

THE ART OF GRAFTING AND BUDDING

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The Art of Grafting and Budding by Charle Baltet

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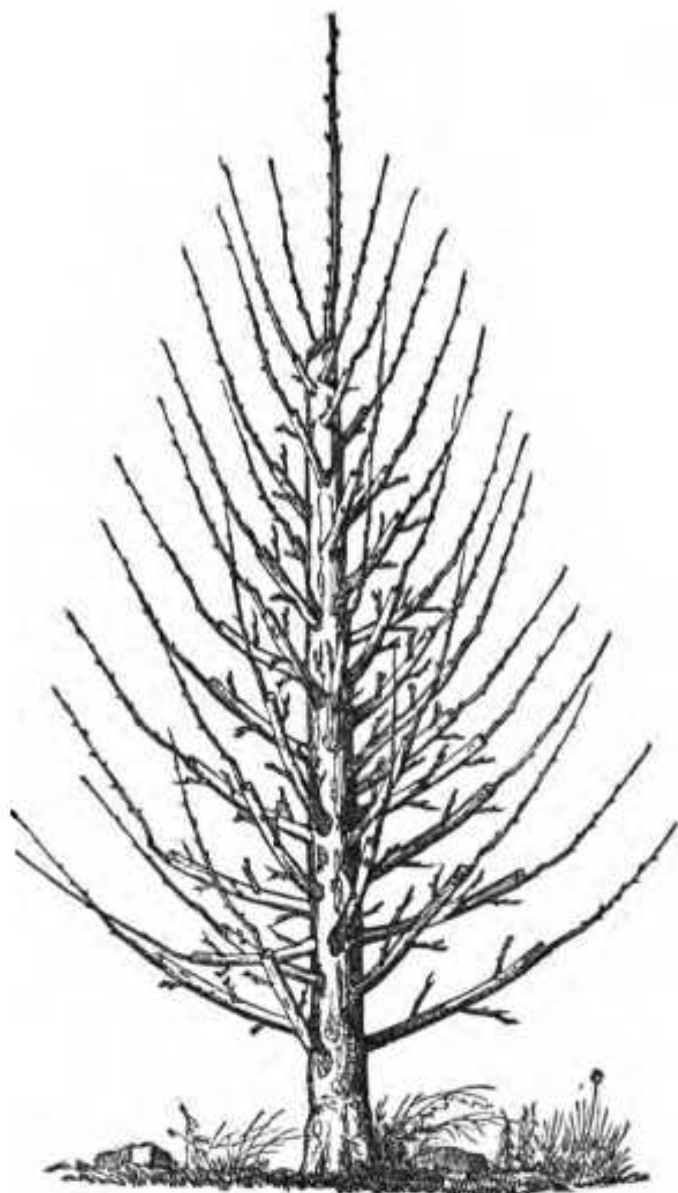
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CHARLE BALTET

**THE ART OF
GRAFTING
AND BUDDING**



Pyramidal Pear-tree regrafted (see p. 230)

UNIV. OF
CALIFORNIA
THE

Edward J. Meehan
1872

ART OF GRAFTING
AND
BUDDING.

BY CHARLES BALTET.

"You see, sweet maid, we marry
A gentle scion to the wildest stock;
And make conceive a bark of baser kind
By bond of nobler race; this is an art
Which does mend nature; change it rather; but
The Art itself is Nature."—SHAKESPEARE.

ILLUSTRATED.

LONDON:
MACMILLAN AND CO.
1878.

P R E F A C E

THE art of Grafting and Budding has for many years been practised in France on such an extensive scale, and with such remarkable success, that the gardeners of that country are now far in advance of all others in this branch of horticulture. The present work is a translation of M. Charles Baltet's "L'Art de Greffer," and embodies all that is known on the subject, so that the reader will find in its pages the fullest information on every point which relates to these operations. Every method of Grafting and Budding is described at length, with numerous illustrations, and an enumeration of the trees, shrubs, &c., to which each mode of operation is best applied. The book concludes with a practical application of the previous instructions to about a hundred various kinds of trees and shrubs, which are then more particularly mentioned, with the season and mode of grafting proper in each case, special observations being added when necessary. M. Baltet is well known in the horticultural world as one of the most experienced fruit-growers on the Continent, and his "L'Art de Greffer," or "The Art of Grafting and Budding" is the most complete manual of these operations that has yet appeared in any language.

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"You see, sweet maid, we marry
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DEFINITION AND AIM OF GRAFTING.

GRAFTING is an operation which consists in uniting a plant, or a portion of a plant, to another which will support it, and furnish it with a part of the nutriment necessary for its growth. The plant which receives the graft should be furnished with roots; it is destined to draw nutriment from the soil, and transmit it to the part grafted. It is called the stock. We shall mention a few exceptions where the stock is a simple cutting without roots; but it is planted in such a manner as to be soon furnished with them. The other plant, or portion of plant, which is grafted on the stock, should have at least one shoot or eye, and be in good condition—that is, neither withered, nor mouldy, nor decayed, nor wet. It is called the graft or scion; it is analagous to a cutting in communication with the soil, and continues its normal growth through the intervention of the stock. Notwithstanding the intimate union of the stock and the graft, they preserve their

individual character and constitution distinct: their layers of wood and bark continue to be developed without the fibres and vessels of one converging with those of the other. It is, as it were, a federative union which leaves to the interested parties their independence. Not unfrequently the union of the grafted pieces suffers a clean severance at the point of contact, either in consequence of the weight of the branches, the violence of the wind, or some other casualty. However, the parts thus broken may be used again, either as stocks or grafts, just as before. Almost all dicotyledonous plants may be grafted. Up to the present the monocotyledonous plants have been tried without success. Their structure does not present the least capacity for the adhesion of the parts when put together; and without this intimate union, grafting is impossible.

OBJECT OF GRAFTING.

The object of grafting is—1st. To change the character of a plant, by modifying the wood, the foliage, or the fruit which it was required to produce. 2nd. To excite the development of branches, flowers, or fruit on the parts of a tree where they are deficient. 3rd. To restore a defective or exhausted tree by the transfusion of the fresh sap of a vigorous kind. 4th. To bring together on the same stem the two sexes of monœcious plants, in order to facilitate their reproduction. 5th. To preserve and propagate a great number of woody or herbaceous plants for use or ornament, which could not be reproduced by any other means of multiplication. Without grafting, our orchards would not contain such rich collections of fruits for all seasons; our forests would be without a large number of important kinds of trees; and we should not experience the pleasure of seeing in our parks such a brilliant array of native and exotic shrubs. There remains one more observation to be made in favour of grafting, that is, that the

plant, or rather fragment of plant, grafted on another preserves its original qualities and characteristic properties. It will produce branches close or spreading, leaves purple or silvery, flowers white or rose-coloured, fruit large or small, early or late, exactly resembling the variety from which it was taken, and without being influenced by the neighbourhood of, or contact with, several similar kinds grouped on the same stock. We could also quote instances of plants which, when grafted, grow more vigorously than when on their own roots. When it is considered that grafting is easy to be practised, that it involves only a trifling degree of bodily exertion, and develops a love for gardening, it will be allowed that it is both a useful and an agreeable operation.

CONDITIONS OF SUCCESS.

In grafting, a great deal of the success depends on the skill of the operator. The other conditions essential to success are affinity between the species, vigour of the stock and graft, the condition of their sap, their intimate union, the season, and temperature.

Affinity between Species.

The laws of the affinities of species are almost unknown. The observations hitherto made have been undertaken in a practical rather than a purely scientific spirit, as in the fertilizing of plants. The results obtained up to the present can only be regarded as a matter of fact. No theory has as yet been deduced from them, except that kinds to be united by grafting must be of the same botanic family.

For instance, the peach and the apricot are grafted on each other with difficulty, while both do well on the almond-tree and the plum-tree. All the cherries unite with the Mahaleb; but it will not succeed as a graft on any of the cherries. The sweet chestnut prospers on the oak; but will not do so if