or, if the plant is potted with its full complement of leaves into a larger pot, the leaves will, in like manner, restore the damage done to the tender and delicate roots by the operation of shifting into a fresh pot and soil. After a healthy root action takes place, and the system of the young plant is in full and vigorous play, the removal of the top will soon be compensated by the bursting forth of the lateral growth.

Take, on the other hand, a geranium that has done blooming, and that, after being well ripened, has been cut down to lay the foundation for another season's flowering. In order to its healthy growth it is necessary that the whole of the old and exhausted soil be shaken from its roots, and that fresh nutritive soil be substituted. Now, this shaking out operation is frequently performed immediately the plant is pruned back and denuded of every leaf, and, as a consequence, delicate plants die outright. The plant should be allowed to heal its wounds and bud out into leaf before it has its roots entirely disentangled from the effete soil. The young crop of leaves will keep up their action on the roots and hasten the formation of young and greedy feeders, the shock will soon be recovered, and the whole system brought into full and healthy play. Every active root et or spongiole dies immediately the plant is cut down and denuded of its foliage, and it is not till young shoots and leaves are again formed that they come into activity again.

From the foregoing the inexperienced can scarcely fail to infer that, in potting plants that require any cutting or pruning to keep them shapely or within convenient limits, the two operations should not be performed simultaneously. Generally it is best to prune first, and allow the plant to make fresh growth before potting is performed. Deciduous plants should not be repotted till they burst into leaf. Fuchsias, for instance, which can be so conveniently dried off in winter, should not be shaken out and repotted till they have expanded a few leaves, and all pruning required in their case should be performed before the roots are disturbed. Evergreen plants, such as camellias, oranges, azaleas and myrtles, have a particular season at which their roots elongate or increase with more rapidity than is usual at other stages of their growth, and under ordinary circumstances that period is immediately they have pushed out their season's growth, and is the best time.

But to throw the consideration of topping and pruning aside, it often occurs that shifting a plant into a larger pot becomes necessary when pruning is not called for. In such cases, when it becomes desirable to merely increase the size of a plant, the repotting should be attended to as soon as the roots have coiled themselves among and around the soil sufficiently to perform the potting with a whole ball, but the soil should never be over "matted" with roots. Generally a sure criterion as to when a plant requires more pot-room and nourishment is when the roots announce themselves at the opening at the bottom of the pot. It is, however, much preferable at the near approach of winter to have plants a little cramped at the roots, than to shift at the beginning of a comparatively dormant season. Under such circumstances it is much better to defer repotting until early spring. All plants, such as azaleas and New Holland plants generally, that are dependent on a well ripened growth for their crop of bloom the following season, are much better under than overpotted, and are likewise much less likely to suffer from injudicious watering.

In continuing our remarks on potting plants, we have to observe that the next important consideration is the character of the soil most suitable for plants under circumstances so artificial. One of the most common and fatal errors into which the inexperienced fall is that of making choice of inert and finely pulverized soil for potting with. This and insufficient drainage are more disastrous to pot plants than any other two points of culture that can be named. To pot plants into common garden soil, which is generally destitute of fibry and organic matter, and at the same time to neglect thorough drainage, is the shortest and surest way of reducing a plant, however hardy and vigorous, to a state of inaction and premature decline. Such soil is destitute to a great extent of what forms the food of plants. Were this its only fault, it might be remedied by the application of stimulants in a liquid form; but the principal want or error lies in its mechanical condition being at variance with the requirements of a healthy pot plant. What is required is organic or turfy matter, which in its gradual decomposition affords food to the plant, and at the same time forms a root medium, which freely admits the wholesome influence of the atmosphere, and has the power of absorbing therefrom the essential gases so necessary to the well-being of plant life. A plant potted in finely pulverized soil, or rather dust, entirely destitute of fibre particles, forms, especially after frequent waterings, a close hardened medium, impervious to the chemical action of the air; and if young roots are ever formed in a healthy condition at all, they are most difficult to be kept alive, if that be at all possible under such circumstances. Such a body of soil, especially if watered with water in which there is a sediment soon becomes as solid as a millstone, and no tender plant can thrive in it.

The soil most suitable for the growth of plants in pots should contain a large proportion of decomposing fibry matter, such as the roots and herbage which are common to the surface of old pasture. The fibry matter which such soil contains not only presents in its gradual decomposition the constituent elements which form the chief food of plants, but prevents at the same time the soil from becoming compressed and soured. Such soil should be chopped up or teased with the hand without removing the fibre. Sifting should never be had recourse to, except when it is to be used for potting young things into very small pots; and even then, instead of separating the fibre from the finer soil, it should be all passed through the sieve, simply for the purpose of breaking it up and making it fit for going into small pots without taking the fibre out of it. Soil of this fibry description—fresh and open—should form the chief of mixtures for potting with, and is in itself very nutritious. Manurial substances, such as leaf mould and rotten dung, can be added to such a staple with safety in the case of grosser-feeding plants. The amount of sand added to it must be decided by the character of the roots which various plants make. Heaths, azaleas, and the generality of New Holland plants, which make fine hair-like roots, require a more sandy soil than others; while such as oranges and camellias, which make strong crowquill-like roots, demand a very moderate admixture of sand. The former plants, too, require more of a peaty than a loamy or calcareous soil; but in all cases there should be a large amount of fibrous material. In using such soil, it should always be inclined to the dry side, as, when used wet, it is apt to become compressed and ill-conditioned.

Drainage is another point of great importance in the pot culture of plants. So important is it that, no matter what your soil may be, if the pot is not well drained it is impossible for plants to thrive. Broken pots or tiles form the very best material for draining pots with, inasmuch as such material is light and porous. A six-inch pot should never have less than an inch and a half of finely broken potsherds, free from dusty matter over the crock which covers the hole in the bottom of the pot. And tender rooting plants, particularly those that are intended to remain several years it may be in the same pot, should have extra care bestowed on the drainage, which should in itself be ample, and have a layer of sphagnum moss or other fibry substance placed over the crocks, to keep the finer particles of the soil from mixing with the crocks and choking up the cavities, through which the water should escape with freedom.

As soon as a plant becomes, in gardening phrase, waterlogged at the root, it is most certainly doomed to disease, and ultimately death, unless immediate remedial action is resorted to. How often does it occur that a tiny worm finds its way into the pot, and works the most disastrous results by wriggling the finer particles of the soil down among the drainage, choking it up and preventing the escape of water. Under such circumstances the depredator must be destroyed, and the drainage renewed as soon as the mischief is discovered, or a sickly plant will be the immediate consequence. The effect of stagnant moisture about the roots of