

of 34.3 cents each. J. W. McEnteehan, of Adna, burned out 130 stumps from an old field in thirty days. Mr. McEnteehan paid \$2 a day for labour, making \$60 for the 130 stumps, or 46 cents each. Mr. David Fay, of Adna, removed thirty-nine stumps from an old field in eight days' time for firing and three hours a day for five weeks in after-care. He valued his time at \$2 per day, making a total of \$37, or 95 cents per stump. These stumps were much above the average size, all the smaller ones in the fields having been removed by other methods.

Another successful plan for applying the same principles with a slight change of method is that employed by Mr. W. H. Booth, of Spena, Washington. In 1908, with the help of his two boys, he removed 661 stumps from 16 acres in nine weeks, and in 1909 he destroyed 550 stumps from 12 acres. In 1910, 225 stumps from 8 acres were destroyed, not keeping any record of the time for the last two years. Counting nine weeks' time at \$36 per week for the three labourers would give \$324 as a total cost of removing 661 stumps in 1908, an average of a little less than 51 cents per stump. These stumps were removed from old fields where all small stumps had been previously taken out. The average size of these stumps was fully up to anything that was found in the State, being very large. Mr. Booth's method is to fire the stump at but one place. He first prepared good fuel from good wood by cutting it up during the winter season in convenient sizes to handle. This is piled up to dry, and the firing is not undertaken until the driest part of the summer months. He then selects some part of the stump where two large roots are coming out near together from the stump, and digs away the earth from 15 to 18 inches deep or until he gets a little below the point where the two roots fork. He then goes on the ground and builds a good fire in each one of the previously excavated holes and leaves it burn several hours uncovered; then if there is good fuel of hot coals and the stump begins to show indications of taking the fire, he replenishes the fire with a little fuel and covers over with earth about the same as formerly described. The after-care consists of keeping the stump banked up ahead of the fire all way round. Mr. Booth thinks that on large stumps it would probably pay to fire them from two opposite sides, as that would very much hasten the operation. This method of burning by firing from one place is necessarily slow for each stump, but where there is plenty of work ahead in firing other stumps, the time required for a stump is not so large a factor.

The most favourable data that we secured is that furnished by Mr. A. W. McCormick, of Woodland, Washington. Mr. McCormick had an old field with a large number of stumps which he contracted to have burned out by Mr. Geo. Landham at 50 cents a stump. Mr. Landham commenced work August 12th, 1910, keeping, at our request, accurate account of his time. He successfully burned out 210 stumps in 145 hours. This is the most favourable record we have obtained, and we believe that the burning was done under the most favourable conditions that we have yet seen. The time, August and September, was when everything was very dry, there having been no rain to speak of for more than two months. The natural slope of the hill was very much in favour of cheap destruction, in that there was a very good slope to the west and toward the prevailing wind at that place. This field had been ploughed for many years in the same way, throwing the furrows downhill, thus banking up the upper side of each stump and removing much of the earth on the lower side. Mr. Landham, with his axe and mattock, would pull down some of the half-rotten wood from around the top of the stump, build a little fire under the exposed part of the roots, cover over with soil, and