

plusive may be thoroughly tested, to ascertain where in the fault lies."

We would urge that the Explosives Bill be prepared during the recess and brought up at the next

session at the earliest possible moment. In the meantime all arrangements should be made by the Mines Branch to have the bill brought into operation at an early date after its passage.

## CORRESPONDENCE

South Porcupine, April 8, 1912.

To the Editor The Canadian Mining Journal,  
Toronto, Ontario.

Sir,—I notice in your issue of April 1st an article by G. W. Thomson on the diamond drill results at the Pearl Lake mine. This article, while containing many points of interest, seems to me to be open to criticism on two grounds.

First, the method of taking and calculating sludge samples will probably lead to wrong conclusions.

Second, the assumption that the holes continue to depth at the angle at which they were started is also apt to be incorrect.

The sludge is formed from the cuttings of the drill bit, and consists of material in a more or less fine state of division. During the time this material is being cut a portion of it is very finely ground and forms what is commonly known as slime. Due to the rotating of the drill rods this sliming process also takes place while the rising water is lifting the sludge to the surface. The water flowing from the top of the casing and carrying with it the ground material, passes through a box where the sludge is deposited. The finely ground sludge, in the form of slime, does not, however, have time to settle, and passes off with the water. It can readily be seen that the material which is left in the box will not give a true sample of the formation passed through. The rising current of water will also have a concentrating action on the sludge, and thus give results which are misleading.

The only way in which an accurate sludge sample can be taken, is to collect all the water which comes from the hole, thus getting the slimes as well as the sands, or to have a sample cutter which will divert a part of the stream for the sample. In either case the

water should be evaporated or filtered, the residue constituting the sample.

Considering the results in Table 1, Mr. Thomson figures \$8.20 over 10 feet in width, while in Table 1a he figures the sluge assays to give \$8.50 over the same distance, which is apparently a good check. In order to obtain this latter result, however, he discards the assays between 50 and 375 feet as being possibly the result of a cave. Too much reliance can not, however, be placed on this assumption and it seems to me reasonable to take the assays as extending over the whole distance. Including these and following his method of calculation gives an average of \$9.27 over a distance of 10 feet, which is considerably higher than the original figure. It should also be noted that the values in this hole were from a distance of only 350 feet from the surface, where the concentrating action would not be as noticeable as it would be in the deeper holes. In these the factor of error would probably be much greater.

There is also a probability of error in the assumption that the holes continued to depth in the same plane at which they were started. The character of the rock formation in Porcupine is such that one would expect decided changes in the dip of the holes. In surveying over twenty diamond drill holes of different depths and angles on the Dome property, not one was found which did not show considerable change. In one instance the end of a 1,300 foot hole started at an angle of 69 degrees, was found to be 600 feet from its supposed location. Vertical holes are, however, found to be the ones which show the greatest changes, and unless the true angle is known, estimates of the widths of veins cut by these holes are apt to be incorrect.

Yours, etc.,

G. C. BATEMAN.

## PERSONAL AND GENERAL

Dr. Adams and Dr. Barlow were in Halifax recently, attending the annual meeting of the Mining Society of Nova Scotia.

Mr. Arthur P. Scott has been appointed superintendent in charge of the steel department of the Dominion Iron and Steel Co.

Mr. Jas. G. Ross, consulting mining engineer, of the Milton Hersey Co., Ltd., Montreal, is in British Columbia on professional business.

Mr. Norman H. Beaton, Denver, Col., was in Toronto recently on business.

Mr. D'Arcy Weatherbee, M.I.M.M., Mem. Can. Soc. C.E., has become a partner of the firm of Bainbridge, Seymour & Co., mining engineers, Salisbury House, London, E.C.

Mr. R. W. Brock, director of the Geological Survey of Canada, attended the recent meeting of the Mining Society of Nova Scotia in Halifax.

Mr. Jay P. Graves, vice-president and general manager of the Granby Consolidated Mining, Smelting and Power Company, will shortly return to Spokane, Washington, after having spent part of the winter in Southern California.

The Mining Magazine, published in London, England, recently mentioned the presence in that city of Mr. W. H. Trewartha-James, late general manager of the Tye Copper Company, and Mr. Ernest Levy, manager of the mines at Rossland, B.C., of the Le Roi No. 2, Limited, and in Silverton Camp, Slooan, B.C., of the Van Roi Mining Co., Ltd.