

veins will warrant the expenditure of labor for this purpose. The bulk of the barren serpentine necessary to be removed in order to obtain a ton of fibre is consequently very great, and while no exact data are to hand by which the relative proportion of asbestos and serpentine can be determined, it has been estimated to range in the ratio of 25 to 1 in very prolific ground, to 50 to 1 in ordinary mining. Of course in such a great quantity of waste rock, under the present system of working, many small veins or portions of veins are not removed, owing to the expense and difficulty attending such operations by hand labor only—and the great heaps of waste material have accumulated till they now occupy large areas of valuable ground. As in the case of the drilling and hoisting, however, where hand labor has been obliged to give place to steam and compressed air, so, also, very shortly the breaking and cobbing must also be done by machinery, and with proper appliances, with a great saving of expense, as has resulted in the case of the drilling and other operations; since with a properly equipped mine the cost of production can be reduced from 50 to 75 per cent. from the expense due to the laborious system of hand labor.

The history of asbestos mining presents some points of interest in view of the rapid growth of the industry. Comparatively little importance was attached to the mineral, from the economic standpoint, in the early days of the Geological Survey's operations, and this combined with the fact that, although asbestos had been known before 1850 in the serpentines of the Eastern Townships, the quantity seen at the places where discovered was very limited, and led to the result that but little heed was paid to its occurrence. In 1877, owing to the burning off of the forest in Thetford and Coleraine townships, the hills of serpentine became laid bare and the weathering speedily produced the peculiar felting of the asbestos fibre on the surface wherever veins occurred. This was observed by a French Canadian named Fecteau, it is stated, and the importance of the new material was soon ascertained, which resulted in the establishment of mining operations on a small scale in the summer of the following year, by the Johnston Asbestos Mining Company, although the credit of the first attempt at working should probably be given to the Ward Brothers. The areas in the immediate vicinity were speedily secured and new mines located, since