

be allowed to grow, being one leader, and two more for horizontal arms; the next spring, or the same autumn, head down the leader to fifteen inches, and tie the side shoots down to the stakes as before. This practice should be followed until the desired height is obtained, growing two side shoots every year, and heading off the leader.

The mode of staking espaliers is as follows: During the first year, after the three shoots have grown, a stake must be set to tie the upright shoot to, and two others twelve inches on each side are required, to which are attached the horizontal arms. The stakes used should be two inch cedar poles, the bark pared off, and the smallest end sharpened, and dipped into, or brushed over with gas tar, as far as it is necessary to drive them into the ground. These stakes should stand five feet high, and a light rail attached to the top for neatness, and to keep them steady. As the tree extends, the centre stem will be found strong enough to support itself, and the side arms will strengthen with age, so that very few stakes will be sufficient to support the tree when it has come to its full size and height, probably six or eight will be sufficient. It is better to have a light rod tied across the stakes to tie the growing shoot to, during the summer season; this keeps them straight and regular in the proper direction. Stakes will be required every eighteen inches or two feet apart, as the side arms extend.

In Britain, young willows are principally used to tie espaliers to the stakes with, but bas-matting, or any soft material, will suit equally well.

The fruit of espaliers is seldom shaken down with wind, when the arms are well secured; and it is always well colored, because the sun and air have free access to all parts of the tree.

Aponogeton Distachyon.

This is one of the most fragrant and desirable of aquatic plants, and its value is doubly increased from the fact that it is perfectly hardy in England. The flowers proper are very inconspicuous, as they merely consist of a dozen stamens, with dark purple anthers and are without either calyx, or corolla. The chief beauty of the plant, however, consists in a forked inflorescence of large pure white scales, at the base of each of which a flower is situated. From seven to nine of these flowers are commonly present on each side of the forked bracts, and as the close little clusters of dark purple stamens contrast with the pure white of the scales, they do not tend to mar, but rather to justify the floral beauty by their little, contrasting starlike appearance. The whole inflorescence is deliciously fragrant, and, as long stalks are affixed to each, they are admirably adapted for bouquets, and for this purpose they are greatly used, more especially in winter when anything white is in demand, particularly for bridal wreaths and nosegays.

The *Aponogeton distachyon* comes flowering throughout the whole winter, excepting when encompassed by ice. Some days since, I saw nearly three dozen of these plants in pots, placed in a shallow stream of fresh water, in Mr. Parker's nursery, at Tooting, and there they had always been grown. The plants were vigorous, healthy, and, although it was the 1st of February every plant had one or more blooms upon it, and a good appearance of a plentiful future supply; indeed, Mr. Brown, Mr. Parker's manager, assured me that they had culled from these plants an average of two dozen flowers weekly during the whole winter. This, however, must not mislead people into the imagination that they are only winter flowering plants; on the contrary, their blooming period is the whole year, but more particularly the warmer months. These plants, as a rule, are regarded and treated as conservatory aquatics, and for this purpose they are well adapted; yet the usual method of treatment is to winter them indoors, and replace them in a tank in the open air in spring, which is another applicable mode. For growing in a cold frame, no better winter subject could be chosen; nor under such circumstances does it require a great depth of water. In a deep seed pan, with the holes stopped, and containing another for holding the soil within it, so that about two inches deep of water may cover its surface, the plants will grow and flourish. Indeed, I have seen good plants of the *Aponogeton* grow in pans containing two inches deep of mould, surfaced with pebbles, and filled up with water.

A very pretty indoor illustration exists at present in the Mossesbury-anthemum house, at Kew. The plant is growing in a small pot placed within an inverted large bell glass, filled with water; here it bloomed freely throughout all last year, and continues to do so yet. For window aquariums, this is among the best of plants, and I saw one in wonderful perfection in a house in Belgrave square, this winter, growing in an ordinary glass vase, the roots being planted in a pot which was placed within the vase. In using his plant for indoor aquariums, it must be remembered that it will by no means suffer to be pent up in a close case.

A good yellow loam, and some rotten manure, is a good compost for these plants. Growing them in pots, under all circumstances, is the best method, because then they can be readily transferred to any required position. When in pots they can be placed on other inverted ones, should the water be too deep. Four inches deep of water over the surface of the soil in which the roots are growing, is sufficient for them, but a little more or less is immaterial.—*The Field*.

Protecting Trees from Rabbits.

Dr. Howsley of Kansas, in *Western Planter* says:—I have, for the last several years, used with the most satisfactory results, a whitewash, composed of fresh slacked lime and soft soap, brought to the consistency of ordinary paint, with common flour paste added, to make it adhesive. This composition applied with a common paint brush, has, with me, always been effectual. In this mixture the lime is not only offensive to the taste of the rabbits, but also destroys any lurking insects which may have taken shelter there for the winter, and by its absorption through the pores of the bark furnishes food for the growth of the tree. The soap has, in this case, a similar influence to that upon animal body—that of cleansing the surface and keeping open the pores of the bark for the free escape of all useless matter from the inside out, and for the free passage from the outside in, of whatever may be necessary for the health and vigor of the tree. The flour paste, as before remarked, is only for the purpose of making the lime and soap more adhesive; for without the paste, the other ingredients are liable to be washed off before warm weather and might, therefore, have to be applied a second time during the winter. With this composition, an active boy may, in one day, protect a thousand trees. It is only applicable to young orchard trees, but may be very profitably applied to nursery trees as well.

Another Plan.

PRESERVING YOUNG APPLE TREES FROM RABBITS.—Beef's or hog's liver rubbed on the tree where the rabbits are likely to work will prevent their ravages. I have tried it—and I live where there are thousands of them—and have never had a young apple tree hurt that has been so treated, and I have seen rabbit tracks all about the trees. Hang the liver up when the hogs or calves are killed in the fall, for such use. It pays.—*F. H. H., Toledo, Iowa*.

EARLY PEARS.—The varieties of pears which mature early have not been regarded as possessing very desirable qualities. The Doyenne d'Ete affords us the first taste of the fruit, ripening it does the latter part of July but it is a very small pear, decays rapidly, and the flavor and quality are no more than second or third rate. The Rostiezer, however, is one which forms an exception to early pears as a class. It is a spicy, juicy fruit, with a sweet, delicious flavor. The Rostiezer hardly falls behind the Seckel in quality and the tree, although long-limbed and unsightly, is thrifty and a good bearer. The fruit ripens early in August, and the process of ripening is not sudden, but continuous, which is a great advantage. Among the fifty or sixty varieties of pears in our orchards, we have no greater favorites than the Rostiezer, and we recommend its cultivation more generally. It is very handsome fruit, not large, pyriform in shape, with a color in which golden and carmine hues are blended. The tree does well on quince stocks, and requires a rich and rather moist soil. It is decidedly the best and most desirable early pear we have.—*Journal of Chemistry*.

THE TETOFSKI.—As evidence of the early period at which the Tetofski comes into bearing, *The Western Farmer* mentions that A. G. Tuttle, of Baraboo, Wis., had probably 100 bushels of these apples on the trees in his nursery rows, some of them only two years old. This early bearing habit, the hardness of the tree, and the early ripening, beauty and fair (though not first-class) quality of the fruit, are thought sufficient to render the Tetofski worthy of being more extensively planted than in time past, particularly by those who are at present destitute of apples.

Canterbury Bells.

So long as the colors of these fine old border flowers were confined to blue and white, though constantly grown side by side, breaks of form and color were unknown, but, by and by, when we got from the continent a rose-colored variety (double and single) after a year or two of cultivation here, crossing with the other colors ensued, and from the seed were produced new colors and finer forms, both double and single, so varied and so beautiful, that it is impossible to doubt that when generally known, these new varieties will again elevate the old Canterbury Bell into a foremost place as a border flower. The double forms consist in some cases of two cups, that is one immediately inside the other, and in other cases of a third cup, which by being somewhat cramped in the centre of the others, gives to the flower a perfectly double appearance, and one also of considerable solidity. I think these double flowers are likely to prove most useful to cut from in quantity for bunching, as they are produced on the extremity of stems from 3 inches to 6 inches in length. I have a large bed of these new Canterbury Bells just now in full bloom, and very striking they are; especially the rosy-pink, mauve, and deep bluish-purple tints. In addition to these there are also pure white, bluish-lilac, pure peach, and several darker shades; indeed it would be an easy matter to pick out a score of diverse hues. Bee keepers should grow Canterbury Bells largely; my flowers of them literally swarm with these industrious little insects from morn till night. Seed of the Canterbury Bell should be sown early in spring, either in a box in a cold frame or house or in the open ground. In all cases it is necessary that they should be got forward early, so that the plants may be as strong as possible for the winter, otherwise they may not bloom the succeeding summer. If the seed be sown as soon as gathered, the plants cannot be got strong enough to bloom the next year, but they will be extra fine for the succeeding summer.—*The Garden*.

Melon Culture.

The best soil, says *The Rural Messenger*, is that which admits of ready drainage. Watery as the fruit is, it does not require much rain to produce it. In fact, the vines flourish and bear even on a bank of sand. We would then select the lightest piece of ground available—grey and sandy—and put it in good order, using plenty of well rotten manure to each hill. Digging holes of sufficient size, and depositing the manure in them during the winter, is doubtless the method to be preferred; but if this has not already been done, we must resort to some other plan. We would still make an excavation, and manure liberally, with a view of retaining moisture in time of drouth. Much depends on giving the plants a vigorous start. Force their early growth with a free application of bone phosphate to the hill. Keep the ground clear of grass and well stirred until the vines begin to cover it, but as the roots run to the full length of the vines, and grow as fast, the working should not be more than two or three inches deep. With this treatment, we believe there would be few failures in growing water-melons, and as they are a favorite with all classes, it is well worth the trouble, whether for market or private use.

VARIEGATED ABUTILONS.—Allow me to recommend to the notice of your readers a variegated form of the *Duc de Malakoff Abutilon*, which is in every way superior to *Thomsonii*; the former has a much larger leaf than that of the last named kind, is more beautifully marbled, a stronger grower, and the flower is much darker in color than that of *Thomsonii*. One of the most charming Abutilons, however, and probably the most useful for bedding purposes, especially as an edging plant to be pegged into form, or to grow down and cover a sloping edge of some 9 to 12 inches deep, or as a carpet plant, or for baskets, is *Abutilon rexillarum*, a real creeping variety, having a habit of growth much like that of ivy. It has small, pointed, and richly marbled leaves, that are most effective in color, it is also a free growing kind which can be readily propagated, and is moderately hardy. Those who have large quantities of plants to bed out yearly, will do well to make a note of this variety, which I am certain will prove everything desired in its peculiar color for the purposes mentioned.—*The Garden*.

THE LARCH.—B. W. Steere, of Mich., writing to the *Country Gentleman* commends highly the European Larch as an ornamental, to which we say aye. It holds its foliage late in the fall, and is a fine contrast to evergreens planted among them.