

served for sowing. They were taken out without injuring the form of the heads, as I intended to show them to you to-day. Unfortunately, I have forgotten to bring them with me.

*By Mr. Wilson:*

Q. Those were the heads you had here yesterday or the other day?

A. Yes. I had them with me then. I think it is important that such work as this should go on all the time, as we want to be prepared, should any of the best sorts of grain now cultivated show evidences of giving out, to be in a position to suggest a profitable substitute. The study of varieties and the production of new sorts of grain, next to that of maintaining the fertility and productiveness of the land, is to my mind the most important line of work we are conducting. Another point I wish to refer to is the additional results we have had in the crossing of the Siberian crab apple with some of our best apples with the view of producing varieties of fruit which will be hardy enough to stand on the open plains in any part of the North-west or in northern Ontario, and be large enough to be useful to the people.

Q. You have a great deal of difficulty with that, don't you?

A. After trying almost every sort obtainable, a variety was got from northern Siberia, known as the berried crab, *Pyrus baccata*; this produces fruit of the size shown, (photograph produced for inspection of committee), with which we have now had eight years' experience in the North-west, where it has been grown in the open and the trees have stood the test and come out hardy every year. The first cross of that variety with some of our larger apples, has given us this series of nine sorts. The fruit, as you will see, in these photographs (photographs produced) is much larger than the parent crab, large enough to produce serviceable fruits for domestic use.

*By Mr. Heyd:*

Q. This is No. 1?

A. Yes.

Q. Is this the life size?

A. These are all the actual sizes of the fruits accurately photographed for the purposes of comparison. I have here a photograph of one of the most esteemed of the crabs, the Transcendant, this is the actual size (photograph produced), and you will observe that some of the new crosses are practically of the same size as the Transcendant, while others are a little smaller.

*By Mr. Wilson:*

Q. Some of them are about the size of our ordinary crab here?

A. Yes. We have only yet fruited about 50 of these crosses, but have produced between 400 and 500 of them. During the coming season we expect to have fruited from perhaps 40 or 50 more. The crosses which have fruited are chiefly from early autumn apples. It is probable that during the coming season fruit will be had from crosses with some of the later keeping and more valuable sorts. The results thus far obtained from these experiments are very encouraging, and I think the progress we have made to have had nine from about 50 which have fruited, large enough to be of value to the community, is a greater success than was anticipated.

*By Mr. Heyd:*

Q. Will they reproduce themselves—these new varieties that you have fruited?

A. No; that is a point on which I am glad to have questions asked. When the seed of such crosses is sown in most instances, in the young trees produced there is a reversion towards the female, when the size will probably be smaller, that is the usual experience, but there will occasionally, we cannot say how often, be a reversion towards the male, which is likely to be associated with an increase in size.