British News By Cable

The Dominion's Latest Military Scheme Thought to Be Eminently Practical.

Canadian Pacific Railway About to Open New Offices in London.

St. James Gazette Rebukes Baron Ashburton For Ignorant Strictures.

London, Jan. 5.—(Special.)—The Pall Mall Gazette says: "Canada's new military scheme, as outlined by Sir F. W. Borden, is in every way practical. It is calculated to produce a highly-trained citizen's force with behind it a second line of partially trained men."

The C. P. R. will open their new office on Trafalgar Square on Saturday. Lord Strathcona will perform the ceremony.

Referring to the manifesto issued by Baron Ashburton in which he refers to the supporters of Mr. Chamberlain as "unprincipled, untruthful and only half educated," the St. James' Gazette says these terms are applied to such servants of the Empire as Cockburn, agent-general for South Australia, and Turner, agent-general for British Columbia, men who have made a name of fame in the great spaces of the Empire, and they are termed half educated by local party hacks.

ONE IN FOUR PERSONS.

One person in every four suffers more or less from itching piles. Some do not know the nature of their ailment, and others have not heard of Dr. Chase's Ointment as the only absolute and guaranteed cure for this distressing disease. If you are a sufferer ask your neighbors about this great preparation. It has grown popular as a result of the news of its merits being passed

EASTERN ZERO WEATHER.

Forty Below in New York State Makes a New Local Record.

Glenfalls, N. Y., Jan. 4.—Last night was the coldest in the Adirondacks for this season. The mercury stood at 23 below at Glenfalls; 24 at Lake George, and 30 at Warrensburg.

Schenectady, N. Y., Jan. 4.—The coldest weather of recent years prevails here today. This morning the thermometer registered 22 below zero.

Brunswick, Maine, Jan. 4.—The extreme cold continues unabated here. The temperature ranged about 20 degrees below zero during the night, and a little warmer today. All trains are from one to six hours late.

Utica, N. Y., Jan. 4.—The weather continues clear and cold, with unprecedently low thermometer records from surrounding points. Boonville, on the edge of the Adirondacks, reports 40 below last night.

Bad Axe, Mich., Jan. 4.—Three boys, aged about 10 years, the sons of fishermen, were frozen to death during last night's terrible storm, being lost in the blinding snow.

Kansas City, Jan. 4.—In this part of the southwest zero weather prevailed yesterday, the coldest of the season.

Springfield, Ill., Jan. 4.—Yesterday was the coldest of the season, the thermometer registering 10 degrees below zero.

COTTON REPORT SHORTAGE.

Washington, Jan. 5.—The census bureau today issued a cotton report showing that there had been ginned up to and including Saturday, December 12th, 8,848,747 commercial bales, compared with 9,311,835 bales up to and including December 13th of last year. The census found that 29,971 ginneries had been operated this season a 39,194 last year.

FAVORS HOME RULE.

Dublin, Jan. 4.—At a meeting of the national directorate of the United Irish League tonight, a resolution was passed in favor of home rule as the only means of enabling the people to derive the benefits of the recent Irish land act in face of the refusal of landlords to sell their estates except on extravagant terms.

PAPER MILLS BURN.

Watertown, N. Y., Jan. 5.—A special to the Standard from Norwood, N. Y., today says: "The Frost Paper Company's mill was totally destroyed by fire today; loss, $25,000."

ADDRESSED THE LABORING MEN

Mr. Wage Officer For Dominion Gives Interesting Speech at Nanaimo.

During the course of an interesting speech at Nanaimo on Saturday afternoon, D. J. O'Donoghue, fair wage officer for the Dominion, who is to speak here this week, made a strong appeal for unity among the workers, and pointed out how unity had won shorter hours, higher wages, better sanitary conditions, and in every way raised the credit of workingmen. He also opposed the strike except as a very last resort, because, win or lose, it is the men who bear the brunt of the fighting who get the worst of it. If they lose they are blacklisted at once. If they win their position is made so disagreeable that they are glad to get out. Therefore, he favored conciliation and arbitration as all the last means had been adopted and failed. He favored keeping the door to strike, however, and advised men never to be wheedled into giving up this last and final method of settling their grievances.

He also took occasion to strongly defend his position as fair wage officer, and pointed out how absurd it was to suppose that even if he desired to do so he could influence congress in favor or against any government, and stated out that he was in the employ of the government purely in the interest of the cause, and at great personal inconvenience to himself. He closed with a further strong appeal for unity in the ranks, and advised his hearers to sink petty differences and get in line with the general trend of the movement. All present, he pointed out, must be slow evolutionary in its nature, and it would not be of advantage either to themselves or anybody to isolate themselves on account of a fancied grievance. At the next congress he hoped to see representatives from British Columbia.

Mr. O'Donoghue was listened to throughout his one and a half hours' talk with the closest attention, broken only by applause at many points in his address. As he sat down he was applauded vigorously by the entire audi-

Monkey Brand Soap makes copper like gold, tin like silver, crockery like marble, and windows like crystal. 24

REVIEW OF MINING OPERATIONS FOR THE YEAR 1903.

BY H. MORTIMER LAMB

The past year has been, in many respects, a notable one in the history of the mining industry of the province. Opening not altogether under unfavorable auspices and conditions, a period of greater productive activity and industrial growth and prosperity was generally anticipated. These hopes, however, soon appeared to be doomed to disappointment, for in February a strike was declared by the coal miners of the Crow's eNst collieries, resulting not only in the suspension of coal mining operations in East Kootenay, but by cutting off the fuel supply of the Rossland and Boundary districts, causing a temporary paralyzation of the metalliferous industries in those districts. In Victoria, meanwhile, a movement had originated aiming at the organization on a most comprehensive scale, of interests directly or indirectly dependent upon the mining industry of the province for their support or well-being. In response to a widely-circulated "call," a convention, at which some three hundred delegates from almost every section of the country, and representing mining, smelting, agricultural and commercial constituencies, attended, was held in the capital the last week in February, a profitable week being devoted to discussion of and deliberation on the many important issues there brought up, and of suggestions made for the amelioration of conditions considered to be acting as a brake on the wheels of progress. Among other matters of great import, the convention dealt with the difficult question of the relation of capital and labor, the Fernie strike lending interest and point to the debate. As a practical outcome, a committee was appointed to proceed at the scene of the dispute, authorized to endeavor to bring about a conciliation between the coal company and its employees and arrange as far as possible for a permanent settlement of existing differences. The appointment of this committee met with the cordial approvement of the provincial government then in power, who, recognizing the importance of the mission, provided from the public treasury for the expenses of the delegation. To the lasting honor of the newly formed Provincial Mining Association, none-the-less to its surprise, for Dominion government intervention had previously proved unavailing, the committee's mission was completely successful. A strike, which had already caused much loss and suffering, and threatened for a time to be obstinately prolonged, was at an end, and further, an arrangement was made effectually providing against a like recurrence for a lengthy period of time. Although recovery from the effects of this strike was not immediate in the copper-gold producing districts of the Kootenays, a return to prosperity shortly came about, which since has not been disturbed. But it would almost seem that a malignant fate pursued our foremost industry during the first half of the year, for no sooner was trouble at length listened to the solicitation of the lead miners and lent substantial aid to that languishing industry; heavy rains in the Cariboo gave the smaller mines an opportunity to make up for the disabilities under which they had suffered earlier in the season and assured to the larger undertakings a plentiful supply of water for the next year's working; the method of treating the low-grade siliceous ores of the Rossland camp by a process of oil concentration was successfully introduced and applied, while experiments also gave promise that the large deposits of refractory ores in this district may also be turned to profitable account by another recently introduced special process; it has been proved beyond peradventure that the great low-grade bodies of ore in the Boundary are capable of being profitably mined, the Granby company having entered upon a dividend-earning career; high-grade mines near Greenwood having been opened, and are already yielding profits; in the Nelson district half a dozen mines have become productive as against one last year; in Ymir the same; at Camborne promising free-milling quartz mines have become regularly productive; lead mines in the Slocan, long closed, have been re-opened and equipped with machinery; and the year closes with the outlook brighter, conditions more stable, the industry established on a more permanent and business-like footing than since, perhaps, its inception.

Production in 1903 shows a further increase of approximately twenty-five per cent in copper, an increase in lode gold, coal and coke, a small decrease in lead and possibly silver output, and a not very considerably falling-off in the placer gold yield. In respect to the value and tonnage of the aggregate mineral production of the province during the year a certain advance has been made on last year's returns.

With these introductory remarks, it is now proposed to review and briefly summarize the happenings of the year, for the sake of convenience and order, under the headings of the districts or mining divisions in which they occurred:

THE COAST.

Productive activity on the coast has been limited almost entirely to the metal mines of the Mount Sicker district, on Vancouver island, those of Texada island, and the coal mines on the east coast of Vancouver island. In addition, however, shipments of ore have been made from Quatsino sound, and also to a very limited extent from properties on the west coast of the island. Developments at Mount Sicker have been eminently satisfactory, the result of recent work having further proved the extent and value of the ore bodies, while the large profits earned by one mine has demonstrated how favorable are the opportunities in this locality for wise and well-directed effort. During the year the Lenora mine has been operated in the interests of the creditors, the position of the mine having been considerably improved, while a large quantity of ore, of payable grade has been shipped to the Crofton smelter. The extent of development at the Tyee may be gathered from the fact that underground at the mine there are now about two miles of workings, the continuity of the vein at depth having been finally and conclusively demonstrated. Attention has been mainly directed to the development of the south ore-body, but a parallel lead to the north has also been opened up by cross-cut tunnels at various intervals. From this vein, which is about four feet wide, some exceptionally high values have been obtained by assay tests. Of recent work, reference may be made to the cross-cut, giving a depth on the veins of 350 feet, which is now being driven, and which has already passed through thirty feet of clean ore on the main lead, encountered the north vein at a distance in of 150 feet, and beyond this again has entered mineralized ground, indicating the presence of other ore bodies. Recently the capacity of the aerial tramway at the mine was doubled to admit of shipments being made henceforward at the rate of from 5,000 to 6,000 tons a month. The Ladysmith smelter has been in more or less continuous operation during the year and has in this period treated some 50,000 tons of ore, from which was produced 4,700 tons of matte having a value of approximately $600,000.00. Another exceedingly promising prospect at Mount Sicker, upon which development work has proceeded this year, is the Richard III. The mine has been opened up to a depth of 500 feet by a main shaft from which cross-cuts have been driven at various levels. At the extreme depth ore of excellent grade has been encountered, giving assay values as high as 10 per cent copper, 121 oz. silver, and 1.38 gold. It is needless to say, however, that these returns will not represent the average values of the run of the mine. To the east of the Richard III. a number of prospects are being developed by a development company or syndicate, recently formed in London. On Texada island, the Van Anda, Cornell, Marble Bay and the Puget Sound Company's iron mine have been worked during the year upon an extensive scale, while, in addition, development has been in progress at several of the smaller properties. The Van Anda smelter is not being at present utilized, the ores from these mines being now shipped to and treated by Vancouver island smelters. After being badly "gutted" under former ownership, the Copper Queen mine has again been placed in a satisfactory position, a considerable quantity of ore having been exposed after some months of careful and systematic development. The showing on the Cornell is also most encouraging, large ore bodies having been in recent months opened up and a considerable depth attained on the lead. The Marble Bay, which has more or less steadily shipped this year, has again changed ownership, having passed into the hands of an American company. It has been a source of much disappointment that as yet no determined effort has been put forward to mine the enormous deposits of ore at Howe sound, although preliminaries have been practically arranged with that end in view. The advantageous situation of these mines,—the opportunity afforded for mining, treating and marketing the ores economically would appear to be strong reasons against their long remaining inoperative, and the early future should, therefore, witness a change in the policy hitherto pursued. Near Vancouver, at Lynn creek, some promising copper and zinc prospects have been developed to a limited extent, while at Gribble island a copper mine has been opened up to such good purpose that production is shortly to commence, arrangements having been made for the treatment of the ore at the Ladysmith smelter. With the exception of the recent location of the seam of anthracite coal at Cumberland, there is nothing of particular moment to record anent the Vancouver island coal mining industry in 1903. With the exception of the deplorable suspension of shipping operations during the period of the strike in the spring, production has been steadily maintained by all three collieries, while at Nanaimo much development work has been in progress, and important additions made to the colliery equipment. At the Comox mines, in addition to the usual coal mining operations, the work of pumping out and repairing No. 4 mine, flooded two years ago in order to extinguish a big outbreak of fire, has been undertaken, eight electric and two large steam pumps being employed steadily in the removal of the water. But so extensive are the workings in this mine that, it is estimated, another year's hard and constant work will be required before the task is completed. In a letter, which was published recently in the Colonist, I described at some length the nature of the anthracite discovery on Slope No. 7, hence it is hardly necessary to again go into the details. It may be added, however, that the work of locating this seam was commenced a little more than a year ago, the expectation being that the coal would be reached in July, but through unforseen difficulties in boring, the seam was not uncovered until quite recently. Speaking generally, the advance of coast mining this year has been far from disappointing, and though doubtless the coal and coke output will show some falling off, this is more than compensated for by the considerable increase in gold-copper production. Prospecting, it is true, has, for the time being, been practically abandoned on Vancouver island, but the good showing made by the Mount Sicker mines will, undoubtedly, in due course create a larger enquiry for island mining properties, and consequently lead to further mineral exploration in this and other likely localities, such, for instance, as San Juan, Sidney inlet, Anderson's lake, Alberni canal and Quatsino sound, at all of which are to be found mineralized areas of considerable extent.

ATLIN, CASSIAR AND OMINECA.

Reports are conflicting as to Atlin's 1903 gold yield. By some authorities it is valued at not more than $400,000, or practically last year's level; by others it is computed that during the season no less than $430,000 in gold passed through the hands of the banks and express companies, while to this may be fairly added a further sum of not less than $75,000 representing the value of the gold recovered by the individual miners and others, and of which no official cognizance was taken. But whether production be no more or greater than that of last year, the matter is of no particular moment, as only very partially indicating the vastly improved condition of gold mining in this district. Atlin, as most people are aware, is no longer a Tom Tiddler's ground for the individual miner working with pen and shovel, if it ever were. It offers, however, exceptional opportunities for enterprise conducted on a big scale, and as a field, particularly, for gold-recovery by dredging methods, its potentialities are, according to very dependable authority, almost unlimited. The really important work of the past season has been associated with the development and enlargement of the mines, and is quite inconsidered if production alone is taken as the indication of progress. Thus this year was completed the equipment commenced in 1900 of the mines of the McKee, Birch and Boulder, Sunrise and Teeks hydraulic companies, and all these undertakings should, providing the water supply is normal, be in a position to earn profits from next year onward. Next season will also see the inauguration of dredging endeavor, one company having installed an electric plant capable of operating five large dredges, one of which has already been built. The auriferous area with which dredging may be conducted profitably is very extensive, values being most evenly distributed, while gravel can be made to pay these having a value of anything over twenty cents per cubic yard. Besides the hydraulic undertakings, creek mining is still carried on at Spruce creek, though operations both here and on Boulder have chiefly taken the form of deep level and drift mining, the old channel having this season been struck on both creeks, yielding very fair pay. Quartz prospects in Atlin also promise well, development this year on the Yellow Jacket, where a ten-stamp mill was installed, on the Beavis and on the Imperial group have give cheering results. On Taku arm also a very promising silver and copper prospect has been located, and an excellent showing of gold-copper ore has been exposed on the Lavadiere group to the south of Atlin lake. Altogether, as has been stated, the outlook in Atlin is excellent. It is no longer the "boom" camp of a few years ago, but has become a valuable permanent addition to British Columbia's rapidly extending productive mineral areas.

In Cassiar, the Thibert Creek Company's hydraulic venture alone at present represents serious mining operations, but the success which is beginning to crown its efforts should have the effect ere long of inducing others to engage in mining in this erstwhile rich gold region. During 1903, the Thibert Creek Company, although suffering from a shortage of water, which seriously limited the working season, recovered five times the amount of gold than in 1902, thus making a very satisfactory profit on the year's working. In addition to the gold contained in the gravels of this creek, osmiridium is known to occur, and it is hoped that next year it will be possible to introduce special appliance for the saving of this valuable metal. Reports from Omineca this year are disappointing, in the case of one of the most important undertakings, the failing of supplies preventing anything like a full advantage being taken of the working season. The production from the district this season will be, in consequence, relatively insignificant.

FRASER RIVER.

Gold dredging has been carried on at one or two Fraser river leases with moderate success. There is, meanwhile, being built at Lillooet a steel dredge, after the New Zealand bucket type, which, when completed, will be the largest of its class in Canada, the hull being 100 feet long and 24-foot beam. This dredge was to have been ready for operation by November, but a delay in the manufacture of the machinery was occasioned in the East by a labor strike. Gold dredging on the Fraser and elsewhere in the province is being conducted with better success as conditions are now better understood and modern methods applied to meet them.

KAMLOOPS.

At Kamloops the result of the year's work has served to confirm the previous high opinion entertained of the promise and value of the Iron Mask mine on Coal Hill. The syndicat owning this property entered into an arrangement last summer with a London company to provide additional capital required for further development, and the establishment of suitable reduction works and other plant to place the mine in a position to commence and maintain profitable production. The agreement was conditional on a favorable report being made by an engineer engaged by the latter company. The mine having passed the necessary tests, contracts have already been awarded for its thorough equipment, and the property which has now been developed to a depth of 500 feet, should, in the near future, enter a long and successful productive career. The only other metalliferous mine of importance upon which operations were carried in 1903 is the Copper King, which commenced the shipment of ore to the Crofton smelter in November. On Tranquille creek, a tributary of the Thompson river, a dredge was continuously operated throughout the season, working with two twelve-hour shifts. Fair returns, it is said, having been realized from the undertaking. Recently a local syndicate has been organized to open up the coal measures adjacent to the town.

CARIBOO.

In point of production Cariboo no longer occupies the premier position among the alluvial gold areas of the province, this position having been won by Atlin, in 1902, and again sustained by the latter this year. But Mr. Hobson will tell you that this humiliating state of affairs cannot possibly continue; that given anything like a fair show Cariboo will not only easily regain her lost place, but that the property he manages is alone capable, under normal conditions, of making an annual output of gold very nearly equal to the aggregate yield attributed to the Atlin district this year. Be this as it may, there can be no doubt at all that, so far as the big Cariboo hydraulic undertakings are concerned, the past two seasons have been particularly unlucky, that of 1903 being the worst on record. To begin with, the snowfall was relatively light—but 110 inches—and then came sudden thaws, followed by frosty nights. So that instead of the snow going off with a rush and filling the reservoirs it came away slowly, and much water was lost by evaporation. If, therefore, the value of the gold produced this year exceeds $350,000—at the beginning of September the Gold Commissioner estimated the output at $300,000—the showing in the circumstances will be by no means discreditable. Operations in the neighborhood of Barkerville were conducted during the season on Grouse and China creeks, tributaries of Antler, on Cunningham, Williams and Slough creeks, on Willow river, and Lightning creek. The Waverley Hydraulic Company, on Grouse creek, were enabled to make a small profit this year, the clean-up from eight weeks' piping realizing between $4,000 and $5,000, and a satisfactory clean-up is also reported to have been made by the China Creek Hydraulic Company, permitting the payment of a dividend. At Cunningham creek the mine has been well equipped and developed this year, although actual washing was not started until late in August. The Cariboo Gold Fields, Limited, on Williams creek, employed a force of twenty men during the season, but the results achieved so far by this concern have been exceedingly poor. The El Dorado, on the same creek, did little beyond paying expenses this year. Efforts are still being made on Slough creek and Willow river to reach deep or pre-glacial gravel, but the difficulties from rapid inflow of water as depth is attained are very great, and although at Slough creek the prospects are decidedly encouraging, in neither instance has success as yet been grasped. On Mosquito creek, a tributary of the Willow, a clean-up of between ten and twelve thousand dollars was realized this summer after but three weeks' piping, and from Lafontaine and the Davis properties on Lightning creek good returns are reported. In the Quesnel division, work on the Consolidated Cariboo was confined to washing in Pit No. 1, only one No. 8 hydraulic giant, requiring 2,500 miners' inches of water being used. In consequence of the shortage of water the run only lasted fifty-three days, resulting in a clean-up of less than $50,000, by far the smallest since mining was commenced by this company in 1898. To provide against a shortage of water in the future, a further large outlay is required to extend the present system, and it is now announced that the company will provide necessary funds for this purpose. Meanwhile the timely heavy rains in September and October, although arriving too late to permit of advantage being taken of them this season, assure an adequate water supply for next year's working. In the Horsefly district little was done in 1903, beyond work at the Horsefly Company's mine, where twenty men were employed. On Keithley creek bench drifting has been in progress; at Veith's mine a fair amount of gold having been recovered, while on Snowshoe and Goose creeks hydraulicing has been carried on.

VERNON.

During the year some attention has been re-directed to the development of mineral claims in the Vernon district, which at one time appeared to promise well, and two or three properties on Marshall mountain, and another opposite Okanagan landing, on which work has recently been carried on, are developing most satisfactorily. The ore is generally free-milling and carries good values according to assay returns. On the McPhail group a small experimental stamp mill was set up in November, but as yet no clean-up has been made.

REVELSTOKE MINING DIVISION.

Prospecting and development activity in this section has been conducted this year on a more important scale than heretofore. The Big Bend is one of the most important of the still unproductive mineral areas, the great obstacle in the way of progress being the inadequacy of present means of transport. Arrangements are now, however, being made to increase the efficiency of the present river service, by building a tramway at Death and Priest Rapids on the Columbia, navigating a steamer from there as far as Canoe river, and thus establish communication for the entire distance thence to Revelstoke. Should this plan be carried out it will enable shipment to be made from several properties, as well as affording the owners of the Mica claims at Pete Lake Cache the opportunity of marketing their product, the commercial value of which has already been ascertained. The mica properties in the Big Bend, on which development work has been done this year, also promise well, the quality being excellent. Under existing conditions the outlook in this district is more favorable to alluvial mining than to quartz, and in consequence effort is largely concentrated in the former direction. At French creek a winter camp has been established, the old channel having been located, and a considerable quantity of gold recovered therefrom this season. On McCullough creek, a company formed in the fall of 1902, has installed a hydraulic plant and succeeded in obtaining a first return. It is proposed to further equip the mine in the spring. On Camp creek it is believed that the ancient river channel has at length been located, and a local Revelstoke syndicate was recently formed to mine the property. Hydraulicing has been in steady progress at the mouth of Smith creek, from which a satisfactory season's gold recovery is reported. Little has been done this year in quartz mining development except at Ground Hog Basin, Dowie creek, Carnes creek and Standard Basin. In the latter case the ore-body, which carries about seven per cent copper, high silver and some gold values, has been proved to the depth of eighty feet.

THE LARDEAU.

In no section of the province has, relatively speaking, progress during the year been more pronounced than in the Lardeau, which is rapidly assuming a position of very considerable prominence and importance as a gold and silver producing area. It has, in 1903, been the locality in which prospecting has been most active and best productive of result. Capital, too, has regarded this district with greater favor than any other, and investment, both in the acquisition of mining property and in the equipment of developed claims, represents a very large sum. Among the developments of the year may be mentioned the successful exploitation of the Lucky Boy group and Ethel, at Trout Lake; of the Lade, Primus, Nettie L., and Silver Cup, at Ferguson; of the Badshot on the Forks of Lardo creek; and of the Beatrice, Eva and Oyster-Criterion, at Fish river. Other important occurrences have been the large machinery installations at the Silver Cup, including the erection of a 20-stamp combination mill of special design, the big consolidation of properties on the Duncan slope, or rather on the main Duncan river and its West Fork, the installation and operation of two ten-stamp mills at Camborne, and last, but by no means least, the remarkably rich discoveries at Poplar creek. Effort during the year has not been directed towards immediate increase of output so much as to thorough development and the equipment of property with a view to increased efficiency and greater economy of working, thus insuring in the future the maintenance of a regular production. Hence while shipments this year compare quite favorably with previous achievements in this regard they fail to indicate the considerable advance that has been made or demonstrate in any way the improved position in mining in the district. The general richness of the ores may be gathered from the following particulars: From the Lade group five tons of ore were shipped to the smelter giving a return of $1,100 in free gold; the Triune ore carries $12 to $18 in gold, about 250 oz. silver and 35 per cent lead to the ton, ore to the value of about $140,000 having been already taken out; from February, 1900 to June, 1903, the Great Western mines had shipped 2,298 tons of ore, from which the net returns were $121,761, the average values per ton being: 13oz. gold, 149.6 silver and 26.7 per cent lead; the Silver Cup shipped from March to June, 1903, 1,027,861 tons, which returned $87,045, the average values being .062 gold, 172.76 oz. silver, and 23.9 per cent lead; the Beatrice ore, at Camborne, contains $8 in gold, 150 to 280 oz. silver and 22 per cent lead; on the Oyster-Criterion one vein carries average gold values of $10, in addition to silver contents, the pay chute assays up to $90 in gold, and another vein carries average values of $20; on the Eva the average values vary from $6 to $30. The last of these mentioned properties being free-milling, the values as quoted, of course, leave a very large margin for profitable treatment. Poplar creek, though known to be mineral-bearing so long ago as 1898, attracted but little notice until the summer of 1903, when the discovery of free-gold quartz of extraordinary value was made public towards the end of June. A rush to locate claims followed, and though, naturally as yet the result of the scant amount of development work attempted has failed to conclusively demonstrate the permanence either in respect to extent or value of the occurrences, the indications are so promising as to afford every excuse for allowing a considerably value to the importance of the discoveries. The principal claims are the Spyglass, Gold Park group, Goldhill and Goldsmith and Lucky Jack group, the two latter properties having been acquired by Mr. W. Pool on behalf of the Great Northern Mines, Limited, under whose auspices they are being developed and adequately equipped with machinery. One small shipment of ore was made to the Trail smelter by the owners of the Gold Park, while other claim owners are preparing to market their ores, but at the time of writing no returns have been received.

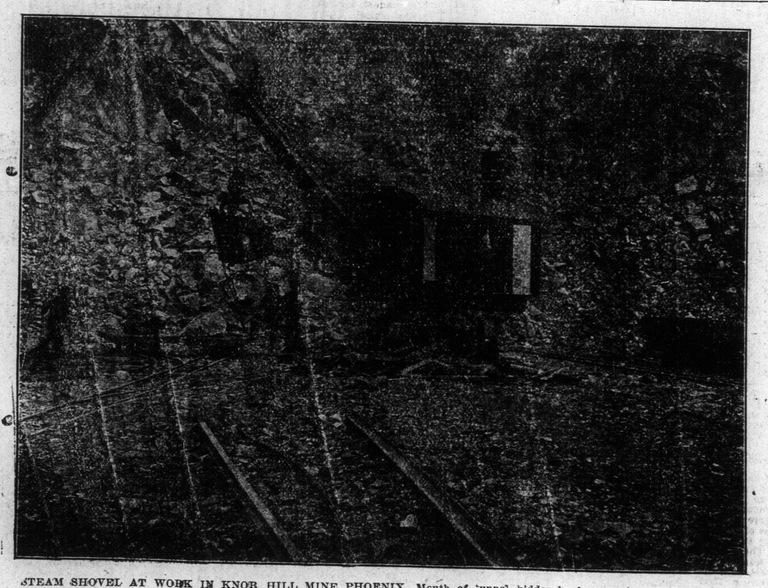
AINSWORTH.

In this district but few properties were operated in 1903. On the Highland, however, development has been energetically carried on under lease, with a working force of about 50 men. The mine has been this year the largest lead-producing property in the province, shipments having been fairly regularly maintained at the rate of 500 tons a month.

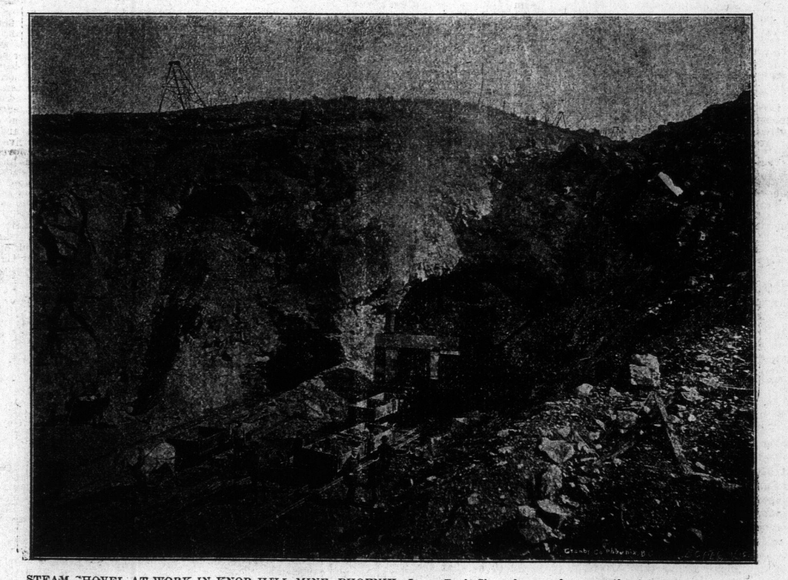
THE SLOCAN.

Output from the Slocan is represented by about 14,000 tons of galena and 2,000 tons of zinc ores—a wretched enough showing surely when compared with previous accompishment under reasonably normal conditions. Litigation, in which four of the principal mines were involved, the low price of metals, the high costs of marketing the product with the state of affairs now existing, have all contributed to the poorness of this result. Although many

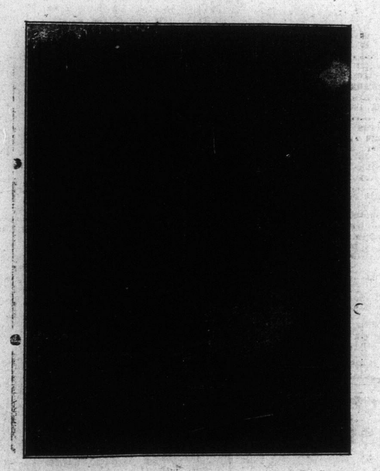
(Continued on Page 6.)



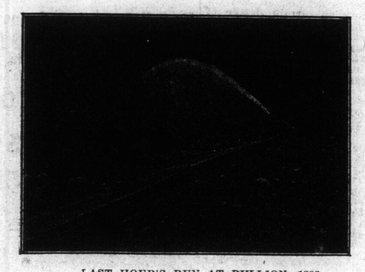
STEAM SHOVEL AT WORK IN KNOB HILL MINE PHOENIX—Mouth of tunnel hidden by loose rock.



STEAM SHOVEL AT WORK IN KNOB HILL MINE, PHOENIX—Loose Rock Cleared away from mouth of tunnel.



BORING MACHINE, LAFONTAINE, Lightning Creek.



LAST HOUR'S RUN AT BULLION, 1903