

second block the selection would be made still from the finest of those that have first been started; and I find that out of a lot of 100 trees that the selections came from less than half a dozen—the perfect type is found within half a dozen. And so by the selection from those fine types the chances are in another block to increase this per cent. or larger number of typically fine trees; and I certainly have faith in this principle of propagating trees. (Hear, hear). I believe if we study it sufficiently and understand it sufficiently that it is possible for us to eliminate in our culture a large proportion of the inferior fruit which is now produced upon our orchards. I am quite well convinced in my own mind that we do shorten the period of bearing—the number of years. At the end of eight years it is now possible to take from these trees well toward two barrels of fruit. During this past year, in propagating on this same tree from later winter sweets, at the end of six years there were trees that bore a full barrel of apples. At the end of three years propagating with the Sutton Beauty—another apple which is receiving a good deal of attention in New York State—at the end of three years I was able to take from these top-worked trees this year two bushels of apples from the tree; showing that the tendency of early development by the selection of buds from mature trees must have some force in it. We know that top-working will shorten the period in any event; but if we choose buds from trees that show in the first instance a strong tendency to early bearing I think we can bring down the period of bearing a number of years, and that is an essential point in this propagation, in addition to the other points that I have raised—to note the tendency for early productiveness, early bearing, and where we note that tendency to select our buds from those trees. I want to show you some wood taken from these trees, which I have brought with me. I hold in my hand some wood taken from the trees at the end of three years that produced two bushels of apples, showing a very fine development of fruit buds upon this wood at the same time that this fruit was borne during this past season. Now, in addition to the producing of two bushels of apples from this tree, although we have had a very prolonged drouth this past season—I think the worst drouth I have ever experienced in my business, no rainfall to wet the ground for six months to any depth whatever—you will see that there is a fair growth of wood upon these trees right through the severe drouth. The fruit was developed in the very highest perfection, and at the same time there is a very remarkable development of fruit buds for the coming year. So that it gives me strong faith in the principle of the judicious selection of stock to propagate our trees from. While upon this subject, tillage comes in, of course, as a very important part of this whole question. I believe we should push the question of development as rapidly as it is possible of all our trees. By the vigorous development of trees I think we put them in a position to resist diseases, to more effectually resist the insect attacks. If a tree from any cause is standing still that tree is certain to be afflicted with all sorts of troubles, diseases and insects; and hence if we can bring to our orchard management a high degree of culture, putting our trees in the most thrifty growing condition, we shall solve in this manner to quite a large extent some of the difficult problems of the infliction of diseases upon our trees. So I am a believer in very high culture; and here is an evidence of the rapid development that may be brought to trees in the bearing tendency. I hold in my hand peach wood from trees that have not been set yet two years—set a year ago this last spring—that are to-day fully developed with a strong set of fruit buds, and I can only attribute it to the special culture which has been given these trees during the two summers that they have been growing. You who are peach growers will recognize that there is a very full set of buds upon trees that have been standing in the ground but a little over one year and a half. Now, these trees were struck the year that they were set, in 1897, by peach curl to an extent that the foliage was