of insects in the pollenisation of plants, he states: To determine this point I tried many experiments last spring. I counted the blossoms on each of two branches or plants, of apple, cherry, pear, strawberry, raspberry and clover. One of these in care of each fruit or each experiment, was surrounded by cheese cloth, just before the blossoms opened and kept covered till the blossoms fell off. The number of blossoms considerably varied from 32 the smallest, to 300 the largest. The trees were examined June 11th to see what number had set. The per centage of blossoms which developed on the covered trees was a little over two, whilst almost twenty per cent of the uncovered blossoms had developed. Of the pears not one of the covered developed, while five per cent. of the uncovered developed fruit. Of the cherries three per cent. only of the covered developed, while forty per cent. of the uncovered blossoms set their fruit. In the strawberries eleven per cent. of the covered, and seventeen per cent. of the uncovered had developed.

In clover, white and alsike, the uncovered were full of seeds, the covered had none at all. The apple carries five stigmas (Fig. 562). To each stigma belongs a division of the compound ovary constituting the core of the fruit. The stigma comes to maturity before the anthers. Bees seeking nectar get dusted completely, and then transfer the granules to the stigmas of neighboring blossoms.

The apple is strictly a fusion of five fruits into one, and demands for its production in perfection, no less than five independent fertilizations. If none are effected the calyx, which forms the flesh of the fruit, instead of swelling, dies and drops. An apple often develops, however, though imperfectly, if four only of the stigmas have been pollen dusted; it rarely hangs long enough to ripen, the wind storms shaking them off. Their fruit may be generally known by a deformity, one part has failed to grow because there has been no diversion of nutrition towards it. Cutting it across with a knife, we find the hollow cheek lies opposite the unfertilized division, containing only shrivelled pips. Gooseberries are absolutely dependent on insect life for fertilization.

R. A. Grimshaw, in the British Bee Journal, says cross fertilized cabbage plants produced seeds, the plants from which flowered earlier than those from uncultured seeds; they were five per cent. taller; cabbage plants from crossed seeds were three times as heavy as those from uncrossed seeds. All round, heights, weights and fertility of crossed common cabbage were five times those from uncrossed seeds; common pear as one hundred to seventy-five. With our vast orchards and amount of bloom, we have really an artificial condition in plant life; and with the busy bee we secure an artificial condition in iusect life. The honey bee is not a native of our country. In the honey bee we have an insect which does not injure fruit as so many others do; her visits are to bless. Much more could be said, but I feel sure enough has been said to show that bee-keeping and horticulture has much of common interest, and that the honey bee, although she produces one of the most wholesome of foods, has a great value to the horticulturist. Many bees may survive the winter, but few other insects do. The spring of the year is the time when these insect visits are mostly required.

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