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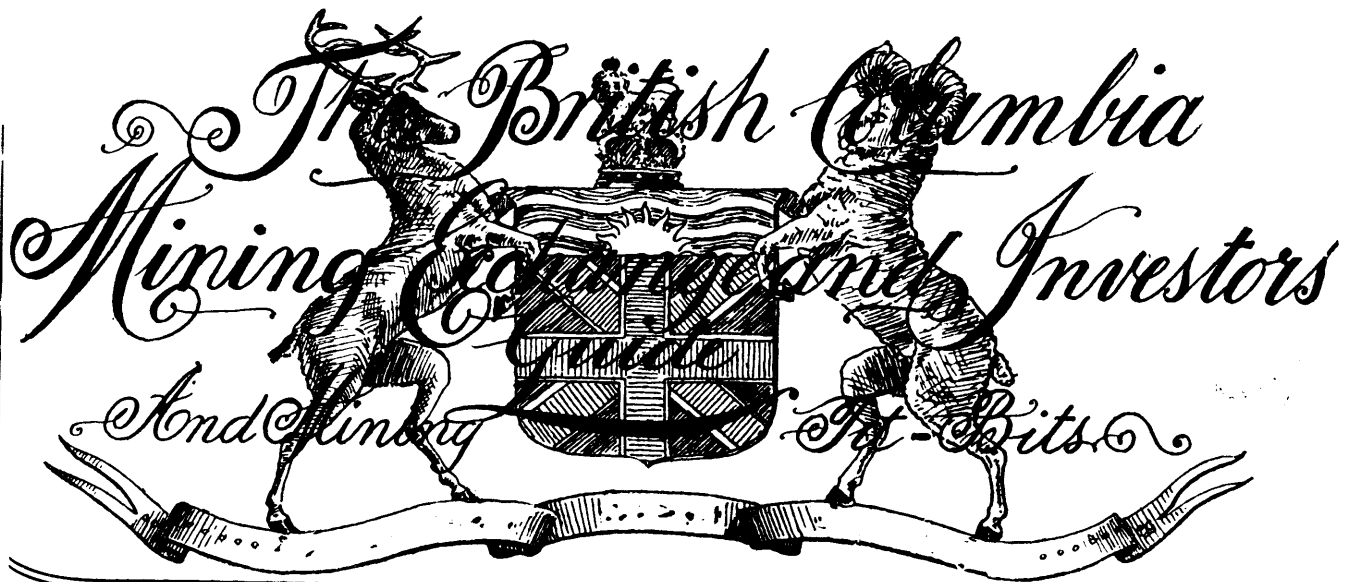
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VOL. II, No. 9

VANCOUVER, SEPTEMBER, 1900

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
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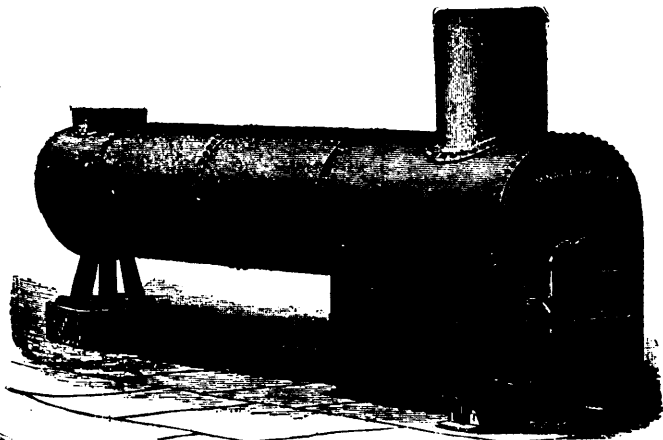
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VOL. II.—VANCOUVER, B. C., SEPTEMBER, 1900—No. 9.

KLONDIKE.

REPORT, FROM RECONNAISSANCE OF 1898, ON THE ECONOMIC VALUES OF THE KLONDIKE PLACER FIELD.

Dr. Everett gives the Result of his Study of the Topography,
Gold Deposition, and Possibilities for Investment in the
Klondike Gold Region of North-West British America.

GENERAL GEOLOGY OF THE KLONDIKE REGION.

In the belief, that our *practical knowledge*, of the innumerable methods which nature employs, to form metalliferous veins and placer deposits of gold-bearing detrital sands, gravels and schists is quite *inadequate* to account at all satisfactorily for their deposition in *every case or condition* which we may meet, no new theory, of such deposition, should be accepted, until it has been proven to be of practical application and utility. Students of geology, are well aware that when molten silica, or quartz, is forced by the enormous pressure of sismic or volcanic disturbances into rents and fissures of schistose rocks, the openings so formed are filled with irregular and reticulating veins of silica, to which the name of *quartz lodes* has been given. It may, therefore, be presumed that the quartz of auriferous or gold-bearing rock, *in place*, must be of igneous origin, and *not* the result of the gradual deposition of quartz from an aqueous siliceous solution. But is this true? Is it possible that aqueous solutions, of hot alkaline silicates, may have interpenetrated the cleavage lines of the schistose rocks and therein deposited siliceous matter, radiating in every direction? Without going into detail, to satisfactorily account for the absence of enormous masses of clay, which should result in the decomposed feldspars, to form the *alkali* of these alkaline silicates; or to account for the absence of hyaline and opaline quartz imbedded in the schists (as should be necessary when quartz is precipitated from an aqueous solution), I will only place before you certain facts, which have come to me through actual practical observation.

Geologically considered, the Klondike section of the Yukon Territory of Canada was, in comparatively recent time, marinely submerged. The great continental glacier or sheet ice, which covered the country, from the mouth of the Pelly River to the present lake system of the Yukon River, did not cover the present topography of the Klondike region. No evidence of *general* rock glaciation can be found in the Klondike country; and rarely is there found any evidence of *local* glaciation. Vast shearing, bending, and twisting of the rocks of the ocean beds, changing the basal rock into a schistose and serpentine condition, most undoubtedly took place, ere emergence of these ocean floors began to rise above the surface of the ocean waters. The absence of soluble chlorides, borates, and nitrates of the alkalis, in this Klondike region, demonstrates that the emergence was sudden, of sismic origin, quite

flat or planelike in general topography, and was possibly caused by the last eccentricity of the earth's orbit. This flat or planelike condition would have formed low marshy lands, rapidly changing into a lacustrine or lakelike country. Bogs, marshes, and low lands were then covered with a rank growth of semi-tropical vegetation—for the thermal change, caused by the orbital eccentricity, undoubtedly caused a change from frigid to semi-tropical conditions.

The partially fossil flora and fauna found imbedded in the detrital matter underlying the *muck*, or peatbeds, of the Klondike region, show conclusively, that at the time of the formation of this "muck," the temperature of the air must have been similar to what is now found in the everglades of Florida. A long period of quiescence then took place, and lake system flowing into lake system was formed. Thence came sudden sismic or earthquake action, and terrace after terrace of ancient lake beaches and shores were formed. With the sudden emergence of the Klondike Dome and its attendant peaks and ridges, this lake system was shattered and violently broken; so that the great terraces or barriers at the mouths of the Klondike and Indian rivers gave way, and the escaping lake waters drained their contents into the broken lake system, now, the valley of the Yukon river. The entire topography of the country was thus changed from a flat-terraced, lacustrine, or lakelike, marshy country into a region of canyons, gorges and rivers.

At the mouth of Hunker Creek this ancient lake bed is still visible, and extends for several miles down along the left limit of the Klondike River. When this tremendous and sudden change of the lakelike topography of the Klondike region took place, a glaciated condition of the lakes was then forming, and the enormous force of the escaping and agitated lake waters and broken masses of lake ice caused vast quantities of broken schists and serpentine slates, with siliceous rocks and blocks and fragments of ice, to form as detrital matter, gravels, boulders and mud, to deposit wherever the current took them. The specific gravity of the *muck*, being so very much lighter than that of the rocks, caused this muck and marshy mud to remain suspended in the agitated waters, so that it did not precipitate until all the detrital rocks had been deposited. Again, a long period of quiescence took place, and on the shores and bogs of the newly formed creeks and marshy, lake-like canyons, a new formation of vegetation began, and peatbeds and muck deposits, as we now find them, were thus made. *No change has since taken place.* The Klondike region, however, is still slowly rising, and, at the present rate of upward movement, in the course of a few hundred years, there must undoubtedly come a time when, again, a lacustrine or lake-like condition of the country will take place. So much for the genesis of the topography of the Klondike gold placer region.

DEPOSITION OF GOLD FROM SOLUTIONS OF ALKALINE SILICATES.

We will now endeavor to show the method of deposition of the placer gold (or the auric content of these

detrital masses of schists, serpentines and silica), not altogether from the torrential lixiviation of the rock masses, but also by a deposition from a hot aqueous solution of an alkaline silicate.

Whatever gold may have been formed in quartz veins or lodes by igneous action (as the deposition of molten silica interpenetrating the cracks and fissures of the sheared schistose rocks), was no doubt precipitated, as irregularly shaped, attrified, and water-worn fragments of gold, along with the detrital masses of broken quartz, silicious schists and slaty serpentines, which are found on or near to the so-called bedrock of the creeks and, also, in the ancient lake beds, locally called "benches."

It may be possible that this method of gold precipitation was general, all over the Klondike region; that is to say: the deposition of the placer gold, in the gravels and detritus of the Klondike gold fields, may have been formed by torrential lixiviation, or agitated waters, dashing, tearing, breaking and carrying away the debris of crushed rock masses, containing reticulating veins of gold-bearing quartz, and depositing this crushed rock and quartz as a gold-bearing, detrital placer field; but, upon a careful personal investigation of part of these creek beds, I have positively found evidences of deposition of gold, pyrite and quartz, from solutions of alkaline silicates. Interpenetrating among the laminae of scaly schists, I have found irregular-shaped, unworn fragments of gold, radiating in every direction from a plexus or common centre, in lines of unbruised gold fragments, and in such positions as could not have been possible if they had been torrentially lixiviated and torrentially deposited.

Pyrites, whose sharp angles were exposed in all manner of irregular positions, have been found in the schistose bedrocks, that, if they had been in contact with moving torrential detrital matter, would have crushed them into fragments or, at least, worn and attrified them.

Crystals of gold I have here for examination show, conclusively, that they are pseudomorphs of quartz crystals, taking the shape of groups and single crystals of silica, but composed of a high grade variety of deposited placer gold. If these gold crystals had been torn out of the broken rock masses, by the action of agitated torrential waters, then the sharp angles of these crystals of gold should have been abraded, bruised, flattened, torn or broken; which, you see, are not attrified, and their planes and angles are quite sharp and distinct. Nodules and lenticular masses of silica or quartz have been found, in isolated conditions, in the schistose bedrock, and also in the paystreaks of the placer gravels and detrital matter, in such conditions and positions, which definitely prove that they were deposited there after the detrital matter was formed. These three facts cannot be disputed, and they are absolutely at variance with the theory of an entirely general deposition of gold quartz and pyritic crystals, having been formed in the placer beds by the torrential lixiviation of broken rock masses, through the agency of agitated, rushing waters. They must have been deposited therein by precipitation from an alkaline silicate solution. I account for the formation of this method of gold deposition in the following manner:—

The sun, by its intense heat rays, warms the surface of the waters of the ocean, so that a portion of this water rises into the air, by what is called evaporation, and in the form of a wet, vapory gas, ascends to a plane or level in the air, where the temperature is cooled sufficiently to condense this vapory gas back again

into liquid water. The specific gravity of this drop of water, is such, that it is attracted to the earth with myriads of other drops, and we then have the familiar representation of a precipitation of rain or dew. Now eliminating the amount of re-evaporation, and also any absorption of a part of this water by contact with the earth or any organic matter, the penetration of the water into the interior of the crust of the earth is attended with such a degree of heat as to change this watery liquid into a gas, but, this time, into an intensely heated gas, due to contact with the intensely heated rocks. Granite, is practically the basal rock of the earth, in so far as we actually know the composition of the exterior and interior of the earth. The composition of granite, is quartz, felspar, and mica. The felspars, are silicates of the alkalis, such as soda, lime, potash, and magnesia. Water, when intensely heated and under pressure, is converted into an extremely corrosive gas, called superheated steam. Water, when changed into intensely heated steam or gas under pressure, has the power of quickly dissolving the alkalis, from the felspars, in the granites. A solution of an alkali thus formed, intensely heated and under great pressure, has the power of rapidly dissolving quartz or silica, as quickly as a lump of cube sugar is dissolved in hot water. We have now a hot aqueous solution of an alkaline silicate, from a combination of heat, pressure, water, and granite. A gaseous or steamy hot alkaline silicate, when under the proper conditions of temperature and pressure, has the power of interpenetrating the closest-grained and densest rocks, and dissolving out any sulphur, iron, gold, silver, or, in fact, any of the metalliferous elements contained therein, and converting them into unstable conditions, as silicates, in chemical combination with one another. There are abundant facts to positively prove that gold, sulphur, and iron, are distributed in quantities, more or less minute, far and wide throughout the vast masses of metamorphic rocks, and entirely independent of the proximity of veins of silica, or quartz lodes. There is thus no lack of source of supply, to obtain the gold held in solution in the aqueous alkaline silicate.

The surface water of the earth percolating through the detrital gravels and sediments of creek beds, has an acid reaction, (as a rule), due to the presence of ulmic, humic, and carbonic acids, resulting from the decomposition of decaying organic matter of vegetation. When a solution of an alkaline silicate comes into contact with acidulated waters, an immediate electro-chemical reaction is set up, and a precipitation of any excess of silica or quartz, is formed at once, together with the precipitation of any gold, sulphur, and iron. This solution of hot alkaline silicates, forced by plutonic or volcanic pressure, upwards towards a point of its least resistance, was injected into the detrital matter overlaying the bedrocks of the placer goldfields, and, coming in contact with the downward percolating acidulated waters, from the muck and vegetation above, there precipitated its content of silica, as quartz, the sulphur and iron as pyrites, and metallic gold, in grains and amorphous fragments—and thus, what is locally known as the "paystreak" was formed. The iron and sulphur, combined as crystals and masses of iron pyrites. The gold as grains, crystals, nuggets, small masses interpenetrated with quartz, and also chemically and mechanically combined in with the iron pyrite, as a gold-bearing iron pyrite, thoroughly impregnating the schistose bed-rocks, with grains of rich flour-like pyritic crystals, some of which, (especially the bed-rocks of upper Sulphur creek), have given me values in gold, as high as \$10,000 to the ton of pyrite.

Therefore, the presence of crystals of gold, with sharp angles not bruised by attrition, and the radiating plexuses of myriads of grains of irregularly shaped, unworn and unattrified gold, together with the extremely rich gold-bearing pyrite, in the bedrocks of the schists and siliceous sheared serpentines, underlying the detrital deposit, most distinctly prove that, at least in some cases, the igneous theory of gold deposition by torrential lixiviation will not hold true, and that by the quiet and unseen agencies of internal heat and water, acting on the felspars and silicas of the basal rocks, conditions are given which can cause gold-bearing, pyrite-bearing and quartz-bearing deposits, throughout formerly non-auriferous, non-pyritiferous, and non-siliceous detrital sediments, in and on the bedrocks of placer goldfields—more especially if the upper portion, or surface, of these bedrocks are broken with cleavage lines.

I have recently received information from a mine owner on lower El Dorado Creek, who states that the detrital matter, on his bedrock, is practically barren and worthless as a gold-bearing gravel; but that he is actually digging into, and taking out, seven feet in depth of the schistose bedrock, and finds it very rich in fragments of gold and crystalline quartz, in all positions of depositions, interpenetrating among the cleavage lines of the schist; here, again, is distinct proof of a deposition of gold from an alkaline silicate.

TOPOGRAPHY OF THE KLONDIKE PLACER FIELDS.

Standing on the Dome—a high rounded peak, somewhat similar in shape to the top of Pike's Peak, looking from Cripple Creek, in Colorado,—the observer will notice that the Klondike gold region is in somewhat the position of an irregular square. The magnetic variation of the compass needle being 35 degrees East, the compass bearings I give will be true North. The Klondike gold region is bounded on the north by the Klondike River, on the west by the Yukon River, on the south by the Indian River, and on the east by Flat Creek. The main gold-bearing stream, north of the Dome, is Hunker Creek, which flows north and north-westerly into the Klondike. On the left limit (or left hand side looking down stream from its source) are four large tributaries, all of which are gold-bearing, as well as the main stream, or Hunker Creek. To the west, and flowing north-westerly into the Klondike River, is Bonanza Creek. Near its head, this stream is forked into two creeks, namely, El Dorado Creek and Upper Bonanza Creek. On certain bench claims along Bonanza Creek, and several gulches and side creeks—notably near the confluence of El Dorado and Upper Bonanza Creeks,—are some very rich gold-bearing placer beds, more especially near the mouth and left limit hillsides of El Dorado Creek. South of the Dome, are Nine-Mile, Ophir, Quartz, Sulphur, Gold Run, and Dominion Creeks, which flow into the Indian River. They all have tributaries and bench-terraces, which are more or less gold-bearing. East of the Dome is the Flat Creek country, flowing into the Upper Klondik River, and separated from the adjacent Indian River creeks by a very high divide or mountain range. To the far westward of the Dome is the Yukon River, flowing nearly north and south from Indian River, to near the mouth of Klondike River, at the mouth of Swede Creek. The tributaries to the Yukon are separated from the Bonanza and Indian River tributaries by a high mountain range. Thus the Dome seems to have been an upheaval in the centre of the

gold-bearing district, and from which the placer streams radiate in all directions. The entire surface of the country is underlain with frozen detritus, and covered with a growth of moss and spruce to nearly the tops of the highest peaks and ridges. The valleys contain cottonwood, poplar and willow. The schists, outcropping on the Dome and its ridges and attendant peaks, are sharply broken, and show no evidences of glaciation. Towards the mouths of Sulphur and Dominion Creeks and Indian River, the valleys are very wide, long and flat, showing undoubted evidences of their having been, previous to the emergence of the Dome, long, shallow mountain lakes.

METHODS OF MINING.

The prevailing methods of mining in the Klondike region, is to strip the moss from off the surface of the ground, and build fires to thaw the frozen muck and detrital matter to the bedrock; again, fires are built along the frozen gravels on the bed-rock, which, when thawed, are hoisted to the surface, and dumped into a huge pile of debris, to remain until the next summer, when flowing water can be obtained in sufficient quantity to wash this heap of thawed gravel, either with hand rockers, or in a line of sluice boxes. Steam thawing of the frozen gravel is being carried on successfully, by injecting live steam, under pressure, through a long hollow iron pipe driven into the gravel, and allowing this steam to escape at the point of the pipe against the gravel for several hours. This method is economical, simple, does not give any smoke or poisonous fumes, and thaws the gravel without, at the same time, thawing much of the overburden of worthless gravel and muck. After every heating the miner usually washes several pans of this gravel, to ascertain if it is gold-bearing, and thus is able to follow his paystreak. The pay gravel is thrown into what is called a pay-dump, and the worthless gravel is thrown into the waste-dump. Direct application of a blast of flame, under air pressure, from a tank of burning gasoline or kerosene has been tried; but the burners nearly always became choked with precipitated carbon or soot, so this method, up to date, has not given as economical results as the direct application of live steam, under pressure, through a long iron hollow tube, driven into gravel, as fast as it would thaw at the point of impingement.

CAPITALISTIC POSSIBILITIES.

The vast amount of fine flour-like gold fragments and gold-bearing pyritic sand, which is usually lost by the present methods of hand sluicing the gravels, could undoubtedly be saved, by a proper system of sluice riffles and undercurrents. With hydraulic power, there are enormous quantities of gravel in this district, that would richly repay any such investment. *The Klondike Miner* of March 10th., very truly states:—

“It is time that papers here tell the real truth to the world, about the gold discoveries of this northern land so far as they are understood at this time. The Klondike field is a rich one, but so far as yet shown it is very limited in extent. No discoveries of gold, extending the limits of the field, have been made since the creeks were first staked. Those creeks staked under the original 500 foot regulation, seem to be practically the only creeks where rich pay is now found, and many of them have proven of no value. A very few hundred of all the thousands of claims staked, are paying under the conditions that they have to be worked here.

"We do believe, that there are methods of mining in these fields, such as hydraulicing, dredging, etc., that can be made profitable to persons controlling capital; but until capital introduces economics here that will enable the low grade grounds to be profitably worked, there are more than enough men already here to do the work that is to be done."

Each intending mining company, should send their own Mining Engineer into this field, to personally make his surveys, explorations, investigations, and assays, and report the full and complete data of any proposition to his company, for their very necessary information and guidance. *Environment and conditions are so different here*, (than in any other placer gold field, outside Russia and Siberia), that until an individual report is made on each proposition, by the company's own representative, the data given by any other engineer, would only be confusing, and certainly demand corroborating.

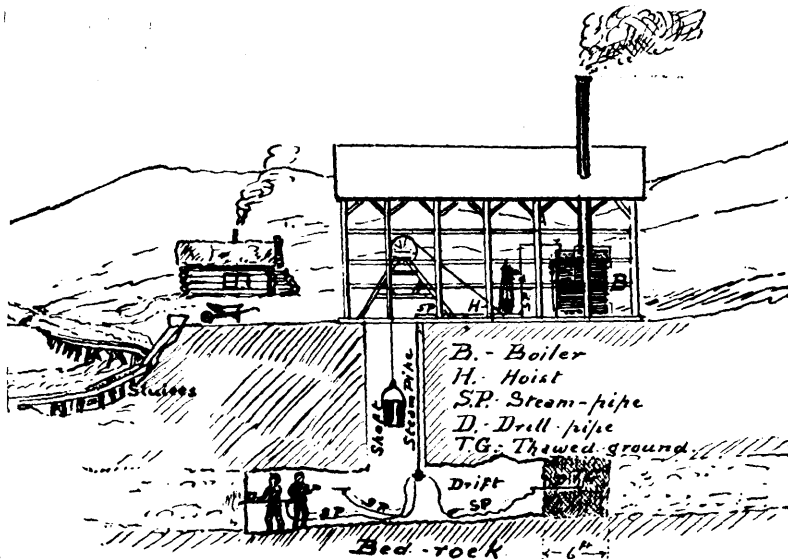
Dr. WILLIS E. EVERETTE,

Dawson, Yukon Territory. Consulting Mining Geologist.

gravity of native platinum is from 14 to 19, according to its association with other metals. It was discovered in 1735, in South America, and takes its name from "plata," the Spanish for silver, and at that time was regarded as an impure ore of that metal. It is both malleable and ductile and can be welded like iron, though it requires an intense heat to melt.

Its uses are various and valuable, being indispensable to both chemists in the laboratory and chemical manufacturers, by reason of its resistance to heat and acids. It is also used in connection with the incandescent electric light, mathematical instruments, etc. In Russia it has been used to some extent for coins, which, however, we believe have been recalled.

It is mined principally in the Ural Mountains in Russia, South America and Borneo. Some inconsiderable amount has been produced in British Columbia, though, without doubt, our gold sands throughout the Province contain it to a larger or smaller extent; the ordinary miner, however, has not troubled about it, or has, more probably, been ignorant of its character and



Sketch showing mode of working frozen ground with thawing machines.

Drill used 1/2 inch Gas-pipe.

C.R.G. Ross, M.E.

MINERAL DETERMINATION AND MINERAL TERMS.

COMPILED BY T. R. HARDIMAN.

(Continued from No. 7.)

PLATINUM.

Native Platinum (Pt.).—This metal, like gold, is one of the noble minerals, and is impervious to attack from any single acid. Color, dull gray; specific gravity, when pure, 21.15; hardness, 4 to 4.5. It is found more commonly in scales, rarely in crystals; sometimes found in nuggets, washed out of gold gravels or sand, and weighing as much as twenty pounds. It is nearly always alloyed with iron, up to 20 per cent. occasionally, as also osmium, palladium, rhodium, iridium and other rare metals, some of which are supposed to be heavier than platinum. The specific

hence overlooked it. We have seen it, from the Cariboo and also from Similkameen, in both cases of a scaly nature.

Like gold, platinum does not readily combine with other elements, though a natural compound, known as Sperrylite, an arsenide (Pt. As.), found to a small extent near Sudbury, Ont., contains it.

Doubtless platinum will be found to a large extent in the gold sands of the Klondike, when the miner gives a portion of his attention to other values than gold, which at present absorbs his entire energy, to the disadvantage of other really valuable metals.

Platinum, gold, and silver are known as perfect metals; that is, they cannot be destroyed by fire, for if melted nothing is lost in weight; platinum is not oxidized by the air; in weight it is 22 times heavier than water.

To be continued.

MINING BUSINESS IN B. C.—DOES IT PAY? CONSIDERED FROM A BUSINESS STAND-POINT.

We are inclined to foreshadow better times all along the line. Mining matters in British Columbia, since better methods of business has been adopted, is feeling the advantage of it. Development has been pursued on the merits of the case, and without unreasonable demands from the owners; just so long as this is maintained, so will the ratio of confidence continue, which will beget progress.

It is being proved all the time, that British Columbia has equally as good mineral properties as elsewhere and can be as successfully worked, by competent men, with the necessary funds behind them, and, like any other business so placed, with these essentials, results satisfactorily to those concerned; with this advantage over ordinary mercantile business—that gold, silver, copper, iron, lead, in fact most all metals mined, stand as an industry comparatively unprejudiced by competition. It is, therefore, merely a matter of "stock" alone, to use an everyday business term. The merchant without stock-in-trade cannot do business, and then he is all the time subject to severe competition, which reduces his margin of profit, in some cases, to a shadow. In numerous instances so bitter is competition that it causes disaster all around. The mining industry has comparatively little of this sort of thing to contend with, in fact it is mostly short in its supply everywhere. The metals are indispensable to us and our civilization, either as a medium of exchange, or as an utility which everyday life calls for, or, again, in matters which the Arts and Science demand. Hence, having bought your "stock-in-trade" by the "development" of your mineral property, which, once proved, places you superior to that of any other business or industry, for the reasons adduced, viz.: everything must first come from the bowels of mother Earth ere industries, businesses, or professions of any kind can exist. The profits on some investments are immense, and they are not quoted here for the sake of creating any undue interest, but merely to show that where you have the mineral, there you have an investment of an undoubtedly superior character. The share manipulating or gambling side of the matter, which is sometimes associated with mining, we are not entering into or excusing, that being another side of the question and does not enter the arena of legitimate business, to which this article is confined. Actual returns from the industry itself, as a working proposition, will show at a glance the character and value of the property, and, of course, on this everything depends.

We herewith publish the profits of some of the well-known mines, both on this continent and elsewhere.

The Calumet and Hecla began operations in 1871, with a capital of \$1,500,000, and has paid in dividends to 1899 £13,500,000, or \$67,500,000.

The Quincy commenced with a capital of \$200,000 and has paid in dividends \$16,500,000.

The Tamarack has paid \$13,200,000.

The Osceola, \$2,800,000. The Atlantic, \$780,000.

The Michigan, \$1,900,000.

The Rio Tinto, Spain, profit for 1899 amounted to \$8,345,000, which enabled the company to pay £4 on every £5 share and then left a surplus.

Total dividends to date of the following mines are—

Alaska Mexican, \$303,031. Alaska Treadwell, \$4,070,000. Homestake, \$7,556,250. Highland, \$3,924,718. Le Roi, \$1,225,000.

Payne (Silver), monthly dividend of \$25,000 since April, 1899.

Up to December, 1899, the Cariboo (Camp McKinney) paid over \$400,000, and Idaho \$392,000.

Besides these, other B. C. properties have just entered the ranks of dividend payers, with more to follow so soon as the necessary capital is enlisted to develop the prospects. We have mentioned only a few of the well-known mines on this continent, an entire list would occupy more space than we can give at present to the subject. We have, however, shown sufficient to prove our assertions.

Notes.

The managing Editor, having been absent in the Klondike for the past month, our last two issues were unavoidably delayed.

Our readers shall have the news from the Creeks in our Special Klondike Issue.



There were quite a few Vancouverites in Dawson and White Horse, whom we met and who are doing well. The following are a few who are doing business there:—

Mr. F. T. Schooley, the enterprising manager of the Royal Soap Co., of Vancouver, is amongst those fortunate ones who have benefitted by the Northern trade.

Mr. John Chisholm, of London, Eng., a connection of Mr. Alexander Macdonald of Bonanza fame.

Mr. P. Bell, of Vancouver, who has been up to Lake Le Barge and sampled the excellent whitefish there, and also, we believe, the gravels of the surrounding shores to a satisfactory extent.

Mr. St. G. Hammersley, who was acting as counsel for the British American Corporation, in the Larsen suit, at White Horse, extended his trip to Dawson, accompanied by Mrs. Hammersley.

Mr. G. McConnell, who is connected with the Joseph Ladue Co., of Dawson, accompanied by Mrs. McConnell, who, we believe, fairly revelled in the varied experiences of the trip through. The spice of danger during the excitement of shipwreck, gave a zest to the tour which, culminating after the manner of Sinbad the Sailor—in a land of gold,—accounted for the delightful impressions Mrs. McConnell gave as to her thorough appreciation of a voyage so rich in sensations.



The Canadian Development Co., Dawson, has more than it can do to handle freight, and is chartering all available boats and scows to rush it through before the freeze up.

The Mosquito Fleet, composed of the *Ora*, *Nora* and *Flora*, have always good passenger lists; being small boats they are not so likely to get on the bars.

Both passenger and freight traffic North is immense. A few miles north of Bennet we passed the train to White Horse, with five passenger coaches crowded to the utmost capacity.

The White Pass and Yukon R. R. deserves every praise for the expeditious manner in which they handle the large volume of trade going over the line. The general conduct of the road is excellent and the route most picturesque.

White Horse is an ideal town site, with great mineral possibilities at the back of it,

We consider the telegraph rates, which the Government proposes to establish over the line, between Vancouver and Dawson, Y. T., an imposition. Forty cents per word (!) is far too much, and exceeds the European cable charges by some four cents per word; and this charge is presumably to cover only interest and working expenses,—on what? A few hundred miles of wire, strung in the roughest possible manner.



We should also like to know why letters mailed from Vancouver to Dawson should take twenty-six days in transit—and this in and during the season of non-obstruction. These are matters which most seriously affect people generally and business in particular, and should not exist in connection with any department where good government is concerned.



Mr. J. Kendall, M.E., of London, England, is examining the Britannia property, on Howe Sound.

DEATH OF MR. C. R. GRAVES, M.E.

It is with more than ordinary sorrow that we record the death of Mr. Charles Randolph Graves, M.E., which occurred in Vancouver. He was the third son of J. P. Graves, Esq., J.P., of Waterford, Ireland, and was for a short time on the staff of this journal. He had been sixteen years a resident of British Columbia.

THE NORTHERN GOLDFIELDS.

We are happy to inform our readers that we have arranged with Mr. A. Barclay, M.E., of Dawson, Y.T., to act as our correspondent in the North. Our numerous subscribers will therefore have in the future the latest as well as the most authentic news from the diggings.

We are preparing a Special Klondike issue, which will contain articles from the pens of some of the best known men, whose practical experience of the diggings will enable them to authoritatively report on the value of these fields as a gold producer, and its influence from an economic point of view. We are also determined to expose the system which regulates the mining operations throughout this country, under the guise of "mining laws." These laws are a disgrace to a free people, they are enacted not in the interests of the people, who return these law-makers as their representatives, but in and for the interests of themselves and those who have political pull. If we wished to handicap the gold industry, by hedging the prospector about by a barbed-wire policy, such as exists in the North, why, your representatives have succeeded admirably. However, we shall go into the matter fully in the issue referred to.

We are having reproductions made from photographs of the principal gold producing properties to date, which will be both interesting and instructive.

PLACER ACT AMENDMENT.

A Bill to amend the Placer Mines Act was introduced, by Mr. Stables, and read a first time. In this the junior member from Cassiar would do away with all distinctions between creek, bar, bench and hill claims, and give them all a uniform size of 250 x 250 feet. Two discovery claims, 500 x 250 feet each, would be allowed. Side-line stakes not less than 100 feet apart would be required. The Mining Recorder should furnish printed notices for posting up, and in cases of re-recording or the abandonment of claims these would

be required to be posted on the claims, as well as at the office. Instead of 72 hours a prospector should have 15 days in which to record, and each record should be accompanied by an affidavit which practically excludes all work by an attorney. No leases should be granted after three years of any ground within 1,000 feet of a creek, after gold has been discovered there.

PERIODICAL GOVERNMENT BULLETINS.

Mr. McBride, Minister of Mines, in response to a requisition from the Kootenay Mining Board of Trade, promised that his Department will at once arrange for a regular publication of Government bulletins as to the Province's mining output, these to be sent out monthly if possible, as suggested by representative men of the upper mine country. We have persistently advocated this step and trust it will be carried out.

Mining News.

ATLIN.

The Engineer Group, at Paker Arm, is said to be one of the best free milling propositions in the country.

On Bald Hill, The Pearse Company is working a free milling proposition. The same company is ground sluicing on Pine Creek; a 116-ounce nugget was recently taken out. The wing dam on this property cost \$1,200.

The Anaconda is shut down through litigation.

BOUNDARY.—SUMMIT CAMP.

The B. C. mine has shipped 8000 tons of ore (up to September), to Trail Smelter. The returns are some \$20 per ton; value of ore in sight is estimated about \$3,000,000. The 250 ft. level has been reached and a further 100 ft. will sink without delay.

DAWSON, Y. T.

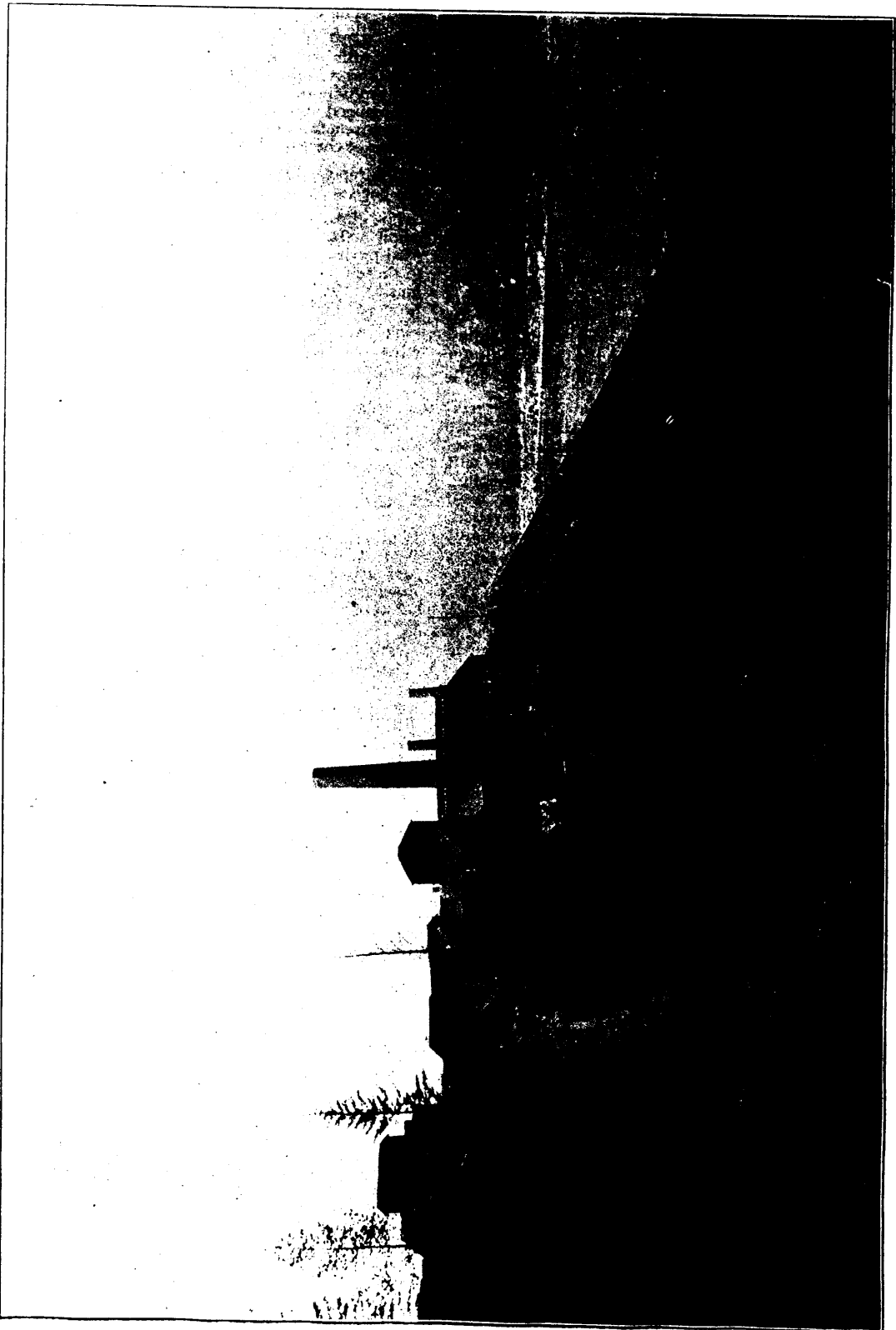
The *T. C. Power* has returned from Fort Yukon, bringing up the barge *New York*, with 325 tons of goods. This is part of the freight brought from St. Michael on the last trip of the *Power* and which had to be left at Fort Yukon owing to the low state of water prevailing at the time. The *Power* left the barge here and started for St. Michael shortly afterwards, as Captain Hoy has orders to make another trip to Dawson and return to the mouth of the river to winter. It is not thought here that this can be done, though the steamer will doubtless get back to Dawson before the freeze up.

A few passengers and a sack of way mail were brought up from Circle, Eagle City and Forty Mile on the *Power*. Two of the passengers are prospectors from the Tanana and they speak in the most glowing terms of the outlook for that camp. The summer's development has demonstrated conclusively that at least eight creeks carry good pay, with Faith and Homestake the best producers; and five hundred prospectors, who will winter there, are confident that a rich district has been opened up. Extensive preparations are being made on all the creeks for the winter's work, but provisions are scarce and will remain so until after the ice forms, when they can be sledded in much cheaper than they can be packed at present.

There is also considerable excitement reported at Forty Mile over the late developments on Jack Wade, on Rock creek and on the North fork, where good pay is being found. A large force of men is working on Jack Wade and with few exceptions the claims from discovery to 16 above are turning out well.

We saw at Dawson a nugget, worth \$612.50, found on No. 12 above discovery on Jack Wade creek. This claim is the property of Wm. Chappell, formerly of Bennett, but now of Dawson. The nugget, is free from quartz, being almost pure gold.

We ascertained the following while going down the Yukon on one of the Mosquito Fleet the *Nora*, from Staff-Sergeant Pringle, of the N. W. M. P., who is located at the mouth of the river, states that news came to them of a good find about 125 miles above Fraser Falls on the Stewart itself. Sergeant J. W. Davis, together with two other members of the N. W. M. P., have been ordered to this new country. A post will be established at Mc-Queen; 12 months' provisions and supplies will be taken, and a roving commission has been given. This will enable the officers to report authentically to headquarters from time to time.



TRAIL SMELTING WORKS.

The detachment will leave on the light-draught steamer *Quick*, as soon as she arrives from down the river.

Tom Heney, George Gordon and Harry Thompson have arrived at Dawson from the Stewart river country. They travelled pretty well all over, and are more than pleased with all they saw. About 500 miners will winter there, and the country will be pretty thoroughly prospected. Owing to the damp nature of the country, summer prospecting is made very difficult. The flies are reported as bad. Game of every description is very plentiful, and no lack of fresh meat will be felt. The party amongst other things enjoyed bear and moose meat, while fish, ducks, etc., were to be had on every hand. Mr. Lockie Burwash journeyed to the headwaters of the McQuesten in company with Tom Heney. They visited Dublin gulch and all the working creeks. Although nothing startling has yet been struck, still all the party are convinced that before the coming winter has passed a good strike will be made, and all that has been predicted for this country will be verified. Dredging on the bars will be carried on very extensively. This form of mining has been very successful throughout the headwaters of the Fraser, and in fact all over the Cariboo country. Several large syndicates have representatives and engineers on the Upper Stewart, who will report on their findings very shortly.

We were glad to meet a face once familiar to most Vancouverites, some six years since, viz., Fred. Johnson, brother of Mr. C. J. Johnson of Granville St. He was looking well and felt happy having he thinks struck something good on the Little Salmon river. Fred wishes to be remembered to all his old friends in British Columbia.

HOWE SOUND.

The second £1,000 has, we hear, been paid on the bond covering the Britannia property. The importance of this sale will not be fully realised until it enters the ranks of a working, fully equipped shipping mine. Then the fact of what has been passed by, close to our doors, as unworthy of consideration, will be appreciated by those whose lack of enterprise is to blame for their loss.

LARDEAU.

We are advised that this district has many promising prospects, some of which are fast developing into mines. They are stated to carry high values in silver, copper and lead, and in some instances to be fairly rich in gold. The leads are apparently very strong, and can be traced through a large number of claims. The avarice of the prospector has doubtless choked off capital, as it has through the entire Province. While we believe in a fair figure, terms, etc., yet we must admit our development would have been far in advance of what it is to-day, had reason guided the owner of mineral property, of whatever character, in his dealings with capital. We believe that the mistakes of the past will be avoided in the business of the future. In fact it is imperative, or mining remains in statu quo.

NELSON.

J. R. Cranston has returned from a visit to the Bornite Bank, which is located near Nelson. In the bottom of the shaft, which is 85 feet deep, a find of free gold was made the other day, in white quartz. Work on the Juno, which is near the Bornite Bank, was resumed on Saturday with a full force of men. The Athabasca, which is north of the Bornite Bank, will make a wonderful cleanup this month. It is thought, it will be larger than any hitherto made. On the Harvey Joy, which has the same leads, and which adjoins the Bornite, some fine looking ore has been found. On the Francis J. a tunnel is being driven to tap the shaft, which is 40 feet deep. At the 40-foot level the ore averages \$38 to the ton. There are a great many prospectors in that country, and some fine finds are being made.

The Highland group, situated near Ainsworth, has been purchased by a new mining company known as the Highland (Kootenay, B. C.) Mining Co. Ltd., the price paid being \$100,000 cash. The head office of the new company will be in Nelson. Ernest R. Woakes has been appointed manager of the company. J. Laing Stocks, secretary, and E. B. McDermid, accountant. The directors of the company are: Charles E. Shephard, of London; Alexander McNab, of Munstrie, Scotland; Hammersley Heenan, of Cheshire; Daniel G. Griffith, of London, and Edward Woakes, M. D., of London. The new company is the holder of an unlimited amount of capital, and the operations upon the property, which have already started, will be carried on with all possible progress. A concentrator with a capacity of 100 tons per day will be constructed near the lake shore. The excavating and grading for the mill is now under way. Bids have already been received for the complete concentrating plant which it is expected will be in operation early in November. A wharf will be constructed into the lake at the mill site. This it is expected will be completed in about two months. The ore will be shipped in bulk by barges to the

Hall Mines smelter at Nelson. The company will also build an aerial tramway from the mine to the concentrator, a distance of 4,000 feet. The contract for this has already been let. The right-of-way has been secured and surveying for the tramway is already completed. The tramway is to be in operation by October 31st. The concentrator will be run by water power. A flume will be built from Cedar creek, which runs through the property to the mill, a distance of 1,700 feet with 480 feet head. The work upon the flume has already been started and the grade has been completed.

The number of men employed at the Silver King mine has increased to fifty and further additions are being made slowly. Captain Gifford, the manager, states that mining has been recommenced and important development work got under way. The shipment of ore from the King is, he states, more or less a matter of the future.

It is reported that the Wilcox mine, on Wild Horse creek, has been sold to an English syndicate for \$125,000.

The closing of the May and Jennie deal a short time ago, when A. H. Kelly took up a bond on the property and made the final payment of \$4,000 thereon, promises to add another mine to those operating in the immediate vicinity of Nelson. The merit of the claims has been demonstrated, and the new owners propose to continue development as rapidly as possible.

The May and Jenny is located on the north bank of Forty Nine creek, about eight miles from Nelson and four miles from Granite Siding.

PHOENIX.

During the last week the shipments of ore from Phoenix alone were 2,100 tons, says *The Pioneer*. Those from all the mines in the Slovan were 756 tons.—The long expected compressor plant for the Knob Hill and Grey Eagle mines, ordered by the Miner-Graves syndicate last May, arrived in Phoenix and was switched up to the new 40x80 Knob Hill compressor house. The two 80 horse-power horizontal tubular boilers had been received some time before and were bricked in a while ago; two 8x12 hoists were also forwarded at the time the boilers were shipped, and are now in use.

ROSSLAND.

The Centre Star and War Eagle are continuing good progress with their two shafts and are breaking the record with an average of more than 50 feet per month. The Centre Star has covered most of the distance between the fourth and the new or fifth level. The War Eagle shaft is down to the eight station, about 1,050 feet, and preparations are making for crosscutting to the vein. On the seventh level drifting is still in progress on the branches of the vein. Loading and shipping from the Centre Star is going on steadily.

Shipments of ore, up to September 30th, are as follow:—

| MINE | WEEK | YEAR |
|---------------|-------|---------|
| Le Roi | 4,263 | 112,350 |
| War Eagle | — | 10,603 |
| Centre Star | — | 11,877 |
| Iron Mask | — | 1,434 |
| Evening Star | — | 391 |
| Monte Christo | — | 273 |
| I. X. L. | — | 384 |
| Spitzee | — | 20 |
| Le Roi No. 2 | 464 | 1,994 |
| Iron Colt | — | 70 |
| Giant | 58 | 158 |
| Total tons | 4,785 | 139,554 |

The Le Roi's record week was that ending August 11th, for 5,796 tons

In the War Eagle the shaft is being continued downward to the proposed one-eight level. It has now attained a depth of 1,065 feet. On the seventh level a drift is being driven eastward on the south vein newly broken into on the previous week. Drifts are also in hand on the intermediate and north veins. On the sixth level a crosscut is in progress northward. There is no more stoping being undertaken at present on any of the levels.

In opening up the Nickel Plate the ore bodies have been found to be closer together and at the same time more continuous than was at first suspected. From the indications given by this property and the vast preparations being made to ship its ore, it is probable that before a year has gone by it will rank in importance with the very first mines of the camp.

Ore of an excellent grade has been found on the New St. Elmo. The drift on the south vein is in 225 feet. In this drift

the ore body is four feet wide and the values are better than they ever have been, running up to \$36.50 in gold and silver alone to the ton. The ore is that characteristic of the camp, chalcopryrite and pyrrhotite with a quartz gangue. The ore which is being taken out is piled up on the dump for shipping. The face of the south drift, from which this ore is being taken, has a vertical depth of 400 feet.

The chief news of the month in mining circles is the record ore shipments, which approximate nearly 7,000 tons, the figures being 6,930 tons. The record broken was one for last February and was 6,206 tons. The present record beats that output by 724 tons. The increase is caused by the shipments of the Centre Star, which ran rather over 300 tons per day. About 90 tons of this is being taken from the dump and the remainder from the west stope on the second level, which is thought to be a continuation of the Mulligan or eastern stope on the Le Roi. Three machines were breaking down 100 tons per day apiece, which is more than the mine intends to ship for the present. In consequence one of these machines is to be laid off. The Le Roi shipments are not within 1,000 tons of its record. The same amount is not going down to Northport and a lesser amount also is being taken by Trail owing to the lack of facilities in the smelter and yard accommodations.

A cable has reached the city that stock in the Le Roi mine had advanced £2 on the London market. This is the result of the recent rich strike discovered in the mine during the operations carried on under the directions of the engineer who came out from England. On piercing the schist wall which was supposed to contain all the gold producing ore, they were astonished to strike a quantity of ore which at the least estimation is calculated to be worth \$100,000,000 gross, or a net value of £35,000,000.

In addition to the usual work on the Iron Mask underground there has been a machine and a gang of men at work on the surface close to the side line of the Centre Star engaged in stripping and tracing the vein on its outcrop.

SIMILKAMEEN.

Among recent visitors to the Sunset mine, Copper Mountain, Similkameen, was a party of New Yorkers, including Dr. J. S. Wells, of Columbia College School of Mines. Dr. Wells in an interview, declared the Sunset mine would be a great copper proposition. It is understood that he undertook the trip in the interest of New York capitalists. He is reported to have bonded 6 claims on Copper Mountain, adjoining the Sunset.

SLOCAN.

The standing wires of the Ivanhoe tram are now being strung. The running rope will be 15,000 feet long, and will carry 38 buckets.—The Payne shipped 244 tons of ore last week, the Ruth 16 tons, Trade Dollar 20 tons, Last Chance 20 tons, Slocan Star 60 tons. Whitewater 184½ tons.—Another promising gold property on Lemon Creek is the Legal. A tunnel has been driven 180 feet. The ledge shows two feet of quartz in the breast of the drift, which assays \$170 in gold.—The Last Chance tram is again in working order, and supplies are being run up to the mine for a much larger force than is now employed there shortly.—The machinery for the Chapleau stamp mill arrived a short time ago, and was to be rushed up to the property as soon as the Lemon creek road is in condition for travel, it being the desire of the management to have the mill running in October.—J. Frank Collom, who bonded the Speculator group some time ago, has taken a bond on another Ten-Mile property, the two-thirds interest in the Gertie R. Fraction, situated on the summit just above the Speculator, and owned by John Wery and Dan McPherson of New Denver. The bond does not carry with it any work, but hinges on the acceptability of the Speculator.—A London syndicate has taken up the Monitor mine on a bond. This property will enter the shipping list at an early date. This deal has been pending a long while. Nickel and asbestos are to be found in the Slocan.

W. Koch has the contract for hauling ore from the Arlington.

The Enterprise shipped 20 tons. Manager Fishburn has resigned.

Conrad Bill has struck a nice showing on the Tremont, a claim adjoining the Comstock.

The Hewett, near Silverton, has struck ore in the lower tunnel at a depth of 320 feet.

The Venus mine has turned out a gold brick worth \$1,200.

The Highland Boy, at Ainsworth, is erecting a 150-ton concentrator.

The Eugene mine paid \$27,353 to employees in August.

TEXADA ISLAND.

Van Anda Copper and Gold Company. The debenture holders have taken over this property. We hear that the men have resumed work under the new arrangement and that the smelter is in continuous operation day and night.

The Cornell is maintaining its reputation, and looking better every week. There is ore now in every working part of the mine. The machine drift has developed a large vein of ore on the 160 foot level; the stope under the winze has a large body in sight; the drift on the 80 foot level has rich ore, and the stope from the 80 foot level is showing well. The mine is doing so well that it has been deemed advisable to start sinking. This adds considerable to the working expenses of the mine, but it is a recognised fact that development work must be done in order to continue the output of ore indefinitely. This sinking is at present in ore. An addition has also been made to the sorting tables.

The Marble Bay Mine is keeping up its record. A few weeks ago a consignment of ore was shipped and two or three days afterwards a second scow load of about 300 tons was shipped to be smelted. The mine has still a great deal of ore ready for shipment, and still showing good. The 200 foot level especially has good showing in the north and south drifts. The sinking of the shaft continues.

The Copper Queen is being worked on the 180 foot and 500 foot levels, and is producing about 12 tons per day of high grade ore.

The third lot of matte since resumption of work, has been shipped.—*Coast Miner*

TRAIL.

The observing reader will notice in the table of ore shipments to the Trail smelter the large increase the present week. It is 3,130 tons as against 1,645 last week.—It was announced that the new copper furnace on Smelter Hill would be blown in very soon. Such was the expectation. The recent starting up of the Granby and other smelters in the Boundary country has caused a demand for labor in the smelter business, and it was thought best to postpone starting up the fires in the new furnace until more men were available to run it.—A visit to the drafting office of the C. P. R. on Smelter Hill is filled with interest. The most noteworthy object that struck the writer's attention was the map which is being made of the right of way of the Robson-Midway Extension of the Columbia and Western Railway. The remarkable feature of the map is its great length, in two rolls of about 40 yards.

WHITE HORSE.

The British American Corporation have evidently won out in their dispute with Larson and White over ownership of the Puebla, the latter having failed to appear when the case was called for a preliminary hearing in White Horse. Mining Recorder Miller, who presided as Judge gave his decision as follows:

In the matter of the dispute between the White Horse Copper company and Peter Larson and Byron N. White as to the ownership of the Puebla, Dixie and Ptarmigan copper locations.

"Service of the notice of the date and place fixed for the hearing of the matter complained of, on Larson and White, having been duly proved and no appearance entered by them, and having heard the evidence adduced on behalf of the White Horse Copper Company, and having read the records and agreements relating to the matter in dispute between the said parties, I hereby adjudge and determine that the said locations, 'Puebla,' 'Dixie' and 'Ptarmigan,' are vested in and the property of the White Horse Copper Company.

"The interests of Larson and White I hold to consist of a part of H. E. Porter's share in the said White Horse Copper company, which said interests I further hold to be subject to the provisions of the agreement entered into by the said H. E. Porter, on the 8th day of June, 1899, and marked 'exhibit E' in papers relating to this case."

This case is being carried to the higher Courts and the B.A.C. are not out of the wood by any means yet, in fact a sea of litigation has to be tidied over before this case is settled in favor of the B. A. C.

Charlie Anderson, one of the Klondike men who got rich all in a minute, passed through town a few days ago. He had \$70,000 in gold dust with him.

The B. C. Mining Exchange and Investor's Guide.

Is published monthly as a Guide to Investors generally, to whose interests it devotes itself.

MANAGING EDITOR . . . T. R. HARDIMAN.

CORRESPONDENTS.—All correspondence should be addressed to the Editor, B. C. Mining Exchange, and any correspondents desiring advice or information in reference to investments, we will reply to, free of charge, provided they are annual Subscribers.

REMITTANCES should be made by P. O. Order or certified check and addressed, British Columbia Mining Exchange and Investors' Guide, 612 Cordova Street, Vancouver, B. C.

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AGENT in Dawson, Y. T.—Mr. A. Barclay, M.E.

AGENTS in Montreal—Gray & Co., St., James Street.

DAKE'S AGENCY, San Francisco, Cal.

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THE B. C. MINING EXCHANGE AND INVESTORS' Guide circulates throughout the Empire and the U. S. We shall always be happy to give the fullest information in our power to those correspondents who are subscribers. Lately, however, we have had so many enquiries from non-subscribers on matters British Columbian, that to reply to all takes both time and money, and, while always ready to oblige correspondents as far as possible, we shall in future expect non-subscribers to remit sufficient to cover postage.

The subscription is \$2.00 yearly, postage free.

Further, we would say that our office is at the disposal of subscribers, for the use of books, maps, and general reference in connection with British Columbia industries, mining or otherwise.

We extend a cordial welcome to all strangers who may seek to investigate our possibilities. We extend to all Mining men the freedom of our office when visiting Vancouver, and request them to make it their headquarters. 612 Cordova Street West.

THE OUTCOME OF THE ALIEN LAW.

Mr. Justice Martin, says the *Alaskan*, had several cases before him in his sitting at Atlin. One of these was the contention of "Sailor Bill" Partridge against Lord Hamilton, for the ownership of several claims on the great mining property near Atlin, known as the Anaconda group. It seems that a Mr. Adams had staked for Mr. Partridge the Lakeview claim and the Lakeview Extended, but his axe playing out, he had simply barked trees for his corners, and this ground was staked by somebody else, who claimed that these were not posts according to law. The trial lasted three days and judgement was reserved.

Another case of interest was that of the Yellow Jacket, on Willow creek. Captain Wise located this claim as the Yellow Jacket, but Mr. Christopher located it over him as the War Eagle. Mr. Christopher did so on the ground that the original location posts had been changed, and their seemed to be sufficient evidence that the location posts had been changed to follow the lead, and the judge simply ruled upon this fact that location posts could not be changed. That is to say, on the question of fact he decided adversely to the Wise-Runnals contention, but on the question of law, he declined to pass, reserving it for the higher Court. What he passed upon was a mere matter of proper location under the law, and the fact in regard thereto; the legal question comes in with reference to a document, giving Wise and Runnals full claim to the property. This is the legal point that has to be tried before the Supreme Court at Victoria.

Queen v. Brackett was another case decided at this Court. It was a criminal case, and this is the usual way State cases are entered. But this, on the contrary, was the case of a man named

Queen against Jim Brackett. Queen thought he had a title to some ground on Willow creek that the Bracketts claim. Jim Brackett ordered Queen off this ground, and used a shovel as an argument. The only other argument in sight was an axe and both made for it. Queen came into Court with a plea that young Brackett sought to do him bodily harm. It was altogether a case of prospectors and hydraulic, and as the jurors were partly prospectors and partly engaged in hydraulic works they were divided and unable to agree on a verdict. But Mr. Justice Martin sent them back with a threat to lock them up until a verdict was given, and in a short time the jury found Mr. Brackett not guilty.

Finance.

LONDON, ENG.

Stock market depressing. The pessimists are now having their innings, and, though we ourselves anticipate that the bears will have a struggle to pull through, we believe the tone will recover sooner than imagined by the croakers.



What a time the bears have been having lately! first in one section and then in another! Over selling has been the evil thing, and a good many operators are now staunch supporters of the policy of "Never again." The bear gamble, which was attempted in Le Roi 2, was a conspicuous example of the disasters the ursine party has landed itself in. Much of the present easiness is owing to forced bear closings more than to anything else.



The old order changeth and giveth place to the new. The tug-of-war has come between the omnibuses and the new underground electric railway along the central London route, and the omnibuses are in a hot state. Between them the two omnibus companies, whose vehicles ply along the route tapped also by the "Two penny Tube" (as the new electric line is called), lost \$15,000 in receipts in one week, and the loss looks like increasing. The 'busses cannot reduce fares to the level of the electric tariff, and they will thus probably be almost entirely driven off the most lucrative route in the Metropolis—the seven miles from Shepherd's Bush to the Bank of England. Poor shareholders!



The Bleachers' Association and another fellow combine have both been frosts, after the most optimistic statements about them had been spread abroad. The new (the eleventh) issue of Indian 4 per cent. stock, to the value of \$15,000,000, has, however, been subscribed several times over. Issues at the fixed price of 95½ was another example of the abandonment of the old tendering system. The price was a full point too cheap though.



Brokers and jobbers find time hang very heavily on their hands. The business of most days is negotiated in a few minutes, and the public refuses to "nibble." It is true that there is a distinct lessening of the seriousness of the situation in China, and the war in South Africa looks like drawing to a close. These things have, however, been discounted by operators, and have ceased to materially influence prices.



There is nothing doing in the way of company promotions, but three railway companies have recently made appeals for new subscriptions of capital. The

South Eastern Company has issued \$10,000,000 of four per cent. convertible preference stock at par. This very clearly shows that the company has found it necessary to change its old policy. A good many of us do now-a-days.



No new flotations have been made, and the field has been free for that issue of \$50,000,000 of Exchequer bonds at the price of 98, repayable at par in three years time, and bearing interest at 3 per cent. A higher rate of interest was expected, but the issue was well received and over-subscribed.



The Twopenny Tube, as the newest electric underground railway is called, is rapidly becoming a huge favorite with the dealers and brokers of the House. By it they travel to the West end and lunch sumptuously.



The Bucket-shop Gang are again operating. This time it is a Westralian Mining Co., nicknamed "The Chaffers." By the cover of \$62.50 these sharpers hold out to an unsuspecting, gullible crowd the offer to make for them four to five hundred dollars profit, in short order. Well; just so long as people are fools enough to expect to get "something for nothing," as it were, so long will this infernal gambling last, to the detriment of legitimate business.



Copper is still in demand for industrial purposes. Supplies being inadequate, prices firm @ 16¾ to 16⅞.



Cariboo Camp McKinney will pay a dividend of one and one-half per cent. on the 31st Oct.



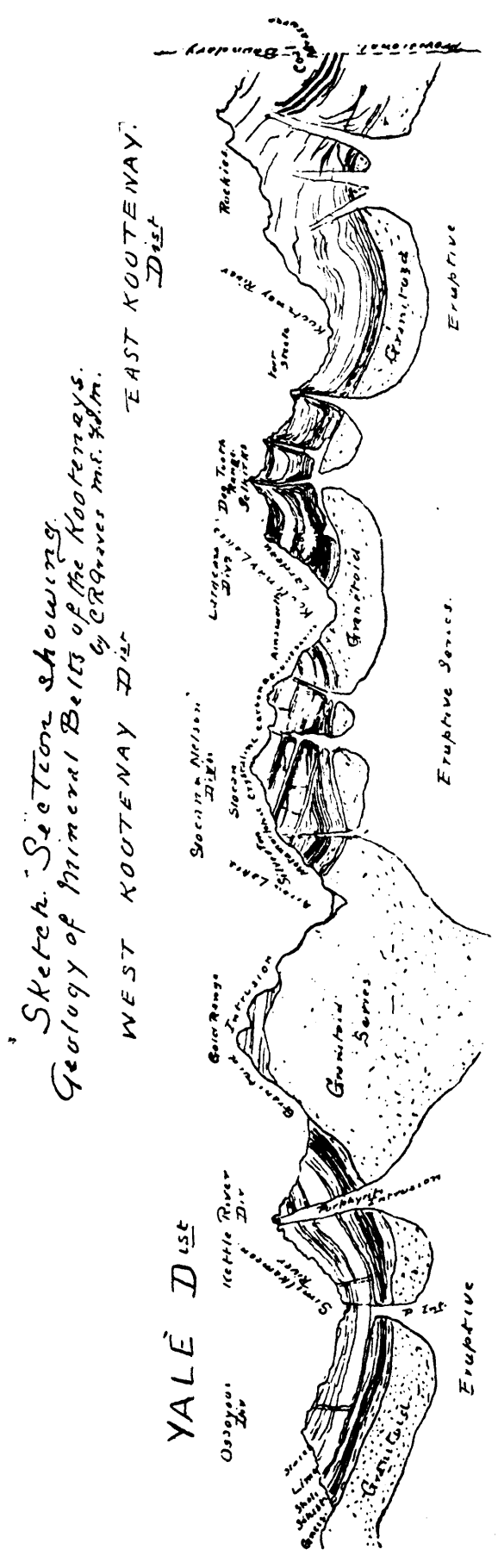
We hear that the Canadian Pacific Railway Company will commence their line through the Nicola Valley, from Spence's Bridge, in the spring. The rails are being shipped in for that purpose right along.

This is a move in the right direction and will bring the products of the fertile valley of the Nicola in close touch with the demand, as also bring about the early development of the good mineral prospects of this locality. We predict the early establishment of a smelter, somewhere in the vicinity of Coldwater Bench, which is eminently situated for it, having the coal and iron measures in conjunction, good water power, and general mining advantages, together with natural facilities for cheapening the cost of treatment which will give the whole district an impetus, the claim owner encouragement, and render the smelter a highly remunerative undertaking.



We are glad to notice that our remarks in connection with B. C. mining laws has attracted the attention of mining men, particularly those interested in placer workings.

The whole business is of the character of the tariff policy which dominates every other consideration throughout the Dominion, retarding her progress and keeping, consequently, her population stationary.



EAST KOOTENAY.

The North Star mine has recently paid a dividend of \$375,000.

It is stated that some 5,000 claims will be auctioned by the Dominion Government at Dawson, next month.

Thirty-five vessels were loading at Seattle, for Northern ports, some few days since—and these not nearly sufficient for the requirements.

Nine carloads of ore were shipped to Everett smelter last month, from the Rambler, Cariboo.

A Seattle, Wash., paper says that some idea of the amount of money the boats are making out of the Nome rush may be formed by knowing that the Oregon, which sailed a few days ago, carried freight on which the tariff was \$82,000; live stock for which she received \$10,000, and \$53,000 in passenger fares. She counts on bringing back 300 passengers, for which she will receive \$30,000, and the round trip will be made in 30 days. Thus the total cash receipts for one trip would be \$175,000, a larger sum, probably, than the steamer is valued at.

Publications Received.

- "The Oldest Mines in the World." By Ed. J. Howell, author of "Mexico: its Progress and Commercial Possibilities." Published at 179 Upper Thames Street, London, E.C.
- "The New Zealand Mines Record." Published at Wellington, N. Z., by the Government Printer.
- "Chihuahua Enterprise." Published at Chihuahua, Mexico.
- "Mines and Minerals." Scranton, Pa., U. S. A.
- "Los Angeles Mining Review." Los Angeles, Cal.
- "Bonds and Mortgages." Chicago, U. S. A.

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"Reports of Spokane Industrial Exposition." By the Secretary, Washington, U. S. A.

"Economist." Toronto, Ont.

Correspondence.

TO THE EDITOR OF THE B. C. M. E. & I. G.

DEAR SIR,—I thank you very much for sending me the B. C. MINING EXCHANGE AND INVESTORS' GUIDE, and note the vast possibilities there are in British Columbia, if only they were circulated by independent engineers, who would have no interest in the floating of any particular property. As, however, it does seem probable that owners care to pay the small expense of an independent engineer, they will of course have to wait long for capital, which is their loss. On the other hand, owners of the Caucasus Mineral districts have arranged for me to examine them, and those concessions I find worthy will be worked by large companies in London, already established, and thus immense capital poured into those districts, which I should have wished had gone into British Columbia.—Yours faithfully,
J. M. F., M.E.

Answers to Correspondents.

SPEC. BIRMINGHAM.—We cannot say. It seems a freeze-out decidedly.

SILVER, B. C.—Certainly; equally as remunerative as any other class of mining, provided you have the values and the quantity.

R. F. G., YORK.—From the first we have deprecated the action of certain manipulators, in dealing with shares in mining companies, on the basis you refer to. That is the gambling side of the question, and has done more to hurt legitimate business than anything else.

PACTOLUS, ENG.—You cannot expect to enter any business without capital to invest in merchandise of some kind, and whether your stock-in-trade is knowledge, to enable you to practise a profession, or manufactured goods, it necessitates a cash outlay. This applies to mining development. Unfortunately a large proportion of people have acted and are still acting on the principle of meagre capital, hence disaster.

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The Aurometer is a handsomely finished instrument, a suitable and useful addition to any bank counter. With proper handling it will never get out of order and will last for years. It is so simple of construction that any person can operate it after once reading the printed instructions which accompany each instrument.

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It is not claimed that the Aurometer can compete in accuracy with a properly conducted fire assay; but it is claimed that the Aurometer will be found to be accurate to within a few cents an ounce of the true value of the gold dust, and that whereas a fire assay is expensive and frequently rendered impossible owing to the inconvenient delay. An assay by means of the Aurometer, though not quite so accurate, is accurate for all practical purposes and can be made in less than one minute, by any unskilled person, and without expense.

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business where gold dust is bought or taken in trade, as by its use not only are the buyers protected from possible loss, but the sellers have a means of assuring themselves that they are receiving a fair value for their dust.

In every gold camp, and especially in the Northern fields, gold dust has to a certain degree taken the place of currency, and bankers and merchants have gone into the business of buying gold dust. This trade has hitherto been accompanied by considerable risk, and in order to protect themselves the banks have paid a price for the gold much less than its true value. This, of course, applies only to cases where the dust is purchased without having previously had it assayed and as, in the majority of cases, the miner wants to dispose of his gold at once, without waiting for an assay, considerable discontent and consequent loss of business has been entailed. On the other hand there have been numerous cases where base metal such as copper and brass filings have been fraudulently mixed with the gold dust offered for sale, causing ultimate loss the buyers. In other cases, too high a price has been paid for the dust. Notably in the case of a bank in the Northern gold fields, which purchased gold throughout a whole season at the uniform rate of \$15.00 per ounce, and which, on ultimately sending their accumulated gold to the mint, found that their shipment averaged under \$13.00 per ounce.

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