

Northern Spies. I have grafted part of these this year with scions from a King apple tree; I have grafted the other with scions from nursery trees which ten years ago were taken from that same apple tree, for the purpose of finding out whether in the ten intervening years there has been deterioration. I believe, as a matter of theory, that it is the best for the nurserymen every year to go back to his bearing tree, but I do not think you can do it; it is only in rare cases and in special varieties that you can do that, and just how long these nursery trees can be propagated without deteriorating I do not know and no man knows. I believe one reason why the Crawford peach is running out is because we are propagating from so many different strains of it; but whether by reason of a strain having been introduced that chanced

to deteriorate in the nursery row, I cannot say. My own opinion is that we ought to try to renew back from the original tree as often as we can, and, when the opportunity arises, once in five years, or once in ten; and I believe the oftener we can renew, the safer we are, without saying that we are not safe if we do not renew. I know, however, that there is such a thing as individuality in a tree, and I am perfectly sure that a great deal of individuality passes over. At present we are thinning out the cattle in the dairy herd by means of the Babcock test; we are finding that many cows never paid for their board, and are thinning out these cows all the time. I wish we could apply a Babcock test to our orchards by means of which we could eliminate those trees that do not pay their board, or at least that we never should propagate from those types of trees.

## BUDDING FRUIT TREES

**I**N Ontario budding is usually performed in the months of July, August and September, the later date being for young trees which have a long season of growth; such as peach trees in their first year from the seed. The essential conditions are, (1) that the bark can be raised easily, and (2) that the growth of the season is so nearly completed that the new layer of wood inside the bark has acquired some consistency, and has ceased to be thin and watery. It is this new wood which, in its ripening process, is to grow the bud fast to the young tree: therefore, the importance of its being in the right condition. This may be known by the young tree beginning to form its terminal buds, in completing the season's growth.

The buds to be put in are obtained from shoots of the current year's growth, and

they are usually more perfect if grown in full sunshine. As soon as cut, the leaves are to be removed—all but about a third of an inch of the footstalk, which is left to hold the bud by when putting it in place—and three inches or so of the immature point of the shoot is rejected, as are also two or three of the lower and imperfect buds. A prepared "stick of buds" (as it is termed) is shown at *a* in Fig. 2633. Several of these "bud sticks" may be prepared at one time, if desired, but they must be kept in a damp cloth until used, and on no account allowed to become wilted. Scions for grafting, being fully ripened wood, will not be seriously hurt by a slight wilting, but this would ruin buds. When properly managed, by being wrapped in damp moss (sphagnum) and enclosed in waterproof paper, these "bud