

Horticulture.

EDITOR—D. W. BEADLE, CORRESPONDING MEMBER OF THE
ROYAL HORTICULTURAL SOCIETY, ENGLAND.

Growing Nut-bearing Trees from Seed.

A correspondent asks, "What is the best method of growing Butter-nuts, Walnuts, and Hickory-nuts from seed?" To which we can only reply that the best method with which we are acquainted is to plant the nuts in the soil. And yet such a reply hardly seems courteous, for the inference from such an inquiry being made is that the inquirer has met with some difficulty, that he has planted the nuts and that they have failed to grow. For this reason he is led to doubt whether he has proceeded in the proper way, and to suppose that some peculiar treatment is necessary in order that the seed shall germinate.

The writer has planted a great many thousands of seeds of our nut-bearing trees, Chestnuts, Hickory-nuts, Butter-nuts and Walnuts, and has never experienced any difficulty in getting them to grow. The only matter that has been scrupulously observed has been to so keep the seed that it should not become seasoned. As soon as the seed has been gathered it has been spread upon the ground in some convenient place and covered with an inverted sod, with enough soil thereon to prevent the sod from drying out. Sometimes the seed has been allowed to remain in this condition until spring, and then planted in drills just as soon as the frost is out of the ground. At other times the seed has been planted in the fall. In all cases there has been a good growth of plants, if the seed has been good.

It should not be forgotten that some seasons are more favorable than others for the perfect maturity of the seed of nut-bearing trees, as well as for the perfecting of grains or fruit, and that more of the seed will produce vigorous plants when that seed is perfect than when it is not fully developed or matured. Again, in some seasons the insects which prey upon the nuts are more numerous than at other times, and many of them are so injured by these insects that they cannot germinate. It may be that our correspondent has failed to notice that the seed with which he has experimented has been poor from one or the other of these causes.

We can not close these remarks without expressing surprise that so little has been attempted in the way of growing nut-bearing trees in this country. The trees are not such slow growers as is generally supposed, they soon come into bearing condition, the nuts are always marketable, and will pay well for the care of the trees until they have reached such a size that they can be thinned out and sold for timber.

The Gladiolus.

This favorite autumn flower does not thrive well on stiff, clayey soil, but in moist sandy loam it attains to great perfection. It should not be planted continuously in the same bed, but the locality should be changed each year. And while the soil should be rich, it is better that the manuring should be done during the previous season, and the fertilizers thoroughly incorporated with the soil. If the soil be dry, it will be better to use cow dung, but if it be somewhat too moist, manure from the horse-stable is preferable. In planting, set the large bulbs three to four inches deep, and the small ones about two.—There is now a great variety to be had, the colors ranging from bright vermillion, cherry red and scarlet to light rose, bright yellow, cream-color and white, with stripes and spots and tints of nearly every possible hue. These bulbs should be planted in the spring, after the freezing weather is passed, and taken up in the fall and kept in a cool, dry place, free from frost.

Variegated Ferns

Amongst the great number of Ferns which are now in cultivation, I can only find about a dozen which can be said to be variegated. These, however, are all very distinct and beautiful, and some few of them, if not all should find a place in every collection of plants; indeed, I cannot too strongly recommend some of them for the beautiful effect which they produce in a Fernery, more particularly when planted out in a naturally constructed rockery, either under glass or in the open air, according to their hardiness. It is a remarkable fact that the genus *Pteris* should, up to the present time have yielded the greatest number of variegated forms, whilst that large and beautiful family of Maiden-hairs (*Adiantum*) have not, up to the present date, yielded us a single variety with variegated leaves, except those whose young fronds assume a beautiful rosy-red. This, however, cannot be accepted as variegation, but it serves to heighten the desire to possess a plant which would always maintain such lovely tints. With one or two exceptions, variegated Ferns are easily grown. Like all Ferns, they must have good drainage and a liberal supply of water both from the watering-pot and syringe.

Dryopteris nobilis.

This is a member of small genus remarkable for dwarf and compact habit. The present species, however, is the only member having variegated leaves, and, curiously enough, is the largest grower; the fronds in a young state are simple and entire, and sagittate in shape, deep green in color, with a broad continuous band of white up the centre. As the plant increases in size and age, the fronds become pinnate, whilst the centre of each segment retains the band of white. The underside is light green, ornamented with a broad band of marginal sori, in the way of *Pteris*, from which genus it is distinguished chiefly by its reticulated venation. It requires the temperature of a stove, and should be potted in peat and sand, with the addition of a little light loam. Native of Brazil.

Elaphoglossum L'Hermieri.

This is a member of the *Acrostichum* family, distinguished by simple entire fronds, and free forked veins. It is a large genus, containing many fine ornamental kinds, this species being, perhaps, the most beautiful; indeed, its style of beauty is entirely distinct from that of all other Ferns. The fronds of this species are from one to three feet in length and from two to three inches broad, thick and leathery in texture, and of a most peculiar and beautiful bright lustrous blue, reminding one of the back of a mackerel. It forms a beautiful object when planted in a pocket in the Fernery, or when placed in such a position as will allow its long, ribbon-like, iridescent fronds to hang down over a prominent rock. It requires the heat of the stove Fernery, and should be planted in peat and Sphagnum Moss. It is a native of the West Indies, some parts of Brazil, and Central America.

Anthyrium Goringianum pictum.

This has been proved to withstand unharmed the severity of our winters; nevertheless, I would always cover its crown with some old fronds or dry leaves. Here I would fain make a slight digression. I have often advocated the cause of cleanliness; but experience has taught me that it is possible to be over-scrupulous in matters of this kind connected with the hardy Fernery; for where too much attention has been paid to smart keeping, I have had complaints that even British Ferns were not hardy; and no wonder, for when old fronds are cut clean away, the crowns are so much exposed to cold that they are killed. Besides this, all the dead leaves are carefully raked and cleared away, and thus all the protection Nature gives them is removed. Under such conditions, it is not to be wondered at that many deaths occur in the hardy Fernery. To prevent this, I advise the leaves to be kept round about the crowns of out door Ferns, these may be kept from straying about by having some fronds of the common Bracken pegged round and over them. The plant now under notice is a valuable addition to any collection of out door Ferns; the fronds attain a length of about 1½ feet, they are broadly lanceolate in outline, two or three times divided, and dark green; along the centre of each of the pinnae there is a deep reddish band, which is again bordered with white, rendering it very distinct and attractive. It is a deciduous plant from Japan.

Atthyrium Japonicum Variegatum.

This is another Japanese plant, and, like the previously named, one perfectly hardy. It is, however, somewhat rare. In general appearance it resembles a lax form of our own Lady Fern, with a good proportion of the pinnae of a white color. It is a deciduous hardy species.

Scolopendrium Vulgare Variegatum.

A dwarf variety of our common Hart's-tongue Fern, with fronds bright green and variously striped with narrow bands of white. It is very pretty, but as it does not assume large proportions, it should be planted in a snug place in the Fernery.

Asplenium Adiantum-nigrum Variegatum.

This is another instance of our native Ferns putting on a parti-colored coat in order to rival, it would seem, their exotic relatives; the deep bright green of the fronds of this plant are irregularly streaked and blotched with pure white. It is a distinct and beautiful form, unfortunately somewhat rare.

Polypodium Vulgare Variegatum.

This plant is rather apt to lose its variegation, and for a time to produce only green fronds; when variegated it is irregularly splashed with yellowish white.

Pteris Argyrea.

This is, perhaps, the most beautiful of all the variegated Ferns. In a young state, it is very useful for table decoration, but, when mature, it forms a splendid object in the Fernery, and may be either grown in the cool or tropical house. The fronds are once or twice divided, and grow from 1 to 4 feet in height the pinnae being broad and pinnatifid. The greater portion of the pinnae are of a bright lustrous metallic white, the edges forming a border of light green. Native of the East Indies, at considerable elevations.

P. Cretica albo-lineata.

This is a very handsome Fern, and one that, from its compact and hardness, comes within the reach of all Fern lovers. It originally came to this country from Java, but was probably taken there by the Dutch. A friend, writing to me from Japan, mentions it as being a very common plant in that country. The fronds are pinnate, about 1 foot or 15 inches high, the pinnae long and pure white, bordered with bright green. It is a very beautiful greenhouse plant, and so hardy that with a little protection, it may be kept in the open-air Fernery. On this I can speak confidently, having grown it so for several years.

P. Aspericaulis Tricolor.

Nothing can exceed the loveliness of this plant, if in good condition, but this is a great drawback to its cultivation, and I am inclined to think most amateurs fail with this plant through not giving enough water to its roots. The fronds, however, should not be wetted. The fronds are pinnate, the pinnae broad and pinnatifid, the centre of each of the pinnae is bright rosy-red, bordered on each side by a band of white, which is finished off by an outer border of dark shining green. It is a truly lovely plant, a worthy subject for the amateur's skill in endeavoring to cultivate it. Must be grown in the tropical Fernery. East Indies.

P. Serrulata Variegata.

A somewhat robust form of serrulata, marked in a similar manner to *P. cretica albo-lineata*, but narrower in the pinnae, and these are slightly serrate at the edges; it is a free-growing pretty plant.

P. Nomoralis Variegata.

This is a very pretty plant, somewhat resembling a small form of *P. argyrea*, but the white in the pinnae is beautifully suffused with rose; it may be grown in the temperate Fernery.—*Willie Gardener*.

Carpeting Borders Beneath Shrubs.

In places where greenhouse plants are used to decorate the grounds, whether they are turned out, or the pots are plunged, the appearance of the border devoted to them is greatly improved if the surface of the soil be covered with some low-growing and rapidly spreading plant. We have seen *Portulacas* sown broadcast with very good effect, but the trouble with these is, that the seed germinates slowly, and the plants do not make much show until late in the season. The best attempt we have seen at carpeting was where *Gnaphalium lanatum* was used. This bedding plant is propagated with ease, grows rapidly, and soon covers the soil with a carpet of neutral grey tint, against which bright foliage and flowers shew to the best possible advantage. This is a point in gardening that has received less attention than its importance demands. If the soil of beds in which plants are temporarily placed, be carpeted with some rapidly-growing plant of a pleasing color, not only is the general effect heightened, but of course much labor in keeping is saved. In permanent shrubberies, too, this is a matter of no little importance. The soil beneath our shrubs is either bare or covered with weeds. Why not grow some pleasing plant which shall cover the ground and save all trouble of weeding? We are trying two plants for this purpose. In one row of shrubs we have set plants of the Moneywort (*Lysimachia nummularia*), which always grows