bees out or I will not have any plums;" but the bees did not care for the smoking and kept on with their work, and that man had a large crop of plums. If there had been winds to carry the pollen from one bloom to the other the Scotchman would have got plums, and so would the second man without the bees, probably; but the bees were the main means of bringing the crop of plums to that man's orchard.

Mr. BOULTER: Don't you think the smoke drove the curculio out of the plums?

Mr. SHERRINGTON: The curculio comes after the plum. I have a large orchard with Spys in a block, and I have noticed times that they did not bear; still I think they are not so far away but what they can be cross-fertilized with the other varieties, and I think it is very wise in planting to intersperse different varieties in the orchard.

You are all aware that there are varieties that will not self fertilize, and I think it is a very important point in planting to mix the varieties; but care should be taken that the soil is suitable for the different varieties. I have found on certain soils the Baldwin does well and on others it does not do anything. When the soil suits, the Baldwin is a good variety to plant with the Spys.

Mr. BOULTER: What is the best soil for Baldwins?

Mr. SHERRINGTON: In our localities the best is a light soil—a sandy loam. On the clays they don't do so well. I would certainly put bees in any orchard that has not got them. I would never think of trying to grow fruit without bees.

Prof. CRAIG: We should not go so far the other way as to think that all fruit tree blossoms are unable to fertilize themselves; in other words are self sterile. The majority are, and I was speaking of the exceptions. Most of the European plums are able to fertilize themselves, the blossoms being self-fertile, so that if they don't bear fruit it may be on account of some climatic influence—very great heat or sudden and prolonged heavy rains I think would wash away pollen so as to injure fertilization.

Mr. HALL: The professor has forgotten that he told us a few moments ago that it is important to have a foreigner to marry with this lassie bloom—that cross-fertilization is what was wanted to make a good offspring.

Prof. CRAIG: But you must remember that there are different sections of this subject. I was speaking of producing new varieties. I told Mr. Blake that the pollen of another variety had no influence on the fruit of this year, but if he wanted to produce a new variety he must cross it.

Mr. HALL: The strengthening quality of the apple, for instance?

Prof. CRAIG: That is what I say. Ordinarily it has no effect on the fruit of this year in changing its appearance other than helping development generally.

Mr. HALL: Does not it make it better in quality, larger in size, better in shape?

Prof. GRAIG: I don't think it will affect the quality or shape, but may improve the size.

Mr. SHERRINGTON: In one of our orchards a very close observer found growing on a Rhode Island Greening a perfect Golden Russet. All the difference was that just around the stem you would see the Greening, but the rest was a perfect russet. In the spring he cut the apple, but there was not a perfect seed in it. What was the cause?

Mr. BLAKE: I would like to ask, if the fertilizing fruit does not affect the present year's fruit, why do we plant strawberries of different sexes to fertilize the blossoms, to have the fruit of the present year?

Prof. CRAIG: To get fruit. In one case you don't get fruit, and in the other case you do get fruit. There are exceptions which nobody can explain. In all the animal kingdom we have what we call "sports." I had two specimens of apples sent into me this year each of which exhibited two varieties. One was a Golden Russet on one side as perfect as could be, and the other half was Ben Davis; and the line of demarcation was just as clear cut as if it had been painted by hand. I don't think this was the effect of cross-fertilization; it was probably a "sport."