

multiplied, but with an elasticity that removes all danger of breakages and at the same time the jar is so thoroughly cushioned that it is not noticeable in the machine when the blow is struck. The head strikes a quick, sharp blow at the rate of 250 to 500 blows per minute, according to the size of the machine, and instantly gets away from the work, thereby avoiding any chilling of the stock. The entire working parts of the hammer are at the top, in full view of the operator, every part is readily accessible, being easily operated by inexperienced men. Raising or lowering the hammer is accomplished by loosening the bolt, and when at the required place, tightening again. Another feature for the machine, is the small amount of power required to run it, and a saving of power means money saved. The entire machine is constructed with a view to durability, the best of material being used throughout. The Fairbanks Company are thoroughly reliable in every respect and can be depended upon. Their business is conducted on a line that is pleasing to each and every customer, and promptitude is a special feature of their business methods. We fully appreciate the difficulty the prospective buyer finds in endeavoring to ascertain the best make of power hammer, as he himself cannot know all the different kinds, and is therefore unable to decide for himself. Interested readers will get further information from the Fairbanks Company, Montreal.

THE LANDSLIDE AT FRANK.

R. G. McConnell and R. W. Brock, of the Geological Survey, who examined Turtle Mountain, on behalf of the Government, have made their report as to the cause of the



Frank Rock Slide—A Fringe of the Slide.

Frank rock slide and the condition of the mountain since the slide. The rock of the main portion of the mountain and in which the slide occurred is a carboniferous limestone up-



Frank Rock Slide—The Obliterated Track.

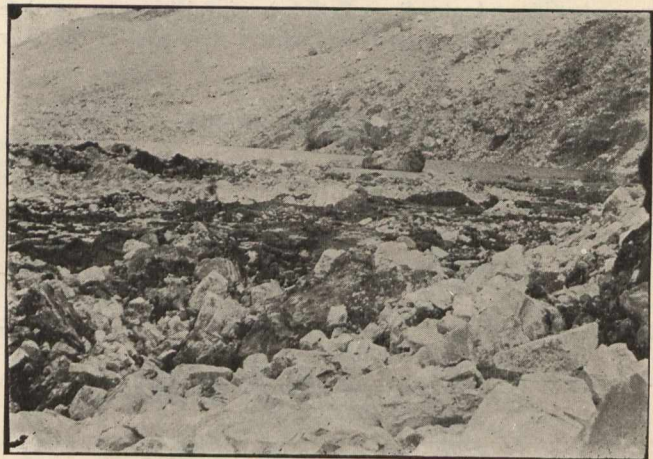
turned, and dipping at quite a steep angle. The dip of the strata, however, was not parallel to the surface where the slide occurred, but on the contrary, was almost perpendicular to it. The interior workings of the mine were practi-

cally undisturbed. There was no explosion of any kind whatever. There does not even appear to have been any serious creeping or similar displacement in the mine, such as might have caused a sudden jar in the overlying rocks. In fact, the slide does not seem to have been the result of any sudden or rapid agency or motion of any kind, but rather due to slow and long continued action of water,



Frank Rock Slide—Splintered House on the Border of the Newly Formed Lake.

frost, etc., continually producing changes in the earth's surface. It is quite possible that small creepings in the mine during the past two years may have assisted or hastened the slide, but it is not thought that anything of this



Frank Rock Slide—Dammed up Waters of the Old Man River from a Point on the Field of Displaced Rock.

kind precipitated it. The mountain side is very steep and deeply fissured. The immense mass which broke and fell away acted exactly like a viscous fluid in sliding down the mountain and spreading itself out over the valley below.

The peak at present overhanging the town is deeply fissured and some of these fissures are known to be widening. Another enormous slide might occur in a short time, and on the other hand it might not fall in fifty years, but it is almost sure to go sooner or later. There have been, of course, numerous small slides following the original one, and these will no doubt continue for some time to come.

Messrs. McConnell and Brock have set forth the whole matter in great detail in their report, which is not yet printed.

The accompanying engravings are from photographs made by Willis Chipman, C.E., of Toronto, who had the fortune to be in the vicinity at the time.

AN OPPORTUNITY FOR CANADIAN ENGINEERS.

The Austrian Ministry of Commerce is offering handsome prizes for complete plans of a lift lock to hoist vessels over an elevation of 35.9 M. on the route of the projected Danube-Oder Canal, in Moravia, securing an economical traffic with the least possible waste of water. The