

## HOLLINGER DIVIDENDS

Hollinger Gold Mines, Limited, in the period January 1 to September 9, of this year, made a profit of \$1,139,267. Shareholders have during the past year received \$1,170,000. The mine is reported to be in good condition and the cost per ton has been lowered.

The good record of the Hollinger is all the more noteworthy because of the fact that operations were seriously interfered with for some months by a strike ordered by officers of the Western Federation. The strike was quite unsuccessful; but the industry suffered considerably from the activities of the agitators.

## MINING WORLD INDEX

The publishers of the Mining and Engineering World, Chicago, have issued the third volume of an index which has proven very useful to those who have occasion to refer to the literature on mining subjects. This third volume covers the half-year period, January to July, 1913. The compilation of such an index means a great amount of work, and the editors are to be congratulated on its comprehensive character, simplicity of arrangement and early appearance. For ready reference to the current literature it is invaluable.

## COPPER ORE IN ALBERNI DISTRICT, B.C.

Copper ore in Alberni district is to receive attention, the Ptarmigan Mines Co. having been organized to prospect and develop mineral claims in the vicinity of Great Central Lake. Seven years ago Mr. Herbert Carmichael, Provincial Assayer and Assistant Provincial Mineralogist, visited that part of the island and made a report which was printed in the Annual Report of the Minister of Mines for 1906. The following was his introductory account of what he saw there: "Considerable bodies of ore having been reported to exist at the head of Great Central Lake, Alberni district, it was decided to make a preliminary examination of that region, which was done toward the end of August, 1906. Great Central Lake can now be reached with ease from the town of Alberni, a distance of 12 miles, by wagon road, the elevation of the lake being 200 ft. above the sea. This inland sheet of water presents the same physical features as do the inlets which indent the west coast of Vancouver Island, the mountains rising abruptly from the water, with here and there a valley extending back for a considerable distance, the most important valley being that extending to Ash Lake on the northeast. The general length of the lake is east and west, and it is about 25 miles long by a mile or so wide. At its western end two creeks flow in, heading from mountains still farther to the west. A trail from the lake follows the more northerly of these creeks on a gradual ascent for a distance of ten miles until it ends in a basin, shut in by high mountains, the basin having here an elevation of 1,500 ft. above the Great Central Lake and 1,700 ft. above the sea. To the south a precipitous bluff rises 2,075 ft. high, from which pours a considerable stream of water that barely touches the rocks until it reaches the bottom, breaking into a mass of spray in its descent. The ascent of the bluff requires stout muscles and the aid of the small bushes which cling so tenaciously to the clefts in the rock. On the top there is a small rocky plateau or basin enclosing a lake about half a mile long by a quarter wide, the elevation of the lake being 3,350 ft. above the sea. This mountain lake, situated in the heart of Vancouver Island, with snow-clad mountains rising 2,000 ft. above it, and the blue crevassed glacier of the 'Nine Peaks' showing up to the south in the morning sun, forms a beautiful scene."

After having given some particulars of the Big Interior group of seven mineral claims, Mr. Carmichael summarized as follows: "The mineralized zone, showing in the face of the cliff to the north of the basin and forming the great mass of low-grade mineral on the property, is so large, so inaccessible, and the mineralization so scattered, that it would be impossible to obtain anything approximating an average general sample of the exposure without the expenditure of time and money not justifiable under the circumstances. However, at the foot of the cliff, there is a talus extending the whole length or width of the mineralized zone, made up of material broken away from the whole face of the zone in question. While this talus may to a certain extent have been affected by weathering, it still may be considered a very approximate sample of the inaccessible cliff. Samples were taken from this talus, from which it is judged that approximately the central portion of the mineralized zone will assay from 0.5 to 1 per cent. copper, with from 1.5 to 2 ozs. of silver per ton, and a trace of gold. This value extends over a width of about 1,500 ft., while to the right the mineralization gradually fades off into the country rock. To the left of the mineralized zone is what has been called, for purposes of designation, the 'brecciated zone,' and which is merely a continuation, to the left, of the mineralized zone which has here been subjected to a crushing due to movement, and in which the interstices between the fragments of the rock have been filled with secondary minerals, chiefly calcite, with some carbonate of copper forming a secondary enrichment. This secondary enrichment has taken place, as would be expected, along defined channels, producing streaks of higher-grade mineralization often forming commercial ore. Here, again, no general sampling was possible, although a tunnel has been driven for some 31 ft. into the bluff it was found impossible to examine the face of the cliff for ten feet on either side of the tunnel mouth. The mineralization just described, and which forms the great bulk of visible mineralization on the property, is admittedly very much diffused through the rock, and is, consequently, so low-grade as to be of value only if found to be amenable to some form of concentration, and of which there seems to be a fair probability."