

pardon me for repeating one or two primary instructions: Pare smoothly all wounded or bruised root surfaces, cut the broken root extremities from the under side to favour the downward omission of roots. I am not in favour of severe top-pruning at the time of transplanting. If trees are dug with such care that the roots are not unnecessarily mutilated and shortened, the cutting back, so generally advocated, can in a large measure be obviated.

In replacing the soil, see that every space, no matter how small, between the roots, is well filled; and finally, see that the soil is firmly packed throughout—this is, most important, as the minute and early starting rootlets will obtain a speedy hold upon mother earth, in proportion to the closeness or proximity of the contact. It is also important that the surface of the soil about the tree should be kept in a loose and finely pulverised condition, to prevent evaporation and subsequent drying out.

From an address, by

JOHN CRAIG,

*Horticulturist,  
Expt. Farms*

#### Thinning fruits.—New variety of Apple.

Before proceeding to the consideration of varieties allow me to say a word upon the importance of thinning fruits in years of heavy production. As we have already seen, in discussing the development of new varieties, the perpetuation of its kind is the object in life of all plants. The production of a large number of seeds gives greater certainty to this object; but seeds, botanically the fruit, in the case of most fruits, are matured at the expense of pulp, so that he who would obtain the best results must use his judgment in regard to the amount of fruit each tree is capable of bringing to the highest state of perfection, always remembering that size and perfect development are secured in inverse ratio to the amount of fruit upon the tree.

Let me now draw your attention to some of the new varieties which seem to be of coming importance. Constantly new varieties are being brought before the attention of the public, some worthy of introduction, others entirely unreliable. Last year, one of the varieties came under my notice, which I think will prove of much value to parties, not only in northern but in southern Ontario, in fact, I would commend it for trial in all the appl. growing regions of the Dominion. The variety I refer to is one known as McMahon's White. It originated in Wisconsin some years ago. It has been planted widely and has been fruiting for some years past. I saw specimens of the fruits grown in Minnesota and Wisconsin last summer, and was very favourably impressed with its appearance and quality.

The tree is doing well in the Experimental Farm orchard. Thus far, it is one of our best and healthiest trees, and altogether I think it is a variety that has come to stay, and indications at present are that it will be a profitable variety.

The fruit is large and oblong, somewhat ribbed and attractive, a yellow ground partly covered with a red blush, and last year I am informed that it brought the highest price of any apple in the Milwaukee market, at the time of its shipment.

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## The Garden.

### A Long Succession of Stocks.

The good qualities of stocks are well known to all lovers of flowers, but in only a few cases can it be said that the fact of its being possible to have them nearly or quite all the year round has been grasped and acted upon. During mild winters I have been able to gather from strong plants in the open air repeatedly, and succeeded in doing so nearly up to January in this year. Then came the severe frost, which, when these lines were penned, was still with us, and the stocks suffered badly in common with many other things. Perfectly hardy they are not, there being, according to my experience, no exception to this rule, the Brompton as well as the East Lothian and other intermediates being completely destroyed occasionally by severe frosts. In order, therefore, to be certain of a nearly or quite constant supply, resource must be had to frame, pit, or house culture. There are several types of stocks, which comprise many excellent varieties. All things considered, the East Lothian varieties, five in number, are the most valuable of all, these being very continuous flowering, and, as before stated, fairly hardy. In the more northern counties they are far more extensively grown, and their merits better appreciated than is the case in the southern parts of our Isles, though this would not be the case if it was generally known that they do not require any very special treatment in order to have them at their best. If the seed is sown with that of other varieties late in March or early in April, the plants being duly pricked out in boxes of good soil, hardened off, and finally planted out in well prepared beds or borders not later than the first week in June, they will commence flowering late in July, and continue gay long after the more tender occupants of the borders are crippled by frost, or damaged by heavy autumnal storms. They winter best when on rather high and dry ground, slopes and such like. By sowing seed early in May, and planting a batch where they can be covered by frames, larger and better spikes will be had in the autumn and during the winter, it being also possible to safely transplant these stocks from the open borders to pits or frames, while some, if preferred, can be placed in 8 in. or slightly larger pots. The East Lothians are worth growing, even if no protection is to be afforded them.

Of the true intermediates there are now four distinct colours available—crimson, scarlet, purple, and white—and it is these that are most generally grown in pots under glass for early spring flowering. Well managed, or as sent in large numbers to Covent Garden Market, they are very effective, paying well for the trouble taken with them. In very many cases, however, they are kept in a semi-starved state in small pots far too long, the final shift being given after the mischief has been done, and poor spindly spikes of flowers are the outcome. The seed should be sown about the last week in August, a week later rather than any earlier, and not in heat. Instead of placing the seedlings singly in 3 in. pots, I prefer to place them direct in their flowering size, three in each 6 in. pot answering well. At first, they ought to be carefully watered, or the soil may be sored, and during the winter a greenhouse shelf is the best place for them. Commence feeding when the flower spikes are forming. To succeed these intermediates, there is a very charming form of ten weeks stock

available, this being distributed in this country either as the new forcing ten-week or snowflake. It is quite a gem for pot work, each plant, if well grown, producing a strong central, and sometimes side spikes, of pure white clove-scented flowers. A good percentage are double, but the singles are not to be despised, the flowers being large and quite good enough for filling vases. The first packet or packets of seed may be sown at once, and a succession be had by sowing more seed a month or six weeks hence. Raise in gentle heat, and treat the seedlings much as advised in the case of intermediates, only the earliest must be kept in a moderately strong heat till they are growing strongly, after which a shelf near the glass in a warm greenhouse will bring them along admirably. They can be had in full bloom early in May, the successional batch being at its best perhaps at Whitsuntide. Supposing more plants are raised with the rest of the border stocks, these would be amongst the first to flower, but it is for growing in pots that I must esteem this sturdy little early form. The ordinary ten-week forms raised under glass early in April and never checked, are worthy occupants of mixed borders, but are scarcely suitable for massing, unless those who plant them in that way are prepared with some kind of successional plants to succeed the stocks when they collapse in August. The new-pyramidal ten-week is superior to the ordinary forms, these, as a rule, producing finer spikes of bloom. Where white flowers are in demand, the comparatively new perpetual flowering types, of which Princess Alice is, as yet, the only representative, should certainly be grown. Raised with the ten-week and duly planted out on good ground, it will commence flowering by mid-summer, and continue gay till well into the autumn. This variety is of a somewhat tall weedy habit of growth, and pays well for staking upright. The greater proportion of the plants gives double flowers, and the spikes are very handy for cutting and packing. The East Lothians form a good natural succession to the ten-week forms, so also do the earliest flowering autumn varieties. Of the latter there are six distinct colours, and it is a question if they differ greatly, if at all, from the East Lothians. Any way they, they give a grand display during August and September, and are proof against all but the most severe frosts. These also should be sown late in March or early in April, and never neglected from the time they are up till they are growing strongly. The last to be mentioned are Brompton stocks. The old scarlet is still the favourite form, and I think the hardiest, but the white variety is also worthy of being grown extensively, packets of mixed colours being also distributed by most seedsmen. Late in June is a good time to sow the seed, the seedlings being duly pricked out on sheltered borders, fruit tree borders suiting them well, the slight protection there afforded them by the trees not unfrequently saving the plants from severe frosts. It is during May and June when these varieties are at their best.—*The Field.*

I. M. H.

### Garden of the Farm.

**THE ONION.**—This is a hardy biennial, and grown the hottest and coldest part of the country. It will thus be seen that we need not wait for mild weather to sow this crop, as frost will not destroy the young plants unless they are grown in an extremely damp position. It takes a long season to come to perfection, and it should always be sown as early in the

spring as the state of the ground will permit. At the present time the ground is much too wet for sowing any kind of seed, but two or three dry days would render the surface sufficiently dry to allow this crop to be sown. When successfully grown, this is a paying crop, as with good cultivation a large weight of bulbs can be produced from an acre of ground. Still, it requires a certain amount of skill to produce really good results. In the first place, the ground should be rich, firm, and fully exposed to sun and air, as the least shade from trees or walls will retard the growth of the plants and often cause them to grow thick-necked. These are unsaleable in market, and never keep for any length of time. The plan of growing these in 4 ft. beds has this advantage—they can be thinned and hoed without trampling among them, and as the beds are raised they are often dryer, hence they ripen better. Where the soil is at all light it should be trodden or rolled down firm before sowing the seed. Heavy soil should only be rolled when in a dry state. The distance apart between the rows will in a great measure depend on the sorts grown; for the largest kinds, 1 foot apart should be allowed, and 8 or 9 inches in the rows. The drills should be drawn as shallow as possible, only just deep enough to cover the seed. Drawing the drills deep often causes them to come up badly, and also produces many thick-necked onions. As soon as the plants appear they should be lightly hoed to keep down weeds, taken great care to only hoe the surface. Deep hoeing is never beneficial to this plant. Salt, soot, and lime sown on the surface of ground, and raked in before sowing the seed, are useful as manure, and also as preventing the onion-maggot. In dry weather, manure-water may be given between the rows, but not late in the season, as they always keep best when ripened off early. Where they are well ripened I have never found the hardest frost injure the bulbs where kept dry. They can be kept till late in the season if hung up under a north wall, so long as rain cannot reach them. For growing good pickling onions, light, sandy soil is best, and the seed sown thickly, but not deep, as this would cause them to come thick-necked. As soon as ever the tops have decayed they should be pulled up and placed on a dry surface to ripen off. For an early supply, White Spanish is one of the very best, and for late James's Keeping is as good as any we have grown.

Mentmore, February 21st.

J. SMITH.

**KITCHEN GARDEN.**—The roots of shallots and garlic should be planted out before they begin to grow. These, like onions, prefer a firm, rich soil, although almost any ordinary garden soil will grow them; still, to have these extra fine, rich soil and an open, warm position is necessary. It is best to grow these in beds, and the rows may be 1 ft. apart, with the plants 9 in. in the rows. Where the beds of horseradish have been allowed to remain in the same place for a number of years the ground becomes exhausted, and the roots become tough and not fit for use. This is an excellent time to make a fresh bed. The old beds should be carefully trenched over, and all the roots got out, the crowns cut, the stems, and these planted in a fresh piece of ground. The deeper the ground, the finer the roots will grow; so where the ground is not naturally deep, it should be trenched at least 2 ft. deep, and a good dressing of rotten manure placed at the bottom of each