

case of emergency and danger, and a man whose advice could be sought and relied upon as proceeding out of a well trained experience added to scientific knowledge. No inspector should be appointed for political purposes, and 'we consider the time has arrived' when no man should be appointed to an inspectorship because of his political preferences, or as a reward of political loyalty. He should be appointed because his qualifications mark him out as fitted for such an onerous and responsible position. To-day when mines are at work in Nova Scotia with 1,500 persons below, in one mine, at one time, whose lives may be endangered by the ignorance or the stupidity of one man, we require inspectors who can enforce regulations, and explain why they enforce them. The Government of Nova Scotia should have a Chief Inspector of Mines, whose scientific and technical attainments should be beyond reproach. This man should appoint his assistants by rigid competitive provincial examination, such as would entirely eliminate the incompetent and raise the status of the inspectorate. Men of this calibre would need and could not be obtained without the payment of adequate salaries, but in return we would get adequate men, and it would open up an avenue of promotion for the young and ambitious mining students of the province. The Inspector of Mines should bear the same relation to the colliery manager that the colliery manager bears to his overmen, and the correspondingly more difficult than the colliery manager examination.

"As conditions are now, the managers and salaried officials of the coal corporations are men whose wide range of experience and technical knowledge, obtained by years of hard study, make them infinitely better able to advise the inspectors than the inspectors are to advise them, which is a reversal of the correct state of affairs. We think it will be found that most of the recent improvements in Cape Breton mining as regards safety—and they are many—have been carried out on the sole initiative of the officials of the coal corporations, who constitute the only body of mining experts in the province."

CONCENTRATION OF COBALT ORES.

We commend to the earnest attention of our readers an article appearing in this issue of THE CANADIAN MINING JOURNAL. The writer, Mr. G. H. Gillespie, has been afforded especial facilities for the study of the subject of Cobalt ore treatment. This article will be followed by others that will deal more fully with details.

Mr. Gillespie's point of view strikes us as being sane and clear. It is true that Cobalt ores present some peculiar difficulties. But most of these difficulties have been overcome in other camps. On the other hand Cobalt has exceptionally favorable conditions. Transportation is good. Labor is plentiful, and supplies are becoming cheaper.

Stress must be laid upon the fact that there is a strict limit both to the amount and to the varieties of ores that can be concentrated with commercial success. For instance, hand-sorting can in some cases be carried on to a much larger extent than now obtains. It is wasteful to put the whole run of mine through the mill. Again, with light stoping drills and narrower stopes the tenor of the ore may be considerably improved. Every pound of unnecessary waste rock handled means a multiplied waste of power, time and money.

We agree fully with the opinion that it is wise to begin with as simple an equipment as possible.

In most of the mines of Cobalt hand sorting of No. 1 ore plays a large part. So far as practicable then this ore should be separated in the initial stages, before and after crushing.

If a stamp mill is to be part of the equipment, the design and practice will be modified by several considerations. It is probable that heavy stamps, dropping between 90 and 110, twenty-mesh screens, low rapid discharge and a light feed will be the salient features developed as experience is gathered. Possibly concentrating tables and slime tables will meet all requirements after this, although it is likely that the average tailings will respond profitably to cyanidation.

We do not believe in a multiplicity of stages. Classifying can often be done most profitably in the mine and on the sorting tables. When classification becomes complicated, profits become correspondingly uncertain.

It is dangerous to dogmatize, however. Simplicity may be an unattainable ideal. But a tendency in the direction of that ideal is healthy.

THE PRICE OF SILVER.

In the year 1868 silver brought \$1.326 per ounce. From that year until 1889 there was a slow thought constant recession in price, until in 1889 the figure of \$0.935 was reached. Low water mark was touched in 1902, when \$0.522 was the average price for the year. For 1907 the average was \$0.653.

The world's output of silver in 1900 exceeded that of any previous or succeeding year — 173,591,364 ounces were then produced.

Since 1904 Canada's silver output has gone up in value from \$2,075,000 to, roughly, \$7,500,000.

A new safeguard for collieries is offered by the discovery of Profs. Elster and Geitel that firedamp contains six or seven times as much radium emanation as the ordinary air of coal mines. An aluminum foil electro-scope quickly shows the difference of electrical conductivity due to the emanation, and this simple apparatus becomes an effective and important means of detecting danger.