

MINING MATTERS.

BRITISH COLUMBIA MINING.

A wagon road is being built to the Yankee Girl, in the Boundary.

It is expected that the Greenwood smelter will be finished about the middle of December.

The good showing on the Earthquake, in the Boundary, is reported to increase as work proceeds.

Preparations are being made to develop on an extensive scale the Cariboo mine, camp McKinney.

A wagon road will be built from the Hewett mine to Silverton, a distance of about four miles.

A very good strike has been made on the Cinnabar property near Savonias. The test showed 50 per cent.

About 3,000 tons of ore have been shipped by wagon from the City of Paris mine to the Granby smelter.

It is expected that shipments from the B. C. mine in Summit camp will amount to 2,000 tons for the month of September.

The Vancouver mine, near Silverton, has shipped 100 tons of ore to the smelter this year, the ore being very high grade.

The output of Rossland camp last week was: Le Roi, 4,781; Centre Star, 2,372; Le Roi No. 2, 270; Giant, 61; total, 7,484 tons.

The approximate value of the ore shipped from Slocan lake properties since January 1, 1900, is a quarter of a million dollars.

A large force of men are now at work opening up several iron properties on Sarita, Toquart and Copper Island on the west coast.

Sandon ore shipments last week were: Payne, 120; Last Chance, 110; Ruth, 50; Slocan Star, 60. The White-water shipped 127½ tons.

A rich find has been made on the Homestake in the Trail Creek division. The ledge is four feet wide, the ore averaging \$28 to the ton.

The vein of the Silver King, near Peachland, Okanagan, is from five to twenty-five feet wide, values running from \$5 to \$35. The ore is gold and copper.

The discoveries of large bodies of iron ore on Big Sand Creek, East Kootenay, is reported, the ore carrying 60 per cent. iron and \$4 gold. The vein has been traced for four miles.

The Rossland Miner reports that on the Old Gold property a strike has been made of two feet of solid ore carrying values of \$100 a ton and three feet of concentrating ore.

The Highland Boy Mining Co. are erecting a concentrator of 150 tons daily capacity, about one mile from Ainsworth, for the reduction of the ores from their group of mines.

The B. C. Exploring Syndicate, of London, has acquired the Iron Mask property, near Kamloops, consisting of the Iron Mask, Copper Queen, Sunrise and Bonnie Jean faction, a total of nearly 140 acres.

During last month on the Ymir mine, Ymir camp, 4,650 tons of ore were milled, producing 298 tons of concentrates and 2,340 oz. of bullion; 278 tons of concentrates were shipped. The profits for the month amounted to \$25,550.

A strike, which will likely prove of great value, has been made on the Rico. Sandon camp. It shows three inches of clean galena of the same character as that shipped from this mine two years ago, which was the highest grade galena ore ever mined in America.

The Rossland Bonanza Gold Mining & Milling Co., Ltd., with a capital of \$50,000 has been formed and has purchased the Bonanza No. 3 claim on St. Thomas mountain. Some work has already been done on this property exposing an ore body averaging two feet in width and giving returns of \$13 a ton gold with two of silver.

The Athabasca Gold Mining Company has declared a quarterly dividend of one shilling per share. The dividend will, it is understood, be paid to the Canadian shareholders from Nelson. The report of the operations of this mine for the month of August shows \$12,525 worth of bullion recovered and \$4,875 of concentrates, showing a value of \$40.46 per ton crushed during the month. In July the total values recovered amounted to \$18,350.

N. W. ONTARIO.

In the neighborhood of Turtle river there are extensive iron ore deposits.

On the McKellar iron properties, near the Atikokan river, the ore is for the most part magnetic, carrying from 60 to 67 per cent. metallic iron with a little sulphur and containing no titanic acid.

F. Atwood, of Buffalo, a mining engineer, who has spent ten days in the Lake of the Woods mining district, stated to a reporter that he had been highly impressed with the mining prospects of that country. He suggested that the best advertisement the district could have would be an up-to-date exhibition of ores at the Pan-American exhibition to be held in Buffalo next year.

MISCELLANEOUS MINING.

The Jubilee property, near Banff, Alta., is said to have a vein varying in width from 125 to 200 feet and traceable for three miles. Assays have given \$65.62 copper with a small percentage of gold and silver.

The Future of Aluminum.

From Age of Steel Aluminum is without doubt a coming metal. It is already displacing copper in many uses, and it may eventually prove a formidable rival of even iron and steel. In less than forty years it has come down in the market price from thirty dollars per pound to about as many cents, and for almost every practical purpose it is cheaper than all the common metals, excepting zinc, lead and iron. The methods of manufacture have been constantly improving, and experience has wrought many changes in the preparing of articles that in cruder conditions were less favorably received. In the matter of utensils, for instance, the products of a few years ago were too lightly made and were easily put out of shape. This has been remedied and aluminum vessels can now be had as strong and durable as that made of copper. Its advantages are in its combined lightness and strength, its easy workability, its cheapness, and its abundance, the latter being estimated as thirty times as much as iron in bulk for the uses of man. It is practically impossible to fix the limit of its usefulness. In competition with copper it is aggressive, and one or the other will be master of the situation in a few decades. In electric equipment it is already vigorously disputing the special claims of copper. It has over 60 per cent. the conductivity of the red metal, and has equal resistant qualities to weather influences. In a review of the aluminum industry by Professor Richards, it is stated, that an aluminum wire one-fourth as large again in diameter as a copper wire, weighs only half as much as the latter, and costs only two-thirds as much. Long distance transmission lines and trolley-line feed wires are being put in in aluminum as fast as the makers can supply the metal. Over 500 hundred tons were used for this purpose last year and probably double as much will be used this year. As 500 tons supplant 1,000 tons of copper, it will not be long before the copper industry will begin to feel the competition of its new rival. Fifteen years ago the entire output of aluminum the world over amounted to only two and a half tons. These are strong statements but they are only backed by facts, and one need not to wear the mantle of a prophet to foresee the sharp rivalry yet to be between aluminum and copper, nor is it likely that this rivalry will stop at the old metal. The world may yet see an "age of aluminum."

The Belgo-Canadian Pulp and Paper Corporation have completed arrangements to establish at Shawinigan Falls a one hundred ton ground wood pulp mill, a seventy-five ton sulphite pulp mill and a one hundred ton paper mill. The building of the pulp mills will be commenced at once, and the contract calls for their completion not later than June 1, 1901, while the other mill buildings must be completed within two years from the present time. Nearly a thousand men will be required to perform this work within the specified time. In addition to which over 750 men will go into the woods this fall to secure a supply of pulpwood for the mills during the season of 1901. This company has acquired over 700 square miles of heavily timbered spruce lands on the St. Maurice river.

Scientific Miscellany.

A Belgian method of preserving wood from decay consists in exhausting the air from its pores, and filling them with a melted mixture of two parts of gutta percha and one part of paraffin.

The growth of plants in air-tight spaces—even in hermetically sealed flasks—has been a puzzling problem. A cactus (Lich-nopsis Multiplex) has been shown by Ludwig Just, a German pharmacist, that had been growing in a sealed flask for seven years, and this has been presented the Berlin Botanical Garden in a thriving condition. It was at first explained that the plants derived carbonic acid from the algae that at times appeared on the sides of the flask. This explanation becoming insufficient, it has been decided that the necessary oxygen must be furnished by the enclosed air, and that the carbonic acid, required in excess in time, is supplied by putrefaction in the soil in quantity sufficient to sustain the life of the plant. To determine the source of the necessary air has been most difficult, the final conclusion being that it is furnished by the decay of cellulose and animal matter in the soil.

Various causes have been assigned for the ice found in many caves. A new work by E. S. Balch shows that the "ice caves," or freezing caverns, are found only in regions where the winter temperature is below freezing, and that winter cold is sufficient to account for all the observed phenomena. The thermometer shows that the temperature of the caverns is relatively constant throughout the year. They are not colder in summer than in winter, as is generally believed, this notion being doubtless due to the fact that the inside air is colder than that outside in summer, and warmer than the outer air in winter.

Medical experts have convinced a Vienna jury that a railway accident caused a change of the heart of the plaintiff from the normal position to one lower down in the body, where it could be felt beating as usual. It was testified that the man might live several years, but that he

would be especially liable to heart failure and would find difficulty in doing his work.

Attempts to produce an oxygen water have proven unsuccessful, according to Dr. Wender, because oxygen alone does not impart an agreeable taste. Using both oxygen and carbonic acid, a Berlin establishment has now produced a compound water that not only has a pleasant acid taste but is given high therapeutic value by the oxygen. It is prepared by impregnating the water first with carbonic acid at four atmospheres, then with oxygen up to eight atmospheres. The product is clear and refreshing. The cost of oxygenating is but a fraction of a cent per 100 bottles, and the oxygen is obtained in a compressed state in steel bottles, like carbonic acid.

German experiments have proven that the quality of coal cannot be accurately determined by Roentgen rays, as suggested. Coals having the same amount of ash gave very different images, the variations depending upon the proportions of iron instead of the quantity of non-combustible matter.

A non-freezing liquid is often needed, as for brakes for certain kinds of artillery and other uses. Glycerine and alcohol being somewhat expensive, a 23 per cent solution of chloride of calcium is recommended, the cost of this being slight, while it remains unchanged at 25 degrees F. below zero, and does not attack metals.

A crab lately dredged from 45 fathoms in the Indian ocean, and since placed in the aquarium at Calcutta, is nearly two feet in diameter, with longest claws measuring about a yard, is so voracious that it devoured 50 other crustaceans and fishes in two hours, and is further remarkable for showing brilliant phosphorescence.

An Institute of oceanography is to be established at Berlin. The mixture of the water of the Baltic and the North sea in the connecting canal will be one of its first studies.

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