

## REVIEW.

*The art of grafting trees, shrubs, fruit-bushes, &c., by Chs. Baltet, Horticulturist, Troyes, France. Second edition, revised, and accompanied by an appendix on the re-habilitation of the vine by means of grafting.—127 engravings.—Paris, G. Masson, Publisher, 120, Boulevard St. Germain, 1880.*

I have, lately, had the pleasure of reading this book, which for thorough knowledge of its subject, and fulness of detail, is so unusually valuable, that I think I cannot do better than give a précis of its contents, for the instruction of the readers of the *Journal of Agriculture* in the useful art of which it treats. It is not only the work of a well known orchardist, whose operations are carried out on the largest scale, but it has been viewed with approbation by the best judges of France; and the author's establishment has received the highest honour in the gift of the great French Society of Horticulture, the Emperor's Gold Medal. (1)

Mr. Baltet is the President of the Agricultural section of the *Société Académique*, Vice-President of the Horticultural Society, and Secretary of the Society for preventing the ravages of the *Phylloxera*, or *vine-destroyer*.

Mr. Baltet's nursery contains, of Pears, 800 varieties; Apples, 400; Plums, 100; Cherries, 60; Peaches, 100; Apricots, 20; Vines, 100; Strawberries, 50; Gooseberries, 30; Raspberries, 20. Of Roses there are 600 sorts, and of Dahlias, 300.

Among the improvements introduced by Mr. Baltet in the art of *grafting*, or as the English called it four hundred years ago, *imping*, (2) may be reckoned the following: *fruit bud grafting*; in which the fruit-buds of the pear are added to branches of a pear-tree, where, from accident or otherwise, its own buds, have failed. *Bullress*, or grafting *by approximation*, to supply the place of boughs stripped of their twigs and foliage. This plan has been very successful with peach-trees, and with vines.

The principal divisions of this essay are these: 1st Meaning and end of grafting; the tools, grafting wax, &c., to be used in the operation. 2nd How to graft; the three methods principally used, from which all the others springs; the care of trees after grafting; and the destruction of insects. 3rd What trees, &c., will admit of grafting 4th Revival of trees, previously worn out, by the graft. 5th Rehabilitation of the vine by grafting.

In the first part, the author defines the art of grafting as: "An operation which consists in welding (*souder*) one, or a part of one, vegetable to another which shall furnish it part of the food necessary to its existence, and become its support when severed from its parent stock.

(1) This was in 1855, when there was an Emperor in France.

(2) *Imp*, in old English, signified a child: "Oh! royal imp of fame": Shakespear.

The end to be aimed at is: 1st By modifying the wood, the foliage, the flowering, the fruit, to change the nature of any given vegetable; (1)

2. To excite the grafted tree to put forth branches, flowers, and fruit, where these are wanting;

3. To revive a defective or worn out tree, by the transfusion of the new sap of a more vigorous stock;

4. To bring together on the same root the two sexes of *monœcious* vegetables, to ensure greater fecundity. (2)

5 To preserve and propagate a great variety of plants, ligneous and herbaceous, useful or agreeable, which cannot be produced by any other means of multiplication.

"Without grafting," says our author, "our orchards could never have boasted of such a rich collection of fruits suited to each season as they as now possess; our forests would have been deprived of many an important member; and we should never have been gratified with the view which our parks afford us of innumerable species of indigenous or exotic shrubs." He then points out what conditions are necessary to the success of the graft. affinity of species, reciprocal vigour of the two stocks, and the choice of proper seasons for the work. Again, he describes the tools used by the grafter. Numerous engravings make this part of the

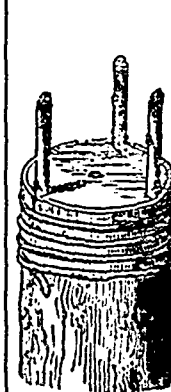


Fig. 4.—Crown graft.

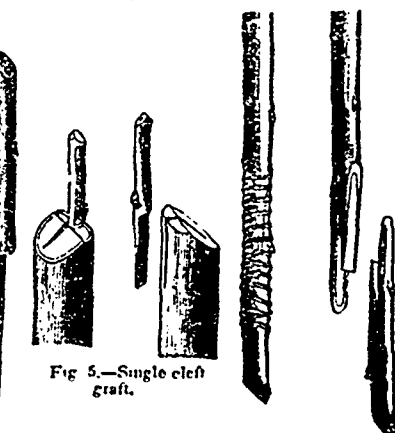


Fig. 5.—Single cleft graft.

Fig. 6.—English graft—complicated.

work very useful to the amateur, by giving him a true idea of the implement described; and this division of the book concludes with a short treatise on the *ties* and *claying* (engluement) which serve to protect the graft, and which ought

(1) The author, of course, by "*végétal*" means, not turnips or carrots, but trees, bushes, &c., but the word is otherwise untranslatable, except by a long periphrasis.

(2) *Cucumbers*, *melons*, &c., are *diœcious*, i. e. bear male and female flowers on the same plant. *Hops* are *monœcious*, i. e. there are male and female plants.



Fig. 1.—Clayed graft. by Mr. Baltet in the art of *grafting*, or as the English called it four hundred years ago, *imping*, (2) may be reckoned the following: *fruit bud grafting*; in which the fruit-buds of the pear are added to branches of a pear-tree, where, from accident or otherwise, its own buds, have failed. *Bullress*, or grafting *by approximation*, to supply the place of boughs stripped of their twigs and foliage. This plan has been very successful with peach-trees, and with vines.

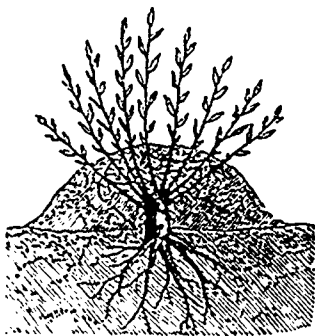


Fig. 2.—Layering (en butte).