situation in the full sun ; and if where they could be occasionally defended from excessive rains, snow, and severe frost during the winter, it would be of much advantage ; for as formerly observed, although auriculas are hardy to stand the weather, yet, by having some occasional protection, it preserves them in a more firm sound state, to flower in best perfection.

In default of any covered protection, the pots may, in very wet weather, be occasionally laid down on one side, with the tops towards the sun, to protect the plants better from any tendency to rot by too much moisture ; but in all dry weather, retain them in their upright position.

However, the pots containing plants of the more curious or estimable kinds may easily be moved under some place of occasional shelter, just to have protection from excessive rains, snow, &c., and for which purpose, the pots may now either be set close together within a garden frame ; and when the weather is bad, defend them with the glasses ; or may be placed similarly in a bed, or border near a south wall, &c., and arched over low with hoop-bends, to support a covering of mats, &c., which may be applied to shield the plants from heavy rains, snow, and rigorous frost.—See *Auriculas*, *September*.

Let all the dead leaves be taken off the plants.

## CARE OF CARNATION LAYERS IN POTS.

CARNATION layers, which were in August, or the last month, planted in pots, should, in the last week in this month, be removed in their said pots to a warm sheltered situation for the winter.

Or, the pots containing the prime varieties may be placed close together, where they may be occasionally shielded in the excess of bad weather ; such as in a garden frame, placed on a bed of light dry soil, raised three or four inches ; and in which may plunge the pots to guard the roots better from frost ; and in bad weather, defend the plants above with the frame-glasses, &c.

They are thus to remain all the winter, and the plants permitted to enjoy the full air in all mild moderate weather ; and



only when cutting cold, or excessively wet, snowy, or in severe frosts, to be covered with the glasses, and other additional covering, when the weather is rigorously severe; but when dry and mild, let the plants have the daily open air constantly.

But where there is not the convenience of a frame, the pots may be placed in a raised bed of dry compost, and arched over with hoops; and in bad weather, defend the plants with thick mats or canvass, to be drawn over the arches.

#### DRESSING THE BORDERS AND CLUMPS OF FLOWERING SHRUBS, &c.

THE borders and clumps of flowering shrubs and plants in this garden should now be thoroughly well cleared from weeds; and also, at this time, let the shrubs be pruned from rampant and straggling shoots; and let all the dead stalks of flowering plants be cut down close, and clear away dead leaves, and all manner of rubbish.

This is also now a proper time to begin to dig the borders and clumps, &c., in this garden, which is not only the most effectual method to destroy all remaining weeds, but the ground will then be ready to receive plants of any sort, and it will appear fresh and neat during the winter season.

#### TRANSPLANTING FIBROUS-ROOTED FLOWERING PLANTS.

Now may transplant into the borders or places where wanted, all sorts of fibrous-rooted perennial and biennial flower plants, which will now take root freely, in a short time.

The sorts proper to plant now are rose campions and sweet williams, campanulas, and catchfly, and you may also plant rockets, bachelor's buttons, double feverfew, antirrhinums, scarlet lychnis, and lychnydeas, and many other similar sorts. See the *List of Plants*.

The above plants grow nearly of a height, and are very proper to be planted variedly more or less towards the front and middle of the borders, &c., where they will make an agreeable appearance in their proper time of flowering, but especially the double kinds.

Some of the double wall flowers, and stock July flowers, double scarlet lychnis, double sweet williams, double rockets, double rose campion, and the like, should be planted in pots, and removed to some place where the plants can be sheltered in severe weather. These double flowers deserve particular care.

Now also slip and plant polyanthus, and auriculas, also double daisies, double camomile, violets, London pride, thrift, hepaticas, gentianella, saxifrage, heart's-ease, lily of the valley, and other low-growing fibrous-rooted plants.

These plants should be set variedly, about six inches to a foot, or fifteen or eighteen inches from the edge of the borders, or beds, &c., for they are but of a low growth.

This is also a good time to plant columbines, monk's-hood, Canterbury bells, foxgloves, tree primrose, Greek valerian, scabiouses, snap dragons, and such like kinds.

These flowers generally grow from two or three to four feet high, in the different sorts, and should be planted in a varied order, the lowest more or less forward, the others placed similarly toward the middle and back part of the borders, &c.

Transplant also wall flowers and stock July flowers into the borders; and this is also a proper time to plant carnations and pinks, both seedlings and layers.

This is a good season to plant golden rod, Michaelmas daisies, and other asters, everlasting sunflowers, French honeysuckles, and hollyhocks, which being mostly of large growth, are eligible furniture for capacious borders, in assemblage with other flowering plants; and to introduce in shrubby clumps, &c., planted five or ten to fifteen or twenty feet distance in a varied order.

Most other sorts of fibrous-rooted perennial and biennial flower plants may likewise now be planted in borders, beds, pots, &c. See the *List of Plants*.

This is a good season to plant any principal kinds of perennial and biennial flowers, in pots, ready for occasionally introducing to ornament particular compartments in summer: or some curious or tenderish kinds also to place under shelter in winter.

#### PARTING THE ROOTS, AND PROPAGATING VARIOUS FIBROUS AND KNOB-ROOTED PLANTS.

WHERE golden rod, everlasting sunflowers, Michaelmas daisies, other perennial asters, and such like large growing fibrous-rooted perennial plants, have stood in one place several years without transplanting, their roots will have spread considerably, and will be increased to very large bunches.

Where that is the case, the roots should now either be slipped or trimmed in all round as they stand, to a more moderate compass, or wholly taken up, and each main root divided into

several parts, or separate offset plants, not too small; and then some of the best should be immediately planted again in the places allotted them, at the distance before mentioned in the preceding article.

This is also now a good time, where not done before, to part the roots of many other fibrous-rooted plants that have grown into large bunches.

Particularly campanulus, catchfly, rose campion, scarlet lychnis, bachelor's buttons, double feverfew, peach-leaved bell-flower, yellow gentian, Canada leonurus, Christmas rose, and the like.

Likewise polyanthuses, primroses, double daisies, double camomile, London pride, hepaticas, violets, winter aconites, cyclamen, saxifrage, gentianella, auriculas, and all other such like sorts.

The roots, may, in some, either have the offsets detached, as they remain in the ground, or be wholly taken up as above mentioned, and every one divided or parted into separate plants. The best of the slips, or plants, must be planted again directly in the borders; and the smallest, or such as are not immediately wanted for the borders and other flower compartments, should be planted in nursery beds, to remain a year to get strength.

Now is also a proper time to part and transplant the roots of peonies, fraxinellas, lilies of the valley, Solomon's seal, monk's-hood, and flag-leaved irises.

#### PLANTING THE VARIOUS KINDS OF BULBOUS FLOWER ROOTS.

This is now a most eligible season to plant almost all sorts of bulbous and tuberous flower roots which were taken up when their leaves decayed. See the various sorts as below.

Hyacinths and tulips for the general spring bloom may now be planted either in distinct beds by themselves, each sort separate; or some in the borders in assemblage with other flowers.

But in some of the principal choice varieties, it would be most eligible to adopt the former order of planting; and for which allotting a dry situation, and a light mellow soil; let the beds be neatly digged, breaking all lumpy parts; then laid out in proper regularity, three or four feet wide, a little gradually rounding, with intervening alleys fifteen or eighteen inches to two feet width; and the surface of the beds raked even.

When the beds are ready, choose a dry and mild day to put in the roots; plant them in rows nine inches asunder, and not less than six inches in each row, and three inches deep: performing it either by dibble, drilling, or bedding in, as advised last month.

Where it is intended to plant any of the above roots in the common borders among other flowers, that may either be planted in a single row lengthways of the border, a foot or eighteen inches from the edge, and planted at least that distance from one another; or when these or any other bulbous roots are to be planted in assemblage with border flowers, it would be a preferable method to place them in little clumps, that is, in a small patch of six or eight inches diameter, to plant four or five roots: and so to plant the different sorts in separate patches, at the distance of one, two, or three yards; and in a varied order, in having some clumps nearer the front, and others more or less towards the middle, and which order of planting makes a pleasing variety in the flowering season.

But the choicest kinds of these roots should be mostly planted by themselves in beds, to the purpose that they can be readily sheltered in severe weather, and the different varieties of the flowers show to better advantage when collected together all in one bed, at one view; and the flowers in early spring can be sheltered from cutting cold, and excessive wet, and in the warmer season from the mid-day sun occasionally; all of which would impair the beauty, and hasten the decay of the flowers.

Now is also a very good time to plant the roots of ranunculuses and anemones; the best varieties should be planted by themselves in beds.

The beds should be three or four feet broad; plant six rows in every bed, and let the roots be six inches distant in each row; at that distance they will blow strong, and the flowers will show themselves to proper advantage, and must be planted not more than two inches deep over the crowns; observing, the beds, where the best sorts of these roots are deposited, should be protected in winter, when the frost is very severe.

Some of the common sorts of ranunculuses and anemone roots may also be planted in the borders in assemblage with other flowers, either in a row towards the edge, or in small patches in different parts, where they will make a very agreeable appearance in the spring.

But the best method of planting these sorts in the borders, is

in little clumps or patches, as above intimated; forming with your finger small circles six inches diameter, about a foot from the edge of the border. or in a varied manner; plant in each, three, four, or five roots: that is, one in the middle, and the rest round the edge of the circles, and these little clumps may be from a yard or two, to eight, ten, or twelve feet distant.

Now is likewise the proper time to plant crocuses and snow-drop roots, which were taken out of the ground in summer; also winter aconites.

These roots may be planted either about six inches from the edge of the borders or beds next the walks, in one continued row, set about six inches apart, or in little clumps or patches, as observed above of the ranunculuses, &c., in which the flowers will make the best appearance; forming the patches about five or six inches over, plant the different sorts separate, four or five roots in each patch, one in the middle, and three or four round the edge; two or three feet farther plant another clump in the same order, and so on to the end; and in this manner they may be planted both near the edge, and disposed more or less inward, to display a greater diversity when in flower.

These small roots should not be planted more than about two inches deep.

Plant also the various sorts of narcissus and jonquils; and this is also a proper time to put in the roots of the English and Persian bulbous irises, fritillarias, gladioluses, ixias, and all other such like bulbous roots as were taken up when their leaves decayed in summer.

When the above roots are intended to be planted separately in beds, let them be set in rows eight or nine inches asunder; and set the roots the same distance from one another in the row, and not more than two or three inches deep.

But when they are to be planted in the common borders, it is the best way to plant three, four, or five roots together in a small patch, and allow, at least, three feet between every such patch of roots.

Likewise plant crown imperial roots, and the roots of martagons, and orange lilies, that were taken up when the leaves decayed in summer; and where the white lily, pancratiums, or any other similar bulbous lily-roots have been removed since their bloom, and are now above ground, let them be planted in the proper places some time this month.

These bulbs should be planted variedly towards the middle

and back part of the common flower-borders, they being of tall growth, planting some more or less forward, and towards the middle, others more inward in the borders, &c., intermixing the different sorts properly, at one, two, or three yards distance, and planted three or four inches deep; observing generally to open apertures for the larger roots with a garden trowel or small spade, planting one good root in a place; or to have a larger show of bloom, may occasionally plant two or three together.

#### PRUNING FLOWERING SHRUBS, &c.

PRUNE roses and honeysuckles; and this is also a proper time to prune all other sorts of flowering shrubs and evergreens.

Let this pruning be performed with a sharp knife, and not with garden shears, as sometimes practised.

In pruning these shrubs, observe to cut out or prune to order any very long, rambling, luxuriant shoots of the last summer's growth, which are often produced on many sorts of flowering shrubs, and ramble considerably out of bounds, pruning them either close to whence they proceed, or shortened, as it may seem most expedient.

Where any branch advances in a straggling runaway manner from the rest, let that be cut shorter; observing, generally, to prune it close to a bud, or any lateral young shoot, leaving the bud or shoot for a leader to the branch; and where branches of different shrubs interfere with each other, let such be pruned or shortened, as you shall see it necessary, so that every shrub may stand clear off the other; likewise, where any branches or shoots advance too near the ground, let them be pruned up close to the stem, to keep it clear below, and the head continued in some regularity above.

All suckers which rise from the roots should be taken clean away; and generally let the shrubs be mostly kept to a single stem below near the ground.

When you have finished the pruning, let the cuttings be cleared away: then let the ground between such shrubs as stand wide be either for the present well hoed and raked, or, if opportunity serves, neatly digged one spade deep; observing, as you proceed with the digging, to cut off any very long straggling roots, and to take up all suckers.

## PLANTING HARDY DECIDUOUS FLOWERING SHRUBS AND ORNAMENTAL TREES.

Now, about the middle or towards the latter end of this month, may begin to plant in shrubberies, &c., all sorts of hardy deciduous flowering shrubs; such as roses, Guelder roses, lilac, and honeysuckles.

Plant also, where wanted, laburnums, syringas, althæa frutex, jasmines, privets, double bramble, flowering raspberry, the double blossom cherry, bladder sena, scorpion sena, spiræas, and hypericum frutex: it is now also a proper time to plant mezereons, the double-flowering peach, and almonds.

The cornelian cherry, double hawthorn, and scarlet horse-chestnuts, may also be planted any time as above, the shrub cinquefoil, sumach, rock rose, cytisuses, acacia, and all other hardy shrubs, may now be removed.—See the *Catalogue*.

In planting the different sorts of flowering shrubs, observe to plant them at such distances and order, that the various different plants, according to their growth, may have full room to grow, and to show themselves to advantage.

Where it is intended to plant them in clumps, or any continued plantations in the shrubbery order, let the shrubs in general be set at least three or four to five or six feet distant from one another, according to the general growth of the different sorts; and such plants as are of an humble growth should not be planted promiscuously among tall growing plants: for was that to be practised, the low plants would be lost to view.

Let this, therefore, be well observed at the time when the shrubs are to be planted, and let the low growing plants be set towards the front; and the taller the plant, the more backward in the clump it should be planted. The shrubs should also be disposed in such regular order, that every plant may be distinctly conspicuous to view from the walks and lawns, &c.

This is the method of order that should be practised in general planting and decorating the clumps or quarters of the shrubbery; straight lines are not to be regarded, but rather to be avoided; but some regularity must, notwithstanding be observed, both with regard to the distance and advantageous disposition of the different sorts of plants.

However, where it may be required to have any particular shrubbery districts to form a sort of thicket, for shade, shelter, blind, &c., either in running boundary compartments, or any

interior division, the shrubs and trees may be planted closer accordingly, more or less, to suit the different occasions.

Likewise observe, that in occasionally introducing, for planting in the principal flower borders, any desirable ornamental flowering shrubs, to effect a greater decorative variety in an embellishment of these compartments, should generally choose shrubs of moderate growth for that purpose, such as roses, syringas, hypericums, spiræas, honeysuckles, *althæa frutex*, Persian lilacs, Guelder rose, mezereons, dwarf almonds, *laurustinus*, *arbutus*, *cistuses*, jasmines, *rhododendrons*, &c.; and not planted too close, as often practised; allotting the smaller at least five or six feet, and larger ones ten or fifteen feet distance; and in their advancing growth keep them in some regular order below and above, not to overspread the undergrowing herbaceous flowers of the bulbous, tuberous, and fibrous-rooted kinds.

May also now plant any desirable flowering shrubs in pots.—See *September*, &c.

The shrubs in general should be mostly kept trained, each with a short single stem below, near the ground, and their heads should have occasional pruning every year with the knife, and be always kept somewhat regular, and within some moderate bounds; and all suckers from the roots should be radically taken away in the winter or spring dressing.

#### PLANTING EVERGREEN TREES AND SHRUBS.

EVERGREEN shrubs or trees of most sorts may also now be brought in, and planted in the clumps, or other parts of the garden where wanted.

They may be planted both in distinct clumps, or other shrubbery compartments, to have some wholly of evergreens, and also some in assemblage with deciduous trees and shrubs, to effect the greater diversity and variety.

Most sorts may be removed any time in this month, and the sooner the better, that they may take fresh root the same season, before setting in of frost.

But, in particular, the strawberry tree or *arbutus*, laurel, Portugal laurel, *laurustinus*, *pyracantha*, *phillyreas*, *alaternus*, bays, *cistuses*, evergreen oaks, hollies, and magnolias, pines, firs, cedars, cypress, junipers, and many others.

In planting these and all other evergreen trees or shrubs, let the same rule be observed as mentioned above in planting the different sorts of flowering shrubs.



That is, where these plants are to be planted in clumps, or any continued plantation, let them be set at least four to five feet every way asunder, and some of the larger growing sorts should be allowed a greater distance; for it is of much importance to allow these kinds of shrubs and trees a proper distance; as every plant, according to its kind, having room to shoot each way regularly, they will form handsome heads; and every different shrub, &c., can also be distinctly viewed.

Besides, by allowing a due distance between plant and plant, you have proper room to dig the ground; and also to hoe and clean, and do all necessary work about the shrubs.

But, as observed in planting the deciduous kinds, where required to form thickety plantations in any particular shrubbery compartments, some branchy evergreens may be planted at distances less or more accordingly.

Some of the most beautiful evergreens may also be planted on grass lawns, dotted singly and in clumps, at various distances.

And some branchy common evergreens, such as phyllireas, laurustinus, and laurel, are likewise proper shrubs to plant, &c., hedgeways, to hide any rugged or unsightly naked walls, or other fences, or any disagreeable erections, &c., in the boundaries of fore courts, or other garden compartments.

These plants are beautiful evergreens, summer and winter; they are also very hardy, and their growth is quick, full, and branchy to the bottom; and where wanted for the above purpose, this is a proper time to plant them.

When intended to have them cover walls or paling fences, in a regular order, they must be planted close to the wall, &c., three or four feet asunder, and their branches spread and trained to the wall in the manner of wall-trees; they will shoot in a quick, close, branchy growth, and their beautiful green leaves will effectually cover and hide the wall, or as required in any other similar occasion: or the laurel, &c., may also be occasionally planted either close or detached, to cover any unsightly boundary fence or other disagreeable object, permitted to advance either in their natural growth, or trained as a hedge; and they will thus soon effect the purpose intended very agreeably.

The pyracantha is also an evergreen shrub to plant against a wall, and its clusters of beautiful red berries make a handsome and very agreeable appearance in autumn and winter.

The arbutus, or strawberry tree, is also sometimes planted against a wall. This is a beautiful evergreen plant, and makes an agreeable figure in any place, and at all seasons, but parti-

cularly at this and the two preceding months, when it appears very ornamental, in its numerous small white flowers, and fine red strawberry-like fruit.

But these plants (*arbutus*) make the best appearance when planted, detached in the clumps or borders, lawns, &c., and suffered to grow in their natural way.

Or these *arbutus* shrubs, being planted, detached or singly upon grass lawns, &c., kept to single clean stems, and regular heads, they have a beautiful effect.

Any desirable evergreens may now also be planted in pots, as observed of the deciduous shrubs.

#### GENERAL METHOD OF PLANTING TREES AND SHRUBS.

In planting the various kinds of shrubs and trees in the shrubbery, &c., one general method serves for the whole; open for every plant a circular hole, wide enough to receive the root freely every way, and about a spade deep, or as the root requires, and let the bottom be well loosened.

Then, having the plants, prune the end of all long and straggling roots, and cut away such roots as are broken, damaged, or dead; also prune to order any irregularities of the head; then place the plant in the hole upright; break the earth well, and throw it in equally, at the same time shaking the plant gently, to make the earth fall in close about, and among all the roots and fibres; when all is in, tread the earth gently round the plant, and then let every one be directly watered, especially if a dry light soil.

But in planting the choice and more tender sorts of evergreens, such as *arbutus*, *magnolia*, *rhododendrons*, &c., it would be of particular advantage where the plants can be readily taken up and brought with balls of earth firmly about their roots; and having a wide hole opened for each, the plants should be immediately set therein, with the said ball of earth entire, and directly fill up the hole, and tread the surface gently.

Immediately give each plant about half a pot of water, or according to the size of the hole, and let such as want support be directly staked.

#### TRANSPLANTING FOREST AND ORNAMENTAL TREES.

Forest trees of all sorts may now be safely transplanted from the nursery, &c., for any intended plantations, towards the latter end of this month; such as elm, oak, beeches, birch, maples, ash, lime, sycamore, and plane trees; also alder, poplar,

and willow: likewise pines, firs, cedars, cypress, larches, and almost all other sorts, both of the deciduous and evergreen forest and ornamental trees.—See the *Catalogue* at the end of the book.

But these and all other forest trees, &c., may be transplanted in mild weather any time between this and Christmas, or during the winter season; observe the same method in planting these sorts as just above advised in the general method of planting, and at the distance and order of arrangement as hinted in March.

#### PROPAGATING BY LAYERS.

Now may make layers of many sorts of hardy trees and shrubs to propagate them.

This may be done any time in this month, and many sorts of trees, and flowering shrubs are to be propagated by that method; the method is easy, and the trouble will be well repaid in a twelvemonth's time, by an additional supply of many well-rooted new young plants, of the respective kinds now layed.

Almost any tree and shrub that sheds its leaves in winter may be raised by layers of the young wood; being layed the lower part into the earth, as they remain on the parent plants, leaving the top above ground.

The method of laying is, dig round the tree or shrub, and, as you proceed, lay down the bottom young shoots, or not older wood than one or two years' growth, or bend down the pliable larger branches furnished therewith; lay them into the earth, and secure them there with hooked or forked sticks; lay all the young wood on each branch into the earth, three, four, or five inches deep, leaving the tops of each, two, three, or four, to five or six inches out of the ground, according to their different lengths.

Thus they are to remain till this time twelvemonth, by which time they will be well rooted, and must then be transplanted.

In the above work of laying, it may be proper either in general, or especially in the more hard-wooded kinds, to cut the layer on the under side in a small slit upwards, laying that part into the earth, which often promotes the emission of roots near the cut more effectually.

By layers, elms, and limes, and many other deciduous, forest, and ornamental tree and shrub kinds, will now succeed.

Now is also a proper time to make layers of hardy evergreens,—many sorts will grow by that method.

This may be practised with good success on *laurustinus* and laurels, and many other similar kinds; the layers will, in the space of one year from the time of laying, be very well rooted, and fit to transplant, provided you lay proper young shoots.

*Phillyreas* and *alaternuses* will also grow by layers; but the layers of these plants will sometimes be two years before they are tolerably rooted, particularly when not layed till this season.

But the best time to lay these, and such other hard-wooded evergreen plants, is June and July, in the young shoots of the same summer's growth; as many of these will often take root the first season, fit to transplant by Michaelmas.

However, it will also at this time be proper to make layers of all such evergreen shrubs as you desire to propagate, and many sorts will succeed.

Observe, it is the last summer's shoots that are the most proper parts to lay; and so accordingly let such branches as are best furnished with young shoots be brought down, and the shoots layed as before directed, and in page 521.

Now is the time to take off and transplant the layers of all such shrubs and trees as were layed last autumn, spring, and summer; cut them clean off from the old stool, or parent trees; let their roots be pruned, and plant them in rows, twelve to fifteen or eighteen inches distant.

#### PROPAGATING ROSES AND OTHER SHRUBS BY SUCKERS.

TRANSPLANT suckers of roses; it is by suckers, from the root, that most sorts of these shrubs are increased; these being digged up carefully with roots, will make good plants in one or two years' time, and most of them will flower next summer.

Lilacs are also generally increased by suckers, which shrub seldom fails to yield every year plenty; and these may, now or at any time in winter, when the weather is mild, be taken up and planted out in rows.

Many other shrubs are also raised by suckers from the roots, and this is now a proper time to transplant the suckers of all such sorts.

#### PROPAGATING FLOWERING SHRUBS BY CUTTINGS.

PLANT cuttings of honeysuckles; all the sorts of these shrubs may be propagated by that method; for the cuttings of the

young shoots will put out roots very freely, and make pretty plants in one year.

Many other sorts of hardy shrubs and trees are to be raised from cuttings, and this is the time to plant them.

Observe, it is the last summer's shoots that are to be used for cuttings: let strong shoots be chosen, and shorten them to about nine, ten, or twelve inches in length; then plant them in rows a foot asunder, and set the cuttings about six inches distant in the row.

Let every cutting be put half way into the ground.

Laurels and Portugal laurels are propagated principally by cuttings, and the beginning of this month is a very successful time to plant them; these cuttings must also be the last summer shoots; do not take the long rambling shoots; choose such as are about nine or ten, to twelve or fifteen inches in length.

Trim off the lower leaves, and plant them in a shady border in rows, ten or twelve inches asunder, and set the cuttings six or eight inches distant from one another in the row.

These cuttings will be well rooted by next September or October

#### SEEDLING FLOWERS.

REMOVE now all the boxes or pots of seedling flowers to a warm situation.

Let these be placed where they can have the full sun all winter, and where shielded from cold and cutting winds.

These pots, boxes, or tubs, should also be now cleared with great care from weeds.

The beds of seedling bulbs should also, at this time, have good attention; let all the weeds be taken out with particular care; then get some rich light earth, and sift some of this all over the surface of the bed to the thickness of an inch, or thereabouts.

This will be of a very great service to these young roots, but in particular to those which were not removed in summer.

#### TRIMMING EVERGREENS.

Go round the plantations of evergreens, and, with a sharp knife, reduce such to order as are of a rude growth.

Though the taste which prevailed so much formerly in cutting or training many sorts of evergreens into different figures, with garden shears, is now for the most part laid aside, yet

there are many sorts of evergreens that require some training with the knife.

Sometimes particular shoots of a rude growth run out considerably, in a long disorderly extension, beyond the general branches which form the head; these should be cut away or shortened, and other very irregular and straggling growths pruned, as may seem most convenient to make the head somewhat regular; and, where the shrubs interfere very disorderly with each other, let them be pruned to some regularity, so as the different plants may stand fair and clear of one another.

#### CLIPPING HEDGES AND EDGING.

If any hedges or box edging want trimming, let them be completed early in this month; observing as in the two former.

But more particularly any hedges of evergreens, which should all be finished clipping the beginning of the month; for if cut too late, and if very cold weather sets in, it will occasion the cut leaves, and others suddenly exposed thereto, by cutting in the shoots, to change of a rusty-like disagreeable colour, which they would not recover all winter.

#### PLANTING BOX EDGINGS.

PLANT box where wanted for edgings to borders or beds; this being a very successful season to do that work, for the box will now very soon root.

To make neat edgings you should get some short bushy box and this should be slipped or parted into moderately small slips, with roots to each, and the long woody roots cut off, and the tops trimmed even.

The method of planting it is this:—stretch your line, if for a straight edging, along the edge of the bed or border, and let that part be trodden lightly and evenly along, to settle it moderately firm; and then with the spade make it up full and even, according to the line; then, on the side of the line next the walk, let a small neat trench be cut out about six inches deep, making the side next the line perfectly upright, turning the earth out towards the walk or alley.

The box is to be planted in this trench close against the upright side next the line, placing the plants so near together as to form immediately a close compact edging, without being too thick and clumsy, and with the top of the plants as even as possible, all an equal height, not more than an inch above

the surface of the line; and as you proceed in planting, draw the earth up to the outside of the plants, which fixes them in their due position; and when you have planted the row out, then with your spade trim in the earth almost to the top of the plants, and tread it neatly and evenly thereto; and when the edging is planted, let any inequalities of the top be cut as even and neat as possible with a pair of shears.

#### PLANTING THRIFT . OR EDGINGS.

THRIFT makes also a very good edging, and this is a very proper time to plant it.

To make a neat edging, the plants should be set so close as to touch one another, either by planting in a small drill, or trench, as directed above, for the box, or by dibble; but if plants are scarce, they may be planted about two or three inches distance. they will meet by degrees.

#### PLANTING IN POTS.

PLANTING in pots may now be performed, to many sorts of perennial flower plants, as also to curious or desirable flowering shrubs and evergreens; both with design of having the opportunity of moving them in their said pots for decorating any particular compartments in spring and summer, &c., and also in some sorts for removing them to places of shelter during severe weather in winter: as likewise some for placing in hot-houses, &c., in December and January, &c.; for forcing for early flowering.

Likewise bulbous roots, of any desirable sorts, may now be planted in pots, or boxes, &c.

#### MOWING GRASS WALKS AND LAWNS.

THE grass walks and lawns should now be mown generally for the last time in the season, and should be cut as close and even as possible: for if not well cut down at this time, they will appear very rough all winter.

The close cut smooth garden lawns should now be occasionally poled in dry weather, to scatter the wormcasts about, and they should afterwards be rolled with a wooden or some other roller; the wormcasts, by being broken and spread about, and the grass then rolled before the scattered earth is too dry, will readily stick all to the roller, by which means the surface of the grass will be rendered very clean.

Let all parts of the grass walks and lawns be at this time

kept clean from the fallen leaves of trees, constantly sweeping them clean off.

#### GRAVEL WALKS.

LET gravel walks be still continued in neat order; clean weeded, swept, and occasionally rolled once or twice a week.

#### PLANTING HEDGES.

THIS is a fine season to plant all sorts of hedges, both for fences, shelter, and ornament.

But may particularly plant all sorts of deciduous hedges any time from about the middle or latter end of the month, to the end of next, very successfully; also evergreen hedges, if planted the beginning or middle, or at least by the end of this month, as after that time it may probably prove safer to defer planting them till the spring, in regard that if sharp frosts should happen soon after, before well rooted, it may injure the young shoots and leaves, they not being so hardy, as the deciduous kinds, to resist severe cold, if it occurs soon after removal; however, all or any sorts may now be successfully planted, as they will mostly take fresh root soon the same season.—See the *Lists of Hedge-trees, &c.*

Likewise plash or lay down any old boundary fence-hedges of thorn, elm, &c., which have run up tall and naked at bottom.—See *November* and *December*.

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## THE NURSERY.

#### PROPAGATING BY LAYERS.

Now begin to propagate forest trees and flowering shrubs, &c., by layers, this being the best season to perform that work on the hardy kinds.

The ground is to be dug round the tree or shrub you intend to propagate; and in doing this, the shoots or branches are to be brought down and layed into the earth, and fastened there with forked or hooked sticks; or previously nick or cut a small slit upward in the layer underneath; especially hardwooded kinds, to promote their rooting more effectually; laying them as above, inserting the stem of each shoot bendingly



into the earth, about three or four inches deep, leaving the top several inches, or less or more, out of the ground.

Elms, limes, and many other hardy forest trees, ornamental trees, flowering shrubs, and evergreens, succeed by laying as above; likewise some sorts of fruit trees, such as vines, figs, &c.

But where it is intended to raise by layers any of the above trees, and tall shrub kinds, that are run up in stem, those from which the layers are to be made must be prepared for that purpose, a year or two before, by cutting down the stems near the ground, when only about one to two or three inches thick, to form what are called stools, that they may produce shoots or branches low near the bottom, or so conveniently situated near the earth, as they can be readily laid therein; but most of the lower kinds of shrubs branching out near the ground naturally afford layers enough, properly situated for laying, without the above precaution of previously heading down; though where large supplies are required, it is proper to have, in most parts, stools prepared as above.

Take off the layers of all kinds of trees and shrubs that were layed a twelvemonth ago, or last spring and summer.

Let these be planted in rows in an open compartment; the larger plants set in rows two feet and a half asunder, and the smaller kinds fifteen or eighteen inches, and planted twelve inches distant in the row.

#### PROPAGATING TREES AND SHRUBS BY CUTTINGS.

THIS is a proper time to plant cuttings of all such hardy trees and shrubs as will grow by that method, both of the deciduous and evergreen tribe.

Many of the deciduous shrubs and trees in particular are propagated by this method; such as the honeysuckle in all the sorts, and many other kinds of similar growth, all grow freely by cuttings planted any time this or next month; and may also plant cuttings of all other deciduous kinds as are generally raised by that means; allotting the whole now a moderately dry-lying situation that they may not be injured by too redundant wet in winter; or may all be planted successfully in the spring.

The gooseberry and currant trees are also raised by cuttings, and this is as good a time as any can be to plant them.

Likewise may now plant cuttings of some sorts of evergreens, more particularly the laurel in the beginning of the month.— See *Pleasure-ground* and *Nursery* of this and last months.

Cuttings of all sorts planted a year ago, and last spring being rooted, may now be transplanted or quartered out in open nursery rows, to advance in proper growth, and have occasional training for the purposes intended.

#### SOWING HAW AND HOLLY BERRIES, &c.

THIS is the time to sow haws, holly, hips, and yewberries.

Beds must be prepared for these berries three feet and a half or four feet wide; the berries are to be sown each sort separate, and covered an inch or two deep with earth.

But it is the practice of many to prepare the holly-berries and haws, for vegetation, a whole year before they sow them, because they seldom come up till the second spring after sowing: it therefore is customary to bury them in the ground in a heap together, for one year, and then sow them. The method is this:—

On this occasion may either deposit them in large garden pots, and plunge in some dry ground several inches over the top; or in some dry upward situation, mark out a trench one or two feet wide, the length in proportion to the quantity of berries intended, and dig it twelve to fifteen or eighteen inches deep; making the bottom level; then lay the berries of an equal thickness, and cover them with the earth five or six inches deep, two-thirds the depth of the trench, or more, raising it above in a ridge, like a grave, making the ridge rather wider than the trench, in order to throw off the wet more effectually: or if deposited in pots plunged as above, earth them up similarly.

Here let them lie till this time twelvemonth, when they are to be taken up and sown in beds, as above mentioned, and the plants will come up in the spring following; or may remain till February or March, and then sown, and they will come up the same season in April or May.

#### SOWING ACORNS.

Sow acorns, this being generally a good successful time to put them into the ground: and it will be proper to have them mostly sown by the latter end of this or some time next month; for if kept much longer out of the ground, many of them will begin to sprout.

Let these be sown in beds, and cover them equally with earth about an inch and a half, or two inches deep.

## STOCKS TO BUD AND GRAFT UPON.

Now, about the middle or latter end of the month, may plant out all kinds of seedling stocks, to bud and graft the different fruits upon.

Let these be placed in rows two feet and a half asunder, and set the plants twelve or fifteen inches distant from one another in the row.

You should now transplant from nursery-beds and layer stools all the properly rooted cuttings and layers of fruit trees, as were planted and layed a year ago or last spring, to raise stocks; but particularly the cuttings or layers of quinces, to bud or graft pears upon, to form dwarf trees for walls and espaliers, &c., planting them in wide nursery rows, as above.

## PLANTING HARDY TREES AND SHRUBS.

Now you may also transplant in nursery-rows, &c., all hardy trees and sorts of shrubs, towards the middle or end of this month.

Those trees and shrubs which are planted out, or transplanted at this season, will fix themselves firmly by the beginning of next summer, which will be a great advantage, for they will require but very little trouble in watering in the spring, &c.

## PRUNING.

This is a proper season towards the latter end of the month, to prune all kinds of young fruit trees in the order required, clearing their stems from lateral shoots, and eradicate suckers from the roots, and prune the head from irregular and superabundant shoots, &c.

Forest trees of all sorts may also be pruned any time in this month, to clear the stems from strong side shoots.

Likewise flowering shrubs, &c., may now be generally pruned where they want it, to retrench any irregularities of the head, &c., such as long rambling or very rampant shoots, of rude disorderly growth, and any long straggling wood.

## SOWING PLUM AND CHERRY STONES.

Now it will be proper to put into the ground some plum and cherry stones, to raise a supply of stocks to bind and graft upon.

Allotting, for this occasion, a dryish light mellow soil; dig and prepare the ground into beds three or four feet wide; take an inch or two depth of earth evenly off the top, then sow

the stones equally, moderately thick ; press them into the surface with the spade, and cover them in with the earth about an inch and a half deep in a regular manner.

It will likewise now be necessary to prepare to preserve some plum stones in sand till spring, to be as a reserve to sow in case those now sown in the beds should be destroyed by vermin, or severe frosts ; having for this purpose a good close strong box or tub, or large garden pots, &c. ; cover the bottom three inches deep with some quite dry sand ; then scatter in a parcel of the stones, and cover them two inches deep with sand ; then scatter more stones, and throw on another covering of sand, and so proceed till the box, &c., be filled, or as required.

Thus the stones will keep securely till the middle, or towards the latter end of February, when they must be sown in the nursery beds as above.

#### PLANTING CUTTINGS OF LAURELS.

PLANT cuttings of laurels, but let this be done in the beginning of this month.

Let the cuttings of these plants be chosen, prepared, and planted in the manner mentioned the last month, in the work of the nursery, and this month in that of the pleasure ground.

Portugal laurels are also to be propagated by cuttings ; and the beginning of this month is still a very good time to plant them.

#### PROPAGATING BY SUCKERS.

PROPAGATE oy suckers from the roots, all sorts of trees and shrubs which produce them ; taking them up with roots, and plant them in nursery rows.

#### TRANSPLANTING EVERGREENS, &c.

THE beginning or any time of this month is a proper season to transplant various sorts of evergreens, such as laurels, Portugal laurels, laurustinus, and such like kinds ; and any other sorts of young growth in the nursery, growing either in beds or transplanted rows, and that may appear to require more room for their advancing growth, may now be transplanted accordingly, in nursery rows, twelve to eighteen inches or two feet interval, agreeably to the size and nature of growth of the different sorts of young trees and shrubs as may require transplanting.

## SOWING BEECH MAST, AND SEEDS OF OTHER HARDY TREES.

THIS is a proper time to sow beech-mast and ash-keys, and may also sow maple-seed ; let a bed be dug for each of these seeds, the earth well broken, the surface laid even and prepared for the seed, either by drills, or broad sowing.

Then sow the seeds, &c., pretty thick, and cover them an inch deep with earth.

Likewise may sow the seeds, berries, nuts, stones, &c., of most other hardy trees and shrubs ; but more particularly of the deciduous kinds ; all or mostly in beds of light mellow earth, and covered in therewith one or two inches deep, according to the nature and size of the different sorts of seeds, &c., or some sown in drills the same depth ; or may mostly remain for spring sowing.—See *February*.

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THE GREEN-HOUSE.

## ORANGE-TREES.

REMOVE the orange-trees, and all the other tenderest green-house exotics, into the green-house, the beginning of this month, provided it was not done at the end of September.

Before they are carried in let the heads be well cleaned, the decayed leaves picked off, cut out any casual decayed wood, and prune any ill formed or unsightly irregular shoots, or very disorderly growths of the year, as it may seem necessary whereby to preserve some regularity in the head ; and let the earth be stirred a little in the top of the tubs or pots.

About the middle of the month, or sooner, if cold weather, it will be time to take in the myrtle geraniums, and all other green-house plants.

Observe, as said of the oranges, to clean the heads, and take off the dead leaves, cut out any decayed wood, prune any particular disorderly growing shoots ; stir the earth on the surface of the pots ; and, to such plants as appear any way weakly, let some of the cold earth be taken out of the pot or tub, and fill it up with fresh compost.

In placing the plants in the green-house, take great care to arrange them in regular order, the taller plants behind, and the others according to their height, in regular gradation down to

the lowest in front; being also careful to dispose the different sorts in such varied order, as the foliage may effect a striking contrast and variety, by intermixing the broad and narrow leaved, the simple and compound leaved, and the light green and dark green, and the other different shades and tints of colours and variations of the foliage of the various kinds, in which they will exhibit a conspicuous and agreeable diversity.

When they are all thus regularly arranged in their places, give their heads a refreshment of water: then let the floor and all parts of the green-house be neatly cleaned from wet and all manner of litter.

When the plants are all in, take care to supply them with water; but let this always be done with moderation. Likewise, in open weather, give them plenty of air every mild day, by opening all the windows; but shut close of nights; or also in the day, when sharply cold, or excessively wet, raw, damp, foggy, or other bad weather.

Any myrtles, &c., designed to be wintered in garden frames, &c., should now be placed therein, and managed as above.

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## THE HOT-HOUSE.

### REMOVING THE SUCCESSION FRUITING PINES INTO THE FRUITING STOVE.

THE beginning of this month you must begin to remove into the fruiting-stove or hot-house the succession pines; that is, such as are to produce the fruit for the supply of the ensuing summer; but, previous to this, preparations must be made for adding a considerable portion of fresh tan to the bark-bed in the hot-house.

Therefore, if not done in the end of last month, let some good new tan be now produced from the tan yards, in quantity as advised last month, sufficient to supply the place of the waste bark, which will now be considerable, and must all be removed by screening it as below; so that of new tan, about one half or two-thirds, or more, in proportion to what the bark-pit will contain, will now be necessary; being, however, careful to provide a plentiful sufficiency: and, when brought from the tan yards, if full of moisture, it will be proper to cast it up in

a heap for ten or twelve days to drain ; but if the tan be very wet, it should be spread thin in some dry airy place, in sunny days to dry, so as to bring it to a middling degree of moistness ; for if it is put into the hot-house pit too wet, it will be a long time before it comes to a kindly heat, and sometimes not at all, in an effectual manner.

When the tan is properly prepared, as above, let all the pots that are now plunged in the hot-house, be taken out.

Then let all the old tan in the bark-bed be sifted or screened : let all that goes through the screen be taken entirely away, and as much new tan brought in as will, with the remaining quantity of old, fill up the pit again ; forking up, as you proceed, the new and old mixedly together, raising the whole equal to, or rather a little above, the top of the pit, in a level order.

Then, when the bed begins to heat and the heat is risen near the surface, bring in your fruiting plants, and plunge them in the bark-bed to the rims ; or if doubtful of too considerable heat at first in the new bark-bed, plunge the pots only about half way for about a fortnight ; if, however, you plunge them wholly at first, you must observe to examine the bed often ; and if you find the heat at any time violent, then let the pots be drawn up half way or quite out of the tan, as you see convenient, to prevent its burning the roots of the plants.

But when the heat is moderate, let the pots be fully plunged to their rims.

The plants thus finally placed in the fruiting house, give the usual culture ; the admission of fresh air moderately, in fine sunny days, gentle waterings, and to begin the assistance of fire heat towards the end of the month.

Should also now replenish the succession houses, or pits, with the supply of young pines, next in successional growth to the above fruiting plants ; also the younger successions in the next advancing stage, placed in the bark-pits, frames, or other wintering departments of artificial heat, either of bark-beds, dung beds, &c., if not done in September.

#### SUCCESSION PLANTS.

LIKEWISE the bark-bed of the succession house, or pit, will also now require to be renewed with a proper quantity of new tan, if not done last month ; observing as advised above in the Fruiting Hot-House.

## GENERAL CARE.

GIVE also proper attendance to the plants in general in the hot-house, both the pines and all the other exotics ; let them have the necessary culture.

Let occasional waterings be given once or twice a week, or as you shall see occasion ; being careful not to give too much at this time.

Likewise admit fresh air into the house every fine calm day when a warm sun, by sliding open some of the glasses from nine or ten till two or three o'clock.

If any plants want shifting into larger pots, let it be done, and plunge the pots in the bark-bed.

About the middle, or towards the latter end of this month, it will be time to begin to give the addition of fire-heat in the hot-houses, by making fires every cold evening ; and also occasionally in a morning, when very damp cloudy cold weather.

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NOVEMBER.

## WORK TO BE DONE IN THE KITCHEN GARDEN.

## BEANS.

IN the middle, or towards the latter end of this month, is a proper season to plant some early beans, either to succeed such as were planted in October ; or, where no plantation thereof was then made, it may be done in the beginning, or any time this month very successfully.

The beans which are planted now will come in at an early season and often succeed better than those which were planted three weeks or a month sooner.

The mazagan bean comes in the earliest, is a great bearer, a good bean for the table while young, and most proper to be planted at this season, for the earliest crop ; but may also plant either some small Spanish, broad Spanish, or long-podded beans, or a few of each for a successional early supply.

Let these beans be planted in a warm dry situation, and some in a south border, under a wall or other fence ; and observe the same method in planting them as mentioned in October in the article of beans.



Or likewise, if not done last month, may sow a quantity of the mazagans, or other forward beans, thick together in a bed or border, in a warm situation, for transplanting towards the spring, and in the mean time to be defended with a frame or glasses, or other occasional protection, from severe frost, to preserve them in good condition for planting out at a proper time; and, if those in the open ground happen to suffer by the severity of the winter, these will be good substitute plants.—See *October*.

#### PEASE.

Sow also some pease towards the middle of this month, to succeed those planted in *October*, that there may be a regular supply of them for the table in their due season.

But if none were sown in *October*, it will be proper to sow some in the beginning or middle of this month.

The pease which are sown the first or second week in this month will have a greater chance of surviving the frost than those which are sown the beginning or middle of *October*, and they will come in almost as early.

But where an earlier production is expected, it is the most certain method to sow a few at both times; then if one should fail, the other may succeed; and if both are successful, one will succeed the other in bearing.

The best pease for sowing at this season are the early hotspur; there are several kinds of the hotspurs, but let the earliest sort be procured from the seeds-men or nursery-men, the same sorts as advised in *October*, and see that the seed is new and good.

A warm border, under a wall, is the proper situation to sow these pease in now, for the earliest crop; and may sow a larger portion in some warm main quarter; and sow them in the manner directed in the last month.

#### SOWING RADISHES.

About the beginning, or towards the middle, or any time of this month, you may sow some short-top radish seed; and if they survive the frost, they will come in early in the spring.

There is, however, but little dependence on this crop's succeeding; but still, where these things are desired early, it will be proper to sow a few, and let them take their chance: if the winter should be favourable, you will have radishes at a very early time.

Let the seed be sown in a warm horder, near a wall or other fence, observing to sow it pretty thick: let this be done in a dry day.—See *December* and *January*.

#### SMALL SALAD HERBS.

Sow the different sorts of small salading, where still in request, at this season; in which, if required in constant succession, should sow some once a week or fortnight.

The principal sorts are, cresses, mustard, rape, and radish; also cabbage, lettuce, to cut for use in young growth.

Where it was not done last month, it will now, for the more certainty of raising these herbs, be proper to prepare for the seeds a bed of rich light earth, in a warm situation, the length and width of one or more garden frames; observing, the frames for this occasion should be of the shallowest kind, that the surface of the bed may be as near the glasses as possible, as this will be a greater advantage to the growth of the seed and plants: break the earth well, and lay the bed sloping to the sun; rake the surface fine, then put on the frame, and sow the seed.

The seed may either be sown in drills, or all over the surface, as observed last month, and covered not more, or rather less, than a quarter of an inch deep with earth, as their seeds, at this season, should be just covered.—See *October*.

When the seed is sown, immediately put on the glasses: and when the plants appear, let them have air by raising the lights, or taking them entirely off, in fine mild days, as you see it necessary: always keep them close every night.

Or for these seeds at this season, may practise as hinted in *September*, &c.; that is, form a sloping bed to the sun, half a foot or more higher in the back than in the front; set on the framé, sink the back part on the ground, that the surface of the bed may be equally within six or eight inches of the glasses as before intimated, and sow the seed as above.

By practising the above methods at this season, there will not be occasion to use artificial heat to raise these herbs, except in severe frosty weather.

However, where a supply of these small herbs are required to be forwarded as soon as possible, it is eligible to make a slender hot-bed at this season for raising them, observing the method directed in *January* and *February*.

## LETTUCE.

LET the lettuce plants, which were planted in frames last month to stand the winter, enjoy the air freely every day, when the weather is mild and dry, by taking the glasses entirely off in the morning; but generally let them be put on again in the evening, especially if appearance of much wet, or is very cold; as also in the day time on similar occasions, and when frosty; and continued open in all dry temperate weather; for if these plants are kept too close, they would draw up in a weekly insignificant growth.

When the weather is very wet, let the glasses be kept on; but if temperately mild, let them be raised two or three inches at the back of the frame, to admit air to the plants.

In frosty weather keep the glasses close; and if very severe, use other covering if you see it necessary.

If you have any of the same plants under bell or hand-glasses, let the same rule be observed as above.

Such lettuces as were not planted last month into the winter beds where intended, should now be planted therein the beginning of this month, either in frames or warm borders, or under hand-glasses, &c.

Search for and destroy slugs among the young lettuce plants which often annoy them greatly at this season.

## CELERY.

ALL the advanced crops of celery should now be fully earthed up a considerable height for blanching, and to preserve the plants from frost.

This work should now be well attended to when dry open weather; break the earth well, and lay it up regularly to both sides of the plants within a few inches of the tops of their leaves.

In performing this work, let care be taken not to lay the earth up to the plants too hastily, whereby to force the earth into their hearts and bury them, which would retard their growth, and occasion them to rot in that part.

## ENDIVE.

TAKE the advantage of a dry day to tie up some endive plants, to blanch them.

Choose for this purpose some of the best full-grown plants; and when their leaves are perfectly dry, let them be gathered

up regularly in your hand, and tied together with a string of bass, or small osier twig.

But if the weather is inclinable to be frosty, or excessively wet, the following method may be practised, to blanch some endive for the service of a family.

Draw up some of the best and largest plants in a dry mild day, with full roots, and any adhering mould together, and lay them in a dry airy place for a day or two to drain off the wet from between their leaves.

Then either raise a ridge of dry light earth, sloping to the sun, and place a garden frame thereon, or lay a quantity of light, dry, mould into a deep frame, raised in a high ridge behind, sloping to the sun, as aforesaid; then having the endive, tie the leaves evenly together, plunge the lower parts of the plants into the earth, and generally defend them with glasses placed on the frame, especially in rain and frosty weather, and use other covering occasionally. Or, for want of frames, you may lay some earth in any dry open shed, raising the earth in a high ridge, or round sloping heap, and so plant the endive therein as above; observing, in time of hard frost, to cover the whole with long litter.

By the above method, you may blanch endive in any of the winter months, provided you lay in a sufficient quantity at the approach of severe weather.

But where there is not the conveniency of frames, &c., you may, in a warm dry situation, in the full sun, where the earth is quite light, and as dry as possible, dig some of the ground in a high sloping ridge or bank fronting the sun, about two or three feet high, as advised in January, making the side steep for the wet to run off: then let some endive plants be prepared as above intimated, and deposit them into the upper part of the ridge of earth in the same manner: and thus the endive will sometimes stand the winter, and blanch in tolerable perfection, without so much hazard of rotting by excessive wet, &c., as the moisture cannot lodge as in the common level ground, though sometimes the natural great moisture of the earth at this season occasions the plants to rot more or less.

But the ridges should be sheltered in severe frosts by a covering of some dry long litter.

See also the methods suggested in *October*.

#### CABBAGE AND COLEWORT PLANTS.

In the beginning of this month may finish planting some

cabbage plants of the early kinds, if not done in October, to come forward next spring and summer, in April and May, &c. Choose strong good plants, and set them in rows, eighteen inches or two feet asunder.

Likewise finish planting coleworts, if not done, for the spring supply: setting them in rows, twelve, by six or eight inches distance.

Hoe and loosen the ground between the rows of cabbages and coleworts planted the two last months; which will both kill weeds and vermin, and greatly assist the growth of the plants.

#### CARDOONS.

FINISH landing or earthing up cardoons as they advance in height. First gather their leaves up even and close, and tie them together with a hay band: then let the earth be well broken, and laid up round each plant to a good height.

Let this work be performed in a dry mild day, and when the leaves of the plants are perfectly dry, otherwise they will rot in the heart.

#### ASPARAGUS.

WHERE the asparagus beds were not cleaned and earthed up last month, it must now be done.

This should be done the beginning of the month, and observe the following method: cut down the stems or haum of the asparagus close to the surface of the beds, and let this be directly carried away.

Then, with a sharp hoe, let all weeds on the beds be cut up, and at the same time draw them off into the alleys.

Then set the line, and with a spade mark out the alleys between the beds, about eighteen inches or two feet wide; this done, let the alleys be dug out longways one moderate spade deep, and lay a good portion of earth of each alley nearly to the right and left, equally over the beds; and as you go on, let the weeds which are drawn off the beds be digged into the bottom of the alleys a proper depth under the earth, leaving the surface regular and even; and let the edge of every bed be made full and straight.—See *October*.

#### WINTER-DRESSING ARTICHOKEs

ABOUT the middle, or some time this month, should give the artichokes the winter-dressing, by cutting down the large

leaves, and so dig between, and land up over the rows, both to guard the crown of the roots and heart of the plants from severe frosts, and as a cultural improvement to their future growth.

Let the leaves be cut down close to the ground, all but the small central ones, and the young shoots in the heart of the plants.

Then may practise either of the following methods of landing up the rows.

The first is, that if in a close and full plantation, in continued rows, four feet, or four and a half, to five feet asunder, let trenches be lined out, between the rows of plants, twelve or fifteen, to eighteen inches wide, in proportion to the width of the intervals, extending them longways the rows, one trench along the middle of each interval, then lightly dig the spaces of the rows, turning in all weeds; and then let the trenches be digged out regularly along, one moderate spade deep, laying the earth thereof equally to each side, in a gradual round ridge, lengthways over the rows and crown of the roots, and close about the central young shoots and heart of the plants; and thus, landing up the whole, they are to remain so till next spring: but observing in the interim, that at the approach of the hard frost it would be proper to fill the trenches with some long stable litter, &c., to prevent the frost entering that way into the roots; also to cover the plants above.

The other method is as follows, and is rather preferable to the foregoing; that, instead of digging out trenches, as above, the ground in each row is to be digged longways, in a gradual ridge along the row of plants; but, preparatory to this, may first line out the proper widths of the spaces of the rows, —setting your line along the middle of each space between the said rows; and with the spade cut a mark in the ground, according to the line in each interval, by which you form beds, as it were, four feet, or four and a half or five feet wide, according to the distance of the rows, one row of plants ranging along the middle of every such bed; then the ground is to be digged along regularly the width and lengthway each of the said beds, and close between all the plants in the row, at the same time working the earth gradually from each side into a moderate ridge along the middle, and close about the row of plants, and so as the row range exactly along the middle of the ridge.

Thus far are the principal methods of winter-dressing arti-

chokes, both to guard against rigorous frosts, and as a beneficial culture, preparatory to their spring growth, &c., though some often omit landing them up, and only apply some long stable dung over the plants in severe frosty weather; but this alone is not always so effectual.

However, in excessive frosts it would also be advisable to apply a covering of long dung litter over the ridges or close about the plants, to remain during the severity of the weather.

Artichokes of two or three years standing will occasionally require manural assistance of good dung; and this is the proper season to apply it, previous to landing up, and to dig it into the ground at that time accordingly.

#### CAULIFLOWER PLANTS.

Let the cauliflower plants, which are in frames to stand the winter, have the free air every day, when the weather is mild and dry, by taking the glasses quite off in the morning, but let the plants be covered with them every night.

When the weather is extremely wet, it will be proper to keep the glasses over them: but at the same time if mild weather, let the glasses be raised two or three inches or more, behind, or in front, to admit a large share of free air to the plants.

When dead leaves at any time appear upon the plants, let them be taken off, and keep them perfectly clear from weeds.

The cauliflowers which are planted under hand or bell glasses must be treated as above; and if they run long shanked, lay in some dry earth round about their stems.

Where cauliflowers were not pricked in frames, &c., nor planted out under hand-glasses last month, as there directed, it may still be done the beginning of this.—See *October*.

Look for slugs among the above cauliflower plants, which often attack them very injuriously at this season.

#### SPINACH.

The winter spinach should now be kept perfectly clean from weeds: and, where the plants stand too close, let some of the smallest be taken up for use, so that every plant may stand singly; then the sun and air can come at the surface of the ground to dry it, which will be comfortable to the plants, and they will thrive the better.

When you gather spinach of the standing plants, let care be taken to cut only the large outside leaves, leaving the inner ones to grow larger, and they will be fit to gather in their turn.

## CARROTS AND PARSNEPS, BEETS, &amp;c.

THE beginning of this month you should take up carrots and parsneps, or other kitchen roots, in order to lay them in sand, to preserve them for winter use.

For if these esculent roots are permitted to remain in the ground, some sorts would spoil; the carrots in particular, many of them would be apt to canker and rot: besides, the roots in general, if severe frost should set in, would be frozen so hard in the ground, that they could not be easily digged up when wanted. It is therefore proper to take up most of the main crops of spring-sown carrots, and a portion of the parsneps; as these are not so liable to spoil as the carrots.

Take the advantage therefore of a dry mild day, and take the roots out of the ground; cut the tops off close, clean them from earth, and carry them into some convenient dry place.

Then lay a bed of dry sand on the floor about two or three inches thick: place the roots upon the sand close together, with the crowns outwards and inwards, alternately. Cover the roots with sand two inches thick, then lay some more roots, and then more sand: and so proceed with a layer of sand and another of roots, till you have laid them all, and lay some dry straw thickly over the whole.

Likewise dig up some red beet-roots, to preserve in the same manner: also some salsafy, scorzonera, horse-radish, and Hamburg parsley roots, &c., towards the middle or latter end of this month, or before the approach of the hard frosts; or likewise, on the same occasion, a few turnips, and black turnip radish, laying the whole in sand as the carrots and parsneps, to serve as a ready supply in case of rigorous frosts locking the others in the ground.

## POTATOES.

WHERE potatoes still remain in the ground, let them now be taken up as soon as possible, before severe frost begins; these roots cannot bear much frost, for such as are affected by it, immediately turn watery, and then are not fit to eat.

They should be digged up with a flat three-tined fork, there being proper potatoe forks for the purpose, made with flat shes, blunted, roundish at the ends. In proceeding to dig up the potatoes, previously cut down the haum or stalks of the plants near the ground; the remaining part of the stalks will serve as a direction in pitching the fork; then in digging up



the potatoes, turn them clean up to the top, and collect them into baskets, &c.

Let these roots, when taken up, be cleaned from the adhering rough earth, and laid up in a dry close apartment; and when the weather is severe, let them be covered with some dry straw, and let this be laid almost a foot thick over them.

These roots, after being housed, should be from time to time turned and looked over; and all such as have any tendency to rottenness or decay should be taken out, for such would infect those that are sound, and the infection would soon spread.

#### MANURING AND TRENCHING KITCHEN GROUND.

Now take advantage of dry days and frosty weather, and bring in rotten dung from old hot-beds, or from dunghills, and lay it upon such vacant pieces of kitchen ground as want manure.

Likewise now dig or trench up all such pieces of ground as are vacant; and, in order that the ground may receive the true advantage of fallow, let every piece, as you dig or trench it, be laid up in narrow ridges; and where manured or dunged, let the dung be digged in regularly, only one spade deep.

The trenching and ridging up the ground in winter is a great improvement, by turning down the top, and the fresh soil below turned up to the surface, which thereby recruits, enriches, mellows, and improves by the weather more than many could imagine; and by its being laid up in rough ridges, the frost, sun, and air can then have more free access; all of which contribute greatly to the enriching and mellowing the ground; and the sooner this is done the better.

When intended to dig the ground by trenching, let the trenches generally be digged two full spades wide, and one or two deep, according as the depth of good soil admits, or as may be required for different occasions; laying the earth up rough, in a full ridge longways each trench.—See *October*.

By digging the vacant pieces of ground in the winter season, it is not only an advantage to the soil, but it also looks neat, and will greatly forward the business in the spring, when there is always a deal of other work in hand.

The ground being laid up in ridges, it is soon levelled down in the spring, when it is wanted for the reception of seeds or plants, beneficially improved in a mellow fertilized state, for the advantage of the respective crops.

## SOWING CARROT SEED.

Dig a warm border the beginning or middle of this month, and sow in it some carrot seed, to have a chance of obtaining a few early young carrots in the spring.

But sow only a small spot, at this time, for there is not much dependence in having great success; but still it is proper to make a trial of a little seed; and if the winter proves any thing mild, there will be a chance of having some early success in spring or beginning of summer.

## ONIONS.

TAKE care now of the young winter onions; where weeds appear, let them be picked out with care.

Let this be done in due time before the weeds spread, as they would now soon greatly prejudice these small young plants, especially chickweed, and other creeping weeds, which often prevail at this season, and soon spread over the surface.

In the forwardest first sown crops of the above plants, the young onions will be of some advanced growth, and may thin out some moderately for use in salads, &c., especially the Welch onions: leaving, however, a plentiful supply to stand the winter for early spring service.

Dried old onions, housed for winter, should be occasionally turned over, and pick out all that discover any tendency to a decayed state.

## HOT-BEDS TO RAISE ASPARAGUS.

Now is a proper time to begin to make hot-beds to force asparagus, if not done last month; the method of making and managing these beds may be seen in the work of the *Kitchen Garden* in *February* and *December*.

Many of the kitchen gardeners about London begin to make asparagus hot-beds about the middle or latter end of September, or early in October, in order to have asparagus fit to gather by Lord Mayor's Day, which mostly happens the second week in November.

But if a hot-bed of asparagus was begun at the above time, or last month, another should be made in the middle of this month to furnish a successional supply.

## THE FRUIT GARDEN.

## PRUNING AND NAILING VINES.

VINES, both against walls and in vineyards, being now desolated, or the leaves fallen, may have the general winter pruning and nailing, &c. ; or at least that business may be commenced any time this month, it consists now of a general regulation both among the young and old wood.

In pruning vines, you must observe to leave on the general branches, in every part, a proper supply of the last summer's shoots below and above, both in laterals and terminals as principal bearers to produce the fruit the next year ; and let all the irregular, and superabundant shoots that are not wanted, be cut out close ; cutting out also some part of the former year's bearers, on particular different occasions, such as either where over abundantly close, or too much advanced in length in their respective places, &c., pruning them less or more down, either to some eligible lateral shoot to remain for a terminal or leader thereto, as every branch, whether remaining entire or shortened, should have a young shoot for a terminal, or occasionally some parts where too crowded, or improper, cut quite out or pruned as above, as it may seem expedient ; and likewise casual, long advanced, naked old wood, unfurnished with young, should be pruned similarly,—in order, in the whole, to give proper room for training the more eligible branches and general supply of bearing shoots, &c.

For the last summer's shoots, which are now left, will, in the spring, produce from every eye or bud a young shoot, and on these young shoots the grapes are produced the same summer ; for vines seldom produce immediate bearing shoots from any but one-year-old wood.

Therefore the main article to be observed now is, to retain on the general main branches a sufficient supply of the last summer's shoots in every part, lateral and terminal, as before intimated, regularly from bottom to top, at proper orderly distances, both sideways, and in progressive order from the bottom upward, retaining the strongest and best situated shoots, with the shortest joints, cutting out the superabundancy, with part of the old wood, as above said, leaving a plentiful supply for regular training to the wall, &c., six or eight to ten or twelve inches distance, according to the strength of the shoots

and degree of wall-room ; and as you proceed, let each remaining shoot be shortened according to its strength.

The general rule is to shorten the shoots to three, four, five, or six eyes or joints in length, according to the strength of the different shoots ; and never leave the strongest shoots more than five or six eyes or joints, except on particular occasions, in any considerable vacant space of walling ; for when the general shoots are left longer, they fill the vines crowdedly in the ensuing summer with a superabundance of unnecessary and useless shoots, and the fruit would be smaller in proportion ; but being cut as above, this will produce each three, four, or five fruitful shoots next summer, with two, three, four, or more bunches of grapes upon each shoot, which grow larger and ripen sooner more effectually.

In shortening the shoots, mind to cut them about an inch above an eye, and make the cut sloping behind it.

Take care to prune in such a manner as that there may always be a succession of young branches, advancing from towards the bottom parts, middle, &c., in some regular progression upward, both to have every part properly furnished with bearers, and a sufficiency always ready to supply the places of the old naked wood, as it becomes unserviceable, being such old branches as are very long advanced, not furnished with bearing wood, and should be cut out occasionally where there is younger fruitful branches furnishing good shoots properly situated to come in to supply their place.

When you have finished pruning, let the branches be nailed up neatly, observing to lay them in straight and regularly, six or eight to ten or twelve inches distance, agreeably to the intimations above.

If you have left too many branches when you pruned, let that be remedied in nailing, by cutting out the superabundant wood in a regular manner.

#### PRUNING APRICOT AND PEACH TREES, &c.

PRUNE apricot, peach, and nectarine trees : and this may be done any time in the month.

In pruning these trees, you are to observe the same method as mentioned in October, &c. ; the last summer's shoots having been trained in abundantly in summer, the most irregular and overabundant of them are now to be pruned out, and a due supply of the best placed and most promising moderately strong shoots are to be preserved in every part at proper distances, in

regular gradations from the bottom upward to the extreme parts of the branches; for these trees produce their fruit principally upon the last year's shoots.

But as this in general winter pruning a regulation both in the old and young wood is necessary, give proper attention accordingly:—as, for instance, casual old naked branches, or such as are of some considerable extension, and not well furnished with proper young wood, should be either entirely cut out or shortened to some convenient branch that supports such shoots, cutting them off close, leaving no stump; for it is generally requisite that some of the most unserviceable, old unfruitful wood, and part of the preceding year's bearers, should be cut out in the different parts more or less, as it shall seem expedient, in order thereby to make room for the requisite supply of the last summer's shoots, which now, in a proper selection of the best, should be left every way at moderate distances below and above, both in laterals and terminals, to bear fruit next summer; and all the improper, irregular, and superabundant, must be cut away quite close, leaving no spurs, except it appears necessary in particular parts to furnish future wood.

The young shoots which are now left must at the same time, as you proceed in the pruning, be mostly shortened more or less, according to the vigour of the tree and strength of the different shoots; which is done in order both to preserve some regularity in general, and to strengthen particular shoots of weakly growth, or reduce others of too considerable extension, and in the whole to promote their producing a more effectual supply of new shoots in the proper places next year, to bear fruit the year following; but for some further principal particulars of performing this general pruning of these trees, and shortening the shoots, &c., see the *Fruit Garden of January and October*.

Likewise observe, that as soon as a tree is pruned, it will be the best method to nail that before you prune another; and in which, let the general branches and shoots be trained in horizontally straight and close to the wall at regular distances, about three to four or five inches apart in a parallel order; and as equally as possible to both sides of the tree, both in number and position.

#### PLANTING WALL TREES.

Now may transplant for the walls, where wanted, peach, nectarine, and apricot-trees; also plums and cherries, &c.:

allotting the three former principally the best south walls; and let some of the two latter have also a south aspect; and may likewise plant some of all the sorts in west and east exposures.

Let the borders where these trees are to be planted be prepared in a proper manner.

Where an entire new plantation is to be made, let the borders be trenched one or two spades deep, according to the depth of good soil; or where that is very shallow, some of the bottom should be removed, and a proportional supply of good fresh earth added; or where the general soil of the border is of a very light unsubstantial nature it would be of much advantage to give an addition of good fresh earth, or mellow surface loam, with a quantity of very rotten dung.

But where only some trees are wanted in different places, need only prepare and improve, where needful, the part of the border where the trees are to stand, adding rotten dung and a wheelbarrowful or two of good loam, or other fresh earth.

But generally in the common cultivated, fertile mellow soil of a garden, it will not be particularly needful to give any present assistance of additional substances of fresh earth, &c., only to dig or trench the borders: or if only some trees are wanted in different parts, more or less, may at present either only dig each place a proper width and depth, or only open a circular aperture or hole, in which to plant each tree.

The trees should be planted at the distance of at least fifteen or eighteen feet from one another, with the stem of each tree about three inches from the wall, and inclining thereto with the head.

In planting against high walls, may plant half or full standard wall trees, between the common dwarf trees, that while the latter advance below, the former occupy the upper part of the wall.

#### PRUNING PLUM, APPLE, AND PEAR TREES, ON WALLS AND ESPALIERS.

PRUNE plum, apple, and pears, both against walls and in espaliers; this operation may be performed on these trees any time this month.

In pruning the plum, apple, and pear trees against walls or espaliers, observe that as the same bearers remain many years of a fruitful state, let only any casual unfruitful wood thereof, or any very irregular or crowded branches and decayed parts,

be cut out, together with all the superfluous and ill-placed young shoots of last summer.

But it must be observed, both in young trees under training, and in full grown trees, that where a supply of new wood is wanting in any part, some of the best situated shoots of the last summer's growth must now be left in every such place ; and generally a leading one to each main branch, where room to train them within the proper limits ; or where any branches are advanced considerably longer than all the others of the general expansion, or other very irregular, or any of ill-formed growth, they may be less or more shortened to some eligible lower branch, or well placed lateral shoot, to remain for a terminal leader ; which, and all other shoots now occasionally retained to train for bearers, must not in these trees be commonly shortened, but each laid in entire ; and, according as they advance in length, must still be trained to the wall or espalier, without being reduced in their length in any future pruning, either in summer or winter, where there is room to extend them ; but where confined for extent of walling, &c., some occasional shortened in the extreme parts will be unavoidable, and must be done discretionally.

For the shoots which are now laid in at full length, and not hereafter shortened, will in the second or third year after begin to produce some thick short shoots or natural spurs, about half an inch to an inch in length, or but little more ; and upon these shoots or natural spurs, and on no other, the fruit of these trees are always produced.

But, on the contrary, were the shoots and branches of these trees, trained on walls and espaliers, to be generally shortened or topped in the course of pruning, as is often ignorantly practised, they would in that case produce but few such shoots or spurs as above for fruit ; but instead of that, would, in the places where the spurs or blossom buds would otherwise appear, send out numbers of strong wood shoots ; and the trees would be continually crowded with useless wood, and would never bear in any tolerable perfection, as in the other method ; therefore generally still continue the shoots or branches, as they advance in length, trained to the wall or espalier, entire, as far as room admits ; which is the most certain process, whereby both to preserve proper regularity, and to form plentiful bearers.

But in the course of this general pruning the above trees, in the wall and espalier order, should examine the general expansion of wood with proper attention ; and, in which, if any

branches appear very irregular, or if ill formed or any disorderly growth, prune them accordingly to regularity, conformable to the foregoing intimations; or any too crowdedly close, cut out the most irregular; and if any discover a declining or naked state, unfurnished with good bearing fruit spurs, or of any very unfruitful nature, prune them as above; being, however, most careful in the whole to retain the general regular expansion of proper branches and occasional supply of young wood in regular order sufficiently abundant, to train about three or four to five or six inches distance; and all such of the last summer's shoots, which are not now wanted for a supply of wood, must be cut away quite close, leaving no spurs but what are naturally produced.—See *January* and *February*.

As soon as one tree is pruned, let the branches be immediately nailed to the wall, and tied or nailed to the espalier; arranging them horizontally, as equally as possible to the right and left, and trained straight and close at regular distances.

#### PRUNING CHERRY TREES ON WALLS, &c.

CHERRY trees on walls and espaliers may also be pruned now any time this month.

In pruning the wall cherries nearly the same method is to be practised as proposed above in pruning plums, &c., for as the same bearers continue fruitful many years, principally upon short natural spurs, arising on the two, three, and many years' old branches, the said branches must therefore be retained accordingly; and let only any casual worn-out or unfruitful wood, as support but little or no bearing fruit spurs, be occasionally cut out; also prune to order any very irregular branches, or of bad growth, or any too crowdedly abundant pruned thinningly, that there may be room to train the general expansion of full bearing branches and occasional supplies of young wood, in a free and regular manner to the wall.

Likewise observe, both in young and full grown trees, that where a supply of new wood is wanting in any part, leave for that purpose, in the proper places, some of the strongest of the last year's shoots: also retain occasional good well placed shoots in different most vacant parts, between the older branches, where they may appear the most necessary to train in or advancing by degrees to a bearing state, ready to supply any future occasion; and such of these shoots as are not wanted for the above purposes must now be cut away quite close,



leaving no stumps, and the retained shoots and the branches in general of these trees must also be trained in without being shortened.

For cherry trees also produce their fruit principally upon short robust spurs; and the branches or shoots will begin to produce some of them in the second year, provided they are not shortened.

The general branches and occasional supply of young wood, in wall cherries, should be continued about from five or six inches, to eight or ten distance.

But in pruning morella cherry trees in particular, always take care to leave every year a plentiful supply of the last summer's shoots; and these should be left in every part of the tree, at the distance of three or four inches; for this kind of cherry tree in particular produces its fruit abundantly upon last summer's shoots, as well as upon small spurs on the two and three years' branches.

According as the different trees are pruned, let them be regularly nailed to the wall, tree and tree, training the branches equally to both sides, five or six inches asunder.

#### PLANTING APPLES, PEARS, PLUMS, AND CHERRIES.

PLANT apple, pear, plum, and cherry trees, for espaliers and walls, where they are wanting; and this may be done any time in the month, when the weather is open.

By planting and training these trees in espaliers, and against walls, their fruit is greatly improved in size, beauty, and flavour; though apples are rarely indulged with a wall, but all the others are planted as wall and espalier trees, as well as for standards; however, it would also be eligible to have some choice eating apples, such as golden pippins, &c., planted against a warm wall, to obtain earlier fruit and of improved flavour.

Where the above trees are to be planted against walls or espaliers, do not forget to allow them proper room; for this has been often forgot in making new plantations; and we very often see them planted so close together, as by the time the trees begin to bear tolerably, they have met, and encumbered one another.

The proper distance for general planting is this: let the trees which are to be planted against walls or espaliers be set at least fifteen or eighteen feet distant, but eighteen or twenty would be eligible for apples and pears; especially such as are grafted or budded upon free stocks, pears particularly, twenty

feet at least will be an eligible distance in walls and espaliers, &c.

And plum and cherry trees for walls and espaliers, should be planted at least twelve or fifteen feet distance, or not more than eighteen.

Let the border for the wall and espalier trees, if for a full or general plantation, be digged or trenched two spades deep, or one full spade at least; or, previously, if the soil is very poor, apply some rotten dung, and dig in a good spade deep; or where only some occasional trees are wanted, or that the ground is in proper cultivation, may only at the present time prepare the place for each tree, or dig the holes for their reception in planting; but where the earth of the border is not naturally good, some fresh surface-loam, if it can be obtained, or other good earth applied, would be particularly beneficial to the first growth of the young trees intended for planting; or if only for the present, two or three wheelbarrows-full to the place for each tree; preferring that of a loamy nature, where attainable, as in which most fruit-trees grow prosperously.

#### PLANTING STANDARD FRUIT-TREES.

STANDARD apples, pears, plums, cherries, and other fruit-trees of all sorts, may also be brought in and planted any time this month, in mild weather.

Where a plantation of full standard trees is to be made, either in the garden, or for an orchard, the trees should be set at the distance of from twenty-five to thirty or forty feet; but fifty feet is more advisable for the larger growing standards of apples and pears, if for a continued full plantation in orchards; though standards of small or moderate growth may be planted at half that distance.

In regard to soil, &c., for standard fruit-trees, they do not require any particular sort, but will prosper in any common garden earth one or two spades depth of proper staple, or that of a field, &c., of somewhat similar quality, and in any situations where not very low, or liable to be immoderately wet in winter, &c.

Or if, where intended to plant an orchard of standards, the ground is of a bad quality, may improve the places for each tree, by addition of some good earth and dung.

#### FIG-TREES.

Now go over the fig-trees, and pull off all those autumnal

green fruit which are now upon the branches, for they are useless; and if left on, would injure the eyes of the young tender branches which are for next year's bearers.

At the same time let all the principal shoots be nailed up close to the wall; but it would not be advisable to prune these trees now; it is better to defer that until February or March; but it will be necessary to nail up all the best shoots to the wall the better to secure them from the frost and the power of the wind.

It will likewise, in time of very hard frost, be proper to shelter some of the best fig-trees by an occasional covering of mats, to protect the young shoots which are to bear fruit next year; for they being soft and succulent, are more liable than those of other fruit-trees to suffer by severe frost.

#### PRUNING GOOSEBERRIES AND CURRANTS.

PRUNE gooseberries any time this month, and you may also prune currants.

These shrubs are often neglected in the article of pruning; but whoever will be at the pains to bestow a proper regular pruning on these trees, he will find the advantage of it next summer, in the largeness of the fruit.

For if these trees be kept moderately thin of branches in a regular manner, and all naked unfruitful and old worn out wood, that casually occurs, cut out as it becomes unserviceable, and young left in its place, the fruit of such trees will be much larger than what is commonly to be met with.

The branches in general should stand regular and clear of one another, at the distance of about seven or at least five or six inches, at their extremities.

Suffer no suckers from the roots to stand, to run up in growth above, to crowd the general bearing branches; but let these in general be always cleared away every year; continuing each tree to a single stem.

For the general method of pruning these fruit shrubs see last month; *January, February, &c.*

#### PLANTING GOOSEBERRY AND CURRANT TREES.

GOOSEBERRY and currant trees may now be planted any time this month; and of which should generally procure some good full headed plants, of proper growth, for immediate bearers the ensuing season, which may be obtained abundantly at all the nurseries; and, in planting these shrubs in common standard

bushes, allow the same distance between plant and plant, as directed in the preceding month, and January and February.

As these trees grow up, it would generally be more proper in the standard bushes to train each with a clean single stem below, six or eight to ten or twelve inches, than to let them branch out fully above.

Likewise let all suckers be constantly taken up as they rise from the roots, for they disfigure the trees, and run up and crowd the general branches of the head detrimental to the production of fruit.

Some best sorts of currants should also be planted against walls of paling fences, &c., both to obtain earlier ripe fruit, and of improved growth; and also for late fruit, by planting on north walls; they should be planted six to eight or ten feet asunder, and permitted to branch out quite from the bottom, and the branches trained to the wall, &c., three or four to five or six inches asunder.

Likewise a few of the best early gooseberries may be planted on a south wall to produce early green and ripe fruit.

#### PRUNING AND PLANTING RASPBERRIES.

PRUNE raspberries: this is still a proper time, and do it in the manner directed in the spring or last month, and clear away the cuttings, then dig the ground between the plants.

Plantations of raspberries may still be made, but let this be done as soon in the month as possible.

These must be planted in an open spot: let the rows be four and a half, or five feet distant, and allow three feet between plant and plant in the row—See *October, January, and February*.

#### DRESSING AND PLANTING STRAWBERRIES.

CLEAN the strawberry beds; and where it was not done last month, let them have such a dressing as there mentioned.

Strawberry-plants, where wanting, may also still be planted; but these should be planted in the beginning of the month, otherwise they will not succeed well.

The manner of planting these plants is directed in *October and September, &c.*

#### PLANTING FILBERT TREES, HAZEL-NUT, AND BERRBERRIES.

Now is a good time to plant filbert trees, and also those of

the hazel-nut kind : likewise the berberry, for its fruit to preserve, &c.

All of these trees will thrive in any common soil and situation ; they are raised by suckers from the root : and occasionally by layers of the young branches, to continue the desirable varieties permanent in their kind ; or by grafting in the spring ; they being apt to vary when raised from the nuts, &c.

The trees are trained principally in standards, and should be planted twelve to fifteen feet between plant and plant in the row ; and if continued rows are intended, the rows should be fifteen or twenty feet distant, and may train them to a single stem of three or four, to five or six feet, and permitted to branch out above with full heads, according to their natural order of growth.

Or the filberts may also be planted in the hedge order, to grow up full and branchy from the bottom upward, both for bearing, and to form a shady walk in summer ; planting them either in a single range, or a row on each side of a walk, three or four to five feet apart in the row ; and permitted to run up in a natural growth, they will bear plentifully in an agreeable manner.

#### PLANTING WALNUT-TREES, CHESTNUTS, AND SERVICES.

Now plant walnut-trees, and it is also a good season to plant chestnuts. These trees are more fit to be planted in parks, orchards, or other open places, than in gardens, especially in any considerable quantity : but the walnut is preferable for its more certain production in good perfection ; and is profitable to plant in extensive premises ; the fruit being always ready sale in the markets, &c. ; they may be planted in any common soil and situation, thirty or forty feet distance.

Likewise may now plant the sorb or sweet, and common service-trees, in orchards, pleasure-grounds, &c.

#### PLANTING MULBERRY-TREES, MEDLARS, AND QUINCES.

MULBERRY, medlar, and quince trees, may now be safely transplanted.

*Note.* The mulberry-trees are most commonly planted and trained for standards ; and principally the black sort for the general supply : a few trees of which are sufficient for the service of a family ; or may have some of the white sort for variety ; but to have earlier and larger fruit, may also plant some for walls and espaliers.

Medlars may either be planted for standards or for espaliers but by the latter, the fruit is generally larger.

Quinces succeed very well in standards, but are also some times planted in espaliers, to form variety among other fruit trees trained in that order.

#### GENERAL PLANTING OF FRUIT TREES.

THIS being now a most eligible season for planting of fruit trees in general, should take the earliest opportunity to procure them in the public nurseries in the best state of growth, either for walls, espaliers, or standards, as may be required; choosing them with good proper heads, of a free regular growth according to age, either of only one year's advance, or preferably of two or three years' shoot, or more, of larger and fuller expansion; or some occasionally of four, five, or six years' growth, advanced to a fruiting state for immediate bearers the ensuing summer; and, in all of which, it would be of importance to have them taken up with their full spread of roots, all as entire as possible.

In preparation for planting the trees, let a circular hole be opened for each, wide enough for the roots to spread equally every way, digging it out a spade deep, and let the bottom be well loosened.

Likewise observe previous to planting, to give occasional pruning where needful; that is, cut off any broken roots, and trim the extreme ends of very long straggling roots in general, for this makes them more freely produce new fibres for striking fresh root, and for their future advantage in growth. Likewise, in trees of two or three years' or more advanced growth, prune any irregular and cross-placed shoots and branches of the head, and reduce within bounds any very long stragglers, and regulate any very crowded wood, leaving the eligible branches in regular order: but observe in quite young trees of only one summer's shoot from the budding or grafting, to continue them at present with the heads mostly entire, till next spring.—See *March*, also *budding*, *grafting*, &c.

And in planting each tree, observe, in standards, to place them upright in the hole; but in wall trees and espaliers, should generally, in placing the tree, make the stem and head incline in a proper manner to the wall, &c., and, in the whole not planted too deep, the upper roots not more than about three or four to five or six inches below the general surface; and make the roots spread regularly: then let the earth be well broken,

and throw it in equally about all the roots, shaking the tree gently, to cause the earth to fall in close among the general roots and fibres ; and when the hole is filled up, let the surface of the earth be gently trodden round the tree.

#### PRUNING STANDARD FRUIT TREES.

STANDARD apple and pear trees, and all other standard fruit trees, both in gardens and orchards, &c., may now have any necessary pruning, to reform casual irregularities, very crowding branches, and to cut out any decayed wood and worn out bearers.

But this pruning, in standards, is not required every year as in wall and espalier trees, whereby to preserve the regularity of their requisite fan-form expansion, being only necessary occasionally to correct casual disorder, &c., as above : probably once in several years.—See *December*.

For example, where a branch runs in a disorderly rambling growth across the others, it should either be cut out, or pruned down to some lateral one of proper regularity ; or also where any branches are too crowdedly close, let the most irregular be cut out thinningly in an orderly manner, as likewise let any of a very ill-formed awkward growth, long run-away Rambler, and low straggler, be reduced to order, conformably to the general expansion, either pruned to some regular lateral branch, or cut quite out, where very disorderly ; and thus, on the whole, reducing the casual irregularities, continue a competent, regular, open expansion, of the general orderly branches ; and the trees will thereby be preserved in a handsome growth and good fruitful state in a superior degree of perfection.

Likewise, in the above, cut out casual decayed, or declining unfruitful branches, and any of a very cankerous state, and dead wood ; and, where any are much over-run with moss, let it now be cleared off effectually.

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### THE PLEASURE, OR FLOWER GARDEN.

#### CLEARING AND DRESSING THE BORDERS, &c.

Now clear the borders and other flower compartments from all dead annual plants, pulling them up by the roots ; such as African and French marigolds, lavateras, China asters, and all

others of the like kinds; for these never survive to flower again. Likewise cut-down all the dead stems or decayed flower-stalks of perennial plants, and let the borders be well cleared from the fallen leaves of trees, and all sorts of rubbish and litter.

After this give the borders, &c., a general cleaning and dressing; let them be gone over with a hoe in a dry day, cutting up all remaining weeds and loosening the general surface, and then rake them smooth, or otherwise let them be neatly digged and raked.

This destroys the growth of weeds, and renders the borders clean and decent for the winter season.

They will also be clear and ready to receive what other plants you think are wanting, which may now be planted, of the various hardy sorts required, as below.

#### PLANTING PERENNIAL AND BIENNIAL PLANTS.

MANY sorts of perennial and biennial plants may still be planted; such as the scarlet lychnis, rose campion, rocket, catchfly, campanula, bachelor's buttons, and the like.

Likewise plant, where wanted, sweet williams, wall flowers, stock July flowers, carnations, pinks, columbines, Canterbury bells, tree primrose, Greek valerian, and honesty.

This is also a good time to transplant perennial sunflower, golden rod, perennial asters, hollyhocks, French honeysuckles, monk's-hood, and peonies, Solomon's seal, and irises.

Now you may likewise plant thrift, London pride, gentianella, double daisies, winter aconite, lily of the valley, polyanthuses, auriculas, and primroses, with many other sorts.

In planting the different sorts, let all the large or tall growing plants be placed more or less inward in the borders or clumps, and the others of middling and smaller growth planted similarly forward, in proper gradation to the lowest towards the front.

Likewise observe to intermix the different sorts in such a manner, that there may be an agreeable variety and regular succession of flowers in every part.

Any principal sorts of perennials and biennials may also now be planted in pots.

#### PLANTING VARIOUS KINDS OF BULBOUS ROOTS.

THIS is still a proper time to plant various hardy bulbous roots, and let it be done in dry open weather, and as early in the month as possible, for any general plantations.



Tulips and hyacinths, if they are to be planted in beds, must be planted in rows six to nine inches asunder, and the same distance, or not less than six inches between plant and plant in the row, and about three inches deep; and such as are designed for the common flower borders may either be deposited in a continued row, fifteen or eighteen inches from the edge, or planted in small patches or clumps, three, four, or five roots together.—See last month, and the spring planting.

Let these roots be planted in such beds and borders as lie tolerably dry all winter; for if the ground be too wet, many of the roots planted now would be liable to rot, or much damaged, particularly the hyacinths.

Crocuses and snow-drops of different sorts may also now be planted; and it is time all these sorts were put into the ground.

These roots may be planted either in small patches, or in continued rows, within five or six inches of the edge of the border, or the patches disposed in a varied order, more or less inward, as mentioned last month.

Do not plant these roots deeper than two inches below the surface.

Narcissuses and jonquils, fritillarias, crown imperials, gladioles, bulbous iris, star of Bethlehem, martagons, lilies, and all other bulbous roots that are still remaining out of the ground, may now be planted, when time and dry open weather will permit.

#### PLANTING BULBS IN WATER GLASSES AND IN POTS.

MAY now plant some bulbous roots in water glasses, to blow early in the apartments of a dwelling house, or more early in a hot-house, such as hyacinths, dwarf tulips, polyanthus narcissus, &c., filling the glasses with clean, fresh, soft water; place one bulb in each glass, the bottom a little immersed in the water; and place the glasses in a warm light room, or in a green-house, or hot-house, aforesaid.

Likewise may plant in pots of light dry earth any of the above, and any other moderate growing bulbous roots, either some to flower in the apartments of a house or in the open air, next spring, or also to place some in a hot-house or forcing-house for earlier spring flowering. Observe in planting these bulbs in pots, to insert them only a little depth, or but just covered with the earth.

## PLANTING RANUNCULUSES AND ANEMONES.

THE ranunculuses and anemones should also be planted in beds and borders of light dry earth, for a wet soil would be apt to rot these roots; let the beds be three or four feet wide, finished a little rounding with a smooth even surface.

Let the choicest kinds of these roots be planted in beds for the convenience of protecting them in winter, and also in the spring when they are in bloom.

In planting these roots, let the same distance and manner be observed as in last month.

But if you plant them in the borders, let them most generally be put in small patches, four or five roots in each, and the patches may be three or four to five or six feet distant.

These roots should not be planted more than two inches deep.

## AURICULAS IN POTS.

THE choicest kinds of auriculas in pots, and the carnation layers which were planted in small pots, should now, if not before done, be placed in some warm situation; and would be of material benefit, if they could be occasionally guarded from excessive rains, snow, and frost, when either happens.

The pots may at this time be placed or plunged close together, in a garden frame, if not done last month; and when the weather is unfavourable, let the plants be defended by putting on the glasses.

But where there is no frame and glasses, the pots may be set close together, in a raised bed of dry soil; or if very light dry earth, may plunge the pots; then, where convenient, may place low hoop bends, &c., arch-ways across; and so cover with mats, in bad weather, as above.

Let these plants, in dry open weather, be constantly uncovered, day and night.

Where there are no proper conveniences of shelter, as above, place the pots in some warm border, &c., near a south wall; and the pots of auriculas in particular may, occasionally, in excessive wet or snowy weather, be laid down on one side, under the wall, to preserve them more effectually from damage by too great moisture; and the carnations continued in a similar situation, but the pots not laid down, the plants not being so liable to injury from excessive wet.

## SEEDLING FLOWERS.

THE boxes or pots of seedling flowers should be removed to a warm situation the beginning of this month, provided it was not done in October.

If these boxes or pots are plunged in a dry warm border, it will secure the young bulbs or other plants the better from hard frost; and when the weather proves very severe, it will be advisable to cover them with long litter or with mats; or any in beds may also have similar occasional protection.

## PRUNING FLOWERING SHRUBS, AND DIGGING THE SHRUBBERY.

PRUNE flowering shrubs and evergreens, and dig the shrubbery ground between and about the plants.

Cut out from these shrubs, or prune, as required, any very long rambling and rude shoots of last summer's growth, also disorderly low stragglers, and reduce to order any very irregular-growing main branches; and cut out casual dead wood; or where the general branches of any particular shrubs grow in a very confused rambling irregularity, should give them a little orderly pruning, as may seem necessary, whereby to reduce the head to a somewhat regular form.

Let none of the branches of two or more shrubs interfere or mix together; but let every plant be kept single, which is always more pleasing to the eye, except in such compartments where it is designed any shall form a thickety growth, and overspread the ground.

When the shrubs are pruned, let the shrubbery ground be then neatly digged one spade deep, and take up all suckers sent up from the roots of the shrubs.

## PLANTING HARDY FLOWERING SHRUBS AND EVERGREENS.

PLANTING may still be continued in open weather among all the hardy kinds of flowering shrubs and trees for furnishing the shrubbery compartments.

Such as roses, honeysuckles, syringas, lilacs, and laburnums, hypericums, euonymus, dogwoods, azaleas, mezereons, mespiluses, &c.; and may also plant bladder senna, scorpion senna, althæa frutex, and spiræa frutex, double flowering cherry, white and yellow jasmines, sumachs, acacias, bignonia, and Guelder rose, and all other hardy deciduous shrubs and trees; likewise most sorts of hardy evergreens, as in October.

Planting in pots may also now be performed to any desirable

ornamental flowering shrubs of moderate growth, to place in fore courts, or in any principal compartments when in flower ; and some to force in hot-houses for early flowering, such as roses, &c.

#### PLANTING FOREST AND ORNAMENTAL TREES.

FOREST and ornamental trees of all kinds may now be taken up and planted in all places where required ; there are a great variety of these sorts, both of the deciduous and evergreen tribe, for which see the *Catalogues*.

Let them be dug up for planting with their full spread of roots, and only trim broken or straggling parts thereof ; prune off strong shoots from the sides of the stem, and any irregularity of the head : or in the deciduous kinds in particular, large and spreading heads may be reduced moderately, or more or less in some proportion to the size of the stem and expansion of the roots, carefully preserving the top leading shoots entire.

Then let them be planted in the order explained in the *Pleasure Garden for March* ; see also the general method of tree planting in October, &c.; and as soon as planted, let such tall and full headed trees, in exposed situations, as seem to need support, have each one or more stakes, and their stems fastened thereto, in order to secure them against impetuous winds.

#### THE CARE OF NEW-PLANTED TREES.

TAKE care now, if frosts should set in severe, to protect the roots of the choicer sorts of new-planted shrubs and trees, by laying strawy mulch on the surface of the ground ; but this is more particularly to be understood of the more curious or tender kinds : but would also be beneficial to all others.

Likewise place stakes to secure tall new planted trees and shrubs as stand in need of support, especially those in exposed situations ; and this should not be omitted in proper time, it being materially necessary ; because, while the wind has power to rock them and disturb the roots, it retards their striking fresh root firmly, in their emission of new fibres ; but being secured with stakes they will strike sooner and more effectually.

Therefore let a stout stake be drove down to every such new planted tree or shrub which the wind has evidently much power over, either by their tall growth or large head, and let the principal stem be tied to the stake in a neat and secure manner.

## CARE OF PLANTS IN POTS.

PLANTS in pots, both shrubby and herbaceous kinds, should now, if not done, be removed to a warm dry situation for the winter, when some may be plunged in the ground, the better to guard the roots from frost; and others of a more tender nature placed in frames, &c., to have occasional covering in the severe weather.

## GRASS WALKS AND LAWNS.

WHERE any principal grass compartment was omitted having a final close mowing last month, it should now be done, cutting as close and even as possible.

The principal grass lawns, &c., which are kept in a close even bottom, should, in open dry weather, be occasionally polled and rolled, both to scatter and clear up the worm cast earth on the surface, where considerably abounding; and to preserve a firm close sward; using, for the occasion of polling, a long, taper, pliable pole, in a dry day, sweeping it close along the grass surface, in order to break and scatter the worm casts about; and the grass should afterwards, when moderately dry, be rolled with a wooden or some other roller; which will render the surface firm, smooth, and clean, for the scattered worm casts will all stick to the roller.

Now also let the grass be thoroughly cleared every where from the fallen leaves of trees; and as these are now mostly all down, let them be cleared away in every part of the garden lawns, plats, and walks, before they rot in heaps, which would greatly deface the grass surface.

## GRAVEL WALKS.

GRAVEL walks should still be kept in some decently neat order; well cleared from weeds; occasionally swept and rolled; and let moss be destroyed as well as possible; for now it will, in some moist or shady walks, spread apace, this being the time of its growth.

A general rolling to gravel walks, occasionally, in dry open weather, is still necessary at this season, once a week or fortnight, whereby to preserve the surface close, firm, and even; and contributes, in some degree, to the prevention of moss spreading in such walks where it is apt to abound.

Some people break up their gravel walks at this season, and throw the gravel up in ridges, to lie in that form all winter,

intendingly for the extirpation of weeds, &c., but is not considerably effectual, and I, at any rate, think it has not only a disagreeable appearance in general, but the practice also renders the walks unserviceable at a time when a foot can hardly be set with pleasure in any other part of the garden.—See *March* and *April*.

#### DIGGING THE SHRUBBERIES AND PREPARING FOR PLANTING.

FORWARD now, in open weather, all necessary digging in the different shrubbery compartments.

Let this be done in particular among the shrubs of every kind that stand distant, or not in a thickety growth to cover the ground: for, by digging between the shrubs, it more effectually destroys all remaining weeds, encourages the plants, and the ground will lie clean, and appear neat all winter.

This is also a most proper time to forward the preparation of ground intended for any new plantation of shrubs, &c., either in the present season or following spring.

#### PLANTING BOX AND THRIFT.

Box and thrift for edgings to beds or borders may still be planted, where wanting.

Now also is a good time to mend box and thrift edgings, where there are any gaps or uneven places; or also to take up, slip, and replant large old edgings.—See *October*.

#### TRANSPLANTING SUCKERS FOR PROPAGATION.

TAKE up suckers of roses and lilacs, and of various other shrubs, to plant for propagating the respective sorts; plant them in nursery rows, where they will make proper plants in one or two years' time, and may then be transplanted into the clumps or borders.

#### CARE OF BEDS OF HYACINTHS AND TULIPS, &c.

TAKE care now of the beds of the choicest kinds of hyacinths, tulips, ranunculuses, and anemone roots; and, where accommodated with proper conveniences, it would be advisable to give occasional covering in bad weather.

The most curious sorts of these roots newly planted, in separate beds by themselves, might be very serviceably protected occasionally, by a low awning of hoop arches and mats, or other covering, intimated in December, which would defend them in some beneficial degree, in time of excessive frost, &c.,

in preventing its access so fully to affect the new planted roots so materially as if wholly open to the inclement weather.

#### PREPARING COMPOSTS FOR FLOWERS.

BEGIN now, where not done before, to break up and turn the heaps of compost designed for flower-beds and pots, &c., let the clods be well broken, and all the parts properly mixed.

Likewise provide materials for making composts, consisting of good, mellow, light earth, light top-spit loam, and rotten dung, blending the whole together in a heap or ridge in a place open to the sun and free air, to have all possible benefit thereof.

#### PLANTING AND CLIPPING HEDGES.

HEDGE planting may still be performed in most of the deciduous kinds, as hawthorn, elm, beech, hornbeam, privet, &c., and any hedges of these sorts, omitted cutting before, may now be done.

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### THE NURSERY.

#### OF TRANSPLANTING.

IN the beginning or some time in this month, finish all the principal nursery transplanting that is to be done before spring, both in the full ground, and in pots; but particularly the more tender and curious plants; though the more hardy sorts of trees and shrubs may be transplanted any time in this and next month in open weather.

#### PREPARATIONS FOR NEW PLANTATIONS.

CONTINUE to dig and trench the ground where any new nursery plantations are to be made, in this and next month, and in February or March, and the ground will be finally mellowed by that time.

Where dung is wanted in any exhausted part of the nursery, where new plantations of young nursery trees are intended, take advantage of dry days, or frosty weather, and wheel it in accordingly on the respective places, spreading it equally over the surface two or three inches thick, or more, and then trenched

in regularly one spade deep ; which will prove materially beneficial to the future young plantation.

#### DIGGING BETWEEN NURSERY ROWS.

FORWARD the digging between the rows of all such young trees and shrubs as are not for transplanting the same year ; it will more effectually destroy all surface weeds, be beneficial to the plants, and the compartments will remain clean and agreeably neat and decent during the winter and following spring.

#### PRUNING TREES AND SHRUBS.

PRUNING may now be performed in deciduous trees and shrubs where necessary ; such as trimming up the stems of forest and ornamental trees, &c. ; and to prune any rampant out-growing shoots of the head ; likewise to give occasional similar pruning to flowering shrubs.

#### THE CARE OF NEW PLANTED TREES.

GIVE occasional support to tall new planted trees, that are in exposed situations, let them be staked and tied up to secure them from being blown on one side by violent winds.

Likewise give attention in proper time to protect from frost the roots of the more tender and choicer kinds of small new planted trees and shrubs, in the full ground, both of ever-greens and others.

For the protection of these kinds, let some dry mulch, or short littery dung, be laid a good thickness over the surface of the earth between the plants, which will hinder the frost from entering to their roots so fully as if wholly exposed.

#### PROTECTING SEEDLING AND OTHER PLANTS.

THE young tenderish seedling exotic plants in beds should now be sheltered in sharp frosty weather ; this may be done by an awning of some low hoop bent arches placed across the beds ; and when the frost is very severe, cover over with some good thick mats, &c.

Or, in severe weather, you may lay some light substance, such as fern, or pea-straw, about their stems and their tops, observing to take this away as soon as the frost breaks.

Let all plants in pots be also very well secured from frost.

To protect the roots more effectually of all kinds of hardy shrubs and plants in pots, which remain in the open air, it



would now be proper to plunge the pots to their rims in a dry warm lying spot of ground.

But the more curious and tenderer kinds of young evergreens, and other tender plants in pots, should now be generally removed into some place of occasional shelter for the winter; either in frames to be protected from frost with glasses and other covering in very severe weather, or under some awning to be defended with garden mats, &c., on similar occasions.

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## THE GREEN-HOUSE.

### GENERAL CARE OF GREEN-HOUSE PLANTS.

CONTINUE careful attention to your green-house plants in general, now all housed for the winter; they will require admissions of fresh air every mild day; occasional gentle watering and protection from frost and other inclement weather.

When the weather is temperately mild and calm let some of the lights or glass-sashes be opened moderately every day, about nine or ten o'clock in the morning, to admit fresh air; observing to open them sooner or later, and less or more, according to the temperature of the day, whether cloudy or sunny; for they must be allowed a plentiful supply of free air daily, at all favourable opportunities in moderate weather; being careful to shut the windows close in due time in the afternoon or towards the evening, about three or four o'clock, or sooner, if the air changes very cold, or sharp cutting wind; and in which it will not be proper to open at all; and never admit air in very foggy or raw cold damp weather.

If frost should happen and continue in the day, do not admit air, unless a warm sun and calm weather, and the frost but moderate, when you may open a little occasionally for two or three hours in the middle of the day; but if frosty and cloudy, keep all close; and if a very rigorous frost, make moderate fires, as directed in *December* and *January*.

Watering to these exotics of this department will still be required occasionally in a moderate degree, but principally in mild temperate weather, and preferably in the forenoon of a sunny day; having particular attention to give it only where you shall see necessary, and always with some cautious moder-

ation, so as never to over-water at this season, nor any time during the winter.

Where the leaves of oranges or other plants have contracted foulness in any great degree, let them be cleaned.

Examine the pots occasionally ; if the earth crusts or binds much at top, let it be loosened a small depth.

Where any decayed shoots casually occur, prune them out as soon as observed ; likewise pick off all decayed leaves.

Where any myrtles or other of the hardier kinds of greenhouse plants are in frames or glass pits, give moderate air on mild days, and occasional very gentle waterings ; shut the glasses close every evening, and in cold weather : and if frosty or very cold, cover the glasses at nights ; likewise in severe frosts, apply a lining of litter, or moderately warm dung on the outside behind, &c.

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## THE HOT-HOUSE.

### PINE-APPLES.

THE pine-apple plants, it may be supposed, have been most generally placed in their respective winter bark-beds, which were advised to be renewed last month to a proper degree of heat ; but if any were then omitted, let it now be done as soon as possible ;—and their further chief care at this season is to continue making the fires regularly every evening and cold mornings, and never too strong ; in mild open weather the fires need only be made at nights ; and occasionally in cold mornings ; but in severe frosts a moderate fire must be kept night and day ; the bark-bed having been renewed in October, or early in this month, will continue in an eligible degree of regular heat, without requiring any further assistance, all this and the next month.

And you must also observe to give the plants water occasionally, according as the earth in the pots seems to need a refreshment of moisture ; but let the water be always applied very moderately at this season ; and in which generally observe the intimations mentioned in *January*, &c. ; for the pines, and other tenderest exotics plunged in wide bark-beds.

Likewise to give occasional very moderate admissions of fresh air in a mild calm sun-shining day, from about ten or eleven to two o'clock ; but if the weather changes cloudy or cold, shut all close.

#### CARE OF THE YOUNG PINES.

THE young pines in succession-houses or pits must have the same care as above, supporting a good bark-bed heat, and fires every evening and cold mornings, and at other times occasionally, as above intimated ; with a moderate share of fresh air in fine sunny days ; and sometimes a very gentle watering, not often.

But such of the young pines as are placed for the winter in bark or bark-beds, made in pits or glass cases, detached from the main stoves, &c., and without flues for fire heat, must now be treated with great care ; that is, the glasses must be well covered every night, and in bad weather, with some good thick mats, &c.

Likewise, the outside of the frame should be lined quite round, a tolerable thickness, with some warmish strawy dung, waste hay, or dry strawy stable-litter ; this will preserve the heat, and prevent the frost from entering the sides of the frame.

The sides of the hed should also be laid round with dry stable litter.

But it must be observed, that such of these pine-beds as are made in detached pits, unfurnished with flues for fire heat, and that the beds are made of dung and tan together, and sometimes with dung only, the heat will not be of such duration as beds wholly of tan ; and therefore must be often examined : when it is found that the bed declines in heat, it must be renewed, by adding a strong lining of more new horse dung to its sides ; and this is to be repeated during the winter season, as often as it shall be found necessary ; but as sometimes these beds for young pines are made entirely of hot dung detachedly not in any pit, but wholly on the level ground, and defended with a deep garden frame and glasses, it will be likewise advisable, in times of severe weather, to line the outsides with hot dung, for there must be a due portion of heat continued regularly in the beds.

The plants in the above beds must be allowed but very moderate quantities of water, at any one time in this season.

But such detached pits as are furnished with flues to convey

internal heat by fires, should have moderate fires made every evening, &c.

#### GENERAL CARE OF THE HOT-HOUSE.

As to the general care of the hot-house at this season, both for pines and for the various other exotics contained therein, take the following hints:—

The bark-bed having been renewed last month, or beginning of this, with an ample supply of fresh tan, will now, as before intimated, be in a high state of proper heat. No augmentation or culture will be now required in that part; but the principal care is to support proper fire heat, and to give moderate air, and water occasionally.

We must be careful to support a moderate fire heat every night, by making the fire soon after sunset, and maintained till nine or ten at night, sufficient to warm the internal air till morning, when also, in cold weather, continue a moderate fire; having always a thermometer, in this department to direct the degree of fire heat.—See *December*.

In sunny calm mild days, admit a moderate portion of fresh air a few hours, by drawing open some of the sashes, but shut close, if the air changes cloudy or cold.

Give also moderate supplies of water occasionally to the plants in general when it shall seem necessary; observing the difference between the woody and succulent tribe; in watering always give it very sparingly to the latter; as explained in *January* and *February*, &c.

Keep the general plants as clean as possible in their leaves, &c., from dust, and any other foulness they may contract; and take off decayed leaves and other casual declining parts that occur.

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### DECEMBER.

#### WORK TO BE DONE IN THE KITCHEN GARDEN.

##### CAULIFLOWER PLANTS.

Look over your cauliflower plants which are in frames, and pick off all decayed leaves, as they appear on them, for they are hurtful to the plants.

Every day when the weather is mild and dry, let the glasses

be taken off, that the plants may have the free air ; but let the lights be put on every night.

When the weather is very wet, keep the lights over them : but at the same time, if mild, let them be raised upon props two or three inches, at the back of the frames, to let in a large portion of air to the plants.

In severe frosty weather, keep the plants constantly covered with the glasses, and other covering (such as mats, straw, fern and other long litter) will also be very necessary to lay over the glasses, and apply long litter also round the outsides of the frames, when the frost is very rigorous.

The cauliflower plants under hand or bell-glasses must also be treated as above. Let the glasses be either set off in mild dry days, or tilt them three or four inches on the south side, to remain so day and night, in moderate open weather ; or in very fine days taken quite off, but put over again in the evening ; and always kept close down in frosty or very cold cutting weather.

If any cauliflower plants are in beds under hoop arches for occasional shelter of mats, let these be drawn over in cold nights, but taken off every day, in moderate weather ; and never wholly covered in the daytime, when the weather is open ; or if rather a cold northerly wind, may throw the mats up only in front ; but kept constantly covered in very rigorous frost.

Likewise, if any were pricked under warm walls, it will be advisable in hard frost to defend them with long litter shaken over them slightly.

#### CARE OF LETTUCE PLANTS, AND SOWING LETTUCE SEED.

THE lettuce plants which are in frames should be uncovered every dry and mild day, for these plants must have the open air at all opportunities.

When the weather happens to be very wet, keep the glasses over the plants, and raise them behind several inches, to admit a large share of free air ; let the glasses be kept close every cold night : but in quite mild dry weather, let the glasses be off every day.

Let all decayed leaves be taken off these plants as often as they appear, and keep them free from weeds.

In frosty weather let the plants be well protected by keeping the glasses on, or a covering of mats over them. And when the frost is very rigorous, add also an additional covering of long litter over the glasses or mats, &c.

You may now sow a small portion of lettuce seed in open weather, on a warm south border : if any of them succeed, they will be useful in the spring ; and if you sow a similar quantity twice in the month, you will have the greater chance of success ; though there is but little dependence of more than a thin straggling crop from these sowings.

#### SMALL SALAD HERBS.

CONTINUE to sow the several sorts of small salad once in ten days or a fortnight, that there may be a proper supply for the table, as often as it is required.

The sorts are mustard, cresses, radish, and rape ; you may also sow some cabbage lettuce, to cut while young, like the cresses and mustard, &c.

Let these seeds be sown now in a sloping bed of light earth under a frame and glasses, or in a hot-bed, as mentioned in November ; but at this season, not to cover the seeds deeper with earth, than just as much as will hide them.

In general keep the glasses over them ; but give air to the plants every day when the weather is mild, especially in hot-beds, otherwise they will be apt to fog ; raising the glasses moderately on props : or occasionally, the plants may have the full air in the middle of a very dry mild day ; but be sure to keep the glasses close over them in cold weather, and every night ; and when sharp weather, cover also with mats or long litter.\*

In frosty or very cold weather, these seeds must generally be sown in a slight hot-bed.—See *January* and *February*.

#### SOWING RADISH SEED.

ABOUT the latter end of this month, if the weather is open and dry, you may sow a few short-top radishes, to come in early in the spring.

However as there is but little dependence on this sowing, it is only advised to sow a few to take their chance for a trial ; and if they succeed they will come in for drawing in March, &c. ; let the seed be sown in a dry south border of light earth, under a wall, &c., and rake it in fully and regular ; and as soon as sowed, cover the surface with straw, fern, or other dry long litter, one or two inches thick, to remain constantly till the

\* We would consider it almost useless to sow small salads at this season in the open ground. Except it be in the southern counties of England, where a regular supply of these is wanted, they can only be obtained by the aid of hot-beds.

plants come up, which also cover every night and in frosty weather, but uncovered in mild days.—See *January* and *February*.

But where radishes are desired very early, you may, about the middle or towards the latter end of this month, sow some radish seed in frames ; or in a hot-bed.

The best sort for this purpose is the early short topped radish.

Sow the seed pretty thick, and cover it with earth about half an inch deep ; put on the glasses ; and when the plants appear let them have plenty of air by taking the glasses off every day when the weather is mild, or by raising them behind two or three inches with props.—See *January*.

#### CARROTS.

WHERE young carrots are desired early, you may now if dry open weather, and if not done last month, dig part of a warm border, and sow some carrot seed, to try the chance of having a few to come in forward.

This may be done any time in the month, when the weather is mild and dry, observing to sow the seed pretty thick, and immediately rake it evenly ; and in hard frosty weather may cover with any light long litter.

If the weather proves any thing favourable now and after Christmas, there will be a chance of having from this sowing a few young carrots pretty early, though not to be much depended on ; but if only a few succeed, they will be acceptable for early drawing in May.

#### PEASE.

WHEN the weather is open, let a compartment of good mellow ground in a warm situation be got ready for some more pease, to succeed the former sowings ; or, where none was sowed before, this is a proper season to sow a principal first crop.

Let the ground be regularly digged a common spade deep, and leave the surface even ; then draw some drills two feet and a half or a yard distant, or three feet and a half asunder, if intended to allow them sticks, and scatter the pease therein pretty thick, and cover them over an inch, or about an inch and a half deep with earth.

The hotspur pease are still the properest to be sown at this season for any general crop, and you may sow them any time

this month, when the weather is mild ; but to succeed those sown the former month, the middle of this month, the proper season for that work, or may sow some at the beginning, and more towards the latter end of the month, for the greater chance of success.

If you have any pease a little advanced above ground, you should draw some earth lightly to their stems, to protect them from frost and cold cutting winds, and to improve their growth.

Let this be done in a dry mild day, and let the earth be broken fine before you draw it up to the plants.

#### BEANS.

ABOUT the beginning or towards the middle of this month, prepare also some ground, in a sheltered situation, for a successional crop of small and middling beans.

If you have not planted any before, let some be planted the beginning of this month ; but if they are to succeed the former plantation, the middle of the month will be time enough ; or it will effect a regular succession, if a few are planted both at the beginning and towards the latter end of the month.

Let some of the mazagan beans be planted now for a full crop ; also a good crop of long-pods and broad Spanish beans for a general supply ; the mazagans will come in earlier, and the others will succeed them regularly.

These beans should be planted in rows, about two or three inches distant in the row, and about half that in depth, the small beans ; the others not less than three inches apart ; and let the rows be two feet and a half asunder, and plant the beans about two inches deep in the ground.—See *October* and *November*, &c.

If you have beans up, let care be taken to guard them from frost, by drawing earth up to their stems as they advance in height ; observing to do it in open weather and a dry mild day, and when the surface of the earth is also tolerably dry.

About the middle of this month you may plant some large beans, such as Sandwich, Windsor, and Toker beans ; they will come in at a right time to succeed the smaller and middle-sized beans which were planted the beginning or middle of the month.

These large beans must be planted in rows three feet asunder, at three or four feet distant from each other in the rows, and only about two inches deep at this season.



If any small beans are sown thick for transplanting, defend them in frosty weather; and some may now be sown for the same purpose.—See *October* and *November*.

## CELERY.

TAKE advantage of the first dry and mild day to earth up the celery that requires it; and see that the plants are tolerably dry before you begin earthing.

Break the earth small, and let it be laid up to the plants with care, not to break the leaves or bury the hearts.

Observe, if possible, to earth up the plants within four or five inches of their tops, to guard them from the frost and to blanch them a good length.

If severe frosty weather sets in, it will be proper to cover some of your best celery plants for present use with some long litter, such as pea straw, fern, or the like.

This will protect the plants from frost, and will prevent the ground from being frozen; then you can take up the plants without difficulty, when they are wanted for the kitchen; or, at the approach of rigorous weather, may dig up a quantity, and carry it into some covered shed, or dry cellar, or any convenient apartment; and laid in earth, sand, or covered with long litter, they will be ready for use.

## ENDIVE.

If the weather is mild and dry, you may continue to tie up some of the largest endive plants, to blanch them.

This should be done when the leaves of the plants are quite dry, otherwise they will rot in the heart. The leaves should be gathered up evenly in the hand, and then tied together a little above the middle of the plant.

But if the weather is very wet or frosty, these plants so tied up being very apt to rot in the heart, may take the opportunity of the first dry and mild day to draw up some of the finest plants, and managed as directed in the last month, planting or placing them into the side of a ridge of earth, either in a dry shed, or in frames; by which practice you may always blanch enough for the supply of a family.—See *November* and *January*.

## CARDOONS.

EARTH up cardoons finally, if not done last month, to blanch or whiten them of a proper length, and to preserve them from frost.

This work should be done the beginning of the month, if the weather is mild and dry, observing to tie their leaves evenly together with hay bands; then let the earth be well broken and laid round each plant.

These plants should now be earthed up tolerably high towards their tops, if possible; and in severe weather some dry litter may be laid up round the best plants which will keep the frost out; or some of the best plants may be laid down horizontally, to be more conveniently covered.

#### ARTICHOKES.

WHERE the artichokes were not landed up the last month, that work should be done, if possible, the beginning of this; or let some litter be laid over them.

First cut off the large leaves close to the surface of the ground, and clear them away; then let the earth be ridged up regularly over the rows of the plants in the manner mentioned in last month.

But if the ground is frozen hard, so that you cannot dig between, or that you have not time to earth them, and having cut away the large leaves, as above, let some mulchy dry litter be laid close about all the plants, separately, to protect them from the effects of the frost; and if the frost sets in rigorous, draw the litter quite over their tops; being sure to remove it when the frost breaks.

#### MUSHROOMS.

Now take good care of the mushroom beds, to defend them effectually from frost and wet, by continuing a good covering of clean dry straw constantly over the beds, not less than a foot in thickness; and generally over the straw covering spread some large garden mats, which will throw the falling wet off more quickly and effectual, as well as prove a greater security against frost or very cold weather.

After heavy rains or snow, let the beds be examined; and if you find the covering next the bed wet, let the wet straw be directly removed, and some dry applied in its place.—See *September*.

#### HOT-BEDS TO FORCE ASPARAGUS.

MAKE a hot-bed to plant asparagus where it is required early, for winter and early spring supply.

Prepare a quantity of fresh horse stable dung for that pur-

pose, by throwing it up in a heap for ten or twelve days before you make the bed; in that time it will be in right order.

With this prepared dung make the hot-bed three feet and a half high, and two or three inches wider than the frame on every side; when the bed is made, level the top, and put on the earth; but you are not, as yet, to put on the frame till the violent heat subsides.

The earth must be laid an equal depth all over the top of the bed, about six inches thick on every part, and the surface made perfectly even, banking up some moist soil round the outside to keep up the earth. When this is done, and having previously procured the proper asparagus plants of three years old, to the amount of several hundred for each three-light frame (see *February*), they are to be immediately planted close to each other upon the surface of the earth; for in the culture of forced asparagus should both plant very close, and take immediate advantage of planting the bed, whereby to have its whole heat from the beginning.

First, at one end of the bed let a small ridge of earth be raised crossways upon the surface, about four or five inches high; this done, get the roots, and begin to place them either entirely on the surface, or, making small openings, the lower ends of the roots may be introduced two or three inches, though they are more commonly placed wholly on the top of the earth, for the fear of their having too much heat below at first, and that they may be more conveniently placed as close as possible; observing to place the first course of plants very close together, against the above little ridge of earth, adding some earth to the bottom part of each course or layer of roots; and so proceed, laying or placing them one against another, as close as you possibly can put them, from one end to the other of the bed, with the crowns upright, all of an equal height: do not, however, place the plants quite out to the full extent of the bed, but leave about the breadth of two or three inches all the way on each side and end, in order that there may be room to bank up some more earth also against the outside roots.

Having placed the plants, let some moist earth be banked up against the outside roots on each side of the bed, as just above hinted.

Then having in readiness at hand a quantity of good mellow light earth, with which the crowns of the roots are to be covered: observing to lay the earth equally all over them about two

inches thick, which concludes the work for the present. The bed is to remain in this manner until the asparagus begins to appear through the covering of earth; then lay on another parcel of earth the depth of three or four inches; so that, in the whole, there may be the depth of at least five or six inches of earth over the crowns of the roots.

When this is done, then prepare to put on the frames and glasses; or if a strong extensive bed of great heat, delay putting on the frames and glasses finally, till the buds begin to appear through the second stratum or earth.

For as the bed, if of the above substance, continues a considerable time of a strong heat, if the frames, &c., are put on too soon, would draw the heat to endanger scorching or steam scalding the roots; but if heavy rains or snow should happen, may either put on the frame, or throw some straw litter or garden mats thickly over the top occasionally.

But, in the above case, before you put on the above last parcel of earth, first fix some thick straw-bands round the upper part of the bed, to secure the earth from slipping down, and which also serves for the frame to rest upon. This is to be done in the following manner; let some bands of straw be made about three inches thick, and get some small wooden pegs or short sticks, sharpened at one end; with these the straw-band is to be pegged down round the top of the bed, close along the edge, on both sides and each end; then add the additional supply of earth above mentioned even with the top of the wreathing or straw-band, and when this is done, if but a moderate heat in the bed, may put on the frames, &c.; and in which add finally about two inches of more earth upon the former; or, if a bed of considerable substance and extent, of a continuing strong heat, it may remain unframed till the asparagus buds are nearly advancing again towards the surface, then put on the frames finally, resting the bottom part upon the top of the straw-band wreathing; and then adding a little more earth upon the other, as above intimated, directly put on the glasses.

Observe, that during the time the bed is without the frames, if there should happen to be heavy rains or great snow, the bed at such times must be defended by a good thick covering of straw or mats; or otherwise put on the frame and lights, as before intimated at the first approach of such weather.

The next thing to be observed is, that when the heat of the bed begins to decline, it must be renewed by applying a lining of new horse dung to its sides; nor must you forget to cover

the glasses every night with mats, or long litter; but this should be particularly observed when the plants begin to appear.

But for some further particulars in the general management, see the *Kitchen Garden for February*.

The bed will begin to produce abundantly in about a month or five or six weeks, when the asparagus shoots will rise very thick all over the bed; and for the method of gathering them see *February*.

#### TRENCHING AND DIGGING.

Now forward at all opportunities, the trenching and digging all vacant spaces of ground in the kitchen garden, both for the fertilising and improvement of the soil, and that the ground may be in preparation against the spring, when there will be much other business to be done that could not be properly performed before.

Also take the opportunity of dry or frosty weather, to wheel in dung from old hot-beds or dunghills, for manure in such parts of the garden where most wanted: spread it regularly; and let it be digged in an equal depth, by digging or trenching the ground one or two spades deep, as you see it necessary; though it is more advisable to dig the dung in only one spade deep; that the roots of the plants may sooner and more effectually receive the benefit thereof; observing, that in the digging or trenching, it is essentially proper to lay the ground up in rough ridges longways each trench, to remain in that order till the time you want to plant or sow it; which will mellow and enrich the ground greatly, in preparation for sowing and planting with the necessary crops in the spring, and which will also greatly forward the spring business.

Dunging will be necessary sometimes every year, for two or three seasons, in poor or exhausted ground, till it is properly enriched; and also in good soils, an augment of dung, every other year, will be beneficial, or will be very necessary to all compartments once in two or three years at farthest; but in this every one will be regulated according to the supply of dung that can be conveniently obtained.

The ground should generally be digged, or trenched as above, one or two spades deep, as the depth of proper soil admits, and the different crops require; the long rooted esculents, such as carrots, parsneps, &c., require the soil to be broken up some considerable depth, to admit of their perpendicular growth; besides, by deep digging at least one full spade or occasionally

two spades deep or more, it improves, and in a manner renews the soil, by turning the top down, and the bottom to the surface and the crops grow more freely.

For the methods to be observed in the operation of trenching and ridging up the grounds as above advised, see also *October* and *November*.

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## THE FRUIT GARDEN.

### PRUNING APPLE AND PEAR TREES.

CONTINUE to prune apple and pear trees against walls and espaliers, any time this month.

These trees are hardy, and you need not be afraid of the frost doing them the least damage through means of pruning them.

The same rule holds good now in pruning these trees, as mentioned in *November*.

### PRUNING VINES.

VINES against walls or in the vineyards, may now likewise be pruned; and the same method is to be practised in pruning vines this month as in the last; and as explained in *January* and *February*, &c.

### PRUNING WALL TREES.

WALL trees of peaches, nectarines, apricots, plums, and cherry-trees may also still be pruned; and it may be done any time in this month, without danger of injuring the trees by the operation, even if the weather should be frosty.

These trees must always have a general winter pruning and nailing, both occasionally in the old and young wood; and the pruning and nailing of them may be forwarded now or in any of the winter months. Observe the same method of pruning all these sorts as in the two last months, and as explained in *January* and *February*, &c., and let every tree, according as it is pruned, be immediately nailed up in a neat and regular manner.

Likewise any espalier trees of plums and cherries, &c., should also be forwarded in pruning, as above.

#### PRUNING STANDARD FRUIT TREES.

Now is the time to examine standard fruit trees, either in the garden or in the orchard, in order to give any occasional pruning, where necessary, such as a regulating thinning in any considerably crowded branches, and to cut out others of a very irregular or disorderly growth, and such as appear unfruitful and useless, casual, decayed, or worn out branches of dead wood.

But as standards, having full scope for their growth above to branch out freely every way at sides and top, they do not, like wall and espalier trees, limited to certain bounds, require an annual pruning, but only occasionally; and that probably but a little once in several years, just to regulate any very disorderly branches, which will sometimes be necessary less or more; and this, or any time in winter, is the proper season for giving any occasional pruning to all kinds of standards as may be required.

Examining, therefore, any standards that discover a very disorderly growth, where the general branches in any particular trees stand considerably too close in a crowded confused irregularity, let some of the most irregular be cut out in a thinning manner; and where any main branches are cross placed, or grow ramblingly across the others in an interfering disorderly extension, cut them clean out, or if in the above any branches discover an unprosperous growth, or worn out barren state, cut them away, to give a larger scope of room for the more regular expansion of the general fructiferous branches; or also any extending in a rambling runaway disorder beyond all the others, together with long stragglers and under-hangers, should be pruned to some regular order: and clear out any thickety growths in the middle of the head, and cut out all decayed wood.

Let the smaller branches, towards the upper parts of the trees, be also examined; and where they are crowded, let some of these also be cut away.

Thus let all kinds of standards always have the general principal branches kept moderately thin, and at somewhat orderly distances: and they will not fail to produce abundantly, and the fruit will always be large and handsome.

#### NEW PLANTED TREES.

TAKE care now of new planted fruit trees, which were plant-

ed in this, or the two last months, and let their roots be well secured from frost, but particularly those of the more valuable and desirable kinds.

This must be done by laying mulch, or some kind of dungy litter, on the surface of the ground about the trees; and let this be laid full as far, each way, as you think the roots extend.

Support all new planted standard fruit-trees, where wanting, with stakes; especially those with high stems and tolerably full heads, and that are in exposed situations, open to the power of winds.

In doing this, observe, previously to tying them to the stakes, to twist a piece of hay-band, or something similar, round the stem of each tree, in the part that is to be fastened to the stake, to prevent the bark from being galled or injured when the tree is rocked by the winds; and then let each be securely tied in an upright position to its respective stake or stakes, which should be driven firmly into the ground.

#### MANAGEMENT OF FRUIT TREE BORDERS.

WHERE any of the fruit tree borders are poor, or of bad soil, or much exhausted, and want manuring, or in need of being revived with an augment of fresh earth, this is now a very good time to do that work.

For that purpose, get from a pasture common, or elsewhere, a quantity of good fresh earth, loamy, if conveniently attainable, the top spit; or in want of this, other substantial good soil, and some of the best thoroughly rotten dung; or in default of proper earth, apply a good coat of dung alone.

Let these materials be laid equally upon the borders, in which the improvement is most wanted, which then let be regularly digged or trenched one good spade deep, working in the augment of fresh earth, or dung, &c., in a proper manner according to the width and depth of the said border; and this dressing, to poor or much exhausted soils, will be of great service to the trees in general, as will be seen in a summer or two after, in their growth and fruitful production; and will be particularly beneficial to such trees as are in a weakly declining state.

Or, borders of ordinary good soil may be continued in a fertile state by application of dung only, once in two or three years.

In open weather, dig and prepare such borders, or other



places, as are to be planted with fruit-trees; for this being a leisure time, that work can be done in a proper manner.

In doing this work, let those rules be observed which are given in the two preceding months.

If any of the wall-trees, &c., appear of a weakly, declining, sickly state, open the earth about the roots, but not to disturb them generally, and then apply a compost of fresh loamy soil, or other good earth, and some dry rotten dung, well incorporated together, working it in immediately about the principal roots and towards their extreme parts; it will greatly enliven the growth of the trees the following year.

#### PLANTING FRUIT TREES.

FRUIT trees of most sorts may still be removed and planted, provided the weather be open: but if the weather be frosty that work must be deferred till another opportunity.

Let the same methods of planting, distance, &c., be observed as in the two last months, and in *January* and *February*, &c.

#### PRUNING GOOSEBERRIES AND CURRANT TREES.

CONTINUE to prune gooseberry and currant trees, where not done, both in the common standard bushes and against walls, &c.

In these trees let the general branches be kept moderately thin at somewhat regular distances, cutting out the irregular placed and superabundant shoots of the last summer, and retain others of the same season that are well placed in proper parts, in the order advised in the former months; and prune to order any branches that grow ramblingly across the others, and such as grow in a very straggling manner, or other disorderly growth, either cutting them close or shortened, as it shall seem most proper: let any very crowding branches be pruned thinningly, to keep the heart or middle open; especially of the standard bushes, cutting out decayed, or any apparently unfruitful branches, and dead wood.—See *October* and *January*.

Likewise prune currant and gooseberry trees against walls, &c., observing, in which, generally to have the principal original branches advancing quite from the bottom, and the general expansion trained either more or less horizontally or upright, as room admits, three or four, to five or six inches asunder; and as they will now abound in many shoots of last

summer, cut out the superabundant, the irregular, and any very extensive luxuriant; but reserving occasional supplies of some best well placed moderate side laterals, below and above in the most vacant spaces, and a terminal one to the advancing branches, &c. ; or where any long, naked, unfruitful old wood occurs, either cut it quite out, or prune it down to some good lateral young of a more fruitful nature ; and of the supply of young shoots now retained, those of much extension may be pruned or shortened more or less as required, others of moderate growth remain entire, or as may seem expedient according to situation lower or higher, or room for training, &c., and let the branches be nailed up regularly, the distance as above.—See *January*.

Let all suckers from the roots of these shrubs, both in standards and against walls, be also entirely cleared away.

#### PLANTING AND PROPAGATING GOOSEBERRY AND CURRANT TREES.

GOOSEBERRY and currant trees may still be transplanted into places where they are wanting, any time in the month, when open weather, planted about seven or eight feet distance from one another in the row.—See *October*, *November*, *January*, and *February*, &c.

Plant also some white and red currants against walls of different aspects, for producing earlier, later, and larger fruit ; or may also plant a few best early gooseberries in a south exposure.

This is still a proper time to plant cuttings of gooseberries and currants, to raise a supply of young trees ; the method of preparing and planting them is mentioned in *October* and the last month ; also in *January* and *February*.

#### PRUNING AND PLANTING RASPBERRIES.

PRUNE raspberries, where it was not done in *October* or last month ; in pruning these, the same method is now to be observed as in the last months.

Now is also a very good time to plant raspberries, provided it be open weather ; the manner of preparing these plants, and planting them, is also the same as mentioned in the preceding planting months.—See also *January* and *February*.

#### EXAMINING THE FRUIT IN THE FRUITERY.

EXAMINE the fruit in the fruitery now pretty often ; let them

be looked over with good attention once every week or fortnight; and let all such as are rotten or beginning to decay, be removed; for if these were permitted to remain, they would taint the sound fruit near them.

Continue constantly a good covering of clean straw, at least a foot thick, over the principal keeping fruit; and secure the windows of the fruit room from the admission of wet and frost.

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## THE PLEASURE, OR FLOWER GARDEN.

TAKE care now to protect the choice flower plants and roots from frost, great snows, and heavy rains; all of which would damage many sorts of curious roots and plants; observing the following general directions in the particular sorts.

### CARE OF AURICULAS AND CARNATIONS.

THE choice kind of auricula plants in pots should now be occasionally defended in very wet weather, great snows, and hard frosts.

If these plants are placed in frames, as was directed two months ago, let the glasses be kept constantly over them in bad weather; or if they are in a bed arched over with hoops, &c., cover them occasionally with large thick mats, or canvass cloths.

But when the weather is mild and dry, let the plants be constantly uncovered.—See *January*.

Or in default of frames or other covered shelters, place the pots, if not done, in a dry warm south border, &c.—See *October*, *November*, and *January*.

The carnation layers of the curious sorts, which are in pots, should also have occasional protection from excessive rain, snow, and severe frosts; but these plants must have the free air constantly when the weather is open and not very wet.

For notwithstanding these above plants, both of auriculas and carnations, are hardy enough to stand the open weather, they by occasional shelter, are preserved in a stronger sound state to flower in best perfection.

### PROTECTING HYACINTHS, TULIP-ROOTS, ANEMONES, AND RANUNCULUSES.

To the beds wherein the fine hyacinth and tulip roots are

planted, some occasional protection, when severe weather, would be of good advantage in preserving the roots more effectually sound, or from material injury.

On that occasion either cover with a low awning of mats, &c., or provide some kind of dry long strawy litter, pease straw, fern, or such like; and when the frost discovers to set in hard lay a tolerably warm covering over the surface of the beds; but when the weather is less severe, all covering must be removed.

When any of these plants, of the more estimable curious kinds in beds, appear above ground, it would also be of material advantage to afford them some occasional covering with large thick mats, &c., as above, in time of severe weather.—See *January* and *February*.

Likewise to the more curious and valuable ranunculuses and anemones, which are planted in beds, some protection when the frost is severe would be greatly beneficial, by covering the beds as above.—See *January*.

#### CARE OF SEEDLING PLANTS.

SMALL young tender seedling flower plants, or roots, also demand care at this generally unfavourable season.

Such young tenderish kinds as are in pots, or boxes, may now, if not done before, be protected somewhat by placing the pots, tubs, or boxes, in a warm border, or may also plunge them in the earth; and in hard frost, long straw litter may be laid on the surface, and around the sides; the same protection of covering may also be given to such as are in beds.

#### PROTECTING NEW PLANTED SHRUBS AND TREES.

New planted shrubs and trees, of the more tender or choicer kinds, should have their roots well protected in hard frosty weather, by laying some dryish mulchy dung, or long dungy litter, a good thickness on the surface of the ground over the roots of each plant.

This work is necessary to such of the more tender and curious kinds of shrubs and trees as were planted in autumn, that it should not be omitted now, if it was in the last month.

#### PRUNING SHRUBS, AND DIGGING BETWEEN THEM.

Now go over the flowering shrubs, and prune such as stand in need of that discipline; but let this be done in some regular manner, with a knife, and not with garden shears

In doing this, all the very strong long rambling shoots of the last summer's growth, extending considerably beyond the general branches of the head, should either be cut close, or reduced to some regularity; as also any main branches advancing in similar disorder, or of low straggling growth; and cut out dead wood.

Generally observe in this occasional regulation, to prune in such order as to keep the plants distinct and clear of one another; giving therefore attention when any branches of different shrubs are extended confusedly together, to prune them within some orderly bounds, whereby to continue them separately distant, that every different plant may show more distinctly to view: though sometimes particular compartments of common shrubs are permitted to run in close growth, both to affect a variation in a thickety appearance, and for shade, shelter, blind, &c., in which very little pruning is required, except to reduce any remarkably out-growing ramblers.

When the shrubs are pruned, let the ground in the open shrubberies be dug between the plants, and take up all suckers, and shorten straggling roots.

#### PROPAGATING SHRUBS BY SUCKERS FROM THE ROOTS.

THE suckers of such shrubs as you would wish to propagate may be taken up with roots, and planted in nursery rows in any open compartment: they will make good plants in two years.

The suckers of roses, lilacs, spiræas, and many other sorts, if taken up from the old plants in open weather, and planted out in rows, fifteen inches asunder, will make handsome plants in one or two years time; or some strong rose suckers in particular may be planted at once in borders, &c., to flower the ensuing summer.

Or rose suckers may be occasionally planted in a hedge order along the front or back edge of a border, to be trained in a dwarf or low hedge to produce large supplies of flowers, for medical domestic occasions, or other purposes.

#### DIGGING THE BORDERS, &c., AND PLANTING FLOWERS, SHRUBS - AND TREES.

Now dig, in open weather, the borders, beds, &c., in the flower garden, and the clumps and other compartments in the shrubbery: also dig and prepare the ground where any new plantations of shrubs, trees, or plants are intended.

And may still plant, if required, various hardy bulbous, and fibrous-rooted kinds of the flowering tribe, as in last month, in dry light soils.

Likewise transplanting may still, in open weather, be continued among all the hardy kind of flowering shrubs, ornamental and forest trees: but particularly of the deciduous kinds.

But if any of the more tender and curious sorts of trees and shrubs are planted, it is advisable to mulch the ground over the roots, to keep out the frost, as advised in page 580.—See *January*, &c.

#### ROLLING GRASS AND GRAVEL WALKS.

In open dry weather, let the principal grass plats, walks, and lawns, be rolled and rolled occasionally, as in November.

Let the gravel walks be also still kept very clean, in decent order, and roll them now and then in dry open weather.

#### PREPARING COMPOST.

BREAK up and turn the heaps of compost for curious flowers in beds and pots, &c., blending the parts well together.

This is a proper time to bring in fresh soils and dungs, wherewith to make new compost heaps; for these should generally be prepared several months before they are used for any purpose; the principal compost, for choice flowers, being any light mellow earth, drift sand, or sea sand, &c., light sandy loam, and a small portion of dry rotten dung—all well blended together in a heap.

#### THE CARE OF PLANTS IN POTS.

TAKE good care now of all such shrubs as are in pots, particularly the more tender kinds to defend them in severe weather. That in order to protect the roots the better from frost, let the pots of shrubs in general, if not done before, be plunged into their rims in a dry, warm, sheltered compartment.

And the more tender and curious kinds, such as any small arbutus, magnolias, cistus, African heaths, China arbor vita, &c., in pots, should be placed in deep frames, to have occasional shelter of covering in frosty weather.

Likewise the pots of herbaceous perennial and biennial flowers, such as double rockets, double rose campion, double scarlet lychnis, double sweet williams, double wall-flowers, and double stocks, and other hardy perennial fibrous-rooted

plants in pots, or also pots of bulbous roots, where not moved to some place of shelter last month, should be done in the beginning of this: placing some principal sorts in frames, &c., either in a warm sheltered situation, or some plunged to their rims in a dry warm spot of ground, to prevent the frost entering at the sides of the pots to hurt their roots; and in very hard frost it will be proper to lay some dry long litter lightly over the whole.

But where there are any frames or glass case room to spare, and the pots of some principal sorts of the above kinds of plants placed therein, and defended occasionally with the glasses, &c., it will be of great advantage.

#### PRUNING FOREST TREES.

It is now a proper time to prune all sorts of forest and ornamental trees where necessary, observing to trim up all large side shoots and boughs from the stem, and low straggling under branches of the head, or to cut or reduce any very disorderly rambler above; but which occasional prunings are more generally eligible in the deciduous kinds than evergreens at this season; and in which it may be performed in frosty weather, when little other business can be done.

#### PLANTING AND PLASHING HEDGES.

This is a proper time to plant any sorts of hedges of the deciduous kinds: particularly such as hawthorns, beech, elm, horn-beam, privet, elder, berberry, black-thorn, or sloe; procure young sets of two or three years' growth; prune the long tops to equal regularity, and trim long straggling roots; then plant them either in a single row, or double for a strong outward hedge, six or eight inches apart in the rows.

May also plant alder, willow, and poplar hedges, in moist, marshy, or watery places, or where required; either by rooted young plants, or small or large cuttings of the shoots and branches.

Hedges for outward fences are commonly planted in the side or top of a raised bank, formed with a ditch on the outside; the sets being inserted either slopingly into the side, or upright on the top of the bank; but internal garden hedges are planted on level ground.

Where fence hedges are grown up tall, rude, and naked at bottom, they may now be plashed, or laid down to render them thick, in every part, performed by gashing the lower parts of

the larger stems, &c., to admit of bending down in the requisite position, conformably with the smaller branches; laying them down accordingly horizontally between other stems left erect for growing stakes, cut even at top, three, four, or five feet high.

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## THE NURSERY.

CONTINUE in open weather to dig the ground between the rows of continuing young trees and shrubs; and as you proceed in the digging, let all the weeds on the surface be buried properly to the bottom.

### NEW PLANTED TREES.

CONTINUE the care of the more curious and tender kinds of new planted young trees; where they were not mulched in November, let some now be laid between the rows, and close up to the bottom of their stems, to protect the roots from being hurt by severe frost.

Let the stems of new planted tall trees be now properly supported with stakes, where it may appear necessary in some particular sorts, more especially in situations exposed to the power of tempestuous winds.

### SEEDLING TREES.

TAKE care also of the tender seedling exotics; they, while young, require some shelter in severe weather.

Let these be now protected in hard frosts by covering them in the manner directed last month, but being careful not to omit uncovering them in open mild weather.

The beds of tree seeds, berries, and acorns, which were sown in October, or the beginning of last month, would be greatly benefited if in rigorous frosty weather they could be covered with pease straw, fern, or other dry long litter.

This should be practised before the frost has far penetrated into the ground; but in particular to the beds of acorns, for these very soon shoot after committed to the ground, and the frost would very much affect them.

### TRENCHING, DIGGING, AND MANURING.

FORWARD the trenching of such pieces of ground as are to be planted with young nursery trees, shrubs, &c., in the spring.



In doing this, let the ground be laid up in ridges; the frost will thus have more power to mellow, and rain less opportunity to over-wet it; for the ridges will not detain wet like ground laid perfectly flat.

Carry dung also to such vacant compartments as want it, and spread it of an equal thickness over the surface of the ground, and digged in regularly, a moderate spade deep.

#### PROPAGATING TREES AND SHRUBS.

You may still continue to make layers, and plant cuttings of hardy trees and shrubs, and transplant suckers; and for the method of treating each, see the two preceding months, and *January* and *February*.

#### PROTECTING YOUNG TREES AND PLANTS IN POTS AND BEDS.

GIVE protection to young, more tender, and curious trees, shrubs, and plants, in frosty weather.

Any in pots may be placed either in frames to have shelter with the glasses, &c., or under an awning to be covered with mats; or all other more hardy kinds in pots should be plunged in the ground in a dry sheltered situation, if not done last month.

Or, likewise any of the more curious or tender young evergreen and other exotics in beds should have some occasional protection in very severe weather, either by defending the bed with frames, &c., or an awning placed across, and covered with mats and long litter; or, in want of the above, some light substance of straw litter; or, pease haum, spread over the beds.

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#### THE GREEN-HOUSE.

CONTINUE to take advantage of every fine day, when the weather is open, to admit fresh air to the plants in the green-house: for this, notwithstanding the generally unfavourable temperature of the weather at this season, is a very necessary article for the benefit of the plants in general. If they are kept too close, it will not only, in some degree, tenderise and weaken the plants, but also occasion the leaves of some kinds to change of a yellowish sickly colour, and be frequently dropping.

Therefore every day, when the weather is mild, and the wind

not sharp, let the windows be opened about nine or ten o'clock in the morning, and shut again about three or four in the afternoon, or sooner, if the air becomes too cold.

But never omit giving a large share of fresh air every sunny day in mild weather.

Or occasionally, in giving air in mild weather, if the wind blows rather sharply towards the front of the green-house, should only draw down some of the top sashes a little way, so as the wind cannot enter below immediately upon the plants.

*Note.*—It will not at this season be proper to allow the green-house any fresh air in foggy or very wet days; at such times let the house be kept quite close.

In severe frost the windows must never be open.

In continued severe frosty weather, great care must be taken to secure the door and windows of the green-house in such a manner as the frost cannot enter that way to affect the plants.

Therefore in the time of very rigorous frost, the window-shutters, if any, must be shut close every night; and for the greater security, it will also be proper to nail up mats against all the shutters; or in default of shutters, apply an eligible defence of large thick mats against all the glasses, above and below, especially of nights; or also occasionally in the day time, when continued severe weather, and no sun.

Likewise, when the frost happens to be very severe, it will, for the better protection of the plants, be advisable to make a moderate fire if there is the accommodation of flues, which are very necessary in every good green-house, both as an occasional defence against the rigours of frost, and to expel great damps in foggy and very wet weather: but in defect of flues, in hard frosts, make a moderate fire in some convenient utensil, and place it within the green-house, towards the front, observing to move some of the plants a little away, if too near where the fire is placed; or in green-houses not furnished with flues, a Buzaglo stove, in which to make moderate fires, in frosty weather, would prove beneficial—as this kind of cast-iron stove, being placed in a proper situation, towards the front, about the middle way of the house, diffuses an extensive warmth in the internal air: though where proper fire flues are constructed internally along the front, and continued all round, they are greatly preferable for this occasion.

But as these fires in either method are only particularly necessary in the green-house in sharp frosty weather, they should be continued accordingly every night and morning, and some-

times all day when the frost is excessive: but always wholly discontinued in moderate open weather; or only made occasionally in very foggy weather; and after great thaws, to expel the damps.—See *January*.

#### WATERING GREEN-HOUSE PLANTS.

WATER must now and then be given to the plants in the green-house, for most of the woody kinds will require that assistance at due times.

But in watering these plants make it always a rule at this season to give only a very moderate quantity to each pot or tub at a time; for if they are once over watered at this season of the year, so as to render the earth very wet, it will remain so for a long time, and most assuredly occasion the plants to drop their leaves, especially the orange and lemon-trees, and totally destroy some of the more tender kinds.

For that reason let particular care be taken in watering, to do it with moderation, and to give the water only to such pots and tubs as are in want of that article.

The aloes and other succulent plants must now be very seldom and also very sparingly watered; for much moisture at this season would rot these kind of plants.—See *January* and *February*.

#### KEEPING THE PLANTS CLEAN.

THE green-house plants in general should now be kept perfectly clear from decayed leaves, and any contracted foulness, for this is necessary to preserve their health as well as beauty.

Therefore, as soon as any such leaves appear upon the plants, let them immediately be removed: and also cut out any decayed shoots and dead wood that may from time to time appear; likewise where any plants have contracted considerable foulness of dust, &c., it should be cleaned off as well as possible, clearing away also all dead leaves which drop from the plants.

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### THE HOT-HOUSE.

#### CARE OF THE FRUITING PINES, AND OTHER PLANTS IN THE HOT-HOUSE.

CONTINUE great attention at this season to the fruiting pines, and all the other tender exotics in the hot-house, to support a

good fire heat every night, and cold mornings, and give occasional waterings, and fresh air, as explained below; and as to the bark-bed heat, it being renewed in October, will most probably be still in a good temperature, and which is now equally necessary as the heat by fire; both of which being essentially eligible, in conjunction, at this season.

Every evening, about three, four, or five o'clock, according to the temperature of the weather, continue to make the hot-house fires; observing, as said last month, never to make the fire too strong, so as to render the heat of the wall of the flues anywise violent, for that would prove of bad consequence to the pines and other plants.

You are likewise now to observe, as advised last month, that in very cold weather the hot-house fires must be continued also in the morning; and in severe frosts, and but little or no sun, they must be supported all the day long.

The person who attends the fires should always, the last thing before he goes to bed, examine them, and add more fuel if wanted, sufficient to support a proper degree of internal heat till morning,—the most preferable fuel for this occasion, in the hot-house fires, is coals or cinders, because of the regularity and duration of their heat; yet wood, turf, or peat will do, in default of coals, but require more attendance to regulate and augment the fire.

The bark-bed heat is also at this time most essential; but if this was renewed in October, or beginning of November, with a full supply of fresh tan, it will probably be still in a proper state of heat; if, however, towards the end of this month, that is considerably decreased, let it be revived by forking up the bark, as directed in *January*.

At this season, in severe frosts it would be proper to cover the lights of the hot-house every evening, especially to remain till morning, either with shutters or large thick garden-mats, the more effectually to repel the frost when excessive; or also to continue the covering occasionally in the day in very rigorous weather, when cloudy and no sun; though shutters, &c., are not now commonly used; but supporting a proper degree of fire heat internally, sufficient to resist the entrance of frost, and giving occasional covering as above:—formerly large thick painted canvass cloths, or strong mats made to roll up and let down by pulleys and lines, on long poles extending the length of the hot-house, were used for night covering; but sometimes an inconvenience attended this sort of covering, both in being

frozen immoveable, and in stormy weather, by the wind raising and dashing the canvass, &c., against the glasses, and breaking them.

#### SUCCESSION PINES.

THE succession pine plants in the pit or succession house should have the same care taken of them as directed above; the management of these and the fruiting plants is the same, only observing to make the fires in general rather more moderate, or as regular as possible, which, if not observed, may force them into a fruiting state at an improper time; to prevent which, the greatest care should be taken, until they have acquired such a proper degree of growth as to be able to produce handsome sized fruit, which they are not capable of until they are two years old; at which age they in October should be placed in a fruiting house, or such stove department wherein it is intended they shall produce their fruit.

#### WATERING AND GIVING AIR.

THE pines and other plants in the hot-house will still require to be now and then watered.

But in watering them, especially the pines, take care to do it moderately, and not oftener at this season than about once a week or fortnight.

When there happens to come a fine sunny calm day, it will be proper to admit some fresh air into the hot-house, by sliding some of the glasses a little way open, from ten or eleven to two o'clock; but be sure to shut them again in due time, and especially if the weather alters to cloudy or sharply cold.

#### YOUNG PINE PLANTS.

THOSE young pine plants, which are plunged in dung or bark-beds, made detached from the stove departments, must have a very careful attendance at this season; the heat of the bed must be duly kept up by applying a lining of new horse-dung to the sides, as often as the bed decreases much in its heat.

The glasses also must be covered every night, and in all bad weather, with mats or straw; and some straw or other dry litter should likewise be laid close round about the outside of the frame.

## EARLY KIDNEY BEANS IN THE HOT-HOUSE.

SOME time in this month you may plant some early dwarf kidney beans in pots or in boxes, and place them in the hot-house, upon the top of the bark-bed wall or front flues, &c., by which means you will have a chance of a small early produce ; as they seldom yield considerably from this season of planting.—See *January* and *February*.

## EARLY CUCUMBERS IN THE HOT-HOUSE.

You may likewise now sow cucumber seed in pots, and plunge them into the bark-bed in the hot-house, and the plants may be transplanted into other pots or in boxes placed near the glasses ; this may be done for a trial, which, if they succeed, will come in at a very early season.

I have observed that cucumber plants succeed rather best in the hot-house, when placed moderately near the top sloping glasses ; having the pots or boxes containing the seed or plants placed upon a suspended or bracketed shelf, &c., within about eighteen inches or two feet of the inclined sashes, towards the higher part of the fixed upper tier of lights, nearly over the back alley, or flue, not to shade or annoy the plants below.

But, however, where this cannot be conveniently done, let the pots or boxes be placed in the manner mentioned in *January*.

## MINT AND SMALL SALAD.

In the hot-house may also introduce pots of mint roots, small salad seeds, when required, as forward as possible on any particular occasion at this season, as they will very soon come up proper to gather.

## EARLY ROSES, &amp;c., IN THE HOT-HOUSE.

You may likewise, in this or next month, place pots of rose trees in the hot-house ; and also honeysuckles and such other small flowering shrubs as you desire, by way of curiosity, to blow early.—See *January* and *February*.

Pots of pinks, carnations, or any other such like kind of flowers, may also be placed in the hot-house towards the latter end of this month to produce some early flowers.

## EARLY BULBOUS AND TUBEROUS FLOWERS IN THE HOT-HOUSE.

LIKEWISE may introduce pots or boxes planted with spring blowing bulbous and tuberous rooted flowers in the hot-house, for an early bloom.

For this purpose may have the dwarf early tulips, any sorts of hyacinths, polyanthus narcissus, common narcissus, jonquils, bulbous iris, fritillarias, spring crocus, and any other of the spring and early summer flowering bulbs; likewise anemones and ranunculus, &c.: plant them in pots of light earth, an inch or two deep, and place them any where in the hot-house, give very moderate waterings, and they will blow agreeably at an early season.

Or any sort of bulbous roots in water glasses, being placed in the hot-house, will flower very agreeably in tolerably good perfection in winter, and early in the spring.

## VINES IN THE HOT-HOUSE AND VINERIES, &amp;c.

GRAPE vines planted along the outside of the front of the hot-house, and the stem or main shoot of each being left of some considerable length, and each conducted through a hole in front, into the hot-house, nearly close above the front flues; or introduced close to the bottom and trained up between the said flue and the front work, by which the stem is also defended from the weather: and in either method, the branches, &c., being trained up the inside and under the sloping glasses they will bear fine early grapes with but very little trouble.

They will not only require an annual pruning early in winter, and summer dressing, to regulate the shoots of the year: each performed nearly as directed for the vines in the open ground; observing at this time, it is proper, in these vines, to protect the outside stem, where open to the weather, by wrapping them round closely with hay or straw bands, &c.

But in vineries, or forcing fruit-houses, the vines are most generally planted within, in the borders behind and in front, and trained as above intimated.

Or pots of immediate bearing pines may be introduced into the hot-houses or vineries, &c., any time this or next month to produce early grapes the ensuing season.

## EARLY STRAWBERRIES IN THE HOT-HOUSE.

TOWARDS the end of this month may begin to introduce some

pots of scarlet and Alpine strawberries into the hot-house for the first early production.—See *January*.

PREPARING FOR FORCING FRUIT TREES IN HOT-WALLS, &c.

In this month you may begin to prepare for forcing fruit trees in hot walls, vineries, cherry-houses, and other forcing departments by fire, or bark-bed heat, &c., or both to produce early fruit; and the sorts of trees for this purpose are peaches, nectarines, apricots, cherries, vines, figs, plums, and occasionally gooseberries, currants, raspberries, and also strawberry plants.

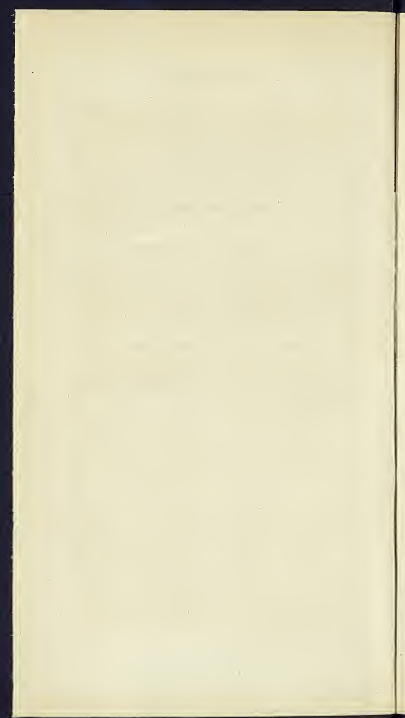
Observing the trees of all the above sorts may now be planted, if not done before, in the borders of the forcing departments, and some also in pots, to remove therein occasionally; and for which purpose have ready trained trees, that are arrived to a bearing state, which may be obtained in great perfection in most of the public nurseries; and if removed and planted with balls either from the full ground or large pots, it will be the greater advantage, especially if any are particularly wanted for forcing the same year: but, in the general part it is most eligible, previously to forcing, to allow the trees to have at least a year's growth after planting for this occasion; and generally plant a principal supply of wall trees against the back wall, and some against the upright front glasses, ten feet asunder; or sometimes, if the width and convenience of the place admits, may plant a row of low dwarf trees lengthways, either behind or in front of the bark-pit where any, or if none, planted along the middle; having, for the whole, a trellis of slight thin railing, &c., erected, on which to train the branches of the trees in regular order; and those in the front have the branches trained up under and parallel to the top or inclined glasses, at six or eight inches distance therefrom; and may plant also some in some small headed standards, both in dwarfs and half and full standard trees especially duke cherries.

Towards the end of this month, put on all the glasses of these forcing departments, to defend the trees from the weather, preparatory to forcing, which may be commenced the beginning, middle, or latter end of January, by making fires in the different forcing places; or where there is a pit within, for a bark-bed or dung hot-bed, or a bed made with hot dung below and tan bark above, make the said beds therein accordingly.



Sometimes pears are also forced of some best early summer kinds, such particularly as the jargonelle, and sometimes the green chasselas; the trees of which having been planted and trained against a south wall some years, and arrived at a proper bearing state, and then glass frame work erected to enclose the trees, and furnished with internal flues ranged along the front or middle for fire heat, and sometimes with a pit for a bark-bed, or dung heat, as above, extending along the middle space within; and which forcing frame is worked by the fire or bark-bed heat, &c., or both occasionally; and by which have seen very fine jargonelles early in June, two months before their natural season (beginning and middle of August.)

Having thus far concluded the general horticultural direction in the different practical branches for the twelve months in the year, with numerous very considerable improvements in every department, according to the modern system and most successful general methods in practice, as much as the limited pages of this book would sufficiently admit, shall next proceed to the General Lists, *exceedingly much improved*, of the numerous cultivated plants, trees, shrubs, flowers, fruits, &c., of the British Gardens and Plantations, arranged under several different heads, according to their nature of growth, temperature, and respective uses, in the several garden districts, as in the foregoing directions.



# GENERAL CATALOGUE.

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## ARRANGEMENTS

OF THE

## PLANTS AND TREES;

OR

COMPLETE general Lists and Explanations of the different tribes and numerous species and varieties of Plants, Trees, Shrubs, Flowers, and Fruits, both natives and exotics, comprised in this work, and of most others proper for cultivation in the BRITISH GARDENS, Plantations, and Nurseries, Green-Houses, Hot-Houses, Hot-Beds, &c., arranged under different classes or divisions, according to their respective uses in the several garden departments, and their different natures of growth, as herbaceous and woody, hardy and tender, &c., in the following order:

### LIST OF THE KITCHEN GARDEN ESCULENT PLANTS AND HERBS.

COMPRISING the various different species, and their respective principal varieties proper for general culture; consisting of Annual or one year's plants, Biennials or two years' plants, and of Perennials or plants of several years' duration by the root, and some both in root and top; but the Annuals and Biennials are considerably the most numerous, and must be raised every year from seed, and some several times in that period, to continue a regular succession, as intimated of the particular sorts in the following general List: and the Perennials are raised some also by seed, and others by suckers, offsets, slips, cutting, &c., as is also hinted in the general List aforesaid, under the respective names of the different species, &c., raised by one or other of these methods; and being once raised, they continue many years by the root, &c., as before intimated.

As the Kitchen Garden may generally be considered as the principal, or at least the most profitably useful district of the horticultural departments, in its numerous productions, wholly of the different sorts of esculent vegetables, essential articles of food beneficially important in domestic economy, have judged it expedient to give not only a general List of the different species, and their respective varieties of the Kitchen Garden Plants, but also short descriptive intimations of the nature and growth of the different sorts: as Annual, Biennial, Perennial, &c., peculiar properties for culinary and other family uses, methods, and times of propagating, sowing, planting, order of culture, and seasons of perfection; which will convey some useful previous hints, preparatory to proceeding in the general cultivation; referring, however, to the general work of the different months for the full cultural particulars of the respective sorts.

*Note.*—Observe that as the following List of the Kitchen Garden Plants consists of Annuals, Biennials, and Perennials, as before intimated, have distinguished them accordingly;—the Annuals marked thus\*, Biennials†, and the Perennials‡; and as some are Annual-Biennial, that is, such as when sowed early in the spring go to seed the same year, such as turnips, celery, endive, &c., but when sowed later in their respective seasons of spring, and early part of summer, stand without running, attaining perfection the same year, and continue till the spring following, are marked§; other sorts, being somewhat Annual-Perennial, that, although they continue Perennial, by root offsets, yet require fresh planting every year, as potatoes, Jerusalem artichokes, garlic, shallots, mushrooms, &c., are marked||.

## A

‡ ASPARAGUS, a hardy plant of the perennial nature of many years' duration by the root; and of great estimation for its annual produce of numerous young top shoots arising from the roots for use in April or May, and June or July; then permitted to run to stalks till October.

Gravesend asparagus, large,  
Battersea,  
Deptford,

and of each of which there are:

Redtopped, or of a reddish brown,  
generally close and plump.

Green.

But these several varieties differ principally in the first three by means of different soils, situations, and culture, in being of larger, smaller, and closer plump growth; always raised from seed sowed in the spring, once in several years for a single plantation; and when the plants are one year old or two at most, must be transplanted into beds, in rows a foot asunder; and when of three years' transplanted growth will produce shoots of proper size for cutting; and the same plants continue many years in good production, principally in May, June, &c., as before observed; and may

also be obtained in winter by forcing in hot-beds, by introducing proper plants of two or three years' transplanted growth in the full ground.

‡ *Artichoke*; a plant of the perennial tribe, producing from the root annually its large squamose heads, in full growth in June or July, and August, till October or November, comprising two varieties, viz. *Globe Artichoke*; large globular reddish heads; best for general culture.

Green oval, or French.

Both sorts by young suckers. From the bottom in the spring, planted in rows four or five feet asunder, will produce heads the same year in autumn, and will continue by the roots in several years' production.

|| *Artichoke, Jerusalem*; a tuberous-rooted perennial of tall growth, producing large roundish, oblong, irregular, fleshy tubers in the ground, the eatable parts; in perfection in autumn and winter till spring, to boil and eat with butter, &c.; good and wholesome; only one species which is of the helianthus or sunflower tribe, called by the botanists helianthus tuberous, tuberous sunflower, commonly called Jerusalem artichoke.

But the plant is of very dissimilar growth to that of a common artichoke, growing more like a tall sunflower, of which it is a species as aforesaid; and which, though commonly called Jerusalem artichoke is not a native of that part, but principally of America.

Is raised by offset tubers of the root, or rather cuttings of the large main tubers; to be planted every year in the spring, in rows two or three feet asunder, and three or four inches deep: and will be of full growth in the root to take up in October, November, &c.

† *Alexanders*; a salad and culinary herb of biennial growth, with stalky trifoliate leaves, not now in much request; is sometimes used in salads and soups, &c., when blanched a little by earthing up like celery; raised by seed in spring and summer, either in drill rows to remain, or transplanted five or six inches apart in shallow drills, fifteen or eighteen inches asunder.

*Angelica*; a plant of large tall growth, its young tender shoots in spring and summer to candy, &c.; raised by seed sowed in spring or autumn, for transplanting in summer, two or three feet asunder.

*Anise*; a small portion of this is sufficient for a large family, being only cultivated for a garnish, and some time used for seasoning.

## B

‡ *Balm*, an aromatic family herb, one species, viz.

Common balm.

Propagated by parting the roots, or offset slips, spring and autumn; planted six or eight inches apart.

\* *Basil*, a tender aromatic annual herb for salads and soups, &c.

Dwarf or bush basil,

Large sweet basil,

Raised by seed in a hot-bed in spring, for planting into the full ground in May.

\* *Bean*, many varieties; very profitable to cultivate several full crops annually, for summer and autumn productions, from June till September or October.

Early Mazagan, smallest and most early,

Early Lisbon, small,

Early long-podded smallish middling,

Large long-pod, good middling,

Sword long-pod, of superior length of pod and size,

Broad Spanish, middling large,

Toker, moderately large,

Sandwich, largish,

Windsor broad bean, large,

Kentish Windsor, larger,

Taylor's Windsor, largest,

White blossom smallish middling, a great bearer, and fine sweet eating bean,

Mumford, middling size,

Green nonpareil, smallish,

Dwarf cluster or fan, being of very low growth and small pods, &c.

Red Blossom, middling.

All by seed (the beans) in several different successional sowings or plantings, or at least once every month from November, December, or January, &c., till May, June, or July. — See these different months; but generally the principal crops are planted in January, February, March, April, all planted in rows two to three feet asunder, according to the smaller, middling, and larger kinds; mostly by dibble-planting, two to three or four inches apart in the row, and two inches deep; or smaller kinds, or others occasionally planted in drills: and generally all to remain where planted. See *November*, *December*, and *January*; or any sorts will also succeed by transplanting, as may be occasionally required.

*Beet*; useful culinary plants several varieties, some for their root, and some for their leaves, viz.,  
 Red beet, for its root, of which there are,  
 Long rooted,  
 Short or turnip rooted.

The roots are large, deep red, and fleshy, used for pickling, and boiled to slice in salads cold, or to eat alone with vinegar, &c., raised by sowing every spring, in February or March, &c., to continue in full growth all summer for autumn and winter; sowed either broadcast, or in drills a foot asunder; all to remain where sowed, and thinned ten or twelve inches distance.

Green beet,

White beet,

Both these two last for their leaves to boil as spinach, and for soups, &c., in spring, summer, autumn, &c., and the thick fleshy leaf stalks of the white sorts also to dress like asparagus. Raised by seed every spring, and occasionally in summer and autumn either in drills a foot asunder, or sowed broadcast, and the plants thinned accordingly; all to remain where sowed, or some occasionally transplanted in young growth in rows.

Mangel wursel, or great rooted German beet. The root very long and large, with large long leaves; but the leaves only are estimable for household occasions in summer and autumn, &c., to boil as greens or as spinach, and the stalks of the leaves dressed in the manner of asparagus; is sowed in the spring and summer in drills as the green and white sort, to remain or occasionally transplanted. But in the first introduction of this sort into this country, a few years ago, a pamphlet was published on its superior merits and method of culture, &c., with great encomiums on its root,

called the *Root of Scarcity*: it, however, is only a mongrel variety of the red and green beet, &c., and its root not palatably relishing in any culinary preparations for the table; that it is better adapted to field culture for its large root to feed cattle.

*Borage*; a family herb, to use on different occasions; one sort only, viz.,

Official, or common borage.

The young leaves are used in salads, soups, &c., and the leaves and flower-shoots in negus, or cool tankards, in summer and autumn; is raised by seed in spring, summer, and autumn, to remain; and thinned from six to twelve inches distance.

† *Borecole*; sometimes called Scotch Kale, plants of the open cabbage or colewort kind, with a tall stem, and large head of curly leaves, not cabbaging, but remaining open and loose to the heart. Of hardy growth, to stand for winter greens, and the side sprouts for spring.

The varieties are,

Green borecole,

Brown or purple,

Finely fringed leaved,

Spreading leaved,

Upright leaved.

But the first two are the general common varieties, having generally spreading heads; though the others also rise accidentally from seed, and by care in saving seed from only the best sorts of the respective varieties, may all be continued permanent.

They all grow with a strong upright stem, two or three feet high or more, crowned with a large head of open leaves, more or less fimbriated crumply, or curled, and are excellent hardy open greens for winter, &c., are all raised every year from seed sowed in March and April, and planted out in sum-

mer two or three feet asunder.—  
See the spring and summer months.

§ *Broccoli*; plants of the *brassica* or cabbage tribe, not cabbaging, but producing a compact central head formed of the advancing flower and seed buds, in the manner of a cauliflower; most excellent eating, acquiring useful growth for the table the latter end of autumn and in winter, and in superior perfection in the spring, in large full heads, consisting of several varieties, viz.

Early dwarf purple to sow early for autumn production,

Early green,

Large late purple for main crops,

Dwarf late purple, spring,

Late green,

Brown,

White, or cauliflower broccoli, of great similarity to a cauliflower, and scarcely inferior for eating.

They are plants of much estimation for their fine central heads aforesaid, of most tender and delicate eating, and proper to cultivate in principal crops; all raised every year from seed in the spring, and early part of summer, in three or four sowings, from March and April to the end of May, for early and late production of proper full heads, from October or November, till April or May following; planted out in summer, in best rich ground, in rows, two to three feet asunder.

† *Burnet*; a small culinary and salad herb, with pinnate evergreen leaves of a warm relish; used in winter and spring salads and other occasions; raised by seed in the spring, and slipping or parting the roots in spring or autumn; planted six to twelve inches asunder.

## C

**CAPSICUM**, for its seed-pods of a

hot spicy nature to pickle, &c. consisting of several varieties, viz.

Long-podded,

Heart-shape,

Bell-shape,

Angular podded,

Round short-podded,

Cherry shaped, &c.

Are all tender annuals, to be sowed in a hot-bed, March or April, and planted out in May, or early in June, a foot distance, and will produce plenty of pods green and ripe, for use in July, August, and September, &c., being first green, and ripens to a bright red colour; some yellowish.

† *Cabbage*, a plant of superior usefulness at all seasons, both in its headed cabbaged growth, and its open colewort state; and should be cultivated plentifully in principal crops in all gardens, for summer, autumn, winter, and spring supply of a family and market; and consists of several varieties, viz.

Small early dwarf,

Early dwarf Yorkshire,

Large early Yorkshire,

Early dwarf sugar-loaf,

Large sugar-loaf superior for main crop,

Battersea, early,

Imperial, early,

Early Russia,

Early Antwerp,

Early Lewisham.

Of the above, any or some of each of the first three or four sorts for the forwardest early crops; but most of the large York and large sugar loaf and any of the last four sorts, are superior for the principal early and general summer cabbages; of the large York and sugar loaf aforesaid, the imperial, and Antwerp, are excellent for a general summer supply, and a continuance for autumn, &c., all sowed both in the spring, February, March, April, to obtain ma-

turity the same year; and sowed in August to remain in young growth all winter for the early and first general summer crops next year, and succeeded by the spring-sowed, as above, and the following larger kinds for autumn and winter.

Large oblong hollow,

Long-sided, hollow,

Large white, round.

These last three are large autumn and winter cabbages, in September, October, and November, &c. sowed both in the spring, February, or March, &c., to cabbage the same year in autumn and winter; and sowed early in August to remain in young growth till next spring, then planted out to cabbage sooner the following autumn, and in larger growth than the spring-sowed crops.

Red Dutch, principally for pickling, or to shred raw as a salad, in autumn, winter, and spring.

This, in the true sort, is of a very deep or dark red; with thick fleshy leaves, cabbaging very hard; is sowed in August to plant out in spring for the principal crops next year, to cabbage large and effectually in full perfection the following autumn and winter, and sowed in spring to plant out early in summer for cabbaging the same year in autumn and winter, but not so fully as the autumnal sowed plants, as above.

Large Scotch winter cabbage, most large, principally for field culture to feed cattle.

Large drum cabbage, also very large, flat-headed for the same use as the last.

Both sorts are sowed in the spring to cabbage the same year in autumn and winter; and in August for next year, to cabbage in larger full growth in the above seasons.

In the foregoing cabbages in general, observe generally, in sowing the

main crops, always to adopt a principal sowing of the desirable or particular sorts intended, early in autumn (beginning of August), to stand over the winter in young growth, to plant out in the spring, to come in for the early and first and general principal crops the following summer and autumn; that is, generally sow for this occasion in the early part of August, or not later than from about the fifth or sixth to the tenth or twelfth of that month; for if sowed before August, many would be apt to run for seed in the spring in their young open growth, and thereby disappoint you of a full crop; and if sowed later than the time above specified, the plants would not generally acquire good size and strength to stand the winter effectually.

And to succeed the above, or in case of their being much cut by the severity of the winter, or that none were sowed or raised in autumn, or as may be required, it is proper always to sow also some in the spring, in February, or March, or April, to plant out in May, June, &c., to come in for succession cabbages, or general crops, cabbaging the same year in summer and autumn till winter.

Or, likewise, when required to have a succession of young light cabbages continued in the autumn season, August, September, October, and till winter, may sow in May or June and July; and also at the same time may sow some proper sorts for open cabbage coleworts for autumn and winter, and early spring supply; but not to sow before the beginning of August for the general crops of continuing spring coleworts to stand throughout that season without running, which would most generally be the case if sowed sooner.—See *Colewort*.



**Cabbage Savoy.**—See *Savoy*.

Turnip-rooted cabbage, having a large turnip-like bulb under ground. Turnip-stalked cabbage, with the bulb above ground.

They are of the open colewort tribe, the leaves not cabbaging to a close head; the turnip-like swelling part grows very large, but is seldom used domestically, or only occasionally when young, and are principally for field culture; or a few in gardens for variety, sowed in the spring, &c., and transplanted early in summer.

**Cabbage colewort.**—See *Colewort*.

**Cabbage**, sea beach, or sea colewort; a plant of the perennial tribe of open spreading growth, estimable for its young blanched shoots arising from the roots in the spring; grows naturally on some of our sea-shores, but cultivated in gardens, consisting of only one species, called by the botanists *Crambe maritimum*, or sea cabbage.

Is cultivated for its young shoots aforesaid, rising from the roots through the earth in the spring, &c. thick, close, and fleshy, blanched white, tender, and good, if cut in young close growth: the leaves growing large and spreading, never cabbage; is raised by seed in the spring, sowed either in drills to remain, or for transplanting in rows, one to two feet asunder.—See *March* and *April*. Will also grow by cuttings of the root.

**Cardoon**; a biennial plant of most large upright growth, three or four feet, in the manner of artichokes; in request in some families for its large, thick, fleshy leaf-stalks, when blanched by earthing up in advanced growth; attaining perfection end of autumn and all winter till spring; is of the artichoke family, by the botanists called *Cynara Cardunculus*, or cardoon.

It is raised from seed sowed annually in the spring, March or April, for

transplanting in June, &c. four feet asunder, both to have full scope for its large growth; and proper space of ground between for landing them up two feet or more, to whiten of that length.—See *March*, *April*, and *June*, and following months till *October*, &c.

† **Carrot**; a valuable useful esculent root, is of biennial growth, attainable at all seasons of the year; first in young and middling growth in May, June, and July; large in August and September, and in largest full growth in October, &c. continuing good all winter till April or May following, and should be cultivated plentifully in principal crops; two varieties, viz.

Common orange carrot, being of an orange colour; most large long root, proper for the main crops.

Early horn carrot; short, smaller root, for early crops.

Of the above two varieties, the first is superior for general culture and the principal main crops, preferable for its long large growth in the root; and the second to sow occasionally for smaller early crops; both sorts sowed in the spring, February for early, and March and April for main crops; and to sow in May and July, &c. for successional young carrots in summer, autumn, winter, &c.; also a sowing the beginning of August to stand the winter, in young growth for early young spring carrots in March or April, &c. all sowed in light, deep mellow ground, broadcast, and rake it in with good regularity; and the plants thinned in May and June, &c. three or four to six or eight inches distance in the different crops, some to draw young, and the main crops to stand for large full growth, and thinned to a proper distance accordingly, to continue in increasing growth in the root till the end of October; then taken up, and housed in sand for

the winter.—See *October* and *November*, &c.

*Cauliflower*; a plant of the *brassica* or cabbage tribe, of general estimation, and considerably profitable to cultivate in principal crops, for its large, white, central flower-head, arising in the middle of the surrounding leaves, formed of the advancing young flower-buds, in a close firm cluster of large circumference; most excellent eating; obtained in summer, autumn, and winter, from May, or June, till December; but in superior perfection in June, July, and August; consisting of two varieties, viz.

Early,—for the first early crops,

Large late,—that is probably, only a few days later; proper, for the general main crops.

They are raised in successional crops by sowing in autumn, spring, and summer,—that is, sowing the early and main summer-crops towards the latter end of the third week in August, to stand the winter in young growth. Some planted out in October under hand glasses, others in frames, &c., to plant out in spring; all for the general early and principal main crops next summer; and a sowing in the spring for later or succession crops the same year in July or August, &c. Likewise a sowing in the fourth week in May, to plant out in July for the Michaelmas and winter-crops in October, November, and December.—See the work of the spring, summer, and autumn months.

§ *Celery*; a desirable salutiferous plant, of the annual-biennial kind, essentially requisite to cultivate in some tolerable plentiful supplies, in two, three, or more different crops, successional; for use in autumn, winter, and spring, or from July or August, till May or June following, being excellent and wholesome for salads, soups, stewing,

&c., when properly blanched by planting in trenches, one row in each, and earthing up in its advancing growth, consisting of the following varieties:

Common upright Italian, for main crops,

Solid-stalked upright,

Large upright,

Turnip-rooted spreading, or celeriac, the bottom swelling like a turnip, the principal useful part.

All raised every year from seed, in two or three different sowings, March, April, and May, to have proper succession; and transplanted into foot-wide trenches in summer and autumn, one row in each, four or five inches apart, and the trenches a yard asunder; and in advanced growth earthed up by degrees ten or twelve, to fifteen or eighteen inches or more, to blanch or whiten that length.

‡ *Chamomile*; a small perennial herb of the aromatic tribe; for its flowers to use occasionally in a simple medical way, in a family, such as for chamomile tea.

Common single flowered.

Double flowered.

There is, I believe, no very material difference in the essential virtue of the single and double flowers, though some prefer the single; but the double is most commonly cultivated. Both sorts are propagated by parting the roots, spring or autumn, and planted in beds, &c. a foot asunder.

\* *Chervil*; a small annual herb of aromatic property somewhat similar in growth to parsley; its leaves for soups, salads, &c., sowed in spring and summer; and in autumn both for use in that season, and to stand the winter; mostly in drills, all to remain.

‡ *Cives*, or *Chives*; a small useful perennial herb of the onion-tribe, growing in close, tufty bunches; estimable for its leaves and small

offset bulbous roots and top together, like young onion cibs, in spring, &c., to use in salads, or alone, and for culinary occasions, raised by parting the roots, spring or autumn, detaching several small roots together in each slip, and planted six to twelve inches asunder.

† *Clary*; a biennial aromatic herb, with largish spreading leaves; sometimes used in culinary and other domestic occasions; raised by seed in the spring, and transplanted in summer, six inches to a foot apart.

† *Coleworts*; open greens of the cabbage tribe, consisting both of the common open colewort kinds, such as never heart or cabbage; and of the cabbage colewort, in young open plants raised from the seeds of any of the common close heading cabbages, greatly superior to the others; the sorts are,

Common open green colewort, not now much estimable for garden culture,

Borecole open colewort,

Cabbage colewort; superior to all for general culture in the colewort order, in young open green plants, or of small close-hearting growth; bolts most tender and sweet; and preferable to cultivate both in family gardens and market-grounds.

As therefore, the cabbage coleworts are the most tender and sweet eating, should generally be adopted; being such as raised from the seeds of any of the quick-hearting close-growing summer cabbages, such as the sugar loaf, Yorkshire, Battersea, Russia, Antwerp, &c. sowed for coleworts, in June, July, and beginning of August, for autumn, winter, and spring supply: or may also sow in spring and summer, occasionally, to continue a succession of green small-hearting young plants, or in small light cabbage growth. (See *Cabbag* 'n this list).

All to be transplanted in rows ten or twelve to fifteen inches asunder.

\* *Coriander*; an aromatic annual herb, in growth like parsley; its leaves used in soups, salads, &c. and its seed in other domestic occasions; raised by sowing in spring, summer, and autumn; to have a continuing succession; the plants remain where sowed.

\* *Corn Salad*, or lamb's-lettuce; a small annual plant of three or four inches' growth, used as a substitute for common lettuce in winter and spring salads; sowed in July or August, and September, to stand the winter, &c. and remain where sowed.

\* *Cresses*; a principal small salad herb; an annual of short duration; estimable for spring and summer salad, or is attainable at any time or season required, by sowing once a week, fortnight, or month, &c.; consisting of the following varieties, viz.

Common plane-leaved, for general culture,

Curled-leaved,

Broad-leaved.

By seed in several sowings for succession, spring, summer, and autumn, or any season required; once a week, or fortnight, &c. to obtain it in young growth; generally in small drills, two or three inches asunder, or in broad-cast all sowed very thick, and but lightly covered in with the earth.—See small salad in this list.

\* *Cucumber*; a most tender annual plant of long trailing growth, noted for its abundant production of fruit in long continuance in spring, summer, and autumn, obtained by aid of hot-beds in its early spring and summer culture till June; will then stand the full air, and may also then be sowed or planted in the natural ground to produce fruit in August and September: several varieties, viz.

Early short prickly,  
Early long prickly,  
Most long green prickly,  
White prickly,  
Long green Turkey,  
Long white Turkey.

The cucumber being one of the most tender exotics of the kitchen garden, is sowed and raised in hot-beds from January, or February, till June, to obtain early fruit in March, April, and May, &c.; and although the plants will grow in the full air by the middle of June, it is proper to continue the occasional protection of frames and glasses in some principal beds, to extend the successional production of fruit throughout the summer; and by sowing in the natural ground, the latter end of May or beginning of June, produces full crops in August and till the middle of September: when, generally, the cold damp nights, and strong autumnal dews and rains, terminate the good production of all cucumbers exposed to the full air; or by continuing some of the bed crops, protected under frames and glasses from inclement weather at that time, adding a small lining of warm litter round the outside of the bed, to give a little bottom heat, they will continue in moderate production till the end of October, &c.

## D

\* **DILL**; an aromatic annual herb, similar to fennel, a species of the same genus; its leaves and seed-umbels, in summer used in pickling cucumbers, &c. and on other occasions, raised every year from seed, sowed in the spring, or, occasionally, in autumn, in drills, to remain.

## E

§ **ENDIVE**; estimable for its stocky

head of blanched leaves for autumn and winter salads, &c., three varieties, viz.

Green curled, preferable for the main crops,  
White curled,

Batavian broad-leaved, good for autumn, and early part of winter, for stewing, soups, salads, &c., but will not stand the winter effectually.

All raised by two or three different sowings from May, or beginning of June, to the end of July, or beginning of August, to have succession all autumn and winter; but if sown earlier than May or June, they go to seed the same summer, before having mature growth; that if any are occasionally wanted in early growth, in summer, may sow some white-curbed in March, April, &c., but they will soon run. All the sorts transplanted a foot to fifteen inches asunder.

## F

‡ **FENNEL**; for its aromatic leaves in various culinary occasions.

By seed, and slipping the roots, spring or autumn.

\* *Finochio*, or French fennel; for soups, salads, &c., when the bottom part is blanched, by earthing up.

By seed in different sowings, and transplanting, in spring and summer, in drills, two feet asunder.

## G

|| **GARLICK**, for its bulbous root, useful in various domestic occasions.

Raised by parting and planting the cloves of the root in spring, in rows six to nine inches asunder, and two deep, attain perfection in July and August; then to be taken up and housed for keeping.

\* *Gourds*, &c.; tenderish annual plants, of long, strong, trailing growth, producing fruit in great variety in shape, size, colour, &c.; sometimes used in culinary purposes both in young green growth, and when at full maturity; consisting of

Orange-gourd,  
Pear-shaped, green and striped,  
Round, yellow, or lemon coloured,  
Round stone-coloured,  
Rock or carbuncled;—and of various other shapes, sizes, and colours, small, middling, and large.

Pompion, or Pumpkin; most large, round, oblong, &c.

By seed, in a hot-bed in April, for transplanting, into the natural ground, in May; or also, sowed at once in the full ground in May aforesaid, when warm settled weather, planting or sowing the smaller sorts against some fence or railing, &c., upon which to train the plants and the larger kinds; sow or plant in any open, sunny, space, to run upon the ground, will all produce fruit in July, August, &c.

## H

‡ *HYSSOP*; a hardy perennial aromatic plant, of low, under-shrubby growth; its young leafy shoots and flower spikes used occasionally, in culinary and other household purposes, in a family; is raised, from seed, in the spring, and by slips and cuttings of the young shoots, April, May, and June; also, by bottom offsets planted six to twelve inches apart, or on an edging.

## K

\* *KIDNEY-BEAN*, or French-bean; a useful summer esculent,

in its young seed-pods, many varieties, viz.

*Dwarf kinds.*

Early white dwarf,  
Early liver-coloured dwarf,  
Early dun-coloured dwarf,  
Early red-speckled dwarf,  
Black-speckled dwarf,  
Streaked dwarf,  
Battersea white dwarf,  
Canterbury dwarf,  
Tawny dwarf,  
Negro or black dwarf,  
Yellow dwarf,  
Large white dwarf.

*Note*,—the colours in the above denote that of the seed-beans of the respective sorts.

*Runners, or climbing kinds.*

Scarlet runner; a great bearer, in long continuance; preferable for the main crop of runners.

White runner; similar to the scarlet in growth and bearing, only the blossom is white, but the pods are alike, though the ripe beans are also white, like the blossom,

Long-podded white Dutch runners, producing very long smooth pods, Canterbury and Battersea, small white runners.

They are sowed annually in different crops; the dwarf sorts in April and May, for the early and first main crops, and in June and July, and beginning of August for succession bearing from June till October; and the scarlet and other runners, sowed in the latter end of April, or in May and June, and will continue in production from July and August till October; especially the scarlet and white runners.

All sowed or planted in drills, two to three feet and a half asunder, and about an inch and a half deep: or the runners, &c., planted in a single row, against a wall or paling, &c.

## L

**LAVENDER**; common spike, or spike-flowering blue.

It is propagated by slips of the outward young side shoots in April, May, or June, &c., which slip or cut off about six or eight inches long; pull away the lower leaves and plant them in a shady border, inserted two-thirds into the ground, six or eight inches asunder, and watered; and in advanced growth transplanted double or treble that distance in autumn or spring.

† *Leek*; a most useful culinary plant of biennial growth, for autumn, winter, and spring.

Large London,  
Flanders.

Sowed in March, and April, for the main crops, both to remain and transplant.

\* *Lettuce*; a principal annual salad plant, and, for some culinary occasions, in use most times of the year by different sowings; but in greatest perfection in summer, May, June, August, &c., but in smaller growth in autumn, winter, and spring.

Green Cos,  
White Cos,  
Spotted Cos,  
Egyptian Cos,  
Black seed green Cos,  
Brown Cilicia,  
Green Cilicia,  
White cabbage-lettuce,  
Brown Dutch cabbage,  
Large Roman,  
Imperial cabbage lettuce, large and fine,  
Grand admiral, or admirable; a very large cabbage lettuce,  
Hardy green cabbaging,  
Tennis ball,  
Prussian.

Lettuces are obtained at almost all seasons, but in greatest perfection of full growth in June, July, August, and September, till October. They are sowed at different seasons,

February or March, and April, or the main summer crops; and in May, June, July, &c., for succession; and in August and September to stand the winter in young growth, some for use in that season, and the others to remain for early spring and summer lettuces.

\* *Love Apple*, or Tomatoes; for the fruit to use in soups, and to pickle, &c.

Red fruited,  
Yellow fruited.

Are tender annual plants of large spreading growth, sowed in hotbeds in April, for transplanting in May, in the full ground in a sunny situation, or planted and trained against a south wall: and will produce ripe fruit in autumn, large orbicular-round, and mostly ribbed.

## M

‡ **MARJORAM**; aromatic pot-herbs.

\* Sweet or summer marjoram,

‡ Winter and pot marjoram,

Are raised from seed sowed in April, &c., and the winter and pot marjoram also by parting the roots, planted six, or ten, or twelve inches asunder.

\* *Marigold*; the flowers to put in broth, and for medical purposes.

Orange coloured,

Lemon coloured,

Double flowered.

The orange coloured, either single or double, is preferable for use, sowed in spring, summer, or autumn, to remain or transplant a foot asunder.

\* *Melon*; for its large fine fruit of great estimation,

Romana, smallish round,

Cantaleupe large round,

Black rock Cantaleupe,

Orange Cantaleupe,

Scarlet Cantaleupe,

White Cantaleupe,

Polignac,  
Oblong ribbed, netted,  
Smooth green-rindcd,  
Green-fleshed,  
Water melon, very large round  
green-rindcd.

Of the above, the Cantaleupe kinds are in great estimation for their large handsome round size, curious carbuncled rock-like exterior, and rich flavour; though the old Romanana is a good flavoured smaller melon, as also the Polignac: and the others all ripen in very good perfection of agreeable flavour.

The plants are most tender exotics, always raised in hot-beds under protection of frames, lights, hand glasses, &c., sowed in January or February for earliest, and in March and April for general and successional late crops; the fruit ripening in the earlier plants in May, June, and July, and in the others in July, August, and September. See the general directions.

† *Mint*; useful, aromatic, perennial herbs, for culinary and distilling occasions.

Common green, or spearmint proper for various kitchen uses, salads, &c.

Black or peppermint, for distilling only.

They are raised by parting the roots, autumn or spring; by offsets young plants, March and April; and by cutting off the stalks in summer.

† *Mushroom*; a well known culinary plant, of the fungous tribe, viz.,

Red-gilled, or common wholesome mushroom.

There being only one real good salutarious species, distinguished by its reddish lamella or gills underneath, they being always of a fleshy colour, or sometimes, when grown large, are of a blackish red hue externally, but internally reddish; and by which the true

mushroom may be universally known from all the other numerous fungi, which are mostly of a poisonous or doubtful quality.

It is propagated and raised to maturity by its spawny progeny, of a whitish fibrous nature, running in lumps of rotten dung, and in earth; and which spawny lumps being planted in a sort of ridge-form hot-bed, at any season, covered thickly with clean straw, it soon strikes, multiplies exceedingly over the whole bed, and produces plenty of mushrooms in five or six weeks, continuing in production sometimes several months.—See *September*.

*Mustard*; cultivated in gardens, principally as a small salad herb; and in large quantities in fields, &c., for its seed to manufacture.

Common white,

Brown.

Of the two sorts, the white is most adapted for small salading; and for which may be sowed at any season; but for the seed to manufacture, &c., should sow in the spring in drills or broadcast, and the seed will be ripe in July.

## N

\* *NASTURTIUM*, or India-cress; its young leaves and flowers in salads; and its green berries to pickle.

Major, or large running; the best for principal culture.

Minor, or dwarf.

Both sorts sowed in spring or early in summer, in drills to remain.

## O

† *ONION*; one of our most useful family vegetables, obtained at all seasons; in young growth in spring and summer, and in its full

bulbous growth in autumn, both for present use and long keeping in winter, &c., till next year.

Strasburgh or common round, Portugal, large roundish oval, Spanish white, large round orbicular,

James's long keeping, roundish oval,

Deptford, large round,

Reading, or white Portugal.

Either of the above may be cultivated for a full crop of bulbous; sowed the latter end of February or any time in March; but not later than beginning of April, otherwise will not bulb in large growth.

Red Spanish,

Silver-skinned good to pickle.

Both these are also bulbous, but not so eligible for a main crop as the foregoing.

*Welch Onion*, or Ciboul.

This sort never bulbs: but being most hardy to stand the winter, is sowed in August, &c., to stand over that season for young spring onions.

*Tree Onions*; runs up with a tall stem, requiring support; producing clusters of small onions at top, most excellent to pickle, &c.

It is raised either by small offset bulbs of the root, or those produced on the stalk, as above; planted in spring or autumn, is very hardy.

*Orach White*, or mountain spinach, a culinary herb, sometimes cultivated for its large roundish angular leaves, to use as spinach, &c.—

By seed in the spring, summer, and autumn, generally to remain, and the plants thinned.

Curled-leaved, thick and bushy, Hamburg, or large-rooted, for its root to boil.

Of the above, the first two are cultivated as pot-herbs for their leaves; the curled-leaved is preferably esteemed though they are both equally good for use; and the Hamburg sort is raised principally for its large long white root to boil and eat, both as food; and occasionally in a medical way, good for the gravel.

They are all raised from seed in any of the spring months; sowing each sort separate generally in drills, and to remain where sowed; the first two will come in for use in their leaves early in summer, and the large-rooted thinned to six inches, attains perfection in autumn, in its full grown root continuing good all winter, and following spring.

† *Parsnep*; a very wholesome and profitable esculent root for winter and spring; only one species, viz., Common swelling parsnep.

Should be sowed in February or March, or early in April; broadcast, or in drills a foot asunder; and the plants thinned to ten or twelve inches distance, that the root may have room to obtain a large swelling growth; in full perfection in October and November, &c., continuing good all winter and spring till April or May.

*Pease*; good and profitable esculents, to cultivate in several full crops, for their plentiful production, three or four months in summer.

Early Charlton,  
Early golden Charlton,  
Early Nichol's golden,  
Reading hotspur, long pods,  
Master's hotspur, long pods,  
Dwarf marrowfat, large long pods,  
Tall marrowfat, most large,  
Spanish moratto, largish,  
Prussian prolific, great bearer, middling pods,

# P

† **PARSLEY**; a very salutary pot-herb, continuing for use all the year.

Common plane-leaved,



White rouncival, large,  
 Grey rouncival, large,  
 Sugar pea, tall, with large crooked  
 pods,  
 Dwarf sugar,  
 Egg pea,  
 Blue union,  
 Pearl,

Crown or rose pea, of tall strong  
 growth, producing its blossom, &c.,  
 in a tuft bunch at top,

Leadman's dwarf, a great bearer,  
 but very small pods, good for a latter  
 crop, or as required,

Spanish dwarf,

Early dwarf frame pea, for forcing.

Of the above, the first three sorts are  
 proper for the early crops; and of  
 which the second and third are the  
 earliest; but they may all be sowed  
 both for early, and the first and  
 second general main crops; or the  
 fourth and fifth sorts are also very  
 proper for principal main crops, or  
 in succession; and the marrowfats  
 should always be admitted in good  
 full crops in succession to the  
 former smaller pease; the Spanish  
 moratto, Prussian, and rouncivals,  
 are also very fine for secondary main  
 crops, or as thought eligible for  
 variety and of the other sorts may  
 also be introduced occasionally.

In the culture of pease, the princi-  
 pal sorts are sowed in several  
 different crops from November,  
 December, or January, &c., till  
 June, July, or beginning of Au-  
 gust, to have regular succession  
 the whole season, beginning first  
 with any of the early sorts in one,  
 two, or more crops, at about a  
 month's interval; then either con-  
 tinue these in longer succession, or  
 some of the other sorts in the same  
 order; not omitting two or three  
 principal crops of marrowfats,  
 beginning in January, February,  
 or March; and any of the others  
 in secondary crops, for variety as  
 may be required; they must always  
 be sowed in drills, two feet and a

half, to three feet or three and a  
 half asunder, in the smaller and  
 larger sorts.—See the work of the  
 different months, as above.

*Pennyroyal*; a small creeping  
 high-scented aromatic herb; its  
 leafy young shoots in various  
 cookery uses; and when in full  
 summer's growth, to distil for  
 pennyroyal water: raised plenti-  
 fully by slips, offsets, or parting  
 the roots, spring or summer, &c.,  
 planted six inches asunder, to re-  
 main watered.

*Pompion*, or Pumpkin. See *Gourd*.

\* *Potatoes*; a superiorly profitable  
 esculent root, for general culture  
 in principal full crops; attainable  
 for use almost the year round; being  
 planted in the spring, and comes  
 in for use in young and middling  
 growth the same year in summer,  
 and in large full growth for general  
 use in autumn and all winter till  
 spring and summer following; and  
 which is a most valuable useful  
 family esculent, that may be cooked  
 in various different ways; and  
 when thoroughly well boiled, baked,  
 or roasted, &c., is good and whole-  
 some; is a species of *Solanum* or  
 nightshade, called by the botanists  
*Solanum tuberosum*, or tuberous-  
 rooted night shade; commonly  
 called potatoe, of the following  
 varieties:

Early dwarf,  
 Early champion,  
 Large round white,  
 Large oblong whitish red, or red  
 nosed kidney,  
 Common kidney,  
 Small white kidney,  
 Round red,  
 Large round dark red, most ex-  
 cellent, but now almost lost to  
 general culture.

All the sorts are propagated or  
 raised by cuttings of the root, that  
 is of the potatoe itself; choosing  
 the finest of the respective kinds  
 of middling size; cut them into

several pieces or sets, each having one or two eyes, and to be planted in the spring, generally in March and April, when settled mild weather; planting them by dibble or in drills or trenches, &c., in rows two feet asunder, by eight or ten inches distant in the row, and three or four inches deep: they will come up in May, and increase by the root, for some early kinds to take up, in small size, in June, or July, &c.; but let the main crops continue in full growth till October or beginning of November, then forked up and housed for use in winter and following spring, &c., or till the production of new young potatoes the ensuing summer.

Potatoes are also occasionally raised from seed of the small fruit produced on the stalks ripe in autumn, by which to gain new varieties. Sowed in the spring.

\* *Purslane*; small succulent herbs for salads, and some culinary uses. Green,  
Golden.

They are sowed on a hot-bed, or under glasses in the spring; but in warm settled weather may be sowed in the open borders; two or three sowings to have regular succession, to remain where sowed.

## R

\* **RADISH**, a desirable esculent root for eating raw in spring, summer, and autumn; and some sorts also in winter.

Early short-topped purple,

Common red,

Early short-topped, salmon-coloured,

Common salmon,

Turnip-rooted small white,

Short-topped, white turnip-rooted,

Turnip-rooted, small red,

Large black turnip-rooted, or Spanish, for autumn and winter.

Of the above different sorts of radishes, the common long or

spindle-rooted are most eligible for the general principal crops, raised by several different sowings at three or four weeks' interval from January or February, &c., till May or June, to obtain a constant succession all spring and summer, or may continue moderate sowings in July or August and September, to have young autumn and winter radishes till November, &c.; and of the turnip-rooted, the first two sorts may be sowed in the same seasons, as secondaries in smaller crops, or as may be required, as they are of nest growth and most delicate eating, especially the white kind; and the large black Spanish turnip-rooted is sowed principally in June or July, and beginning of August, to come in of proper growth for autumn and winter eating, being hardy to stand the weather; is sliced in salads, or eat alone occasionally with salt, vinegar, &c.

In sowing the common or long-rooted kinds generally allot the short tops for the early and first and second principal crops; the others in succession; and generally prefer some principal sowings of the salmon radish for succession and latter crops in spring and summer, &c., all sowed broadcast, and the young plants thinned two or three, to six inches.

Radish is also adopted to sow as a principal small salad herb to cut young in the seed leaves as cresses and mustard, &c.—See *Small Salading*.

§ *Rape*, or Cole; principally sowed as a small salad herb, in garden culture, and in fields to attain full growth for cattle, and to produce seed for rape oil, birds, &c.

It is sowed for small salading in spring, summer, or any season; and to attain full growth if sowed in the spring and summer broadcast or in drills; either to remain

where sowed and thinned, or transplanted.

‡ *Rosemary*; a shrubby evergreen, of the aromatic kind; sometimes cultivated in a few plats for its young leafy and flowery shoots to use in a family on some medical occasions, and at funerals, &c., to prevent infectious disorders.

Common green, the principal sort.

Stripe-leaved.

It is raised by slips or cuttings of the young shoots in spring and summer; planted in a shady border and watered, and when of advanced growth, transplanted as required.

‡ *Rue*; a shrubby bushy evergreen aromatic; a plant or two, or as required, for its leaves in domestic medical occasions and to give to poultry when disordered.

Raised either by seed or by slips or cuttings as intimated above for the rosemary.

## S

‡ *SAGE*; an useful aromatic of under shrubby growth for its leaves in different kitchen uses, and for sage tea, &c.

Common red for principal kitchen uses,

Green, good also for some occasions, Small-leaved green, sage of virtue, or tea sage, &c.

Broad-leaved balsamic; estimable for similar purposes.

They are all hardy evergreen plants, for use all the year, raised by slips of the young shoots in April and May; but most successfully in May and June, of the young side shoots of the year, slipped or cut off about five or six inches long, divesting them of the under leaves, plant them in a shady border six inches asunder; or if to remain in the same place to full growth, set them twelve inches distance, inserting them quite down to the top leaves;

and water them directly.—See *May* and *June*.

*Salad Herbs*; various sorts are occasionally used; but the principal sorts are lettuce, endive, celery, and small herbs, such as cresses, mustard, radish, &c., though several others are occasionally used as secondaries in composition with the above, such as corn salad, mint, tarragon, chervil, coriander, purslane, burnet sorrel, borage, nasturtium, young onions, and radishes, and sliced red-beet root; also red-cabbage raw, shred small, but mostly used alone; likewise watercress, both in commixture and simply; but as the above secondary salad herbs, &c., are rarely or never all used at one time in a salad, have only mentioned them as what are occasionally required in different families, more or less of some particular sorts, according to the peculiar relish of different palates; and as they are also useful on other occasions, should have culture in all principal kitchen gardens.—See intimations of the different sorts in this general list; and the works of the different months for their general culture, &c.

† *Salsafy*; for its long carrot-shaped white root, to boil; also the young spring shoots of year-old plants, to dress like asparagus.

Sow the seed in March or April and May, for first and successional crops; either sowed broadcast or in drills, and the plants thinned six inches asunder; the roots will be ready for drawing in July or August, September, &c., and remain good till the following spring.

|| *Savory*; a noted aromatic potherb. Summer savory, or also to dry for winter.

Winter savory, for use green all the year,—or to cut and dry for winter keeping.

They are raised by sowing their

seed in spring, and transplanted in summer: and the winter savory also by bottom offsets and slips of the young shoots in spring and summer.

† *Savoy*, or Savoy cabbage; a most excellent plant for autumn and winter, cabbaging with a large full, firm head,

Green curled savoy

Yellow curled,

Round-headed of each,

Sugar-loaf headed ditto.

They are sowed in March, April, and May, and planted out in June, July, and August, in rows two feet and a half asunder, and will be fully headed in September, October, and November, continuing good till spring; then go to seed.

§ *Scorzonera*; for its long largish root, to boil.

Is raised by sowing the seed in April and May, to have proper succession, as the early sowed sometimes run to seed the same year; may be sowed either broadcast, or in drills a foot asunder, and the plants thinned accordingly; the roots will be in full growth, for autumn and winter.

|| *Shallot*; a small bulbous-rooted plant of the onion tribe; the root, the usual part, is of much estimation, both in culinary purposes, and to use raw at table, cut small and used as sauce to roast, broiled or fried fresh meat.

It is propagated and raised by dividing the large roots into separate offsets, and planted in spring, or in October or November, six or eight inches asunder, and two deep; and the root attains full growth in July or August, when being taken up, dried, and housed, keeps good till next year.

‡ *Skirret*; for its small longish divided root, in summer, autumn, and winter, &c., to boil.

May be raised both by seed sowed in the spring in drills, and the plants

thinned to six inches; and by side offsets of the old roots in spring and autumn.

|| *Small saladings*; consists principally of the small seedling herbs, as cresscs, mustard; radish, and rape, to use when quite young in the seed leaves, of but a few days or a week or two old, generally in mixture with lettuce, endive, celery, &c., and occasionally alone in the spring season, when the other salad plants are deficient; likewise sometimes white cabbage lettuces are sowed to cut young as above for small salad, early in the spring.—See each sort in this list, and their general culture in the several months.

‡ *Sorrel*; a noted potherb of perennial growth: its leaves for use at all seasons, in soups, sauce, salads, &c., consisting of the following varieties:—

Common long arrow-pointed leaved, Round leaved French.

They are raised by seed in the spring, and transplanted; and plentifully by parting the offsets of the roots in spring or autumn, planted a foot asunder.

*Soup Herbs*, consist of leeks, celery, endive, white and green beet, spinach, lettuce, turnips, parsley, mint, tarragon, sorrel, hurnet, borage, savory, marjoram, thyme, coriander, basil, purslane, chervil, fennel, dill, pennyroyal, clary, &c., though these are seldom wanted all at one time; yet as they may all be required on different occasions, they are proper for culture in every principal garden.—See the different sorts in this general list, and their culture in the different months.

*Spinach*; an estimable culinary plant, obtained for use at most seasons of the year: the sorts are, Triangular-leaved, or prickly-seeded, to sow in autumn for winter and spring supply,

Round-leaved, or smooth-seeded, to sow in spring, &c., for summer use.

Mountain spinach, different from the above, but very good for similar uses; having large thick leaves.

—See *Orach*.

Of the above kinds, the triangular-leaved is sowed the beginning or middle of August, to stand for winter use and following spring till May, as being the hardiest to bear the inclemency of the winter weather; and the round-leaved, of a more thick succulent nature, most liable to injury from severe cold and wet, is sowed in spring, February, March, and April, for summer use, to cut in May and June, &c., and may also be sowed in the two latter named months and July, to continue the succession during the summer and autumn seasons till September; for as the spring and summer sowings, after attaining full growth, soon run up for seed the same summer, that a repetition of different sowings is necessary, but the winter crops sowed in August stand till next April or May before they run.

They are sowed, the main crops mostly broad-cast and raked in and the plants thinned to three, four, or five inches distance; or, if left closer, may be thinned out by degrees for use,—especially the winter standing crops in spring; or some spring and summer crops may be occasionally sowed in drills a foot asunder.

The Mountain spinach may be sowed as above or more generally in spring and summer.

## T

‡ TANSY; a strong-flavoured aromatic herb for different kitchen uses; propagated by slips or offsets of the root in spring or autumn,

and planted a foot or eighteen inches asunder.

‡ *Tarragon*; fine-flavoured aromatic plant, to improve the flavour of soups and salads, raised by cuttings of the stalks in May and June in a shady border, and by bottom offsets in spring.

‡ *Thyme*; a well-known sweet-scented aromatic for various kitchen uses, of small under-shrubby growth, green for use all the year. Common green,

Lemon-scented yellow.

But the first is that for general use, and is raised by seed sowed in April, either in broad-cast or in drills for transplanting in summer, or in drills to remain—and both sorts also by parting the roots and by top slips in the spring, planted six inches to a foot asunder, or some in close edging.

§ *Turnip*; a valuable salutarious root, very profitable for general culture in full crops, for summer, autumn, and winter; and its young short tops in spring are tender and sweet boiling greens.

Early Dutch white, of moderate or middling size, proper for the early or general crops in gardens.

Round white, very good for general or main crops,

Stone turnip,

Large round white Norfolk, proper for large crops,

Large round, green-topped ditto,

Large round, red-topped ditto,

Tankard, large oblong, very good,

French small-round,

French long-rooted,

Black Russia, very hardy for winter,

Swedish, also very hardy,

Yellow oblong, very good,

Small red round, more for variety than for any principal crop.

They are raised by sowing in spring, summer, and early part of autumn, but for general culture allot the first three, four, or five principal sorts; generally the Dutch kind for an

early and first main crop; sowed in March and April, for drawing young in May, and of larger growth in June; therefore, as the early spring sowed soon run to stalk for seed the same year, larger supplies for succession standing crops should be sowed the latter end of April, or more fully in May, and beginning of June, for the general summer supply and part of autumn; and for the main autumnal and general winter standing crops, both in gardens and fields, should sow more largely towards the latter end of June, and in July to come in for use in full growth in September, October, and November, &c., and continue till following spring; then will all shoot for seed; or may also sow smaller portions in the early part or first fortnight of August, to stand for spring, longer in that season before they run.

All the sorts of turnips are generally sowed broad-cast, moderately thin, and raked in with careful regular-

ity; or for large crops in extensive grounds and in fields, are light harrowed in and rolled; and as they all remain where sowed, the plants when in leaf, an inch or little more broad, must be thinned or hoed six or eight to ten or twelve inches distance, or more, in the smaller middling, and larger sorts, that the root may have proper scope to swell in full growth.

## W

‡ **WATER-CRESS**; a very wholesome salad-herb; but is rarely cultivated as the plants grow naturally in great abundance in most shallow waters near running streams, &c. However some large plants drawn out in autumn or spring, with full roots, and cast into any shallow waters, situated as above, they will strike, grow, and disseminate their seed, and multiply in plenty of young plants.

It will be observed in the foregoing List, that the annuals, biennials, and perennial kinds, are separately distinguishable at sight by the marks annexed to their names.

The annuals being but of one season's duration, are raised every spring and summer from seed, attain mature perfection, ripen seed if permitted, and wholly decay the same year in autumn, as in lettuce, spinach, radish, beans, pease, kidney-bean, cucumber, melon, cauliflower, small salading, &c. Some sorts, when not sowed till autumn, August, and September, stand over the winter till next spring and summer, as in spinach, lettuce, cauliflower, &c.

The biennial kinds, or two year plants, being raised from seed one year, continue till the second, then decay; and therefore must be raised every year from seed, sowed in the spring and summer, and the plants attain full growth the same year and mostly continue good for use till the next spring, then go to seed and wholly perish, as in cabbages, savoys, broccoli, coleworts, carrots, parsneps, turnips, beets, onions, leeks, celery, endive, parsley, &c.; and some when not sowed till autumn continue in advancing young growth all that season, and winter, till spring and summer following, then attain proper maturity for use, earlier or later in those seasons, in the different sorts such as cabbages, cauliflowers, coleworts, onions, young spring carrots, spinach, &c., and of which the cabbages in particular, attaining full cabbaged growth in summer, remain good till the spring following before they go to seed and decay; others being of an annual-biennial nature (§), that if sowed early in spring, &c., grow to maturity, more or

less, in different sorts, the same year in summer or autumn; and some soon after either go for seed, or become past good perfection for use, as in cauliflower, broccoli, turnips, celery, endive, spinach, &c.; but sowed later in the season, such as celery and broccoli in March, April, and May, and beginning of June, and endive in June or any time till the end of July, and turnips in May, June, and July, they all continue for use till the following winter and spring, then run and decay; and the cauliflowers sowed in August stand till next summer, then acquire full growth in their flower heads, produce seed, and wholly perish.

And the perennials being such, as when once raised at any season, either by seed, suckers, offsets, &c., they continue several or some many years by the root, as before intimated, for spring and summer production, as in asparagus, artichokes, fennel, mint, balm, &c.

Likewise some are annual-perennial, that although they continue perennial by root offsets, yet require to be new planted every year, such as potatoes, Jerusalem artichoke, garlic, shallots, mushrooms, &c., as formerly intimated.

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LIST OF AROMATIC, POT, AND SWEET HERBS.

As in the foregoing List, and in the works of the Kitchen Garden, the appellation aromatic often occurs, under the names of particular plants of that quality, they are such as impart a strong grateful odour and savoury taste, as in sage, mint, fennel, marjoram, savory, thyme, pennyroyal, dill, basil, &c., and are many of them used as small pot-herbs, and in sauces, stuffings, and other uses in cooking; some also in salads, and for distilling, and some in a simple medical way in a family; and as only small portions are wanted in private use, need only cultivate a small quantity of each accordingly; generally together in a distinct compartment allotted for an herbary; particularly the following principal sorts:

Thyme,	Coriander,	Borage,
Marjoram,	Savory,	Balm,
Mint,	Hyssop,	Lavender,
Sage,	Fennel,	Angelica,
Pennyroyal,	Dill,	Clary,
Peppermint,	Chervil,	Chamomile,
Tansy,	Paraley,	Or also some plants of
Tarragon,	Sorrel,	rue and rosemary.—
Pot-marigold,	Burnet,	See the <i>General List</i> .
Basil,		

For some descriptive intimation of their respective growths, properties, uses, and culture, see the foregoing General List, and the works of the spring, summer, and autumn months

## LIST OF SHRUBS AND TREES,

Cultivated in most of the common Nurseries, in England; for the furnishing Noblemen and Gentlemen's Gardens and Plantations.

*First, of the deciduous kinds, which are those that shed their Leaves in Winter.*

## TALLER GROWING DECIDUOUS SHRUBS AND TREES.

- |                             |                              |
|-----------------------------|------------------------------|
| ACACIA.                     | Canada,                      |
| The triple thorned.         | Sugar.                       |
| Ash, common,                | Beech, common,               |
| Flowering,                  | American.                    |
| Mauna,                      | Sycamore, plain-leaved,      |
| White American,             | Stripe-leaved.               |
| Swamp.                      | Plane, oriental.             |
| Crataegus, mountain ash.    | Occidental, of Virginia,     |
| Maples, early budded,       | Spanish or middle.           |
| Ash-leaved,                 | Larch, common,               |
| Scarlet flowering,          | American black,              |
| Norway,                     | Siberian.                    |
| Sir Charles Wager's,        | Laburnum, common,            |
| American mountain,          | Scotch,                      |
| Montpellier,                | Stripe-leaved.               |
| With some other varieties.  | Liquid Amber, sweet gum.     |
| Hornbeam, common,           | Lac or varnish tree.         |
| Virginia hop,               | Lime, common,                |
| American Flowering,         | Red-twigg'd,                 |
| Eastern.                    | Pennsylvanian.               |
| Medlar, Great Dutch,        | Cypress, deciduous American. |
| Nottingham or English,      | Catalpa.                     |
| New England.                | Poplars, black,              |
| Chestnuts, Spanish sweet,   | White,                       |
| Stripe-leaved Spanish,      | Carolina poplar,             |
| Chestnut, the horse common, | Aspen-tree,                  |
| Scarlet flowering,          | Abele-tree.                  |
| Yellow.                     | Lombardy Poplar.             |
| Walnuts, common,            | Arbor Juda European,         |
| Virginia black.             | American.                    |
| French,                     | Alder, common,               |
| Large-furrowed.             | Parsley-leaved,              |
| Hicory, sweet,              | Dwarf mountain,              |
| Large.                      | Gold-striped,                |
| Birch, common,              | Silver-striped,              |



- American late flowering.  
*E/m*, English small-leaved,  
 Dutch,  
 French, Wych,  
 Blotch-leaved.  
*Hamamelis*, American witch hazel.  
*Persamon Plum*, European.  
*Service*, wild,  
 True or manured,  
 Arbutus-leaved,  
 American.  
*Oak*, English,  
 Chestnut-leaved,  
 Red mountain,  
 Willow-leaved,  
 Scarlet,  
 Carolina swamp,  
 Sassafras-leaved,  
 Champaign dwarf,  
 Black,  
 White,  
 Oriental, with prickly cups,  
 Italian, the cut-leaved.  
 With some other varieties,  
*Tucamahacca*, or balsam-tree.

## DECIDUOUS SHRUBS OF LESSER GROWTH.

- AGNUS *Castus*, or chaste tree,  
 Narrow-leaved,  
 Broad-leaved.  
*Almond*, common,  
 White flowering,  
 Early dwarf single flower,  
 Double dwarf.  
*Althea Frutex*, striped,  
 Red,  
 White,  
 Blue,  
 Purple,  
 Pheasant's eye.  
*Andromeda*, striped,  
 Evergreen.  
*Aralia*, or angelica tree.  
*Azalea* with red flowers,  
 White.  
*Barberry*, common, red fruit,  
 Stoeceless, red fruit,  
 White fruit.  
*Bladder nut*, three-leaved,  
 Five-leaved.  
*Broom*, the Spanish,  
 Double flowering,  
 Yellow Portugal,  
 White Portugal,  
 Luca.  
*Cephalanthus* button wood.  
*Bramble*, flowering,  
 American upright,  
 White fruited,  
 Dwarf,  
 Maiden.  
*Pilburnum*, or wayfaring tree,  
 Common,  
 Stripe-leaved,  
 American broad-leaved,  
 With black fruit.  
*Halesia*.  
*Dupelo*.  
*Empetrum*, black-berried heath.  
*Lycium*, box thorn.  
*Chionanthus*, the fringe or snowdrop tree.  
*Laurustinus*, the deciduous,  
 African fly honeysuckle.  
*Melia*, the head tree.  
*Xanthoxylum*, toothache tree.  
*Lavender*, the common,  
 Broad-leaved, or lavender spike,  
 Canary.  
*Gale*, or sweet willow.  
*Spiraea*, spiraea frutex,  
 Common red,  
 Scarlet,  
 White.  
*Scorpion Sena*.  
*Smilax*, broad-leaved,  
 Blotch-leaved.  
*Syringa*, common,  
 Dwarf, double flowers.  
*Sumach*, scarlet,  
 Large downy,  
 Virginia,  
 White,  
 Elm-leaved,  
 Myrtle-leaved,  
 Lentiscus-leaved,  
 Carolina.  
*Toxicodendron*, poison tree,  
 Ash-leaved,  
 Oak-leaved.  
*Tamarisk* the French,

- German.  
*Sassafras*.  
*Pistachia*, Jamaica birch.  
*Filbert*,  
*Hazel*.  
*Jesuits Bark-tree*.  
*Frangula*, berry-bearing alder.  
*Honeysuckle*, early red Italian,  
 Early white Dutch,  
 Late red,  
 Late Dutch,  
 Long blowing,  
 Large scarlet trumpet,  
 Small trumpet,  
 Oak-leaved,  
 Russian.  
*Jasmine*, the common white,  
 Common yellow,  
 Italian,  
 With gold-striped leaves,  
 Silver-striped leaves.  
*Hydrangia*, white flowers.  
*Hypericum Frutex*, dwarf,  
 Broad-leaved.  
 Narrow-leaved.  
*Hypericum*, or St John's wort,  
 Shrubby, Canary,  
 Dwarf, shrubby, stinking,  
 Broad-leaved, eastern.  
*Lilac*, blue,  
 White,  
 Purple, or Scotch.  
*Lilac*, Persian, with cut leaves,  
 Persian, plain leaved, white  
 flowered,  
 Persian, blue flowered.  
*Ivy* silver-striped,  
 Gold-striped,  
 Deciduous, or Creeper.  
*Robinia*, or false acacia,  
 The common,  
 Yellow-flowered,  
 Scarlet-flowering, or rose acacia,  
 Caragana.  
*Lonicera*, upright honeysuckle,  
 Red berried,  
 Virginian,  
 Tartarian,  
*St Peter's wort*.  
*Mexereon*, the white,  
 Early red,  
 Late red,  
 Purple.  
*Kidney Bean Tree*,  
*Barba Jovis*, bastard indigo.  
*Menispermum*, moon-seed.  
*Oleaster*, wild olive.  
*Peach*, double-flowering.  
*Privet*, common,  
 Silver-striped,  
 Yellow blotched-leaves.  
*Paliurus*, Christ's thorn.  
*Prinos*, winter berry.  
*Periploca*, Virginia silk.  
*Flamula Jovis*, blue,  
 White.  
*Itea*.  
*Ptelea*, or American shrub trefoil.  
*Rhamnus*, or buckthorn,  
 Common,  
 Sea Buckthorn,  
 Creeping evergreen,  
 Yellow-berried.  
*Raspberry*, the flowering.  
*Candleberry Myrtle*.  
 Broad-leaved,  
 Long-leaved,  
 Fern-leaved,  
 Oak-leaved.  
*Cherry*, the double-blossomed,  
 Cornelian,  
 Dwarf Canada.  
*Coccygia*, or Venetian sumach.  
*Cinquefoil Shrub*.  
*Coleuta*, or bladder sena,  
 The common,  
 Oriental,  
 Ethiopian,  
 Pockey's.  
*Clethra*, white-flowering,  
 Dwarf.  
*Cassiberry Bush*.  
*Bignonia*, trumpet flower,  
 Great flowered Virginian,  
 Lesser flowered.  
*Benjamin-tree*.  
*Euonymus*, spindle-tree, or prick-  
 wood,  
 The common,  
 Broad-leaved,  
 American broad-leaved.  
*Cytissus Secundus*.  
*Dog Wood*, the common,  
 Virginia,

- Great flowering,  
 Newfoundland.  
*Guelder-rose*, the common,  
 Double, or snowball,  
 Carolina,  
 Gold blotched-leaved,  
 Currant-leaved.  
*Thorns*, double-flowering,  
 Clastonbury,  
 Cockspur hawthorn,  
 Lord Islay's haw,  
 Virginia maple-leaved,  
 Gooseberry-leaved,  
*L'Azerole*, the greater,  
 Caroline L'Azerole,  
 Pyracantha-leaved,  
 Arbutus-leaved.  
*Neapolitan Medlar*,  
 Dwarf medlar.  
*Bastard Quince*.  
*Mespilus*, the spring flowering,  
 Lady Hardwicke's shrub.  
*Willows*, weeping,  
 Yellow Dutch,  
 White Dutch,  
 Bay-leaved sweet,  
 Striped palm.  
*Celtis*, or nettle-tree,  
 Black-fruited,  
 Yellow-fruited.  
*Pear-tree*, with double flowers,  
 Twice flowering pear.  
*Bird-Cherry*, the common,  
 Cluster,  
 Carolina.  
*Tulip-tree*.  
*Bastaria*, Carolina all-spice.  
*Roses*, early cinnamon,  
 Double yellow,  
 Single yellow,  
 Red monthly,  
 White monthly,  
 Double white,  
 Moss Province,  
 Common Province,  
 Double velvet,  
 Single ditto,  
 Dutch hundred-leaved,  
 Blush ditto,  
 Blush Belgic,  
 Red ditto,  
 Marbled,  
 Large royal,  
 York and Lancaster,  
 Red damask,  
 Blush ditto,  
 White damask,  
 Austrian yellow,  
 Austrian, with flowers having one  
 side red and the other yellow,  
 Double musk,  
 Royal virgin,  
 Rosa mundi, *i. e.* rose of the world,  
 or striped red rose,  
 Frankfort,  
 Cluster blush,  
 Maiden blush,  
 Without thorn,  
 Common red,  
 Burnet-leaved,  
 Scotch, the dwarf,  
 Striped Scotch,  
 Apple-bearing,  
 Single American,  
 Rose of Meux,  
 Pennsylvanian,  
 Red cluster,  
 Burgundy rose.  
*Briar*, double red, sweet,  
 Double blush,  
 Yellow,  
 Eglantine briar.  
*Pomegranate*, single flowering,  
 Double.  
*Currant*, with gold and silver  
 blotched-leaves,  
 With gooseberry leaves,  
 The Pennsylvanian.  
*Gooseberry*, the American, with  
 currant leaves.

A LIST of Evergreen Shrubs and Trees, now cultivated in most of the Nurseries in England, as ornamental Plants for the Decoration of Noblemen's and Gentlemen's Gardens, Parks, &c.

## FIRST OF THE TALLER EVERGREENS.

- ARBOR Vite**, common,  
China,  
American.  
*Irbatus*, the strawberry tree.  
Common,  
Double flowering,  
Red flowering,  
Eastern, or *Andrachne*.  
*Cedars*, Virginia red,  
Virginia white,  
Of Goa,  
Phoenixia,  
Lycia.  
*Cedar of Lebanon*.  
*Cork tree*.  
*Cypress*, common,  
Malta,  
Male spreading,  
Portugal.  
*Firs*, distinguished from the Pines by having the leaves coming out separate or singly, and of which are the following sorts.  
Common spruce,  
Red spruce,  
White spruce,  
Black spruce,  
Silver fir,  
Balm of Gilead fir,  
Hemlock.  
*Pine-tree*, having the leaves rising by two, three, or five, together from the same point; consisting of the following :  
Scotch pine, commonly called Scotch fir, hath two leaves together, and small cones,  
Pinaster, with two leaves together, and cones seven or eight inches long,  
Stone or manured pine, having two leaves and cones four or five inches long,  
Weymouth, or New England, with smooth bark, and five long leaves,  
Frankincense, or three-leaved, with very large loose cones,  
Swamp, or three-leaved marsh American, with very long leaves,  
Jersey, or two-leaved Virginia,  
Siberian Stone pine, with five smooth leaves,  
Three-leaved Virginia,  
Prickly-coned, three-leaved bastard Virginia,  
Aleppo, with two narrow leaves, and very low spreading branches.  
Cluster,  
Fox-tail,  
Dwarf mountain.  
*Holly*, common green,  
Variegated and striped, many varieties,  
Carolina dahoon holly.  
*Magnolia*, laurel-leaved,  
Lesser bay-leaved.  
*Laurels*, common,  
Portugal,  
Alexandrian.  
*Oak*, the evergreen,  
Kermes,  
Holm, or holly-leaved,  
Gall-bearing.  
*Yew-trees*.

## OF EVERGREEN SHRUBS.

- ALATERNATUS**, common,  
Blotched-leaved,  
Jagged-leaved, plain,  
Jagged-leaved, striped,  
Silver-striped,  
Gold-striped.  
*Cistus*, or rock rose,  
Gum cistus, with spotted flowers,  
*Cistus*, with plain white flowers,  
Purple sage-leaved,  
Male with long hoary leaves,  
Male Portugal,  
Bay-leaved gum,  
With hairy willow leaves,  
Black poplar-leaved,  
Waved-leaved,

- Purple or true gum cistus of Crete,  
With some other varieties.  
*Cytisus*, Neapolitan,  
Canary,  
Siberian and Tartarian.  
*Coronilla*, narrow-leaved,  
Broad-leaved.  
*Euonymus*, evergreen Virginia.  
*Juniper*, common,  
Swedish,  
Selavonian,  
Canada.  
*Hartwort of Ethiopia*.  
*Horse-tail*, shrubby,  
*Honeysuckle*, evergreen,  
*Kalma*, olive-leaved,  
Broad-leaved,  
Thyme-leaved.  
*Laurustinus*, common,  
Broad, or shining-leaved,  
Rough-leaved,  
Oval-leaved.  
*Bay*, broad-leaved,  
Narrow-leaved.  
*Spurge*, or wood laurel.  
*Knee-helm*, knee holly, or butcher's  
broom.  
*Phillyrea*, the true,  
Broad-leaved,  
Privet-leaved,  
Prickly-leaved,  
Olive-leaved,  
Gold-edged,  
Silver-edged,  
Rosemary-leaved,  
*Privet*, evergreen Italian,  
Gold and silver-striped,  
*Purslane-tree*, shrubby purslane.  
*Phlomis*, or Jerusalem sage,  
Narrow-leaved,  
Broad-leaved.  
*Rose*, the evergreen.  
*Rhododendron*, dwarf rose bay  
*Savin*, common,  
Stripe-leaved,  
Silver-striped.  
*Stone Crop Shrub*.  
*Widow Wail*.  
*Virginia Groundsel tree*.  
*Germander Shrubby*, of Crete.  
*Jasmine*, Italian.  
*Lotus of Montpellier*.  
*Pyracantha*.  
*Medicago*, moon trefoil.  
*Bignonia*, the evergreen.  
*Tursan*, or park leaves  
*Rag-wort*, the sea,  
*Wormwood*, the lavender-leaved.  
*Ivy*, common,  
Striped-leaved,  
Virginian.

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List of such Trees and Shrubs as may be raised from Seed, and whose seeds may be procured at the great Seed Shops, and of many of the Nursery-Gardeners about London, &c.

- ARBUTUS, or strawberry-tree.  
*Andrachne*,  
Shrubby.  
Ash, common,  
American white,  
— black,  
Manna.  
Ash, the mountain.  
*Angelica-tree*.  
*Aithæa frutex*.  
*Acacia*, three-thorned.  
*Andromeda arborea*, or Carolina  
sorrel-tree,  
Calculated,  
Maryland,  
Paniculated.  
But the three latter propagate  
pretty plentifully by suckers.  
*Andromeda*, the evergreen.  
*Anona*, hardy papaw,  
Common,  
*Arbor Vita*, common,  
Chinese.  
*Arbor Juda*.  
*Bay*, common,  
Benjamin-tree.  
*Bay-loblolly*.  
*Laurel*, common,

- Portugal.  
*Bladder-nut*.  
*Broom*, yellow Spanish,  
 Silvery, or white Spanish,  
 White Portugal.  
*Beech*, common.  
*Azalca*, red,  
 White.  
*Bignovia*, scarlet,  
 Yellow,  
 Catalpa.  
*Bladder-sena*, common,  
 Pocock's,  
 Scarlet.  
*Birch*, common,  
 Black Virginia,  
 Lenta.  
*Cistus*, or rock-rose,  
 Red or purple, all the sorts,  
 White, all the sorts,  
 Cretan, or true gum cistus of the  
 Levant, with deep purple flowers,  
 Willow-leaved gum cistus, with  
 large white flowers and purple  
 spots,  
 With all the other species.  
*Almond*, sweet,  
 Bitter.  
*Celastrus*, staff-tree.  
*Cassine*.  
*Cypress*, female, or common up-  
 right,  
 Male spreading,  
 Portugal,  
 Dwarf Maryland, Deciduous.  
*Hornbeam*, common,  
 Hop.  
*Cherry*, Cornelian.  
*Clethra*.  
*Dogwood*, broad-leaved,  
 Red-stalked,  
 Canada.  
*Cytisus*, evergreen,  
*Secundus* Clusii,  
 Tartarean,  
 Nigricans, or black,  
 Laburnum common,  
 Long-spiked.  
*Candle-berry-myrtle*, broad-leaved,  
 Evergreen.  
*Mezereon*, red,  
 White.
- Lilac*.  
*Snowdrop-tree*.  
*Chamaerhododendron*.  
*Enonymous*, broad-leaved,  
 Climbing.  
*Mulberry-tree*.  
*Maple*, scarlet,  
 Norway,  
 Sugar,  
 Sycamore.  
*L'Azarole*, large,  
 Dwarf,  
 Canada,  
 Pyracantha,  
 Medlar.  
*Hawthorn*.  
*Nettle-tree*.  
*Magnolia*, laurel-leaved,  
 Sweet-scented,  
 Blue,  
 Umbrella.  
*Rest Harrow*.  
*Plane-tree*, oriental,  
 Occidental,  
 Spanish.  
*Robinia*, false acacia.  
*Larch*, common,  
 American black.  
*Cedar of Lebanon*.  
*Oak*, English,  
 American black,  
 ——— white,  
 ——— scarlet,  
 Champaigne,  
 Cut-leaved,  
 Willow-leaved,  
 Dwarf.  
*Evergreen Oak*, common.  
 Cork-tree.  
*Lime-tree*, common,  
 American.  
*Bird-cherry*, Pennsylvanian,  
 Carolina.  
*Walnut*, English,  
 Large French,  
 American,  
 Hickory, the thin shelled.  
 Hickory, thick shelled,  
 Shag bark.  
*Holly*, common.  
 Carolina, broad-leaved.  
*Juniper*, common,

Swedish,	Virginia three-leaved
Spanish,	Aleppo,
Italian.	Prickly-leaved,
<i>Cedar of Virginia</i> , red,	Mugho,
White.	Cembro.
<i>Kalmia</i> , broad-leaved,	<i>Firs</i> , Balm of Gilead,
Thyme-leaved,	Silver,
Olive-leaved,	Black spruce,
<i>Chestnuts</i> , Spanish,	Hemlock spruce,
Chinquapin.	White spruce,
<i>Horse Chestnuts</i> , common,	Red.
Scarlet.	<i>Sassafras</i> .
<i>Liquid amber</i> .	<i>Sumach</i> , Carolina,
<i>Hypericums</i> .	Stag's horn.
<i>Button-wood tree</i> .	<i>Pistacia</i> .
<i>Toothache tree</i> .	<i>Viburnum</i> .
<i>Poplar tree</i> .	<i>Persimon Plum</i> .
Privet.	<i>Pomegranate</i> .
<i>Spiraea frutes</i> .	<i>Winter Berry</i> .
<i>Tupelo-tree</i> .	<i>Tulip-tree</i> .
<i>Halesia</i> .	<i>Honeysuckles</i> .
<i>Kidney-bean tree</i> , Carolina.	<i>Johnsonia</i> .
<i>Yew</i> .	<i>Cephalanthus</i> .
<i>Scorpion sena</i> .	<i>Roses</i> .
<i>Pines</i> , Scotch, commonly called	<i>Crotagus</i> , or wild service,
Scotch fir,	Common,
Weymouth pine,	Maple-leaved,
Stone,	Cockspur haw,
Frankincense,	Virginia l'azerole,
Pineaster, or wild,	Azarolus.
Jersey,	<i>Mespilus</i> , the medlar.
Swamp,	

A List of Fruit Trees, &c., being a chosen Collection of the best Sorts of their several kinds; mentioning only such as merit Culture, &c.

APPLES, Jeneting, or June	Golden rennet,
eating,	French pippin,
Codlin,	Winter pearmain,
Margaret apple,	Loan's pearmain,
Golden pippin,	Cluster pearmain,
Gentish pippin,	Spencer's pippin,
Holland pippin,	Scarlet pearmain,
Nonpareil,	Fearn's pippin,
Royal russet,	Lemon pippin,
Wheeler's russet,	Winter greening,
Golden russet,	White costin,
Dutch codlin,	Aromatic russet,
Kentish codlin,	Queening, the winter,
Cat's head,	——— the summer,

- Calvel, red,  
 White ditto,  
 Margate,  
 Flanders pippin,  
 Kirkin, or kirton pippin,  
 Winter greening,  
 Stone pippin,  
 Masgille,  
 Praise-worthy,  
 Italian apple,  
 Nonesuch,  
 Kitchen rennet.  
*Pippins,*  
 Downton,  
 Elton,  
 Franklin's,  
 Hughe's,  
 Balgonie,  
 Lemon,  
 Ribston,  
 Nuton,  
 French,  
 Yellow ingestrine,  
 Red ditto,  
 Oslin,  
 Padly's,  
 Gogar,  
 King of the pippins,  
 Wormsly's.  
*Dessert pearmains,*  
 Summer,  
 Loon's,  
 Spanish,  
 Kirk's scarlet,  
 Golden,  
 Lamb Abbey,  
 Old English.  
*Dessert Nonpareille,*  
 Scarlet,  
 Pitmaston's,  
 Early,  
 Royal,  
 Wright's,  
 M'Donald's.  
*Dessert Rennets,*  
 Golden,  
 French.  
*Dessert Calvelles,*  
 Summer red,  
 Summer white,  
 Autumn.  
*Dessert sorts,*  
 Alexander,  
 Beauty of Kent,  
 Carnation,  
 Escop's Spitzemberge,  
 Flower of Kent,  
 Golden Hervey,  
 Golden Gloucester,  
 Gravenstein's apple,  
 Margill,  
 Pomroy,  
 Pomgrise.  
*Kitchen apples,*  
 Pippins,  
 Holland,  
 Pound,  
 Kerry,  
 Isle of Wight,  
 Spencer,  
 William's,  
 Broad-eyed.  
*Rennets,*  
 Baxter's,  
 Kitchen,  
 Monstrous,  
 English,  
 Lord Camden's,  
 French,  
 Canadian,  
 Dwarf.  
*Russets,*  
 Golden,  
 Cornish,  
 Great,  
 Caraway's,  
 Pile's.  
*Yorkshire Green.*  
*Norfolk Beaufin,*  
*Pears,* little muscat,  
 Green chissel,  
 Catherine,  
 Jargonelle,  
 Cuisse madame,  
 Windsor,  
 Grosse blanquette,  
 Beury de roy,  
 White beury,  
 Winter beury,  
 Grosse muscat,  
 Autumn muscat,  
 Orange bergamot,  
 Hamden's bergamot,  
 Autumn ditto,



- Great russet,  
 Winter bon cretien,  
 Summer bon cretien,  
 Spanish ditto,  
 Autumn ditto,  
 Monsieur Jean,  
 La Marquise,  
 Devionett,  
 Winter russet,  
 Cresan,  
 Colmar,  
 Vergoleuse,  
 St Germain,  
 Leut, St Germain,  
 Swan egg,  
 Chaumontelle.  
*Baking Pears*, black pear of Worcester,  
 Parkinson's warden,  
 Uvedale's, St Germain,  
 Double flower,  
 Cadillac.  
*Beurre Goldan*,  
 Capiaumont,  
 Diel,  
 Brown,  
 D'Arenberg,  
 D'Ronce.  
*Glous Morceaux*.  
*Passe Colmar*.  
*Marie Louise*.  
*Vergoleuse*.  
*Plums*, green gage,  
 Orleans,  
 Early Morocco,  
 Drop d'or,  
 White bonum magnum,  
 Red bonum magnum, or imperial,  
 Royal dauphin,  
 Perdrigon, blue,  
 ——— white,  
 Queen mother,  
 Fotheringham,  
 Roche carbon,  
 La royal,  
 Apricot plum,  
 Azure hative, or blue gage,  
 Coe's Golden drop,  
 Coe's pine late red,  
 Damson's common.  
*Peaches*, nutmeg red,  
 White, ditto,  
 Early Anne,  
 Red Magdalen,  
 White, ditto,  
 Nivette,  
 Noblesse,  
 Early Newington,  
 Old Newington,  
 French mignone,  
 Admirable,  
 Chancellor,  
 Millet's mignone,  
 Incomparable,  
 Belle garde,  
 Royal George,  
 Pavie royal,  
 Bourdine,  
 Montauban,  
 Violet,  
 Hemskirk,  
 Catharine,  
 Portugal,  
 Gallande,  
 Royal George,  
 Royal Kensington,  
 Acton Scott,  
 Vanguard,  
 Vineuse.  
*Apricots*, early masculine.  
 Turkey,  
 Brussels  
 Roman,  
 Breda,  
 Orange,  
 Algiers,  
 Royal,  
 Transparent,  
 Moorpark.  
*Nectarines*, early nutmeg.  
 Newington,  
 Red Roman,  
 Violet,  
 Scarlet,  
 Elruge,  
 Temple,  
 Brunion,  
 Italian,  
 White,  
 Murray,  
 Claremont.  
*Cherries*, early May,  
 May-dukes,  
 Arch-duke,

- Harrison's duke,  
 White heart,  
 Bleeding heart,  
 Adam's crown heart,  
 Ox heart,  
 Turkey,  
 Amber,  
 Kentish,  
 Flemish,  
 Portugal,  
 Morella,  
 Coroun,  
 Wild black,  
 Wild red,  
 Begarreaw,  
 Begarreaw Turkey  
 Begarreaw black,  
 Eltion,  
 White Tartarean,  
 Black ditto.  
*Figs*, common blue,  
 Early long blue,  
 Large white,  
 Large Genoa,  
 Brunswick,  
 Marseillac,  
 Cyprian,  
 Brown Ischia,  
 Brown Malta.  
*Grapes*, white sweet water,  
 Black sweet water,  
 Black July,  
 Black cluster,  
 White muscadine,  
 White crystal,  
 Black muscadine,  
 Black Burgundy,  
 White Chasselas,  
 Frontiniae, red, black, white,  
 Claret,  
 Red Hamburgh,  
 Black Hamburgh,  
 Black Lisbon,  
 Muscat of Alexandria,  
 Esperione,  
 White Tokay.  
*Mulberries*, the black.  
*Mulberries*, the white,  
 But the black sort is best for general culture.  
*Medlars*, the Dutch,  
 Nottingham, or English.
- Quince*, the Portugal,  
 Apple quince,  
 Pear quince.  
*Walnuts*, the thin shelled,  
 French,  
 Double,  
 Late.  
*Chestnuts*, the manured, or Spanish sweet.  
*Filberts*, large red skinned filbert,  
 White-skinned,  
 Common hazle nut,  
 Barcelona nut, large,  
 Cob nut, very large,  
 Cluster nut,  
 Byzantine nut.  
*Gooseberries*, small early red,  
 Smooth green,  
 Hairy green,  
 Large Dutch red,  
 Common hairy red,  
 Black,  
 Large yellow,  
 Large amber.  
*Currants*, common red,  
 Champaign red,  
 Large white, or grape,  
 Common white,  
 Black,  
*Raspberry*, red fruit,  
 White fruit,  
 Double bearing, producing fruit twice in the summer.  
*Strawberries*, the scarlet,  
 The red wood,  
 White wood,  
 Hautboy,  
 Chili, very large fruit,  
 Large Carolina,  
 Roseberry,  
 Grovend scarlet,  
 Old pine,  
 Surinam,  
 Bath scarlet,  
 Keen's seedling,  
 Keen's imperial,  
 Scarlet Chili,  
 Pine apple strawberry, with green fruit, and red fruit, both of a rich flavour,  
 Alpine prolific, or everlasting Strawberry, called so from its

long bearing, which is commonly from June till November; and, if mild weather, till near Christ-

mas. Two sorts, the red and the white.

A List of the principal hardy Perennial and Biennial Flower Plants, cultivated in England, as ornamental Plants for Pleasure Gardens.

ASTER, or star-wort,  
 Large blue Alpine,  
 Tradescant's or common star-wort,  
 called Michaelmas daisy,  
 Early Pyrenean,  
 Aster linarifolius, or toad's flax  
 leaved,  
 Blue Italian star-wort,  
 Catesby's star-wort,  
 Dwarf narrow-leaved star-wort,  
 Midsummer star-wort,  
 Autumnal white star-wort, with  
 broad leaves.  
 Tripolian, star-wort,  
 Divaricated-branched,  
 Virginian star-wort, with spiced  
 blue flowers,  
 Early large blue star-wort,  
 Rose star-wort,  
 Latest star-wort, with narrow  
 leaves, and large blue flowers,  
 Tallest New England star-wort,  
 Red flowering.  
 There are several other species of  
 star-wort of less note.  
*Apocynum*, dog's-bane,  
 Red flowering,  
 Orange coloured,  
 Syrian.  
*Arum*, Italian, large veined-leaved.  
*Asclepias*, swallow-wort,  
 White,  
 Yellow.  
*Astragalus*, milk vetch.  
*Alyssum*, white,  
 Yellow,  
 Violet.  
*Bachelor's Button*,  
 Double red,  
 Double white.  
*Borage*, the Eastern, or Constanti-  
 nople.  
*Double Ragged Robin*.

*Campanula*, or bell-flower,  
 Double blue,  
 Double white, peach-leaved,  
 Double blue and white nettle-  
 leaved,  
 Pyramidal, or steeple, somewhat  
 tender,  
 Canary, must have shelter in  
 winter.  
*Canterbury Bells*.  
 Blue,  
 White.  
*Caltha* marsh marigold, double  
 flowered.  
*Cassia of Maryland*.  
*Carnations*, or gilliflowers,  
 Common single,  
 Common double,  
 Flakes,  
 Bizarre,  
 Pipquettes,  
 Painted lady,  
 The four last are finely variegated  
 double flowers, and of each many  
 beautiful varieties.  
*Pinks*, double pheasant's eye,  
 Dobson,  
 Deptford,  
 Cob, white,  
 Red cob,  
 White shock,  
 Damask,  
 Mountain,  
 Matted,  
 Old man's head,  
 Painted lady,  
 Clove pink.  
*Sweet William*, the double red,  
 Double purple,  
 Double rose,  
 Double variegated,  
 Common red,  
 White,

- Variegated or painted lady.  
*Wall Flowers*, double, bloody,  
 Double yellow,  
 Double white,  
 Single, of each colour.  
*Stock July-flowers*, the Brompton  
 double,  
 Queen double,  
 Purple double,  
 White double,  
 Striped double,  
 Scarlet double,  
 Single of each sort.  
*French Honeysuckle*, red,  
 White.  
*Tree primrose*, broad-leaved,  
 Red stalked,  
 Dwarf.  
*Lichnidea*, early blue,  
 Spotted stalked, with purple spikes  
 of flowers,  
 Virginia, with large umbels,  
 Low trailing purple,  
 Carolins, with stiff shining leaves,  
 and deeper purple flowers.  
*Cyanus*, broad-leaved,  
 Narrow-leaved,  
*Lychnis*, or campion,  
 Single scarlet lychnis,  
 Double scarlet lychnis.  
*Rose campion*, single,  
 Double,  
 Catchfly, with double flowers.  
*Hepaticas*, single white,  
 Single blue,  
 Single red,  
 Double red,  
 Purple with broadest leaves,  
 Large yellow,  
 Trailing striped yellow,  
 Many other varieties, with purple,  
 blue, and white flowers.  
*Lindria*, toad flax, large sweet-  
 scented purple.  
*Bee Larkspur*.  
*Frarinella*, white,  
 Red.  
*Gentiana*, great yellow.  
*Gentianella*, blue.  
*Globularia*, blue daisy.  
*Fox-glove*, red,  
 White,  
 Iron-coloured.  
*Perennial sunflower*,  
 Double yellow.  
*Cyclamen*, red,  
 White.  
*Goldy Locks*.  
*Chelone*, white  
 Red.  
*Lily of the Valley*, common,  
 Double flowering.  
*Solomon's Seal*, single,  
 Double.  
*Filipendula*, or drop-wort.  
*Columbines*, common blue,  
 Double red,  
 Double white,  
 Double striped,  
 Starry, double and single,  
 Early flowering Canada.  
*Thalictrum*, feathered columbines.  
*Pulsatilla*, blue pasque flower.  
*Hollyhocks*, double red,  
 Double white,  
 Double yellow.  
*Orobuz*, bitter vetch.  
*Saxifrage*, double white.  
*Versnica*, upright blue,  
 Dwarf blue,  
 Hungarian,  
 Blush.  
*Golden rod*, many varieties.  
*Valerian*, red garden valerian,  
 White garden.  
*Rudbeckia*, American sunflower,  
 Dwarf Virginia, with large yellow  
 flowers,  
 Dwarf Carolina, with narrow red  
 reflexed petals, and purple florets,  
 Virginia, with yellow rays and red  
 florets,  
 Tall yellow, with purple stalks, and  
 heart-shaped leaves,  
 Taller, with yellow flowers, and  
 large five-lobed leaves, and those  
 on the stalks single,  
 Tallest yellow, with narrower  
 leaves, which are all of five lobes.  
*Pulmonaria*, lung-wort,  
 Common,  
 American.  
*Monarde*, purple,  
 Scarlet.

- Ephemerum*, spider-wort, or flower  
of a day,  
White,  
Blue.
- Jacex*, American knap-weed.
- Primrose*, double yellow,  
Double scarlet,  
White.
- Polyanthus*, many varieties.
- Auriculas*, many varieties.
- Violets*, double blue,  
Double white.
- Violet*, the major.
- London pride*, or none-so-pretty.
- Day lily*, red,  
Yellow.
- Fumitory*, the yellow,  
White,  
Bulbous-rooted,  
American forked.
- Aconite*, monk's-hood or wolf's-  
bane,  
Blue monk's-hood,  
Yellow,  
White,  
Wholesome wolf's-bane.
- Hellebore*, or bear's-foot,  
Common black hellebore,  
Green-flowered.
- Christmas Rose*.
- Winter Aconite*.
- White Hellebore*.
- Geranium*, crane's bill,  
Bloody crane's bill,  
Blue,  
Roman,  
Bladder cupped.
- Daisies*, common double red garden  
daisies,  
White,  
Double variegated,  
Cock's-comb daisies, white and red,  
Hen and chicken, white and red.
- Ferula*, fennel giant.
- Ranunculuses*, or crow-foot,  
Double yellow crow-foot,  
Double white mountain ranun-  
culus,
- Eastern, with a large yellow  
flower,  
Turkey, or Turban ranunculus, with  
a large red flower.  
Persian, innumerable varieties.
- Peony*, double red,  
Double white,  
Double purple,  
Male, with large single flowers,  
Sweet smelling Portugal,  
Double rose coloured.
- Silphium*, bastard chrysanthemum.
- Iris*, flower-de-luce, or flags,  
The German violet-coloured,  
Variegated, or Hungarian, purple  
and yellow,  
Chalcedonia iris,  
Greater Dalmatian iris,  
There are several other varieties of  
irises, all very hardy plants.
- Cardinal-Flower*, scarlet,  
Blue.
- Rockets*, double white.
- Balm of Gilead*, sweet-scented.
- Everlasting Pea*.
- Eupatorium*, several varieties.
- Scabious*, purple,  
White.
- Eringo*, blue,  
White,  
Mountain, purple, and violet,  
There are some other varieties.
- Snap Dragon*, or calf's snout,  
Red,  
White,  
Variegated.
- Moth Mullien*.
- Clary*, purple topped,  
Yellow glutinous,  
White,  
Blue,  
There are several other varieties.
- Angelica*.
- Asphodelus*, king's spear.
- Lupines*, perennial blue-flowered.
- Ononis*, rest harrow,  
Large yellow flower,
- Tradescantia*.

A LIST of such Biennial and Perennial Flower Plants as may be raised from Seed, and which merit Places in Gardens, as ornamental Plants.

- |  |   |
|--|---|
| WALL FLOWERS, the bloody,                                  | The Welsh,  |
| double and single,   | Long-spiked.  |
| Common yellow, double,                                     | <i>Honesty</i> , or satin flower.                     |
| Single,  | <i>Columbines</i> , the double-striped,               |
| White.   | many varieties arising from seed.                     |
| <i>Stock Gilliflowers</i> , the Brompton,                  | Canada <i>Columbines</i> .                            |
| The queen,   | <i>Campanula</i> , the pyramidal with                 |
| White,   | blue flowers,   |
| Purple,  | Common, or peach-leaved, with                         |
| Scarlet,   | blue flowers,   |
| Striped.   | The same with white flowers.                          |
| <i>Sweet Williams</i> , the painted lady,                  | <i>Monk's Hood</i> , wolf's-bane, or aconite.         |
| Deep red,  | Blue,   |
| Common variegated.   | Yellow,   |
| <i>Indian Pink</i> , double and single.                    | White.  |
| <i>Carnation</i> , different varieties, arising from seed. | <i>Polyanthus</i> , many varieties arising from seed. |
| <i>Pinks</i> .   | <i>Auriculas</i> , many varieties arising from seed.  |
| <i>Rose Campion</i> , single.                              | <i>Peony</i> , double and single.                     |
| <i>Scarlet Lychnis</i> , the single.                       | <i>Globe Thistle</i> .                                |
| <i>Falerian</i> , the Greek,                               | <i>Tree-mallow</i> .                                  |
| White,   | <i>Clary</i> , the purple,                            |
| Red.   | Red-topped.   |
| <i>Bee Larkspur</i> , the blue,                            | <i>Globularia</i> , or blue daisy.                    |
| Purple.  | <i>Horned poppy</i> .                                 |
| <i>Tree primrose</i> .                                     | <i>Gentian</i> , the Virginia.                        |
| <i>Fox-glove</i> , the red,                                | <i>Dragon's Head</i> , the purple.                    |
| White,   | <i>Sweet Scabious</i> .                               |
| Iron coloured.   | <i>Pulsatilla</i> , pasque flowers.                   |
| <i>French Honeysuckle</i> , the red,                       | <i>Nettle-leaved Bell flower</i> , the blue,          |
| White.   | White.  |
| <i>Hollyhocks</i> , the red,                               | <i>Balm of Gilead</i> .                               |
| Yellow,  | <i>Alyssum</i> , or <i>Alysson</i> , the white,       |
| White.   | Yellow.   |
| <i>Rockets</i> .   | <i>Agremone</i> .                                     |
| <i>Canterbury bells</i> , the blue,                        | <i>Cyclamens</i> or sow-bread.                        |
| White.   | <i>Acanthus</i> , or bear's breech.                   |
| <i>Snap-Dragon</i> .                                       | <i>Aloe</i> , flag-leaved.                            |
| <i>Veronicas</i> , the Hungarian,                          |   |

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A LIST of Bulbous and Tuberous Rooted Flower Plants.

- |                            |                |
|----------------------------|----------------|
| AMARYLLIS, comprising the  | Atamuseo lily, |
| Autumnal yellow narcissus, | Guernsey lily, |
| Spring yellow narcissus,   | Jacobaea lily, |
| Belladonna lily,           | Mexican lily,  |

Ceylon lily,  
Barbadoes red lily.

The first two of these are very hardy; the third, fourth, and fifth, should be kept in pots to be sheltered from frost: the other four must be kept in pots and placed in the stove. See their several respective articles.

*Crocus Vernus*, or spring flowering,  
Common yellow,

Large yellow,

Yellow, with black stripes,

White,

White, with blue stripes,

Blue, with white stripes,

Deep blue,

Light blue,

White, with purple bottom,

Scotch, or black and white striped,

Cream coloured.

*Autumnal flowering Crocus*, of the following varieties.

True saffron crocus, with bluish flower, and golden stigma, which is the saffron.

Common autumnal crocus, with deep blue flowers,

With light blue flowers,

Many flowered.

*Snow Drop*, the small spring flowering,

Common single,

Double.

*Leucotum*, or great summer snow-drop,

Great summer snowdrop, with angular stalks, a foot high, and two or three flowers in each sheath,

Taller great snowdrop, with many flowers.

*Ornithogalum*, or star of Bethlehem,  
Great white pyramidal, with narrow leaves,

White, with broad sword-shaped leaves, spreading on the ground,

Yellow,

Pyrenean, with whitish green flowers,

Star of Naples, with hanging flowers,

Middle, or umbellated, producing its flowers in umbels or spreading branches at the top of the stalk,

Low yellow umbellated.

*Erithronium*, dens canis, or dog's tooth,

Round-leaved, with red flowers,

The same, with white flowers,

The same, yellow,

Long narrow-leaved, with purple and with white flowers.

*Muscaria*, the grape or feathered hyacinth,

Common blue grape hyacinth,

White,

Ash coloured,

Blue feathered hyacinth,

Purple,

Musky, or sweet scented, with dull purple flowers,

The same with large purple and yellow flowers,

Greater African *Muscaria*, with sulphur coloured flower.

*Fritillaria*, chequered tulip,

Early purple variegated, or chequered with white,

Black, chequered with yellow spots,

Yellow, chequered with purple,

Dark purple, with yellow spots and flowers growing in an umbel,

Persian lily, with tall stalks, dark purple flowers growing in a pyramid,

Branching Persian lily.

*Corona Imperialis*, crown imperial, a species of *fritillaria*,

Common red,

yellow,

Yellow-striped;

Sulphur coloured,

Large flowering,

Double of each variety,

Crown upon crown, or with two whorls of flowers,

Triple crown upon crown, or with three tiers of flowers, one above another,

Gold striped-leaved,

Silver striped-leaved.

*Tulip*, early dwarf tulip,  
 Tulip, late, or most common tulip,  
 Double tulip,  
 Of the two first there is an infinite variety; florists reduce them to the following classes, of each of which are many intermediate varieties, varying in their stripes.  
*Early*, yellow and red-striped,  
 White and red-striped,  
 White and purple-striped,  
 White and rose-striped.  
*Tall*, or late flowering, with white bottoms striped with brown,  
 White bottoms, striped with dark brown,  
 White bottoms, striped with violet or black brown,  
 White bottoms, striped with red or vermillion,  
 Yellow bottoms, striped with different colours, called bizares.  
*Double Tulips*, yellow and red,  
 White and red.  
*Gladiolus*, cornflag, or sword lily,  
 Common, with sword-shaped leaves, and a reddish purple flower ranged on one side of the stalk,  
 The same with white flowers,  
 Italian, with reddish flowers ranged on both sides of the stalk,  
 The same with white flowers,  
 Great red of Byzantium,  
 With narrow grassy leaves, and an incarnate or flesh-coloured flower,  
 With channelled long narrow four edge leaves, and two bell-shaped flowers on a stalk,  
 Great Indian.  
*Anemone*, wood anemone with blue flowers,  
 White flowers,  
 Red flowers,  
 Double white.  
*Garden double Anemone*, with crimson flowers,  
 Purple,  
 Red,  
 Blue,  
 White,  
 Red and white-striped,

Red, white, and purple,  
 Rose and white,  
 Blue, striped with white.  
*Ranunculus*, Turkey, with a single stalk, and large double blood-red flower,  
 Persian with branching stalks and large double flowers, of which are innumerable varieties, of all colours and variegations to the amount of many hundreds with most beautiful flowers, of which there are  
 Very double flowers,  
 Semi, or half double,  
 The double are the most beautiful, and are propagated by offsets; they produce no seed; that being produced only in semidouble flower, by sowing of which all the fine varieties of double flowers are obtained.  
*Panorathum*, sea daffodil, common white sea narcissus, with many flowers in a sheath, and tongue-shaped leaves,  
 Scavonian, with taller stems and many white flowers, and sword-shaped leaves,  
 Broad-leaved American, with larger white flowers, eight or ten in a sheath,  
 Mexican, with two flowers,  
 Ceylon, with one flower,  
 Broadish roundish-leaved of Ambryns, with many flowers,  
 Carolina, low sea daffodil, with narrow leaves, and many flowers.  
 The two first are hardy, and succeed in the full ground; but the others require to be kept in a stove.  
*Molly (allum)* species of garlic producing ornamental flowers.  
 Broad-leaved yellow,  
 Great broad-leaved, with lily flowers,  
 Broad-leaved, with white flowers in large round umbels,  
 Smaller white umbellated,  
 Purple,  
 Rose coloured.



- Fuscaria Bulbosa*, or bulbous rooted fumatory,  
 Greater purple,  
 Hollow rooted,  
 American, with a forked flower.
- Narcissus*, or daffodil, common double yellow daffodil,  
 Single yellow, with the middle cup as long as the petals,  
 White, with yellow cups,  
 Double, with several cups, one within another,  
 Common white narcissus, with single flowers,  
 Double white narcissus,  
 Incomparable, or great non-such, with double flowers,  
 With single flowers,  
 Hoop petticoat narcissus, or rush-leaved daffodil, with the middle cup larger than the petals, and very broad at the brim,  
 Daffodil, with white reflexed petals, and golden cups,  
 White daffodil, with purple cups,  
*Polyanthus narcissus*, having many small flowers on a stalk, from the same sheath; of this are the following varieties:—  
 White, with white cups,  
 Yellow, with yellow cups,  
 White, with yellow cups,  
 White, with orange cups,  
 White, with sulphur coloured cups,  
 Yellow, with orange cups,  
 Yellow, with sulphur coloured cups,  
 With several intermediate varieties,  
 Autumnal narcissus.
- Jonquil*, common single,  
 Large single,  
 Common double,  
 Double, with large round roots.
- Lilium*, the lily, common white lily,  
 With spotted or striped flowers,  
 With double flowers,  
 With striped leaves,  
 White lily, with hanging or pendant flowers,  
 Common orange lily, with large single flowers,  
 With double flowers,
- With striped leaves,  
 Fiery, bulb bearing lily, producing bulbs at the joints of the stalks.  
 Common narrow-leaved,  
 Greater broad-leaved,  
 Many flowered,  
 Hoary,  
 Martagon lily, sometimes called Turk's cap from the reflexed position of their flower leaves; there are many varieties, and which differ from the other sorts of lilies, in having the petals of their flowers reflected or turned backward,  
 The varieties are,  
 Common red martagon, with very narrow sparsely leaves, or such as grow without order all over the flower stalk,  
 Double martagon,  
 White,  
 Double white,  
 White spotted,  
 Scarlet with broad sparsely leaves,  
 Bright red, many flowered, of pompony, with short grassy sparsely leaves,  
 Reddish hairy martagon, with leaves growing in whorls round the stalk,  
 Great yellow, with pyramidal flowers, spotted,  
 Purple, with dark spots and broad leaves in whorls round the stalk, or most common,  
 Turk's cap,  
 White spotted Turk's cap,  
 Canapa martagon, with yellowish large flowers spotted, and leaves in whorls,  
 Campscatenae martagon, with erect bell-shaped flowers,  
 Philadelphia martagon, with two erect bright purple flowers.
- Squills*, Sea onion, or lily hyacinth, common lily hyacinth, with a lily root and blue flower,  
 Peruvian or broad-leaved hyacinth of Peru, with blue flowers,  
 With white flowers,  
 Early white starry hyacinth,

Blue,  
 Autumnal starry hyacinth.  
 Larger starry blue hyacinth of  
 Byzantium,  
 Purple star flower of Peru,  
 Italian blue spiked star flower.  
*Apodel Lily*, African blue with a  
 tuberous root,  
 Broad-leaved purple with a bulbous  
 root,  
 Asiatic, with white umbels and  
 bulbous root,  
 American, with large white umbels  
 and bulbous root.  
 The first of these require shelter  
 from frost; and the other three  
 require the constant protection of  
 a stove; they make a fine appear-  
 ance in flower.  
*The Tuberose*, or tuberous Indian  
 hyacinth; it produces a tall stem,  
 three or four feet high, adorned  
 with many white flowers of great  
 fragrantcy.  
 The varieties are,  
 Fine double tuberose,  
 Single tuberose,  
 Small flowered,  
 Striped-leaved.  
*Iris bulbosa*, or bulbous Iris, Per-  
 sian, with three erect blue petals,  
 called standards, and three re-  
 flexed petals called falls, which  
 are variegated, called Persian  
 bulbous Iris, with a variegated  
 flower,  
 Common narrow-leaved bulbous  
 Iris, with a blue flower,  
 White,  
 Yellow,  
 Blue, with white falls,  
 Blue, with yellow falls,  
 Greater broad-leaved bulbous Iris,  
 with a deep blue flower,  
 Bright purple,  
 Deep purple,  
 Variegated,  
 Great, with broad and almost plain  
 or flat leaves, with blue flowers,  
 Purple.  
 Of the above there are many inter-  
 mediate varieties.

*Hyacinth*, eastern, with large  
 flowers,  
 Of these there are many varieties,  
 reduced by florists, to the follow-  
 ing classes; and of which there  
 are innumerable intermediate  
 shades or tints of colours.  
 Of double sorts there are,  
 Blues,  
 Purple blues,  
 Agatha blues,  
 Whites,  
 Whites, with yellow eyes,  
 Whites, with red eyes,  
 Whites, with violet or purple eyes,  
 Whites, with rose-coloured eyes,  
 Whites, with scarlet eyes,  
 Reds,  
 Incarnate flesh or rose-coloured.  
 Of single sorts there are,  
 Blues, of different shades, as  
 above,  
 Whites,  
 Reds,  
 Rose-coloured,  
 With many intermediate shades or  
 varieties.  
*Hyacinth*, of the common small  
 sorts are the following:—  
 Common English, with blue  
 flowers arranged on one side of  
 the stalk,  
 White,  
 Bell-shaped blue hyacinth, with  
 flowers on every side the stalk,  
 Bell-shaped peach-coloured, with  
 flowers on one side the stalk,  
 Hyacinth, with an obsolete or faded  
 purple flower,  
 These are very hardy, and propa-  
 gate very fast by offsets of the  
 roots, and succeed in any situa-  
 tion, in the common borders, or  
 between shrubs.  
*Colchicum*, in variety.  
*Leontice*, lion's leaf, largest yellow  
 with single foot stalks to the  
 leaves,  
 Smaller pale yellow, with branched  
 foot stalks to the leaves,  
 These are tuberous-rooted plants,  
 and are scarce in England.

*Cyclamen*, sow-bread, European, or common autumn flowering, with a purple flower, and angular heart-shaped leaves,  
 'The same, with a black flower,  
 'The same, with white flowers,  
 Red spring flowering, with heart-shaped leaves marbled with white,  
 Entire white, sweet smelling,  
 Purple winter flowering, with plain orbicular shining green leaves,  
 Purple round-leaved autumn flowering,  
 Small or anemone rooted, with flesh coloured flowers appearing in autumn.

These plants have large round solid roots, the flowers and leaves rise immediately from the root.

The two first varieties are hardy, the three Persian sorts are impatient of frosts, and should be kept in pots to be occasionally sheltered, but all the others will succeed in a warm border under a wall.

*Superb lily*, or *gloriosa*, red with long slender leaves,

Blue, with oval leaves.

*Corona Regalis*, or royal crown.

*Aconite*, the winter.

*Siegrinchium*.

A LIST of Annual Flower Plants; that is, such as come up, flower, produce Seeds, and die the same Year, and which must therefore be raised every Year from Seed; and the sorts here mentioned are proper as ornamental Plants for Flower Gardens.

We divide them into three different Heads or Classes; that is, the tender and more curious Kinds; the less tender, or hardier and more common Kinds; the hardiest and most common Kinds.

The first following are the more curious and tender Kinds.

#### FIRST CLASS.

##### AMARANTH,

Bicolor,

*Cock's-comb*, Amaranth

The red,

Purple,

Yellow,

Dwarf.

*Globe Amaranthus*, the striped,

Red,

White,

Spiked.

*Stramonium*, the double purple,

Double white.

*Melungena*, or egg plant, the purple,

White.

*Balsamines*, or balsam, the double purple,

Double scarlet,

Double-striped.

*Martynia*.

*Browallia*.

*Ice plant*, or diamond ficoides.

*Sensitive plant*.

*Humble plant*.

*Scarlet Convolvulus*

*Snake Melon*.

*Cucumber*.

The above all require to be raised and brought forward in hot-beds. See the articles of tender or curious annuals, in February, March, April, May, and June; but the sensitive and humble plants, after being reared as above, should always be continued either in a glass-case, green-house, or garden frame, under glasses, otherwise they lose their sensation, and will not yield to the touch.

## SECOND CLASS OF ANNUALS :

Or less tender or hardier Kinds.

The following are somewhat hardier than the foregoing, but in order to have them flower in any tolerable time in the Summer, they should be first raised in a moderate Hot-bed, and afterwards transplanted into the Borders, Beds, or Pots, &c. See the Articles of less tender, or hardier Annuals, in March, April, and May.

- AFRICAN Marigold*, the orange,  
Yellow,  
Straw-coloured.  
*French Marigold*, the striped,  
The yellow,  
Sweet-scented.  
*China Aster*, the double,  
Double purple,  
Double white,  
Double-striped.  
*Marvel of Peru*, the red-striped,  
Yellow-striped,  
Long-tubed.  
*Chrysanthemum*, double white,  
Double yellow,  
Double quilled.  
*Sweet Sultan*, the yellow,  
White,  
Red.  
*Indian Pink*, double,  
Single.  
*Alkekengi*.  
*Palma Christi*, the common, with  
large grey leaves.  
Tall red-stalked, with very large  
green leaves,  
Smaller green,  
Smallest, with heart-shaped leaves.  
These plants of *palma Christi*  
grow from three to eight or ten  
feet high, and are principally cul-  
tivated for their tall growth,  
together with the beauty of their  
palmated leaves which are sin-  
gularly large, some of which,  
including their lobes, will mea-  
sure near two feet, and sometimes  
more.  
*Tobacco*, long-leaved Virginia,  
*Calceolaria pinata*.  
*Schizanthus*, several sorts,  
Broad-leaved,  
Branching perennial.  
*Love Apple*, with red fruit,  
With yellow fruit.  
*Gourds*, round smooth orange,  
Rock or warted,  
Pear-shaped yellow,  
Pear-shaped striped,  
Stone-coloured.  
*Bottle Gourd*, some very large,  
from two or three to five or six  
feet long, and of various shapes.  
*Momordica*, *Balsamina*.  
*Persicaria*.  
*Indian Corn*, the tall,  
Dwarf.  
*Nolana*,  
*Mignonette*.  
*Convolvulus*, scarlet-flowered.  
*Yellow Balsam*, or touch me not,  
*Capsicum*, the long red podded,  
Long yellow podded,  
Red, short, thick, roundish podded,  
With heart-shaped pods,  
With cherry-shaped fruit, red,  
Cherry-shaped fruit, yellow.  
*Basil*, the common or sweet-  
scented,  
Bush basil.  
*Zinnia*, red,  
Yellow.  
*Tree amaranthus*,  
Prince's feather amaranthus,  
Love lies a bleeding amaranthus.  
*Cannacorus*, yellow,  
Red.  
*Chinese Hollyhock*, the variegated.  
*Ten week Stock Gilliflower*,  
The double red,  
Double white,  
Double purple.

*White Ten-week Stock*, with a wall-flower leaf.

With double and single flowers.

The double of this sort makes a pretty appearance.

*Note.*—The ten weeks will grow if sown on a warm border towards the end of March, and should be afterwards transplanted; but by sowing and bringing them forward in a hot-bed, they will flower sooner by a month or six weeks.

The China aster, chrysanthemums, white and purple sultan, African and French marigold, alkekengi, persecaria, &c., will also grow in a warm border of natural earth, if sown in April, and afterwards transplanted; but they will not flower so soon by a month or six weeks as when sown and properly forwarded in a hot-bed.

### THIRD CLASS OF ANNUALS,

#### Or Hardy Kinds.

The following are hardy Annuals, requiring no assistance of artificial heat, but should all, or at least most of them, be sown in the places where it is designed they shall flower. See the Articles of Hardy Annuals, in February, March, April, and May.

- |  |  |
|--|--|
| ADONIS <i>Flower</i> , or <i>flos Adonis</i> , | Minor,                                   |
| the red flowering.                             | Striped,                                 |
| The yellow.                                    | White,                                   |
| <i>Candy Tuft</i> , the large,                 | Scarlet.                                 |
| Purple,  | <i>Starry Scabious</i> .                 |
| White.   | <i>Hawk-weed</i> , the yellow,           |
| <i>Larkspur</i> , the double rose,             | Purple, or red,                          |
| Double-branched,                               | Spanish.                                 |
| Large blue double,                             | <i>Carthamus tinctoria</i> , or saffron  |
| Double white.                                  | flower.                                  |
| <i>Lupines</i> , the rose,                     | <i>Nasturtium</i> , the large,           |
| Large blue,                                    | Small.                                   |
| Small blue,                                    | <i>Corinthe Major</i> , or honey-wort.   |
| Yellow,  | <i>Tangier Pea</i> .                     |
| White,   | <i>Sweet Tea</i> , the painted lady,     |
| Scarlet,                                       | The purple,                              |
| Marbled.                                       | White.                                   |
| <i>Sunflower</i> , the tall double,            | <i>Winged Pea</i> .                      |
| Double dwarf.                                  | <i>Nigella</i> , or devil in a bush, the |
| <i>Lavatera</i> , red,                         | long blue or Spanish,                    |
| White.   | The white.                               |
| <i>Poppy</i> , the double tall-striped car-    | Oriental mallow, curled,                 |
| nation,  | Venetian mallow.                         |
| Dwarf-striped,                                 | <i>Coreopsis tinctoria</i> , of sorts.   |
| Double corn poppy,                             | <i>Clarkia pulchilla</i> , of sorts,     |
| Horned poppy.                                  | <i>Lobelia Catchfly</i> , white and red. |
| <i>Convolvulus Major</i> ,                     | <i>Dwarf Lichnis</i> .                   |

- Venus Navel wort.*  
 — *Looking glass.*  
*Virginia Stock.*  
*Strawberry Spinach.*  
*Noli me tangere*, or touch me not.  
*Pansies*, or heart's ease.  
*Snail-plant.*  
*Caterpillar's-plant.*  
*Hedge Hog plant.*  
*Antirrhinum*, or snap dragon, the annual.  
*Cyanus*, the red,  
 White,  
 Blue.  
*Roman Nettle.*  
*Belvidere*, or summer cypress.  
*Xeranthemum*, or eternal flower, red and white.  
*Garden or common Marigold*, the common single,  
 Double orange,  
 Double lemon coloured,  
 Double lemon coloured ranunculus marigold.  
*Annual Cape Marigold*, with a violet and white flower.  
*Mignonette*, or Reseda, the sweet scented,  
 The upright.  
*Purple Clary.*  
*Purple Ragwort.*  
*Dracocephalum*, the purple,  
 Blue.  
*Capnoides*, or bastard fumatory.  
*Ten-week Stock Gilliflowers*, in variety.  
*Persicaria.*  
*Tobacco Plant.*  
*Indian Corn.*  
*Amythystea.*

#### A List of some of the best sorts of Green-House Plants.

- ALOES*, the large American,  
 Large striped ditto.  
*Aloes*, the African sorts,  
 Mitre,  
 Sword,  
 Tongue,  
 Upright triangular,  
 Pentangular,  
 Succotrine,  
 Cobweb,  
 Partridge-breast,  
 Cushion,  
 Large Pearl,  
 Pearl tongue,  
 Soap-like,  
 Keel-shaped,  
 Zelon,  
 Fan,  
 Cat chapped,  
 Spiral.  
*Arums.*  
*Ambrosia*  
*Anthyllis*, Jupiter's beard.  
*Arctotis*, wind-seed, several varieties.  
*Aster*, the African shrubby.  
*Anthospermum.*  
*Apocynum Fruticosum.*  
*Apium Macedonicum.*  
*Asparagus*, shrubby, two or three varieties.  
*Bosca*, golden-rod tree.  
*Euphthalmum*, some varieties.  
*Campanula*, bell-flower,  
 The Dutch,  
 American.  
*Chrysocoma*, goldy locks.  
*Convolvulus*, the silvery.  
*Celastrus*, staff-tree.  
*Cliffortia*, major,  
 Minor,  
 Bush.  
*Caper.*  
*Cistus*, rock rose, several sorts.  
*Chamomile*, double Italian.  
*Cyclamen*, the Persian,  
 Sweet scented.  
*Coronilla*, jointed podded.  
*Crassula*, six or eight sorts.  
*Cytisus*, trefoil.  
*Digitalis.*  
*Diocoma*, several sorts.  
*Iris Uvaria.*  
*Euphorbia*, major.

- Minor.
- Geraniums*, crane's-bill,  
The scarlet,  
Balm-scented,  
Scarlet horse shoe,  
Pink ditto,  
Variegated,  
Sorrel-leaved,  
Nutmeg-scented,  
Striped-leaved,  
Rose-scented,  
Vine-leaved,  
Hollow-leaved,  
*Gnaphalium*, some varieties.  
*Grewia*.  
*Heliotropium*, the sweet-scented.  
*Hypericum*, the Chinese.  
*Hermania*, several sorts.  
*Jasmines*, the Azorian,  
The Catalonian,  
Yellow Indian.  
*Ixia*, the Chinese.  
*Justicia*, two sorts.  
*Kiggellaria*.  
*Leonurus*, lion's tail.  
*Lemons*.  
*Oranges*.  
*Citrons*.  
*Candy Tuft-tree*.  
*Lotus*, a bird's foot trefoil, two or three sorts.  
*Lyctum*, hawthorn.
- Lentiscus*.  
*Lavatera*, *Insulanica*.  
*Malabar Nut*.  
*Mesembryanthemums*, many sorts.  
*Myrtles*, many sorts.  
*Oleander*, red,  
White,  
Double.  
*Olive*.  
*Opuntia*, Indian fig, some varieties.  
*Osteospermum*, hard-seeded sunflower.  
*Ononis*, rest-harrow.  
*Phytica*, the heath leave.  
*Physalis*, winter cherry.  
*Sage*, the shrubby African.  
*Silver-tree*.  
*Scabious*, the shrubby.  
*Sempervivum*, several sorts  
*Sideroxylum* or iron wood.  
*Sedum*, the variegated,  
Plain.  
*Solanum*, nightshade, several sorts.  
*Anomum Plinii*, or winter cherry.  
*Pomum Amoris*.  
*Stapelia*, some varieties.  
*Tetragonia*.  
*Tucrium*.  
*Tree Germander*.  
*Tenacetum Fruticosa*, shrubby tansey.

# SYSTEMATIC CATALOGUE

OF

## HOT-HOUSE PLANTS;

Being the tenderest exotics from the hot regions of South America, Asia, Africa, &c., requiring in this country continual shelter and artificial heat, under glass departments of hot-houses and stoves, furnished internally with fire or bark-bed heat, or of both occasionally in winter, generally having an internal tanner's bark hot-bed, made in an oblong raised pit, generally of about three feet depth by five to six or seven feet wide, ranging lengthways the middle space of the hot-house continuing a constant heat all the year, and assisted by that of fire in winter and spring, from October to May, to support a regular degree of internal heat at all seasons, equal to that of the hot countries of which the plants are natives and whence they were originally obtained.

This collection of exotics consists both of the tree and shrubby tribe, and of herbaceous perennials, of the fibrous, bulbous, and tuberous-rooted kinds; as also many sorts of succulent plants, or such as have fleshy stalks, branches, and leaves replete with humidity and in the general collection, the plants are in duration from two or three, to several and many years' continuance; and from a few inches to several feet in growth, in the different genera and species, &c., and which collection of different hot-house plants are retained principally for variety, curiosity, and observation, many of which are most curious and singular, and many produce beautiful ornamental flowers; but the pines in particular are the principal or only sorts cultivated, as economical plants, for their production of that admired fruit, the pine-apple.

In the following arrangement the species are methodically disposed under their respective genera, or families, which are distinguished by their general Botanic and English Names, and with the most proper names of every different species, of which many form a short specific distinction, in the following order:—

### A

ABRUS, wild liquorice,  
Precatory Jamaica wild liquorice,  
Acáras, sapota, or mammee tree,

(*Sapota*), American *Sapota* or  
mammee tree,  
Mammose, great fruited mammee,  
or American marmalade.  
*Achyranthes* (*Achyranthes*),  
Rough spiked achyranthes of  
Ceylon,



- Rough spiked Sicilian,  
Lappaceous, or burry-fruited,  
Echinated achyranthes.
- Adansonia*, Ethiopian sour-gourd.  
(*Bahabob*), or Ethiopian sour-  
gourd of Senegal,  
Digitated, or finger-leaved adan-  
sonia.
- Eschynomene*, or bastard sensitive  
plant,  
Great flowered Indian.  
*Sesban*, or Egyptian eschy-  
nomene,  
Vacillant eschynomene, or Chinese  
moving plant,
- Adenanthera pavonina*, peacock  
adenanthera, or bastard flower-  
fence.
- Adiantum*, maiden hair.  
(*Capillus Veneris*), or true maiden  
hair.
- Agave*, great American Aloe,  
Viviparous, or childing agave,  
producing young plants from the  
flowers,  
Fetid, or stinking entire-leaved  
agave,  
(*Karatta*), or deep green-leaved  
agave,  
Veracrusian, broad-leaved.
- Albuca*, or bastard star of Beth-  
lehem,  
Major, or greater,  
Minor, or less,  
Channeled-stalked, flowery.
- Aletris*, or hyacinth flower aloe,  
(*Hyacinthoides*), or hyacinth  
flowered stalkless aletris,  
Ceylon variegated aletris,  
Guinea aletris, green and black,  
variegated, with roots jointed.  
Cape, waved-leaved, stalkless,  
Fragrant, elegant flowered stalky  
aletris.
- Aloe*, African aloe,  
Perforated sword-leaved shrubby  
aloe, many varieties, viz.  
(*Aloe ferox*), or broad-leaved  
thorny aloe,  
Glaucous, thorny-backed aloe,  
Glaucous, short-leaved,  
Spotted, thorny-leaved,
- Small spotted, thorny,  
Greater spotted, thorny,  
Perfoliated, smooth glaucous  
aloe,  
Mitre-shaped, broad-leaved thorny  
aloe,  
Succotrine, or narrow-leaved thorny  
aloe,  
Broad spotted-leaved, called soap  
aloe,  
(*Aloe humilis*), humble aloe.  
(*Aloe vera*), true or common aloe,  
with sheathing, plane, spotted  
leaves, thorns crowded,  
Viscous triangular aloe,  
Variegated upright triangular, or  
partridge-breast aloe,  
Broad-leaved,  
Narrow-leaved,  
Spiral pentangular aloe,  
Distichous, or two-ranked tongue  
aloe,  
Spotted tongue-leaved sosp-aloe,  
Keel-shaped tongue aloe,  
Plaited, or fan-tongue aloe, shrubby  
stalked,  
Warted carinated tongue aloe,  
Retuse-leaved, or cushion aloe,  
Dwarf pearl aloe,  
(*Mageritifera*), or pearl-bearing  
dwarf aloe,  
Minor pearl aloe,  
Minimus, or least pearl aloe.  
(*Arachnoides*, or cobweb dwarf  
aloe.
- Alstremaria* (Alstremaria),  
Peregrine upright Alstremaria of  
Peru, purple-spotted.  
(*Ligta*), or ascending Alstremaria  
of Lima, purple-striped.
- Amaryllis*, lily daffodil,  
For mostimine, or most handsome  
amaryllis of the island Jacobea,  
called Jacobea lily (singularly  
beautiful).  
(*Belladonna*), or Belladonna lily,  
Reginean, or queen Belladonna  
amaryllis, or Mexican lily,  
Sarnian amaryllis, or Guernsey lily.  
Long-leaved African lily,  
Oriental long-leaved amaryllis, or  
Brunswegia,

Cape remote flower,  
 Ciliated Ethiopian,  
 Guttated, or spotted,  
 Vittated, or ribbon flowered,  
 Undulated curled purple,  
 Ceylon snowy amaryllis, the petals  
 with a purple stripe.  
*Amomum*, or ginger,  
 (*Zinziber*), or common true  
 ginger,  
 (*Zerumbet*), or wild ginger.  
*Anacardium occidentale*, or western  
 American anacardium.  
*Annona*, or custard apple,  
 Murexed fruited,  
 Squamous fruited,  
 Netted fruited,  
 Asiatic annona.  
*Amyris balsamifera*, or balsam bear-  
 ing sweet amyris.  
*Antholyza*, or Ethiopian corn flag,  
 Ringent, or gaping scarlet an-  
 tholyza.  
 (*Meriana flora rubescens*), reddish  
 meriana, or funnel-flowered an-  
 tholyza.  
 (*Meriannella*), or little meriana,  
 Ethiopian scarlet gladiolus.  
 (*Cunonia*), or straight flowered  
 antholyza,  
 (*Maura*), or hairy yellow an-  
 tholyza,  
*Apocynum*, dog's bane,  
 Frutescent Ceylon apocynum,  
 Nettle-leaved climbing Indian.  
*Arctopus echinatus*, echinated prick-  
 ly arctopus.  
*Arduina bispinosa*, or two spined  
 arduina.  
*Areca Oleracea*.  
*Aristolochia*, or birth-wort,  
 Indian birth-wort.  
*Artocarpus*, or bread fruit-tree.  
*Arum*, wake-robin.  
 (*Colocasia*), or greater Egyptian  
 arum,  
 (*Arum seguinum*), or dumb cane,  
 or canna-leaved arum,  
 Arborescent, or tree arum,  
 Peregrine, heart obtuse-leaved,  
 Aurited, or eared-leaved,  
 Divaricated heart, halbert-leaved,

Macrorrhizon or long-rooted Ceylon  
 arum,  
 Esculent American arum, or Bra-  
 zilian cabbage,  
 Crinited or hairy,  
 Pedated or foot-shaped,  
 Pictated or painted arum.  
*Arundo Bambos (Bambos)*, or In-  
 dian cane.  
*Asclepias*, or swallow-wort,  
 Curassolan, orange-flowered,  
 Gigantic asclepias, or auricula  
 tree,  
 Tuberosus,  
 Teneriffian,  
*Aster fruticosus*, or shrubby aster.

## B

*BANISTERIA laurifolia*, or bay-  
 leaved banisteria.  
*Barleria*,  
 (*Prionitis*), or four-spined barleria,  
 Box-leaved, opposite spined.  
*Basella*, or Malabar night-shade,  
 Red basella,  
 White basella.  
*Bauhinia*, mountain ebony,  
 Acuminated-leaved,  
 Ungulated parallel lobed leaved,  
 Divaricated lobed leaved,  
 Hoary-leaved.  
*Begonia oblique*, or oblique eared-  
 leaved begonia,  
 Great white flowered,  
 Rosy flowered minor, smooth,  
 Rosy flowered minor, hairy,  
 Rosy flowered orbicular-leaved.  
*Bignonia*, trumpet flower.  
 (*Leucosylon*), or digitated acumi-  
 nate-leaved bignonia,  
 Jamaica tulip-tree,  
 Indian doubly pinated-leaved,  
 Standing or erect firm stemmed  
 trumpet flower,  
 Peruvian decompound-leaved.  
*Bixa Orellana (Orellana)*, or Ame-  
 rican scarlet bearing ornatto.  
*Bocconia frutescens*, or shrubby oak-  
 leaved bocconia, or tree celandine.  
*Boerhaavia scandens*, or climbing  
 Boerhaavia,

- Bombyx*, or silk cotton tree.  
(*Ceiba*), or quinate-leaved silk cotton tree,  
Pentandrious flowered, finger-leaved,  
*Bombyx gossypium*, or cottony bombyx.  
*Bontia Daphnoides*, or Daphne-like  
Barbadoes white olive.  
*Bromelia*, ananas or pine apple,  
(*Ananas*), or common pine apple,  
oblong round fruited,  
Pyramidal or sugar-leaf pine-apple,  
King pine,  
Queen pine,  
Golden fruited,  
Olive fruited,  
Brown fruited,  
Black Antigua pine,  
Montserrat pine,  
White fleshed pine,  
Late olive coloured pine,  
Shining smooth-leaved  
Silver striped-leaved,  
Gold striped-leaved,  
(*Penguin*), or Jamaica wild pine,  
(*Karatas*), or stalkless American wild pine.  
*Borassus flabellifer*, fan-bearing, or fan-leaved palm.  
*Brunia*, Ethiopian tamarisk,  
Lanated or woolly heath-leaved,  
Ciliated ovate-leaved,  
Mossy brunia.  
*Brunsfellia Americana*, or American white flowering brunsfellia.  
*Buchnera Ethiopica*, Ethiopian tridentate-leaved buchnera.  
*Buddleja globosa*, globular buddleja.
- C
- CACALIA, foreign colt's foot,  
Pepillary-stalked, or truncated petioled cacalia,  
(*Antesphorbium*), spurge-bane or shrubby, oblong-leaved cacalia,  
(*Ficoides*), or ficoides like, compressed-leaved,  
Arttriplex-leaved,  
(*Klenia*), compound stemmed cacalia, called cabbage tree in America.  
*Cactus*, melon thistle, also torch thistle, creeping cereus, and Indian fig, viz.,  
(*Melon Thistles*),  
(*Melon cactus*), or greater fourteen angled melon thistle,  
Mammillary tubercled, lesser melon thistle,  
(*Torch Thistles*),  
Heptagonal, or seven-angled torch thistle,  
Quadrangled torch thistle,  
Hexangular torch thistle,  
Pentagonal torch thistle,  
Repand, or serpentine, octangular torch thistle,  
Lanuginous, or woolly-spined sub-nive-angled,  
Peruvian sub-octangular,  
(*Royent*), or Royen's sub-ten-angled,  
(*Creeping Cereuses*),  
Flagelliform, or whipthong-shape, or common creeping cereus,  
Grandiflorous, or great night flowering creeping cereus,  
Triangular creeping cereus,  
(*Opuntia*, or *Indian figs.*)  
(*Opuntia*), common opuntia, or Indian fig,  
(*Ficus Indicus*), or common American Indian fig,  
Moniliform, or necklace-shaped Indian fig,  
(*Tuna*), or awl-spined Indian fig,  
Cochineal-bearing opuntia,  
Curassoean ventricose opuntia, or pin pillow,  
(*Phyllanthus Americana*), American phyllanthus, or sword hart-tongue-leaved opuntia,  
(*Pereskia aculeata*), prickly pereskia, or American gooseberry,  
Purslane-leaved thorny opuntia,  
Most thorny clustered spined.  
(*Cisalpinia*),  
(*Sappan*), or sappan wood,  
Vesicarious, or bladdered.  
*Camillia Japonica*, Japanese ever-

- green scarlet rose, or tsubaaki  
leaves broad, flower scarlet,  
Single flowered,  
Double flowered.
- Canna*, Indian shot or canna-  
corous,  
Indian broad-leaved,  
Indian striped-leaved,  
Indian yellow,  
Narrow-leaved,  
Glaucous-leaved.
- Canella Cinnamomea*, or cinnamon.  
—(See *Laurus*).
- Capparis*, caper tree,  
Thorny,  
Arborescent.
- Capsicum frutescens*, or shrubby  
berberry capsicum.
- Carica*, or papaw.  
(*Papaya*), or Indian papaw,  
melon-like fruited, leaves sinuated.  
(*Posoposa*), or pear-fruited leaves  
entire.
- Caryota urens*, or stinging date-  
bearing palm.
- Cassia*, wild senna.  
(*Fistula*), fistular or purging  
cassia of Alexandria,  
Biflorous, or two-flowered,  
Ligustrine, or privet-leaved,  
Bicapsular, or two-capsuled,  
Tenui-podded,  
Plane-podded,  
Mimosa-like of Ceylon.
- Cassitha filiformis*, or thread-form  
cassitha.
- Catesbea spinosa*, thorny catesbea,  
or lily thorn.
- Casuarina equisetifolia*, or winter  
horse-tail-leaved Tinian pine.
- Cedrela odorata*, odorous Barbadoes  
cedar.
- Cerbera*.  
(*Manghas*) *lactifera*, milk-tree or  
spear-leaved cerbera.  
(*Ahouai major*), or ovate-leaved  
cerbera.
- Cestrum*, bastard jasmine,  
Diurnal, or day-smelling,  
Nocturnal, or night-smelling.
- Ceropegia candelabrum*, or chande-  
lier *ceropegia*.
- Chamerops humilis*, or dwarf-palm,  
or palmetto,  
Mild or prickless.
- Chironia*,  
Shrubby, large red flowered,  
Bacciferous, or berry-bearing  
shrubby,  
Lacerated, or rent *chironia*.
- Chrysophyllum* goldleaf, or starapple.  
(*Canito*), star-apple, or Indian  
damson-tree,  
Golden-leaved star-apple,  
Glabrous or smooth-leaved.
- Cissus*, wild grape,  
Heart-leaved,  
Acid, trifoliate, oblong-leaved.
- Cinchona officinalis*, officinal cin-  
chona, or Peruvian bark.
- Cytherexylon*, or sidele wood,  
Cinereous, or white-barked,  
Caudated, or tailed-spiked.
- Claytonia*,  
Virginian linear-leaved,  
(*Portulacaria*), or purslane-leaved  
claytonia.
- Clusia flava*, or yellow Jamaica  
balsam tree.
- Clitoniatermatea ternata*, or wing-  
leaved blue clitoria,
- Cocoloba*, sea-side grape.  
(*Unifera itorea*), or grape-bearing  
sea-side *cocoloba*,  
Rubescent, or blushing *cocoloba*,  
Punctated, or dotted fruited.
- Cocos nucifera*, nut-bearing *cocos*,  
or *cocoa* nut-tree.
- Coffea Arabica*, or Arabian coffee  
tree,  
Broad-leaved.
- Commelina Africana*, African trail-  
ing *commelina*.
- Coix Lacryma Jobi*, or Job's tears.
- Copaifera officinalis*, or officinal bal-  
sam of capivi tree.
- Cordia Sebestena* (*Sebestena*), or lig-  
num alces.
- Cornutia pyramidalis*, or pyramidal  
blue cornuti.
- Corypha umbraculifera*, or umbre-  
liferous palm.
- Costus Arabicus*, or Arabian *costus*.
- Cotyledon*, or navel-wort,

- Orbicular-leaved,  
 Hemispherical, or half-globular-leaved.  
*Crecientia Cujeta* (*Cujeta*), or calabash tree.  
*Crinum*, or lily asphodel,  
 Broad plane-leaved,  
 Asiatic carinated-leaved,  
 African sublanccolate, plane-leaved,  
 American introrsed-flowered,  
 Long-leaved,  
 Ceylon striped-flowered,  
 Pendulous-flowered.  
*Crossula*, lesser orpine,  
 Perfoliated cornate-leaved, or Jacob's ladder,  
 Cultrated, or knife-leaved,  
 Quadrated, or whip-cord crassula,  
 Orbicular crassula,  
 Pellucid crassula,  
 Scabious, or rough-stalked.  
*Crotalaria* (*Crotalaria*),  
 Laburnum-leaved,  
 Chinese oval-leaved,  
 Jamaica crotalaria.  
*Croton*, tallow-tree,  
 Sebaceous, or tallow-bearing croton, or Chinese tallow-tree,  
 (*Cascarilla*), or sweet-scented croton,  
 Glabellous, or smooth ovate-leaved,  
 Maple-leaved.  
*Curcuma*, turmeric,  
 Round-rooted,  
 Long-rooted.  
*Cycas*, sago palm,  
 Circinated tree sago palm, broad-leaved,  
 Guinea sago palm.  
*Cyclamen Indicum*, or Indian cyclamen; with the limb of the corolla or flower nodding.  
*Cynanchum*, or American scammony, hairy American cleft-barked,  
 Suberous, or cork-barked,  
 Viminalous, or osier-twigg climbing.  
*Cytisus*.  
 (*Cajau*), or American pigeon-pea or Indian soft hoary-leaved cytissus, Surinam cytissus.  
*Cynosurus Indicus*, or Indian cynosurus.  
 DAPHNE *Indica*, or Indian spurge laurel.  
*Delimatarmentoza*, or sarment shooting Ceylon delima,  
*Dais cotinifolia*, Venice sumach leaved dais.  
*Dioscorio*,  
 Sativous, or cultivated dioscorio, or West India yam,  
 Bulb-bearing stalked, or round-rooted West India yam.  
 The large fleshy roots and bulbs of these plants are used as a sort of bread in the West Indies, and for which the plants are cultivated in great abundance in that hot country.  
*Dracena*, dragon-tree,  
 (*Draco arbor*), or true dragon tree,  
 Ensilfoliate, or sword-leaved,  
 Erect-leaved,  
 Ferraceous, or irony dracena, or Chinese iron tree,  
 Terminal herbaceous dracena.  
*Dracontium*, or dragons,  
 Spinous Ceylon dragons, narrow-leaved,  
 Pertused, or pierced-leaved American dragons.  
*Duranta*, or castorea,  
 Plumiers contorted American duranta,  
 (*Elisia*), or erect Jamaica duranta.

## E

- EHRETIA, or bastard cherry,  
 Tinus-leaved Jamaica ehretia,  
 (*Bourreria*), or ovate entire-leaved Jamaica ehretia,  
*Echites*, or Jamaica dog's-bane,  
 Suberect spike-flowering echites,  
 Umbellate flowering climbing echites.  
*Eleocarpus serrata*, or sawed spear-leaved eleocarpus,

*Elephantopus*, elephant's foot,  
Scabrous, or rough elephantopus,  
Hoary elephantopus.  
*Erigeron fetidum*, or stinking lance  
linear-leaved erigeron.  
*Erythrina*, coral tree.  
(*Corallodendron*), or coral-tree,  
Herbaceous dwarf coral-tree, long  
scarlet-spiked,  
Pictated, or painted coral-tree,  
prickly-leaved.  
*Eugenia*, pommie-rose,  
(*Jambos*), or West India pomme-  
rose; peduncles branching, ter-  
minal,  
Malaccan East Indian pomme-  
rose; peduncles branching, la-  
teral.  
*Euphorbia*, spurge,  
Antlets' triangular-stalked,  
Canary subquadrangular spurge,  
Officinal multangular spurge,  
Cotinifoliate, or Venice sumach-  
leaved,  
Nerifoliate, or oleander-leaved,  
(*Tithymaloïdes padifolia*), or padus-  
leaved tithymaloïde spurge,  
*Tithymaloïdes myrtifolia*, or  
myrtle-leaved tithymaloïde  
spurge,  
Mauritanian shrubby African  
spurge,  
Mamillary-tubercled euphorbia,  
Cereus-formed spurge,  
Heptagonal, or seven-angled  
spurge,  
(*Tirucalli*), or Indian shrubby  
spurge,  
Viminalous, or osier-twiggled  
spurge.

## F

*FAGARA*, iron-wood tree,  
(*Pterota*, or emarginated-leaved  
fagara.  
(*Tragodes*), or prickly-foliated,  
(*Piperita*), Japan pepper, or  
notched-foliated fagara.  
*Ferraria undulata*, or undulated  
Cape starry iris.

*Ficus*, fig tree,  
Sacred, or poplar-leaved fig,  
Racemosed or cluster-fruited,  
Bengal rooting stalked,  
Dwarf creeping stalked,  
Nympha-leaved,  
(*Sycamoros*), sycamore mulberry  
leaved, or Pharaoh's fig.  
Indian radican-branching,  
Benjamin fig.  
*Fritillaria*,  
(*Regia Corona regalis*), or royal  
crown fritillaria; a crown of tufted  
leaves above the flowers,  
Dwarf royal crown, round-  
leaved.

## G

*GARDINIA florida*, flowery gar-  
dania, or cape jasmine,  
Single-flowered,  
Double-flowered.  
*Genipa Americana*, or American  
genipa, or janipha.  
*Gesnera tomentosa*, or hoary-leaved  
gesnera.  
*Geranium*,  
Tristous, or sorrowful night-  
flowering, or anemone-leaved  
geranium,  
Lobated-leaved,  
Pinnatifid-leaved,  
Shaggy-leaved,  
Prolific myrrh-leaved,  
Pinnated-leaved,  
Long-leaved,  
Sorrel-leaved,  
Aurited, or ear-leaved,  
Orbicular-leaved,  
Carnose, or fleshy jointed,  
Lanceolate, or spear-leaved,  
Cordifolium, or heart-leaved,  
Trigonal stalked.  
*Roseum odoratum*, or rose odour,  
Levigated, or polished smooth-  
leaved.  
*Note.*—All the above geraniums  
will also succeed among the  
green-house plants.  
*Gladiolus*, or sword lily,

Spiked flowered, single-stalked,  
 Tristous, or sorrowful-like bell-  
 flowered,  
 Narrow, linear-leaved,  
 Plicated, or folded sword-leaved.  
*Gloriosa superba*, or superb lily.  
*Gossypium*, or cotton-tree,  
 Arboreus, or cotton-tree, with a  
 shrubby stem; leaves pal-  
 mated,  
 Barbadoes, shrubby cotton, leaves  
 tree lobed.  
*Gomphrena perennis*, or perennial  
 globe amaranthus.  
*Grewia orientalis*, oriental, or east-  
 ern grewia.  
*Guaiacum*, or lignum vite,  
 Official, two paired folioled,  
 (*Sanctum*), or holy-wood tree,  
 leaves many-paired obtuse,  
 African acute folioled, many-  
 paired, or myrtle-leaved.  
*Gordonia decandria*, ten male, or  
 ten stamined Gordonia.  
*Guarea trichiloides*, or trichilla-like,  
 branching flowered guarea.  
*Gustardia speciosa*, or specious  
 guettarda from Java and Ja-  
 maica; leaves most large ovate  
 roundish, flowers long seven  
 parted.  
*Guilandina* (bonduc), or nickar  
 tree,  
 (*Bonduc vulgare*), or common  
 bonduc or nickar tree,  
 (*Bonducella*), or little bonduc, or  
 nickar tree,  
 (*Moringa Zelanica*), or Ceylon  
 moringa,  
 Lacerated, or, rending nickar-tree.

## H

HEMAMTHUS, or blood flower,  
 Scarlet African blood flower,  
 Puniceous, or red purple heman-  
 thus or spotted stalked,  
 Ciliated leaved purple,  
 Villous blood-flower,

Carinated, or keeled-leaved.  
*Hemtorghum Campechianum* (*Cam-  
 pechianum*) or logwood.  
*Hedysarum*, French honeysuckle,  
 Styax-leaved,  
 Amentaceous-flowered,  
 Moving plant.  
*Helicteris*, or screw-tree,  
 (*Isora*), or contorted-fruited he-  
 lictelis, or common screw-tree.  
*Hellocarpus Americana*, or Ameri-  
 can mulberry-leaved hellocarpus  
 of Vera Cruz.  
*Heliotropium Peruvianum*, or Pe-  
 ruvian many spiked, sweet turn-  
 sole.  
*Hernandiasonora*, sonorous, or  
 whistling hernandia, called  
 Jack in a box: the wind blow-  
 ing in the large hollow seed  
 capsule makes a sonorous whistling  
 noise.  
*Hibiscus*, Syrian mallow,  
 (*Malvaviscus*), or viscous Indian  
 tree mallow,  
 Poplar-leaved hibiscus,  
 Lime tree-leaved,  
 Fig palmated-leaved,  
 (*Rosa Sinensis*), or rose of China,  
 Mutable, or changeable rose of  
 China; *Flos horarius*, or flower  
 of an hour,  
 (*Abelmoschus*), musk flower, or  
 musky seeded lybiscus.  
 (*Sabdariffa*), or cut, three parted,  
 and entire-leaved hibiscus,  
*Hippomane*, or manchineel tree.  
 (*Mancinella*), or common man-  
 chineel tree, ovate-leaved,  
 Biglandular, oblong-leaved.  
*Hura crepitans*, crepitant or crack-  
 ling hura, or sand-box tree, seed  
 capsules bursting with a loud  
 explosion, and which being large,  
 of many compartments, are used  
 in the West Indies as sand-boxes  
 for writing-desks.  
*Hymenea Courbaril*, (*Courbaril bifo-  
 lia*), two-leaved courbaril, locust,  
 or elemi tree.

## I

**JATROPHA**, French physic-nut,  
Multifid, smooth-leaved,  
(*Curcas*), or heart angular-leaved  
Jatropha,  
Stinging palmated-leaved.  
(*Munihot*), or esculent palmated  
Jatropha, called cassada, or  
cassava; the root being pre-  
pared into bread in the West  
Indies,  
Gossypium-leaved jatropha.  
*Illecebrum lanatum*, or woolly-leaved  
illecebrum.  
*Illicium Floridanum*, Floridan starry  
aniseed tree.  
*Indigofera*, indigo,  
Tinctarine, or dying, greater  
indigo,  
Hirsute, or shaggy-podded,  
Scandent, or climbing,  
Argentaceous, or silvery.  
*Jussiaena repens*, or creeping jus-  
sienna,  
Erect jussiaena,  
*Justicia*, Malabar nut,  
(*Echoliun*), or reflexed flowered  
justicia,  
Hyssop-leaved justicia,  
Pictated, or painted justicia, with  
inflated chaps of the corolla.  
*Isora*, American jasmine,  
Scarlet flowering, oval-leaved,  
Scarlet flowering, ovate-lance-  
leaved,  
American three-leaved Jamaica.

## K

**KEMPFERIA** *Galanga* (*Galanga*),  
or ovate-leaved galangale.

## L

**LAGERSTEMIA** *Indica*, or In-  
dian lagerstemia. leaves oblong  
alternate.

*Lantana*, American viburnum, in-  
volucrated-leaved umbelled,  
(*Camara*), or leafless umbelled  
lantana,  
Aculeated, or prickly lantana,  
Trifoliolate, or three-leaved,  
Smooth-leaved.

*Laurus*, bay-tree,  
(*Cinnamomum*), or cinnamon-tree,  
or Ceylon bay,  
Pettant or stinking bay,  
(*Cassia*), or ever-flowering bastard  
cinnamon.  
(*Persea Americana*), or pear-  
fruited American bay, called al-  
ligator pear,  
Chinese bay.

*Lechea*,  
Crispated, or waved-jointed  
stalked,  
Equal round stalked.

*Lechea major*, greater lechen,  
*Limodorum tuberosum*, or tuberous-  
rooted purple limodorum; or  
American helleborine,

*Lobelia*, or cardinal flower,  
Long flowered,  
Coronopus-leaved.

*Lotus Jacobeus*, or Jacobean black  
lotus, or bird's foot trefoil.

*Lychnis coccinea*, or scarlet Chinese  
campion, or lycheals.

*Ludwegia ovata*, or ovate-leaved  
ludwegia.

## M

**MALPIGHIA**, Barbadoes cherry.  
Smooth-leaved,  
Glossy shining-leaved,  
Stinging-leaved,  
Punica-leaved,  
Verbascum-leaved.

*Malva Capensis*, or Cape mallow.  
*Mammea Americana*, or American  
mammee apple,  
*Mangifera Indica*, or Indian man-  
goe-tree.

*Maranta*, or Indian flowering reed.  
Arundinaceous, or reedy maranta,  
or common India flowering reed,



(*Galanga*), Indian galangale, or Indian arrow-root.  
*Martynia perennis*, or perennial martynia.  
*Melastoma holocericea*, or velvety silk-leaved melastoma.  
*Mesua ferrea*, iron mesua, or Indian rose chestnut.  
*Michelia Champaca* (*Champaca*), or sweet-scented yellow michelia.  
*Mimosa*, sensitive plant, and acacia (sensitiva), or sensitive plant, leaves conjugate pinnated, Pudicous, or modest, sensitive, or humble plant; leaves subdigitated, pinnated,  
 Vivaceous sensitive plant, stem herbaceous,  
 Pigna, or slow bastard sensitive plant,  
 Pernambucan sensitive plant,  
 Pinnated, or double-flowered annual sensitive plant,  
 Punctuated, or dotted-stalked mimosa,  
 Virgated, or twiggy mimosa,  
 Nilotic Egyptian mimosa, or gum arabic,  
 Arbores, or tree Indian acacia,  
 Cornigerous, or horn-bearing acacia,  
 Horrid-thorned acacia,  
 Tamarind-leaved acacia,  
 Lati-siliqueose, or broad podded,  
 Farnesian Indian acacia, gazia, or sponge tree,  
 Broad-leaved acacia,  
 (*Lubbeck*), or colutea-leaved Egyptian acacia,  
 (*Unguis cati*), or cat-claw podded mimosa,  
 Vague downy-leaved mimosa,  
 Peregrine American mimosa,  
 Glaucous, or sea-green leaved,  
 Purple flowered acacia.  
 (*Intsia*), or Madras angular-stalked acacia.  
 Circinal podded mimosa.  
*Murraya exotica*, exotic murraya.  
*Musa*, plantain tree, and banana,  
 Paradisian musa, tree of paradise, or evergreen plantain tree,

Sapient deciduous plantain tree, or banana.  
*Morea*.  
 Vegetaceous channelled-leaved;  
 Rushy awl-leaved.  
*Myrtus*, myrtle tree,  
 Ceylon-odorous myrtle,  
 (*Pimento*), Jamaica all-spice, or long-leaved myrtle,  
 Round-leaved,  
 Diecous, or two-house myrtle.  
*Munchausia speciosa*, or specious flowering munchausia, oblong ovate-leaved.

## N

NYCTANTHES, Arabian Jasmine,  
 (*Sambac*), orange-leaved nyctanthes, or Arabian jasmine,  
 Single flowered,  
 Double flowered,  
 Large double, or grand duke of Tuscany's,  
 Striped Arabian jasmine,  
 (*Arbortristis*), or sorrowful tree.

## O

OLEA *odoratissima*, most odorous Chinese olive,  
*Ophioxylum serpentinum*, or serpentine ophioxylum.  
*Origanum Egyptiacum*, or Egyptian marjoram.  
*Oxalis*, or wood-sorrel,  
 Purple,  
 Yellow,  
 (*Pes caprae*), goat's foot, or umbelliferous wood-sorrel,  
 Versicolorate, or various coloured flowering,  
 Incarnate flowered.

## P

PANCRATIUM, or sea daffodil,  
 Ceylon, one flowered, with petals reflexed,

- Monican two-flowered,  
 Caribbean, many-flowered,  
 Amboina, broad-leaved, many-  
 flowered,  
 (*Calpense*), or Gibraltarian.  
*Parkinsonia aculeata*, or prickly  
 American Parkinsonia, minute  
 leaved.  
*Passiflora*, or passion flower,  
 Serrated undivided-leaved,  
 Apple-fruited, undivided-leaved,  
 Laurifoliate, or bay-leaved,  
 (*Murucuja*), or lunated-leaved,  
 Quadrangular-stalked,  
 Holesericeous, or silky-leaved,  
 Punctated, or dotted-leaved,  
 Fetid, or stinking hairy,  
 Suberous, or cork barked,  
 Red flowered,  
 Pedated, or foot-shape-leaved,  
 Minima, or least flowered,  
 Vespertilion, or bat-winged,  
 Normaline, emarginated-leaved,  
 Capsular-fruited.  
*Patagonula Americana*, or Ameri-  
 can patagonula, with serrated and  
 entire leaves.  
*Paulinia*,  
 Barbadoes paulinia,  
 Asiatic prickly-stalked,  
 (*Curura*), or wedge-foliate,  
 Curasscan, ovate foliate.  
*Pentapetes Phœnicia*, or scarlet In-  
 dian vervain mallow.  
*Petiveria*, Guinea-ben weed,  
 Alliaceous, or garlic-scented,  
 Octandrous, or eight male flowered  
*Phœnix dactylifera*, or date-bearing  
 palm.  
*Phyllanthus*, or sea-side laurel,  
 (*Epiphyllanthus*), or floriferous-  
 leaved phyllanthus,  
 Grandifoliate, or great-leaved,  
 (*Emblica*), or pinnated-leaved,  
 berried-fruited phyllanthus,  
 (*Niruri*), or herbaceous upright  
 Phyllanthus,  
 Madeira spatarian wedge-leaved.  
*Physalis*, or alkekengi, winter  
 cherry,  
 Curasscan, hoary-leaved winter  
 cherry,  
 Viscous-fruited of Bonaria,  
 Peruvian.  
*Phytolacca diecia*, diocious flowered  
 or two house shrubby phytolacca,  
 or tree American nightshade.  
*Piper*, pepper,  
 Reticulated, or netted-leaved,  
 (*Amalaga*), or long-spiked Jamaica  
 pepper,  
 Obtuse-leaved,  
 Nigrum, or black round pepper,  
 (*Malamari*), or high-nerved-leaved  
 pepper.  
 Verrucillate-leaved.  
*Piscidia Erythryna* (*Erythryna*), or  
 bastard coral tree, or Jamaica  
 dogwood.  
*Pisonia aculeata*, prickly pisonia, or  
 fingrigo.  
*Plumbago*, or lead-wort,  
 Ceylon, filiform-stalked,  
 Scandent, or climbing-stalked  
 American.  
*Plumeria*, West India jasmine,  
 Red plumeria, ovate oblong-leaved  
 White spear-leaved,  
 Obtuse-leaved, snowy.  
*Poinciana*, Barbadoes flower fence,  
 Pulcherrimus, or most beautiful  
 poinciana; spines paired,  
 Chinese spineless,  
 Bijugated-leaved purple; spines  
 single,  
 Elated, or tall spineless.  
*Polypodium*, polypody,  
 Aureous, or golden,  
 Auriculated, or eared,  
 Trifoliate, or three-leaved,  
 Diffused, or spreading.  
*Portulaca Anacampseros*, or lesser  
 house-leek shrubby purslane.  
*Portlandia*,  
 Grandiflorous, or great flowered,  
 hexandrous, or six male flowered.  
*Pisidium*, gnavia,  
 Pyriferous, or pear-bearing,  
 Maliferous, or apple-bearing,  
 Vittated, or ribband pisidium.  
*Pterocarpus*,  
 Polygonum-like,  
 Aphyllous, or leafless.  
*Pteris*, fern,

Caudated, or long-tailed,  
Lined-leaved Domingo fern.

## R

RANDIA, or American box-thorn.

Mild or thornless round-leaved.

Aeuleated or prickly.

*Rauwolfia nitida*, or glossy smooth  
four-leaved rauwolfia.

*Rivinia*, *A*

Humble or dwarf rivinia,

Canescent or hoary white-leaved  
red-berried,

Octandrious, or eight male flowered.

*Rondeletia Americana*, or American  
spear-leaved rondeletia,

Odorous rondeletia.

## S

SACCHARUM, sugar cane,

Official, or common sugar cane,  
flowers paniced,

Spiked-flowered saccharum.

*Sapindus*, soap-berry,

(*Saponaria*), or common soap-  
berry, leaves impar pinnated,

Spinose, abrupt pinnated.

*Senecio*, groundsel,

(*Pseudo China*), or bastardy yel-  
low China root.

*Sida*, Indian-mallow,

Cordifoliate, or hearted-leaved,

Rhombous-leaved,

(*Abutilon*), or roundish heart-  
leaved sida.

*Sideroxylon*, iron wood,

Inermous, or thornless Ethiopian,

Spinose, or thorny Malabarian.

*Solanum*, nightshade,

Verbascum-leaved American,

Guinea dark green-leaved,

Quercus-leaved of Peru,

Sodom African nightshade, or  
apple of Sodom,

Igneous or fiery red spined,

Sanctous or holy night-shade of  
Palestine,

Indian pear-fruited,

Tomentose, or hoary powdered  
leaved,

Bonarian tree nightshade, large  
golden fruited,

Campeachy echinated nightshade;  
the calyx hedge hogged,

Feroceous prickly Malabar night-  
shade,

(*Solanum Guineense*), or black  
Guinea nightshade; large black  
cherry-fruited.

*Sophora*, silvery colutea.

Tomentose, silvery-leaved of Cey-  
lon.

Biflorous, or two-flowered Ethio-  
pian sophora,

Lupinoides lupine-like sophora, of  
Kamtschatka,

Cape sophora,

White flowered,

Occidental American sophora.

*Spondius*, American plum,

Yellow American plum, glossy  
leaved,

(*Myrobalanus*), great American  
plum; leaves shining, sharp  
pointed,

(*Mombin*), or black American  
plum.

*Stapelia*,

Hirsuted upright branching stape-  
lia, with beautiful fringed flowers,

Variegated spreading branched,

Mammillary warted stapelia.

*Sterculia* (dirt wood), or Ceylon nut  
fetid or stinking.

*Swietenia Mahagani*, (*Mahagani*)  
or mahogany tree, leaves pin-  
nated impar.

## T

TAMARINDUS *Indicus*, Indian  
tamarind tree, pinnated hairy  
leaves.

*Theobroma*, chocolate nut tree,

(*Cacao*), or common chocolate nut  
tree, leaves entire,

(*Guazuma*), or sawed-leaved theo-  
broma,

Angustous heart-leaved China theo-  
broma.

*Tournefortia*,  
Sawed ovate-leaved American,  
Cymose spiked of Jamaica, leaves  
naked,  
Volubilate climbing Tournefortia,  
Most fetid Mexican Tournefortia,  
Diffused branching,  
Undershrubby Jamaica Tourne-  
fortia.

*Triumphetta Lappula* (*Lappula*), or  
burry prickly-fruited triumphetta.

*Tropaeolum majus*, ( *flore pleno*), or  
major double nasturtium.

*Tulbagia Capensis*, Cape tulbagia.

*Taberne montana curifolia*, citron-  
leaved taberne montana.

*Thumbergia speciosa*, or specious  
flowered thumbergia.

*Turnera ulmifolia*, elm-leaved tur-  
nera.

## V

VINCA (*Periwinkle*), or peri-  
winkle,  
Rose periwinkle of Madagascar,  
White flowered,  
Indian hairy-leaved,  
*Volkameria*,

Aculeated, or prickly volkameria  
spines at the rudiments of the  
petioles,  
Unarmed or spineless branched.

## W

*Wackendorsia*,

Thyrse-flowering, or single-scaped,  
Panicle-flowering, many-scaped,

*Winterana*, or winter's bark,  
(*Canella*), oblong-leaved canella,  
winter's bark, or wild cinnamon,  
Aromatic winter's bark.

## X

XYLOPHYLLA *longifolia*, or  
long-leaved love flower,  
Latifolius, or broad-leaved.

## Z

*Zamia pumila*, dwarf rigid-leaved  
zamia,  
Thorny-leaved.

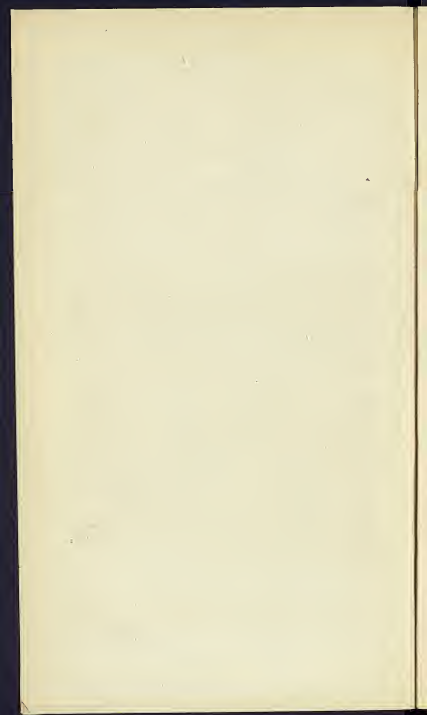
## APPENDIX.

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### PREFACE.

THIS Appendix is intended to supply the deficiencies of Abercromby, or to state the improvements since his time, in regard to the forcing of the most important of the hot-house fruits. In the forcing of peaches, cherries, and similar stone-fruits, but especially of grapes, and still more especially of pines, great improvements have of late years been introduced. The description of these improvements is evidently a desideratum. A concise sketch of them has been therefore attempted here.

For a considerable number of these improvements, as having been suggested to him in the course of his own practice, the Editor is alone responsible. Some have been brought under his notice in the practice of others. Particularly in regard to the forcing of Pines, he feels called on to state, that the following directions are the substance of notes taken by him in the Royal Forcing Gardens, Kensington, where he had the advantage of seeing the practice for several years under Mr Aiton, and his very intelligent foreman, Mr Plimley. The rates of temperature prescribed for the Pines, may excite surprise, and may be thought extremely high; but he has to reply, that they are, if any thing, below those employed in the Kensington Gardens, and that he has no where else seen Pines grown to greater advantage, or to more perfection.



## APPENDIX.

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### FORCING PINES.

#### GENERAL REMARKS.

THOSE who have excelled in the cultivation of pines seem to agree that three distinct compartments are necessary, namely, one for crowns and suckers, one for succession plants, and a third for plants in a more advanced stage of growth to mature their fruit.

The necessity for these different pits or houses arises from the plants requiring different modes of treatment, and particularly different degrees of temperature, at their different stages of growth.

It is the decided opinion of the most celebrated cultivators, that a bottom heat is essentially necessary to the cultivation of this esteemed fruit. Attempts to cultivate pines without bottom heat have been made by Mr Knight and others, but generally, we believe, with little success.

Of all the means for producing the mild bottom heat required, we consider old tan, oak, or other tree leaves still to be the best. In preparing the tan, it should be thrown together into an open shade, or into a round heap out of doors, and frequently turned over, that it may be thoroughly fermented and nearly half-rotten, before putting it into a new pit. When this process is properly attended to, it will produce the required heat, and avert the danger of overheating.

When shifting the plants, or at all times when the heat requires to be increased, add each time, of new tan, from about one eighth to one half of the whole, as may appear necessary. In putting in the new tan, trench or turn over the old from the bottom of the pit, and mix the old and new together, turning up twelve or fifteen inches of the old to the surface in which to plunge the pots again. When the old tan becomes much decayed and reduced to mould, it will then require to be sifted, and the small thrown out. The necessity for stirring up from the bottom may, however, be delayed for a few weeks, by carefully raking off a few inches of the surface, without disturbing the pots, and filling up the space to the full height of the pots with a coat of fresh tan. This mode is particularly necessary in severe weather, when not convenient to have the plants removed for turning over the whole, and more particularly when the plants are in their last stage of cultivation; that is, when the fruit is swelling off. Their roots will then generally be found to have got through the holes in the bottom of the pots, and to have extended themselves amongst the decayed tan, and should not be disturbed if possible. In houses and pits which are heated by fires, the tan will be found sometimes

to become too dry, particularly nearest to the hottest part of the flues. In this case, water must be applied over the tan. A fine moist heat will thus be produced, at all times most desirable in pine houses.

We may observe that where tan is not easily procured, oak and other tree leaves are equally good. Indeed, we rather prefer oak leaves to tan. But neither should be introduced into the pits in large quantities, until they have been properly fermented. When leaves are used, they require to be well trodden down, in order that they may not subside too much afterwards. They must also be kept moderately moist. When the pits are filled with leaves it is desirable to have at least a few inches of *decayed* tan or leaves upon the surface. This is at once better adapted for agreeably plunging the pots, and will be found to adhere more closely round the pots than the undecayed leaves alone. We have always found the heat produced from well prepared leaves more sweet and agreeable than that produced from tan, and fully as lasting; and when the roots of the plants have penetrated through the bottom of the pots, as observed above, we find that they run still more freely among half decayed leaves than in tan.

When plants are shifted for the last time, it is particularly necessary that the pit in which they are to be placed should be well prepared, in order that a proper degree of heat may be continued by top dressing, as above, till the fruit be ripe. We would always prefer good oak leaves for this stage of their culture.

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## JANUARY.

### NURSING PINE PLANTS.

UNDER this head are to be considered suckers and crowns which have been taken from the plants or fruit in the course of the preceding summer or autumn, and potted, or which is done with the greater part, planted into a pit or wooden frame for the purpose, among decayed tan or leaves.

The principal thing to be attended to at this season, is the temperature. During the night it should be kept as near 60° as possible. During sunshine, it may be permitted to rise to 65°, or even to 70°, especially when air is admitted, which should be freely given every fine day. Apply sufficient linings to the wooden frames, when the heat is kept up by means of dung and tan only. Cover the lights carefully with mats every night. When the weather is severe and frosty, add to this a covering of dry hay or straw. The coverings should be put on about sunset, and removed soon after sunrise, except in cases of extremely severe weather. The utility of this must, we think, be obvious to every one, as it is certainly a much more rational practice to shut out the cold, than to force in artificial heat to keep up the temperature to the required degree.

### SUCCESSION PINE PLANTS.

THE plants occupying this department are principally crowns and suckers taken from the fruit or plant at an earlier period of the preceding summer than the nursing plants, potted and brought into frames, or flued pits, in



the month of July, or beginning of August, and shifted, most of them, in the month of September.

In regard to these also, the chief thing to be attended to is the temperature. It should not now be allowed to exceed 60° during the night, and air may be admitted freely every fine day when it rises above 65°. Water should be given but very sparingly, and to the roots only at this season. It should never be used at a lower degree of temperature than that of the pits or house.

#### FRUITING PINE PLANTS.

HERE also the temperature is of essential importance. It should be kept steadily at from 60°, to 65°, as it is more desirable for general purposes that the plants should not start into fruit till the middle or end of next month. Some sorts, however, are found to swell tolerably well during winter; the Jamaica, in particular. At no time is assistance more necessary than when the fruit first appears; especially in one particular, the preservation of a proper bottom heat. For, notwithstanding the air of the house is kept sufficiently warm by the flues, yet, if the plants be not carefully preserved in a brisk bottom heat, they will be checked in their first growth, and will be much inferior in size to what they would otherwise be. Such, therefore, as are in fruit, should be kept as deep in the bed as possible, especially when the temperature of the house cannot be kept sufficiently high for them, without sacrificing the remainder, whose general crop it may be desirable to delay till a later season. The heat of the bark-bed should also be carefully kept up, when declining, by the mode of top-dressing recommended in the general remarks; or, when a more general change of the tan becomes necessary, by taking up the pots, removing from the surface and sides such bark as may be much decayed, filling up with new bark, mixing all well together by forking the whole up from the bottom, then replunging the pots to their rims, as before. Let the fires be made regularly every morning and evening, guarding especially against excess of temperature, by a thermometer placed in the hot-house.

Water should be given the plants once a week or fortnight, or as it may seem necessary. It should be given very moderately at this season, and as little as possible to the heart or leaves. For watering the pines and other plants in the house, a long tin pipe is eligible, having three joints, by which it may be lengthened or shortened as convenient; and a funnel at the largest end for receiving the water. By this the water may be conveyed to the pots in any part of the bed with the greater exactness, and without being poured upon the heart or leaves of the plants. For watering the different sorts of plants, soft water is to be preferred, the cold chill being previously taken off, by keeping it in a tub or cistern, conveniently attached to the hot-house. All the tender exotics should be watered as often as required; the woody kinds often; the succulent tribe more seldom, or at least in less quantities at a time.

They should all be kept perfectly clean from dust or any sort of foulness. If any thing of that kind appear on their leaves, let the large leaved sort be washed with a sponge, the others occasionally watered all over the top.

#### FORCING VINES.

THE most celebrated cultivators of this much esteemed fruit, seem to

agree, that the month of February, or beginning of March, is the best time to commence forcing. In many situations, however, where a supply is wanted throughout the year, forcing is commenced by the first of November, and sometimes sooner; and, notwithstanding the disadvantages, grapes are often thus obtained in good perfection by the month of April. Where there are two or more houses, indeed, it will generally be desirable to begin forcing one of them by the first of the year.

The house having been put in order for this purpose, as directed in November, the fires should be regularly applied at night, and even a little in the day, should the state of the weather require. But the fires should be so moderate, that the temperature of the house may not exceed  $50^{\circ}$  during the night, for the first ten days. Then the temperature should be gradually raised to  $55^{\circ}$ , at which it should remain until every bud in the house has begun to swell. It should then be gradually raised, so that it may be about  $60^{\circ}$ , when the vines are breaking into leaf. From this time it should be gradually increased, so as to reach  $70^{\circ}$  or  $72^{\circ}$  by the time the vines come into flower.

From the commencement, air should be freely admitted every day, by letting down the lights or opening ventilators, so that the temperature may at no time exceed the fire-heat medium more than eight or ten degrees.

From the time the forcing is commenced, the syringe or garden engine should be freely applied every day to moisten the shoots and buds. The house should be regularly filled with steam every evening after the fires are lighted, and when the flues have become sufficiently warm for the purpose. A pot or two of water may be placed on the hottest part of the flue an hour or two before. This, when sprinkled over the flues, will produce steam in greater abundance, than if applied in a cold state. A pot of water may also be sprinkled over the flues when the fires are made up for the night. This will keep a moist atmosphere during the remainder of the night.

It has been our regular practice, for a number of years, when beginning to force, to introduce a quantity of unfermented dung into our early vinery. This is built up into a ridge along the house. Being frequently turned, and receiving additions occasionally, it discharges a quantity of steam regularly over the house, and is generally sufficient to keep it at the required degree of temperature for the first two weeks. We consider this practice of most essential service to bring away the buds in a strong and vigorous state. We may add, that since we adopted the practice, we have never been troubled with red spider, or any other insects. We generally remove the dung when the vines have pushed a few eyes of young wood.

If the vines are planted on the outside of the house, they should be protected by a sufficient quantity of moss wound round their stems with a hayband.

If not already done, the surface of the border outside should be stirred up a little with a fork, and a coating of good moist dung should be laid over it to the depth of six or seven inches. This, indeed, should always be done in the beginning of winter, before severe frost sets in. It is of much benefit to the vines; both protecting their roots from the frost, and affording them a supply of nourishment. This, indeed, and watering the borders with liquid manure, are the only means of supplying the necessary nourishment; as digging them, however slightly, would, in most cases, be

very injurious to the roots. The borders should be well watered with the drainings of the dunghill. As much should be given as will penetrate fully to the depth of the roots. This may be repeated occasionally during the course of this, and the two following months.

#### FORCING PEACHES AND NECTARINES.

THE forcing of peaches and nectarines is in many situations begun in December, in order to have ripe fruit in May. Little is to be gained by beginning earlier. But when there are two or more compartments, it is generally desirable to commence forcing a portion about the first of the year.

The house, borders, &c., being in readiness for this purpose, as directed in November, a little fire may now be applied every night. This should be very moderate for the first two weeks; the temperature of the house not to exceed  $45^{\circ}$  or  $48^{\circ}$  during the night, and air to be freely admitted when the temperature reaches  $55^{\circ}$  during the day. Then the temperature should be gradually increased, so as to reach  $55^{\circ}$  by the time that the trees are in flower; giving always abundance of air every fine day when the temperature exceeds the fire minimum a few degrees. A regular and steady temperature is of the greatest importance to the success of the trees and crop.

The trees should be regularly syringed every morning, or after the house is shut up for the evening. A little water may be sprinkled over the fires, when the fires are made up for the night, which, at this season should not be earlier than ten o'clock. The borders should be kept moderately moist; but care must be taken not to deluge them with water, otherwise the flower-buds will be in danger of falling off, and a failure of the crop will be the consequence. To avert this danger, instead of syringing with the garden engine, we would recommend Reid's patent engine with a fine rose. This acts like a dew upon the branches and buds, and greatly promotes the rise of the sap, and the strength and breaking of the buds.

The surface of the borders within the house should be frequently stirred, and kept fresh and clean. No part of them should be allowed to become dry or hard. This is sometimes apt to happen through inattention, particularly at the part where the flue enters the house.

#### FORCING PEACHES AND NECTARINES IN POTS OR BOXES.

THE trees should be prepared according to the directions given for cherries and plums. The soil should be rather lighter and much richer than that recommended for the peach and nectarine borders; and there should be an abundant supply of liquid manure, to make up in some degree for the confined space allotted to the roots in the pots or boxes.

Where there is the convenience of a green-house or a conservatory, the trees may be placed there for two or three weeks before the forcing is commenced in the peach-house. Being thence removed to the peach-house, they should remain till the fruit is stoned. They may then be placed in a vinery for a few weeks to forward them till the fruit begins to swell off, then replaced in the peach-house, or rather in the green-house or conservatory. In the green-house, the fruit appears to fine effect; and, from the abun-

dance of sun and air, it is matured to great advantage; acquiring a peculiar richness both of flavour and colour.

When the fruit is set, the plants should be moderately supplied with water. When stoned, the supply of water should be abundant, and the surface of the pots should be covered with rotten dung, which should be renewed occasionally.

#### FORCING CHERRIES.

THE sorts preferred for forcing are the Mayduke, and sometimes the Morella.

Plants for the purpose are generally preparing a year or two before forcing, in the following mode. They should be chosen young in the nursery, or, where many of them are to be forced annually, it may be proper for each gardener to propagate his own. When a year from the bud, they should be carefully tied up and potted in pots, tubs, or boxes, of size according to their roots, and the strength of the trees, to be afterwards shifted into larger pots or boxes, as may seem necessary. The boxes should be perforated with many holes for the egress of the roots, and the purpose of draining. Instead of broken pieces of pots, it is preferable to cover the holes with pieces of fresh turf. These, while they admit a sufficient degree of filtration, will not impede the egress of the roots. After planting, plunge the plants into a sheltered, but not shaded part of the garden, in which to remain till ready for forcing. Here supply them regularly with water, and cover the surface with rotten dung, both to prevent excessive evaporation, and to nourish the trees. Those intended to remain in this state of preparation for more than a year, should be taken up, after pruning, any time before the beginning of spring, and such of their roots as have penetrated into the natural soil should be carefully cut off. This, while it will not injure their growth, will promote their fruitfulness. A sufficient number of plants should be continually kept in this state of preparation; new supplies being always put in the place of those removed into the hot-house. These need not always be young trees. Many which have been forced one season, may, if in a weak state, be taken out of the boxes, headed down, dressed about the roots, and planted out in a quarter of rich loam, where they will be fit for repotting in a year or two. Others, which have not been forced very early, will be in a good state for forcing two years successively. Such, however, as do not break freely and show symptoms of vigour, should be thrown away. The same rule is applicable to apricots and plums. As to gooseberries and currants, they are so easily propagated, and so much better for forcing while young than old, it is not worth while to preserve them after bearing a crop in the cherry-house. They may be planted in any part of the garden when wanted to fill vacancies, or altogether thrown away.

For receiving them, when ready for forcing, the floor of the house, being generally formed of good rich loam, should be well forked up. The roots will thus have freedom to penetrate through the holes in the pots or boxes, as, indeed, most probably, they have already begun to do in the natural ground. If this is the case, care must be taken in removing them, to injure the roots as little as possible. They will strike into the floor, and derive from it a considerable share of nourishment. Having been previously pruned according to the usual mode adopted in the open air,

let them be plunged a little into the floor, but not too deep; or else, without plunging, let it suffice to draw a little of the mould of the house round them. Stir up the surface of the mould in the boxes or pots, and, if no roots intervene, remove a portion, supplying it with some rich loam, and covering with an inch or two of rotten dung, which should be frequently replaced.

In arranging those with other plants in the hot-house, attention should be paid to the circumstance, that cherries, plums, and apricots require the most light and air. Gooseberries, from their dwarf habit, will take up little space, and cause little shade, by being placed in the front line. Currants will grow well in a little shade, and may therefore occupy the middle, so as to be partially under the shade of the larger trees, but not too much to endanger the setting of their fruit.

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## FEBRUARY.

### NURSING PINE PLANTS.

THE general management of this department is exactly similar to that of the preceding month, at least for the first two or three weeks, the temperature being the principal thing to be attended to. As the season advances, and becomes milder, with more sunshine, the temperature should be gradually increased. Water should also be given more freely; and no opportunity should be lost for giving air freely every fine day, to strengthen the plants, and prevent them being drawn up in a weak and sickly state.

Towards the end of the month, the crowns or suckers, taken from the fruit or plant the preceding summer or autumn, and hitherto remaining where planted, in the bark-bed, should now be potted. Their roots, which by this time will generally have become of considerable extent, should all be pruned within an inch or so of the bottoms of the crowns and suckers; and any decayed leaves about the bottom of the stems should be removed. Let them be potted, the suckers into 32 sized pots, and the crowns, if not very large, into 48's. Place a small piece of broken pot or oyster-shell over the hole in the bottom of each pot—over this, a little clean round sand, or some fragments of pots or bricks pounded small—then a little of the properly prepared mould. Place the plant at the proper depth—fill up the pot with the mould, giving it a gentle beat upon the potting bench, that the mould may settle regularly among the roots, and press it regularly down with the fingers round the plant, but not very hard, unless the mould is sufficiently dry. Let the surface then be dressed off to the depth of half an inch below the margin of the pots, that these may hold the necessary supplies of water. If the mould is dry, give a gentle watering to settle it about the roots. The bed into which they are to be plunged, should be prepared for their reception, by turning the pit over from the bottom, and adding such a supply of fresh tan as may be necessary to ensure a lively heat. Having laid a sufficient quantity of the old tan on the surface, plunge the pots; selecting the largest plants for the back row, and so on to the front row, which should be occupied by the smallest plants. In order to prevent the roots from being scorched by too violent

a bottom heat, it is a good plan to place a piece of plain tile or slate under the bottom of each pot. The plants should be placed at such distance that their leaves may barely come in contact. If the sun is strong, it will be necessary to shade them slightly a day or two in the hottest part of the day, reducing this by degrees, till the plants strike root, which will generally be in the course of eight or ten days. After this, supply regularly air and water. By this time the temperature should be increased to 65° or 70° during the night, and may be allowed to rise 8° or 10° higher, by the addition of sun-heat during the day.

#### SUCCESSION PINE PLANTS.

THE plants occupying this department should now have grown to a considerable size and strength, and will require to be again shifted towards the end of this month, if the weather be fine. If well managed, they will generally all require to be shifted at the same time. Only some may require to be delayed. For the safety and greater convenience of handling the plants, as they are taken out of the bed, let the leaves be carefully gathered up, and gently tied together with a string of fresh matting.

For such as are thought to be sufficiently strong to be forwarded into fruit in the course of the summer, have proper sized pots cleaned, and a sufficient quantity of properly prepared mould. Turn the plants carefully out of the pots, with their balls entire. If their roots are much matted round the bottoms of the balls, let them be gently loosened and partially cut off. Rub a little of the mould off the surface of the balls, and remove any decayed leaves. Let the pots be properly drained, as for the nursing plants. Plant rather deeper than before. Fill up the space round the ball, stirring it gently down with a thin lathe, so that no space may be left. Press the mould down pretty closely with the fingers. Dress off the surface neatly to the depth of half an inch below the margin of the pots, so as to leave room for the necessary supplies of water. The bed should be prepared for receiving them by being carefully turned over, and mixed with a sufficient quantity of new tan. At this time, it is a good plan to plunge the pots only about a half or two-thirds of their depth, and afterwards, when the heat begins to decline, to add a top dressing. We would always recommend a piece of plain tile or slate to be put under the bottom of each pot; as thus a stronger degree of bottom heat may be applied, with less danger of scorching the roots. The plants should be arranged according to their size, in the same way as the nursing plants. Succession plants particularly, should never be crowded closely together. It is also of much importance now to have them placed near the glass.

Such of the plants as are not intended to be brought into fruit this season, we would recommend to be now shaken out and disrooted, as directed for nursing plants; and put into pots of the same size, or even it may be a size less. With regard to the temperature, air, and water, these are to be treated in the same way as the nursing plants.

#### FRUITING PINE PLANTS.

PARTICULAR attention should now be paid to this department, as the plants should be beginning to show fruit. Towards the middle of the month, let the tan or leaf bed be turned over from the bottom, and such a

quantity of fresh tan or leaves added, as may be necessary to ensure a genial bottom heat. Mix the old and new well together, and turn up about fifteen or sixteen inches of the old decayed tan or leaves to the surface, in which to plunge the pots. Although the plants have been all shifted in autumn into pots of the size in which they were intended to mature their fruit, it will now, however, be necessary to shift such of them again as appear in want of room for their roots. Turn them carefully out of their pots, and remove any decayed leaves, and a little of the decayed mould off the surface of the balls; taking care to disturb the roots as as little as possible. The pots having been properly drained, let the plants be placed rather deeper than before. Fill up the space round the ball with the mould, stirring it gently down with a thin piece of lath. Such of the plants as appear sickly and do not stand steady in the pots, should also be taken out and examined; and if the roots appear unhealthy or decayed, the ball should be considerably or wholly broken down, the unhealthy roots cut off, and the plants potted again into pots of the same, or even of a less size. Such of the plants as appear healthy, and have sufficient room for their roots, should only have a little of the decayed mould on the surface of the pots gently loosened and removed, and replaced with fresh mould.

The plants having been examined and treated as each appears to require, and the bed prepared for their reception, let the pots be plunged about two-thirds of their depth; a top dressing to be added when the heat begins to decline. The distance at which the plants should be placed, must depend upon their size. Good fruiting plants should not have less than two feet from the centre of one plant to that of another. When they are all plunged, and the house neatly done up, and washed out, settle the mould about them with a little water, and give them a gentle syringe overhead, to wash off any dust from the leaves. The temperature should now be gradually increased, so that, by the end of the month, it may be about 70° or 72°. But it should be kept from exceeding 80° or 82° from sun-heat, by the free admission of air every fine day. The paths and flues of the house should have plenty of water sprinkled on them every night, and the plants will also require a more copious supply. If the heat of the bed should rise rather violently, but not so as to render a removal of the plants necessary, the heat may be allowed to escape, and the roots kept from the danger of scorching, by loosening and detaching the tan or leaves a little round the pots, to the depth of two or three inches. This may be effected by means of an iron hook attached to a handle of sufficient length. Two or three watch sticks should always be kept thrust into the bed, to fully the depth of the pots, by the frequent examination of which, an experienced person can easily ascertain and regulate the temperature of the bed. For the less experienced, some recommend a thermometer plunged to the depth of the pots, by which to regulate the bottom heat at from 80° to 85°.

#### FORCING VINES.

The directions given for this department last month, with regard to temperature, airing, watering, and steaming of the house, should be followed till the vines come to flower. The temperature should then be increased to 72°. Syringing should be discontinued until the fruit is set; but the flues and borders of the house should be regularly sprinkled

with water, in order to preserve a fresh moist atmosphere. Air need not be admitted so freely as heretofore and afterwards—only so much as to keep the temperature within due bounds, and with every precaution against cutting winds—as vines are found to set their fruit best in a high temperature and moist atmosphere. We may observe, that though we approve much of a moist atmosphere, we disapprove of steaming the vines, at least to any extent, from the time that the branches begin to be developed. To oppress the vines at any time with a rank or an overheated moisture, tends to produce a spongy and unhealthy growth. It is too customary, and cannot be sufficiently reprobated, to produce such a rank and noxious moisture by overheated fires. The moisture should at all times be fresh, never stagnant, and relieved by a short interval of dry atmosphere once a day.

For some weeks after the bunches have shown themselves, they must be regularly examined, at least once or twice a week, and pruned. This may generally be performed with the finger and thumb, without using a knife. Where the bunches show themselves distinctly, the shoots may be stopped at the second eye, or a few eyes above the fruit, according to the space that each shoot may have to occupy. Such shoots as show no fruit, or do not require to be retained for bearing the succeeding season, should be rubbed off close to the old wood; and all tendrils as they appear. Thus clear the vine of all weak and superfluous shoots, whether springing from the old or the new wood; so as to throw all the strength and sap into the wood retained for succeeding purposes, and to prevent unnecessary shade and confusion; observing to retain the strongest and best formed shoots for the production of a crop next season. It is desirable that a considerable portion of these should not have fruit upon them this season. Let them be tied up to the trellis, as they advance, with strings of fresh matting, allowing sufficient room in the ties for the swelling of the shoots, and laying them in at the distance of from ten to fifteen inches asunder. Such shoots as have been stopped will throw out lateral shoots, which must be pinched off above their first eye from the shoots.

The best method of training vines, particularly in hot-houses, is to train them directly up the roof. This is the best method at once to secure a regular supply of bearing wood in every part of the house, and by its regularity, to avoid confusion. The young shoots of vines should never be crowded closely together—it is a practice as injurious as it is common. Let them always be placed at such distance, that the rays of the sun may be freely admitted through the foliage.

#### FORCING PEACHES.

THE directions given for the peach-house last month having been attended to, the trees should be in flower about the end of the first week of this month. The temperature should now be kept as steady as possible at 55° during the night; and air should be admitted as freely as the state of the weather will permit during the day, and especially when the temperature may exceed 60° from sun-heat, in order to strengthen the blossoms and ensure their setting. When these begin to expand, the syringing should be discontinued until the fruit is set; but the borders and fires should be regularly sprinkled with water every night; as it is of the greatest importance to the health of the trees, and the success of the crop,



particularly at this time, to preserve the atmosphere fresh and moist. As soon as the fruit is set, let the engine or syringe be again applied, rather softly, for a few days, but with more force by degrees, to prevent the breeding of the red spider, of all others the most troublesome insect to almost all sorts of forced plants. If the green fly make its appearance, let the house be fumigated with tobacco. This, however, should not be done while the trees are in flower. The most expeditious method of filling a house with tobacco smoke, is by a flower pot of convenient size, containing a small piece of burning charcoal at bottom, filled with tobacco; having a small hole in the side near to the bottom, to which to apply a pair of small bellows: and covered with a little damp moss, to which water should be applied from time to time, to keep the materials from burning too rapidly. By this means one person will fill an ordinary sized house quite full of smoke in a few minutes. We may add, that we have never found it necessary to repeat this more than once the same season.

When the fruit are as large as garden peas, the trees should be regularly disbudded; and if the fruit have set abundantly, it should be partially thinned. See directions for disbudding wall trees in April or May.

#### FORCING CHERRIES.

ONE of the greatest difficulties in forcing cherries, is their aptitude to shed their blossoms without setting their fruit. This generally proceeds from weakness in the parts of fructification; and can be prevented only by giving as much air as possible, and by the proper regulation of the temperature while the trees are in blossom and until the fruit is set.

At this time, the temperature should not be allowed to exceed 52° during the night. In severe weather, it will be safe to reduce it a few degrees lower. We may add—though the observation is more applicable to March—that in strong sunshine it is advisable to shade the plants slightly an hour or two in the hottest part of the day. This observation is founded on the experience that, in seasons of strong sunshine, cherries set their fruit more freely on walls with an eastern or western, than with a southern exposure. In any circumstances, the temperature, from the effects of sun-heat, should seldom be allowed to exceed 60°; and air should be freely admitted when it exceeds 55°. But care must be taken not to admit too strong a current of cold cutting wind, particularly when the trees are in flower. Nothing is more conducive to the health of the trees, and the free setting of their fruit, than a fresh moist atmosphere, and a free circulation of fresh air. When the trees come into flower, syringing must be discontinued until the fruit is set. But let the borders and flues be sprinkled with water every night, and let the trees be regularly but moderately supplied, till the fruit is set; and even then, let them be cautiously supplied until the fruit is stoned. They should then have abundant supplies, and if occasionally with the drainings of dunghills, so much the better. When the fruit is set, let the syringe or engine be frequently applied in order to destroy the red spider. If the green fly make its appearance, it is easily destroyed by fumigations of tobacco. The trees are also often annoyed with the caterpillar. When this appears, let the affected parts be syringed with a solution of tobacco juice. This will be a certain cure, unless when they are so rolled up into the leaves that it cannot reach them; in which case, let such leaves be immediately picked off. The trees which are forced in

pots, as we believe is generally the case, will seldom require pruning. But when planted in the borders after the usual manner of peaches, they will require to be disshudded in a similar manner, when the fruit is set. When the fruit is fully stoned, the temperature may be gradually increased to 65°, or even to 70°, if it is desirable to have it ready as early as possible.

## MARCH.

### NURSING AND SUCCESSION PINE PLANTS.

THE treatment of nursing and succession pine plants at this time being so similar, we shall take them both under one head. If the weather, in the end of last month, has been unfavourable for renewing the tan beds and shifting the plants, or if it has been thought rather early to do so, we would advise it to be done as early as convenient this month, according to the directions given for last month. Attention must be paid to the temperature, keeping both divisions as steadily as possible about the same degrees as last month, or rather increasing as the weather improves and the season advances. Air must be freely admitted as the state of the weather will allow. As the season advances, the plants will require water in greater abundance. Such of them as are just newly shifted, and particularly such of them as have been disrooted, will not require much water until the plants begin to grow, and their roots have reached the sides of the pots. When this has taken place, they should be regularly supplied in clear dry weather, and in more or less abundance as the plants may appear to require. In clear weather it is very desirable to syringe them occasionally over head to refresh their foliage and to keep them clear of dust.

### FRUITING PINE PLANTS.

THE plants occupying this department having been regulated as directed last month, the principal things to be now attended to are the temperature and the regular supply of the roots with water and nourishment. The temperature of the house should be gradually raised to 70° or 75°, allowing it, from the effects of sun-heat, to rise to 80° or 85°, for two or three hours, about the middle of the day. We may here state a general observation of some importance, that from this time during the growing season, it will greatly brace and invigorate the plants, to allow the temperature to fall a few degrees below the fire-heat medium by the morning. We may add a caution applicable to all the departments of forcing during the spring months, that in severe weather it will be advisable to allow the temperature to fall a few degrees below the prescribed rate. In cloudy weather it is sometimes desirable to increase the fire heat medium a few degrees for an hour or two about the middle of the day, to facilitate a change of air—fresh air being at all times most desirable, and to be admitted as freely for a few hours every day as the state of the weather will allow. The flues and paths of the house should be abundantly sprinkled with water every night, in order to have a fresh humid atmosphere, which is particularly congenial to the nature of the pines. In clear weather let them be occasionally syringed over head when shut up in the afternoon.

As the plants proceed in growth, and in the formation of their fruit, they may sometimes have additional nourishment supplied to their roots by forming a ring of turf round the margin of the pots, and filling it up with rich mould, adding a top dressing of sheep, or other rich dung. This top dressing will encourage the emission of the roots from the bottom of the stems. Besides the regular supply of water the roots should be occasionally watered with liquid manure.

#### FORCING VINES.

If success has attended the management of this department, the fruit should be set about the middle of this month. The temperature should be continued with regularity about 75°, and allowed to rise to 80° or 85° with sun-heat. In our opinion, an advantageous mode of regulating the temperature from this time is, to shut up the house early in the afternoon, so that the heat may attain a maximum of 95°; and to manage the fire-heat so that it may fall to 65° by the morning. Air should be freely admitted every day, being given and taken away by degrees. When the fruit is set, let the engine be freely applied twice or thrice a week, or even every night when the house is shut up, if the weather is clear. Let the flues and borders be regularly sprinkled with water. Let the roots be regularly supplied with water, and occasionally with liquid manure. The directions given last month for pruning and training should be duly attended to throughout this month, to prevent all unnecessary waste of the strength of the vines by shoots, which may not be necessary for a future crop, and which only tend to shade and confusion. As the shoots reach their required length, let them be stopped. Such as have been stopped, if vigorous, will shoot again. The laterals should be allowed to run a few joints and then shortened to one; and so on as they push till they stop, which they will generally do before the fruit begins to colour. When the proper shoots have ripened nearly to the extremity, the lateral shoots may be cut off at one joint above the originally shortened part.

#### FORCING PEACHES.

THE temperature should be kept as regular as possible at 55°, allowing an advance from sun-heat of 5° or 10° about the middle of the day. Air should be admitted freely at every opportunity. This at all times is particularly necessary to peaches, as from their habits they are impatient of confinement, and as the shoots, if drawn up weak, will fall a prey to insects and diseases more readily than any of the other hot-house plants. The process of thinning the fruit should be continued until the stones be fairly formed. The quantity removed should be in proportion to the apparent want of vigour in the tree to bring them to maturity. The trees should also be disbudded and deprived of all superfluous wood, that their vigour may be preserved both for maturing the fruit and the wood left for future crops. The shoots selected to remain should be neatly and regularly laid in to the trellis as they advance, to prevent their being broken by syringing or any other accident, care being had in tying them to give sufficient room for expansion. Water should be supplied to the roots more liberally as the fruit advances, but still with due caution, until the fruit be fairly stoned. The syringe should be freely and unremittingly applied to refresh and

nourish the foliage, and keep down that dreaded enemy the red spider. Should the green fly make its appearance, fumigate with tobacco as directed for last month.

#### FORCING CHERRIES.

CONTINUE the regular supplies of air and water directed for last month, after the stoning of the fruit. As the fruit approaches maturity, however, the supplies of water are to be gradually reduced; and the flavour of the fruit will be enhanced by admitting a portion of air during the night.

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### APRIL.

#### NURSING AND SUCCESSION PINE PLANTS.

THESE having been regulated as directed for February and March, should now be growing rapidly. In clear weather they will require to be regularly supplied with water at the roots. They should also be occasionally syringed over head, when shut up in the evening, to refresh their foliage, and keep them clear of dust. The temperature may now be gradually increased to 70° or 75°, and allowed to exceed that 10° or 15° from sun-heat during the day. Air should be freely admitted according to the state of the weather. The most of the plants having been shifted as directed for February and last month, will not require to be shifted again before the beginning of May. Only such as have not been ready then, may now require to be shifted. If the bed have been properly prepared with fresh tan for the plants, when shifted, it should supply a genial heat to their roots till they are again ready for shifting. But in case of the heat declining much before they are ready for shifting, it may often be considerably augmented by carefully introducing a top-dressing of fresh tan over the surface of the bed among the pots.

#### FRUITING PINE PLANTS.

WATER should be plentifully administered to the roots every second or third day, in order to swell off the fruit to a good size. Liquid manure should be occasionally substituted for the water, as serving the purpose both of watering and nourishment. Or, where the strength of the top-dressing recommended for last month, may appear exhausted, a coating of dung may be applied to the surface of the pots, to be washed down by the regular waterings. Nourishment is particularly necessary at this period, for the support not only of the fruit, but of the suckers which it may be desirable to leave for plants. They will now be fast forming, and will make rapid progress when formed.

Such of the suckers as are emitted from the roots, should be destroyed, as making bad plants, from their aptitude to strike into fruit prematurely. The suckers, denominated gills, which sometimes appear upon the foot-stalks of certain varieties, should also be destroyed as useless. Also, of the suckers of the stem, only one or two should be spared, unless when the number of plants is a greater object than the excellence of the fruit.

On the debated question whether crowns or suckers are best for plants, we may state that crowns make the handsomest and surest bearing plants; but suckers are generally to be preferred for strength.

#### FORCING VINES.

THE temperature should be continued as regularly as possible at the same degree as recommended for last month, but allowed from sun-heat during the day to exceed the fire-heat medium  $5^{\circ}$  or  $10^{\circ}$ . When the berries have reached the size of garden peas, the operation of thinning and of tying up the shoulders of such bunches as require it, should not be neglected. This is of the utmost consequence not only to the free swelling of the berries, but to their excellence in every respect.

Tie up the required shoulders with fresh matting. Fix one end of this about one-third from the extremity of the shoulder, or where the shoulder will be most equally balanced—introducing a split of wood longitudinally under the shoulder, to diffuse the pressure in case the shoulder be very heavy. Raise the shoulder as far as required, and tie the other end of the matting to the wires or shoots of the vines. To avoid confusion from tying, and to save trouble, the under tiers of shoulders and the shoulders of moderate sized bunches may be extended and kept up by the insertion of slender splits of wood, having notches at each end, in which two opposite shoulders may rest.

Then, with a pair of proper grape scissors, cut out the most immature of the berries, and also such a quantity of the more perfect of them, as will allow the remainder full scope to expand. The operation may be completed at two different periods—the number of berries to be cut out must depend upon the nature of the vines, the number of bunches upon them, and the size that the berries attain when fully matured. Those which set their fruit thickly—those which produce berries of a large size—and those which have a considerable abundance of bunches, will require to be freely thinned, both in the berries, and, particularly in case of the abundance of bunches, by the entire removal of many of these. The musket, the tokay, and sweetwater, will not generally require so much thinning as some of the other sorts. But such compact growing sorts as the Hamburgh, should be now freely thinned. In general, if fine fruit is the object, the great danger is on the side of thinning too little. For our own part, we have never had occasion to regret having thinned at least one-third of both bunches and berries—but, often, that we had not thinned them more. Of course, it will be understood that in the thinning here directed, it should be the finest of the bunches and berries which are spared.

In clear weather water should now be abundantly supplied both to the roots, and also over the leaves by means of the syringe. This will materially forward the swelling of the fruit, and invigorate the vines. When the weather, however, is damp, so as not to carry off the moisture during the day, the supplies of water should be regulated so as to avoid the danger of mildew.

#### FORCING PEACHES.

THE temperature should be kept about  $55^{\circ}$ , or gradually raised so as to reach  $60^{\circ}$  by the time that the fruit shall be completely stoned. After that all danger is over, provided that the trees be in a healthy state.

The final thinning of the fruit should then be proceeded with. Where fine fruit is an object, it should be thinned upon healthy trees, to the distance of ten or twelve inches apart; but when the trees are rather weak, the quantity left should be proportionably less. Where particular portions of a tree may seem weakly, the fruit should be thinned with equally unsparing hand; it being exceedingly bad management to allow any portion of a tree to be outstripped and absorbed by the other parts.

Water should now be much more abundantly supplied than hitherto, especially at the roots. The syringe should also be frequently applied over the leaves in the morning or evening. Let this be done with considerable force, so as to displace any insects that may attempt a settlement.

The pruning and training in of the young shoots should be continued as directed for last month, and all water shoots removed, and laterals, unless where necessary to fill up vacancies.

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## MAY.

### NURSING PINE PLANTS.

THESE should now be growing rapidly, and by the first or second week of the month will require to be shifted. Particular attention should be paid to this. To shift them either sooner or later than they require, will tend materially to stunt their growth. It is therefore of the utmost consequence to know exactly the proper time for shifting them. This may be known by examining the appearance of the roots. Just when these appear to have extended their wreaths sufficiently round the sides of the pot, and have begun to show the germs of lateral fibres, and before these fibres have made any progress, is the proper time for shifting.

By this time the tan in the pits will have subsided considerably, and the heat having declined, will require to be augmented by a fresh supply of tan. Choose a fine day, and let the plants be carefully removed out of the pits or frames, and tied up, if thought necessary for the preservation of the leaves, as directed on a former occasion. Let the pit be turned over from the bottom, and such a quantity of fresh tan added as may be deemed necessary to ensure a brisk bottom heat. If the old tan is very much decayed, let it be sifted, and the small decayed portion removed to the compost heap; let the remainder be carefully mixed with the necessary quantity of fresh tan, reserving a portion of the decayed for the surface, in which to replunge the pots.

Let the plants be carefully shifted into the next larger sized pots. As observed before, well managed plants will generally all require shifting at the same time. It sometimes happens, however, that a few may not require it; or even that a few may be so weak and sickly as to require to have their balls reduced and their roots trimmed, and to be put into smaller sized pots.

In preparing the plants for potting, turn them carefully out of their pots. Remove any small suckers that may be forming at their roots, and any small decayed leaves near the roots. This will allow them to push out vigorous new roots. Examine the roots, cut out any that are decayed, and disentangle those a little which appear matted round the bottom of their

balls. Let the pots be properly drained as directed on a former occasion. Put in a little mould, over which place the plant in the pot. Fill up round the ball, giving the pot a gentle heat on the potting-board, and carefully stirring down the mould with a piece of thin lath. Press it down rather closely with the fingers, and dress the surface neatly off a little below the margin of the pot, to admit the necessary supplies of water. Give a little water to settle the mould about the roots.

The pit having been prepared, let the plants be carefully arranged according to their size, and replunged. It is desirable that the tan should be raised so that the plants when plunged, may stand within a few inches of the glass; as there is no danger of pines being drawn by keeping up a strong heat, if they are not too closely crowded, or too far from the glass. Attention to this is particularly necessary, both in regard to nursing and succession plants.

As a brisk bottom heat is essentially necessary, we would advise the pots to be plunged at this time only one half or at most two thirds of their depth. A piece of plain tile or slate under each pot, will greatly protect the bottoms of the pots from an extreme of heat, while it will also make the pots stand level in the bed. To guard against excess of bottom heat, watch sticks should always be placed in the pits or frames, and frequently consulted.

The plants being plunged, and the tan neatly done up about them, let them have a sprinkling of water with the syringe overhead. Let the pit or house be kept a little closer for two or three days till the bottom heat comes up.

Towards the end of the month, if the weather is mild, fire heat should be gradually given up. The temperature however should not be less during the night than from 70° to 75°; and during the day, from the effects of sun heat, it may with safety be allowed to range from 100° to 110°. In clear weather the plants will now require abundant supplies of water; occasionally overhead. Air must be freely admitted every fine day, being given and taken away by degrees.

Any crowns or suckers which have not yet been potted, may now be potted; being previously trimmed of their straggling roots. It is desirable that a frame should be prepared for these, and for any small weakly plants of the above. A convenient sized frame is at once the best receptacle for these, and will relieve the more advanced plants in the principal pits.

After shifting, and especially after potting plants for the first time, we would recommend them to be shaded from strong sunshine for a few days.

#### SUCCESSION PINE PLANTS.

THESE being nearly of the same description as the nursing plants, will require nearly the same routine of management. The plants will require to be shifted, and the bottom heat augmented, by turning up the beds, sifting and removing a portion of the decayed tan, if necessary, and by adding a quantity of fresh tan sufficient to ensure a brisk bottom heat.

The temperature, during the night, should be about 70°, and may exceed this from the effects of sun heat during the day, 10° or 15°. Towards the end of the month, if the weather be fine, fire heat may be gradually dispensed with.

Regular supplies of air and water should be given as required from the state of the weather, &c.

#### FRUITING PINE PLANTS.

If the directions in February have been attended to, and the bark-bed in this department properly made up with fresh tan, or with what we described as preferable both for retaining the heat and affording genial nourishment, viz., well fermented leaves, there will be now no necessity for renewing the bed. As the roots will now be extending themselves considerably in the bed, it must prove a serious injury to the plants to take them up; and this in proportion to the forwardness of the fruit. It is therefore of the utmost consequence to have provided sufficient resources of bottom heat in the month of February, so that a due heat may be kept up till the fruit is matured, by a top-dressing at this season of well fermented fresh tan. As the bed will by this time have sunk considerably, and the pots, heightened by a rhind of turf as directed in March, will be standing some inches above the level of the bed, the top-dressing may require to be of the thickness of a foot or more. Having carefully raked off an inch or two of the decayed surface of the bed, particularly round the sides where it is most decayed, let the top-dressing be applied so as not to injure the plants. It may be raised a little above the margins of the pots, keeping it clear however of the surface of the pots, by casing it neatly round their margins.

If through improvidence there do not remain sufficient resources of bottom heat, the least of two evils must be to remove the plants and renew the bed. Let this be done as directed on other occasions, only with especial care to injure the roots and plants as little as possible. Such plants as have their fruit nearly swelled, should be supported with sticks, to prevent the footstalks being damaged.

If any of the plants appear sickly, and the fruit not more than half swelled, it will be proper to shift them either into pots of the same size; or, if their roots be few and diseased, into smaller pots, their balls being reduced, their roots disentangled, and decayed ones removed. This, though it must retard the ripening of the fruit for a season, will promote its ultimate perfection.

After the top-dressing, or whatever other change may be necessary, remove the decayed leaves from the plants. Relieve them also of all the suckers but one or two of the best formed. This is particularly to be attended to where the quantity of plants is not preferred to their quality, and to the quality of the fruit.

When the house is regulated and cleaned, let the plants be watered at their roots, and profusely syringed overhead to cleanse and refresh them. Those showing fruit in blossom, and swelling their fruit should be liberally supplied with water every third or fourth day. But from the time that any are colouring to ripen, the watering of such should be reduced by degrees, till it be entirely withheld some time before ripening. This is necessary to ensure the richness and flavour of the fruit.

Towards the end of the month, if the weather is fine, fire heat may be gradually dispensed with. At this time the temperature should be about 75° during the night; during the day it may range without danger from that to 100°. Air must be freely admitted on all occasions as the state



of the weather may permit. This is absolutely necessary to enhance the flavour of the fruit.

The maturity of the fruit is indicated by a diffusive fragrance with a change in the colour of the fruit; most sorts becoming yellow or straw-coloured, others dark green or yellowish tinged with green. The fruit should be cut before it is dead ripe, otherwise the spirit of the flavour will be dissipated. In cutting, a considerable portion of the fruit-stalk should be left attached to the fruit, as also the crown adhering to the top.

#### FORCING GRAPE S.

The crop will now be swelling off. The temperature should be continued regularly at from 70° to 75°. With a free circulation of air, it may be allowed to rise from the effects of sun heat 10° or 15°.

In clear weather, syringing should be continued occasionally till the fruit begins to change colour; and especially if there is any appearance of red spider. Should the spider appear after syringing is discontinued, the vines may be washed with a solution of lime and sulphur.

In very dry weather, it is advisable to mulch the outside borders with a little short grass; to be removed when the fruit is approaching to maturity, should the weather not continue excessively dry.

Towards the end of the month the fruit should be beginning to change colour. Syringing must then be discontinued. Watering the borders should also be gradually discontinued as the fruit approaches to maturity.

During this time, it is our practice to leave a small portion of air at the top of the house during the night. This tends to dry the atmosphere, to allow a higher temperature, and so to enhance the flavour of the fruit.

At this time pruning should also be attended to. Any of the lateral shoots that may require it should be shortened back, and such of the leaves as may be overshadowing the fruit should be shed aside, that the fruit may enjoy as much as possible of light, air, and nourishment. We reprobate, however, the practice adopted by some, of thinning the leaves. It is injurious at once to the fruit, and to the wood retained for succeeding purposes.

#### FORCING PEACHES.

The fruit should now be approaching maturity. The principal thing to be attended to, is the admission of sun and air. It is well known, that peaches ripened on the open wall, excel those ripened in the hot-house in colour and flavour. It seems therefore of essential importance that the fruit should now be exposed to the free action of the sun and air. To allow such full exposure, the shoots which may appear too rampant for the equal diffusion of the sap, and as many others as can be spared, should be removed. The leaves should be pushed aside from the fruit, or even a few of them cut off, if necessary; only leaving the lower part of them to mature the buds at their base. The sashes should also be drawn down as much as possible on a very fine day.

Care must be taken, however, to cover up the house at the approach of rain; as wet would prove highly injurious at this time. The syringing and watering of the borders should be gradually discontinued, and altogether withheld for some time before the fruit is matured.

When the fruit is ripe, nets may be suspended below the trees for such of the fruit as may happen to fall. It should be observed, however, that for the sake of the flavour, the fruit should be pulled before it becomes dead ripe. It is easily ascertained by the hand, when it is fit for pulling.

When pulled, it should be carried to the fruit room, and carefully placed on a clean shelf, unless immediately wanted for use.

## JUNE.

### NURSING AND SUCCESSION PINES.

In so far as regards temperature, air, and water, these compartments will require nearly the same routine of management as directed for last month. In the nursing department, the temperature may be allowed to range, with sun heat, from 110° to 120°.

The few plants which may not have required shifting then, should now be shifted according to the directions then given. Any crowns or suckers which have been stuck to strike in the front of the pits or frames, may now be taken up, trimmed of their straggling roots, potted, and placed in the frame appointed last month for those of a similar description. The plants thus shifted, or potted, should be shaded a few days from strong sunshine.

In the frame, or frames, the proper temperature should be kept up by means of linings, and by renewing the beds when necessary. Rank steam from the linings or beds, as tending to rot the plants at the heart, should be carefully guarded against. This may be effected by a sufficient covering of well reduced tan, in which to plunge the pots. To guard against extremes of bottom heat, watch sticks should always be placed in both frames and pits, and frequently examined. This is particularly necessary when the beds are renewed, or fresh linings are applied.

By the continuance of such treatment, the plants in the frames will be ready by autumn to be shifted into the principal nursing and succession pits, when the plants at present in these pits, shall be removed to the succession and fruiting pits.

### FRUITING PINES.

The routine of management prescribed for last month, should be followed out till the fruit is matured. Air should be freely admitted, water gradually withheld, and the fires gradually discontinued, if the temperature can be kept high enough without them.

As the fruit is cut for use, the plants may remain undisturbed, each of them, so long as necessary, to forward its respective suckers. Towards the end of this month some of the suckers may be ready for removal. Such as appear of a brown colour at bottom, and are found to separate freely from the plants, may be carefully taken off. Their removal will enable the plants to bring the remainder to greater perfection. Being removed, and laid on a shelf for a few days, they should be potted into forty-eight sized pots, or such as their size may require, then planted in a frame according to directions already given for nursing plants. Here they will be ready by the end of August for being shifted and placed in nursing pits.

With such accommodations, and with proper management afterwards, they may be expected to mature their fruit by August or September the following season. Where such accommodations cannot immediately be had for them, they may be left on the plants, or laid past till arrangements can be made for them.

The crowns, being returned after the fruit has been used, should be laid past for some days to dry and harden at their bottoms; then planted to strike in the frames or in the front of the nursing pit.

As they become divested of their suckers, the old plants should be thrown out, to make room for any that may have been detained in the succession pit, for want of room in the fruiting pit, and for any that may have started prematurely, or that have been started for the purpose of fruiting late in autumn.

Till a general regulation takes place in autumn, or when the state of the crop may determine, the plants yet remaining, along with those thus introduced into the fruiting pit, should be managed according to the directions already given for this department.

#### FORCING VINES.

THE crop should be fully ripe by about the middle of this month. After ripe, the fruit, particularly the thicker skinned sorts, may, if desirable, be advantageously preserved for some weeks upon the vines, without much injury to the trees. During this time, it is of chief importance to keep the atmosphere dry and cool, and to allow an abundant circulation of air. In damp weather, it will even be necessary to dry the atmosphere by means of slight fires, and by giving sufficient air for evaporation, and for the reduction of the temperature. When desirable to clear off what remains of the fruit, it may, if necessary, be preserved for a short time further, by being suspended in a cool, dry, and well aired fruit room. While preserved either on the vines or in the fruit room, let all the berries showing symptoms of decay, be immediately removed to prevent contamination.

When the fruit is cleared off, it is of the utmost importance to afford every advantage for ripening the shoots to be retained for succeeding purposes. There is little danger of these being over-ripened.

In vines which have been forced so early, the temperature should be sufficient without the aid of artificial heat. But as much as possible of room, light, and air, should be afforded, by the removal of such shoots as have produced fruit this season, and are not absolutely necessary for succeeding purposes. Also any lateral shoots which have overgrown their proper limits should be shortened back.

The engine should be occasionally applied to remove dust, decayed leaves, and vermin, and to refresh and nourish the foliage and wood. In dry weather, the borders will also require to be moderately refreshed with water.

The vineries coming on in succession, should be managed according to the directions already given, making a proper allowance for the season.

#### FORCING PEACHES.

THE crop in this compartment will probably have been disposed of by the end of this month.

The trees should then be refreshed both at their roots and overhead with the syringe; applying it overhead with considerable force for the suppression of red spider.

The lights should be thrown open, or entirely removed, if wanted for ripening late peaches or vines on flued walls, or for any other purpose.

The shoots will be sufficiently matured for fruiting purposes next season, without further protection or care. Only such second growths as may arise from the heat of the season, and may not ripen properly, should be cut off, unless filling some vacancy of the tree.

The peach houses which are coming on in succession, should be managed according to the directions already given, making a proper allowance for the season.

## JULY.

### NURSING PINE PLANTS.

THE directions for last month and the preceding having been attended to, these plants should be growing vigorously, and should require to be slatted again about the middle of this month. Let this be done carefully, according to the directions formerly given; and let the tan be turned over, and, if necessary, the bottom-heat augmented by a portion of new tan. The plants in the frames should also be attended to, and shifted when necessary. Towards the end of the month, the temperature may be gradually decreased a few degrees by abundant admission of air. Water should be regularly supplied, in quantities according to the state of the weather; observing to water rather sparingly for a few days after shifting.

### SUCCESION PINE PLANTS.

SUCH of these as were not disrooted in the spring; being intended to be fruited in autumn, should now be generally showing their fruit. It is desirable that these should be shifted before the fruit comes into flower. Let this be carefully managed, according to the directions already given for fruiting plants. If well managed, these plants will mature their fruit in September or October, of the finest quality, if not of the largest size.

The general stock of succession plants should also be attended to. The shifting of these is often delayed till room is made for them by the removal of the fruiting plants; and such delay is certainly very desirable, where it can be had with safety. But we would by no means advise it after the plants are fully requiring shifting, as nothing is more calculated to throw them into premature fruit, an event, at this season, next to their utter ruin. Let the temperature in this department be gradually decreased a few degrees towards the end of the month, by abundant admission of air. Let water be supplied as the state of the weather and plants may require.

### FRUITING PINE PLANTS

SEEDLINGS should be treated according to the directions already given, till the general crop is cut, when a general arrangement of the plants must take place.

## AUGUST.

## FRUITING PINE PLANTS.

THE general crop may be expected to be cut by the end of this month, when a general arrangement of all the pine plants must take place.

It is desirable that this arrangement should not be later than the last week of this, or the first week of the following month. It should commence with the removal of the plants which have produced their fruit. Their suckers should be carefully taken off, pared smooth at bottom, and stripped of any small decayed leaves, to favour the emission of roots. Along with the crowns, which will require to be dried for a few days, the suckers may be also laid past in a dry apartment, till the other arrangements are effected, and a suitable pit or frame is prepared for their reception. After the removal of these, let the bark or leaf-beds be turned up from the bottom, the exhausted part removed, and the remainder mixed up with a sufficient quantity of fresh tan or leaves, to raise the bed to the proper height, and to ensure a genial bottom-heat; reserving a sufficient quantity of half-decayed matter on the surface, in which to replunge the pots. If principally filled with leaves, let the beds be well trod down, to provide against their subsiding or overheating. The flues should now be cleaned, and any other necessary repairs effected.

These operations being completed, let the requisite number of plants be selected from the succession pits, and, having been shifted as already directed, let them be arranged in the fruiting-pits according to their size, and carefully plunged about two-thirds of their depth, making allowance for a future top-dressing of fresh tan when the heat begins to decline. The plants having been plunged, and the house regulated and neatly done up, the plants should have a gentle watering overhead with the syringe, to refresh them, and clear the foliage of dust. When the heat of the bed has come up, let them have regular but moderate supplies of water. Let a genial and steady heat be supplied, the temperature ranging from 55° to 70° during the night, and from 75° to 80° during the day; abundance of air being admitted when it exceeds 55°.

## SUCCESSION PINE PLANTS.

THE succession pits should also be put in order, by turning up the bark beds, adding the necessary supplies of fresh tan, cleaning the flues, and by other necessary repairs. The requisite number of the strongest plants should be brought from the nursing pits. The most of them, as probably requiring it, should be carefully shifted, arranged according to their size, and plunged. When plunged, let them be gently watered at their roots. When the heat has come up, and the plants have begun to grow again, let them have regular but moderate supplies of water, as the state of the weather and of the plants may require. The temperature should now be gradually allowed to decrease with the decline of the season, so that by the end of the month it may stand about 65° during the night; abundance of air to be admitted when, through the effects of sun heat, it exceeds 80°.

## NURSING PINE PLANTS.

THE crowns and suckers in the nursing pits and frames should also be regulated. Such as have been potted in the preceding months should be carefully shifted. Of such as have been planted into the tan in front of the pits or frames, the strongest should be potted. Their roots being cut off within half an inch or so of their stems, a little of the decayed or hard part of the bottom of their stems being pared off, and any small decayed leaves removed, they should be potted in pots, according to their size, in light vegetable mould, and arranged and plunged.

For the general stock of crowns and suckers lately taken from the old stock of fruiting plants, and laid past to dry, let a small pit or frame be carefully prepared with fresh tan. If a frame, it may be supported upon posts to the required height; and the tan may be supported by a lining of dung round the outside. A few inches of decayed tan being laid on the surface of the frame, let the crowns and suckers be arranged, and inserted at from five to eight inches asunder, according to their size. In such a pit or frame they may remain, without potting, till the end of February or beginning of March. We greatly prefer keeping them in this way through the winter, as a small division of an ordinary sized pit or melon frame will accommodate a great number of plants, and as the temperature can easily be kept up by linings of fresh dung, and by carefully covering up at night in severe weather.

Indeed, for both nursing and succession plants, we prefer pits or frames in which the temperature may be kept up chiefly by means of tan and dung. The plants will be less infested by insects than if grown principally by the aid of fire heat.

The spirit of these remarks may even be extended to the fruiting plants. For these, where it is not an object to force vines or other fruits in the pine pit, we prefer small flued pits without paths. Such a pit, properly constructed, and ten feet wide within, will accommodate as many plants as a pathed house of fifteen feet width. A single flue passing round the front and ends, will be quite sufficient to keep up the required temperature at all seasons of the year. In general, only a slight fire will be required during night, except in very severe weather. One-half the fuel will be saved. Above all, the pines will give indications of a congenial climate.

The general stock of crowns and suckers, being planted as directed, should be shaded in clear weather during the hottest part of the day, till they strike root. They will then occasionally require moderate supplies of water. The temperature, towards the end of the month, should be from 65° to 70°; air to be freely admitted when it exceeds 80° from the effects of sun heat.

## SEPTEMBER.

## NURSING PINES.

THE directions for last month having been followed, let the linings be occasionally turned up or renewed when necessary, to keep up the tem-

perature to 65°. Let air be admitted freely when the temperature exceeds 80° from sun heat. Watering overhead should be gradually discontinued as the season declines, and, in general, the supplies of water should be gradually lessened.

When the crowns and suckers planted in the tan begin to grow, air should be admitted every fine day. These will seldom require much water; only such as have been potted will require regular but moderate supplies. Towards the end of this month, and till the month of April, these supplies should be given in the forenoon of the day. About the same time, if severe weather set in, it may be necessary to commence covering the pits or frames during the night, gradually increasing the coverings as the season may require.

#### SUCCESSION PINES.

THE directions for air, watering, and night-covering of the nursing department, are applicable to this. The temperature should be rather lower. In flued pits, slight fires at night may be necessary towards the end of the month in damp weather. In clear weather, the plants may still be moderately syringed overhead.

#### FRUITING PINES.

THE plants having been regulated as directed for last month, should now be beginning to grow. The temperature, air, and watering should be nearly the same as for the succession department. Slight fires will be necessary towards the end of the month in damp weather. The paths and flues of the house should then be occasionally sprinkled with water, to maintain a fresh and genial moisture during the night.

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### OCTOBER.

#### GENERAL MANAGEMENT OF PINES.

THE directions for the preceding month are nearly applicable to this. The temperature should be a few degrees lower. Artificial heat should be applied rather with a view to maintain the health and vigour of the plants, than to promote their growth.

In flued pits, night fires will be occasionally required at the beginning, regularly by the end of the month. In the pits or frames heated only by tan and dung, greater care is necessary to regulate the temperature than in flued pits; the cultivator in this case having less immediate control over the materials by which the temperature is maintained. The watch sticks kept in the beds must be frequently examined, and the linings carefully guarded from cold, rain, or wind, or otherwise managed as may be necessary to prevent sudden changes of temperature.

Air must now be freely admitted as the state of the weather will permit, and care must be taken to have it diffused equally through the pit or frame. Excepting after the plants are shifted, when they must be kept

close and shaded for some time, a free circulation of air is always necessary to plants confined in an artificial atmosphere.

Water, both at roots and overhead, though it is better to give it rather frequently, should now be gradually diminished in quantity. The crows and suckers planted in the bark-bed should require little or no water during the winter months. During this period, indeed, it is preferable to keep all the plants rather dry than otherwise.

Such of the succession and nursing plants as are likely to require shifting before the spring, it will be advisable to shift by the middle of this month. To shift such even rather prematurely at this time, is better than to incur the necessity of doing so later in the season, it being of advantage to have the pots in some measure replenished with roots, ere the plants fall into what may be termed their dormant state during the dead of winter.

#### PRUNING VINES.

THE directions for the early forced vinery in June and July having been followed, the wood should now be thoroughly ripe; and, towards the end of the month, the leaves will be falling into decay. The operation of pruning should be therefore commenced preparatory for next season. It is of importance not to delay this operation later than is absolutely proper. In healthy, sufficiently ripened wood, indeed, there is no danger of bleeding, whenever the pruning may be performed; bleeding, in our opinion, generally proceeding either from unripened wood, or from a diseased state of the roots in consequence of a damp subsoil. It is, however, of great advantage to the vines to have as much time as possible for the healing of the wounds, and for resting, previous to another crop.

In pruning and training, the great object aimed at, is to have all parts of the house equally supplied with good bearing wood. Various modes have been adopted for the same end—long pruning and short spur, horizontal training, fan-form, and direct. It is perhaps not of essential importance which of these modes be adopted, the success of vines depending more upon the circumstances connected with the soil and atmosphere, than upon the modes of pruning and training.

If, however, we may hazard an opinion derived from considerable experience, the mode of pruning best fitted upon the whole for the equal distribution and arrangement of sap and fruitfulness, is what may be termed the intermediate spur method. And for the same end, we prefer the mode of training from two horizontal main branches directly up the roof, or, if the vines be planted on the back wall, directly up the trellis. Judiciously managed, the house may be furnished as speedily by this as by any other method of training. At any rate, any disadvantage of tediousness at the outset must be more than compensated by the equal distribution of sap and fruitfulness. Another advantage of this method is that the fewest number of stocks will suffice for any given space—in a house sixteen feet high, they should be planted at from eight to twelve feet apart, according to their habit of growth—and thus will attain to something like maturity of size, the best state for fruitfulness. Should variety be desirable, it may be secured at pleasure by grafting, and at little or no expense of wood or time. (See our method of Grafting. *Horticultura. Transactions.*)

In proceeding at this time to the principal or winter pruning, some



consideration is necessary to retain enough of bearing wood, and no more, while removing from the bottom such of the leading shoots as have become scanty of bearing wood near their base, to make way for succeeding young wood, to keep the trees under perpetual renewal, to check the natural propensity of the trees to shoot stronger towards the extremities, and to secure a sufficiency of bearing wood at bottom. The shoots laid in during summer for the purpose of replacing the old leading shoots intended for removal, should be shortened more or less as the due distribution of bearing wood may require. Such of the lateral shoots as may not seem necessary for succeeding purposes, should be entirely removed. The strongest and best formed being retained, should be shortened into one, two, three, or four eyes, according to their several strengths, and the spaces requiring to be furnished. In shortening shoots of whatever size, it is proper to provide against danger or injury by cutting on the opposite side of the last eye, one and a half inch above it, and in a slanting direction.

The pruning being finished, let the loose outward bark be removed from the older branches by rubbing with the hands. Let the trellis or wires be cleared of all decayed leaves, pieces of old matting, &c. Let the stronger branches, the trellis, and all the wood work of the house be carefully washed with water. Let the vines be washed with an infusion of soap and water. Not such a wash as that recommended by a certain living author, who advises a lather of soft soap, of such "a thick consistency as not to run off the trees when applied," mixed with a solution of sulphur and tobacco juice of "the consistence of thick paint." "This," he adds, "will destroy any insects that may be alive or harbouring under the bark." Certainly, we must admit, it will effect a complete destruction, not only of the insects, but of all future harbour for them. It will not require to be twice repeated, as the author advises, ere it have effected the complete destruction of the tree. A wash of soft soap and tobacco juice, at the rate of a pound each, dissolved in four gallons of water, will be sufficient for any good purpose. Let this be carefully applied over every part of the vines with a brush.

The shoots and branches should now be laid in, regularly distributed, and tied to the trellis or wires; allowing room in the ties for future swelling. In the distribution of the wood, the older branches which it has been necessary to retain, may have their more naked parts covered with young shoots trained along them, by which they may be replaced on a future occasion.

Let the house be cleaned out, and the borders stirred up, to give the whole an orderly appearance.

Where vines are grown in pine-houses, they should now be pruned, and treated according to the above directions.

## NOVEMBER.

### NURSING PINE PLANTS.

For the crowns and suckers planted into the tan, in a frame or small pit, the due temperature should be maintained by stirring up and renew-

ing the linings when necessary, and by carefully covering up at night in severe weather.

Such of the plants as were potted in the end of August or beginning of September, and are occupying pits heated by flues or dung linings, will require at this time to have the bark-beds turned up, and such a quantity of fresh tan added as may be deemed necessary to ensure a genial bottom heat till the month of February. For this operation a fine day should be chosen about the beginning or middle of the month. During the operation, the plants should be carefully removed, and placed in some convenient shelter till the bed is again prepared for their reception. The pots should then be arranged and carefully plunged about two-thirds of their depth; to be afterwards, when the heat begins to decline, either plunged to the full depth, or supplied with a top-dressing of tan, carefully introduced among them, to their full depth, over the surface of the bed.

In flued pits, the plants will probably require a little water once a week. In pits heated by tan or dung only, a little once in ten days or a fortnight will probably be sufficient. The temperature should range from 60° to 65°. Fresh air should be admitted as freely as the state of the weather will permit.

#### SUCCESSION PINE PLANTS.

This compartment will require a similar regulation to that in the nursing pit. The watering also should be less frequent, and less in quantity. If in flued pits, the foliage may still occasionally be slightly syringed, and the humidity kept up by sprinkling the flues with water. The temperature should be gradually reduced to 60° during the night, allowing a few degrees of increase from sunshine. Air should be admitted as freely as the state of the weather will permit.

#### FRUITING PINE PLANTS.

THESE having been shifted in the end of August or beginning of September into pots of the size in which they are intended for the most part to mature their fruit, the principal thing required at this time will be the renewal of the bottom heat.

For the greater convenience of handling the plants, and of preserving their leaves from being broken or bruised as they are moved out of the pit, the leaves should be carefully gathered up and gently tied together with a strand of matting. A portion of the decayed matter being removed, let the bed be carefully turned over from the bottom, and mixed up with such a quantity of previously prepared fresh tan or leaves, as may be deemed necessary to ensure a genial bottom heat during the winter. The bed being prepared, let the plants be carefully arranged and plunged, with a piece of plain tile or slate under each pot. Let the pots be plunged about two-thirds of their depth; to be afterwards supplied with a top-dressing of tan to their full height, when the heat begins to decline.

The temperature at this time should be 60° during the night, and 65° with sunshine; the object being rather to maintain the health and vigour of the plants, than to excite them to grow. Air should be given as freely as the state of the weather will permit. Give moderate supplies of water, and let the paths and flues of the house be plentifully sprinkled. In

watering at this season, in any of the compartments, it is necessary to raise the temperature of the water to not less than that of the house.

#### PRUNING PEACHES.

SINCE, in the peach, it is principally the young wood which produces the fruit and succeeding fruiting wood, the principal object in pruning must be to secure and provide for a sufficient distribution of young wood throughout every part of the tree.

If the summer-training has been duly attended to, the less pruning will be required at this season. But it is peculiarly necessary to have an annual removal at this season of all the torn, exhausted, or naked branches that can be advantageously replaced by younger or better furnished wood. Such an annual pruning will save the necessity of cutting too much at any one period—a treatment peculiarly hurtful to the peach.

When a tree is in general over luxuriant, the pruning should be the more sparing, and particularly the shoots retained should be the less shortened. The redundant sap will thus be exhausted, and the habit of the tree corrected. An opposite treatment is required in opposite circumstances. Only when a tree of moderate or weakly growth in general, is rampant in particular parts, these parts should be completely cut out for the more equal diffusion of the sap. All the shoots retained should be shortened more or less according to their various strengths and situations, to cause them to push out successive bearing wood at the requisite distances. They should always be shortened at a wood-bud; otherwise the fruit will fall, and the shoot prove useless, for want of a leading shoot to draw the sap towards the extremity.

The pruning being finished, the trees and trellises should be washed with the mixture recommended for the vines; or, since the peach buds are more susceptible of injury than the vine buds, a rather weaker solution will suffice. The younger shoots should be washed with great care; laying them in one hand, and, with a brush in the other, gently rubbing the mixture twice or thrice along them upwards, so as not to injure the buds, which will by this time be considerably swollen. The older shoots should be well rubbed, upwards and downwards, to remove filth, soften the bark, and destroy any seeds of vermin.

These operations performed, let the branches and shoots be arranged, trained to the trellis at from eight to ten inches apart, according to their strength, and tied up with strands of fresh matting, allowing room for the shoots to swell.

The flues should then be cleaned, all necessary repairs made on the house, and the borders supplied with protection and nourishment. Although peaches on the open wall should not be highly manured, forced peaches require a stronger nourishment. The way of administering this with greatest safety to the roots, is that recommended for the vines. The borders should be carefully forked up a few inches, so as not to injure the roots, and watered with a quantity of liquid manure, sufficient to penetrate to the depth of the roots. The outside borders, so far as the roots are supposed to extend, having been similarly forked up, should have a top-dressing of good fresh dung five or six inches thick, and also a good watering of liquid manure.

The lights having been replaced previous to these operations, should be

managed so as rather to protect from injury during intense frost, than to hasten the swelling of the buds, till this be desirable.

#### PRUNING CHERRIES.

As cherry trees that have been forced make but little wood, probably little more pruning will be required than a moderate thinning of the spurs, and the removal of any breastwood or water shoots produced since the crop was gathered. The leading shoots will not require to be shortened, except when necessary to induce new wood to fill up vacancies. When shortened for this purpose near the bottom of the tree, they should be cut pretty well in, to ensure their pushing with sufficient strength. When near the extremities, it will be sufficient to shorten them one-third or one-half.

Let the trees be washed, the flues cleaned, and the house repaired, as recommended for the peaches.

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### DECEMBER.

#### GENERAL MANAGEMENT OF PINES.

THE directions for the different compartments last month, should be generally followed in this. Water should be given merely as necessity requires, during this, the dormant season. Air should be admitted on all favourable occasions. The temperature should be kept steady at the required degree.

The pits heated by tan and dung only, will require particular attention. The linings must be properly managed, to keep up the necessary temperature. The pits must be covered every night; the mats being properly disposed to favour the escape of rank steam. Unless the temperature is rather low, the coverings should not be laid on too early in the afternoon, and should be removed as soon after sunrise as may be consistent with safety, that the plants may enjoy as much light as possible.

#### VINES.

THE vine-houses and borders should now be carefully prepared.

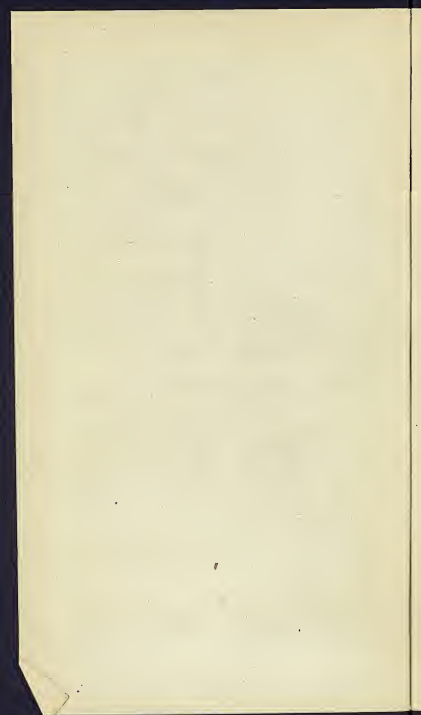
The flues should be cleaned, and any other necessary repairs done to the house. The borders should be slightly stirred up with a fork, a few inches deep, to render the surface sufficiently porous; then overlaid with a coating of good fresh dung to the depth of six or eight inches. This, with liquid manure, is the chief or only safe means of protecting the roots from frost, and of supplying them with nourishment; it being dangerous to the roots to dig in the manure.

If the lights have been removed, they should be replaced previous to these operations; and they should be managed so as to admit a constant circulation of air, till near the time of commencing to force; when they must be shut every night, that the vines may be gradually prepared for the application of artificial heat.

The late forced vines which have not yet been pruned, should now be

pruned and trained according to directions in October. The vines which were then pruned and trained, and which it is intended to commence forcing by the end of this month or beginning of January, should have their stems duly protected and prepared.

When the stems of these proceed from the outside of the house, they should be wound round with a sufficient quantity of soft dry hay or ferns to protect them from the severity of the weather. Stems inside the house also, and a few feet of the larger branches, should be wound round with moss. This is of considerable importance in early forcing; and will contribute greatly to the rising of the sap, and the strong breaking of the buds



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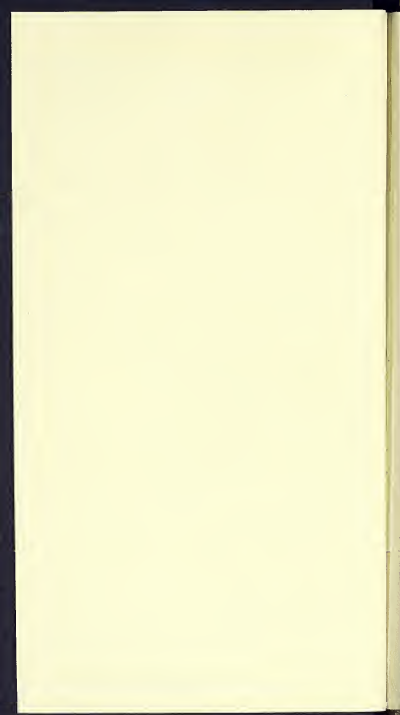
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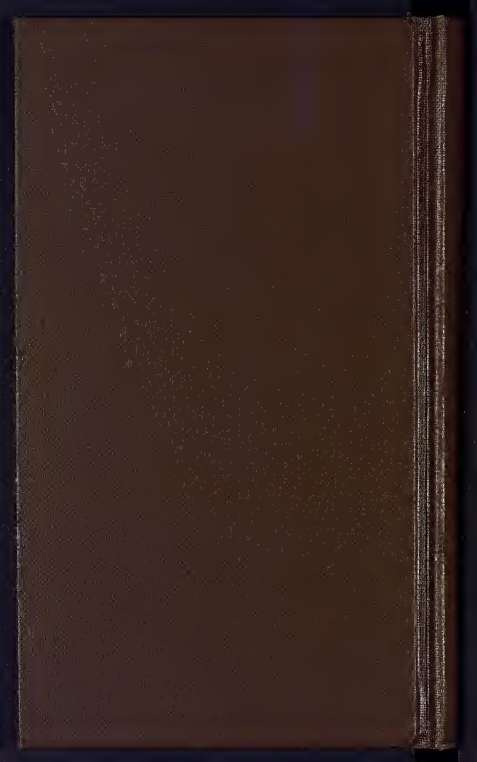
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RHUB

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SB

98

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