

PRUNING ORNAMENTAL TREES.*

Many will remember when it was common, in planting street trees, to trim them to a bare pole and cut off the top, like the left hand tree in Fig. 1. This treatment, however, nearly always resulted in success in securing the growth of the tree, for if the top had been allowed to remain, it would have been too heavy for the mutilated roots. The wind would have blown it about, and the supply of moisture from the soil

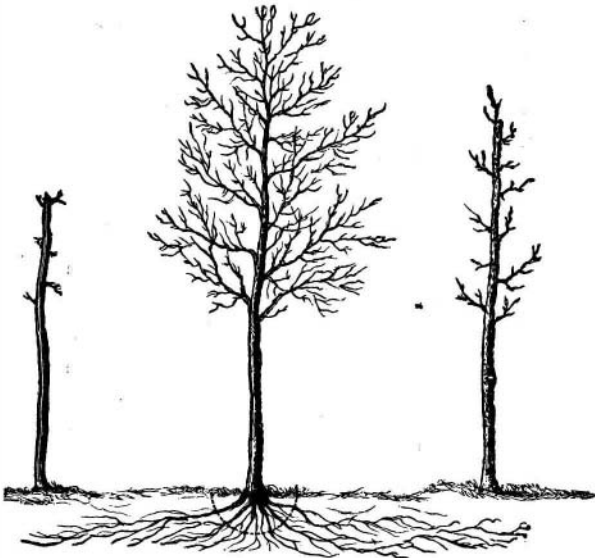


Fig. 1.

would have been insufficient for the large mass of leaves above. This result will be obvious on examining the central figure, which represents the tree before removal, with all its top, showing partly the length of the roots in the soil, which, however, are twice as long as represented, as tree roots in general are found to be quite equal to the entire height of the tree, and often much more. The circular line at the base shows the usual length of the roots when cut in taking it up, and it is obvious at once from the picture that these short roots could not hold and feed the entire mass of branches and leaves.

The bare pole, however, is long in recovering from this severe lopping and in forming a new head; but if the pruning is performed so as to leave three-fourths of their length, and with most of the small shoots cut away, the roots will then be able to sustain them, and a new head will be readily formed from these shortened branches in much less time.

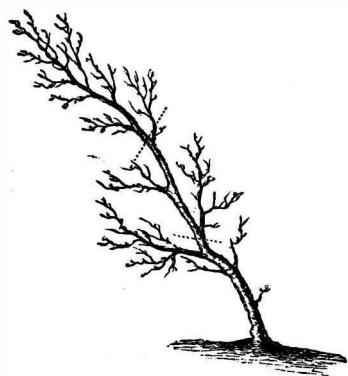


Fig. 2.

It is important that the shortening should be properly done, so that the new head may have a good, symmetrical form, and no dead stubs remain. Fig. 2 represents a single side branch, and by the small dotted lines the place is indicated where it may be cut off. By selecting the place of a fork, and

cutting away the longer of the two at this fork, no stump will be left. If this is done at the outer line, the branch will be reduced nearly one-half; and if at the inner line, two-thirds or three-fourths will be cut away, and an even, smooth head thus obtained.

If a proper framework is provided for the head when the tree is young, but little heavy pruning will be required afterward; but neglected trees often require some lopping of large branches in after years. Some-

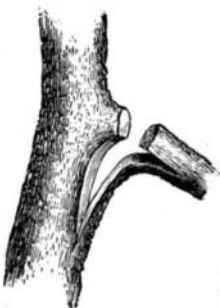


Fig. 3.

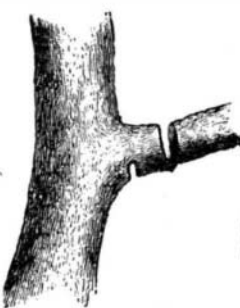


Fig. 4.

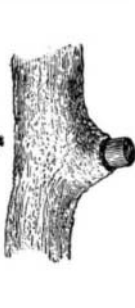


Fig. 5.

times the saw is set in at the top of the branch and near the body of the tree, and when cut nearly through, the weight of the limb bends it down and it splits off, leaving a bad wound, as shown in the figure (Fig. 3). To avoid this disaster, set the saw on the lower side and cut in a short distance (as in Fig. 4), and then cut

* To that excellent agricultural newspaper, *The Cultivator and Country Gentleman*, we are indebted for the illustrations and article on "Pruning Ornamental Trees."—Ed.

above a little farther out than the lower cut, and the limb is severed without injury. The whole may then be made smooth by sawing off the stump nearer to the body of the tree, or this second sawing may be avoided by bringing the two first cuts nearly in the same line, the upper one being slightly outside the lower one.

A very common and bungling mode of pruning off side limbs is to leave stumps two or three inches long. The new wood attempts to heal the wounds in the process of growth, but many years are required to cover them. The mound which the growing wood forms at their base, shown in Fig. 5, renders a larger wound necessary if the whole is pruned away to form a smooth tree.

In planting and raising trees on ornamental grounds, they should not be pruned away from their natural shape; but while deformity is always to be avoided, the characteristic beauty of every kind should be retained. The attempt should never be made, for example, to train the American elm into the form of a Lombardy poplar, nor the oak into a weeping willow. The oak has its own peculiar characteristics, as shown in Fig. 6; the rounded head and drooping branches of the elm give it a grace and beauty which should be strongly retained. When these and other ornamental trees are young, their forms may be directed in pruning by adopting the principle represented in Fig. 2, at the same time avoiding stiffness and formality. The Norway spruce, and some other



Fig. 6.

evergreens, exhibit the finest shape when the branches are allowed a natural sweep by resting on the ground, as shown in Fig. 7. By selecting those specimens in the nursery row which show this luxuriant and drooping habit, very fine forms may be secured. Persons who have no appreciation of natural beauty are occasionally met with who trim up the stems several feet from the ground, Fig. 8, reminding the spectator of boys on stilts.

The most unnatural and deformed mode of training ornamental trees, and mostly confined to evergreens, is seen in what is termed topiary work. In Fig. 9, the central object represents an evergreen trained into something most nearly resembling a haystack, a form often met with in dooryards and small places. The two other trees are given forms as remote from their natural grace as can well be imagined. The labor required to keep such trees constantly in these unmeaning shapes would be sufficient to take care of ten times as many trained in their own characteristic forms.

Less objectionable, but still giving a somewhat stiff and unnatural outline, are the gateways seen on highly finished grounds, Fig. 10. Four trees are planted, or two on each side of the passage, the two nearest the gate being bent and brought together over the center, and the two outer ones allowed to grow erect. With much labor in training and shearing they are given the form represented. More pleasing to the admirer of natural beauty is the gateway shown in Fig. 11, where the trees have their natural growth, and are cut away only enough for a passage next to the gate. A passage through a hedge or screen is easily made in this way, and if the hedge is partly obscured by irregular planting near its sides, the whole view may be entirely in keeping with natural planting of the grounds.

The remark is sometimes made with much confidence, in referring to the various forms of training ornamental trees, whether stiff or graceful, natural or distorted, that there is "no disputing tastes," and that one person's preference is as good as another's. This would not be admitted as universally true by any one, as applied to the difference between a beautiful Grecian statue and one of the coarse images of pottery kept as idols by savage nations, and no American would admit that the practice of the Chinese women in distorting their feet into

the shape of apple dumplings is preferable to the natural form. For similar reasons, the natural grace of ornamental trees will be preferred by a cultivated taste to stiff and grotesque shapes which entirely obscure the natural beauty. The frequency with which minor deviations are seen from true taste renders the exhibition of just principles a matter which should not be overlooked, but which should be presented frequently to the public.

The African Inland Sea.

A party of French engineers and hydrographers has left for Tunis, charged with making the necessary studies on the spot for the construction of the harbor in the Bay of Gabes, at the mouth of the Oued Mellah,

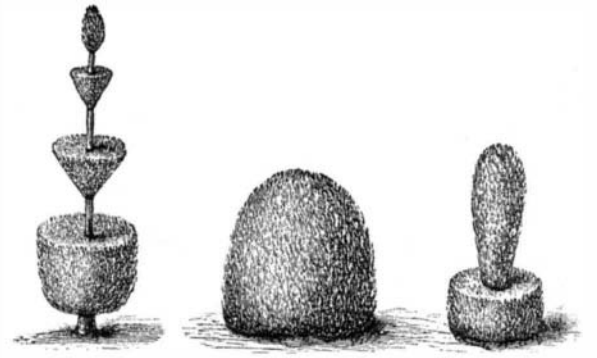


Fig. 9.

in connection with the canal which is to establish navigable communication between the Mediterranean and the Chotts. It will be remembered that, in the early spring of 1883, M. De Lesseps made a trip to those great marsh lakes in Southern Tunis which it is the intention to convert into a vast inland sea, with a view of testing the results of the late Colonel Roudaire's survey, and that he came back convinced that the scheme was practicable. The expedition which has now started will also make investigations as to the feasibility of sinking artesian wells along the route, and the survey for a railway which it might hereafter be thought necessary to construct.

The head of the expedition is Commandant Landas, Professor of Topography at the School of Saint Cyr. He is accompanied by M. Baronnet, who assisted Colonel Roudaire in making the preliminary surveys, and several other engineers. It may be advisable to recall to mind the chief features of the report on the undertaking which M. De Lesseps published after his return from Tunis in 1883. It states that the estuary of the Oued Mellah, which is to be the beginning of the canal leading to the Chotts to be inundated, offers a part, covered at high water, of sufficient breadth, which might easily be excavated, and would form a part sheltered by nature from all the winds from northeast to south



Fig. 10.

passing by the west. The winds from northeast to south passing by the east would not be dangerous to the breakwaters. The roads in front of the entrance are, moreover, in exactly the same situation as those of Gabes. The navigation in the canal, according to the report, would offer no difficulty, as the canal would form almost a straight line. The calcareous rocks found by Colonel Roudaire's soundings in 1879 at the base of the Gabes bar, but of comparatively unimportant extent, are an advantage rather than an inconvenience at the mouth of the canal. They will furnish the requisite material for the construction of the pier and port buildings. M. De Lesseps thinks that, considering the nature of the soil



Fig. 11.

traversed, it will be sufficient to cut, in the alluvial part, a canal, on the average 80 to 100 feet wide, which will be further widened by the action of the current. This cutting could be executed in the maximum period of five years, at an estimated cost of £6,000,000. The proposed inland sea would be fifteen times as large as the Lake of Geneva. It has an elevation much lower than the level of the Mediterranean, the depression being in some places as low as 165 feet below that level.—Iron.