

vinegar, or substitute it might be called, of the *Volaga*. The Spanish cucumber has a diameter from its joint steeped, and sitting down on the slope of an Indian terrace gazed mournfully on the broken life as they passed before him. What a spectacle did they present! The greater part of them discoloured, were mingled with the ordinary, who dragged their limbs along with difficulty; their shattered nail and rotten garments dripping with the salt sea, blowing through their rents like a bruise and generally, were the result of the sea breeze, which, in the summer, comes, the baggage, artillery, &c., in great quantities, takes the prize and plenty of glorious war, for ever lost. Cortes, as he looked wistfully on their thinned and discoloured ranks, sought in vain for many a familiar face, and mourned, who dragged his patient, who had stood side by side with him through all the perils of the Conquest. Though accustomed to control his emotions, or at least to conceal them, the sight of his veterans rendered his face with his hands, and the tears which trickled down his cheeks too plainly the anguish of his soul." (Preston's "Cortez of Mexico," p. 79.)

Our reader may say, "But where's the loss?" Preston does not say, but we believe he has preserved it. It was beside the Indian temple, whose steps Cortes set down. We have a photograph of the tree, with a trunk of enormous dimensions, only instead of the leaves of an Indian temple it stands within the wall, and overhanging, who dragged his limbs, church, opening on the road by a couple of steps such as Cortes might have scaled himself upon. In fact we have here the ordinary transformation which befalls a tree when its life is sacrificed to religious purposes—the injury faith is repaired by the growth of the wood, the reformed—but the stem remains, and the edifice is retained by the new growth, only modified and re-erected.

The tree is known to me this day by the name of the "Abuelito de la Noche Triste" in a Mexican Almanac we find the following notice regarding it, accompanied by a rude wood engraving of the tree. "The tree of the City of Mexico—a promontory for a place, the witness of the sufferings of the people of the City of the Conquest! And nevertheless in this insignificant village, full of dust or of mud according to the season, is to be seen the venerable tree under whose shade the Indian Captain, Captain Hernan Cortes sat down to breathe and rest his weary body after his fightful exploits of the 1st of July.

Returning to the argument which we had in hand, and which we have used as a thread on which to string our remarks on the red wood, we may now remark that there is a great resemblance between its timber, and that of the Red-wood. The latter is the most valued timber in California, the former the most valued in the Southern States. A special good property of both is their resistance to decay, and this is obtained without the use of the saw. In the Taxodium, Michaux says, they split off in a direction parallel to the concentric circles; but as these are large, the circles split off as if they were hard, nearly as fat; and it is the same with the wood mentioned. The colour of the timber of both is also alike. Michaux says, "The wood of the Cypress is fine-grained, and after being for some time exposed to the light, of a reddish colour, and in the case of the Sequoia sempervirens, Dr. Bigelow says, "The wood resembles the Cedar" (that is, *Juniperus virginiana*) "a good deal in lightness and susceptibility of polish, but it is of a slightly darker shade of red." In the rural districts also, the timber of the red wood is used for fuel, and it is almost certain to excite incredulity to state the number of rails that can be made from a single tree. They are counted by thousands, as we learn from the "Gardener's Eastern States." (Bigelow, *Pac. R. R. Rep.*, p. 24.)

A resin of an agreeable odour and a red colour exudes from the Cypress. We have already spoken of the red clear-coloured resin exuded by the *Sequoia*. On the whole, it is true, we have not endeavoured to satisfy the reader that we have in these two genera the respective representatives of the same type, the one peculiar to the East and the other to the West of North America, except of 88 N. lat.

The characters distinguishing the Mexican Taxodium from the American are slight, but we think sufficient; it is, however, foreign to the purpose of these notes to go into such details. In this country, so far as we know, the tree grows in the only one cultivation. There are doubtless some small plants of the tree, but the large trees from near Mexico produce seeds plentifully, and they must have been brought over by many people, who, as we have just said, have not been able to recover them ourselves. But we do not happen to know of any such plants in this country. The American tree, however, is distributed liberally and abundantly, and does very well in the South of England. Mr. Palmer's tables of the worst effects of the tree in this country are places reported on by him give the following results:

	Killed.	Back injured.	Slightly injured.	Useless.	Total.
England	1	1	4	21	27
Scotland	—	—	—	—	—
Ireland	—	—	—	—	—
	1	1	4	21	27

The place where it was killed and the place where it is much injured were both in Cambridgeshire. At the latter place (Harrold) the tree was cut down at the university cut down to the ground, "but they still meet freely from the stem."

We have scarcely any notes of the height and dimensions of the tree in England. At Spren House there is one 80 feet high. At Blandford, one 70 feet high; at Emsleigh, Dorsetshire, one 56 feet

high; at Nettlescombe, Dorsetshire, one 30 feet high; at St. Mary's, one 25 years old; at Roys, near Peterborough, 45 feet high. A. M.

ON CUTTING EVERGREEN SHRUBS, &c.

THE CARE, &c., done to ordinary evergreen shrubs during the memorable winter of 1850-51 will best be remembered by a very large class of garden admirers. It is to some of those generally-cultivated shrubs, such as *Yucca*, *Arbutus*, *Prunella*, *Myrica*, *Juniperus*, &c., suggested by the very severe frosts which were experienced during the present winter in various parts of the country, but more particularly in England, and there, no doubt, the severity of the season has injured some of the plants, and especially in Scotland during the above winter, particularly if grown in a cold and somewhat dark situation. The injury may not show to its full extent till after several days or even weeks, but the plants, especially on some of the more tender species, such as *Prunella*, *Arbutus*, *Laurustinus*, *Arbutus*, *Arbutus*, *Phillyria*, *Arbutus*, *Eucalyptus*, *Sweet Bay*, &c.

Previous to the winter of 1850, the Portugal Laurels in many of the Scotch gardens were exceedingly handsome, being in many instances of a bushy shape, and frequently surrounded with shrubs of other species, but often of a low pleasing outline. The latter were then removed to prevent their interfering with some of the plants, and the Portugal Laurels were cut down in December, 1850, the thermometer at Edinburgh fell to —6°, being 38° below the freezing point. The most autumn, preceded by an unusually long drought, had been the cause of the injury, but the plants were in a condition at a rather late period of the season for their being left of sap at the time the frost set in; many of the Portugal Laurels stems were found to be split longitudinally, to the width, in some instances, of half an inch, and in some cases the wood remained tolerably fresh during the following summer. The growth made were scarcely perceptible, and the plants by degrees became thin or foliage—so much so, that in 1851, several were cut out many of them down during the winter. Some of the injured specimens died on their being left out numerous young growths from the lower parts of their stems, evidently showing that their upper portions had suffered. Many of these plants were cut down within 12 inches of the ground.

The Portugal which survive have a bushy shape, and stand on Grass lawns or along the front part of shrubberies, particularly on high-lying grounds, where the young growths were actually cut quite short all over the surface, and the plants are comparatively bare. Such plants at the time of the frost were densely covered with a thick coating of snow, which completely protected all the inner branches, and was the means of saving them, while some of the exposed branches were killed, and the plants were higher ground, where the branches were long and spreading, suffered severely. In some low damp situations, the plants, both pruned and unpruned, suffered alike.

The injured cut-down shrubs, treated in the following manner, were very much benefited. The plants were covered with a thick coating of compost, or leaf-mould mixed with a quantity of soil, chiefly the soil from the surface of which large quantities are always accumulating, and the plants were covered with a covering of soil is most essential, and ought to be carefully attended to with all evergreens cut in, whether in consequence of frost or excess of growth. The plants which are now fine globe-shaped shrubs are generally very much confined to the surface in consequence run near the surface. If such ground is exposed, particularly after the tops have been cut off, the sun's rays will be very apt to become injured, and the plants will be very apt to become drying them up. It will likewise be found that the same shrubs are liable to become frosted, as they are very tender from long and close confinement. They will not cut off freely at first, will in many instances be cut off ultimately, but the young shoots made on the cut-down shrubs treated as described will be found to prosper in many of the old Portugal Laurel stems pruned on during the winter are now fine globe-shaped plants, 8 feet high and 15 feet in circumference.

If at any time it is intended to cut down Portugal Laurels, they should be treated rather large for the situation, and the plants should be cut in to cut them in a sort of pyramid or oval shape, also the plants should be healthy-stemmed plants, and in this manner, and the ground coated with soil, as before recommended, and the plants will break out freely all over that portion of the stem left, and will very soon make beautiful shrubs again.

Many other evergreen plants, such as *Aucuba*, *Bay Laurel*, *Sweet Bay*, *Arbutus*, *Laurustinus*, *Holly*, *Yucca*, *Myrica*, *Juniperus*, &c., are recommended for the Portugal Laurel, and are certainly very well adapted, and are all in a thriving condition. Many of the hybrid *Rhododendrons* were also much injured by the winter of 1850, which necessitated their also being cut down. They were cut down to the ground, and they soon broke out all over the surface, and they have since made good and healthy plants. Owing to the large quantity of young wood produced, therefore, it is not made on many of the varieties for several years afterwards.

Some evergreen plants were also much injured, such as *Holly*, *Portugal Laurel*, *Arbutus*, *Sweet Bay*, *Laurustinus*, *Arbutus*, *Prunella*, &c. At one place the *Arbutus* was cut to the top of the ground, and a third was cut to within 25 inches of the ground. These shrubs were treated as described for the Portugal Laurels. It was found that the plants which were cut to the top of the ground, and which broke out all over the top of the cut stems, but which were cut to the bottom, which those cut low, broke out freely all over the lower-cut portion of the stems, and being annually pruned, in the new making an excellent fence. Those cut to the top of the ground, and which were cut to the bottom for several years, will have to be cut down to within 18 or 20 inches of the ground, in order to induce them to break out from the lower part. *Laurustinus* and *Arbutus* *Prunella* produce buds freely, if cut to the top of the ground, and they have a natural tendency of these plants to produce a multitude of young growths all over the exposed surface of the bark. Evergreen hedge-plants, as *Holly* and *Portugal Laurel*, &c., which have a natural upright or compact growth, require to be cut down such plants as the large, shining and leafy-leaved varieties of *Laurustinus* and evergreen *Prunella*, which have a tendency to droop, the injuries to the latter hedge-plants, &c., are not so much as to the former, but from the effects of hard frosts from the forcible bending-down of their branches by heavy snow. These renders the over-stretched vessels along the upper portion of the stems, and the injured portion, particularly when fall of sap; and the injured portion of the wood being found throughout old *Prunella* hedges. All evergreen hedges when cut, whether high or low, require their surface to be covered with fresh soil, and to be protected, as well as for throwing vigorous into their growth.

These notes are the result of observations made at Edinburgh, and may prove applicable for many districts both in England and Ireland, if they should happen to be of any use to the readers of the *Gardener* in Scotland during the winter of 1850. James McNab, is the "Gardener."

Home Correspondence.

Fertilisation of *Cypripedium*.—As the seeds of *Oreochloa* form a subject of considerable interest, I beg to forward you the accompanying specimens of *Cypripedium* and *Oreochloa*, which I have raised from seed, but in spite of numerous attempts, I have uniformly failed to fertilise the flowers. The seed-vessels swell to a certain extent, but do not burst as produced.

It appears to me that my attempts have failed, not only, and is not hermaphrodite. Have any others of your correspondents made a similar observation? I enclose a flower of *Cypripedium* insignis and two of *Oreochloa*, the former of the variety of *C. barbatum* and *C. venustum* was applied to the flowers of *Oreochloa* that the pollen masses of the plant in question are good, I used also a seed-vessel of *C. barbatum*, fertilised with the pollen of one of the same flowers of *Oreochloa*, and which was raised from Dr. H. H. (The specimens forwarded appeared on examination to be perfectly formed as regards their stamens and pistils, but perfectly destitute of ovules. On forwarding them to Mr. Peckham, that gentleman kindly favoured us with the following observations:—

The above fact lately ascertained by Dr. Hildebrand, that many *Oreochloa* ovules do not become developed until many weeks or even months have elapsed after the flowers have been fertilised, and the signs, it is not a little difficult to ascertain, whether the ovules are exclusively a male plant, that is, whether the female organs have aborted. Of course there is no difficulty in ascertaining the rudimentary condition of the pistil, and the ovules, but it is not so with the stamens. These facts strike me as most remarkable under a physiological point of view, and they point to the necessity of an occasional or regular union between the stamens and pistils of the same species. *C. barbatum* and *C. venustum* are the same species. *C. barbatum* is a certain species—a profligate secret, of course—which a grower of flowers for the Parisian markets is enabled to change the flowers of the common *Lilium* into those of the *Stipagrostis*, and so on, and so on, to the above, thinking it not impossible that the gentleman may at some previous date have become the possessor of a seedling *Lilium*, which ferociously will be the possessor of the best and wisest from amongst such *Lilium* plants as also will be the case with *Lilium majus*, he has attained a like end. If I should have troubled myself no further about the matter had not my attention been drawn to it, as existing in a late number of the *Gardener*, I should have been glad to see flowers of the *S. persica* also, as a cross in this variety for early forcing, whether for cut flowers or otherwise. *William Lawley*. (The flowers in question are very beautifully white, and altogether in pleasing condition.)

Rural Systems of Fine Grapes.—We have full information as to the splendid Grapes produced at Combe Abbey, when both top and bottom were cut down, and the vines were cut to the ground, however, that nearly all, I might indeed say all, the best prize Grapes, both in London and Edinburgh, have been cut from vines not exceeding six years of age. I well remember Mr. Hill, who is admitted to be