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lens, a steady hand, a camel-hair pencil, and a few paper bags, with suitable string for tying, comprise all the requisites in the way of tools. Selecting then a bunch of flower buds nearly ready to open; first pull off all the immature specimens, and reduce the number of the remaining ones to two or three dozen, leaving the plumpest looking on the bunch. Then, with the points of the forceps, seize the covering eap by its side and carefully remove it; and in doing this, great care is necessary to avoid bruising the pistil, which would cause it to turn black and wither. The anthers must then be taken off, when the flower will present the appearance shown at C in the figure. As soon as the whole of the flower buds have been thus prepared, the bunch should be tied up in a thin paper bag; and left until fit for the application of the pollen, say from one to two days, depending on the weather. Paper is used on account of the closeness of its texture, for the finest muslin would allow the pollen grains which might be blowing about in the surrounding atmosphere, to pass freely through. If the buds are very mature, an application of the pollen may be made immediately, and a second one a day, or two after, so as to increase the chances of success, but, in no case, must the bunch be left for a moment without being covered by the bag, for fear that in the interval some insect may pay a visit and leave behind it a deposit of pollen, carried unwittingly on its legs or wings from some other expanded grape flowers; such an accident would render all the results uncertain.

Suppose it is desired to cross the hardy but acid Clinton with the rich and sweet, but tender, Black Hamburg, so as to endeavour to raise seedlings, having the hardy character of the Clinton, and bearing fruit of a higher quality. We should in such a case take the Clinton for the female; for it is believed by experimentalists that the seedling in plants, inherits its constitution, mainly from the mother, while in such matters as quality and flavour of fruit, it is more influenced by the other parent. The Black Hamburg will flower as soon as or perhaps before the time the Clinton flower buds are ready, then the pollen may be collected from the expanded flowers, by holding a piece of blue paper close under the bunch and giving that part of the vine a sudden jar with the hand. A small cloud of pollen will at once be discharged, which will settle on the paper below, and by repeating the operation a few times, an appreciable quantity may be obtained, which should be carefully folded up and excluded from the light. It will now be ready for use at any time, and may be kept for weeks; indeed some French operators claim that they have succeeded in fertilizing with pollen kept over a year. When it is wished to apply the powder, remove the paper bag and touch the stigmas with a camel hair pencil dipped into it. In a day or so repeat the application so as to increase the chances of success, after which cover again with the paper bag, which should be kept on for about a fortnight, when, if successful, the fruit will be set and out of danger from extraneous pollen. Then the paper bag may be exchanged for a muslin one, as the growing fruit needs sunshine and air; but the muslin bag should remain over the cluster until it ripens; to prevent its being demolished by birds or thoughtless bipeds.

SOWING THE SEED.

When the berries are fully ripe, collect the seeds, and sow them in the fall. The winter will soften the hard shelly covering, and the young plants will appear in spring, and make a good growth of from six to eighteen inches the first year; the second and third years' growth will be much greater, and on the fourth fruit may be expected, the growth and perfection of which the experimenter will watch with great interest, till he knows whether his labours have been crowned with success or otherwise. When operating on the apple or the pear, a much longer time must elapse, generally from eight to fifteen years, before the result is known.

ON SELECTION.

Scarcely any of our better varieties of fruit will reproduce themselves from seed, and advantage is taken of this fact by fruit growers when they wish to obtain improved fruit by selection, which is the other method before referred to. Take, for example, a quantity of seeds of the Delaware grape, grown without man's interference to influence them in any way; plant them, and the fruit of the resulting seedlings will vary much, some may be white, others black or purple, or with the rosy hue of the parent, and the differences in quality will be as striking as those of colour. Many will be worthless, others of middle quality, while perhaps one in