

alert intelligence. On more than one occasion it has emphasized its belief that mining is essentially speculative. To this belief we taken strong exception. Most of the catastrophes that have marked the history of mining in this and other countries would never have occurred had reasonable precautions been taken to remove the speculative elements in mining investment. It is true that mining promotions, as permitted by the lax administration of laws, or by the absence of a healthy public sentiment, are highly speculative. But it is wholly wrong to characterize the industry of mining as inherently speculative. The properly conducted mining enterprise carries no greater risks than does the ordinary commercial concern. Risks there are, and always will be, in all branches of human activity. Mining risks, sanely controlled, need be no greater than those taken by merchants or manufacturers. But it is illogical to damn mining merely because mining risks are described in different terms and because mining ventures are too often launched by predatory brokers. "Speculative" is a vague word. The Mining and Scientific Press is published in San Francisco. San Francisco was recently destroyed by earthquake. Another earthquake may raze the whole city to-day or to-morrow, or—not until doomsday. This adds an instructively speculative feature to the construction of buildings in San Francisco.

The green-grocer purchases perishable garden truck. He is a loser if he cannot dispose of his purchases within a given time. Millions of dollars are made and lost in gambling in wheat. Yet farming is not described as a speculative calling.

But it is unnecessary to multiply instances. Speculation may be defined as accepting heavy risks in the hope of making great profits. Every industry furnishes opportunity for speculation. No industry is free from the effects of human errors. Strikes and "Acts of God" cannot be foreseen. But it is the business of trained men to estimate possibilities, guard against error, meet competition, and provide for contingencies. In no industry are the rewards of industry, perseverance, and skill so rich as in mining. In no industry is there such utter need to root out the parasitic speculator.

Safeguards are provided for the mining investor. For a relatively small outlay he can ascertain the probable value of a prospect or the minimum value of a mine. He need not look far for honest and competent advisors.

In a word, it is idle and harmful to predicate for mining any higher degree of speculative uncertainty than is manifest in all the ordinary vocations of mankind. Mining should be a "business" in the strictest sense of that word.

A NEW FLOTATION PROCESS.

In our exchange column will be found an extract from a contemporary describing a new concentrating machine, which in simplicity of design is almost revolutionary. The machine is the invention of a Glasgow metallurgist. It consists essentially of a revolving iron

tube, the inner side of which is grooved like a bolt-nut. A thin stream of water carries finely-crushed ore through this tube. Here each particle is repeatedly subjected to the surface tension of the water, as the grooved tube revolves. The impermeable sulphides are rapidly surrounded by a supporting envelope of air, and the permeable silicates and other gangue material are penetrated by the water. Thus when the ore enters the discharge apron the sulphides and gangue are completely separated. In practice three or four successive tubes are found necessary.

Unlike other flotation processes, the one in question depends entirely upon the surface tension of water. Neither oil nor chemicals are used.

From results reported it would seem that the new process is to have a large application, especially on the concentration of complex sulphide ores.

COBALT AND THE GLOBE.

Some weeks ago the Toronto Globe published a scathing arraignment of the morals of Cobalt town. Cobalt was condemned utterly by the Globe's sanguinary editor.

Cobalt, as a striving and self-respecting town, resented the Globe's utterances. A Cobalt newspaper demanded an apology from the Globe. No apology was forthcoming.

In this instance the Globe, unable to shift the responsibility of its indiscretion, and unwilling to make proper amends to the citizens of Cobalt, bethought itself of the expedient of using a Saturday supplement in which Cobalt should figure largely. This was done.

Cobalt itself may be left to decide whether this does or does not remove the *casus belli*.

NEW BRUNSWICK OIL SHALES.

The Dominion Government early this summer sent Dr. R. W. Ells, of the Geological Survey, to Scotland with instructions to look into the Scotch oil-shale industry. From the property of the Albertite Oilite and Cannel Coal Co., Limited, a parcel of 42 tons of New Brunswick oil-shale was shipped to Pumpherston, Scotland, for experimental purposes.

Dr. Ells' report is to appear shortly. Meanwhile, from unofficial sources, we are informed that the test was most satisfactory. The Scotch shales, which are the basis of an exceedingly prosperous industry, yield an average per ton of 28 gallons of crude oil and 75 pounds of ammonium sulphate. As compared with these figures the New Brunswick shipment showed a yield per ton of 40 gallons of oil and 75 pounds of ammonium sulphate. This indicates that this comparatively large shipment was richer than the richest Scotch shales.

The property of the company that controls the New Brunswick oil-shale deposits covers 190 square miles in the counties of Westmoreland, Albert and Kings. Seven veins, ranging in thickness from 4 feet to 8 feet, have been opened. They lie between well-defined walls. The