

MINING NOTES.

(Continued from page 153)

After running through 300 tons of ore, the owners of the Poorman mill on Eagle Creek, near Nelson, closed it down until next spring. The reason given, lack of water. The 300 tons yielded gold bars valued at over \$6,000.

Work has been suspended for a little time, but there is no knowing how soon the pick may be taken in hand again. Mr. Leslie C. Hill, the engineer, has given us a few notes concerning development work; the showing is extraordinary, and looks well for the future of silver lead mining in that country. "A cross cut run from 60 foot level in main shaft cut the vein 14.6 wide, nearly perpendicular. This is well defined but shows little mineral. There seems to be a horse of diorite at this point. North of shaft, vein is exposed for 257 feet by two surface cuts. Vein is about 30 ft. wide, carries carbonates and galena. The galena assays 70 oz. A winze is sunk thirty-six feet in and cut through carbonates and galena, and there is good galena in the bottom; 137 feet south of this shaft a drift is run across the vein. The vein is 63 feet from wall to wall; all carbonates and galena. There are four feet of solid galena in foot wall. The vein in this winze is straightening up, and there is from 6 to 10 inches of soft clay gouge in the foot wall. In the south drift there is about 20 feet of backs. Another drift is started 150 feet further south which will have about 50 feet of backs. This drift has not reached the vein yet but there are boulders of float, and indications show that the vein is not far off. The ore body is proved for 400 feet, with an average width of about 30 feet, and the lowest depth is 36 feet, with good ore on the bottom. Twenty thousand tons of smelting ore can be taken out now.

(From the Miner.)

The news from the Trail Creek country continues to be of a very encouraging nature. All of the principal claims are being worked to a greater or less extent, and generally with good results. On many of the properties preparations are being made to continue work all winter.

Recent development work done on the Cliff claim, the property of Thompson & Wharton, has brought to light one of the largest ore bodies ever uncovered in the camp. The ledge matter runs from twelve to thirteen feet in width, and assays have been secured ranging from \$39.50 to \$41.62 in gold per ton.

The O. K. claim is making a record for itself of late. A strike was made on this property a few days ago, and out of one pocket six or seven hundred dollars were pounded in a hand mortar in a few days. A crusher which was ordered some time before the new strike, is expected soon, and when it arrives a force of men will be put on and the property opened up in good shape.

Some favorable looking ore is being taken out of the Homestake mine No. 2. The ledge is well defined and in a good formation. The ore body is about four feet in width, and samples have been secured that assay \$30 in silver and \$28 in gold.

The first carload of ore ever shipped from the Boundary Creek district was sampled at the Tacoma smelter during the past week. There were 385 sacks in the lot, weighing in all 21,000 pounds. At current quotations the ore carried over \$160 in silver, and \$100 in gold per ton.

Howard C. Walters reports that the Tacoma smelter is still in active operation, but produces only \$3,000 worth of bullion daily, as against double that amount when the slump is silver. "It is," said Mr. Walters, "decidedly creditable to the management that the smelter continues in operation at all, and the miners of the north-west would regard its suspension as little less than the crowning adversity of the year. At present the purchases of ore are limited to actual requirements for mixing with the ore on hand, and to the product of districts that were shipping to Tacoma when the other smelters closed down. The regular weekly report from our superintendent in the Boundary Creek district indicates that the Providence and Skylark claims are doing handsomely, and we will continue shipments as long as the smelters can purchase ore. If silver is further depreciated, or is made a fluctuating article like copper or lead, the silver smelters will be compelled to go out of business entirely as they are obliged to buy large stocks of ore six to twelve months in advance of actual use and will not be able to quote prices and terms of payment that will enable sale of ore necessary to the operation of the mines. This fact many people do not understand, and affords one of the greatest reasons why silver can not be ruthlessly pushed aside, for with suspension of the silver smelters and mines will come such a great diminution of the annual gold product

that the white metal must speedily be restored to its legitimate place in the coinage of the world.

Another rich strike of free milling ore has been made on Siwash Creek, in the Yale district. The locality adjoins the New Whatcom company's ground. The find is a decomposed quartz assaying as high as \$130 per ton.

The Yale Hydraulic Company made a clean-up after a week's run a few days ago. The exact figures were not given but the result was announced as being of a very satisfactory nature.

New Explosives.—According to experiments by Cronquist (Ingeniors-foreningens forhandlingar, through the Oesterreichische Zeitschrift fur Berg-und Huttenwesen, vol. xxxix., p. 542.) the blows required to explode the following explosives, each about 0.4 gramme in weight, were approximately as follows:—

	Foot.	Pounds.
Nitro-glycerine.....	2.1	to 5.7
Dynamite.....	3.5	" 12.8
Gun-cotton, dry.....	5.7	" "
Gun-cotton with 20 per cent. moisture	16.5	" "
Sebastine.....	4.9	" "
Romite, common.....	4.3	" "
Romite, naval.....	13.7	" "
Powder (fired only).....	271.2	" "
Bellite.....	448.4	" "

According to Lindall, on the other hand, plastic dynamite is much more useful than romite or bellite, which are also very much lighter—as much even as 40 per cent. Comparative experiments between plastic dynamite and bellite which were made near Stockholm, showed advantages in favour of the former, though Cronquist states that bellite shows not the least trace of flame on explosion. A mixture of 20 per cent. of dynamite with 80 per cent. of ammonia powder is also stated to be a very safe explosive as regards freedom from flame.

Nordenstrom observes that explosives, such as romite and bellite, which contain hydro-carbon derivatives, have as yet been comparatively little used in metal-mining. Fifty tons of romite was used at Gellivaara, but details are not available. These explosives are of little value for wet holes, and require much stronger caps than those usually employed. On the other hand, their transport is a matter of very little danger.

According to E. Pellissier, (Revista Minera, Metalurgica y de Ingenieria, vol. xlii., pp. 306-308.) comparative trials have been made in the district of Linars, Spain, of an explosive called nitramite and gelatine dynamite. In hand-boring the nitramite, though somewhat less powerful in its action, showed a saving in the expenditure, and this saving became considerable when compressed-air boring was employed. In this case, too, the work performed in the twenty-four hours was greater in the case of the nitramite than when dynamite was used. The tunnel being driven was advanced in the twenty-four hours 33.39 inches when dynamite was used and 34.97 inches when nitramite was employed, the respective costs being 2s. 11d. and 2s. 6d. per shift. The author observes that the action of the nitramite, though less violent than that of the dynamite, is more shattering. He recommends that in using nitramite, the cartridges should be placed well home in the bore-hole and in intimate contact with each other, but not in any way compressed. The detonator must not on any account be allowed to detach itself during the charging of the hole from the central portion of the cartridge, as this has a different composition. If there is water in the bore-hole, extreme care must be taken that none of it penetrates into the cartridge or detonator. This requires peculiar care if the charge is to be fired after filling the bore-hole with water. The chief experiments in Spain with this explosive have been carried out at the Arrayanes mine, under the direction of P. P. de Uhagon. The rock bored through in the experiments to which reference has been made was granite in the case of the handboring, and vein-stuff with some granite intrusions in the case of the machine-drilling.

A commission appointed by the Belgian Government has recently experimented with a new explosive. This is stated to be named "Fortis" and to be from 30 to 40 per cent. more powerful than any other explosive known. A comparatively small charge placed in a 13-foot bore-hole in the face of a quarry dislodged a mass 200 feet in height, breaking it up into pieces mostly of from 50 to 60 lbs. in weight, and hurling some of these for a distance of 350 yards. (Iron Age, vol. xlvi., p. 523)

O. Muhlhauer, (Chemiker Zeitung, vol. xvi., p. 163), describes an explosive made from hemp and named nitro-hemp, (nitro-jute). It is produced by treating one part of hemp with fifteen parts of nitro-sulphuric acid at a temperature of 15° C. After washing, this material is a brownish-yellow silky-looking wool, having the composition C₁₂H₁₈O₈ONO₂. It is insoluble in water, ether, benzene, or alcohol, but is soluble in acetic ether and nitro-benzene, or partially in ether-alcohol. In its explosive action it is almost identical with gun-cotton.

A new explosive named "Nico" has been tried at the Corporation quarries, Clifton Hill, Melbourne. A 4-foot hole in the toe of a solid piece of rock was charged with 1½ lb. of cartridges and a little loose powder, the hole being too large for the cartridges. A second hole 6 feet deep was similarly charged with 2½ lbs. of powder, and a third with 21 lbs. Each of these shots gave successful results, as also did a number of others. (Australian Mining Standard, vol. vii., p. 201.)

Queens University School of Mines.—The following appointments have been made:—

Professor of Chemistry, W. H. Goodwin, D. Sc.; Professor of Mineralogy, Metallurgy and Assaying, W. Nicol, M. A.; lecture on Geology, Petrology and Ore Deposits, W. G. Miller, B.A.; Lecturer on the Economic Geology of Ontario, and the Discovery and Mining of Ores, W. Hamilton Merritt, M.E., F.G.S.; Lecturer on Engineering, R. Carr Harris, C.E.; Demonstrators of Chemistry and Laboratory Instructors, T. H. Walker, M.A., Dr. Isaac Wood, M. A.; assistant to Professor of Engineering and Instructor in Drawing, Surveying, and Levelling, W. Mason. The laboratory equipment of the school is complete.

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