

logs, which facilitates drying out. Wet logs should be split open, and this may be accomplished by using some powder, boring holes in those logs that are sound enough to admit of boring, or chopping as deeply as possible with an axe into those that will not permit of boring. Charge the bored holes in the usual way with about one-half stick of powder, or put the powder into the chopped holes and cover with a few shovelfuls of earth, and fire the same as the first. We have found that in boring the holes the powder will do better work if the holes are bored slanting or at an angle about half-way between the centre line of the log and a line at right angles with that centre line. Good results are obtained with not more than one-half stick of powder, shattering and splintering, so that the air and sun have a chance to dry out the log preparatory to burning.

We have found that the mattock is a useful tool for removing the bark, and a steel bar, or, better yet, a piece of 2-inch gas-pipe with a steel chisel-bit welded into one end and a steel point at the other end. The chisel-end is used for splitting small rotten logs, and is useful also as a lever to pry open the partially split logs and for other purposes for which a lever may be used. The other end may be used to punch holes for powder under stumps and logs requiring but light charges. If there is any underbrush it should be slashed as soon as the foliage is out, first cutting that which is underneath so that none will be missed; then pile this material so as to produce a good burn. We repeat these words, *a good burn*, because a good burn will be of very great advantage in after-work, and reasonable diligence applied to facilitate that good burn is time well spent.

There has been a considerable number of what we believe to be wilfully misleading statements of damage done to the soil by burning by those who are interested in other methods. It is true that all the organic matter on the surface is burned up. As a rule, this organic matter would not be available in the soil and must be removed before we can produce crops, and we believe it is better burned off the surface of the ground, where the ash will be evenly distributed, than it would be by piling in great heaps.

As has been stated in other places in this article, the natural tendency of all heated air is to rise, and when these fires are raised and are at their hottest, you would find upon examination that that hot air goes out very far down into the soil, and the little organic matter that is burned out in the surface can be much more easily replaced by the growth of a new crop for a year or two than could the material thus burned out be replaced away from the land to be burned.

Perhaps a word of caution may not be amiss about the time to burn. The burning should not be undertaken in the closed season without a permit from the local fire warden, but as early as possible after the end of the closed season and before the material is saturated with fall rains. The object is to destroy as much of the waste timber as possible with fire where it lies on the ground, with the least possible labour and handling. Much can be done to assist in this work by throwing a few chunks against the logs in such a way that they will burn through, so that the ends may then be swung around together and burned. In the hands of the skillful operator, fire is the best friend and most useful agent of the land-clearing forces. "Keep the fires burning" should be the slogan of every man in this work. Pile the chunks that can be handled against the larger logs in such a way as to burn them into pieces that can be handled, and if there are more of these small chunks than is needed for one fire, hold some in reserve for a second and perhaps for several other fires to follow, so that the big pieces are reduced to proper size for handling as