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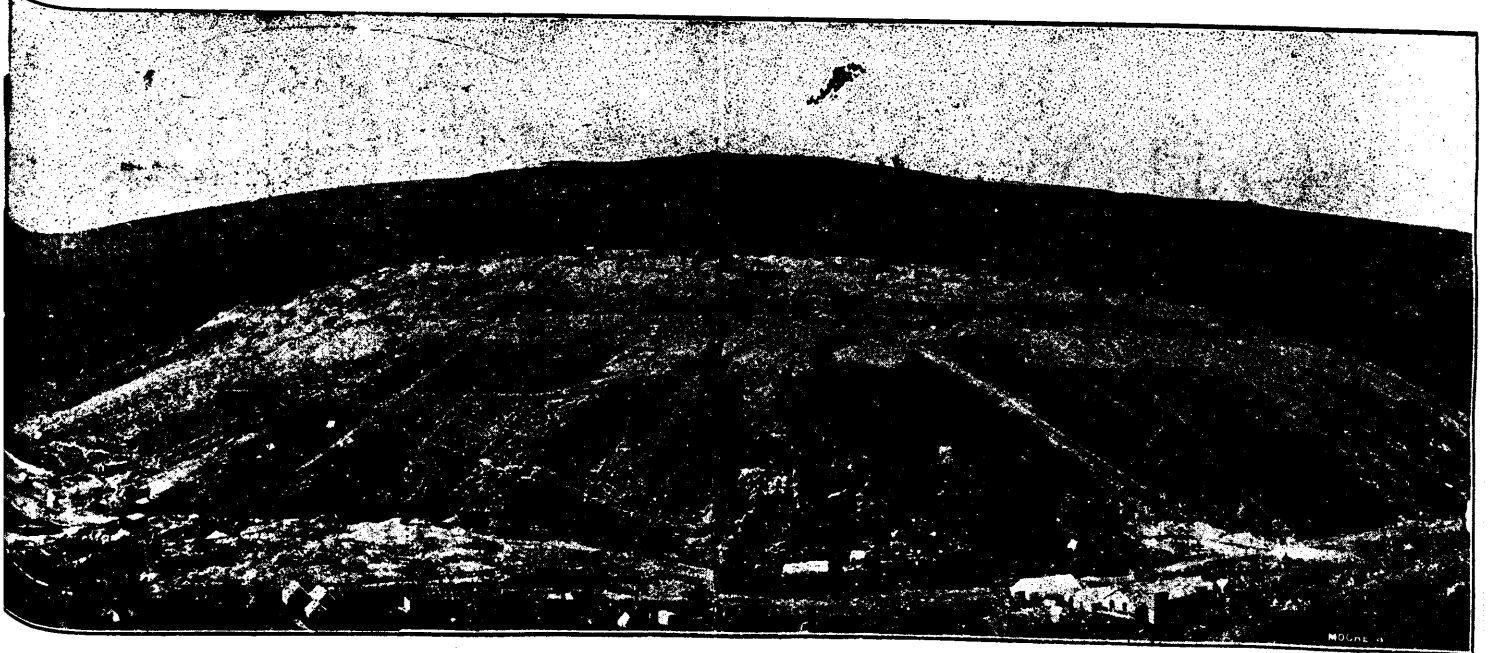
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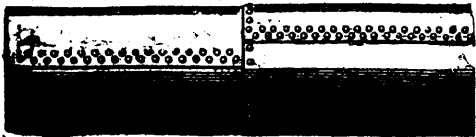
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# THE B. C. MINING EXCHANGE AND INVESTOR'S GUIDE

And Mining Tit-Bits.

Vol. III.—VANCOUVER, B. C., DEC. AND JAN., 1900-1—Nos. 12-1.



Since we last went to press, our Gracious Queen, VICTORIA, has after a short illness succumbed to the grim reaper, Death, thus finishing a career unprecedented in historical annals. Queen, Wife, and Mother, she ruled her people—as her family—well; shedding the light of her example amongst all nationalities. Her kindly rule and fostering care has developed “nations that be, and are to be.”

Sons of the Blood—an empire from Occident to Orient extending—who know no laws but those that Freedom has prescribed, and thy good Queen maintained.

Unbend the knee, and pray that Britain's heritage many ever be in such safe keeping as thy Queen's, who “has passed over.”

**God Save the King.**

## MINERAL DETERMINATION AND MINERAL TERMS.

COMPILED BY T. R. HARDIMAN.

*(Continued from No. 11.)*

## TIN.

Tin is one of the earliest known metals, entering as it does into the composition of the ancient bronze metallic weapons, tools, etc. It ranks as one of the most important.

The Phœnicians traded in tin between ancient Britain and Tyre. Tin and oysters were the two products which made England famous in early times.

Nearly all of the world's supply is obtained from cassiterite, or tin stone, and occurs in square prisms and pyramids or similar forms. Twin crystals are frequently met with. The lustre is adamantine, and color brown, grey, yellow and black. Its hardness is 6.5 to 7, hard enough to strike fire on steel. Specific gravity about 7.29, and, when pure, contains 78.6 per cent. of metallic tin. It is most frequently found in granite, as in Cornwall, England, and occurs either in veins or disseminated through the rock irregularly. Stream tin is merely the rock disintegrated by nature by atmospheric or other causes and, probably, through being crushed, so that the rock has been washed away by running water, leaving the metallic stone more or less pure as float behind, in grains or pebbles of the mineral, and assuming sometimes a botroidal or reniform surface and in some instances a fibrous structure, of a brownish color and dull lustre, which is called wood tin.

Cassiterite may be comparatively easily recognized when the crystals are large by its high specific gravity, hardness, rich brown color and brilliant lustre. To test, grind some of the mineral in a mortar, mixing with it some sodium carbonate, and then roast it on charcoal, when small globules of white metal will separate, which should be malleable under the hammer, and not unlike silver though much harder. In nitric acid they oxidize into an insoluble white powder.

Cassiterite is found in small quantities in the United States, attempts to mine it, however, have been unsuccessful. The Cornish mines, in England, seem inexhaustible and have been worked for centuries. It is also obtained in the State of Durango, Mexico; Saxony and Bohemia, Europe; also in Borneo, Sumatra, Banca, Malacca, in the East Indies; Australia, particularly Tasmania, gives large quantities. All the tin mines of any importance are controlled by British capital.

There is another form of this metal known as tin pyrites or sulphide of tin (stannite), which contains generally 26 per cent. of tin, 30 of copper, 12 of iron, and 32 of sulphur, and is sometimes called bell-metal ore. It also occurs in veins in the primary rock, which is as often mined for the copper as the tin. Its crystalline form is cubic and somewhat similar to iron pyrites and gives a black streak on a hard surface; gravity 4.4.

Tin is a silvery white metal of high metallic lustre. At ordinary temperatures it does not easily oxidize, and is therefore used to coat vessels of copper or iron. As a metal it is malleable and soft, but, owing to its crystalline texture, is not ductile, having little or no tensile coherence. Through its crystalline texture, a bar of tin when bent emits a creaking sound, termed the "cry of tin,"—the *zinnigeschrec*, or tin shriek, of the Germans.

It is largely used as tin plates, which are employed in making tin vessels, roofing, etc. It enters into

many alloys, such as bronzes, known as gun-metal and bell-metal, together with copper; it also forms alloys with lead, in pewter; with antimony, in Britannia metal; copper and antimony, in babbitt metal; with lead and bismuth, in fusible metal; and with lead and antimony in queen's metal. Tin foil, one thousandth of an inch thick, is used for sundry purposes, and contains 96 to 98 per cent. tin, with small quantities of copper, lead, iron and sometimes nickel.

The annual consumption for the past few years has been 40,000 tons. The value of tin of late has been about twice that of copper and four to five that of lead. Tin is chemically related to the metals titanium, zirconium and thorium, and also to the nonmetallic element silicon.

It is also very generally accompanied by certain minerals, especially wolfram, schorl, topaz and lithemica.

*To be continued.*

## BRITISH COLUMBIA ORES AT SPOKANE INDUSTRIAL EXPOSITION.

The Spokane seventh annual Industrial Exposition was a decided success throughout its several departments. Particularly conspicuous, by its attractive character and its attention to details, was the Mineral Department of the Exhibition. Forty by one hundred feet of space was given to this display, and ores from British Columbia; and Idaho, Oregon, and Montana, U. S. A., were all represented in well recognized order.

Copper-gold, copper, iron, coal, from Kamloops and Similkameen.

Rossland was represented by twenty of the leading mines, B. A. Corporation showing two grades of matte, granulated, and a brick of slag, also a small box of slag wool, the product of the Le Roi Smelter.

The Boundary, Camp McKinney, the Silver Slocan, Ymir, Ainsworth and Nelson, conclusively proved the potentialities of our mining camps, which the ore and the development results incontestably show by the judges' awards, as follow:—

State or Provincial Collective Exhibit—  
First, British Columbia—Gold medal.  
Second, Washington—Silver medal.  
Third, Idaho—Bronze medal.

District Exhibit—  
First, Rossland, B. C.—Gold medal.  
Second, Nelson, B. C.—Silver medal.  
Third, Index, Wash.—Bronze medal.

Individual Exhibit—  
First, British American Corporation, Rossland, B. C.—Silver medal.  
Second, U. S. Marble Company, Spokane, Wash.—Bronze medal.

Gold Nuggets—  
First, Ymir District, B. C.—Silver medal.  
No second.

Free Gold Ore—  
First, Bill Nye Mine, Jackson County, Oregon—Silver medal.  
Second, Ymir District, B. C.—Bronze medal.

Silver Ore—  
First, Horn Silver Mine, Okanogan Co., Wash.—Silver medal.  
Second, W. A. Coplen, Slocan District, B. C.—Bronze medal.

## Silver-Lead Ore—

First, Slocan District, B. C.—Silver medal.

Second, Ainsworth, B. C.—Bronze medal.

## Copper-Gold Ore—

First, Rossland, B. C.—Silver medal.

Second, Boundary District, B. C.—Bronze medal.

## Copper Ore—

First, Index, Wash.—Silver medal.

Second, Gladstone Mine, Similkameen River, B.C.—Bronze medal.

## MOUNT SICKER, V. I.

The principal mine on Mount Sicker is the Lenora, which is situated 1,400 ft. above the sea level. This mine has been a steady shipper during the last twelve months. It sent to the Van Anda, Everette and Tacoma smelters, during that period, about 7,000 tons of copper ore, values averaging \$20. Of this, \$6.00 was contained in gold and silver values. The uniformity of the ore is remarkable: shipments of, say, 600 tons, in 150 ton lots, only varying 30 to 40 cents per ton.

The country rock is schists and very easily worked tunnels, 7 x 5 ft. in the clear, can be run for \$4.25 per running foot by hand—a great advantage over the Rossland district. The ore body in the Lenora mine averages about 25 ft. in width, and the biggest stope is about 240 ft. long and still continuing to 35 ft. in width, and is stoped out from upper timbered level to a height of 90 ft. There is more ore in sight at the present time than at any other period since the mine was started. A lower tunnel, 300 ft. long, has been run at a depth of 60 ft. lower than the upper tunnel, this crosscuts the formation. At 70 ft. from the entrance a new vein was crosscut; the first assay made from this vein went 120 ounces in gold, 695 ounces in silver and 17 per cent. in copper; many assays carried over 200 ounces in silver and 90.41 in gold. Very little work has been done on this vein, which is about 20 ft. wide, with a rich paystreak where crosscut of about 3 ft. in width. A crosscut is being run in the upper workings to tap this ore body, where it will have depth. No machinery is used in this mine. A rare thing in copper mining. Up to the present time the ore has been trained from the mine to the foot of Mount Sicker and from thence by tramway to the Esquimalt Railway at Mount Sicker in bulk, and thence by railway to Ladysmith, from which point it was shipped by steamers to the various smelters. But this will be all changed: a three-foot gauge steam railway was being constructed from the mine to the E. & N. Railway, a distance of  $6\frac{1}{4}$  miles. The railway will be extended to Osborne Bay, a further distance of  $5\frac{1}{2}$  miles, the grading of which is already completed. This will enable the Lenora Company to save about \$3.00 per ton for transportation of the ore to the coast. Shipping will commence soon, and a monthly output of 2,000 tons at least will be sent to Tacoma Smelter; the lower grade ore will be held at the mine for concentration in early summer, when works for that purpose are to be established at the mine.

The Tyhee, which adjoins the Lenora on the east, have a shaft down 200 ft., with numerous crosscuts. They will have their new machinery erected in February, consisting of two 50 h. p. boilers, compressor pumps, etc. They are going to put down their new three-compartment shaft, which is down now 40 ft., to a depth of 600 ft. The Tyhee has the same vein as the Lenora, and there is no doubt but that the \$100,000 that the company had for development plant, will prove the existence of numerous ore bodies.

The Key City, which lies to the west of the Lenora, has the same formation, this is being worked by Sacramento parties who are now crosscutting at the bottom of their 100 ft. shaft.

The only other work done to any extent on Mt. Sicker is the Seattle, owned by the Mt. Sicker and H. C. Dev. Co., who own 15 claims on Mt. Sicker. They have a good showing in one of their tunnels, but have lately stopped work, as they intend to devote their energies to working, this winter, their properties joining the North Star mine, in east Kootenay.

Beyond, and to the west of Mt. Sicker, is Mount Brenton, on which are a number of claims with very good indications, and from which some good ore has been taken, but the owners lack enterprise and are apparently waiting for developments on the Lenora, Tyhee, and Key City claims.

To the east of Mt. Sicker, and across the railway, is situated Mt. Richards. Two properties are being worked, the Lord Roberts claim, owned to a great extent by Vancouver parties, who are sinking a shaft in ground very similar to the Lenora, and the Daisy claim, situated about one half mile from the E. & N. Railway, this is being opened up by local and American parties. A well defined vein, seven feet in width, has been proved and contains good copper ore, and there is every indication that the property will prove, with proper development work, a shipper this summer. The schist belt, which is about three miles wide, with diorite dikes, extends at least a distance of 12 miles, and affords one of the best areas for prospecting; when the claims are being opened up I consider it will be one of the cheapest sections in B. C. to work. Good transportation facilities, etc.; and, if it were not for the old saying of distant pastures looking green, I feel sure that this section will prove more attractive to the miners than at present.

## THE DUTY ON LEAD.

Col. Topping, the well known mining man of the Kootenays, expresses himself as under on this much vexed question: "I know that several members of the Government have expressed sentiments in favor of the imposition of higher duties on manufactured articles of lead. This accomplished we are assured of a refinery, paint works, etc., with the accompanying pay roll. To-day the lead mine owner, when selling his ore to the smelter, has, beside the cost of reduction, to pay the United States duties on lead bullion costing him altogether from \$14 to \$30 per ton, according to the percentage of lead contained in the ore. Now, under what we hope to achieve, *i. e.*, to be able to supply Canada with paints, lead pipe, litharge, etc., from lead mined, smelted and manufactured in Canada, this money now paid to the United States would stay in the country, as there would be no necessity for either ore or bullion to be sent out of the Dominion, unless the greater value received should stimulate lead mining to such an extent that we should have to seek foreign markets.

"I feel rather strongly on another question, which is that a large amount of Canadian ore goes to the United States for treatment. More than half of Rossland's output is smelted at Northport, Wash., and there is expended there a payroll of about \$40,000 per month, which our workmen and business men should have. Now, when the Crow's Nest Pass coke can be laid down at the Kootenay smelting centres at a lower figure than coke can be bought for at any other smelting point in the west, we need fear no opposition.

for ores can be reduced as economically here as in any place outside of the cheap coal districts of the east. The competition of the smelters built and building will thoroughly protect the ore producers from having to pay unreasonable charges for reduction. Therefore I believe that, to more thoroughly protect our own country and people, an export duty of at least \$2 per ton should be placed on ores. Concerted, persistent action in showing the facts induced the Government to take the 15 per cent. duty off from lead bullion, and rendered it possible to erect and run the lead furnaces at the Trail and Nelson smelters. The same earnest, persistent action will bring us these further requirements which, if given us, will make Kootenay the most prosperous section of this, the richest mineral Province of our wonderful Canada."

## BRITISH COLUMBIA MINING OPERATIONS.

### REVIEW OF THE YEAR 1900.

Reviewing the past year, with all the disadvantages of the South African campaign, the influence of such legislation as the Alien and Eight-Hour laws, two per cent. taxation, and mining disabilities generally, we are bound to admit that, in spite of such handicaps as those mentioned, the Province has progressed surprisingly.

The shipments of ore from the Kootenays have increased largely (see tabulated returns given on another page). New and valuable finds have continually been made, amongst which are telurides, mica, etc. The placers of East Kootenay are also being worked successfully. The Cariboo and Lillooet fields have also attracted capital which will work the several properties for results. Coal has been found in large quantities in the Nicola Valley, and, fortunately, in conjunction with the iron measures which are in evidence in this locality.

The Coast has also been weighed in the balance and not found wanting; the Britannia copper property at Howe Sound and the Goldsmith Copper Co. will shortly pass into smelter hands.

The Van Anda, which has through evil and good report, sustained its reputation as a big copper-gold producer, and has passed into the hands of a large Old Country financial firm which will immediately enlarge the plant and develop on an extensive scale. Over a year since we sent an expert to examine the principal properties on the Van Anda side of Texada Island, so we are in a position to know something more than ordinary as to their prospects, development, etc.

The copper-gold properties at Mount Sicker, V. I., have also shown up well on development, and in two cases have changed hands for good figures; in both cases large plants have been established with a view to that important essential—results.

Dredging also has been pursued on both the Fraser and the Thompson rivers. A large dredge, of the New Zealand type, was built near Lytton by the Cobeldick Company, and in capable hands should be a success. Others are being established on the Thompson and are, we believe, in the hands of efficient New Zealand dredge-masters.

Altogether the Province has, under the circumstances, made fair headway. We shall not, however, be satisfied until our development is taken in hand by the State; not nominally, as now, but actually; and we are sure that all those who have no ulterior purposes in view are with us in this respect. When this

is consummated we shall see such a sweep onward that, in looking back, it will be like a comparison of the old coaching days with the speed of our iron horses of to-day—always provided, that such State development is placed in the hands of an efficient and well-equipped department having men of integrity at its head.

The future of the Province is assured. Our mineral developments even now attest it by good results to the shareholders. Therefore, though at present (even as good business propositions) we are unable to attract sufficient development funds, we are confident that ere the new year departs we shall see an encouraging influx of capital, which will be merely the forerunner of still larger investments throughout the Province.

Copper is still, and of necessity will remain, in demand, and must be drawn on sooner or later wherever found. British Columbia has it in large quantities. Silver has advanced, through the demands from India and China chiefly, though it will never reach its old figure; anyhow it should give the owners of silver property encouragement, and though silver be only at 52 or 53, just as long as the lead values pay for the treatment, with other values to the good, a silver mine is as good as a gold mine. Iron we have in plenty and quite a number of such properties have been sold, and though Canada cannot utilize a tithe of what she can produce, the United States ironmasters are taking millions of tons annually of both the ore and the metal from her, so that conditions are becoming more and more in our favor. The immense iron industries of the United States must be fed with the necessary raw material to enable her to successfully compete with the European manufacturers, as most assuredly the U. S. is now reaching out, and obtaining large contracts outside of her own vast demands; whether it be in steel rails, bridges, mining and other machinery, vessels, etc., she is a strong competitor, and to maintain this position necessitates her being sure of her supplies. The quality and immensity of Canadian iron deposits are circumstances in our favor, and theirs also—provided the Canadian Government can refrain from any dog-in-the-manger policy. Let us hope the advantage will be worked as a mutual one.

British Columbia has during the past year seen the establishment of additional smelters and those already existing enlarged, while others are to be erected. This speaks volumes for the smelting industry and the development being pursued in the Province. The approximate amounts treated in the Kootenays are given on another page. The old saw says, "Don't prophesy unless you know." We are, nevertheless pretty safe in saying that British Columbia will advance still more considerably during the year 1901. We wish our readers may participate in her prosperity and the best of good wishes attend them throughout the New Year.

## NOTES ON EASTERN SECTION OF BRITANNIA SLATES.

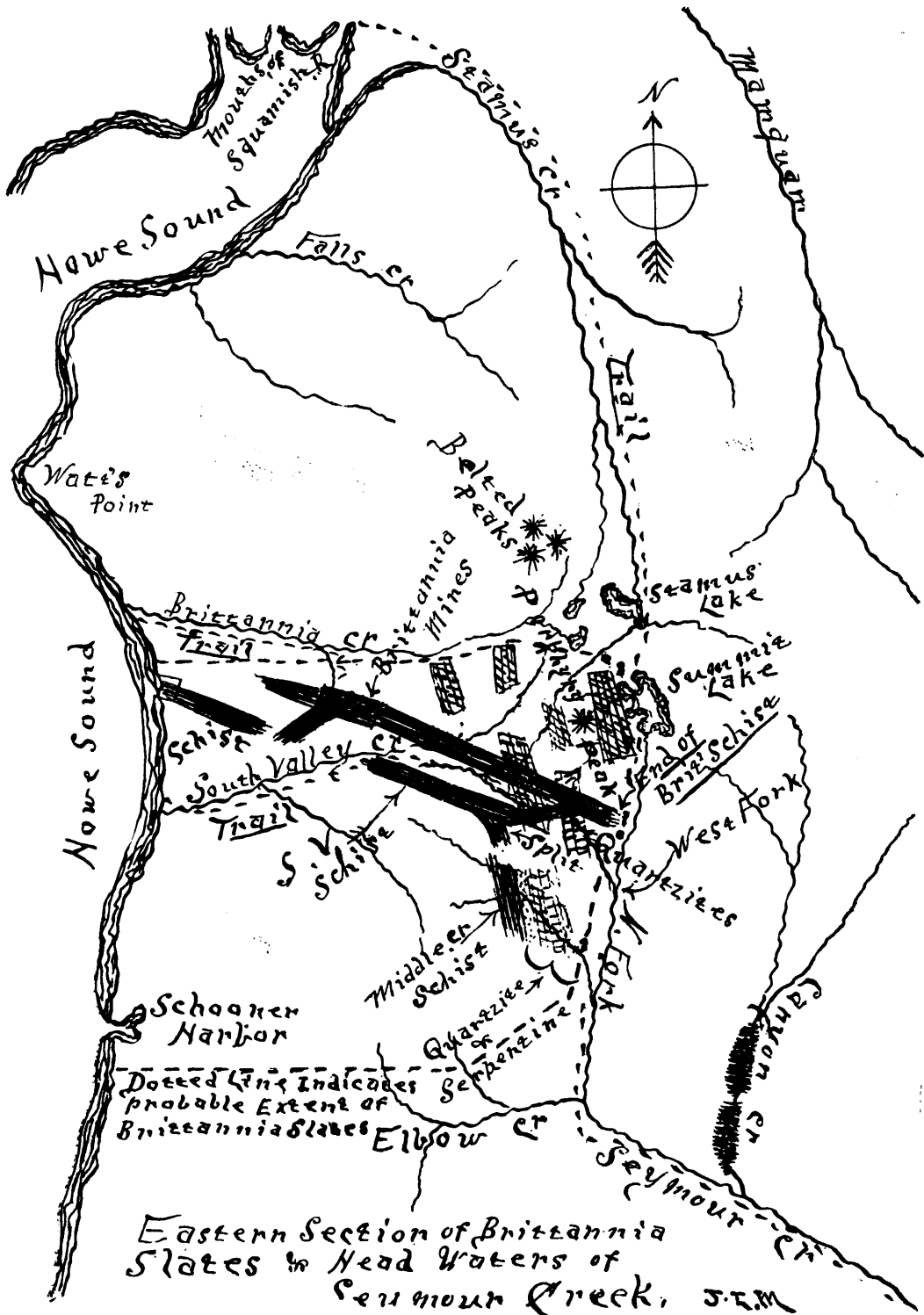
WRITTEN FOR B. C. M. E. & I. G., BY J. L. M.

*Continued.*

True, these are not to be found everywhere, but usually where glacial drift can be identified, some of the smooth surfaces may be seen, granites weather round, but the practised eye will detect the difference between a weathered and an ice worn surface. Again, large masses of debris at the foot of a slope may safely be reckoned on the down stream side.

The distribution of gravel in a water course, known to gravel miners as shingling, is not true of ice drift, which drops its boulders promiscuously. Our course takes us to the west and south over a high granite ridge. At every pass or saddle, and well up the slopes of the higher rises, we observed growings, and many

tannia, and South Valley creeks, whose head waters all center near this point. To the east, south and north a grand panorama of ridges, hills and peaks, was spread before us. Along the divide on south side of Britannia Creek, the first slate met was massive, lying unconformably on granite. For a mile or more to



balanced boulders in seemingly impossible places. From a high point on this ridge was obtained an excellent view of the topographic features of the surrounding country which was of much value in the work that followed. To the west broken reaches of Howe Sound mark the western limit of high ridges, divided by the deep valleys of the Stamus Falls, Bri-

the westward high domes of intrusive rock alternate with slates and altered marls lying in the passes. In each of these saddles glacial striae were observed. Returning we passed by the western base of Porphyry Peak. At the south west exposure, is a comparative level area some acres in extent, every square yard of which is filled with features of interest; narrow dikes



of prophyry and breccia wind sinuous ways through this small remnant of impure slate and altered marls. The striae is remarkably well preserved and the dikes of breccia planed to the even by the mighty ice sweep, look like work in Mosaic. Shoulders and hammocks rounded only on the north side, here and at other points mentioned, show the flow to have been, southerly.

On the eastern side is another small remnant of altered sedimentaries, whose glacial markings show the vast ice sheet to have ground and crunched and carried away to southward any debris that had fallen about the base of this huge upthrust, whose eastern declivity rises 1,500 feet almost vertical, a basal line drawn through this mass of prophyry would measure 2,000 feet east and west and 1,500 ft. north and south.

The sedimentaries on the east and west must have been tilted, causing them to dip outward at the time of the uplift. They now dip inward, due, no doubt, to consequent settling or cooling of the mass. As stated Summit Lake is the source of North Fork, Seymour Creek. Along the south shore near the outlet the rocks are worn smooth and marked with distinct striae. The ice sheet at this point was near 2,000 feet thick.

Our next base was near the mouth of West Fork. The schist, which characterizes the Britannia lead, was soon picked up on the north side of this creek and found located to the end, which is in the steep mountain side on the west side of North Fork (see map). We had observed the stain from the high ridge on the east side of North Fork, where on a former trip we were able to locate the position of the Britannia mines through a knowledge of their location from the west, and found the official strike to come so near this spot as to be unmistakable, allowing for difference in elevation and dip. Following the strike to westward, the schists appear in every stream or gorge. A few shots had been set in some of these outcrops. At all points the schists were highly impregnated with iron sulphides, but at no place that came under observation was copper seen. Neither were slates present, but drift showed it existed higher up the mountain. About half a mile from West Fork divide, we crossed to south side of South Valley Creek. Here we found Mr. Greasely, who, with others, are developing a number of claims in the south valley schists. We found Mr. Greasely an affable gentleman, with a pleasing Scotch brogue, and from him gained much information in regard to holdings in the vicinity. The schist at this point is over 200 feet wide, dip 60° to the south. It is a silicious schist highly charged with iron bisulphides with some chalcopyrite. A few shallow cuts constitute the work done, insufficient to determine probable values. The foot wall is buried in debris. I did not examine the upper contact, but Mr. Greasely states it is some kind of granite, slate can be seen near the top of the mountain, thus giving added strength to the belief that the slates in this district are chiefly overlying. Returning it was observed a portion of this schist crosses West Fork and apparently joins the Britannia schist; another portion turns southward (see split on map), along the greater length of West Fork the creek bed offers good opportunities for observation. The slates mostly graduate into an underlying quartzite at one place only, a narrow belt of slate appears to penetrate the quartzite and this is probably due to faulting as a large dike cuts the formation at this point. The next stream south from West Fork is Middle Creek. Here, as I anticipated, a schist belt was found with a strike in conformity with the usual trend of other for-

mations, N. 18 to 20 West, which would be in line with the south spur at the split on West Fork. The zone here is more than 300 feet wide with highly mineralized lands, from a few inches to 20 feet in width, but showing no value. Dip on the creek, 70 per cent near top of the mountain, towards West Fork, 90. Below this, along the creek bed, is a narrow belt of serpentine, along one of slate, gray and greenish quartzite, identical with those previously met with predominate, all these quartzites carry iron sulphides.

Elbow Creek next claimed our attention. Here we found a decided change. In prospectors' parlance, hungry granite was everywhere in evidence. The crest of one high hill on the north side was crowned with a thin body of slate, which marks the south eastern confines of the slate area.

The next and last stop made as a base of operations was at the mouth of East Fork or Canyon Creek. A trip was made to the head of this stream to ascertain if possibly a granite intrusion had cut slate and schist out between this and North Fork. Like Elbow Creek, all is granite, traversed by numerous dikes of andesite. A summary of investigations made on this trip, in connection with former observations on Howe Sound, indicate the confines of the Britannia slates as being Britannia Creek on the north, Seymour Creek on the east, and a line drawn from Elbow Creek to a point just south of Schooners Harbour as the southern boundary. We will not attempt the geological distribution or classification of rocks met with, but it is safe to assume that quartzite and allied rocks underlie at least that position where mineral values are found within the area indicated.

## Finance.

LONDON, ENG.

The company promoter has been rushing his business through, anticipating the new company regulations which come into force at the beginning of the New Year. Promotions have been lively in consequence. The character of the majority is questionable, but enough, however, seems to have been got together on public subscription to enable them to go to allotment.

...✿...

American (Tunnel) Rails have been booming, and having climbed up [point after point those operating have made a nice profit. This section has been the only list one on the Stock Exchange.

...✿...

Millions of tons of coal are reported to have been discovered some little distance N.-W. of Bulawayo, Rhodesia. Of course the exploiters are dinning this continually in the ears of Londoners. They know the value of keeping the public on the qui vive for good investments. It appears very palpably to me that British Columbia is not doing herself justice in hiding, as it were, her light under a bushel. Comparatively nothing is heard of it and the general public would be astonished to hear of its existence much less of its wealth.

...✿...

Stratton's Independence, Limited, with a capital of £1,100,000 in £1 shares, was brought out in London in May last, and on a prospectus which represented that from \$6,712,000 to \$13,000,000 in ore was in sight. This since appears to have been a miscalcula-

tion or misrepresentation of a kind that accounted for the noisy character of the meeting of the shareholders, and which nearly led to a free fight. It appears, from the report of Hays Hammond, that the value is not more than \$2,000,000. Of such a discrepancy the *Denver Mining Reporter* says:—

"It was Mr. Stratton's mine which was sold; it was Mr. Stratton who received the consideration.

"Every person who bought Mr. Stratton's stock, induced thereto by the misrepresentation of Mr. Stratton's agents, is entitled to have the contract declared void and to have a return of his money. It will be a grand thing for the mining industry, if those who have lost their money shall take legal steps for recoupment, in order that the lesson may be learned that it is no more legitimate to lie about a mine than about any other article; in order that mining shall not be classed as a gambling speculation, but as a legitimate business in which legal protection is afforded to investors."

...✽...

The annual report of the London and Globe Financial Corporation proved to be a most unhappy one for the shareholders. They had anticipated the announcement of a ten per cent. dividend, but were doomed to bitter disappointment. However much we denounce Whitaker Wright and the methods of such schemers, who before anything are stock and share operators of the most extreme type, we feel bound to sympathize with the president, a man of honored name and repute and who is universally respected. His determination to see the business through, sinking his own private troubles for the general good, will be more than appreciated and will do more to place the company on its legs again than anything else.

## 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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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.

## Notes.

The *British Columbia Review* says: "With the necessary formalities passed, as required by the law of the Dominion, the Bank of British Columbia has practically ceased to exist. Sentimentally, we may regret the disappearance of an old name, and the abrogation of a Royal Charter, under which B. C. has gradually become known in London, but the connection having passed into good hands, a sphere of greater usefulness has been entered upon, and the history of the bank, though henceforth identified with the Canadian Bank of Commerce, will not be quickly forgotten. In wishing the combined institution every success for the future, it is a pleasure to recall the fact that the Bank of B. C. was incorporated as far back as 1862, that, despite periods of adversity, its original capital of £600,000 remains unimpaired, and while dividends have fluctuated they have never been under, apparently, 4 per cent., whilst 9½ and 10 per cent. have been distributed."

✽ ✽ ✽

Development is now made easy in connection with copper-gold, copper or other refractory ores. The Handy Prospector's Matting Furnace is constructed to help out the prospectors who are unable to ship their ores at a profit, but who can with an aid of this kind matte their ores and ship direct to the refinery, or sell their matte on the spot. The sizes made are from one ton capacity upwards, of cupola type. The weight of a five-ton furnace is 1,250 lbs. only, and is made in sections, so that they can be packed anywhere easily. The terms are easy and a thirty days trial allowed. British Columbia should have hundreds of these money makers at work. Messrs. Campbell Davis & Co., of Durango, Mexico, are the patentees.

✽ ✽ ✽

The mineral wealth of Canada has developed in ten years some 900 per cent. production, being in 1889 \$3,251,299, in 1899 \$28,833,717.

✽ ✽ ✽

During the past year the producing mines of East Kootenay shipped 35,753 tons of galena, having a total value of \$1,923,580.

✽ ✽ ✽

It is said the only properties yet affected by the disturbed state of the lead ore markets are the Payne, Whitewater, and Last Chance.

✽ ✽ ✽

The Centre Star resumed its monthly dividend of one per cent. on January 1st.

✽ ✽ ✽

The St. Eugene Consolidated, Moyie, East Kootenay, paid three per cent. on the same date which enabled the Canadian Goldfields Syndicate to pay ½ of a cent. per share or \$18,000 on its entire capitalization. This syndicate owns some 600,000 shares of the St. Eugene stock. Stocan Star has distributed \$20,000 among its shareholders.

The Payne is also paying its regular quarterly dividend.

\*\*\*

The North Star, East Kootenay paid its quarterly dividend on December 15th.

\*\*\*

During the coming season, East Kootenay, Nelson, Ymir, Slocan, Lardeau, Rossland and Boundary camps will add other dividend payers to the list.

\*\*\*

The Van Anda Mines have been sold to an English Syndicate. The price is in the neighborhood of \$500,000. \$250,000 will be expended at once in development.

\*\*\*

The Stemwinder group, near Greenwood, has been bonded to George Gooderham of Toronto for \$200,000.

## Mining News.

### BOUNDARY.

Ore shipments from Boundary Camp district for the past year amounted to over 100,000 tons. With the exception of the Mother Lode, in Deadwood Camp, and the Jewel, in the Long Lake Camp, the ore was shipped either to the Nelson, Trail, or Grand Forks smelters. The Jewel ore is treated at the Silica Reduction Works, and the Mother Lode shipments are to its own smelter at Greenwood.

Following is the list of shippers and their output:—

Phoenix Camp—Old Ironsides, Victoria and Knob Hill group, 68,820 tons. Dominion Copper Company, 150 tons. Gold Drop, 30 tons. Snowshoe, 150 tons.

Wellington Camp—Brandon and Golden Crown, 2,500 tons. Winnipeg, 1,075 tons. Athelstan, 1,200 tons.

White's Camp—City of Paris group, 2,030 tons.

Summit Camp—B. C. mine, 18,718 tons. Ora Denora, 60 tons.

Brown's Camp—Golden Eagle, 165 tons. Humming Bird, 450 tons.

Long Lake Camp—Jewel mine, 260 tons.

Providence Camp—Gold Bug, 45 tons.

Skylark Camp—Last Chance, 45 tons.

Hardy Mountain Camp—Yankee Girl, 70 tons.

Deadwood Camp—Buckhorn, 17 tons. Sunset, 52 tons. Mother Lode, local, 5,300 tons; outside, 250 tons.

A Chicago syndicate, it is said, has bonded the Yellowstone group, in the Skylark camp, and has just made the first payment.

The Florence has been bonded for \$25,000 to Eastern capitalists.

### THE COAST.

The Lenora copper property, Mount Sicker, V. I., has been bonded to U. S. capitalists for \$3,000,000.

The Dorothy Morton group has been bonded by a San Francisco syndicate for \$200,000.

### LARDEAU.

The Comstock group has been taken over by a company and will be developed during the coming season.

The Nettie L. has entered the list of shippers, as also the Silver Cup and Triune. This camp has a great future before it.

### NELSON.

The experimental cyaniding plant at Ymir mine is to be superseded by a larger one. Part of this plant has arrived from the Pacific Trunk Company, of San Francisco. It is estimated that the use of this process will effect a further saving of one dollar a ton on the ore passing through the mill, or about \$600 per month.

The Golden Monarch Mining and Milling Company has been formed in Spokane to operate the Foghorn claim, on Wild Horse creek, about seven miles from Ymir. The capital of the company is in 1,500,000 shares, of which 500,000 have been placed in the treasury to provide funds for development. Of this number 400,000 shares have already been placed, providing ample funds for development on a large scale. Con Wolfe, president of the company, has arrived here and will initiate operations, which will consist of construction work. A force of nine men will then commence on a crosscut tunnel which will tap the vein at a depth of about 300 ft. from 250 to 500 ft. in.

### ROSSLAND.

The output of this camp for 1900 was approximately 221,902 tons, of an estimated value of \$3,500,000, and though the output has increased some 22 per cent. values have not risen in the same ratio, because of the shipment of lower grade ores to the smelter, which the reduced smelter charges (now only \$4.50 per ton, including transportation and treatment) renders possible and profitable. The following is a statement of the camp since it commenced to ship:—

YEAR.	TONS.	VALUE.
1894	1,856	\$75,000
1895	19,693	793,359
1896	38,075	1,243,360
1897	68,804	2,007,280
1898	111,282	2,470,811
1899	180,300	3,211,400
1900	221,902	3,500,000

The War Eagle commenced shipping again at the beginning of the year.

Herewith are the estimated figures for the output of present year, based on the statements of local mine managers. The ore is actually in sight.

	TONS.
Le Roi	275,000
Centre Star	125,000
Le Roi No. 2	75,000
Nickel Plate and other B. A. C. properties.	75,000
Iron Mask	20,000
Miscellaneous, including War Eagle, Evening Star, Giant, I. X. L., Velvet, and Spitzee	30,000
Total	600,000

These figures may be materially increased, as no provision has been allowed in the foregoing table for extended shipments either from War Eagle or Velvet, both of which are known to have a large amount of ore blocked out. The estimates for the other mines may be considered low.

Mr. A. W. Hudson has resigned the management of the Northport Smelter. He was most popular with the employees, who presented him with a gold watch, valued at \$400, and having an engraving of the smelter inside the case. An exchange says of this gentleman—"Mr. Hudson came to America to take this position from Sydney, N. S. W., where he brought to successful operation a famous pyritic smelter, and to be one of the most perfect in its operation of any in Australia. He was brought to this country through

the efforts of W. J. Collins, consulting engineer, in the Whitaker Wright interests. His regime at Northport has marked, probably, the most successful year of smelting operations in the North-West, and he is considered one of the most capable smelter men in America."

J. P. Graves, of the Miner-Graves Syndicate, when en route from New York, and while at Montreal, expressed himself as follows:—"I have been making arrangements in connection with the sale of the large quantities of copper matte now arriving daily in that city from the company's smelter at Grand Forks, B. C." He states that the copper market is steady, and as the rate of production has fallen two per cent. below the average, he believes that the price will be higher within the next two years. He says the Granby Smelter Company has signed a three-year contract to deliver monthly 700 tons of copper matte to New York and 200 tons to Liverpool. Mr. Graves was reticent as to values, but, being pressed, stated that the filling of these contracts would reach a yearly total of from \$1,500,000 to \$2,000,000. He confirmed the rumor that the Granby Smelter, Knob Hill, Old Ironsides and Grey Eagle would in the near future be amalgamated, the new company to be known as the Granby Consolidated Mining, Smelting and Power Company, with a capital of \$15,000,000; \$2,500,000 treasury and \$12,500,000 allotted pro rata to the shareholders of the four above named companies. Mr. Graves also made the important announcement that the enlarged company would probably pay a dividend as soon as re-organization is completed.

SLOCAN.

Week ending January 1st, the Arlington shipped 100 tons of ore, making a total of 1,455 tons for the year 1900.

The W. & I. group, on Ten-Mile creek, is attracting some attention.

The Wonderful has struck a vein of clean galena, from six to fourteen inches in width, and has held it for forty feet in the drift.

The Silver Hill has had a full force of men working and will ship some 5,000 tons of ore to the Nelson smelter.

It is rumored that a smelter will be erected at Crawford Bay.

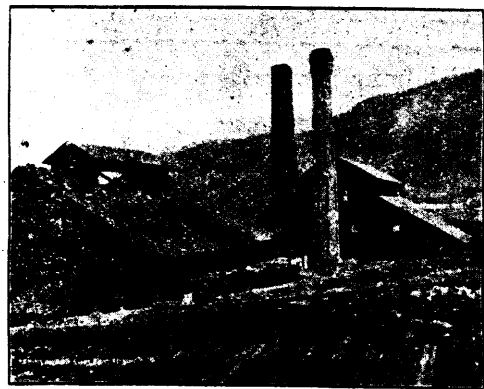
The Vancouver crosscut tunnel has at last cut the vein, at a point over 250 feet deeper and 300 feet west of the old workings. The vein where cut is four feet wide, walls perfect and nearly perpendicular.

Publications Received,

- "Journal of the Royal Colonial Institute." Edited by the Secretary. Northumberland Av., London.
- "Chihuahua Enterprise." Mexico.
- "British Columbia Board of Trade 21st Annual Report." Victoria.
- "The Chronicle." Montreal, Que.
- "Bonds and Mortgages." Chicago, Ill.
- "Mines and Minerals." Scranton, Pa.
- "Mining and Metallurgical Journal." Los Angeles.
- "Denver Investor." Denver, Col.
- "Mining Reporter." Denver, Col.
- "North-West Magazine." Chicago, U. S. A.
- "Economist." Toronto, Ont.
- "Journal of Electricity, Power and Gas." San Francisco.
- "Presbyterian Review." Toronto, Ont.
- "Mining." Spokane, Washington.
- "New Zealand Mines Record." Mining Bureau, New Zealand.
- "Proceedings of the Australian Institute of Mining Engineers." 1900.
- "Born to serve." By Mr. Chas. Sheldon. A new book, by the famous author of "In His Steps," never fails to excite the interest of thousands of readers. The advanced sheets indicate a very strong book indeed, one of thrilling interest to the thoughtful reader, one in which with a master's hand many of the cankers of social life, of domestic unhappiness, of the broader woman problem, of social reform at the vitals of society—are laid bare, with cultured delicacy, but none the less with graphic, unflinching truth. The Canadian rights have been secured by The Poole Publishing Company, Toronto, but as the story will not appear in book form for some time the publishers will run it as a serial in The Presbyterian Review, beginning with the issue of the 3rd inst., thus enabling readers of that paper to have this most interesting work in advance.



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Chemainus	11.27 "	5.33 "
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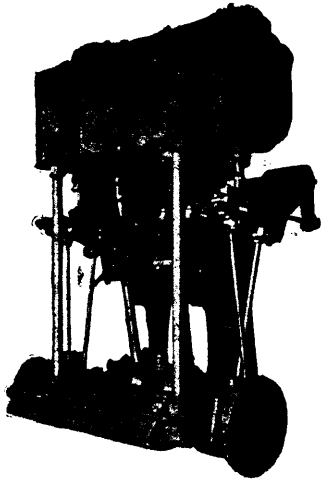
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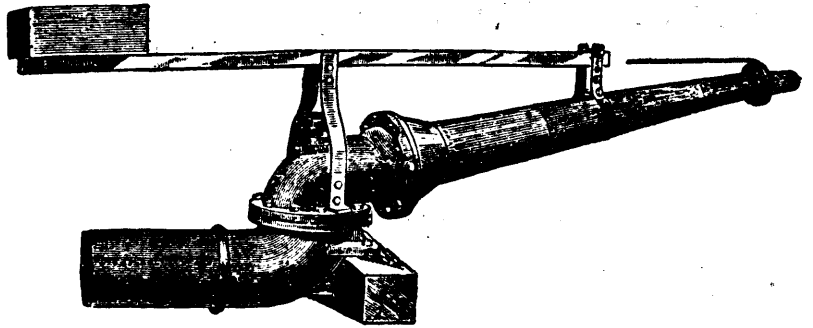
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