

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

- Coloured covers /
Couverture de couleur
- Covers damaged /
Couverture endommagée
- Covers restored and/or laminated /
Couverture restaurée et/ou pelliculée
- Cover title missing /
Le titre de couverture manque
- Coloured maps /
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) /
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations /
Planches et/ou illustrations en couleur
- Bound with other material /
Relié avec d'autres documents
- Only edition available /
Seule édition disponible
- Tight binding may cause shadows or distortion
along interior margin / La reliure serrée peut
causer de l'ombre ou de la distorsion le long de la
marge intérieure.

- Additional comments /
Commentaires supplémentaires:

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /
Qualité inégale de l'impression

- Includes supplementary materials /
Comprend du matériel supplémentaire

- Blank leaves added during restorations may
appear within the text. Whenever possible, these
have been omitted from scanning / Il se peut que
certaines pages blanches ajoutées lors d'une
restauration apparaissent dans le texte, mais,
lorsque cela était possible, ces pages n'ont pas
été numérisées.

TABLE OF CONTENTS.

	Page.		Page.
Our Permanent Exhibit	17	The Cassiar Central Railway Scheme	36
Editorial Notes	17	Mining on the Coast	36
A Word to English Investors	20	Notes from Kamloops	37
Revelstoke	21	Fort Steele	40
Notes from Fort Simpson	22	Selling Shares at a Discount	41
Prospecting for, Developing and Equipping a Hydraulic Mine	22	Notes from Queen Charlotte	42
Boundary Creek	23	Hot Springs Camp	43
Kaslo	25	Lardeau-Trout Lake Section	44
Vernon	25	New Denver Notes	44
The Tax on Working Miners	26	Hydraulic Mining	44
The Work of the Legislature	27	Rosland and the Trail Creek Mining Division..	45
Glimpses of the Past and Present in Yale Dis- trict	29	Deer Park	47
A New Field	31	Fairview Camp	47
Camp McKinney	31	Two Promising Companies	48
The Jewell Mine, Boundary Creek.. . . .	32	The New Metallurgical Works.. . . .	48
The Slocan	33	Mining Stock Quotations	49
The Issuing of Prospectuses.. . . .	35	Agents of MINING RECORD	50
		Mining Papers on File	50
		Catalogues of Mining Machinery	51

SEE BUSINESS DIRECTORY NEXT PAGE.



WEILER BROS.' WAREHOUSES.

ESTABLISHED 1862.

WEILER BROS.

VICTORIA, BRITISH COLUMBIA.

MANUFACTURERS OF

FURNITURE, UPHOLSTERY, ETC.

IMPORTERS OF

Crockery, Glassware, Wallpaper,
Carpets, Linoleums, Etc.

Special attention given to Bank and Office Fittings, and Hotel
and Bar Fixtures. Residences and Hotels
furnished throughout.

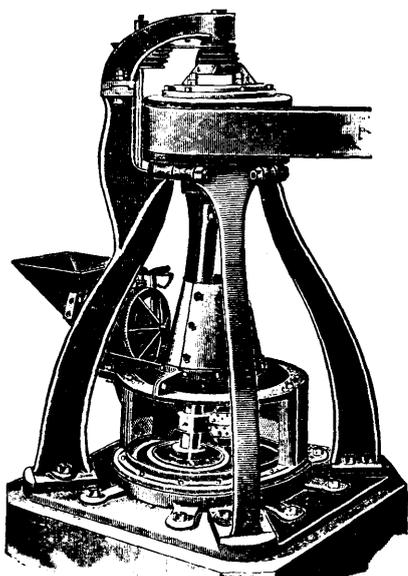
All orders, no matter how large, promptly filled, as we have

The Largest Stock in the Province.

WRITE US FOR CATALOGUE AND PRICE LIST.

BUSINESS DIRECTORY OF ADVERTISERS.

AINSWORTH—Mining Operators. Strobeck & Co	65	TRANSPORTATION COMPANIES—CONTINUED.	
ASHROFT—Livery Stables, etc. Collins & Haddock	50	International Navigation & Trading Co	66
Saddles and Harness. The Mackay S. & H. Co	8	Union S.S. Co	66
Stage Co. B. C. Express Co. Ltd	55	City of Kingston (Puget Sound Points)	62
BOSTON, MASS.—Pulverizer. Bradley Pulverizer Co	3	Pacific Coast Steamship Co	55
CALGARY, N.W.T.—Manufacturers' Agent. M. McDonald	65	VANCOUVER—Hardware Supplies. McLennan, McFeely & Co., Ltd	Cover
CHICAGO, ILL.—Mining Machinery. Gates Iron Works	7	Hotels. The Badminton	61
Mining Co. Van Anda Copper & Gold Co	56	Mining Supplies. John Boyd & Co	16
CODY—Hotel. Pacific Hotel	59	Iron Works. The B.C. Iron Works	53
Saw Mill. W. E. Terrill	59	“ “ Armstrong & Morrison	57
DENVER, COL.—Wire Rope Tramway. Col. Iron Works	5	Electric Apparatus. Canadian Gen. Electric Co	7
FORT STEELE—Surveying, etc. T. T. McVittie	63	Mining Companies. Alpha Bell Gold Quartz Mg. Co	11
GERMANY—Mining Machinery. Fried Krupp	3	“ “ Fern Gold Mining & Milling Co	14
GREENWOOD CITY—Newspaper. Boundary Creek Times	9	“ “ Fanny Bay Gold Mining Co	15
KAMLOOPS—Livery and Freighting. Thos. Hornby	8	“ “ B.C. Mining Prospectors' Ex. Ld	60
KASLO—Mining Broker. W. J. Twiss	60	Mining Brokers. Wulffsohn & Bewicke, Ltd	4
Mining Investments. Wm. Meadows	60	“ “ F. C. Innes	15-63
Mining Engineers. Tretheway & Bucke	5	“ “ A. A. Jones	49
Hotel. The Kaslo	59	“ “ Rankin & Thynne	63
LONDON, ENGLAND—Journal. The Shareholder	5	“ “ McKinnon, DeBeck & Co	63
The Mining Journal	4	“ “ A. A. Roak & Co	12
Map of Kootenay—Mining and Geographical Institute	7	“ “ James A. Fraser	52
MONTREAL, QUE.—Mining Machinery. Canadian Rand Drill Co	Cover	“ “ Henry Benjamin	57
NEW DENVER—Assayer, etc. Howard West	8	“ “ Davey & Bosomworth	60
Hotel. New Market Hotel	58	Assayers. J. A. Macfarlane	59
Hotel. St. James Hotel	59	“ W. Pellew-Harvey	8-58
NEW WESTMINSTER—Miners' Supplies. R. F. Anderson & Co	5	“ J. W. Austin	11-60
Hotel. Colonial Hotel	65	Assayers' Supplies. Macfarlane & Co	8
Assayer. F. Riechenbach	60	Mining Engineer. J. Olympe Smith	58
NANAIMO—Coal Company. New Vancouver Coal Co	Cover	Wholesale Grocers. Oppenheimer Bros	5
NELSON—Hotel. The Clarke Hotel	59	Hydraulic Mining Expert. Mahon, McFarland & Mahon, Ltd	58
Hotel. Nelson Hotel	63	Gold Extracting Co. Cassell Gold Extracting Co	8
Assayer. Walter J. Brown	65	Mining Supplies. Thos. Dunn & Co	9
NEW YORK, N. Y.—Blasting Machines. James Macbeth & Co	4	Furniture. Shelton & Co	13
Carbons, Drills, etc. Theodor Lexow	8	Mining Engineers. Bewick, Moreing & Co	Cover
Mining Journal. The Engineering and Mining Journal	4	Mining Machinery. The Wm. Hamilton Mfg. Co	Cover
NEWARK, N. J.—Platinum Refiners. Baker & Co	60	Machinery Agents, etc. E. H. Heaps & Co	63
REVELSTOKE—Hotel. Columbia House	59	Commission Merchants. Wilson & Dixon	9
Newspaper. Revelstoke Herald	9	Typewriter. Lyster & Co	59
ROSSLAND—Mining Brokers. Henry Croft	61	Banks. Bank of Montreal	10
Mining Brokers. Cowper-Coles & Johnson	60	“ Bank of British Columbia	10
“ Harris Cousins & Co	58	“ Bank of British North America	12
General Supplies. Hunter Bros	65	“ Imperial Bank of Canada	13
Hotel. Lancaster Hotel	59	VERNON—Mining Broker. F. Adrian Meyer	59
Mining Abstracts, etc. Rossland Mining Abstract Co	63	VICTORIA—Notice to Land Surveyors	61
Assayers & Mining Engineers. C. C. Woodhouse, Jr	61	Notice to Joint Stock Companies	61
“ Ordway & Clarke	58	Iron Works. Albion Iron Works	Cover
SLOCAN CITY—Mining Broker. C. M. Woodworth	52	Assayer. W. J. R. Cowell	65
Tinsmith. H. J. Robertson	58	Metallurgical Works. W. J. R. Cowell	65
Assayers. Gwillim & Johnson	58	General Stores. Hudson's Bay Co	Cover
Hotels. Arlington Hotel	59	Explosives. Hamilton Powder Co	8
SANDON—Assayers. Hill & Co	65	Electric Supplies. The Royal Electric Co	51
Mining Brokers. Rand & Wallbridge	65	Preserves. Okell & Morris	9-52
“ S. B. Hendee	60	Wholesale Dry Goods, Liquors, etc. Turner, Beeton & Co	Cover
Solicitor, etc. M. L. Grimmett	52	Mining Brokers. A. W. More & Co	61
SAN FRANCISCO, CAL.—Mining Machinery. Joshua Hendy Works	6	“ Dier, Davidson & Russell	16
Assayers' Supplies, etc. John Taylor & Co	8	“ John A. Wilson & Co	55
Water Wheels. Pelton Water Wheel Co	3	“ Beaumont Boggs	58
“ Girard Water Wheel	7	“ Pemberton & Son	53
Hoists. Union Gas Engine Co	6	“ Geo. D. Scott	50
Hercules Gas Engine Works	63	“ A. W. Taylor	59
Steel Shoes and Dies. Geo. W. Pennington & Sons	3	Miners' Supplies. E. G. Prior & Co	9
Electric Mining. Electric Engineering Co	7	Mining Companies. Silver Band	5
Metallurgical Works. O. A. Luckhardt & Co	8	“ Omineca Hydraulic Mining Co	4
SPOKANE, WASH.—Mining Brokers. Rex & Jordan	65	“ Br. Pac. Gold Property Co. Ltd	54
Mining Brokers. G. P. Mulcahy & Co	65	“ Van Anda Copper & Gold Co	56
SPRINGFIELD, O.—Water Wheels. James Leffel & Co	5	“ Victoria Texada Mining Co	58
TACOMA, WASH.—Engravings. Spike Bros	6	*Mining Publication. Directory of Mines	29
TRAIL—Hotel. The Meakin Hotel	59	Books and Stationery. T. N. Hibben & Co	63
Mines and Mining. E. S. Topping	Cover	Dry Goods. Lenz & Leiser	11
Mining Properties. D. M. Watters	8	Furniture. Weiler Bros	1
TRANSPORTATION COMPANIES—Canadian Pacific Ry.	64	Hotels. Occidental Hotel	59
Northern Pacific Railway	62	Wholesale Merchants. R. P. Rithet & Co	9
Chicago, Milwaukee & St. Paul Railway	62	Biscuits, etc. M. R. Smith & Co	9
Minneapolis, St. Paul & Chicago	62	Brewing Co. The Milwaukee Brewing Co. Ltd	52
Canadian Pacific Navigation Co	66	Coffees and Spices. Stemler & Earle	9
The Columbia & Kootenay S. N. Co	66	Drain Pipes. B.C. Pottery Co	4
Columbia & Western R.R.	66	News Dealer. Geo. Marsden	4
Spokane Falls & Northern Railway	62	Prospecting	66
Nelson & Fort Sheppard	62	Banks. Bank of Montreal	10
Red Mountain Railway	62	“ Bank of British Columbia	10
Kaslo & Slocan R.R.	66	“ Bank of British North America	12
		WELLAND, ONT.—Dredgers, etc. M. Beatty & Sons	6



THE ACKNOWLEDGED
Perfect Pulverizer

OF ALL REFRACTORY SUBSTANCES

IS THE

"GRIFFIN MILL,"

WHOSE first cost, wear, and operating expense is much less than stamp mills, and which yields a larger product at less cost than any other mill, with perfect success in every instance.

It will work by either the wet or dry process, and deliver a uniformly-sized finished product of from 30 to 350 Mesh, with equal facility. Its capacity is three to four tons per hour on Phosphate Rock; one and a half to two tons per hour on Portland Cement, Quartz Ores, etc.

Correspondence solicited, and Illustrated Descriptive Catalogue sent free by mail on application to

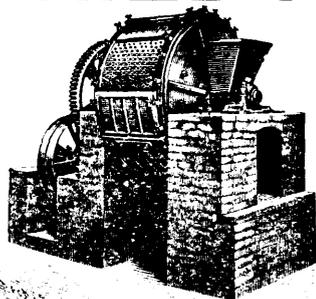
BRADLEY PULVERIZER CO.,

NO. 92 STATE STREET,

BOSTON.

FRIED KRUPP GRUSONWERK

Engineering Works,
Iron and Steel Foundry,
Mining and Mill Machinery.



Gruson Rock and Ore Crushers of specially strong construction, Roller Mills, Stamp Batteries, Chrome Steel Shoes and Dies, Ball Mills with a continuous feed and discharge, improved system for reducing ores to any degree of fineness—more than 1,000 at work. Amalgamating Apparatus, Hydraulic Classifiers, Jig Machines, Round Buddies, Improved Rotary Tables, Sweeping Tables; Amalgam Cleaners, Amalgam-Distilling and Gold-Smelting Furnaces, etc.

CYANIDE PLANTS—COMPLETE CONCENTRATION PLANTS.

SIXTEEN AWARDS AT THE COLUMBIAN EXPOSITION.

AGENTS: CANADA—JAS. W. PYKE & SONS, 35 St. Francois Xavier St., MONTREAL.

UNITED STATES—THOS. PROSSER & SON, 14 Gold St., NEW YORK.

MEXICO—Oficina Tecnica de las Fabricas de Fried Krupp, Essen y Fried Krupp Grusonwerk, Magdeburg-Buckau, Cadena 3, MEXICO.

SOUTH AFRICA—UNITED ENGINEERING COMPANY, Ltd., P.O. Box 399, JOHANNESBURG, S.A.R.

MAGDEBURG-BUCKAU

GERMANY.

The Pelton Water Wheel

* * * * *

Affords the most Simple, Economical and Reliable Power for Mining and other purposes.

* * * * *

6,000—WHEELS NOW RUNNING—6,000

While opinions may differ more or less as to the merits of other Water Wheels, there is but one opinion in regard to the PELTON.

It gives more value for the money than any other appliance known.

CATALOGUES
FURNISHED ON
APPLICATION.



Address, PELTON WATER WHEEL CO., "Dept. H.," 121 Main Street.

SAN FRANCISCO, CAL.

THE CALIFORNIA

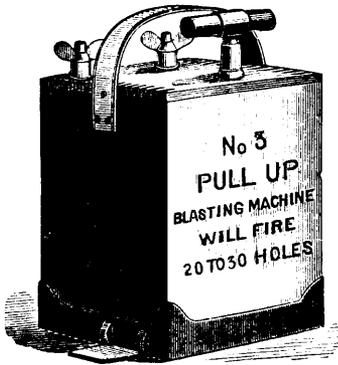
THE CELEBRATED

HAMMERED STEEL SHOES AND DIES

Warranted not to clip off or batter up. A HOME PRODUCTION.

Best Refined Cast Tool Steel, Well Bit Steel, Heavy and Light Iron and Steel Forgings of all Descriptions.
218 & 220 Folsom St. **GEO. W. PENNINGTON & SONS,** San Francisco, Cal.

Please mention this paper.



Electric Blasting Apparatus.

MANUFACTURED ONLY BY

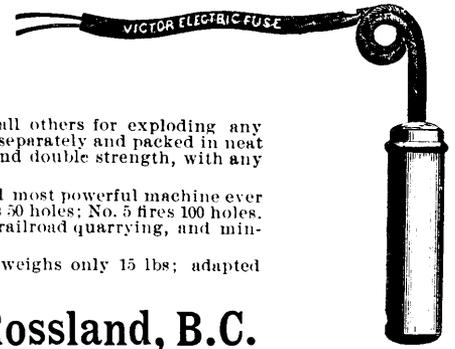
JAMES MACBETH & CO., New York, U.S.A.

• • • •

VICTOR ELECTRIC PLATINUM FUSES—Superior to all others for exploding any make of dynamite or blasting powder. Each fuse folded separately and packed in neat paper boxes of 50 each. All tested and warranted. Single and double strength, with any length of wires.

"PULL UP" BLASTING MACHINE—The strongest and most powerful machine ever made for Electric Blasting. No. 3 fires 30 holes; No. 4 fires 50 holes; No. 5 fires 100 holes. They are especially adapted for submarine blasting, large railroad quarrying, and mining works.

VICTOR BLASTING MACHINE—No. 1 fires 5 to 8 holes; weighs only 15 lbs; adapted for prospecting, stump blasting, well sinking, etc.



Send for Catalogue.

Jenckes Machine Co., Agents, Rossland, B.C.

Wulffsohn & Bewicke, Ltd., BANKERS, MINING BROKERS, FINANCIAL, REAL ESTATE AND INSURANCE AGENTS.

Representing Lancashire Fire Insurance Co., of Manchester; Hamburg-American Packet Co.; Mercantile Development Co., Ltd., London; Anglo-Western Pioneer Syndicate, Ltd.

MINING PROPOSITIONS FINANCED.

VANCOUVER, B.C.; Dock House, Billiter St., LONDON, E.C.; VERNON, B.C.

CABLE ADDRESS:—"WULFFSOHN," VANCOUVER, CANADA.

DON'T LET YOUR RIVAL GET AHEAD OF YOU; READ THE GREAT

The = Engineering = and = Mining = Journal, OF NEW YORK.

\$5

WILL SAVE TIME AND MONEY TO KNOW WHAT OTHERS ARE DOING IN YOUR LINE OF BUSINESS, AND BRING THE PAPER TO YOU 52 TIMES DURING THE YEAR.

Subscriptions received at the office of the BRITISH COLUMBIA MINING RECORD. Sample copies can also be had at this office.

\$5

The Omineca Consolidated Hydraulic Mining Co., Ltd.

Incorporated under the "Companies' Act, 1862" (Imperial).

CAPITAL, \$100,000, SHARES (PAR VALUE) \$1.00 EACH.

Payable in instalments of 10 per cent at intervals of 60 days.

PRESIDENT, M. MCGREGOR.

SECRETARY-TREASURER, J. T. BETHUNE.

MANAGER, C. N. BLACK, C.E.

Offices: 30 BROAD STREET, VICTORIA, B.C.

Only \$10,000 of this Stock for Sale.—The company's property comprises 720 acres of placer ground and two-thirds interest of the same on Manson Creek, Omineca District, and possesses a water grant of 4,600 inches. Ditch nearly completed last season. Will commence operations early in May next.

Established Over Sixty Years.

THE MINING JOURNAL,

The best, oldest and most widely circulated and influential Mining Paper in the world.

Subscription for British Columbia, £1 8s. per annum.

OFFICES: 18 FINCH LANE, LONDON, E.C.

British Columbia Pottery Company, Limited,
VICTORIA, B.C.

Salt Glazed Vitrified Sewer Pipe.

TERRA COTTA CHIMNEY PIPE,

Saves cost of Brick Chimneys

Can be set up by anyone. Accepted by all Insurance Companies.
FIRE BRICK—ALL KINDS OF FIRE CLAY GOODS.

ALL THE LEADING PAPERS OF AMERICA

Are represented in Victoria by

GEORGE MARSDEN, *

NEWS AGENT

FINE TOBACCOS and CHOICE CIGARS.
Agent for the "B.C. Mining Record."

Cor. Yates & Govt. Streets,

VICTORIA, B.C.

The Finlayson Patent Wire Rope Tramway

embodies all the good features of the old systems with the addition of many new patented ones, making the most perfect system of rope haulage extant. It is strictly automatic and its capacity runs up to 1,000 lbs. per bucket. Write for special catalogues.

The Colorado Iron Works Co., Denver, Col.

**SOLE AGENTS and
MANUFACTURERS**

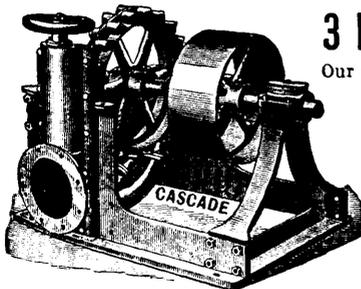
Catalogues &
Information
on application.

TO THE BRITISH COLUMBIA MINING FRATERNITY: We beg to announce that we have been manufacturing Ore Dressing Machinery for many years. Our location in the greatest mining centre in the world has made our experience practical, and being thoroughly familiar with the latest and best practices our machinery is designed and constructed accordingly. Our Specialty is **Milling and Smelting Plants and Equipments.** Anything in this line is in our own line, and it is a pleasure always to answer inquiries. We have of late been giving especial attention to Ore Crushing Plants for the Chemical Processes, and are now installing them and guaranteeing any capacity per day desired to any degree of fineness.

Our Ore Testing Plant on our premises has a capacity of from five to ten tons per day for concentration and amalgamation, and is in charge of a competent chemist and mill man.

THE COLORADO IRON WORKS CO., DENVER, COL.

Turbine AND Cascade **WATER WHEEL**



Adapted to all Heads from
3 Feet to 2000 Feet

Our experience of **33 YEARS** building Water Wheels enables us to suit every requirement of Water Power Plants. We guarantee satisfaction.

Send for a Pamphlet of either Wheel and write full particulars.

James Leffel & Co.
SPRINGFIELD, OHIO, U.S.A.



Wm. J. Trethewey, M.E. Maurice A. Bucke, M.E.
TRETHEWEY & BUCKE,
MINING ENGINEERS

Fifteen years' experience
Silver Lead Mining. . . .
Mooring & Neal's Code. Cable address, WURRUS.

KASLO, British Columbia.

Oppenheimer Bros.

**WHOLESALE
GROCERS,**

VANCOUVER, B.C.

THE **SHAREHOLDER**

TELEGRAMS: "Suasible," London.

A Financial "Review of Reviews."

PUBLISHED EVERY MONDAY IN LONDON, ENG.

Head Office:—88 Fleet Street, London, E.C., England.

YEAR'S SUBSCRIPTION 8s. 8d.

The World's Financial Press Condensed

SILVER BAND MINING CO., LTD., LTY

CAPITAL \$250,000.00.
In One Million Shares of 25 cents each.

TRUSTEES:

E. B. MARVIN, J. G. COX, C. J. KELLEY, J. L. FORRESTER, F. W. ADAMS,
F. F. HEDGES, E. FOYLE SMITH.
DRAKE, JACKSON & HELMCKEN, Solicitors. F. F. HEDGES, Secretary-Treasurer.

Shares issued at par value, therefore investors know that further calls cannot be made. All shares pooled until development stock is sold.
Mine situated near Slocan Lake, eight miles from Silverton.

Office, 74 Wharf Street,

VICTORIA, B.C.

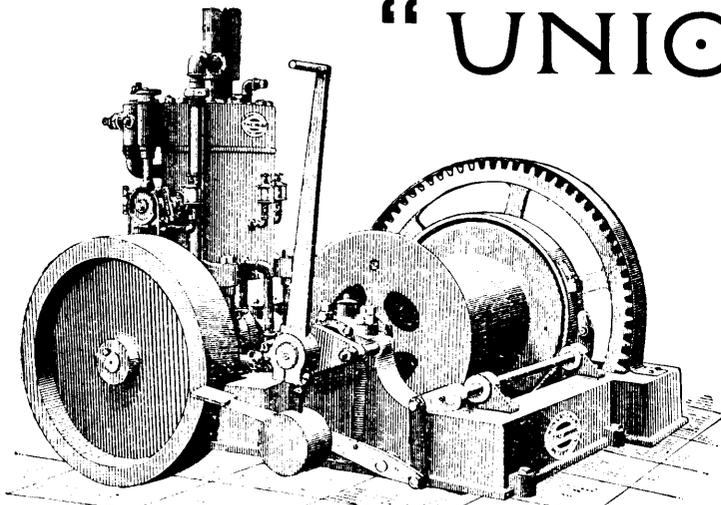
R. F. Anderson & Co. COLUMBIA HARDWARE HOUSE, NEW WESTMINSTER, B.C.

General Hardware, Picks, Shovels, Steel, &c., Dynamite Fuse and Quicksilver.

ALUMINUM CAMP OUTFITS for Prospectors and Miners.

WRITE FOR PRICES.

"UNION" HOIST



NO FIRE! NO STEAM! NO BOILER! NO DANGER!

Particularly adapted to Mining and Ship Wharf use. . . .

Started instantly. Compact, strong, simple, efficient, economical. Perfectly governed, so that oil is used only in proportion to the work done. No expense when idle.

Ten years' experience. About 2,000 engines in use. Send for Catalogue, and state h.p. required.

UNION GAS ENGINE CO.

303 Howard Street,

SAN FRANCISCO, - - - CAL.

UNION GAS OR OIL ENGINE & HOIST COMBINED—On Strong Iron Base. 6 to 50 h.p. of design shown in cut.

M. BEATTY & SONS,

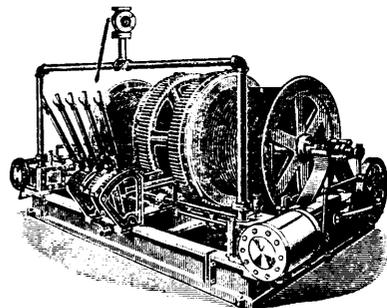
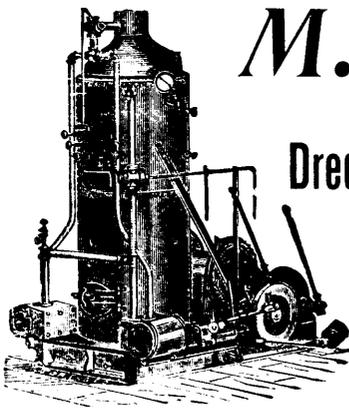
WELLAND, ONTARIO,

Dredges, Ditchers and Steam Shovels,

For Dredging, Ditching, Dyking, Gold Mining, Etc. Of various styles and sizes to suit any work.

Mine Hoists, Hoisting Engines, Stone Derricks, Horsepower Hoisters, Suspension Cableways, Submarine Rock Drilling Machinery, Gang Stone Saws, Centrifugal Pumps for Drainage Works, Pumping Sand, Gold Mining, Etc.

We also furnish WIRE ROPE at Lowest Prices.



Joshua Hendy Machine Works,

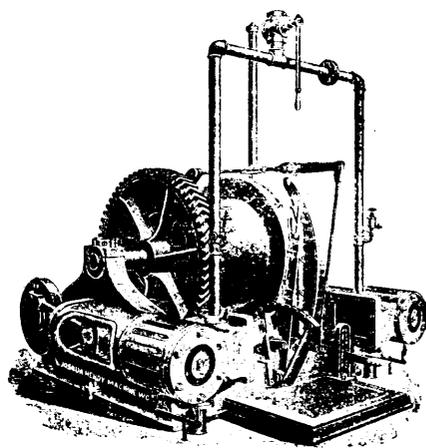
Nos. 38 to 44 Fremont St., SAN FRANCISCO, Cal., U.S.A.

—MANUFACTURERS OF AND DEALERS IN—

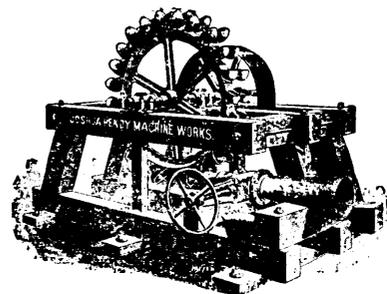
Hydraulic ⁿ Quartz Mining ⁿ Milling Machinery

—COMPRISING—

HYDRAULIC GIANTS,	CONCENTRATORS,
WATER GATES,	SMELTERS,
SHEET IRON and	HOISTING and
STEEL PIPE,	PUMPING PLANTS,
STAMP MILLS,	SAW MILLS,
ORE CRUSHERS,	MINE and MILL
ORE FEEDERS,	SUPPLIES, Etc., Etc.



HOISTING ENGINE.



IMPACT WATER WHEEL.

Catalogues and Prices Furnished Upon Application

ENGRAVINGS!

——————

PORTRAITS! BUILDINGS! SCENERY!

Fac-similes of Signatures, Letters and Engravings of all kinds for Book and Newspaper Printing. Map Engravings from Tracings. Also Reproductions from Photographs, Brush Drawings and Prints. Fine Book and Catalogue Illustrations. Good Work at Low Prices.

SPIKE BROS.' COMPANY, Tacoma, Wash.

ELECTRICITY IN MINING.

Manufacturers of *Dynamos and Motors for operating Quartz-Mills, Hoisting Works, etc.*

DIRECT ELECTRIC ELEVATORS.

Electrical Engineering Co.

34 and 36 MAIN ST.,

SAN FRANCISCO, CALIFORNIA, U.S.A.

Water Wheels

**HIGH EFFICIENCY.
ACCURATE AND RELIABLE.
REGULATION UNDER ALL CON-
DITIONS OF WORK.**



GIRARD

WATER WHEEL.



34 MAIN ST. SAN FRANCISCO, CAL.

CANADIAN GENERAL ELECTRIC CO., LD.

HEAD OFFICES: TORONTO, ONT.

CAPITAL, : : : : \$1,500,000.

FACTORIES: PETERBORO, ONT.

BRANCH OFFICES: HALIFAX, N.S. MONTREAL, QUE. WINNIPEG, MAN. NELSON, B.C. VANCOUVER, B.C.

Manufacturers of Electric Mining Apparatus

HOISTS, PUMPS, BLOWERS, FANS, BLASTING APPARATUS, DYNAMOS FOR LIGHTING AND POWER, MOTORS FOR ALL PURPOSES.

ELECTRICAL TRANSMISSION OF POWER SUCCESSFULLY OPERATED UP TO 50 MILES BY OUR **THREE PHASE TRANSMISSION SYSTEM**

WRITE US.

NELSON

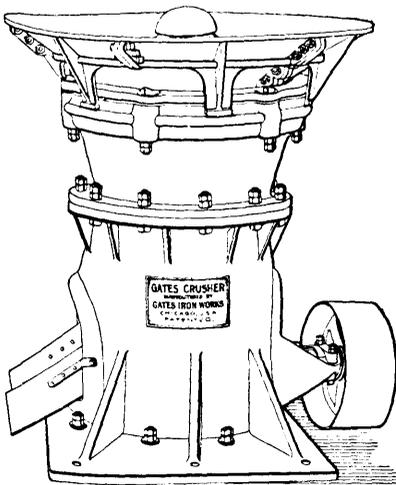
BRANCH OFFICES IN BRITISH COLUMBIA.

VANCOUVER

"A BREAKER RECORD" THAT IS
"A RECORD BREAKER"

Is a desirable record for a Breaker to make.
This is the record of . . .

GATES ROCK & ORE BREAKER



All the advantages that nearly three score years of experience as manufacturers of this class of machinery can give are united in this machine.

Fifty years' experience in building every kind of

Mining Machinery

We have built and equipped the largest and most successful plants in the world treating the precious ores.

We employ a corps of engineers to study the requirements of our clients.

**GATES IRON WORKS, Dept SS,
650 Elston Ave., - Chicago.**

Mining © Map

—OF—

Kootenay

JUST PUBLISHED.

No. 1 of a series of Mining Maps of British Columbia, by the compilers of the latest Mining Maps of

Africa, West Australia, New Zealand, India, Etc.

The above Map shows on large scale all mining properties at ROSSLAND and is right up to date.

PRICE, in coloured Sheets, carriage paid, \$6.00.
" mounted in case to fold, " " 7.50.

The Mining and Geographical Institute.

274 MILKWOOD ROAD,

HERNE HILL, LONDON, ENGLAND.

C. A. LUCKHARDT & CO. Nevada Metallurgical Works
Established 1869.
 A. H. WARD **ASSAYING, ANALYSIS, SAMPLING.** H. C. WARD
 STAMP MILL & CONCENTRATOR IN OPERATION ON PREMISES. Practical Working Tests of Ore by all Processes.
 71 and 73 Stevenson Street, **SAN FRANCISCO, CAL.**

BRITISH COLUMBIA BRANCH—HAMILTON POWDER CO.
(Incorporated 1861.) Manufacturers of
High Explosives, Blasting, Mining and Sporting Powder.
 DEALERS IN ELECTRIC BLASTING APPARATUS, SAFETY FUSE, DETONATORS, ETC.
HEAD OFFICE: MONTREAL.

BRANCH OFFICE:

LOCAL OFFICES:

WORKS:

VICTORIA.**VANCOUVER AND NELSON.****NANAIMO.**

Established during the first gold discoveries in California. Incorpor'td. 1895

JOHN TAYLOR & CO.,

63 FIRST ST., SAN FRANCISCO, CAL.



Importers and Manufacturers of Assayers' Mine and Mill Supplies, Chemicals and Chemical Glassware and Apparatus.

All articles required for a chemist or assayer and for fitting up a quartz mill. None but the best chemicals, crucibles and other appliances, such as our long experience assures us to be the best, are kept in stock, and all furnished at reasonable prices.

Agents for the Pacific Coast of The Denver Fire Clay Co. and Morgan Crucible Co., Battersea, England.

Borax, Bone Ash, Cyanide Potass., Manganese from our own mine for working sulphurets and gold ores, in ton or car lots, and other articles of Californian production at manufacturers' prices.

Our new illustrated catalogue and assay tables sent free on application.

D. M. WATTERSMINING PROPERTY examined and reported on.
 CODES—Clough's and Bedford McNeill's. . . .Office, **TRAIL, B.C.****W. PELLEW-HARVEY, F.C.S.**

(Mem. Fed. Inst. M. and M.E.)

Assayer and Mining Engineer.

Appliances for testing Parcels up to 200 pounds.

PENDER ST. VANCOUVER, B.C.**THEODOR LEXOW** 195 BROADWAY, NEW YORK,
(WESTERN UNION BUILDING.)

IMPORTER OF

CARBONS (Black Diamonds).FOR DIAMOND DRILLS AND ALL MECHANICAL
 PURPOSES.**HENRY DEMMERT.****HOWARD WEST** MINING ENGINEER

(Associate of Royal School of Mines, London, Eng.)

Properties examined and reported on for intending purchasers.
 Three years in the Kootenay. A.B.C. Code.**Bellevue Ave.,****NEW DENVER, B.C.****The Cassel Gold Extracting Co., Ltd.**
 OF GLASGOW.**The MacARTHUR-FORREST PROCESS—Cyanide.**

Send samples for experimental purposes and full treatment report. Full particulars on applying to the Canadian agent of the Company,

W. PELLEW-HARVEY, F.C.S., - VANCOUVER, B.C.**ASSAY AND MINING SUPPLIES.**

WE are Manufacturers and direct Importers, and carry a Large Stock of Balances, Furnaces, Fire Clay Goods, Glassware, Platinum, Acids, Chemicals, and all other Assayers' and Miners' requirements. Write for prices to

**MACFARLANE & CO., - - VANCOUVER, B.C.****The Mackay S. and H. Co.,**Manufacturers and Importers of
HARNESS, SADDLES, BRIDLES, WHIPS, ETC.
 ASHCROFT, B.C.**THOS. HORNBY, Pioneer Stables,**
KAMLOOPS, B.C.Freight, Express and Teaming of every description promptly attended to. Dealer in Coal and Wood.
 Sale and Boarding Stables: Victoria Street.

R. P. RITHEB & CO.,

WHOLESALE MERCHANTS, SHIPPING AND INSURANCE AGENTS.

PROPRIETORS OF VICTORIA WHARF, OUTER HARBOUR, COLUMBIA FLOURING MILL, ENDERBY, AND VERNON MILLS, VERNON.

Agents for Victoria Lumber and Manufacturing Company, Chemainus, V.I.; Victoria Canning Company of British Columbia; Fraser River, Skeena River and River's Inlet Canneries; Skeena River Packing Company, Skeena River; Lowe Inlet Packing Company, Lowe Inlet; Pacific Coast Steamship Company, San Francisco; Puget Sound Tugboat Company, Port Townsend; Queen Insurance Company of America (Fire); English and American Marine Insurance Co's.

LLOYD'S AGENCY. HAWAIIAN CONSULATE.

WHARF STREET, - - - VICTORIA, B.C.

FOR MINING SUPPLIES

Send your orders or Write for prices to

Thos. Dunn & Co., Ltd.

We have the Largest Stock of this class of Goods on the Coast—Steel Picks, Shovels, Hammers, Coal, Wire Rope, Manilla Rope, Blocks, Dynamite, Fuse Caps.

VANCOUVER, B.C.

Okell & Morris Fruit Preserving Co.

MANUFACTURERS OF

Candies, Mincement; Orange, Citron and Lemon Peels. Preserves and Marmalade.

Pickles and Vinegars.

We claim without exception to make the Purest and Best Selling Goods in Canada. Our manufactures are carried by the following well-known and fair-dealing wholesale firms in Vancouver and Victoria:

Braid & Co.
R. P. Rithet & Co., Victoria.
Wilson Bros.,
J. H. Todd & Son, "

Wilson Bros., Vancouver.
S. Leiser & Co., Victoria.
Hudson Bay Co., "
T. Earle, "

VICTORIA, B.C.

M. R. SMITH & CO. ★

ESTABLISHED 1858.

BISCUIT MANUFACTURERS.

GOLD MEDALS awarded at Royal Agricultural Exhibitions, 1895-96. MEDAL AND DIPLOMA awarded at Colonial & Indian Exhibition 1886

SILVER MEDALS at Provincial Exhibition.

VICTORIA, - - B.C.

FOR INFORMATION respecting the promising BOUNDARY CREEK MINING DISTRICT,

—SUBSCRIBE TO THE—

"BOUNDARY CREEK TIMES,"

Published at Greenwood City, B.C.

The "Times" is the best, and the only reliable mining journal published in this section.

Wilson & Dixon COMMISSION MERCHANTS.

VANCOUVER, B.C.

REPRESENTING

THE COPP BROS. CO., LTD., Hamilton, Ont.—Manufacturers of Stoves and Tinware, Furnaces, Agricultural Implements, Road Machines, Rock Crushers, &c., &c.

BROWN, BOGGS & CO., Hamilton, Ont.—Manufacturers of Canniers' and Tinners' Tools and Machines.

DOWSWELL BROS. CO., Hamilton, Ont.—Manufacturers of Wringers, Washing Machines, Churns, &c.

R. McDUGALL & CO., Galt, Ont.—Manufacturers of all kinds of Iron Pumps, Hot Water Furnaces, &c.

P.O. Box 176.

Telephone 265.

Write us for Catalogue

E. G. PRIOR & CO., Ltd. Ltd.

VICTORIA, VANCOUVER and KAMLOOPS.

MINING SUPPLIES.

JESSOP'S DRILL STEEL, BAR IRON, all sizes, STRIKING HAMMERS, ORE TRUCKS, TRACK IRON, BLACKSMITHS' TOOLS, BUILDERS' HARDWARE.

FARM IMPLEMENTS and VEHICLES of all descriptions.

—WRITE FOR PRICES.—

PIONEER STEAM COFFEE & SPICE MILLS,

ESTABLISHED 1868.

Manufacturers of Coffee, Spices, Cocoa, Cream Tartar, Mustard and Baking Powder, : : :

STEMLER & EARLE, Pembroke Street,

Between Government and Douglas, VICTORIA, B.C.

Read the

"REVELSTOKE HERALD."

(SEMI-WEEKLY, WEDNESDAY AND SATURDAY)

For information with regard to Illecillewaet, Trout Lake, Lardeau, Albert Canyon, and Jordan Pass mining district and the famous Big Bend placer and quartz mining section.

BANK OF MONTREAL

ESTABLISHED 1817.

Head Office: MONTREAL.

Capital, all paid up : : \$12,000,000.00
 Reserve Fund : : : 6,000,000.00
 Undivided Profits : : : 886,909.98

SIR DONALD A. SMITH, HON. G. A. DRUMMOND,
 PRESIDENT. VICE-PRES.

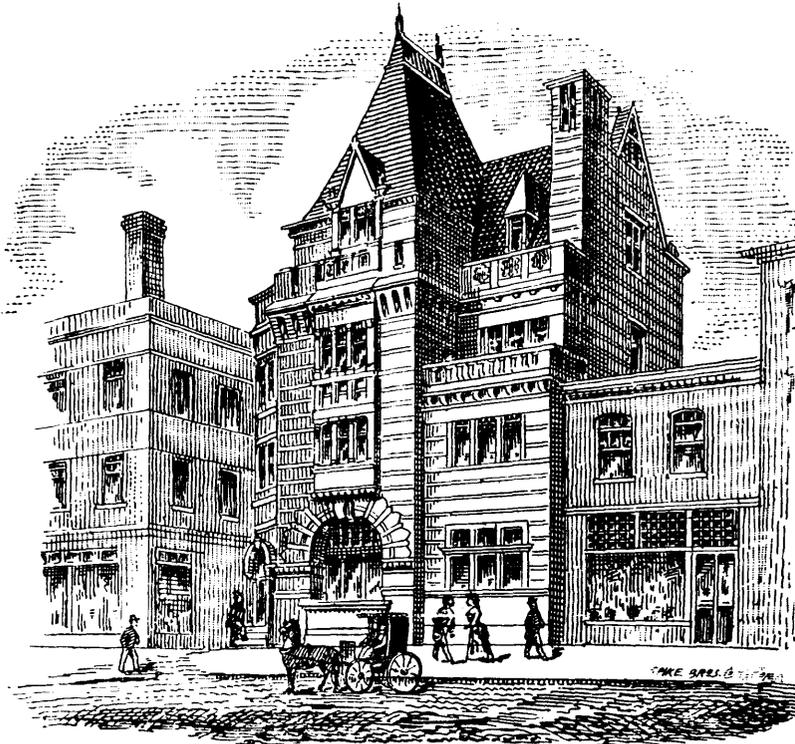
Branches in all the principal cities and towns in the Dominion of Canada; St. Johns, Newfoundland; New York, Chicago and London, Eng. And correspondents in all the leading cities in the world.

E. S. CLOUSTON, A. MACNIDER,
 General Manager. Chief Inspector and Supt. of Branches.

Branches in British Columbia :

NELSON, NEW DENVER, ROSSLAND,
 VERNON, NEW WESTMINSTER, VANCOUVER AND VICTORIA.

All General Banking Business Transacted. Commercial Letters of Credit and Travellers' Circular Letters issued, available in all parts of the world. Gold Dust Purchased.



Bank of British Columbia

(Incorporated by Royal Charter, 1862.)

Capital, (with power to increase) £600,000 \$2,920,000
 Reserve £ 100,000 \$ 486,666

Head Office, 60 Lombard St., London, England

BRANCHES :

IN BRITISH COLUMBIA :
 Victoria, Vancouver, New Westminster,
 Nanaimo, Kamloops, Nelson,
 Sandon and Kaslo.

IN THE UNITED STATES :

✧ San Francisco and Portland ✧

Agents and Correspondents :

In Canada—Canadian Bank of Commerce, Merchants' Bank of Canada, The Molsons Bank, Imperial Bank of Canada, Bank of Nova Scotia, and Union Bank of Canada. In United States—Canadian Bank of Commerce (Agency), New York; Bank of Nova Scotia, Chicago; Puget Sound National Bank of Seattle, Seattle; London and San Francisco Bank, Ltd., Tacoma. In Australia and New Zealand—Bank of Australasia. In Honolulu—Bishop & Co.

Savings Bank Department.

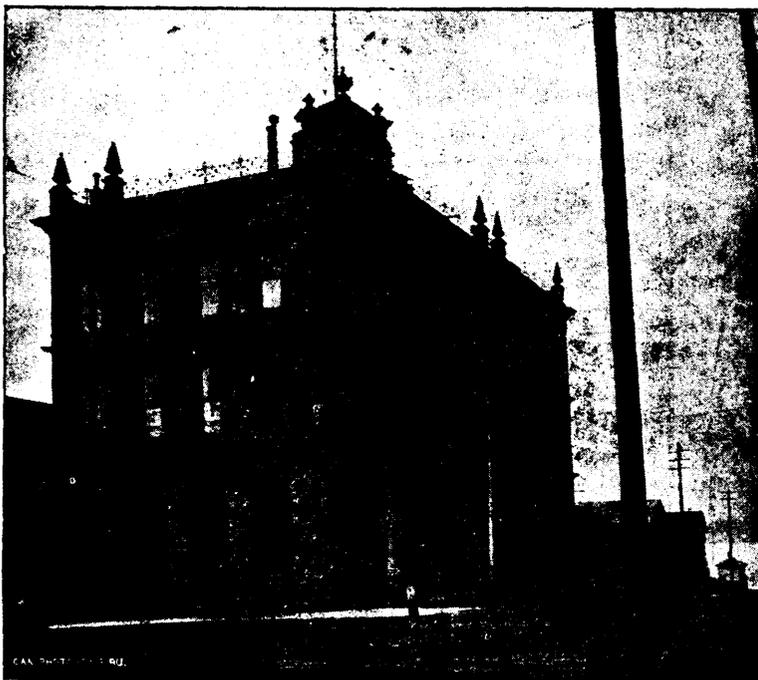
Deposits received from \$1 upwards, and interest allowed.

Gold Dust purchased and every description of Banking business transacted.

VICTORIA, B.C.

June, 1897.

Geo. Gillespie, Mgr.



ALPHA BELL GOLD QUARTZ MINING CO.

LIMITED LIABILITY

CAPITAL, - - - \$500,000.00.

In Shares of \$1.00 each, fully paid up and NON-ASSESSABLE.

PROPERTY THIS PROPERTY adjoins the celebrated "GOLDEN CACHE MINES" for 4,000 feet on the East, and comprises the MOONLIGHT, ALPHA BELL, OMEGA and SURPRISE Claims and Fractions.

LEDGES . . . THERE are at present NINE known Quartz Ledges on the Property, EIGHT of which in the aggregate show an average thickness of 47 feet of quartz. FREE GOLD and high assays have been obtained at different points, and development work is now being urged to determine actual value of the Ledges.

H. DEPENCIER, Secretary,

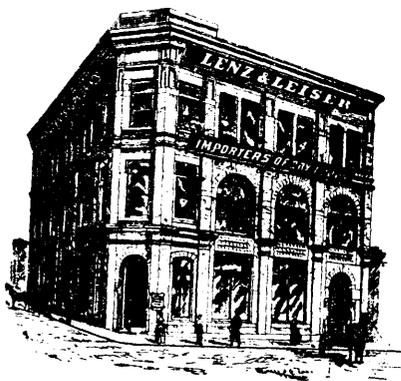
HEAD OFFICE : VANCOUVER, B.C.

M. LENZ.

G. LEISER.

LENZ & LEISER,

—IMPORTERS OF—



Foreign and

Domestic

Dry Goods,

Gents'

Furnishings,

Etc., Etc.

The Largest Stock in the Province. Have recently imported special lines for the Mining Trade.

9 AND 11 YATES ST., VICTORIA B.C.

ASSAY OFFICE AND CHEMICAL LABORATORY

J. W. Austin, ASSAYER, Etc.

Opposite Bank of B.N.A.

P.O. Box 327

PRICES

Gold	\$2 00	Zinc	\$5 00
Silver	2 00	Iron	3 00
Lead	2 00	Lime—Calcium	3 00
Copper	2 50	Silica	3 00
Tin	5 00		

Gold and Silver	\$ 2 50
Gold, Silver and Lead	4 00
Gold, Silver and Copper	4 00
Silver and Lead	3 00
Silver and Copper	3 50
Gold, Silver, Copper and Lead	6 00
Quantitative Analysis	10 00
Quantitative Analysis of Ores	\$25 00 to 50 00

SAMPLES BY MAIL OR EXPRESS.

Wrap securely in paper bags or boxes, and put no writing on the inside of the package. Mark your name or initials on the outside. If the package contains more than one sample, number them with figures; and, in a separate letter, with remittance for assay charges, give full instructions as to what test is to be made. Write name and address plainly. Send money by Post Office Order or Registered Letter.

We cannot give one party the result of another's assay without a written order from the party leaving the ore.

TERMS—CASH IN ADVANCE.

504 Hastings Street West, VANCOUVER, B.C.

A. A. BOAK & CO.

Insurance, Financial & Real Estate Agents,

MINING BROKERS

HEAD OFFICE—The LILLOOET GOLD REEFS MINING AND MILLING COMPANY, Limited.

Fire, Life, Accident and Plate Glass Insurance. . . . Employers' Liability and Guarantee Bonds.

AGENCIES - - - - In principal cities and towns of British Columbia.

SPECIAL ATTENTION given to the management of Property for non-residents. Mining Properties and Stocks of a reliable nature
Bought and Sold on Commission.

•-----CORRESPONDENCE SOLICITED-----•

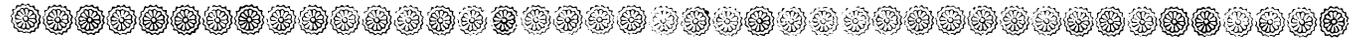
515 Hastings St. West, VANCOUVER, B.C.



Bank of British North America

{Paid up Capital, \$4,866,666}
{Reserve Fund, \$1,338,333}

Branches in B.C.—Victoria, Vancouver, Rossland, Trail,
Sandon, Kaslo and Slocan City.



 IMPORTERS AND
 MANUFACTURERS of

★ Fine
 Furniture



Shelton & Co.

UPHOLSTERERS

507 to 513 Hastings Street,

VANCOUVER, B.C.

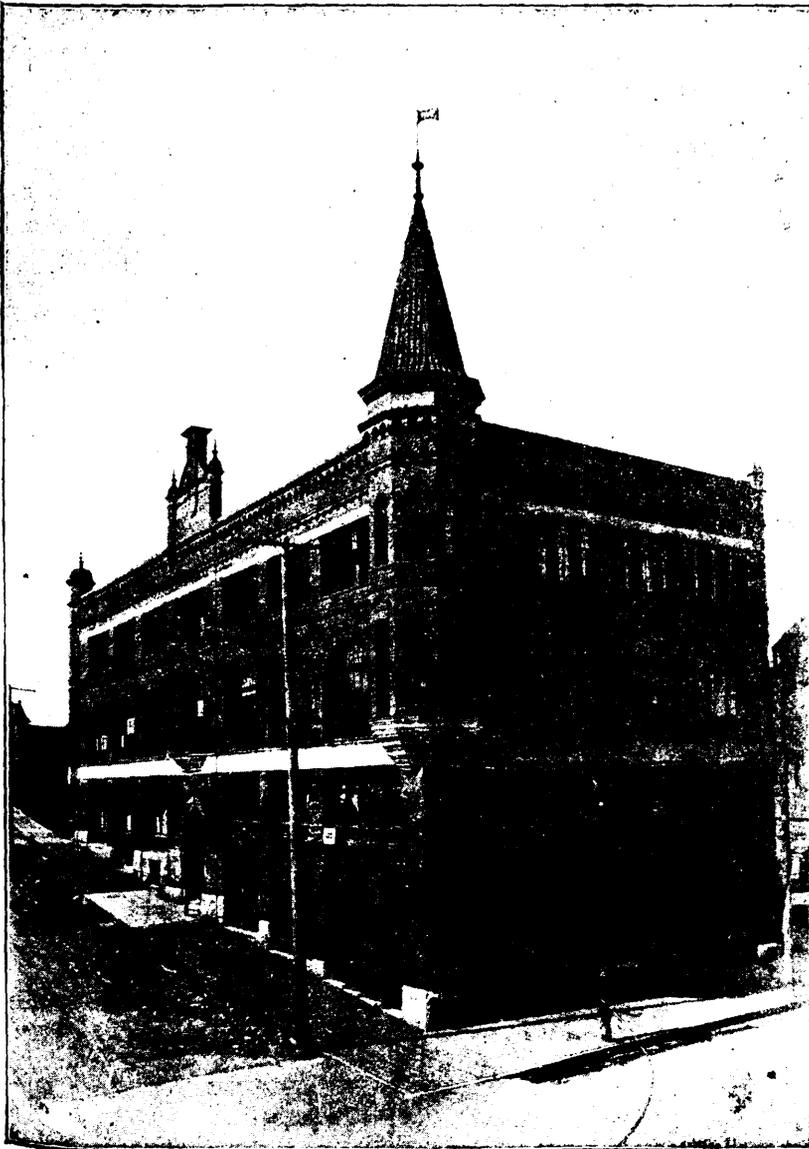


DEALERS IN

Furniture,
 Carpets,
 Linoleum,
 Oil Cloth,
 Window Blinds,
 Baby Carriages,



IMPERIAL BANK OF CANADA



CAPITAL, - - \$2,000,000.00.
 Paid up. \$1,963,000.00. Rest. \$1,156,800.00.

H. S. HOWLAND, Pres. T. R. MERRITH, Vice-Pres.
 D. R. WILKIE, General Manager.

BRANCHES :

Toronto,	Port Colborne,
Young Street Branch,	Rat Portage,
North Toronto,	Sault Ste. Marie,
Essex,	St. Catharines,
Fergus,	St. Thomas,
Galt,	Welland,
Ingersoll	Woodstock,
Niagara Falls,	

Winnipeg, Brandon, Portage La Prairie, Calgary.
 Edmonton, Prince Albert, Vancouver,
 . . Revelstoke. . .

AGENTS :

Great Britain—Lloyd's Bank, (Ltd.)
 Manchester & Liverpool.
 District Banking Co., (Ltd.)
 New York, Bank of Montreal.
 San Francisco, Wells Fargo & Co.'s Bank.
 Australia and New Zealand, Union Bk. of Australia
 Sandwich Island, Yokohama Specie Bank, (Ltd.)
 China and Japan, Hong Kong & Shanghai
 Banking Corporation.

VANCOUVER BRANCH :

A. JUKES, - Manager.

Head Office, TORONTO, ONT.

THE FERN GOLD MINING & MILLING CO.

LIMITED LIABILITY.

CAPITAL, - - - \$200,000.00.

In 800,000 Shares of 25c. each.

F. C. Innes, President and Managing Director.

Robt. G. Tatlow, Vice-President.

S. O. Richards, Director.

C. C. Bennett, Secretary.

THE FERN GROUP consists of the Mineral Claims known as the "FERN," "HIDDEN TREASURE," and "EUREKA," each a full-sized claim, 1,500x1,500 feet. Also the Fractional claim, "CHICORA," situate on Hall Creek, in the Nelson Mining Division of West Kootenay, in the Province of British Columbia.

THE FERN is a well developed Mine with enough Ore now insight to supply a 10-Stamp Mill for two years.

The value of the ore has been ascertained by milling and smelting quantities in a practical manner, and it runs from \$10.00 to \$300.00 per ton.

Five tons, taken from an open cut on the surface, and milled at the Poorman Mill, near Nelson, gave a return of \$61.00 per ton in free gold, and showed a value of \$50.00 per ton in concentrates; making a total value of \$111.00 per ton.

The tunnel at main level which is now 400 feet, on ledge, cut this same rich ore at a depth of about 160 feet below the surface, and now shows continuous rich ore for one hundred feet, which runs from \$32.00 to over \$300.00 per ton.

THE MINE is proven to be a depth of over 225 feet.

The profit on ore now in sight should be sufficient to pay twice the capital of the company.

300,000 Shares of the stock have been subscribed for by an underwriting syndicate, which guarantees all the cash required by the Company, and arrangements are now being made to equip the mine with a 10-Stamp Mill, which is hoped will be in running order in August.

Only 100,000 Shares will be offered to the public at par, and a large number of these have already been applied for.

The Prospectus contains full information, and will be furnished on application to the Brokers.

★ ————— BROKERS ————— ★

F. C. INNES,

GEO. W. HAMILTON & SON,

538 Hastings Street, W.

24 St. Sacrament Street,

VANCOUVER, B.C.

MONTREAL, P.Q.

HEAD OFFICE:

▶ VANCOUVER, B.C.

CODES : A. B. C. 4th Edition. Moreing & Neal. Bedford-McNeil

F. C. INNES

MINING · BROKER



Mining Properties in all parts of the Province for sale, either for cash or on bond.

☞ Mining Stocks Bought and sold on Commission.

CORRESPONDENCE SOLICITED.

VANCOUVER, ★ British Columbia.

FANNY BAY GOLD MINING COMPANY, LIMITED LIABILITY.

CAPITAL, - - - \$600,000.00.

MINE CLAIMS at PHILLIPS ARM.

Incorporated under the Companies' Act, 1890, and Amending Acts of British Columbia.

✠ ————— OFFICERS ————— ✠

- PRESIDENT—Charles Nelson, Wholesale and Retail Druggist, Vancouver, B.C.
- VICE-PRES.—A. St. George Hamersley, Barrister-at-Law, Vancouver, B.C.
- DIRECTORS—F. R. Stewart, Wholesale Merchant, Vancouver, B.C.
- James Stark, Wholesale and Retail Dry Goods Merchant, Vancouver, B.C.
- J. Duff Stuart, Wholesale and Retail Stationer, Vancouver, B.C.
- James McNerhanie, J.P., Fanny Bay, B.C.
- John J. Banfield, Financial and Insurance Agent, Vancouver, B.C.

BANKERS—Imperial Bank of Canada.

SOLICITOR—A. St. G. HAMERSLEY,

SECRETARY—J. J. Banfield, 411 Cordova Street.

DEVELOPMENT MOST of the development work has been done on the COON CLAIMS, from which the following returns have been received: Tacoma Smelter and Refinery Company, assayed 1,766 lbs., and their return per ton, \$105.33 in Gold and Silver.

W. Pellew Harvey, F.C.S., Mem. N. Eng. Ins. M. & M.E., assayed samples from 10 Bags Ore, and secured returns of \$93.34 per ton.

In order to more fully develop the above Claims, the Directors have placed on the market 27,500 SHARES, which they offer to the public at 12 1-2c., fully paid up and non-assessable. Application for which can be made to the Secretary,

JOHN J. BANFIELD, SECRETARY,

411 Cordova Street,

VANCOUVER, B.C.

W. A. DIER.

A. A. DAVIDSON.

RICHARD RUSSELL.

ARE YOU

Interested in mining matters in British Columbia?
 In search of Good Investments?
 Desirous of obtaining reliable information regard-
 ing the mining outlook in this Province?

-ADDRESS-

DIER, DAVIDSON & RUSSELL**MINING BROKERS,****VICTORIA, B. C.**

Exceptional facilities for furnishing full and authentic information regarding
 mines and mining in British Columbia.

. . . OFFICE OF . . .

The Fairview Cons. Gold Mines Co., of Fairview, B.C., Ltd.

The Comstock Mammoth Quartz M. & M. Co., of Fairview, B.C., Ltd.

The Randolph Elmore Quartz M. & M. Co., of Fairview, B.C., Ltd.

The Tin Horn Quartz Mining Co., Ltd. Lty.

The Winchester Gold Mines Co., of Fairview, B.C., Ltd. Lty.

The White Swan Quartz Mining Co., of Fairview, B.C., Ltd.

The Shamrock Gold Mining Company, Limited Liability.



BANKERS—Bank of British North America.
 Cable Address—"DISONELL," MOREING & NEAL Code.

HEAD OFFICE—VICTORIA, B. C.

*Wrought Iron Pipe, Lead Pipe,
 Sheet Lead, Pig Lead, Ingot
 Tin, Cast Iron Soil Pipe, Brass
 and Iron Valves, Pipe Fittings*

**Engineers' and Plumbers'
 SUPPLIES.**

*Sinks,
 Baths,
 Marble
 Slabs,*

John Boyd & Co.

*Packing, Injectors, Lubricators,
 Oil Cups, Steam and Water
 Gauges, Sanitary Earthen-
 ware, Sheet Iron, Sheet Zinc*

**METAL BROKERS
 VANCOUVER**

*Plumbers'
 Brass
 Goods.*

The Mining Record.

Vol. III.

JUNE, 1897.

No. 6.

BRITISH COLUMBIA MINING RECORD.

Devoted to the Mining Interests of British Columbia.

PUBLISHED BY

The Mining Record Limited Liability.

ALEXANDER BEGG, Editor.

SUBSCRIPTION TERMS:

Canada and the United States, one year - - \$1.00
Great Britain and Foreign, " " - - 1.50

ADVERTISING RATES ON APPLICATION.

All communications relating to the editorial department of the British Columbia MINING RECORD to be addressed to

THE EDITOR, B.C. MINING RECORD,
P.O. Drawer 57, Victoria, B.C.

All communications relating to the business department of the British Columbia MINING RECORD to be addressed to the
BUSINESS MANAGER, B.C. MINING RECORD,
P.O. Drawer 57, Victoria, B.C.

OUR PERMANENT EXHIBIT.

Mining Men and Visitors to Victoria are invited to call and make use of the comfortable quarters which we have had fitted up in connection with our offices at No. 6 Broughton Street. The principal Mining Journals published in England, South Africa, Australia and the United States as well as other valuable publications are on file for the use of callers. The mining papers from the various camps in British Columbia are also filed regularly and a very complete set of photographs representative of mining in the province is on view. The nucleus of a complete mineral exhibit from all parts of the province is also displayed. Altogether the permanent Exhibit of the British Columbia Mining Record is worth a visit and all interested are cordially invited to call and bring their friends.

EDITORIAL NOTES.

IN every part of the British Empire, and it may even be said that in almost every country on the face of the earth there will be rejoicings during the present month over the sixtieth anniversary of Her Majesty's reign.

An outpouring of love and respect from all classes of people for one whom they recognize as the noblest of women: an outburst of gratitude from her millions of subjects that so good and wise a sovereign is still spared after so many years to reign over them.

Canada will be well to the front during the celebration festivities in connection with the Queen's Dia-

mond Jubilee, and if any doubt existed about the loyalty of the Canadian people to British institutions, the question should now be set at rest forever.

Everything at the present time tends to show that the desire of the Dominion as a whole is for closer and more intimate relations with the Mother Country, and we venture to say that never before has Canada stood as high in the estimation of the British public as she does to-day.

It is gratifying therefore to see that our own fair province of British Columbia is not to be behind in doing honour to Her Majesty by participating with enthusiasm in the world-wide celebration of the Diamond Jubilee.

We doubt if a stronger feeling of loyalty to the British flag is to be found in any part of Canada than exists in this province. It has ever been so and will remain to the end. British Columbia is and ever will be attached to the Mother Land.

THE BRITISH COLUMBIA MINING RECORD publishes in the course of the year two special editions, and we thought the Jubilee month a fitting time to issue one of these. Our second special edition will be issued at Christmas time.

We will spare no effort to have the present issue of the RECORD delivered in London, England, in time for the Jubilee festivities, when people from all parts of the world will be congregated there, so that attention may be attracted to the great possibilities of our vast mineral resources.

There can be no doubt now that in the British money markets the tide has turned in favour of British Columbia and that nothing can stop the influx of British capital in the immediate future. Already large sums are being invested and the only thing the people of this province who are interested in mining have to do is to see that all propositions for the investment of capital in our mines are honest and the representations made in connection with them of a straightforward character.

If we want the incoming of capital for the develop-

ment of our mines to continue we must once for all sit down upon all schemes by speculators to enrich themselves at the expense of investors and to the injury of our mining industry.

For our part, we have come to the conclusion that the mining companies in British Columbia, with a few exceptions, do not desire to make known to the public the real condition of their affairs. Most of the companies appear to be more concerned about devising schemes to sell their shares than in the actual development of the mines. It would throw a curious light on the subject if a statement of the total amount invested in mining shares could be compiled and compared with the actual amount expended in developing the properties.

There would be a large balance to be accounted for which no doubt the promoters of companies could explain. The explanation would be that it represented their profit.

So we have gone on developing companies, keeping printers busy turning out prospectuses and millions of shareholder forms; endeavouring by every conceivable device to extract money from investors, small and great—and what for? In nine cases out of ten to enrich some clique of speculators.

True, mining men are scarce here as compared with the number of speculators in mining shares, but the time is not far distant when public opinion will demand that we get down to real business, so that if there is to be speculation in mining stocks they will at least represent something tangible behind them. At present most of the shares on the market represent estimated values and promises for the future, both of which constitute very uncertain quantities in mining.

Meantime much has been done and is being done to develop our mines because, fortunately, we have men in our midst who are earnestly endeavouring to build up the mining industry on a true basis. Capital is finding its way more and more direct into the ownership of mines and their development rather than buying shares in mining companies already formed, and the tendency generally is toward a more healthful condition of affairs.

It would be wrong to suppose that all British Columbia mining companies are unworthy of confidence, but until there is more of a desire on the part of such incorporations to make public what they are doing with assurances as to their financial condition it is difficult to pick out the good from the bad. The safest way for investors is to refrain from risking their money in the shares of any company until they

can be supplied with a thorough knowledge of its standing.

Statements as to assays, estimated width and length of veins or ledges, prospective profits, etc., are worthless because only actual development can determine the true value of a mine. The financial condition, too, of the company—the actual amount invested by the promoters and the interest they have in the capital stock—are also matters which should be considered. So much has been said to warn investors against being taken in that it is about time they should act with caution before investing.

Promoters are inclined to resort to all sorts of schemes to entrap the unwary. As an instance—in one case we understand that free milling ore was specially hand-picked and carefully sorted out to the extent of several tons and this was sent down from the mine to be tested. The idea was to give the result of this test as an average of the whole output of the ore so as to give a fictitious value to the mine and send the price of shares up, thus victimizing innocent investors.

In cases such as the one we have described it seems to us that the parties guilty of deception of this kind could and should be prosecuted criminally for obtaining money under false pretences.

It may be of interest to know that English financial journals are on the *qui vive* for any fake schemes which speculators here may endeavour to foist on the British public, and we may tell these speculators that the financial journals on the other side of the Atlantic are very much awake to ferret out the rotten schemes which designing individuals may attempt to foist upon the investing public.

The intention of the Dominion Government to place mining machinery on the free list is a step in the right direction and one which we have advocated from the first. We have held all along that mining men in British Columbia should be allowed to obtain the very best of machinery whether in Canada or elsewhere without having to pay extravagant prices for it.

But we have no desire to discriminate in favour of Americans as against Canadian manufacturers, and in this connection we would like to call attention to a very important point.

The Canadian manufacturers of mining machinery are, most of them, at a great distance from the mines in this province, and, of course, so are the American makers in the Eastern States. Places like Chicago,



GOLDEN CACHE LEDGE SHOWING TRAIL TO MAIN GALLERY, EAST TUNNEL, AND NOS. 1 AND 2 WEST.

GOLDEN CACHE LEDGE, SHOWING ENTRANCE TO MAIN GALLERY, NO. 1, EAST TUNNEL, AND NOS. 1 AND 2 WEST.

St. Louis, Denver, San Francisco and others in the West have presumably an advantage in the matter of railway rates.

Now our aim is not to give one manufacturer any advantage over others, no matter where he may be located, except so far as he earns it in the excellence of the machinery he turns out, and the question of railway freight rates is one which the Government will have to consider in justice to Canadian concerns.

There is another feature in connection with this to which we would also call attention. The Canadian railways, if they wish to have the hauling of machinery to our mines, will have to so adjust their rates as to allow Eastern Canadian firms to compete with the Americans who are located nearer to British Columbia.

In fact the question of railway rates plays an important part in this matter, and it will have to be considered. We want fair play to all, but above all we desire that the development of the mines in this province should not be hampered by any tariff charges.

The question of railway, passenger and freight rates is one which is bound to come to the front in public estimation. The tariff will sink into insignificance beside it, and the party that takes up the matter of reform in the shape of reducing and equalizing railway rates will gain the day.

The Hon. Mr. Blair, the Minister of Railways, is a far-seeing, long-headed statesman, and he evidently realizes what is coming in the shape of a railway rate agitation. Will he be able to induce his colleagues to follow the lead he has already taken? Time will tell.

We do not intend to refer in these notes to Acts passed at the late session of the Legislature, because we deal with them more fully on another page of this issue of the RECORD.

We may say, however, that of the seventy-seven Acts passed at the session, thirty-seven, or nearly one-half, were connected with the development of mining in the province, and of these there were seventeen charters to railway companies.

This, at least, shows that the attention of the Government and Legislature was largely given to the mining industry of the province. It shows, moreover, that in the opinion of our leading men the development of our mineral resources constitutes the very essence of British Columbia's welfare.

With this month the "boom" in mining (if we may

so name it) during 1897 will commence, and we look forward not only to a very active year in the development of mines but also in the building of railways throughout the province. If we are correct in our anticipations, and we think we are, it means good times in British Columbia.

Strange discoveries have recently been made near Rossland. Not only have the low grade silicious ores of that camp been found capable of treatment by the milling process, but in mines like the Le Roi and others as depth is gained ore of a decidedly free milling nature is found in increasing quantities the lower they go. These discoveries may give fresh impetus to the success of this already very successful camp.

The progress being made in the various mining camps of the province is fully described in the very interesting letters from our correspondents which appear in this number, and it is therefore unnecessary for us to deal with the subject in these notes.

But this may be said, that notwithstanding the vast amount of work that has been done in opening up the various claims throughout the province, the country has only been "scratched over" as it were, for minerals.

We are only entering upon a dividend-paying era so far as our mines are concerned. Up to this time it has been chiefly development work, but before the close of the present season it is reasonable to expect that dividends from mines where work has been systematically and earnestly carried on will be more numerous.

On this subject it may not be out of place to state that a number of mines, especially in the Slocan district, have paid handsome profits to their owners, of which no public notice has been given.

In fact there has been more money made from actual mining in this province during the past twelve months than people generally are aware of.

The more capital interests itself in the actual development of our mines and less in playing into the hands of mere company promoters and speculators the better it will be for it and British Columbia generally.

Rossland, Grand Forks and Nelson are now incorporated towns, and from all accounts are beginning to feel the benefit of being independent of Government censorship.

That Trail and other prominent places will soon follow the lead is almost certain, and the next ques-

tion which will have to be decided without delay is the representation of these towns in the Legislature.

A most important sign of the times is the erection of machine works at some of the principal points in Kootenay. Trail led the way and now Nelson follows. There is room for the establishment of a number of such factories in Kootenay where repairs to machinery can be effected on the spot. Let eastern machine houses establish branches in our mining districts at convenient points and it will not only pay them well but it will also be a great boon to the mining industry of the province.

That the Canadian Pacific Company will be entrusted with the building of the Crow's Nest Pass Railway seems certain, but it appears to be equally certain that the Government in any contract they may give out in connection with this work will see that the interests of the people are properly safeguarded.

We have all along held to the opinion that the present Government at Ottawa in any course they may take in regard to the Crow's Nest Pass will never allow a monopoly to control it.

But the season is now wearing on and time is precious at this stage in the development of our mining districts. The building of the Crow's Nest Pass Railway is essential to our progress and therefore it is to be hoped that there will not be much further delay in commencing the construction of the line.

There is some complaint in certain sections of Kootenay that times are not so brisk as they were a short time ago. On examination, however, it is found that the depression complained of arises from a collapse of the speculative mania which was an- is still, to some extent, abroad. The fact of the matter is that mining in Kootenay and other districts of the province is getting down to a business basis and the occupation of the mere speculator in mining deals is gradually disappearing.

This is a good sign and one for which British Columbia should be thankful.

We are entering upon an era of stability and the active development of mines, the construction of railways, opening up of new roads and trails and other improvements will not only give employment to many, but business is likely to be brisk all over the province.

The Diamond Jubilee year will mark the beginning of the grand future which awaits British Columbia.

The Government should provide for a redistribution of seats at the next session in order that the mining districts may have proper representation. If this is not done it will be most unfair to an important and rapidly growing section of the province.

A Word to English Investors.

THE BRITISH COLUMBIA MINING RECORD has been correctly reported in English papers as opposed to "bubble" mining companies. This journal has endeavoured consistently to thwart schemes of mere speculators and company promoters of unscrupulous character. The RECORD has done all in its power to warn investors against placing their money in shares of companies without fully investigating their standing and condition.

We in British Columbia know that hundreds of companies have been incorporated with very little behind them. These companies were mere schemes on the part of speculators with nothing to lose in order to extract money from innocent investors and place it in their own pockets. The development of the mining properties they represented themselves as possessing was a secondary consideration with them. Their only concern was to sell shares to people at any price they could obtain in order to pocket the proceeds.

Such is the character of the mining companies the RECORD has been opposing, but it is not likely that their shares will ever find their way over to England.

What English investors have to guard against is the placing of British Columbia mining properties on the market at fictitious or exaggerated values. Schemers will endeavour to float companies in England on representations which cannot be verified by investigation on this side. This has already been done, and to guard against it all that English investors have to do is to investigate fully for themselves before risking their money.

While, however, THE BRITISH COLUMBIA MINING RECORD considers that it is its duty to sound this note of warning it would at the same time make this statement. It does so with the full conviction that it is only stating the truth.

No better field for the profitable investment of capital has ever been presented to the British public than British Columbia. Sufficient development of our mines in all parts of the province has taken place to show conclusively that the country is exceedingly rich in minerals. We want to see British capital invested in the ownership and operation of these mines and not in mere speculative ventures. This can best be done in the first place by the formation of syndicates and afterwards by the formation of companies to carry on the work. The main thing is to have a thoroughly competent man (resident, if possible, in British Columbia) to report on properties before acquiring them. With such a man to depend upon—and of course he would require to receive a high remuneration—English investors could not fail to make most satisfactory and profitable investments in the mines of British Columbia.

Companies formed in England on the strength of the experience of these English syndicates would command confidence for they would prove to be the best of investments.

The mineral resources of British Columbia are most valuable and really present a more permanent field for profitable investment than South Africa.

Schemers are to be found wherever mining is concerned. It has always been the case and British Columbia is no exception to the rule. All the prudent investor has to do to avoid them is to make a thorough investigation beforehand.

Revelstoke.

THESE is a legend to the effect that years ago, in the early Kootenay days, before even the C.P.R. was thought of, an old Cariboo man, an Australian, who had been through the great Australian gold excitement, was one time looking at a map of British Columbia, and putting his finger on the spot where Revelstoke now stands, predicted that there a great city would some day be built. Revelstoke people are confident that the hour for the fulfilment of this prediction is at hand. Indeed it is obvious that the peculiar geographical position of this place at the point in West Kootenay, where the main line of the C.P.R. cuts the great waterway of the Columbia, cannot fail to give it peculiar advantages as a distributing centre in this rapidly developing country. Already business men are becoming alive to this fact and large warehouses are being established both by local men and outsiders, while the Dominion Government have selected Revelstoke as a cold storage point in connection with their scheme for assisting creameries in the Northwest.

As a great mining centre its prospects are equally bright. North of this place lies the famous Big Bend country, to which it is the only point of approach on the main line. A sum which went well into the millions was taken out of the placer diggings on French Creek and McCullough Creek, about sixty-five miles north of Revelstoke, in the sixties, and active work will be prosecuted with hydraulic machinery by the French Creek Company, of Chicago, on French Creek, and by the United States and British Columbia Company on Smith Creek this summer, besides deep digging operations which will be carried on on the Last Chance, Option and Consolation claims in the same section. Quartz has been discovered in Ground Hog Basin, McCullough Creek, on Carnes Creek and at Keystone Mountain on Downie Creek, and claims have been acquired by British and American companies and will be developed in all these sections this year. Revelstoke is, at the time of writing, full of mining men pushing forward arrangements for shipping machinery and supplies, and a sawmill for the French Creek Company has already been safely taken up by boat a considerable part of the distance. The Illecillewaet steamer has been chartered to run up as far as Laporte, about forty miles of the distance, and the C.P.R., it is understood, contemplate putting in a spur as far as the head of the Cañon, about twelve miles up the river from Revelstoke, which will do away with the dangerous and sometimes impossible trip through the boiling waters of that tremendous gorge.

Around the town itself there is considerable activity. Quartz was discovered late last fall in the hill right behind the town and development work will be done on some of the claims this season. Across the river Mr. Chas. Taylor is preparing four placer claims started last year with some new gold saving

machinery which he had built in Montreal last winter, while a very promising ledge of galena was struck last summer in the Jordan Pass, twelve miles from town, which will be developed this year. Old prospectors are a good deal taken with the formation of the country just round Revelstoke and intend to prospect it thoroughly this summer, being convinced that valuable discoveries will reward their labours.

Just below Revelstoke the Illecillewaet leaps from its narrow cañon to join the broad waters of the Columbia. Up this stream lies a district whose enormous mineral wealth is only just beginning to be discovered, but which will without doubt turn out one of the richest sections in West Kootenay. At Albert Cañon, twenty-one miles east of Revelstoke, the Illecillewaet branches. Twenty-four miles up the north branch lie the Grant claims, now owned by London capitalists, with an average surface showing over the whole group of \$90 to the ton. Sixty claims were staked up the North Fork last year with surface indications of enormous promise. The same high-grade mineral belt found at Kootenay Lake passes through this district to the Big Bend and contains silver, gold, copper, lead, and as you pass on north, nickel in deposits of great extent and richness. Round Illecillewaet on the south branch a number of valuable properties, some of which have a ready shipped ore, have been bonded and will be actively developed this season.

The Lanark mine at Lawrie, two miles beyond Illecillewaet, is now shipping a carload of concentrates a day, and the mine with its concentrator and aerial tramway is a scene of constant activity day and night. It is owned by the Horne-Payne Syndicate, who have done so much for the development of this part of Kootenay, and who are also operating so extensively in the Lardeau district. This section, which comprises the whole country drained by the Upper Lardeau and Upper Duncan Rivers, will, before fall, be as well known as Trail Creek or the Slocan. Already people are pouring in to Ferguson and Trout Lake City, its two mining camps, and preparations are being pushed forward to develop the numerous rich claims with which the mountains seem literally to teem. Principal among the groups are the Great Northern, a mile and a-half from Ferguson, on which are the True Fissure, Broadview and Old Sonoma claims now being worked by the Horne-Payne Company, and the Great Northern claim itself, lately bonded to an English company. This is a true fissure vein of low grade ore, but with, it is claimed, the most enormous showing of solid mineral in British Columbia. A recent estimate of the value of the ore body on the Broadview alone places it at over \$10,000,000. The Silver Cup group on the South Fork is also being operated by the Horne-Payne Company. This is a ledge of very high-grade ore. The tunnel on the Silver Cup has already cut one vein of four feet of solid ore, and the main lead is not tapped yet. Other promising Lardeau groups are the Badshot, on which the Badshot claim has just been sold to Vancouver parties for \$150,000, the Pool group, Red Plum, Black Prince, Glengary, Horn, Wagner, Abbot, Black Eagle and scores of others too numerous to mention, on which development work, as far as it has gone, has more than proved the substantial richness and permanent nature of the leads below the surface. It is expected that the Lardeau Railway Company will build a line from Galena Bay on Arrow Lake into Fer-

guson this summer, in which case there will be twenty-five or thirty mines shipping ore on the Lardeau before fall. Another line has been surveyed, which will run from Kaslo to the Upper Arm of Arrow Lake and tap the east shore of Trout Lake and Fish Creek, both of which sections of country show surface indications of great mineral wealth. On the Upper Arm itself several good claims are situated. On one of the most promising—the Great Western—extensive development work will be prosecuted this summer by a Revelstoke company recently formed to work it.

This is only a brief review of the mining country of which Revelstoke is the centre. A full description would take up a great deal more room than the editor of the MINING RECORD has placed at my disposal. However, enough has been said to show that the faith which Revelstoke people feel in the future of their picturesque town is fully justified by solid facts and that the prophecy of the old miner introduced in the opening of this article is likely to be fulfilled sooner perhaps than even the most enthusiastic at present imagine. G. E. G.

Notes From Fort Simpson.

CONSIDERABLE interest is being manifested in and about Fort Simpson in the way of mining excitement and the little town is full of miners and prospectors who are anxiously awaiting the departure of the *Calcedonia* up the Skeena to Fort Hazelton and way places.

Among the anxious ones is a party of seven who are bound for the Omineca. Messrs. Hastings and Stewart intend making an extended trip, occupying probably two years, around the head waters of the Skeena. Several other individual prospectors and miners intend taking passage for Lorne Creek, Kit-salassa and way places, besides a crowd of twenty Chinamen who are going into the Omineca to work for the Omineca Consolidated Hydraulic Mining Company. Good accommodation can be had at the Northern Hotel, Fort Simpson, owned and managed by Dan Robertson, who is himself interested in several very promising claims, most notable being the American Star, situated on Cat Island, near Cape Cod. Recent assays of the same have averaged \$38 in copper and gold.

Among other locations might be mentioned the First Discovery, Helena, Kaiser, Germania and Bismarck. Near the mouth of the river Skeena, Boy, Emma, Kendal and I.X.L. The three latter named claims are situated up the Skeena near the cañon and are now owned and being worked by the Skeena Prospecting Company under the able management of Mr. Clifford, who has great confidence in this section of the province.

Recent assays of these latter named claims gave an average of \$125 per ton, principally bornite and peacock copper carrying a large percentage of gold. The high cost of transportation has been a great drawback to prospectors, but it is hoped that before long this obstacle will be at least partly removed.

The Hudson's Bay Company are fully alive to the advancement of this section of the country, and are doing all in their power to assist miners and prospectors who intend working in this section.

News has been recently received from the Omineca by Mr. M. Shultz, who arrived at Port Essington

from that place in a most precarious condition, having had a bad attack of scurvy. Speaking of things in general, Mr. Shultz said that the weather was fine and clear and that the seven men who remained in for the Omineca Company were able to work nearly every day until the middle of December, when snow began to fall to the depth of four feet, the thermometer at no time registering lower than 36° below zero. About December 17th Mr. Shultz was taken down with scurvy, and the remainder, with the exception of Mr. Hugh Grant, were simultaneously taken down with that disease. They were in an awkward position, having no medicine or proper food, until late in April, when the Indians brought in some fish and fruit, which relieved them somewhat, but despite this Messrs. Shultz, Slayback, Burrell, Armstrong and Studevent, of the 43rd Mining and Milling Company, were brought to Hazelton, where they obtained treatment from the kind residents of that place and are now on their way to Victoria, as they are too weak to be able to do any hard work for a long time to come. The others, Sparrow, McDonald and Harris, were still sick and will probably be brought out immediately to Hazelton, where they will be treated. While at Hazelton Mr. Shultz said that an Indian came in with a report that Captain Black had been seen at Tacla Lake with twenty men, while on his way to Manson Creek, which he would reach, according to report, about April 25th.

Prospecting For, Developing and Equipping a Hydraulic Mine.

SO far as British Columbia is concerned, when we are prospecting for hydraulic diggings, gold is almost the last thing we look for. To people who do not know this province, this statement may appear strange, but if the world only knew as a good many people in British Columbia know, that gold is scattered from the Pacific to the Rockies and from the 49th parallel to the Arctic Ocean, this statement would not appear so absurd. Our difficulty is not merely to find gold in paying quantities, but, and here is the difficulty, to discover the adjuncts without which even rich diggings are nearly worthless. True it is that we do not labour to so great an extent under the chief disadvantages, viz: lack of water and dump from which our friends suffer in California, (which State will readily be conceded by all to be, so far, the richest hydraulic territory in the world; richest, however, only so far as the actual output of gold is concerned, and whose riches cannot be compared with the untold wealth to be wrested from the gravel deposits of our own province) but we have been, and are still suffering from as great a want, viz: lack of money. Hitherto only one or two companies have started with sufficient capital to carry out their undertakings to a successful issue. Hydraulic propositions absorb more money to put them on a paying basis than do quartz mines, but when they are on a paying basis the investor is as sure of his dividends from them, provided prospecting work has been thoroughly carried out, as from money invested in consols. There is no such thing as "our vein has pinched out," a cry which has been and will be wailed forth many a time with regard to quartz mines.

The following few hints to the prospector for hydraulic digging are the result of my own experience,



VICTORIA, B.C.—LOOKING NORTH.



QUEEN'S BIRTHDAY—"THE GORGE," VICTORIA, B.C.

they have not been taken from books, authentic or otherwise, and have nothing therefore to stamp them as infallible.

First of all, look for your bank of gravel. If it be only a bench, it will need thorough prospecting as to the amount of gold it contains; if it be part of an old channel, not so much fear need be felt as to the presence of the precious metal, but cemented gravel, the greatest bugbear to the hydraulic man, must be systematically searched for. Even the existence of this drawback does not prove the claim worthless, as stamps may, under certain conditions, easily get rid of this difficulty. However, prospect for an old channel (and there are many in the upper country) and when you have got one, stick to it, and if you have sufficient capital to stick to it long enough, you need not bother your head about money for the rest of your life. The ancient channels of California have been and are in the hands of comparatively few Americans. Americans, perhaps, more than men of other nations, know a good thing when they get hold of it. True it is that hydraulic mines in California have been owned by Europeans, but does an American ever let go a good thing?

Secondly, after finding the gravel deposits, search the country round for twenty miles or more, for the largest water supply which can be turned on your gravel.

Thirdly, see that the dump into which you must turn your *debris*, is sufficiently good to enable you to get rid of your tailings.

Fourthly, see that the grade between the dump and the gravel is sufficient for the advantageous working of your mine. For the second and fourth requisites experienced engineers are necessary. The prospecting for gold must be done by systematically sinking shafts and driving tunnels and the gold must carefully be washed from the gravel taken. When all the prospecting work is finished and the gold tenure and other conditions are satisfactory, equip your mine with monitors, pipes, sluices, flumes and all the other paraphernalia which are simply mechanical operations and which almost any skilled workman can carry out from the directions of the engineer and the mining superintendent.

Very often five cent dirt will return large dividends when fifty and seventy-five cent dirt is worthless. In the five cent proposition you must have a good water supply, good dump, steep grade and few boulders. In the fifty or seventy-five cent proposition, the absence of one, or more, of these conditions may render the mine worthless.

From the above you will see that, sometimes, or I might say generally, an enormous outlay of time, money, patience and skill is required to put the mine in a productive state, but when it reaches that state your dividends can be counted upon as safely as from money invested in any of the best gilt-edge securities; but to the man attempting to equip a hydraulic mine, who has not the command of a good sum of money together with patience and skill to use it, as has been sometimes the case in this province, the result of hydraulic mining will certainly be endless worry and very often utter failure.

J. M. BUXTON.

Boundary Creek.

THE mining district known as Boundary Creek constitutes the most important section of the southern portion of the Kettle River Mining Division and embraces a number of mining camps situate to the east and west of the Boundary Creek, which flows into the Kettle River at Midway, a town occupying an almost ideal site, close to the International boundary line. Of the several sub-divisions of the Kettle River Mining Division referred to elsewhere Boundary Creek is best known, most extensively explored and contains within its area—which may be roughly stated to be about twenty miles north and south by ten or twelve miles east and west—numerous claims, many apparently of considerable value, and some having unusually large surface showings of mineralized rock. Like other known parts of the division it possesses an abundant supply of water and timber for mining and building purposes. Prospectors find the presence of deer in numbers an advantage, as furnishing them with a meat supply when out prospecting, whilst their pack horses fare equally well, feed being plentiful during more than half the year.

The district is generally mountainous, with valleys adapted to and occupied for agricultural purposes, though cultivation of farm products has heretofore been only on a small scale. Few of its mountains exceed 5,000 feet in height. As a rule they are easily accessible to their summits, being well rounded and seldom rugged. They are covered with forest trees, chiefly conifers, and their slopes, excepting those having a northern aspect, afford good pasture. Though snow lies on the ground for about four months in the year the climate is usually mild in winter as well as in summer. The mean temperature for the year ended June 30th, 1896, is officially stated to have been 42.8 degrees, and the rainfall for the same period was 13.3 inches. The geological features of the district, though not nearly so well known as is desirable, are described by Mr. S. S. Fowler, A.B., E.M., of Nelson, as being "varied and interesting."

A brief summary of the geology of the district, contributed by that gentleman, is contained in the report for 1896 of the Provincial Minister of Mines at pp. 580-1.

Space limitations prevent many details being given here of the early history of mineral discoveries in the Boundary Creek district. Accounts of these vary somewhat, but it appears that twelve or thirteen years ago, following successful placer mining lower down Boundary Creek a quartz claim was located near Boundary Falls. Other discoveries were afterwards made in the same neighbourhood, in what is now known as Smith's Camp. Claims were located in Copper Camp as early as 1886 by pioneer prospectors, who, after visiting Rock Creek and what is now known as the Camp McKinney district, turned their attention to the mountains lying north-east of those places. As the years passed locations became numerous and were spread over an increasingly wide area. Intermittent attempts were made to work some of the claims, but under so many and great disadvantages that little effective mining was practicable in such an isolated locality. At best, in most instances, assessment work was all that could be done under conditions entirely unfavourable to the remunerative development of the embryo mines. So matters dragged on, awaiting the opening up of the

country by roads and railway. Eventually things took a more hopeful turn. Three or four years ago the attention of several enterprising Americans was directed to the district, and so energetic were one or two individuals that ore was shipped out, notwithstanding that the rate for hauling it to Marcus, Wash., which was the only accessible railway point, was \$30 per ton. Even then the shipments yielded a good margin of profit. Since that time moneyed men, resident in Spokane, Butte, and as far afield as New York, have acquired a comparatively large number of claims or interests in claims in several of the Boundary Creek camps.

These men first satisfied themselves as to the existence of valuable mineral deposits and then invested money, content to await the provision of suitable transportation facilities before systematically opening up the ore bodies. When the indispensable railway communication becomes established it will probably be found that some of the best properties in the district have long been held by far-seeing men from over the line, who were early awake to the fact that valuable claims were here, only needing the construction of a railway to admit of their being developed into paying mines, their existence having meanwhile remained almost, if not altogether, unknown to all Canadians except the few who had either been in the district themselves or had come into contact with others having some knowledge of it.

Commenting on the ores and ore deposits, Mr. Fowler in his contribution already referred to further remarks: "The Boundary district is essentially a gold district. The great bulk of the ores is a mixture of the various iron sulphides with copper pyrites, all more or less auriferous. This class of ore is notably associated with the basic eruptive rocks, which are of so wide-spread occurrence in southern British Columbia, and with the older metamorphic rocks near or at the contacts of these with the former. *

* * * This class of ores has a wide range in value, but, excluding the extremes, may be said to carry about \$15 in gold, with two or three ounces in silver, and five per cent. copper. * * * * In the granites along Boundary Creek and in the silicious rocks by which they are flanked * * * * fissure veins of varying width are found, which afford quartzose dry silver ores and some large bodies of presumably partly free milling gold quartz. In the former case the minerals present with the quartz include small amounts of galena, zinc blende and iron pyrites, with ruby silver, etc., as in the Skylark Camp; and in the vicinity of Long Lake are found, beside the above, tellurium and tellurides of gold and silver, with more or less free gold at the surface. All these dry silver ores contain gold. Their veins are from a few inches to five or six feet in width, and the greater part of the value is often concentrated in a narrow pay streak. An idea of the values of this mineral is had from the statement that in 1894 a shipment of eighty-five tons of sorted ore was made from one property, and the metal contents were 16,947 ounces silver, 101 ounces gold and 7,836 pounds of lead. Small shipments from other claims have been made showing gross values of about \$100 per ton, but the average value of unsorted ore may be placed at about \$50 per ton. These ores are found over a considerable part of the district and notably on the Jewel and Dinero Grande, in Long Lake Camp; G.A.R. and D. A., in Providence Camp; Skylark, Crescent

and Last Chance, in Skylark Camp; Nonesuch, Boundary Falls and Ruby, in Smith's Camp, and the No. 7 and Lincoln, in Atwood's and White's Camps respectively, the latter affording grey copper as the principal source of value. The milling ore mentioned above occurs on the O.B. and Big Ledge claims south of the D.A. It affords values from \$15 to \$40 per ton."

The three last mentioned claims form part of a group of twelve lying close to Greenwood and owned by the Boundary Creek Mining and Milling Company, of Greenwood. Mr. Fowler also mentions that in parts of the southern portions of the district the prevailing mineral is copper glance and copper pyrites along the contacts of dykes of porphyry and felsite with limestone. He says: "In the Copper Camp the ore is entirely in the contacts, has a quartz gangue, and is almost entirely copper glance, oxidized at surface and partly again reduced to metallic copper. These ores, while they carry only a small amount of the precious metals, sometimes give assays of over thirty ounces in silver. The copper tenure is about seven or eight per cent. only, but this grade could probably be improved by wet concentration of the sulphides." Ore of a similar character is found on some of the claims in Graham's Camp towards the south-western extremity of the Boundary Creek district.

The several mining camps of the Boundary Creek district are as follows, the distances given being approximate and from Greenwood: Providence Camp, one mile, rich silver-gold ores, veins from six inches to four feet wide, assays from \$5 to \$100 gold and 50 to 500 ounces silver; also copper-gold ores. Several carloads of ore from the Providence claim and treated at the Tacoma smelter yielded from \$100 gold and 238 ounces silver to \$10 gold and 438 ounces silver to the ton. Four tons of ore from the Boundary Creek M. & M. Co.'s D.A. claim returned \$440.69 after payment of rail and smelter charges. Deadwood Camp—Two miles, large bodies of copper-gold and iron-gold ores, assays from \$1 to \$30 gold and from two to ten per cent. copper. The Mother Lode in this camp has a tunnel driven 203 feet in ore which distance is believed to be the true width of the ledge. Smith's Camp—Three miles, veins one foot to eight feet wide, ores carry gold and silver in silicious gangue, assays from \$3 to \$100 gold and from ten to several hundred ounces of silver. Copper Camp—Seven miles, large bodies of cuprite and chalcocite carrying some gold and silver and assaying from six to twenty per cent. copper. Graham's Camp—Nine miles, rich copper ore, assaying well in gold and silver. Central Camp (including Atwood's, Douglas' and White's Camps)—Eight miles, veins two to twelve feet wide, ores carry copper and gold and silver, copper and gold; assays from \$3 to \$20 gold, 5 to 200 ounces silver, and three to ten per cent. copper. Wellington Camp—Seven miles, ore bodies from three to twenty feet wide, copper-iron pyrites and pyrrhotite in a silicious gangue, assays up to \$700 gold; also some silver claims in camp. The Winnipeg claim in this camp is considered one of the most valuable in the district. Greenwood Camp—Five miles, ore bodies from 10 to 100 feet wide, copper pyrites carrying gold, assays from \$3 to \$100 gold and three to fifteen per cent. copper, a considerable proportion carrying from \$10 to \$30 gold and four to eight per cent. copper. Skylark Camp—One

mile and a-half, two kinds of ores—silver-gold and copper-gold—of first class, veins are one to three feet wide and assays are \$5 to \$50 gold and 50 to 800 ounces silver; of second class veins are larger and assays are \$1 to \$6 gold and three to twenty per cent. copper. Ore from the Skylark claim in this camp was shipped to Marcus, Wash., in 1893 at a cost for haulage alone of \$30 per ton. Summit Camp—Eight miles, ore bodies ten to fifty feet wide copper pyrites carrying gold and silver assays from \$3 to \$10 gold, three to twenty per cent copper and up to 200 ounces silver. Long Lake Camp—Eight miles, veins one to eight feet wide, silver-gold ores with some copper, and silicious gangue, assays up to \$503 gold and 150 ounces silver. Kimberly Camp—Eight miles, big quartz leads and iron cappings, ore carries gold and silver. (Much of the foregoing information is from a pamphlet compiled by Mr. J. C. Haas, of Greenwood.)

Were space available a deal might be written of individual claims in the district, some of which give much promise of developing into permanent mines, but under the circumstances bare mention only of this fact must suffice for the time. The district urgently needs railway communication to enable ores to be shipped to the smelter, and until this is being provided little or no stoping, and but a comparatively limited amount of underground prospecting will be done. Waggon roads to those camps not yet accessible to teams are also much required, the Provincial Government having hitherto been anything but liberal in its road appropriations for Boundary Creek, whilst, on the other hand, self help has been a prominent characteristic of the residents. But it is hoped a change for the better will soon be evidenced by Government aid to a far more adequate degree than has hitherto been granted. The outlook for the future of the district appears to be of promise. Numbers of people are coming in, wider areas of country are being explored, numerous claims are being prospected, capital is being secured for development purposes and substantial progress is apparent. Meanwhile the several towns—Midway, Anaconda and Greenwood—are increasing in population and importance, the investment of much money in building improvements demonstrating the faith that many have in the eventual permanent prosperity of the district, which will be best promoted by speedy direct rail connection with the provincial Coast cities.

Greenwood, B.C. PERCY VERENS.

Kaslo.

STANDING at the portals of the "Great Slocan" lies the pioneer city of the Kootenays, the bustling, prosperous little city of Kaslo.

In all parts of the town one may hear the ring of the builder's hammer, and the demand for buildings keeps far in excess of the supply. Anything will rent at the present time, and should a man but intend to build some one will want to rent his intentions.

Kaslo is full of surprises to the newcomer. Her natural site, volume of business, stir and energy are the unexpected to him. Here he finds a city of homes, with its well-lighted, well-graded streets, its splendid system of waterworks, its first-class hotels and stores. Its fire alarm system may strike him as being a little odd; but if he has seen the discarded circular-saws used as alarm bells by some of its rival

cities he will admit the superiority of "triangles" made for the purpose, which are suspended gracefully from proper supports on the street corners.

What surprises the stranger most, especially if he be a Toronto man, is the fact that Kaslo, though a small city of British Columbia, boasts of fifty-three shipping mines at her back door, and that enterprising little narrow gauge line, the Kaslo & Slocan Railway, has become famous as the connecting link between Kaslo and "the greatest white metal camp on earth." But then in the Kootenay Country all roads lead to Kaslo. Not one but many mining districts contribute to support her. She has now direct steam-boat communication with and is the natural supply point of the Lardo-Duncan Country to the north, and the Grouse Mountain District to the south-east, two mining camps whose very names will be familiar both at home and abroad before a great while.

One of the best samples of copper-gold ore ever exhibited in Kaslo came into town last week from the Storm King Group on White Grouse Mountain. It assays 75% copper and \$30 in gold. The owners claim to have three and a-half feet of clean ore in the shaft. The ledges in that district are strong, with ore right on the surface. The mineral belt is supposed to extend for thirty miles. It is known that five or six good companies will be working extensively in the White Grouse District as soon as the snow permits. I hear that Hector McRae and T. G. Proctor are intending to develop some claims there, while it is said that Marcus Daly has his eye on the camp.

Mr. McDonald, manager of the Payne mine, is credited with the statement that from the present outlook the owners would nett a profit of \$65,000 per month for the next twelve months. As Mr. McDonald is known to be very conservative in his estimates, his statement, I think, can be relied upon.

The recent big strikes on the Sunset and the Whitewater have brought the Whitewater Basin again to the front. Mr. Barrett, of Tacoma, informed me that as soon as the snow was off he intended putting a force of men on to develop the Corean, the western extension of the Charleston.

The Kaslo & Slocan Railway people are preparing to build a line from Kaslo to the head of Kootenay Lake, tapping the Lardo-Duncan country. They have also offered to deal leniently in the matter of freight rates with Mr. J. B. McArthur, who is attempting to secure for Kaslo a custom concentrator—the forerunner of a smelter.

And thus the work goes on. From all points of the compass we note signs of coming activity. Prospectors are going out in all directions, but the great move from this point will be about the 1st of June, after which date the familiar faces of the "old timers" on the streets of Kaslo will be missing for a time, to turn up again in the fall, some of them wearied with the dignity and authority that accompanies newly acquired wealth, and some happy in the possession of nothing, but the ragged edges of a last winter's dream.

ELMA.

Vernon.

THE city of Vernon, centrally situated in the beautiful Okanagan District, has, until lately, been considered a very fertile agricultural district, and the earlier settlers were quite satisfied to devote their

whole attention to agriculture in its various branches; but hard times, which have been felt the world over during the last few years, did not allow our pleasant little valleys to escape, and consequently when rumours of the rich strikes in the neighbouring districts of Kootenay reached us people began to look about and wish that those finds had occurred nearer home.

From time to time reports were brought in that Mr. so and so had found good indications in one direction or another, but, at the time, little attention was paid to them; when, however, Mr. L. Simmons found some very promising rock on the B.X. Ranch about three and a-half miles from the city, in a north-easterly direction, and after he had staked out the claim, was quickly followed by other claims being taken up all round it, recollection brought to the fore some work done by a Captain Shorts on the east side of Swan Lake. A company was formed by several gentlemen to explore this property, which proved that the whole side of the hill was one grand mass of quartz, but of a low grade which would not pay until machinery were put up on the spot, and for one reason or another the company have not thought fit to continue work on any of the many claims included in the group. The owners of the Bon Diable, as the claim of Mr. L. Simmons was named, have gone steadily ahead at the work of development, and although they met with a reverse in the shape of a fault, the company, which had been incorporated, continued their work by tunnelling until they found their ledge again, which proves that they now have a very promising property, and their perseverance deserves the rich reward that is now within their reach.

Prospecting soon became the order of the day and discovery posts are now nearly as thick as the primeval forests that at one time covered the surface of the country.

The Morning Glory mine and group soon attracted attention and in fact was the first company incorporated. Several shafts have been sunk on the claims, proving the property to be very valuable, and recent finds of free gold on one of the claims made quite a stir in the city, when stock was greedily sought after and bought at fifteen cents per share of \$1. This company have raised their price now to twenty cents and a great deal has been disposed of in eastern cities where one of the proprietors is now looking after the shipment of machinery to be erected on the property.

The Ruby Gold Mining and Development Company, Limited, is situated next to the Morning Glory group, and indeed when the late great find of free gold was made on the Sarah, a dispute arose as to the ownership of that particular spot, which has, however, been set at rest by a survey made by Mr. Burnveat, of this city. It was found that the Ruby Gold Mining and Development Company owned a portion of the claim, which has been named the Squeeze Out. Some very rich specimens from these claims are exhibited in the office window of the local broker, and every one who sees them cannot but feel that there is a bright future in store for the beautiful little city that is centrally situated in perhaps the most fertile agricultural district of British Columbia, a district very unlike many of the mining regions where no agricultural land exists and thus necessitates the importation of every article of food for its teeming thousands; but one which can support many thousands

with animal as well as the most delicious vegetable foods, growing its own breadstuffs, owning several flour mills and is now establishing a large creamery, to which is also shortly to be added a pork-packing establishment. The natural resources do not, however, end here, as our beautiful lakes provide the finest trout and other fish to be found anywhere.

Besides the above mentioned mining companies there is one which deserves special attention, namely, the Camp Hewitt Mining and Development Company, Limited, whose property is situated between forty and fifty miles down the Okanagan Lake. This company own a group of ten very promising claims, and although some distance from Vernon, is in direct communication with the city by means of steamer and railway. Two shipments of ore from some of the claims of this group gave very satisfactory results, that from Tacoma reporting \$22.35, and from Everett \$22.16.

A property of great promise is owned by the Silver Star Mining Company, situated about fifteen miles north-east of Vernon. This differs from the foregoing properties, it being a very rich galena bed. The ledge is six feet wide and it contains from six to eight inches of solid galena. Assays made of this lead show between \$8 and \$9 in gold, \$53 in silver and a 29 per centage of lead. Being high up the work has progressed but slowly on account of the snow; now, however, work will be pushed on as fast as possible.

Of a like nature is the Clara claim, owned by Mr. A. G. Fuller and others. The samples from this property may even surpass the results obtained from the Silver Star. The Clara is situated on Round Lake.

There are new finds coming in every day from all directions. Mr. Maunsell has staked off a rich claim on the summit of the B.X. Range where free gold has been found. Captain May has two claims from which splendid promising samples have been brought in.

These claims, the Hic Jacet and the Kismet, are situated just beyond the Okanagan Landing within five miles of the city, and about a mile from the railway station at the Landing.

Work is being pushed on the Blue Jay claim, and the proprietors are very well contented with the prospects.

Altogether things are looking brighter and we are looking forward to a very prosperous future, and to those who may have any doubts, I say, come and see for yourselves. F. ADRIAN MEYER.

The Tax on Working Miners.

WE regret exceedingly that the Government did not see its way clear to repeal the unjust tax which is exacted from working miners. We were led to believe at the commencement of the last session that the tax would be abolished and we felt more than pleased at the course which we understood the Government intended to take in the matter. Our disappointment, therefore, that nothing has been done to repeal the iniquitous law is great.

It is a cruel enactment to have on our Statute Books and why the Government at the last moment decided to retain it there is something we do not understand. It cannot be that they were loth to part with the revenue derived from this source. If so, surely they could have made it up in some other direction.



HASTINGS STREET, VANCOUVER, B.C.—LOOKING EAST.



GIANT CEDAR—STANLEY PARK, VANCOUVER, B.C.

These miners who are taxed five dollars a year work for wages at the daily risk of their lives. They perform their duty at so much per day the same as carpenters, masons or blacksmiths, only that their calling is much more risky. For the privilege of doing this they are taxed by the Government at the rate of five dollars per annum per man. They have no interest in the mine they are working in—they are simply endeavouring to earn a day's wages like other workmen. What reason, what justice is there, then, for taxing these men? It looks very much like extortion of money by process of law. Many of these men have families to support and probably find it difficult enough to do so on the wages they earn. Is it not then rank injustice to make these wage-earners contribute five dollars each from the pittance they receive?

It is all wrong, this tax, and should have been abolished. The Government lost a golden opportunity to do a fair act. Why did they miss it?

We are not of those who are constantly nagging at and condemning the Government. On the contrary, we are always desirous of giving them full credit for the good they do, but in the present case we cannot say a good word for them.

We have heard the opinion expressed that because some of these miners are birds of passage working only a limited time in the mines to go across the line when it suited them they should while here be made to pay something toward the maintenance of the province. We trust the Government do not advance so untenable an argument to justify the course they have seen fit to take in this matter.

We think it is quite right that prospectors and parties interested in claims should pay a license fee and we do not suppose for one moment that they object to doing so, but the Act should have been so amended as to exempt mere wage-earning miners from the tax. In not endeavouring to bring this about Mr. Kellie, the representative in the Legislature signally failed in performing his duty.

The Work of the Legislature.

WE took occasion in our last issue to criticize the members of the Legislature for their dawdling proclivities in the proceedings of the late session. We do not regret that criticism, because we think it was deserved, but we now have the pleasure of congratulating the members on much of the work turned out, even though there was delay in accomplishing it.

The Companies' Act is a great improvement upon previous legislation and a step in the right direction. Another step by the Legislature at its next session may bring about a still further improvement. Shareholders in companies cannot complain that every provision has been made for their protection, but we regret to find that another class—the intending investors—have been completely ignored.

This, in our opinion, was a great mistake. We have over and over again urged upon the Government the necessity of some plan by which investors in mining stocks might be protected from the scheming designs of unscrupulous speculators. Had the Legislature followed our suggestion it would have done much to inspire the confidence of the investing public in British Columbia mining stocks. Our idea was to compel mining companies to publish regular statements of their affairs so that investors might

have some trustworthy information of enterprises in which to place their money.

The idea advanced by one of the members of the House that the publication of a company's affairs at certain periods might embarrass it and bring about disaster is the strongest argument in favour of our contention that the actual condition of mining companies seeking to interest the investment of capital in their shares should be public property. Any company not in a position to make known its actual standing should not be allowed to solicit subscriptions to its stock. It is all very well to say that at certain periods the publication of a company's affairs might bring about disaster. No company in such a doubtful position should be permitted to inveigle innocent investors into placing their money where it may be lost.

The Acts passed at the late session provide for the protection of parties who have actually invested their money. That is to say, they have every opportunity of protecting themselves as far as possible. But the question remains, had they known beforehand the actual condition of the company would these shareholders have invested? All they can do once their money is in the hands of the company is to take advantage of the Act passed at last session and save as much as possible when a wreck is evidently about to take place.

But it was the duty of the Government to place all British Columbia companies, whether mining or otherwise, on a footing that would inspire confidence in their solvency. This could only have been done by compelling them to make public at regular periods their actual condition. If banks and railways are obliged to publish such returns why should not mining companies be compelled to do the same?

It would have been, moreover, as we have repeatedly pointed out, the means of checking the mania for over capitalization.

It is to be hoped that this matter will not be neglected at the next session of the Legislature, for assuredly as things stand at present British Columbia mining companies are not looked upon with favour by investors abroad. An Act such as asked for would have done much good in clearing the air and wiping out of existence many companies that have really no claim to public confidence.

The Act for securing the safety and good health of workmen in the mines is an excellent bit of legislation and was much needed.

The amendments of the Mineral and Placer Acts are in the right direction and the province is to be congratulated that the Act intended to debar Americans from enjoying the fruits of their labours on this side of the line did not become law. There has been much provocation given us by the United States to retaliate upon their citizens on this side of the line, but retaliation is the last resort which Canadians should adopt. We owe much to American enterprise in the development of our mines, but we may take occasion here to say to Americans located in British Columbia that although we are not quick to act on the aggressive it will be wise for them not to try our temper too far. The fact of Americans who are owners of property on this side of the line deciding as it is reported to establish a smelter at Northport to smelt British Columbia ores instead of establishing it within the province is one that calls for the attention of the Dominion authorities. We are

not sure but that an export duty on ore may be necessary to stop this sort of thing.

Kettle River Mining Division.

THE Kettle River Mining Division is located in the extreme south-east corner of the Yale District. The southern part of the division extends from near Sheep Creek, which is close to the western boundary of the Trail Creek Mining Division, westward to the 119th meridian, which falls near the confluence of Rock Creek with the main Kettle River, thus covering a distance east and west of about forty miles. The division extends northward for approximately fifty miles, but narrows before its northerly boundary is reached to about twenty-five miles across. Hitherto prospecting operations here have been mainly confined to the southern third of the division, few, if any, discoveries of importance having been made so far north as twenty miles from the International Boundary line.

The southern part of the division may, for convenience in writing of it, be regarded as containing four sub-divisions. First, on the east, the country around Christina Lake; next, that adjacent to the North Fork of Kettle River; then Boundary Creek; and last, on the west, Rock Creek and the Main Kettle River, including the West Fork (of Kettle River).

The Christina Lake district has not yet been much explored, but present indications are that many prospectors will give it attention during the season now entered upon. Already finds of mineral-bearing rock are reported to have been made, but the information about them thus far communicated to the public is generally scanty and vague. There is, however, much country to be examined, and prospectors are encouraged to search it well for mineral deposits, knowing that rich ores have been discovered in Trail Creek division on the east and in Boundary Creek on the west. In expectation that some payable mines will be found and the permanent settlement of the district be thus assured, enterprising business men are establishing themselves at Cascade City, which is a small but growing town, situate near the Kettle River, south of Christina Lake.

Remembering the boom tactics that have been and are still being employed to impress the public with the magnitude of the mineral resources of the North Fork of Kettle River, and the superiority and coming importance of its town—Grand Forks—in which, by the way, several Victoria magnates (?) are monetarily interested, this part of the division must be dealt with somewhat gingerly. The palm for big capitalization will be conceded to it without hesitation, for a reference to that useful publication, the British Columbia Directory of Mines, will show that the highest amount of nominal capital given in the list of "Incorporated Mining Companies of B.C." is that of the Olive Mining and Smelting Company, of Spokane, with \$20,000,000, and next is the Seattle Mining and Smelting Company, of Spokane, with a more modest \$6,000,000. The former incorporation was organized to work the Volcanic claim on "Crazy" Brown's "mountain of mineral"; the latter has the Seattle claim, situate lower down on the opposite side of the North Fork. Both properties are said to yield ore containing gold and copper and it is claimed that assays of ore from the Volcanic have also returned silver. When adequate and systematic development

has proved the practical value or otherwise of these claims it will be in order to either congratulate not only the owners, but the province at large, upon possessing such prolific sources of wealth, or to try to forget all the great expectations once indulged in regarding them—according as results call for one or the other. There certainly are many indications of the presence of lots of mineral in the country along the lower part of the North Fork, but only the judicious expenditure of much capital will prove its worth, and this in all probability will not be entered upon until railway connection is being established. Prospectors are still exploring the North Fork country, extending the area of their operations and locating numerous claims.

Boundary Creek, having notice in a separate contribution, need not be further mentioned here. Regarding Rock Creek, there is not much relating to present activity to chronicle. It is said that as early as 1861 placer gold discoveries near the mouth of Rock Creek attracted nearly 3,000 people to this place and that the excitement lasted several years; also, that during the same period about \$40,000 worth of gold was taken out of Boundary Creek within three miles of its junction with Kettle River. In 1886 or 1887 attention was directed anew to Rock Creek, following quartz finds which, later, led to the establishment of Camp McKinney. To this day prospectors are giving the country around Rock Creek close attention, so it would still be premature to express a decided opinion as to its future. One feature, however, demands particular notice, viz: its coal measures. Mr. S. S. Fowler, A.B., E.M., says (*vide* Report of the Minister of Mines for 1896, p. 582): "The cretaceous rocks * * * from four miles west of Midway show occasional croppings of coal. Up to the present time the best of these is near the mouth of Rock Creek, where the seam is about four feet wide. Although prospected to a very limited extent this coal appears to be quite up to the average cretaceous coal in quality." Analysis of this coal, made from the immediate surface, where it is much broken and has absorbed impurities from the overflow of Rock Creek, Mr. Fowler quotes as follows:—

	No. 1.	No. 2.
Fixed carbon	65.5	68.85
Volatile matter	28.3	15.7
Ash	6.2	15.44

The main Kettle River can now only be referred to very briefly. Prospectors are already pushing their way both up the main stream and the West Fork. A find of galena in quartz at a point about thirty-five miles up the West Fork was recently reported. Probably some important discoveries will be made during the summer, and if so there will in future be much attention paid to what is, at present, practically unknown country. Before turning from the Kettle River country though, mention must be made of the Crown Point claim on James Creek, about seven miles above Rock Creek and less than two miles from Kettle River. On this claim, which will shortly be worked by the Prospecting Syndicate of British Columbia, Limited, to which it is under bond, there is an ore body apparently sixty or seventy feet wide, containing galena and iron pyrites, with a gangue of lime spar mixed with quartz. The formation is quartzite crossed by dykes of diorite, and the ore body appears to be in these dykes. A

specimen assay returned 42 per cent. lead, 51½ ounces silver and a trace of gold. The company is now inviting tenders for sinking a fifty foot shaft on it, so it will shortly be known whether or not the ore lives down to that depth.

In conclusion it may be urged that the first and all-important need of the Kettle River Mining Division is railway communication for, as Mr. Fowler says: "Even the high-grade dry ores of the district can do little more than bear the burden of sixty or seventy miles of waggon haulage, when added to the other necessary expenses. So much the less then can the low-grade sulphide ores be profitably exported." With both wet and dry ores, iron, limestone, coal, timber and water—all the raw material necessary for effective treatment of ores and for mining them—the Kettle River Division offers every inducement for the investment of capital, but upon one indispensable condition, viz: that adequate transportation facilities be speedily supplied.

Glimpses of the Past and Present,

BY WILLIAM TEAGUE.

YALE District is situated in the south-western portion of British Columbia. The aspect of the country is agreeably diversified with mountain ranges, lakes and rivers, undulating hills, and fertile valleys, together with her varied vegetation produced under the influence of a most favourable temperature and forming pleasing and picturesque scenery. Its

greatest length east and west is 193 miles, and breadth from north to south 157 miles, comprising an area a little larger than Denmark.

The town of Yale is one of the old historical landmarks of the province, environed by sterile mountains and rocky escapements, towering to an altitude of 3,500 feet. The town is situated on a plateau in a triangular form on the north-west bank of the Fraser River, at an altitude of about 200 feet above sea level. It is also the head of steamboat navigation on the Fraser River, and the present railway station is 102 miles distant in a north-easterly direction from the Terminal City of Vancouver. From the first discovery of gold on the source of the Fraser in 1858, till the completion of the Canadian Pacific Railway in 1886, Yale was the principal mining centre of the province, and her citizens were animated with the spirit of enterprise and thrift. In 1861 they formed themselves into a co-operative body and built a commodious steamer, *The Yale*, to ply between New Westminster and Yale for the transshipment of their freight, in opposition to the regular line of steamers then running in the carrying trade between New Westminster and Hope, which eventually brought Yale to the front as the main distributing point, and forced the older pioneer line to build more powerful steamers and share in the trade. With teaming, packing and mining the streets in those days presented a scene of business activity. Money was plentiful and flowing in every direction. There was a large gathering, cosmopolitan in character and representing

Published
Quarterly
By THE MINING RECORD
LIMITED LIABILITY.

...The Directory of Mines

CONTAINING

A Synopsis of the Mining Laws of British Columbia

By ARCHER MARTIN,
Barrister-at-Law (of Martin & Langley, Victoria, B. C.).

THIS SYNOPSIS, being revised and prepared for publication, at each issue, by a well-known Barrister is a most valuable feature because of its absolute reliability, and makes the Directory indispensable to all those engaged or interested in mining. LAWYERS will find it of the greatest assistance as all important mining cases, and changes in the law are noted up to date. It also contains a full list of incorporated mining companies, and a descriptive list of the various mining claims in the province. As the work is issued quarterly, the list of mineral claims will be increased, until finally it will contain every claim of any importance in the country. General information useful to mining men, and new features will be published in each succeeding number of the work.

Annual Subscription, payable in advance—Canada and the United States, \$2.00. Great Britain and Foreign, 10s. stg.
..... Single Copies, 75 cents.....

ADDRESS The MINING RECORD, Ltd. Lty., P.O. Drawer 57, VICTORIA, B.C.

The next number of the **Directory of Mines** will be issued about 10th May. Printed forms for filling in the necessary information about mineral may be procured from any of the following parties:—J. F. Smith, Kamloops; G. E. Grogan, Revelstoke; Wm. Meadows, Kaslo; D. F. Strobeck, Ainsworth; Howard West, New Denver; D. M. W. Watters, Trail and Rosland; H. Mortimer Lamb, Greenwood City; T. T. McVittie, Fort Steele; — Thompson, Alberni; E. Adrian Meyer, Vernon; J. H. Clements, Ashcroft; Wm. Parker, Teer Park; Slovan News Co., Three Forks; H. G. Parson, Golden; Gid. R. Propper, Grand Forks; or address direct

EDITOR "DIRECTORY OF MINES," P. O. Drawer 57, Victoria, B. C.

almost every nation in the world. The inhabitants in those days numbered about fifteen hundred. At present including whites, Chinese and Indians they number about 300. Owing to the decline of trade and population this distinguished little town had to succumb to the commanding influence of circumstances. Science played her part, and the transcontinental railway came at length, distributing interior freights to more advantageous points.

The town derives its name from one of the Hudson's Bay Company's trappers and traders who preceded the Argonauts in quest of their golden treasures. The Hudson's Bay Company established a trading post here in the early period of their royal charter. A log house 30x20 feet was built of hewn wood for the display and sale of their valuable trinkets and protected by a heptagon tower fort built of hewn cedar, containing two four-inch bore guns, the whole being inclosed within a stockade fence of cedar logs. The numerous Indian tribes, with their rude dwellings, scanty dress, bows and arrows, curiously shaped Hudson's Bay tomahawks or tools of stone inherited from early ancestors, were objects of interest—specimens of primeval man. The American axe succeeded the tomahawk with the advent of the Argonauts in 1858, who made the monarchs of the forest give way, clearing out the highway of the wilderness for teams and stages to move to more outlying districts. But not only did these hardy pioneers seek for the golden treasure; they cleared the highway for a newer civilization.

But it now seems certain that Yale with its record of former activity will surely rise from its slumbers, and become a busy and important town again.

The knowledge of the laws of nature, now so generally studied, would have prevented the loss of much valuable time and useless expenditure in the past, and in order to prevent further waste of capital and valuable time it would be well to bear the fact in mind that the various minerals are generally found in connection with certain rocks or strata. In modern mining the business of exploration becomes again the most important of all the phases of the miner's practice, for preliminary judgments govern after success or misfortune by the wise or unwise selections of mineral veins. These indications are favourably looked upon by the penetrating eye of the experienced miner and designated as "kindly ground," "sugary spar," or "rotten ripe ore," the reverse being "uncongenial ground," "hungry country spar," and "dried up ore." Attention should naturally be directed to the local characteristics by which any special region is distinguished. The "nature of the rocks" is certainly appealed to by the experienced and practical miners, as evidence of their richness in metalliferous ores, or of their poverty in such. Although these predictions of the observer—founded on his lithological knowledge—may be more or less inaccurate, yet in nearly all cases it proves that the evidence given by observation is of some real importance, and that it may be, to a certain degree, relied upon as a temporary guide.

The resources of the district are almost unlimited, especially coal, quartz, placer ground and timber—all awaiting future development. The placer mines of Yale are some of the richest ever known and have attracted large numbers of men to search for the precious metals. The question of our gold and metal-

liferous mining just now comes prominently to the front, as a result of the promonitory indications which appear and capitalists are being solicited to open up properties which will undoubtedly, under judicious and economical management, prove of permanent value. There are, however, a number of so-called gilt-edged mining locations brought forward and introduced to the public as mines, the only development work to be seen being the blazed posts required by the Statute, to distinguish their demarkation. Other instances, too, I have seen. Claims—styled mines—with a confused mass of mineralized quartz jumbled together like sausage meat, segregated patches out of place associated with the wrong kind of country rock and therefor unreliable for the production of large quantities of mineral—these are floated upon the market for hundreds of thousands of dollars.

If reference be made to the map it will be seen that the immense mountain system containing the productive mineral zone of the province trends from south-east to north-west almost centrally through the entire district, its valleys draining an extensive territory, along which drift detritus for ages innumerable has been accumulating, forming the rich auriferous deposits which flank the sinuous course of the Fraser River. The rich placers attracted miners, prospectors, engineers and capitalists to these sources of wealth who strove hard to recover the large quantities of gold known to exist in the shallow bars and river bed. But their efforts have been baffled so far by inadequate machinery and no device has yet been introduced that has proved a success. Attempts have been recently made to dredge the bed of the stream and many thousands of dollars have been wasted in constructing different kinds of dredges with centrifugal pumps and vacuum chambers, all of which have proved rank failures. The field of enterprise is lying dormant, probably awaiting the advent of the New Zealander with his practical experience and steam dridges working on the same principle as those on the Molyneaux River, where there are over fifty-seven machines successfully in operation and paying their owners handsomely, in some instances over 100 per cent. on their first outlay, and capable of working in swift currents, to a depth of sixty feet below the surface. These machines will work rough or fine gravel and gravel containing one grain of gold (say four cents) to the cubic yard will pay handsomely. The prominent paying bars that were worked in the early days above the water line along the Fraser yielded immense quantities of gold, and I cannot help thinking that these layers of gravel, being contiguous and lying beneath the surface of the stream are identical with deposits of the same character that will prove to be remunerative when the mechanical appliances of the engineer are successfully introduced.

The season for exploiting hydraulic mining during the low water of the Fraser in the winter season was retarded owing to the scarcity of water in the creeks. Superintendent Wadleigh, of the Hills Bar Hydraulic Mining Co., was most unfortunate in his operations. After getting sluice boxes and other connections in order and preparing for an extensive run, the water gave out (in January) and the weather changed, with a lower temperature throughout the early months of the year, keeping the snow from melting at high altitudes and prolonging his expectations. From realizing good returns out of bright



FAIRVIEW, B.C.



TRANQUILLE HYDRAULIC GOLD MINE.

prospects he made only one day's run on the rich channel of gravel, authoritatively reported as having been recently struck and averaging in panning from fifteen to twenty-five cents to the pan by actual test. It is supposed that the company has just entered on the rim of the rich (lost) channel of the celebrated Hills Bar lead, but was prevented from working on it by the subsequent sudden and warm change of the temperature which caused the water to rise rapidly in the river. Mr. Wadleigh is now managing operations of the hydraulic mining claim at Boston Bar, belonging to a company of Ottawa capitalists.

The low water in the Fraser afforded every opportunity for working the shallow bars along the river and numerous gangs of Chinamen in larger numbers than for many years before could be seen scattered along its course washing out gold with rocker and pan. In several instances some rich spots of new ground were found and judging from the amalgam balls of retorted gold which I saw with them good remunerative wages were obtained.

Developments at the Queen gold and silver mine are fairly progressing. The main cross-cut is being driven by two shifts under contract to drive it 100 or 150 feet to intersect the lodes at deeper levels. The tunnel is already in 240 feet, mostly through hard silicious rock, carrying large quantities of mundie, and as progress is made the indications appear to improve most favouring the expectations of the promoters by meeting with large deposits of mineral. They have recently struck into a change of ground—a strata principally of calcareous shale, highly mineralized with sulphureous iron, arsenical pyrites, ribs of blende, oxide of manganese, together with threads of quartz and calespar, and judging from these favourable appearances the prospects are, I consider, decidedly hopeful. The geological structure belonging to the Laurentian system is traversed by intrusive bands of dolomite and elvan, causing some surface contortions, which hitherto embarrassed the original promoters in their surface explorations and prevented their finding the true position of the fissure lodes.

Yale, B.C.

A New Field.

FOR the last few weeks considerable excitement has been manifested by the discovery of a new field for the prospectors. Deer Creek, about twenty miles from Clayoquot on the West Coast of Vancouver Island, is the scene of operations.

The writer being desirous of verifying the reports that have been given of the district, along with others, went up on the C.P.N. Co.'s steamer *Tees* about the beginning of May and had a look over the ground. It is comparatively easily reached.

Taking a canoe from the steamer's landing Deer Creek can be reached in about three hours. The creek is sufficiently large to float a canoe half a mile from its mouth. The prospects are easily reached from the creek, claims being staked off on both sides. The first claims, Jay Gould and Rothschilds, were discovered in September last year by three prospectors, Messrs. Williams, Poole and Dodd. Finding that samples from these claims yielded encouraging results they returned to get further samples and whilst there found and staked off another claim, which they named the Hattie Green. The samples taken from

this claim, although taken from the surface, were acknowledged by experts to be the finest surface cropping that had been seen of the same class of ore from any part of the island. I am credibly informed that the surface croppings assayed \$18.13 in gold and from 15% to 18% in copper.

This becoming known, many prospectors were attracted to the district, until now the whole of the vicinity seems staked off, and many good claims have been located. From the superficial investigations made whilst there the district gives indication of much promise as a good mining camp. The country rock is diorite with large dykes of limestone, and where these converge the ore bodies are found; the lodes vary from six to twelve feet and are principally copper pyrites or chalcopyrite with the characteristic capping of magnetic iron.

Without any work being done it is impossible as yet to designate the bodies as veins or deposits, but generally speaking the surface showing gives much promise. On one claim, the Crow, which I understand is held by Dr. Khlober, of Seattle, and others, a little work has been done showing the face where it is proposed to drive a tunnel. From what had been uncovered the hanging and foot walls were distinctly visible and between these walls and the ore body a soft gouge of from one-half to three-quarters of an inch in thickness could be traced, giving every indication of a true vein. The owner is very much pleased with his property and has, I understand, called for tenders for the driving of two tunnels along the ledge, one fifty and the other one hundred feet.

On visiting the Hattie Green I found there a lode from eight to fourteen feet was visible as indicated by the capping, and in some places the ore body was itself visible. The owners, I understand, have arranged to begin to open up the lode at the most accessible point and determine its extent.

When some work is done it will be easier to give an idea of the prospects, but there is no doubt in the meantime these are assuring, and I think there will be little risk in prophesying that more will be heard of the district. It is just possible that it may put into the shade districts that meantime bulk largely in the public eye. With a good find of minerals the district has all the natural resources to make a good mining camp. Water transportation, perhaps, is the chief recommendation, and is within easy distance of all the claims, any of them being tapped at not more than one and a-half miles from good, deep water. Fresh water and timber abounds.

There are now four trips made by the C.P.N. Co.'s steamer in a month, making the place accessible for passengers and supplies. There are also two large general stores in Clayoquot within easy reach, so with all these facilities combined, what hinders the place from taking front rank with any of the mining camps of the province? All that is wanted to make it take such a position is enterprise and capital, and to all possessing these I think this district is well worthy of their attention, and from whence a good return from their outlay would be secured.

Alberni, B.C.

JAMES B. THOMPSON.

Camp McKinney.

THERE are indications that the season now entered upon will be the busiest yet experienced in Camp McKinney, and it appears quite reasonable to expect

The ledge matter is quartz carrying sulphides of iron and copper, galena and tellurides. The occurrence of tellurides here is noteworthy, they having been found only in one or two other places in Canada. It may be of interest to observe in this connection that it is the telluride ores that make the rich mines of Cripple Creek, Colorado. It is to be expected that the rich ore will only be found in shoots in the Jewel mine. It certainly will be pockety, for streaks giving such values as those first mentioned above seldom occur continuously. Nevertheless, the indications and values obtained down to 130 feet are most favourable to the permanence and remunerative operation of the mine.

The Jewel pay roll for May, with fourteen men employed at the mine, was about \$1,500. Though small when compared with those of mines shipping ore it is very satisfactory in a district lacking railway connection, and in a camp not yet even provided with a wagon road. Here is a district where the numerous difficulties to be encountered and obstacles to be overcome are well known and understood, the enterprise and energy of the Prospecting Syndicate of British Columbia and its competent mining manager are much appreciated and it is earnestly hoped that their efforts will meet with the success they merit.

PERCY VERENS.

The Slocan.

SIX years ago the existence of pay mineral of any kind in the Slocan District was unknown. To give a history of the discovery and subsequent development of the region would require volumes. In this article the writer shall not attempt to describe the many mines of the section, as all such information is fully covered in Prof. W. A. Carlyle's comprehensive reports.

Six years ago there was no sign of a trail in the country. Now two railways and numerous steamers on the rivers and lakes are taxed to their utmost to handle the passenger and freight traffic.

To properly visit and inspect the great Slocan one should begin at Kaslo, the district's eastern entrepot and outlet. The writer regrets his inability to give either the history or an extended description of this bustling, all alive place. Neither fire, flood nor hard times has ever dampened the ardour of the true Kasloite.

In the early autumn of '92 the future of the town looked gloomy. Other agencies were conspiring to make the outlet of the Slocan in another direction. The people of the town united, however, and pledged \$20,000 to construct a wagon road to Bear Lake, twenty miles distant. The work was done and by December of that year sleighs were running as far as the mouth of Cody Creek, thirty miles away, and the streams of high grade ore the district was already producing gravitated to Kaslo.

The silver slump of '93, the disastrous fire and terrible flood of '94, never deterred the energetic citizens from pressing onward, and to-day the city is finer and grander than ever. Lumber for new buildings is being brought from the Coast, although two sawmills are in operation on Kootenay Lake, yet they cannot supply the demand. As an example of the self reliance of the people, after the washouts of '94 Acting Gold Commissioner Goepel arrived from Nelson with \$500 cash to be distributed among the

homeless and suffering. The money was turned over to a committee of three for distribution. Mr. Goepel also authorized Mr. C. E. Perry to employ all seeking work and repair the Kaslo-Slocan wagon road. The committee of three sat idly in their room drumming on the table as the male population went out on the road honestly earning \$2.50 per day. The \$500 was returned to the Government. Many a man who wielded a pick on that occasion is on velvet to-day. We must leave the well-governed city, with her magnificent water system, electric lights and busy hum of industry, and take the Kaslo & Slocan Railway for the famed Slocan. Finely upholstered coaches you will find and the most careful and obliging employees.

The first place of importance after leaving the terminal depot and proceeding westward up the Kaslo River Valley is Kemp's Springs, a very palatable and highly medicinal mineral water. Here during the summer months the train stops while going in either direction to allow passengers to refresh themselves from one of the many springs which gush from the ground convenient to the railway track. The analysis of this water compared with other famous mineral waters of the world proves that it will yet be drunk by crowned potentates and the Presidents of Republics when it is once shipped abroad, but the newness of the country and the limited home market for such a product has thus far prevented the proprietor from pushing the enterprise.

One mile further on at the South Fork of Kaslo Creek is the townsite of Nashville, laid out in '92 but lying dormant until this year. One large hotel is now in operation and doubtless before the summer is over several business houses will be erected. From three to eight miles up the South Fork a number of new mines are being worked, the product in some instances being gold, silver and lead. There are no less than eight incorporated companies. One, the Montezuma, will build a concentrator this year and possibly the Black Fox Company will do likewise. Either a wagon road or a branch of the railway will be completed this year to the principal mines.

From this point as we proceed westward we begin to enter the mineral belt which has made the country so justly famous. Healthy prospects abound on all sides, but none have as yet become noted producers until Sproule's, or the Fifteen Mile House, is reached. Near this place is the great Iron Hand ledge of hematite which supplied the Hall Mines smelter at Nelson with fluxing material for a long time. On Spring Creek is the Carbonate, owned by a Rossland company, the Texas, Alice and Zani, and a score or more of other claims.

From the north comes Bear Creek, which is literally ribbed with silver-lead veins. The Eureka, which has been quite a shipper, is about three miles distant, and work is being prosecuted on at least a dozen embryo bonanzas.

Whitewater, seventeen and a-half miles from Kaslo, contains a store, post office, two hotels, and Uncle Jim Bell, an old pioneer whom everyone knows, has just completed a sawmill and planer. This is the central point for the Jackson Basin, Whitewater and other mines which are noted on account of the quantities of ore which they have produced. There is sufficient development done and enough real

mines known to exist to make Whitewater a point of considerable importance in the near future.

Bear Lake Station is on the summit, twenty miles from Kaslo. Here the waters divide, flowing eastward to Kootenay Lake and westward down Seaton Creek to its junction with Carpenter, thence into Slocan Lake at New Denver.

At one time two rival towns flourished at this point, one called Bear Lake City and the other Watson. The forest fires of 1894 swept them out of existence. With the exception of Willey's Hotel, built since the conflagration, there is no other evidence of a community. The Lucky Jim mine, which has been a heavy producer, is located near by and it is said a concentrator to manipulate its ores will be built in the near future.

The London Hill Mining Co's dry ore property is situated but a few miles distant. They are pushing development work at a lively rate and expect to ship large quantities of the much sought for high grade dry ore after the trail is in proper condition.

From here the railway begins to swing around the side of the mountain, soon leaving the valley of Seaton Creek far below. McGuigan's is reached in two and a-half miles. One store and two hotels comprise the town, yet fourteen shipping mines and the Washington concentrator load their product on the cars at the siding. As we proceed the town of Three Forks can be seen lying far below. The Forks was properly called the heart of the Slocan in its palmy days, but at present this heart is not so healthy as it was. Still the remaining inhabitants have great faith in the future of the North Fork of Carpenter Creek, whose ores can go no other way but to the Forks.

The train first goes to Sandon, then comes back one mile and switches off on a higher line over which it passes to the thriving town of Cody.

In the opinion of many, no matter what the other towns of the Slocan have to back them up, Cody will be the concentrator town of the district. The Noble Five mill of 120 tons daily capacity runs continually; several other mills will be erected in the future and the place is assured a permanency on account of the large pay roll which it will always have. So numerous are the mines tributary to Cody that they are too many to mention.

The area of the townsite is limited, only about 100 acres, yet lots sell from \$25 up to \$500 each. W. E. Powell has a sawmill running full blast, so there is no scarcity of lumber for building operations. This is really the headquarters for all mining operations beyond up Carpenter Creek and for the many properties on Cody Creek, so Cody, as a town, will probably never have a rival.

During the afternoon I walked down to Sandon. Sandon the unique, with its winding, narrow and crooked streets, and sidewalks at different elevations.

Three years ago last January an item in the *Nelson Tribune* stated that several men were camping at the mouth of Sandon Creek in anticipation of a town being there some day. That same month John M. Harris and the writer walked past the place and stopped for a time at "Bob" Cummings' cabin, the first attempt at an hotel. Bob has a palace of a stopping place now. Think of hotels there with steam heat, electric lights and bells, hot and cold water in each room. One hotel in particular, it is said, is the most luxuriously furnished of any in the province. If Three Forks is the heart of the Slocan

Sandon is the lungs. It breathes life and prosperity. There is nothing lacking and everything can be had to suit any purse. People from all over the mining world jostle each other on the street or meet in the lobbies of the different hotels. An old-timer will meet friends from any camp he has ever been in, so never need be lonesome.

The different banks have branches here and there are some private concerns. E. M. Sandilands, who first came to Kootenay late in 1885, is the pioneer banker of the place and doubtless has filled his barrel with wealth.

Of the total output of the many dividend-payers tributary to Sandon I have not the figures except that the Reco, Payne Mountain, for '95-'96 produced \$3,305,000.

Three individuals I well know who had hard rustling for a "grub stake" in 1894 have an income individually from one property equal to the yearly salary of the President of the United States.

Notwithstanding the many mines around Sandon whose name is world wide, yet others are coming to the front every day. The Palmesto, adjoining the Queen Bess, and one and a-half miles from town, was a shipper before a trail could be built to the Wonderful siding on the Nakusp & Slocan Ry. Mr. T. H. Finnegan, an old time mining man, made the deal on this property and evidently used excellent judgment with his experience. It is now owned by a Toronto company and J. K. Clark and A. W. Wright, of Rossland.

The Canadian group, one of the '92 discoveries, located about three miles from Sandon, will roll into line as a shipper this season.

This property, consisting of the Adams, Brandon, Sarah B., Katie D., and Hill Top, the first two being held under Crown grants and the last three to be Crown granted this season, have passed into the hands of the Ontario and Slocan Mining and Development Company, incorporated under the laws of British Columbia, and is composed of Guelph capitalists, as follows: Geo. Sleeman, Silver Creek, brewer; Prof. Jas. Mills, Ontario Agricultural College; G. B. Ryan, wholesale and retail dry goods; J. C. Kelleher, dry goods; J. P. Coffee, barrister; John McHardy, pork packer; D. and W. H. Brandon. The capitalization is \$450,000 in thirty cent shares.

The Reco will soon commence the erection of a large concentrating plant. The Bolander claim on Cody Creek has been incorporated by an Ohio company, but any further facts I did not learn. At present the K. & S. and the N. & S. Railways terminate at Sandon, but I am reliably informed the K. & S. will extend their line to Slocan Lake within the next year.

From Sandon passengers for Slocan Lake points proceed to Roseberry at the mouth of Wilson Creek. On this stream quite a number of dry ore claims are being worked, but as I did not visit the town have no late information concerning them. The C.P.R. steamer *Slocan* was being finished at Roseberry, and before this is in print she will be in commission on Slocan Lake.

Beautiful New Denver is improving wonderfully. Several new business houses are being built and quite a number of handsome homes. This little city will doubtless be the home centre of the Slocan. Those who have stayed with the town and weathered all financial storms have unlimited faith in its future.



LONG LAKE—NEAR VERNON, B.C.



VERNON, B.C.

Silverton, at the mouth of Four Mile Creek, four miles south of New Denver, is now conceded to become one of the great commercial points on the beautiful lake where it is situated. Tributary to the town are twenty mines which will ship ore this year with plenty more to hear from. It is not an unreasonable hope the residents have that the two Slocan railways will terminate there. From this point to the foot of the lake is very heavy rock work, estimated to be worth \$40,000 per mile to blast it out for a railway. Quite a number of fine hotels and a store are already here. Jas. A. McKinnon is building a store 30x60 feet; the Alexander Brothers will build a handsome block which will be occupied by a chartered bank and offices. This is not all there is in contemplation, however. A good waggon road connects with the Galena Farm mines four miles distant, and the same kind of a thoroughfare is being built up Four Mile Creek.

From Silverton to Slocan City, distance twelve miles, all along the east shore of the lake are evidences of the mines which exist back in the Granite belt. The ores of this section are prolific in the much desired yellow metal as well as their other valuable contents. Two large hotels and a fine waggon road can be seen at the mouths of different creeks as one passes on the steamer.

It was noon when I arrived with a boat load of passengers at Slocan City. A genuine western boom was on and hundreds of people crowded down to the wharf. Nature could not design a more beautiful townsite than Slocan City or its near neighbour, Brandon. One feels at home and contented as soon as his feet touch the soil. For a new place it is surprising the number of fine buildings to be seen on every hand, and the multitude of people who are living in tents, shacks and cabins demonstrate it is a Meca towards which many are turning. A wooden bridge with four piers was being built across the Slocan River to connect with Mulvey and Clements Addition. The structure is 260 feet in length. Within the townsite limits of Brandon the falls of Springer Creek are worth travelling hundreds of miles to see. A natural terraced street which was being cleared and graded leads from the business centre to the falls. Such a beautiful and romantic spot attracts all visitors to the twin cities at the foot of picturesque Slocan.

Everything in the two towns was life, bustle, excitement. The hundreds of people congregated there were a cosmopolitan lot. The order of the place is excellent, yet the peace and dignity of this portion of Her Majesty's domain is upheld by one solitary constable.

The C.P.R. are putting in a wharf and docks, aggregating nearly 800 feet in length, so arranged that loaded freight cars can be run on or off barges and transferred from one end of the railway to the other without breaking bulk. At the time of my visit the contractors were expected any day to begin the work of construction of the line to Slocan Crossing, thirty-one miles down the river, where connection will be made with the Columbia & Kootenay Railway.

The gold, silver and lead mines of Springer and Lemon Creeks and quite a large scope of country beside are tributary to Slocan City and Brandon. Free

milling gold ore exists in sufficient quantity to justify the erection of stamp mills, and one of twenty stamps has been ordered.

My note book is quite well-filled with descriptions of claims in the environments of these towns, but space forbids mention of any.

Here was the end of my journey and the trip ended except for the homeward jaunt, which did not require so much time.

One thing strikes the traveller while journeying through the Slocan: he is astonished at the progress made since Eli Carpenter and Jack Seaton drove the first location stakes in the district in September, 1891.

MINOR NOTES.

Two years ago last February a one-eighth interest in Slocan City townsite was sold at New Denver for \$50 cash, and the seller thought he was doing well.

The first mineral location made between the lakes in Slocan district was the Payne. The present owners say they would not accept \$5,000,000 for the property to-day.

It is claimed there is \$2,500,000 in sight in the Reco. In '93 Patsy Clark had a bond on the property for \$40,000 and threw it up. The mine has since paid \$187,000 in dividends.

There are five newspapers in Slocan District, *The Kootenayan*, at Kaslo; *Pay Streak*, at Sandon; *Ledge*, at New Denver, and *News* and *Pioneer*, at Slocan City.

Heretofore the Slocan has been a poor man's country, but the conditions are changing so now that a person should have some capital to handle anything in the camp. The labour market is fully supplied.

There is already one sampling works at Kaslo, and another will be built this season by Colorado parties at Nakusp.

There are now four concentrators at work on Slocan ores and five more will be erected during the summer, making nine in all. It is rumoured the Slocan Star Company will build a huge mill at Kaslo and freight their concentrating product from the mine to that point over the K. & S. Ry.

No country on the globe offers better inducements for the investment of capital than the Slocan. The mines, realty and other business opportunities will bear the most searching scrutiny. R. H. KEMP.

The Issuing of Prospectuses.

IN the matter of issuing prospectuses the Companies' Act of 1897 certainly provides for the protection of investors against false or misleading statements being inserted in them. This is a step in the right direction and one upon which the Government and the Legislature are to be congratulated. We wish, however, that the Act had gone further and required companies to publish annual or semi-annual statements of their affairs. The representations in a prospectus may be made in good faith and in accordance with the facts at the time, but in the subsequent operations of the company the position of affairs may become altered and the investor has no means, except by hearsay, to ascertain whether there is safety in making an investment. It may be difficult or impossible for him to secure a statement from

the company even though the directors are required to make regular reports to the shareholders. So long as the company's shares are on the market and people invited to place their money in the enterprise the public are as much entitled to know exactly how matters stand as are shareholders who have already invested. If the concern is going to wreck, the shareholders may be tempted at times to conceal the knowledge they have in order to get rid of their stock to outside parties.

We trust that before another session of the Legislature the members may see the necessity of following up the good work commenced in the Companies' Act of this year and on again meeting that they may decide to place on the Statute Books a further measure of protection to investors.

The Cassiar Central Railway Scheme.

IT is common rumour that the promoters of the Cassiar Central Railway Company have sold out the charter with all its rights and privileges to an English syndicate for half a million dollars. If the rumour is correct it shows that Mr. Warburton Pike and his associates succeeded in obtaining from our Legislature a very valuable franchise. Whether the province will derive any benefit from the granting of it remains to be seen. We are inclined to think that British Columbia as a rule pays very dearly for the whistle and that much valuable domain has been given away under charters, which, in some cases, when put in operation, have proved to be detrimental rather than beneficial to the province. Our legislators, we imagine, are not so ready to give away property belonging to themselves as they appear to be to give away what belongs to the public.

We have been informed that there is a large amount of British capital behind Mr. Warburton Pike's Cassiar Railway project, and that the parties interested intend to invest heavily in opening up the district. If this is the case the Cassiar Central Railway scheme may prove to be a good thing for the province.

One thing, however, seems to be certain, that the Government has tied Cassiar for the next thirty-five years, and unless the chartered company choose to go on developing it it will remain shut up from private enterprise. Few prospectors will care about going into the district to toil and endure hardships in a search for minerals when they know that one-half of what they discover will go to the company.

If the Government were not assured beforehand that English capitalists were prepared to spend the money necessary to opening up the district they had no right to sanction the giving of the charter. On the other hand, if the parties behind the project will go to work earnestly and develop the district, which will mean the expenditure of a large sum of money and the employment of many people, the province may be benefitted, and if the venture turns out profitable to the English investors it will probably lead to the introduction of more capital into the country.

In the meantime Cassiar may be regarded as closed to free miners. On the whole, British Columbia is going too fast in the matter of granting huge monopolies and it is about time to call a halt. If it goes on much longer British Columbia will be a province of serfs.

Mining on the Coast.

THE seaboard mining districts, or more properly speaking, the mining camps fed from the mercantile centres on the Coast proper, and more particularly from the mainland towns, are experiencing great activity at present. In New Westminster and Vancouver brokers complain of considerable loss of confidence among stock investors owing to several alleged shady mine transactions of late and the consequent difficulty in selling development stocks. This state of affairs, however, does not seem to apply to the more prominent mining companies before the public; in fact they report a very free sale of treasury stock and very bright prospects. It is impossible to more than briefly refer to one or two of the prominent prospects in the different districts. At this writing the mainland of British Columbia within a radius of 200 miles cannot boast of a single mine, but from present indications many prospects will be mines in the space of thirty days' time. Commencing at Vancouver's very doors a vein has been struck on Lynne Creek, directly opposite Vancouver over the Inlet, assaying on the surface \$50 in gold and silver, and two miles higher up Messrs. Findlay Brothers report that they have a smelting proposition running over \$50 in gold on the surface. On Bowman Island, fourteen miles from Vancouver, on Jervis Inlet and in the Capilano Gorge adjacent to the city, finds of excellent promise have been made, but all as yet the baldest prospects. A short distance further away, however, on Harrison Lake, close to New Westminster, there are many embryo mines where indications have so won the confidence of capitalists that treasury stock has been easily disposed of, large expenditures are being made.

On the east side of the lake is the white free milling quartz and on the left the grey smelting rock.

Among the most prominent mines here situated are the Cassiar, Cariboo and Kootenay Companies', seven in all, chief among them the Nonpareil, running from \$34 to \$299. The tunnel of this mine is in 150 feet, the ledge being twenty-two feet wide.

The Province, a mine known as the Trethewey claim, is said to average \$500 in smelting ore. This mine is on the water's edge and several carloads of ore are on the dump ready for shipment.

The Star mine is being developed by B. E. Lister. It is behind the Province claim and is reported to run \$100 in gold. The Cliff mine is being opened up on the east side of the lake and is of great promise. It is free milling, and from five assays ran \$143.50. The Deep Cave has a shaft down sixty feet and the assays are running high—from \$80 to \$180.

The king of the camp, however, is the Fire Mountain property, considerably higher up the mountain than the claims mentioned. The Fire Mountain Company have sold some 25,000 shares of their stock at fifty cents and have options on the remainder sold for development work. Several hundred pounds of ore taken from the mine at 100 feet run from \$100 to \$500, and special samples run extremely high. A townsite is being built at the head waters of the lake fourteen miles from the mine and a gang of men are at work building a road to the property. A mill will be up for the property within thirty days.

In the northern waters—Shoal Bay and Phillips',

Arm—many prospectors are out. Returning mine owners claim that this section will astonish the province before long. There are no free milling propositions, but there are immense bodies of low grade smelting ore which will be mined and is being mined and which will add to the wealth of the province. On the 8th of May the final consideration was paid over by Grant Goven for the Channe Mine Company's claims. Men are in charge of the mines and on the arrival of Grant Goven work will be resumed on a large scale. Among the claims at present being developed are the White Pine, retained by the Channe. The tunnel is in one hundred and fifty feet, and there is fifty feet of shafting. The lead ranges from six to nine feet wide and values are increasing every foot. Shipping will commence on the 1st of July. The Gertrude and Gypswich, also owned by the same company, containing the same lead as the Shoo Fly, the property purchased by Lord Sudley, are also being developed.

The Acme, close to the White Pine, has excellent indications and will be developed immediately. The Young Australian also shows up well, five assays on the surface running from \$90 to \$278.

The natural headquarters for camps in the vicinity is Bickley Bay, a magnificent harbour near Thurlow Island opposite Phillips' Arm. Here a new townsite is under process of creation by the Northern Supply Company and a magnificent hotel has already been erected.

At Cayoosh Creek, Lillooet, are the magnificent prospects of three companies, the Golden Cache Company, the Golden Reefs Company, and the Alpha Bell Company. In forty days, possibly less, the mill of the Golden Cache Company will be working. Should the great predictions for this mine be fulfilled all properties in the camp will increase in value. This particularly applies to the Alpha Bell, which contains the same identical ledge as the Golden Cache.

In the Black Water Camp in the same district are also numerous properties of promise, but the sensational feature of the camp is the fact that the Black Water Company own a metalliferous spring running from one of their ledges down the mountain side. This spring is blue with copper and assays twenty pounds to 200 gallons. Many assays have been made with little variation.

In Fairview, Okanagan Country, the largest mill in the province is promised by the Tin Horn Company, and in about forty days from this writing the mill will be in operation. The Athabasca Company, of Nelson, also promise to have a mill erected within forty days so that about the same time mills will be running on the sites of the following free milling propositions: The Athabasca, the Golden Cache, the Tin Horn and the Fire Mountain.

In other words, in sixty days at the most, confidence will be restored in the seaboard mines through the mill tests of the free milling propositions or the seaboard will get a set back that it may take more than one season to recover from.

All eyes are on the Golden Cache, the Alpha Bell, the Tin Horn the Athabasca and the Fire Mountain mines and the immediate prosperity of the Coast property largely depends on these properties, all owned in Vancouver and New Westminster.

GOODMAN.

Notes from Kamloops.

A GREAT many people living beyond the limits of the province of British Columbia who read our current literature doubtless credit most of what they read of the wonderful disclosure of the past few years of the mineral wealth of this province to so much newspaper talk. It is a fact nevertheless, yet it seems unreasonable to ask outsiders to believe what they read in the newspapers. Unless they visit this country and see for themselves it would be next thing to an impossibility to give a correct idea of the immensity of the mineral wealth of this province. The fact is British Columbia has awakened to its possibilities, and those possibilities are destined to rival, if not surpass, the best known mineral wealth producers of the world. From almost every quarter of the province we get authentic news of the discovery of leads carrying both precious and base metal. The correctness of these reports may be judged from what is transpiring here in our immediate neighbourhood, hence from the knowledge I have acquired, through actual test, of the mineral in our locality. I feel warranted in stating that Kamloops mining district will play no mean part as a mineral wealth producer. In fact we have it from men who have devoted years to both theoretic and practical mining, and who have visited the mining camps of California, Australia, Arizona, Eastern Canada and Kootenay, that the surface showing in Coal Hill is by far the richest and most promising surface prospects they ever saw in any camp previously visited. Taking an impartial glance over what constitutes the Kamloops mining district one conclusion forces itself upon me; that is, this district is certainly one of the most favoured of the province, as there is hardly any class of mineral to which a commercial value is attached that is not obtainable within its limits. If gypsum is needed there are quarries of it; if it be asbestos we have several leads under development; if mercury, we have an extensive plant, treating the Cinnabar ore on the ground from which quicksilver is extracted; should it be iron ore, the Glen Iron Company owns the largest deposit of metallic iron ore on the Pacific Slope. For coking, steaming, blacksmithing and domestic coal, fifty miles up the navigable waters of the North Thompson River on its eastern banks, are coal beds extending over an area some seven miles in length by four wide; and the day is not far distant when those immense deposits of galena at Mosquito Flat, which have been found to be too heavily impregnated with zinc to be successfully and economically handled, will be worked solely for the zinc. Of copper, which of late is showing an upward tendency in price, this camp will contribute a large amount. In the precious metals—gold and silver—time will prove that this particular district is destined to have no peer in its production. In proof of this assertion I offer a detailed statement of what has actually been shown by assays of samples from claims on which development is in progress. There have been in the last ten months upwards of 1,300 claims recorded in our office. It must, however, be borne in mind that the Gold Commissioner's office at Kamloops is the central and chief, over Granite Creek, Okanagan, Spallumcheen, Grand Prairie, Nicola Valley, Mammoth Lake, Ashcroft, Savona, Deadman's Creek, Criss Creek and as far up as within the 100-mile post of the Old Cariboo waggon road. These sections, collec-

tively, together with those mentioned in my last letter, have contributed to this record something like 400 claims, leaving about nine hundred to be credited to the immediate surroundings of the city of Kamloops. Of these we will only mention such as have had development work done or in progress, together with those groups of claims, forming plots, which will assuredly in the course of further investigation prove to be paying investments.

To begin at the beginning, I must start with the Cinnabar mines at the north side of Kamloops Lake some fourteen miles west and operated by the British Columbia Cinnabar Mining Company. This company has been in operation for the past two years, but the process has been simply that of prospecting and retorting the ore by means of a small furnace. Some time last summer a dyke was discovered some fifty feet in thickness a little to the east of where operations were in progress. The tests from this large body of ore were of such a satisfactory nature as to warrant the outlay of a large sum of money in the erection of commodious buildings containing a number of furnaces and other appliances for the economic reduction of the ore on the ground. This concern is now thoroughly equipped and at present gives employment to about twenty-four men, which number it is expected will be increased shortly.

A half mile to the east of these mines is the Tendentoot mineral claim, owned by Oliver Redpath, who, together with a few others, were the original locators of the Cinnabar mines. This is strictly a copper proposition and occupies the distinction of being the heaviest body of copper ore in the camp, running as high as fifty per cent. of that metal in picked samples and giving a general average of forty-four per cent., carrying a little gold and a small percentage of silver.

On Tranquille Creek, a few miles to the east, the bars and benches in which the precious metal has been found in the gravel offer excellent facilities for hydraulic mining, and there are now two companies holding leases covering an extensive area. The Thompson River Hydraulic Mining Company have had the ground covered by their lease thoroughly prospected and erected a year ago what was thought to be substantial works for the support of their flume, but through poor construction the trusses were unable to withstand the force of water when turned on, hence a very small clean-up was made in proportion to the outlay. Calculations are, however, being made for the strengthening of the trusses and the resumption of work. The Tranquille Hydraulic Company, which also holds a lease covering ground that has already been satisfactorily tested, are now making preparations to put on their plant. These two, with Gilbert Smith at the North Fork preparing to pipe on his small holding, are expected to be in full blast during the season.

Before going any further on this side which would take us up the North Thompson we will first pass through the Coal Hill Camp, immediately south of Kamloops, and in which particular section bears local designations, such as Dufferin Hill, Copper Flat, Sugar Loaf, Jocko Lake, etc., etc. The Glen iron mines are not on Coal Hill; they are situated about fifteen miles west and south of Kamloops Lake and connect with the C.P.R. track by train. The ore is metallic iron and has been the source from

which the smelters of the Sound have been drawing their supplies for smelting purposes.

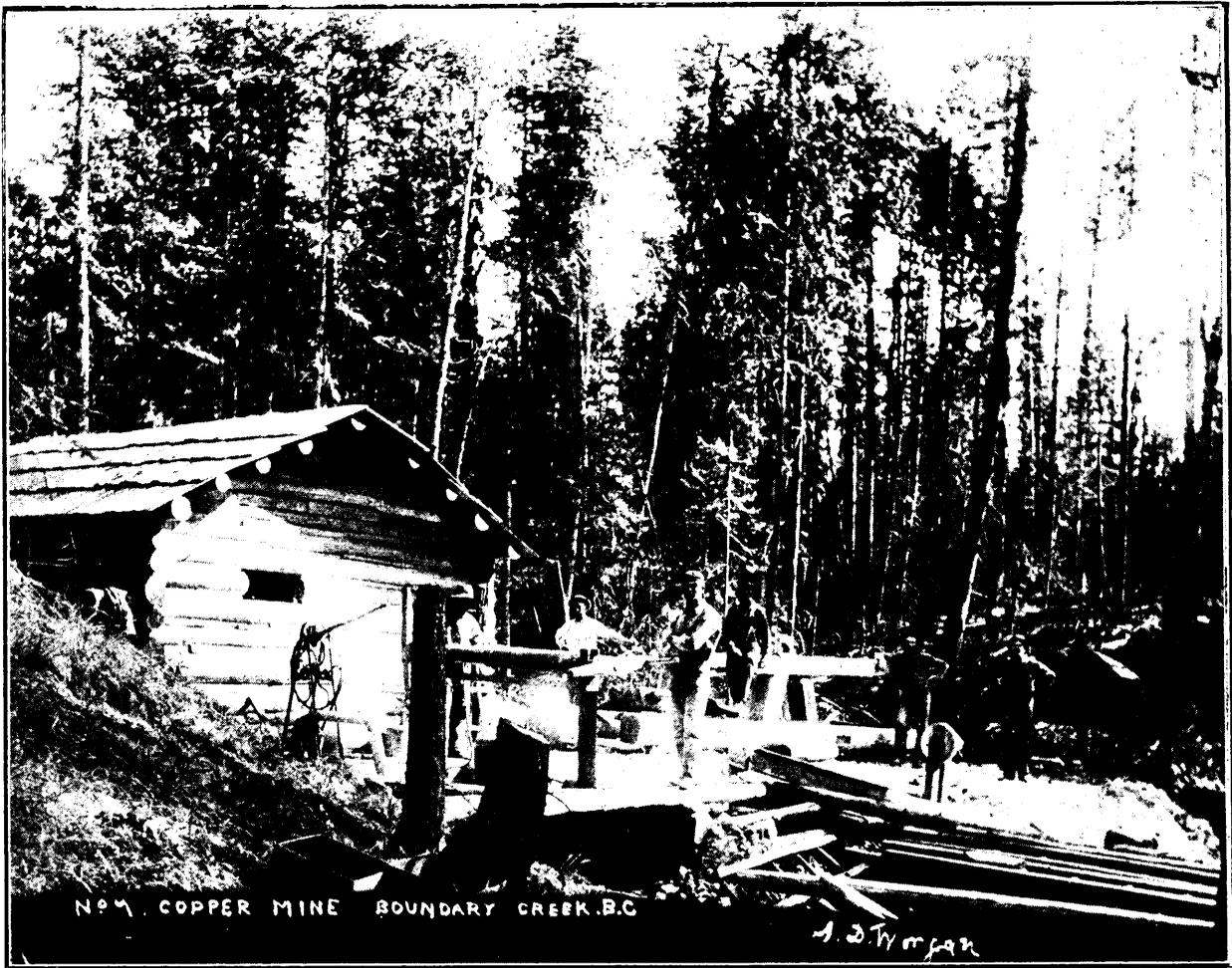
The foregoing and those of the North Thompson River constituted up to July last our mining resources. What has taken place since can be easily gathered from the record of Coal Hill and adjacent points, the most prominent and promising of which are the Iron Mask and its group consisting of eight locations, to which reference was made in my last letter; the Python, the pioneer of the camp; the Canada, with its seventy-foot shaft in decomposed highly mineralized diorite that averages \$32 in the precious metal with fourteen per cent. copper to the ton; the Dominion, Breeden and Copper Cent (a group recently acquired by A. H. Craven, representing parties in England) are situated in the Jocko Lake section. On these claims there is a staff of men now engaged in development work, which so far is proving exceptionally satisfactory to the investors.

The Big Six Gold and Copper Mining Co., with H. McCutcheon as manager, has taken over the Bonus, Sunshower, Prospect and the Bunn. Assays from the surface showings of these claims have yielded gold, silver and copper in sufficient quantity to justify their development, which is now being started on the Sunshower.

J. R. Mitchell and Dr. Hall are pushing their work on the Noonday and Christmas with the same results as reported in my last. The quartz vein is holding its uniform width with a slight increase in the gold assay from the face. These claims and a few others are situated east of the Coal Hill series, including the Jocko Lake and represents a somewhat different series inasmuch as there is very little quartz found in the latter section carrying gold; in fact previous to the discovery of these claims very little attention was given to quartz. Of course since the quartz of these claims has been found to contain gold in such quantities as to be discernable to the naked eye a great many veins have been located. The quartz is free milling and so far is high grade.

The B.C. Gold Fields Co. has acquired the Peacock, Ora Bell and Majestic and preparations are in progress to set these claims in motion. The Gold Cup, Iron Duke and Little Snuggler, of John Hepburn, are daily improving in value as development progresses. A. G. McDonald, our pioneer prospector, is having an excellent showing on the Bonanza. This location shows signs of being a valuable one. The Iron Cap with its two and a-half feet of carbonitic ore, which runs \$274 in gold and \$4.16 in silver, holds its own with little or no variation, hence ranking among the best in the camp. F. P. Carey, who has under development bond the Golden Tip, Champion, Neighbour and Blue Bird, is now satisfied as to the value of the two former and has a crew of four men engaged on the Blue Bird, with a similar number on the Phoenix; the right to this claim, however, is in dispute.

R. H. Lee's Chieftain No. 1, Chieftain No. 2 and Northern are fairly developed and now await improved appliances to place them on a shipping basis. What is known as the Guerin lead (which is the lead of the Lucky Strike, on which Jas. Cobledick holds a bond) has been traced by trenching through three claims in a westerly direction. At a depth of two feet below the surface of these claims a five-foot body of solid ore



NO. 7 COPPER MINE—BOUNDARY CREEK, B.C.



COPPER MINE—COPPER CAMP, GREENWOOD CITY, B.C.

was found identical with that of the Lucky Strike, only a much heavier. These constitute up to the present the heaviest and most extensive bodies of high grade gold and copper ore in the camp. Adverse claimants have already been set up as the lead was found to run at angles with the original locations.

The Lone Star, Whale and Smuggler Boy form an interesting little group owned by Dupont & Carning. On the Lone Star a shaft is down twelve feet through a two-foot solid body of mineralized diorite from which assays have been obtained ranging from \$18 to \$48 in all values to the ton.

The Pedro Mining Company's efforts are still confined to the Pedro claim, which shows signs of becoming a mine. The Devon Mining Company, with O. S. Batchelor at its head, are concentrating their efforts on their group of four, the Golden Wren, Golden Plover, Golden Butterfly and Spider, east of Tranquille. The Kimberley Mining Company have been persistent in determining the wealth of their holdings. The Kamloops Bonanza, of A. G. Thynne, is also being developed. Work is being pushed on the Truth, one of the group of the Truth Mining Company. J. R. Hull and E. H. Jones have a crew on the Gladiator, a location nestling in the arms of the Iron Mask and Lucky Strike, and so far as the work has progressed the Gladiator has not detracted from the reputation of its neighbours.

The Coreander Mining Company has had men engaged testing the value of a number of locations held by them. At present work is being done on the Swansea. The Gold Mask, recently acquired by Wm. Hudson for parties at Sandon, is showing up nicely and the purchasers are so far satisfied with their investment. There are about forty claims under actual development in the camp, the prospects from which are of an encouraging nature.

While writing we have word of the very encouraging results of the prospecting now in vogue in the Mammoth Lake section, through which a strong company has sprung into existence, composed of John Wilson, Ed. Dupont, J. B. Ferguson and H. Franbly. This company has located three groups, the Blue Bell, Noble Boy, War Eagle and Blue Jay forming the first group. Assays from rocks taken from the former and latter claims run from sixty-three to one hundred and eleven dollars in gold, silver and copper. The Golden King, Golden Queen, Noble Star and Lucky Boy from the second group, the Big Cañon and Four Friends the third. While these represent a somewhat different series, yet the general characteristics are similar to those found in veins in the Coal Hill Camp. What we have seen of it is a highly mineralized quartz, some portion carrying grey copper and gold.

What has been recorded of Coal Hill and what influx of population has shown Kootenay to be can be cited as a reasonable comparison of what may be looked for from the North Thompson Valley. We have always maintained that as soon as it was possible to limit the scope or confine the space over which prospectors could roam, so as to concentrate investigations in a limited space at a time the mineral in which that section abounds would be brought to light and the North Thompson take her rightful place among the wealth producing centres of the Province. The interest that has been stirred up in mining and the part Kamloops has played for the past eight or ten months has led to further investi-

gations in the Adams' Lake Valley (in which are situated the famous Home Stake group, owned by the Yale Home Stake Gold and Copper Mining Company; the Minnepaul, Mountain Whale, Lytton and a few others were located about the time of the Home Stake). These investigations have resulted in verifying what we have heretofore held would be the results of efforts in that direction. There have been no less than twelve additional claims added to the record from that point. These veins show signs of being true fissures, schist country rock, with grey quartz sometimes spar quartz carrying grey copper, gold and silver as ore matter. This belt extends for a considerable distance to the northeast, in which direction the system of prospecting is now extending. At the same time, that stretch of country lying southwest of Adams' Lake Valley and northeast of Kamloops is receiving its share of attention, as discoveries of mineral bearing leads in that section are being recorded daily.

The writer took a flying trip through the mountains a while back and found himself seated on a mass of syenite in which gold was visible under the grass. This caused my name to figure in four locations extending over this find. Along Louis and Dixon Creek on which placer mining has been carried on more or less for a number of years past there have been several locations of quartz veins which are now supposed to be the source from which the gold found in these creeks came. The same theory is argued in favour of the locations that have been taken up and are now being worked by Frank Reesh-ton and others at Fish Trap Creek, some seven miles southwest of Louis Creek but on the opposite side of the river. Following the east bank of the North Thompson River in the south-westerly course, and about twenty-three miles north of Kamloops, alongside of the waggon road, we came on a group of four claims located on a strong lead of white quartz which assayed high in gold, silver and copper. Four men are employed in these mines and are doing excellent work. A little further south, and about two miles east of the waggon road, we find the Edwards Mining Company engaged in developing their group of about six claims. The mineral is found in these in both quartz and diorite. All these veins show signs of being true fissures. Stepping across the river on our way home (the old reliable and once famous for its gold production) Jamieson Creek crosses our path. Here we found Oliver Redpath and others with four locations, one of which is being tested to determine the value of the whole. A few miles south is what is known as Noble Creek on which there are several locations. A shaft is being sunk on the Horncliffe by Andrew Noble and others which is down twenty-five feet on a quartz vein, which assays \$8 in gold and \$38 in silver.

Thus the process of prospecting continues, which is a measure may be considered systematic, notwithstanding when we take a conservative view of the situation and take into consideration the amount of labour and money required to prove a mine, it would be unreasonable to anticipate too much for the coming season. It is worthy of note, however, that this fact is fully realized by the major portion of claim owners hereabouts as can be easily inferred from the number of claims (though held by men of limited means) that are under development, hence I feel safe in saying that a fairly substantial basis of the mineral

wealth of this mining division will be established before the end of the season.

We note here with pleasure the signs of new life that are about to be infused in the coal fields of the North Thompson Valley. No less than five applicants have given notices of applying for license to prospect for coal in blocks of 640 acres each. One block for which a license is now in existence has been placed at a thirty-days' option to a Pennsylvania party. Sufficient is known of the quality of this coal to warrant it being classified as first-class; it is bituminous and cokes satisfactorily.

It must not be imagined for a moment that we are so much dazzled by the prospects of gold, silver and copper ore as to lose sight of these immense deposits of mica crystals found to exist in the Tete Juan Cache section of this province. The quality of this mineral has been tested for electrical and other purposes in which it is extensively used, and pronounced equal to any. I am authority for saying that the supply from the Tete Juan Cache is inexhaustible. The distance from rail communication and the trail leading to the mines are against them being handled economically, but this we hope will vanish in the near future and those valuable deposits of mica (the demand for which is daily increasing) find their place among the dividend paying mines of British Columbia.

JOHN F. SMITH.

Fort Steele.

THE prediction that the Fort Steele mining division of East Kootenay District would attract a large amount of attention this season is being verified. People are crowding into the country from all quarters and in spite of the fact that the snow is still low down on the mountains a large number of prospectors have already made a start into the hills to look for extensions in the already known mineral belts and if possible make new discoveries. Claims are changing hands every day, but it is a little too early in the season as yet for any large transactions. Moneyed men have become more cautious and take time to thoroughly examine any proposition before parting with their cash. The most valuable mineral deposits so far that have been discovered being at present covered with snow, it will be at least two or three weeks before these properties can be examined to advantage. In the meantime scarcely a day passes without a new strike being reported, among them being some entirely new discoveries, the following being worthy of mention:

Four or five groups on Wild Horse Creek, the mineral being principally gold quartz, in some of which the gold can be seen with the naked eye. One group crossing the creek near the head of the old placers contains carbonates carrying gold which has the appearance of being very rich; in the vicinity of Perry Creek on the divide between Perry Creek and the St. Mary's River six claims have been located carrying grey copper and gold; close to Fort Steele within a couple of miles of the town two claims assaying well in copper and gold; in the vicinity of the Mission on the St. Mary's, in the low foot hills, only about seven miles by waggon road from Fort Steele, a gold quartz claim has been staked off which shows ore of a very high grade, nearly equal to any that has as yet been brought in.

Thirty fresh locations have been made in the belt lying between Tracey Creek and Sheep Creek on the

east side of the valley north of Fort Steele. In addition to those already mentioned new locations have been made on Perry Creek, Moyie River and on the St. Mary's Prairie, all being easy of access and close to the main lines of travel.

It is expected that a large amount of development work will be done on some of the claims comprising the North Star and Sullivan groups. The North Star mine is at present closed down but no doubt work will be commenced again soon, not only by the North Star Company but by other companies interested in this belt, namely the company represented by Col. Wm. Redpath, of Spokane, who purchased the original locations in the Sullivan group, the Dean Mining Company, of Spokane, who have a group of four claims. Then Victoria and Vancouver people have control and are in possession of some eight or nine claims which have a very good showing of mineral and they will no doubt begin work this season. There are other companies interested in the Sullivan group and North Star, and there is every probability of a big camp being in active operation before the end of the summer; in fact a townsite has already been laid out in close vicinity to the claims, Doctor I. F. Reddy and Messrs. Jennings and Duroch being the owners. The town is named Kimberley and is situated on Mark Creek at the crossing of the North Star waggon road and just between the two groups, which are distant a little over a mile on each side. Quite a number of lots have already been sold and arrangements made for a large hotel. It is a good site for a mining town, being on a flat adjoining the creek, with the mines on the mountain side.

A new strike was made in this vicinity within the last few days and five or six claims have been staked off. The discovery consists of a large vein of carbonates and is situated between the original North Star locations and Mark Creek being a little to the south and east of Main group.

On all the old mineral belts which have been described in previous papers, numerous extensions have been made. In the Moyie Lake group of which the St. Eugene and Peter are the original claims quite a number of new locations have been made this spring. A valuable discovery has been reported on good authority to have taken place within the last few days in close proximity to this property and the prospects of this camp are very bright indeed.

The proposed line of the Crow's Nest Railway passes right through this group, and in anticipation of the near completion of the road Messrs. Finch & Cronin, owners of the St. Eugene, intend employing a large force of men in getting out ore ready for shipment from their property.

Dr. Reddy, who seems indefatigable with regard to townsites, has acquired an interest in some land immediately adjoining these mines and is having it laid out into town lots, and there is very little doubt but that he will prove successful in his venture, for the situation of the ground is admirably fitted for a mining town. Besides the immense amount of silver-lead ore which has been uncovered in the various workings on the adjacent claims, which will necessitate the erection of smelting works in the vicinity, a large amount of work has been done on the St. Eugene, and it now ranks as a first-class silver-lead producing mine, rivalling, if not exceeding the celebrated North Star in importance.

Perry Creek is quite naturally the principal attrac-

tion just now and most of the prospectors are heading in that direction. Although the gulches and higher portions are still blocked with snow, making it difficult to work to advantage in tracing the run of the ledges, still fresh discoveries and locations are continually being reported from that section, and there seems little reason to doubt but that there is a fabulously rich gold quartz zone extending for miles over this region, to the St. Mary's on the north crossing and on each side of Perry Creek from its mouth to its source, and over the low divide to the headwaters of the Moyie and its branches where hydraulic properties are also in operation producing gold, which has the appearance of having travelled a very short distance, being still rough and partially mixed with quartz. A number of mineral claims have been located on these placers, the quartz carrying free gold and giving good colours when crushed and washed in the pan, but Perry Creek will be the principal centre of interest for some time. There will be great activity in development work during the summer and numerous mill tests will be made from a great number of the claims, the results of which are confidently expected to establish beyond the shadow of a doubt the existence of an immense deposit of free gold quartz, even if only a fraction of the claims on the creek prove auriferous.

Townsites are also being arranged for in this quarter, and no doubt in a short time several places will have sprung into existence. The first to be on the market will probably be Johannesburg, situate on the site of the old town of the bygone placer days. The Government is making arrangements to construct a waggon road to this point, connecting it with Fort Steele, it being only about five miles further to the heart of the mineral belt which can be reached by a well cut out pack trail, which is now being improved by the Government.

The Wild Horse, Bull River, Tracey Creek, Wasa Creek, Debble group, Elk River, Sand Creek, and in fact all those groups of claims lying in the mineral belt which extends for a distance of fifty miles from Sheep Creek on the north, to Elk River on the south, on the east side of the valley and on the western slope of the first range of the Rockies are being added to and extended day by day. Fresh discoveries are continually being made and the old claims are showing up to better advantage as development work is done. Everybody that comes into the country is surprised at the vast extent of the mineral belts already discovered and the much larger area which still remains practically unknown.

Fort Steele is rapidly growing from a small hamlet to a town of no small importance, owing to its commanding position on the Kootenay River and being the distributing point for the district generally. All the roads and trails converge at this point, and it is also the headquarters for the transaction of all business, Dominion as well as provincial. From the present appearances it will not take long before it will become a large town: buildings are being erected on all sides business men are investing in town lots and arrangements are being made for the establishment of large hotels, places of business, banking houses and various other kinds of trades and occupations which are essential to the prosperity and advancement of a town, without speaking of lawyers,

doctors, real estate agents, mining brokers, barbers, assayers, and the ubiquitous mining expert, which a country of this sort seems to develop very rapidly. Nevertheless Fort Steele is going ahead solidly and rapidly. Lots are continually advancing in price, and eagerly snapped up; business of all kinds is rushing, but with all that people on the outside must bear in mind that they are running a great risk if they come into this country without having the means to support themselves for some time to come. There is no demand for labour as yet; that will come in the future as the mines are developed and opened up. In the meantime any man coming into the country must be in a position to keep himself and be prepared to spend his time prospecting or else have money to invest in some sort of business. Men having no means and looking for work had better keep away unless they can make arrangements beforehand. No doubt the construction of the railway will effect a wonderful change in this section, and we have seen the commencement of it. Towns will be springing up all over the district; new parts of the country will be opened up; mines will be developed, smelters established; in fact the whole aspect of affairs will be changed and East Kootenay will take its place as one of the principal if not the principal mining district of British Columbia.

Before concluding this article, it would be a grave mistake not to mention the rise of the new town of Wardner situate on the Kootenay River, about twenty miles below Fort Steele at the proposed crossing of the railway and known by its promoters as the Omaha of East Kootenay. About 140 acres have been laid out into town lots at this point and gangs of men are employed in clearing and grading streets. It has a bright future as soon as the railroad comes, and will no doubt prove an important point; at present it is attracting considerable attention from speculators and numerous investments have been made in lots. The place is beautifully situated on the banks of the Kootenay, about twenty-five miles from the coal fields on the east and the same distance from Cranbrook on the west, also about thirty miles from the boundary on the south and twenty-five from Fort Steele on the north; altogether it stands a good chance of being an important point after the construction of the road.

It will be interesting to watch developments in this country for the next few years, for in consequence of the immense deposits of coal, coal oil, gold, silver, copper, iron, lead and many other minerals, besides its tracts of valuable timber, unrivalled water power, the easy accessibility of the valleys of the tributary streams which flow into the Kootenay, it would be hard to find a more favoured spot after it has been brought in touch with the outside world by means of the Crow's Nest road, and every one who has the interest of not only East Kootenay, but British Columbia and the whole of Canada as well at heart ought to put forth every effort and help on as much as possible the early completion of this long talked of and watched for Crow's Nest Pass Railroad.

Selling Shares at a Discount.

MUCH has been said of the Canadian practice of selling mining shares at a discount and the liability of the purchasers of such. The only liability

that could be attached to such shares is where the company becomes involved and the assets are not sufficient to pay the outstanding debts; and even then it is a point that has not been fully settled, as no cases of the kind have ever been brought up and are not likely to be on account of the excessive cost of such proceedings, and the credit of mining companies in general is such that they would find it difficult to contract debts, to any considerable amount.

The advantage, so far as the public are concerned in being able to procure stocks below par and based very often on the actual cash value of the property, and sometimes even below it, is apparent when contrasted with the English system of promoting and selling shares at par, which means that if they have properties worth \$50,000 and the company is capitalized for \$500,000 they are buying an interest at the latter rate, while the purchaser of Canadian stocks would probably get his shares for ten or fifteen cents in the dollar.

Some of the best properties, notably the Le Roi, War Eagle, Golden Cache and several others whose stocks are now considerably above par have been developed in this way. The Le Roi and War Eagle companies first sold shares at five cents on the dollar. The Golden Cache syndicate, shares at fifteen cents; they are now nearly one hundred above par, so that those who invested \$100 in the Le Roi at the start could now reap a profit of about \$3,500.

Many of the stocks that are now selling at low figures will no doubt make similar profits while many will lose what they invest, but then they have to take their chances on development in either case.

The Skean and Lardeau districts will no doubt take the lead in successful mining development by this means, as the cost of operating is very much less and the mineral found nearer the surface. Mr. W. A. Carlyle, M.E., in his report to the Government on the Skean District says: "So far but comparatively little imported capital has been expended here, as in the case of nearly every mine now established sufficient money has been realized from ore extracted during development to pay for more extensive workings, new buildings, mills, trails, roads, and also dividends; but more or less capital will be required to properly open up many other claims on which the veins exist, but are not so easily accessible as those first discovered." A few thousand dollars goes a long way in developing a silver property as the veins generally run vertically over very steep mountains, requiring no machinery to operate them.

The investor, however, must not jump at everything that is offered, but should either take steps to inquire as to the merits of the property, or use his judgment based on the amount of capital stock of the company, (which should in no case exceed \$500,000 and much less where the company only have one property), location of properties, engineer's report of showing, and whether likely to have the vein of other developed properties, or parallel veins as they usually run in groups, and that the promoters' or vendors' shares are pooled so as not to interfere with the sale of treasury stock for the proper development of the claims.

While not advising stock speculation, I am of the opinion that purchasers of Canadian stocks are on a much better footing and consequently stand a very much better chance of being able to realize at a profit

than those who purchase stocks under the Imperial Act.

The provisions of the Imperial Act preventing companies from offering their shares below par, is altogether in the interest of the broker and promoter, who can raise sufficient capital by disposing of a very small number of shares, retaining a large portion for themselves. G. D. SCOTT.

Notes from Queen Charlotte.

ALL along the Coast, from Victoria to the Naas, one hears of new prospects being discovered, and should one out of every ten turn out to be a mine British Columbia will undoubtedly be greatly enriched by the new discoveries. Missionaries, fishermen, and in fact men of all trades and nationalities, have the fever, and are now turning their attention to the discovery of mineral bearing rocks. The writer feels safe in saying that two out of three have their pockets loaded with specimens, and many fine specimens, too, some of them carrying large quantities of free gold, plainly visible to the naked eye. Most of them are very reserved as to the locality from whence their specimens were derived, for reasons best known to themselves.

Alert Bay, like many other places, has its share of prospectors, and mining excitement begins to manifest itself in that hitherto dull place.

Speaking of prospecting, Mr. Halliday said that he felt confident that upwards of 150 prospectors might be found within a radius of thirty miles, some directing their attention to the numerous islands to be found in that vicinity and others to placer ground on Vancouver Island, in the neighbourhood of Nimpkish River.

Coal has been discovered on Harbledown Island, where three veins were found, each averaging about three feet in thickness. As to the quality of the mineral bearing quartz in this locality, generally speaking, it consists of grey and peacock copper together with bornite, carrying gold and a small percentage of silver, and resembling, upon the whole, that which is now being taken from Texada.

I would advise all those who do not have a previous knowledge of this vicinity, to keep away, as it has already been pretty thoroughly prospected.

Queen Charlotte Islands afford both an interesting and no doubt a profitable field for prospectors, as they abound in many natural curios, including fossils, shells, etc., as well as mineral bearing quartz carrying free gold. In 1852, the Hudson's Bay Company, having previously heard from the Indians that gold was to be found in Gold Harbour, despatched a party of miners and prospectors, under the management of Captain Mitchell. An irregular vein was found by them at Gold Harbour or Port Kuper, and it is said that upwards of \$60,000 was taken from this mine, but it has since petered out and is now "a mine of the past."

Four enterprising and adventuresome fellows well known about Victoria have conceived a very novel idea, namely, that of diving for the rich quartz which was supposed to have been lost by mismanagement during the time which the Hudson's Bay Company were working their rich deposit at Gold Harbour. The writer met these four prospectors at Skidegate,



LAST CHANCE MINE.



THE SKYLARK MINE.

and was allowed to inspect their various specimens of quartz which they had procured by this method, and despite the agencies of time and water large specks of free gold were visible all through these specimens.

Dr. Dawson makes mention of gold bearing quartz in his report of 1878, p. 13 B. The cost of prospecting on these islands is considerable and those who decide to come to this locality must come prepared to contend with a heavily timbered and thickly wooded district which makes prospecting a tedious and difficult job.

J.

Hot Springs Camp.

THE Lost Paradise, recently located by Lou Jarnigal on the east side of the lake has been bonded through Chas. F. Caldwell, of Kaslo, for \$12,000, \$1,500 cash and the balance in six months. Lou came to the camp broke less than three months ago. He still owns the east extension of the Lost Paradise and has refused an offer of \$10,000 for it. Such is luck!

The Kocotenay Mining Company, recently incorporated has taken over the Bobtail, Jay Gould and Schaffer properties, situated on the lake shore about one mile south of Ainsworth, and will soon commence work on the big tunnel which was started several years ago on the Bobtail and run in 350 feet. A plant of machinery with drills has been ordered.

At the Mile Point only a small force of men is at work on account of water. A plant of machinery consisting of boiler, pump and hoist is expected in a day or two. As soon as it is in place development will be pushed as rapidly as possible.

The Tariff is only working twenty men on account of surface water. All the workings are showing up well. The 186 foot level is in south forty feet and shows three feet of ore. The north drift is in thirty feet and shows good ore; the crosscut is in sixty-five feet and is in good ore but it has not yet reached the foot wall.

The Albion is closed down awaiting track iron and cars. The tunnel is now in over three hundred feet. A further contract of seventy-five feet has been let to J. M. Moor.

Maxwell Stevenson, of Philadelphia, owner of the Highlander, has ordered six tons of wire rope for a tram to run from the waggon road on the Little Donald to the Lake shore. Besides handling his own ore he will do a general custom business for the other mines above him, saving them from twenty-five cents to \$1 per ton haulage. The timber for stations and supports is to be supplied by the Sayward Mill Co., of Pilot Bay; it will take about 35,000 feet.

On the Kate L. the vein was cross-cut the past week and shows twenty-seven feet between walls. Assays as high as 14 per cent. copper, 30 per cent. lead and 70 ounces silver with some gold were made from average samples.

The Jeff Davis ore body continues to improve with development. The last working shaft is now down twenty feet and water is very troublesome; but little more can be done until the machinery is in place.

On the No. 4 a thirty-foot vein has been uncovered the past week and a contract has been let to sink a shaft 100 feet, at which depth a cross-cut will be run to ascertain the extent and value of the vein.

T. M. Gibson, representing the owners of the Black Diamond, Little Donald and other claims, has

lately purchased the Lady of the Lake, Hamburg and Sovereign for \$8,000 cash, also the Mamie for \$3,500 cash. The new plant of machinery has arrived and is in place and running on the Little Donald. A large boarding house and bunk house is being built and as soon as completed a large force of men will be put on. A plant of machinery has been ordered for the Mamie.

Dr. Wingate, of the King Solomon Consolidated Company, is in and is preparing to commence work at once. A waggon road is now being built to the mine.

The Neosho is taking out some very good grade ore and has several carloads ready for shipment.

The Old Faithful (No. 1) continues to turn out three and four hundred ounce concentrates; several carloads are at the wharf and about four carloads yet at the mine now being hauled; the mine itself never looked better.

Your correspondent was shown through it the past week by Superintendent Shaw. Everywhere all through its many workings large bodies of good grade ore are to be seen. Ruby and native wire silver is encountered everywhere. Often some of the bunches of wire silver as large as one's fist are found hanging to the ore; it is a sight well worth seeing.

Work on the Silver Glance on the South Fork of Woodbury Creek, has been resumed. The tunnel is now in eighty feet, showing over four feet of well mineralized quartz. A waggon road is to be built from the Silver Glance past the Laurier down Woodlerry Creek to the lake shore; the tunnel on the Laurier is in 150 feet and shows fourteen inches of good ore that assays about 40 ounces silver, 50 per cent. lead and \$5 in gold. New cabins are to be erected at once for the accommodation of the miners. Work has been commenced on the Surprise, recently bonded by R. F. Green.

The Twin is now working seven men under L. J. McAtee. No. 3 tunnel is now being driven ahead day and night and is showing some clean ore. Several of the openings are opening up large bodies of ore. A blacksmith shop and ore sheds are being erected at No. 3 tunnel; cabins will be erected next week near Princess Creek.

E. D. Carter, owner of the Highland, was in the past week and with Mr. Stalburg sampled his mine; the last eighty feet of the tunnel has shown from two and a-half to three and a-half feet of pyritical iron and galena scattered through the quartz. This ore being assayed runs from \$2.80 to \$65 per ton in gold, the average being between \$25 and \$27. This ore will concentrate four into one, not a bad proposition.

On Princess Creek the owners of the Illinois have struck an eighteen-inch body of steel galena in the tunnel. The ore shoot is over forty feet in length and still shows full width in breast of the tunnel.

The C. P. M. & M. Co's No. 3 tunnel is now in about 270 feet and is expected to tap the main north and south vein in about ten feet further. A winze is being sunk in No. 2 tunnel, which shows up ore that runs very high in copper. The concentrator is now lying idle most of the time owing to not sufficient development in the mine to enable them to get out ore to supply it.

Work has been commenced on the flume to carry water for power for the concentrator to be erected at the mouth of Cedar Creek.

S.

Lardeau-Trout Lake Section.

THIS section adjoins the Slocan on the north and extends up to within a few miles of the C.P.R. track. It was at first supposed to be low grade, but is now every day becoming more noted both for the width of the mineral veins and the extreme richness of the ore. What was low grade on the surface has, with development, run into the hundreds in several cases and a great many of the properties so far developed carry an attractive amount of gold in addition to high values in silver and a small percentage of copper.

The properties that have sufficient development done to prove them are the Silver Cup, Great Northern, Broadview, Badshot, Sunset, Wagner Group, while the Glengarry, Bloomer, Jim Dandy, Abbott Group, Lexington Group, Sable Creek Group, Sunset Group and several others purpose pushing development during the coming summer. During the last few months the following properties have been bonded for amounts ranging from \$15,000 to \$150,000: The Badshot Group, \$150,000; development consists of an eighty-foot shaft showing about fifteen inches of galena at bottom, averaging 300 ounces of silver. Glengarry claim, \$20,000; development surface cuts exposing two and a-half feet of clean galena; assays from 75 to 1,100 ounces silver; 2 to 10 per cent copper and 60 per cent lead. Lexington Group, \$20,000; development surface cuts showing about four feet clean galena; assays from 5 to 15 ounces silver, 60 per cent lead. Sunset claim, \$15,000; outcroppings show layers of galena one to four inches thick; assays from 292 to 760 ounces silver, 55 per cent lead; no development. Sable Creek group, operated by the Consolidated Sable Creek Company; outcroppings show grey copper; assays from 9 to 18 per cent copper, \$9 to \$27.50 gold and from 40 to 100 ounces silver; development about fifty feet of tunnelling to cross-cut ledge. Silver Cup Company—Shaft on vein eighty feet, cross-cut shaft to tap vein exposed parallel vein with three feet clean ore, assaying 150 ounces silver, \$12 gold, 50 per cent lead. Broadview claim, Lillooet & Fraser River Gold Fields Co—Two feet of clean galena, 150 ounces and streaks of autumnal silver very high grade, 55 per cent lead.

On the whole the lookout for the coming season is very bright and a general feeling of satisfaction prevails. A strong company have erected a sawmill at Lardeau, cleaned and platted a townsite, erecting hotels, stores, dwellings, etc., and will no doubt make it an important point.

New Denver Notes.

THE influx of people into the Slocan from all quarters continues unabated. Slocan City in particular is fairly humming with excitement. The town is without doubt fortunate in its choice of a name; although it has practically been in existence only a little over a year, and has so far contributed but a very minute fraction to the total output of the Slocan country, it is credited by outsiders with being the representative town of the district. Perhaps it may be before long; who can tell? Things certainly look very bustling at present, and if the population is any criterion of the extent of its resources, it must inevitably go ahead at a great pace. So

tremendous is the rush there, that not only is it almost impossible for a stranger to obtain a bed at any price, but it appears to have entirely absorbed its erstwhile rival, the town of Brandon.

It is interesting to note that although the Slocan has an eminently silver reputation, Slocan City aspires to become largely, if not primarily a gold centre which detracts somewhat from its connection with the famous Slocan galena belt. Still there is no gainsaying the fact that enormous mineral wealth lies directly tributary to the town, and a prosperous future, if not quite so brilliant as some would have us believe, may be safely predicted.

The activity, however, is by no means confined to Slocan City, or indeed any other single section of the country; a general, steady growth is apparent and Sandon, New Denver and Silverton all share in the mutual advantages to be derived from the right kind of people coming here to live.

The snow line has receded several miles from the lake shore and prospecting is commencing in real earnest; even now quite a number of locations are being made and in another week or two at most the towns should be deserted by all able to take to the mountains.

The new C.P.R. boat for Slocan Lake was launched successfully on Wednesday last and is expected to be in running order by the 24th. Not only will Slocan City then enjoy better transportation facilities, but telegraphic communication with the outside world is now an accomplished fact.

New Denver, too, has tried an innovation in the shape of electric lighting, which it is hardly necessary to remark makes a welcome improvement in the appearance of the town.

In mining matters everything is in a fever; bonds are being taken up with surprising persistency and regularity, until one begins to wonder when all the claims were staked. Some few, it is true, have been relinquished, but even this cannot be accepted as conclusive evidence that they were not worth developing. Every creek without exception is receiving its share of attention. Wilson Creek properties, so long neglected, are bound to come to the fore this year, while Four, Eight, Ten and Twelve Mile Creeks will be simply swarming with prospectors and others looking for a good thing. Springer and Lemon will doubtless be the favourite hunting ground for investors in a small way this summer, and it is not too much to expect that the next few months will witness a large number of fresh discoveries to still further enhance the already enviable reputation of the Slocan.

HOWARD WEST.

Hydraulic Mining.

IN another column will be found a short article sketching in a few words the process of "Prospecting for, Developing and Equipping a Hydraulic Mine", and written, at the request of the *Record*, by J. M. Buxton, Esq., of Vancouver. We are lately in receipt of letters from Great Britain and the Continent, asking for information about hydraulic mining in this province, and publish the article for the benefit of those of our readers who take an interest in this branch of mining, or who contemplate investing money in it. Mr. Buxton has personally prospected many different localities on the Fraser and Thompson Rivers, in the Similkameen, the Okanagan, the

East Kootenay and Cariboo districts, and through his men in Cassiar and Omineca. He was one of the first three trustees of the Cariboo Hydraulic Co., in which he is interested; also interested in the Horsefly Hydraulic Mining Company; secured the property now owned by the Maud Hydraulic Mining Company, and is Managing Director of the Nip and Tuck Gold Hydraulic Mining Company, which last year declared a dividend. Mr. Buxton is also managing a number of new hydraulic prospects which have not yet reached the stage of full development. It is because of his wide practical experience that we requested him to contribute the above mentioned article, for the information of Eastern and Old Country readers, believing that opinions resulting from actual experience are of more value as a guide than those based on theory or scientific deduction.

Rossland and the Trail Creek Mining Division.

THE early history of Rossland, the story of the first pioneers, the record of the dogged determined work that carried the first big mining operation of the camp—the exploiting of the Le Roi to a successful issue—has now become as a twice-told tale, though ever of interest in the telling. But the camp has established itself to a large extent. As one contemporary put it: "It has grown from a few shacks to a town of some eight thousand souls—and a number of Chinamen," and any attempt to deal with the Rossland of to-day must leave these things to the historian and deal with the practical mining and economic conditions which the work of the past two years has disclosed.

It is true that the greater part of the work and all of the shipping mines of the district to-day are in the immediate neighbourhood of Rossland, but it is only the nucleus of a considerable area extending from Sophie Mountain to the Columbia and northwards to Sullivan Creek, an area of largely similar conditions, and it is claimed, having many showings in its outlying portions at least equal to those of the Rossland of two years ago. This section embraces an irregular area of timbered and generally rounded hills of an elevation of from three to five thousand feet, with occasional peaks exceeding this height. From the international line to Rossland it is traversed by the narrow valley of Sheep Creek, while from the latter point the valley of Trail Creek forms a natural means of communication with the Columbia River.

Though the work of the camp has shown many interesting geological and mineralogical points, it has not yet reached a stage to permit of more than a somewhat indefinite and by no means final generalization of what appear to be the conditions of the formation of the ore bodies of this camp. This has already been done so well by such men as Carlyle, McConnell and Hardman that any statement of the geological conditions of this section must appear to be more or less a repetition and it may perhaps be best to give the general outline of these verbatim from McConnell's report:—

"At Rossland the central member of the group is a fine to coarse grained gabbro apparently passing in a couple of places into uralite granite. The gabbros occupy an irregularly shaped area with a length of about four miles and a width of one mile. They extend from Deer Park Mountain eastward to the west

base of Lookout Mountain, the line of junction between the gabbros and the bordering ring of porphyrites, commencing at the northeast corner of the area, runs south through the Cliff, War Eagle and Le Roi claims then turning to the west circles round a spur of Deer Park Mountain and continues eastwards in a sinuous line passing about a quarter of a mile north of the Crown Point mine to the foot of Lookout Mountain. The northern edge of the area runs eastwards from the Cliff mine to Monte Christo Mountain, then bends more to the south skirting the base of Columbia and Kootenay Mountains, and continues in a south-easterly direction toward Lookout Mountain. The eastern edge of the area has not been precisely defined owing to the absence of sufficient exposures. The gabbros are fringed with a varying width of augite and uralite porphyrites and fine grained diabases. The passage from the porphyrites to the gabbros is nowhere sharply defined and the two rocks have apparently cooled from the same magma under different conditions. The gabbros and bordering porphyrites are important from an economic standpoint as most of the ore bodies at present being worked are situated either on or close to the line of junction. In passing outwards from the gabbros a section taken at almost any point shows a bordering zone of brecciated porphyrites and diabases of varying width, but seldom exceeding a mile, beyond which comes an alternating series of porphyrites, slates and tuffs, and still further away agglomerates, associated in places with fossiliferous limestone make their appearance. Slates and tuffs occur with the porphyrites on Red Mountain, on Columbia and Kootenay Mountain, and south of the gabbro area of Lake and Bald Mountains and the ridges running south of them. Agglomerates make up the main mass of Sophie Mountain and occur with slates and tuffs, and agglomerates on Spokane, Grouse and Columbia and Kootenay Mountains and in the ridges immediately east of Sheep Creek. The roughly concentric arrangement of the rocks of Trail Creek, and the gradual passage outward from a holocrystalline central area—through semi-crystalline rocks—to bedded volcanic fragmentals, suggest an ancient, though now deeply eroded volcanic centre, situated near the site of the present town of Rossland, from which lavas and ashes deluged the surrounding district. The presence of small bands of coral-bearing limestone with the agglomerates and tuffs makes it probable that a shallow sea existed at the time of the outburst and that the eruptions were intermittent and continued over a lengthened period."

Much significance has been attached to the fact that the main bodies of high grade workable ore so far found have all been on or near this line of contact, but this must not too hastily be taken as defining the limit of the pay belt. On Sophie and Record Mountains and on Sullivan and Murphy Creeks, all of which are beyond the ground defined in this extract, there are showings, which have every promise of making producing mines.

In the central part of the district the main ore zone presents two distinct belts, known as the North and South belts, which show a series of roughly parallel fractures having a general east and west to northeast and southwest course. These have an invariable dip towards the north of from forty-five to eighty degrees and are the fractures along which the main ore bodies have been

deposited. The country is intersected by numerous porphyry dykes, having a general north and south course, but which do not however show much displacement of the ore bodies. Parallel with these is a series of fractures that often become fault planes that in many cases, as in the Cliff, have displaced the veins even at a considerable depth.

Besides the veins of the main belt is a smaller and evidently later series of veins, usually quartz veins, which, in a few instances, have shown free gold.

The typical ore of the camp is a nearly massive pyrrhotite, varying from fine to coarse grained. Associated with this iron sulphide there is often a large amount of copper pyrites, and frequently arsenical pyrites or mispickel which is usually highly auriferous. In the south belt, which runs westwards through Lookout and Lake Mountains across Deer Park and even as far as Sophie Mountain, the ore is more complex, and contains as a rule more arsenical iron and more or less galena and zinc blende, the latter usually running high in silver. Occasionally the ore shows a recognizable amount of nickel and cobalt and in a number of places there is molybdenite, which sometimes carry high gold values. There are wide variations in the gold values of this iron and copper sulphide and the average values appear to be higher in the ores showing a large amount of copper pyrites rather than in the straight iron sulphides. The amount of ore in this camp is exceptionally great but the larger part of it is low grade, running from two or four to eight, ten or twelve dollars, too low a figure to be commercially valuable under the present conditions of treatment.

With this comes the much disputed question as to whether the Rosslund ores increase in value with depth. McConnell says not; Hardman says not; but popular opinion says they do and too often this statement or belief has proved a powerful lever in mining transactions, although extensive investigations of the subject do not show sufficient grounds for the idea. Great differences in value are often found in close proximity along the same vein, but a chute, whose unchanged ore at or near the surface is low grade invariably remains low grade even with depth, though the same vein only a few feet away may show a much larger value. Examples of this occur in the Cliff, the War Eagle and other mines. In connection with this point it may be stated that the first assay of rock from the surface of the Le Roi mine gave a gold value of thirty-seven dollars and fifty cents, which is above the "average" of this ore at any time.

The question of the form of the ore deposits has also been much discussed. The old-timers wedded to the ideal of the "true fissure vein" could see no good in the camp at first as this type is rare. The presence of two walls is unusual, and even when parallel planes of rock are found along the vein they seldom have the significance of the walls of the true fissure in limiting the ore deposit. In one recent case, shots in what appeared to be the hanging wall of the ledge disclosed four feet of good ore beyond. Again, although there are many examples of segregations of quartz and calcite in the veins, there is no distinctive gangue or vein stuffs. The ore chutes so far found have been in gabbro or diorite, or in porphyrite, that is, in basic eruptive rocks, a practically new condition and one which militated strongly against the camp in the early days. The ore in fact is usually found with the diorite or a mixture of quartz and diorite as a sort

of gangue and its workable value limited laterly only by the point at which the percentage of diorite, that is, of the country rock, becomes too great. All these point to the belief that the ore deposits are partly replacement veins and partly segregation veins along the fracture planes of the country rock, a belief further supported by the frequent occurrence of small segregation masses or lenses isolated from the main ore bodies and completely enclosed in the diorite.

The camp as a whole is a low grade camp, the average shipping value of the working mines running from \$23 to \$30 in gold and not unfrequently a dollar or two lower. Under the present condition this last figure represents the lowest point at which the ore deposits become of commercial value. The two main reasons for this comparatively high working point are the expense of mining and the cost of treatment. The rock is a hard, tough, igneous rock so difficult to work, that contract prices from \$25 to \$35 per foot is a not uncommon price for shafting. Then to the cost of working under these conditions must be added the sorting, freight and treatment, which last, at the present time, runs from \$10 to \$12 per ton.

It must be remembered, too, that the properties whose ore will average up to the above figures are the exceptional ones of the camp. The greater part of the ore of the district is too low grade to pay by existing methods. Many extravagant prophecies are being made of the changes to be brought about by the increased transportation and coal supply by the much-talked-of Crow's Nest road, prophecies which do not appear to have a sufficient basis. The ore is not amenable to the cyanide or other chemical leaching processes. Even the arsenical iron ores, with choice specimens of which I have obtained good laboratory results, by the bromo-cyanogen process, is not free enough from copper to allow of this method being practicable. Many predictions were made, too, when the results of the Le Roi concentrating tests were announced. But these were tests on picked quartz from which all of the typical sulphide ore of the camp was carefully excluded, and the results of this special case do not permit of general application. These methods having been excluded it is seen that the ore remains strictly a smelting ore. As a rule, too, the percentage of sulphur is too low to permit of typical pyritic smelting, that is, smelting without the use of carbonaceous fuel, and the experience of Butte, Great Falls and other points with every facility in the way of appliances and supplies, shows that smelting as now in vogue cannot successfully handle the \$10, \$12 and \$14 ore which constitutes the bulk of that now in sight here.

A large amount of work has been done, but only in a few cases has this been sufficient or of such a character as to fully prove the ground. The surface of the hills, as a rule, is rounded and free from precipitous faults, but the country is cut up by numerous dykes and the surface faulting is repeated and strong. This, joined to the nature of the ore, makes the section essentially one of deep shaft mining, and except in some three or four cases no property has done more than scratched the surface as it were. How many of the properties whose value is still problematic will make mines is a subject of much and often bitter discussion. That many of them will prove worthless goes without saying. That many worthless properties have been placed before an excited and too confiding public also goes without saying. But



MOUTH OF TUNNEL—COON CLAIM, FANNY BAY GOLD MINING CO.



ALBERT CANYON, B.C.

both these things go without saying in the track of a mining boom, even when, as in the present instance, the camp is assured of a great future. The surface showings are strong, and will compare favourably with any similar area. Several rich and permanent ore bodies have been proved; there is practical assurance of others; and of the remainder it may reasonably be concluded that some will prove valuable. If one-third of the properties that to-day seem to have the making of mines should prove successful Rossland will hold its own with any camp in America or in the world. But in mining, especially in the enthusiastic beginnings of a new camp, conservatism is a saving virtue, and it were well to bear in mind that not every patch of iron-stained country rock is an "iron hat," and not every "iron hat" has the luck to crown the royal metal.

D. M. WATERS.

Deer Park.

FREE gold has been discovered about six miles north of the Park on Green Mountain by Wm. Cooney, D. McGillivray, T. McCardle and Dan Keith and three claims, the Gold Drop, Myrtle and Beaker, located by them.

They brought in rock from the surface which assayed \$2.42, \$5.40 and \$299.20. When this rock is crushed and washed there are many colours as large as a pin head.

Messrs. Cooney and McGillivray have on the Prince of Wales, about three miles north of Landing a six-foot ledge with well defined slate walls assaying \$6.40 gold, and on the Jewel adjoining, a very fine showing, but have not yet found their walls.

The Rob Roy, two miles east, owned by J. Robinson, shows up a four-foot ledge of galena with one assessment.

It is understood that a company of Portland capitalists are going to begin work at once on the Boston Boy and Big Horn east of town and a group of claims at Little Deer Park.

The Pine Ridge Mining and Milling Co., of Rossland, have just started a force to work on their group of three claims four miles up Cayuse Creek. They have a surface showing of forty feet of iron cap that assays \$11 in gold.

The Trailite at the mouth of Cayuse Creek, owned by E. S. Topping, shows about four feet of quartz which we understand is a free gold proposition.

An assessment on the Black Bear, owned by Mrs. McDougald and W. Houston, of Nakusp, also shows a fine body of quartz. We have not been able to learn the value of late assays on the two latter properties.

The Black Tulip, on Tulip Creek, six miles down the lake, owned by E. S. Topping, J. MacDonald, Thomas Bowman, of Trail, and Frank Fritz, of Deer Park, shows an iron cap in granite of from six to ten feet, assays \$19 gold.

The Grey Wolf, owned by the "French boys," has a tunnel in 145 feet. The boys are just cutting into what they think of their foot-wall matter. This will undoubtedly be a bonanza.

The Blue Bird group of five claims about three miles up Deer Creek, is making quite a record. An assay at a depth of twelve feet showed 173 ounces of silver and \$11 in gold. At a depth of sixteen feet

they have mineral clear across their shaft, about half of it shipping ore.

This property is owned by the Montana Gold Mining Company, of Spokane, Henry Treed, president; Col. H. G. Statton, secretary.

Capt. G. G. Smith and Chas. H. Dowden, the locators of this group, are in charge of the work here.

Last but not least, perhaps, is our group of seven with the Ella as leader. Having met with an accident last winter, the writer was entirely disabled for four months and is not yet in condition to rush development work. We have uncovered on the Ella a solid body of ore from six to eight feet wide and to a depth of about eight feet. Six assays average \$14 in gold.

About five hundred feet higher up the mountain we have found a cropping of fifty feet or more in width and traced it down some distance exactly in line with our former find. Should this prove to be a cross ledge the Ella will undoubtedly be our true friend.

In our own neighbourhood and much of the surrounding country most of the surface has the appearance of a solid mountain of lime. But we find it only a capping over slate porphyry, fine granite and our iron capped ore. The latter we find in many cases by it being sufficiently strong to force the stain through the lime.

W. PARKER.

Fairview Camp.

IT is but a short time since attention was first directed to Fairview, a district lying in the valley of the Okanagan, about twenty-eight miles south of Okanagan Lake. In previous articles on this district the prediction was made that Fairview had a splendid future before it, and the events of the past six months have amply justified such a statement.

The camp is now so well known to mining men, not alone in this province but in Eastern Canada and England, that it is not necessary to enter into an elaborate description of the district. A *resume* of the amount of development work which has been done on the various claims since the attention of capitalists was first directed to that section will, however, prove interesting.

Upwards of 300 men are now employed in the camp in development work. On the Joe Dandy, a very promising property owned by an English company, at the head of which is Lord Sudley, work has been steadily pushed since the opening of the season. It is announced that a large mill will be put on this property in the coming fall.

Those controlling the Smuggler claim have leased the Strathyre company's ten-stamp mill, in which they have made several alterations, and are now turning out bullion.

Work on the Mammoth is being pushed steadily, the men working in night and day shifts. On this claim a tunnel had been driven, up to the end of April, a distance of 145 feet.

On the Comstock a tunnel has been driven eighty feet, and a shaft is down about ninety-five feet.

On the Rob Roy a shaft is down fifty-five feet; a large amount of work has been done on the Nightingale; a shaft fifty-five feet deep is down on the Ocean Wave; the Fanny Morris is being rapidly opened up, a tunnel being driven fifty-nine feet and a shaft

twenty feet; on the Reco there is a tunnel of forty feet; the Quartz Queen has a fifty-foot shaft; the Silver Bow has a sixteen-foot tunnel, a forty-five foot shaft and twenty-nine foot shaft. An open cut has also been driven for a considerable distance.

The California has a tunnel of about forty-eight feet in extent. On the Silver Crown 400 feet of tunnelling has been done; the Brown Bear is also developed to a like extent. On the Wide West there are 400 feet of tunnelling and a winze. The Gold Hill has a fifty-foot tunnel; the Randolph a twenty-eight foot tunnel and a twenty-eight foot shaft. The Highland Chief has a shaft down a considerable depth and a winze.

On the Stemwinder there are several tunnels and two or three shafts, ranging from ten to forty feet. Work on the Morning Star has been done to the extent of a 140 foot tunnel, a 100 foot shaft and a large open cut.

It is on the Tin Horn and Winchester claims, however, that the largest amount of development work has been done. The former can hardly be longer styled a claim; it is a mine now in every sense of the word, and a very promising one. Both the Tin Horn and Winchester are the properties of companies at the head of which are Dier, Davidson & Russell, mining brokers of Victoria, B.C.

Fairview to-day presents a scene of unrivalled activity. Buildings are going up rapidly, the sound of the miner's pick, the carpenter's hammer and the mason's trowel makes music day by day, and a general air of prosperity pervades the place.

Dier, Davidson & Russell have let the contract for a large three-storey hotel, of 300 rooms, to be lighted with electricity and equipped with all modern appliances. They are also building a boarding and bunk house for the men employed on their properties; and five stores are in course of erection. For all these buildings 300,000 feet of lumber will be required. A sawmill, now running at Fairview, has a capacity of 25,000 feet per day.

It will be seen from the foregoing that Fairview is not only a mining camp in the sense that there are a large number of claims recorded, but that the outlook is most promising for it to rank high among the gold producing districts of the province.

Two Promising Companies.

The first annual general meeting of the Tin Horn Quartz Mining Company was held on Wednesday evening, the 26th ult., at the company's offices, Victoria. Over four hundred thousand shares were represented at the meeting, the larger number, of course, by proxy, as the major portion of the shares are held in Eastern Canada and in England. Reports were submitted by the directors, secretary-treasurer, and auditor, and a very satisfactory condition of affairs was shown.

Inasmuch as the Tin Horn Quartz Mining Company has only been in existence for a little over three months, the showing made in the various reports submitted was creditable in the highest degree, and the directors, with pardonable pride, express the belief that no mining company in British Columbia has a better record for the same length of time.

Shares in the Winchester Gold Mining Company will soon be placed on the market, and judging by the eagerness with which the Tin Horn shares were

taken up, the Winchester will meet with a no less hearty reception at the hands of the investing public, as the properties controlled by the latter company gave every evidence of being exceptionally valuable. Out of fifteen assays, thirteen of which were made by W. J. R. Cowell, B.A., F.G.S., M.E., of one from the Winchester claim, an average of \$152.86 was obtained. Work on these properties is being pushed night and day in eight-hour shifts. Two thousand dollars will be expended by Dier, Davidson & Russell in the work of development before the prospectus is issued.

The New Metallurgical Works.

The Victoria Metallurgical Works, which have lately been established in Victoria by Mr. W. J. R. Cowell, will, to use a somewhat hackneyed expression, fill a long-felt want in this province.

Mr. Cowell is a mining engineer of experience and ability, and is sole proprietor of the establishment. The object of the works is to provide a means by which investors may be enabled to test large parcels of gold and silver ores, and further to enable mine owners to have their ores treated by a variety of processes so that they may be able to decide on the exact class of machinery suitable for the reduction of their ores. Mr. Cowell is in all cases prepared to purchase parcels of milling ores for cash. This will be a boon to the prospector and small mine owner, who will thereby be able to dispose of what ore he has on the dumps, and so obtain ready cash for further development. Mr. Cowell has installed two duplex triple discharge stamp mills, in connection with which is a Hercules Blake rock crusher, a Hendy-Norbun and a Triumph concentrator used for the concentration of the sulphurets, and a chlorination plant with a capacity of two tons a day is also in course of erection. The stamp mills have a capacity of twenty tons a day.

An assay office and well equipped laboratory for fine analytical work are attached to the works. The manager expects that the mill and chlorination plant will be in full running order by the 20th inst.

Mr. Cowell is purchasing a diamond drill, which he proposes to rent out for the exploration of the various prospects on the coast.

The survey department is under the charge of Mr. S. A. Roberts, P.L.S., and Dominion Land Surveyor, who has been for many years in this province and has a high reputation as a surveyor. Mr. Cowell himself takes charge of the metallurgical department. Mr. O. B. Peasley, an old Californian millman, is mill superintendent.

This new institution is in a position to undertake all kinds of work connected with determining the value and thereby hastening the development of our mines. And the high qualification of its staff is sufficient guarantee that this work will be well done.

It is safe to predict that Mr. Cowell's enterprise will meet with the abundant success it deserves, and prove a great boon, not only to the island and coast mines, but to the province at large. The ore purchasing feature is a particularly good one. It will enable prospectors and mine owners to realize from their claims at the earliest possible stage of development, and save them from the necessity of selling large interests much below value to raise a few dollars for development.

ALFRED ALLAYNE JONES

STOCK, MINING & DEBENTURE BROKER.

Insurance and Real Estate Agent.

SPECIAL ATTENTION given to organizing Mining and other Companies. Prompt attention given to orders received by wire or letter. Golden Cache, Gold Range, Two Friends, Buffalo of Slocan, and all other reliable Stocks bought and Sold on Commission.

Codes used—Clough's, Moring & Neal; Bedford McNeill and A.B.C. 4th Edition. Cable address, "MEDORA."

612 Hastings Street. VANCOUVER, B.C.

Mining Stocks.

Prepared by A. W. More & Co., Mining Brokers, Victoria, B.C., May 31, 1897

Companies.	Capital.	Par Value.	Price.
TRAIL CREEK.			
Alberta	1,000,000	\$ 1 00	\$0 14
B.C. Gold King	1,000,000	1 00	0 10
Beaver	750,000	1 00	0 10
Big Three	3,500,000	1 00	0 10
Bluebird	600,000	1 00	0 10
Bruce	1,000,000	1 00	0 10
Butte	1,000,000	1 00	0 03
Caledonia Con	500,000	1 00	0 05
California	2,500,000	1 00	0 15
Camp Bird	1,000,000	1 00	0 05
C. & C.	500,000	1 00	
Celtic Queen	750,000	1 00	0 05
Centre Star	500,000	1 00	
Colonna	1,000,000	1 00	0 26
Commander	500,000	1 00	0 22
Crown Point	1,000,000	1 00	0 50
Deer Park	1,000,000	1 00	0 16
Della Colla	1,000,000	1 00	0 04½
Delaware	1,000,000	1 00	0 12
Eastern Star	500,000	1 00	0 20
Enterprise	1,000,000	1 00	0 20
Eric	1,000,000	1 00	0 05
Evening Star	1,000,000	1 00	0 10
Georgia	1,500,000	1 00	0 15
Gertrude	500,000	1 00	0 10
Golden Drip	500,000	1 00	0 15
Golden Queen	1,000,000	1 00	
Great Western	1,000,000	1 00	0 16
Hattie Brown	1,000,000	1 00	0 10
Helen	600,000	1 00	0 04
High Ore	500,000	1 00	0 06
Homestake	1,000,000	1 00	0 07½
Idaho	500,000	1 00	
Imperial	1,000,000	1 00	0 04
Iron Horse	1,000,000	1 00	0 20
Iron Mask	500,000	1 00	0 44
I.X.L.	1,000,000	1 00	0 10
Josie	700,000	1 00	0 42
Jumbo	500,000	1 00	0 72
Knight Templar	500,000	1 00	0 05
Kootenay-London	1,000,000	1 00	0 10
Le Roi	2,500,000	5 00	7 75
Lilly May	1,000,000	1 00	0 20
Mabel	1,000,000	1 00	0 15
Mayflower	1,000,000	1 00	0 14
Monita	750,000	1 00	0 19
Monte Cristo	1,000,000	1 00	0 15
Morning Star	1,000,000	1 00	0 08
Nest Egg	500,000	1 00	0 10
Northern Belle	1,000,000	1 00	0 10
Novelty	1,000,000	1 00	0 09
O. K.	1,000,000	1 00	0 20
Palo Alto	1,000,000	1 00	0 05
Phoenix	500,000	1 00	0 10
Poorman	500,000	1 00	0 06½
R. E. Lee	2,000,000	1 00	0 15
Red Mountain View	1,000,000	1 00	0 11
Red Point	1,000,000	1 00	0 10
Rossland, Red Mountain	1,000,000	1 00	0 25
St. Elmo	1,000,000	1 00	0 08
St. Paul	1,000,000	1 00	0 12½
Silverine	500,000	1 00	0 10
Southern Cross & W. Con	500,000	1 00	0 20
Trail Mining Co	250,000	100 00	
Union	600,000	1 00	
Virginia	500,000	1 00	0 12
War Eagle Consolidated	2,000,000	1 00	1 00
West Le Roi	500,000	1 00	0 20
White Bear	2,000,000	1 00	0 19
AINSWORTH, NELSON AND SLOCAN.			
Argo	1,000,000	0 10	0 10
Athabasca	1,000,000	1 00	0 25
Bondholder	1,000,000	1 00	0 10
Alamo	500,000	1 00	
Cumberland	500,000	10 00	
Dardanelles	1,000,000	1 00	0 20
Dellie	750,000	1 00	0 15
Eldon	1,000,000	1 00	0 05
Elise	1,000,000	1 00	0 07
Ellen	1,000,000	1 00	0 07½
Elkhorn	1,000,000	1 00	0 10
Exchequer	1,000,000	1 00	0 10
Goodenough	800,000	1 00	0 25

COMPANIES.	Capital.	Par Value.	Price.
Gibson	650,000	1 00	0 17½
Grey Eagle	750,000	1 00	
Hall Mines	300,000	£1	
Idler	1,000,000	1 00	0 12½
Kootenay-Columbia	400	100 00	
London	150,000	25	0 25
Minnesota	1,000,000	1 00	
Northern Light	250,000	1 00	0 15
Noble Five Con	1,200,000	1 00	0 50
Ottawa and Ivanhoe	1,000,000	1 00	0 12½
Phoenix Consolidated	1,000,000	1 00	0 07
Rambler Con	1,000,000	1 00	0 52
Reco	1,000,000	1 00	1 50
Slocan Star	500,000	50	2 60
Santa Marie	1,000,000	1 00	0 05
Sheriff	1,000,000	1 00	0 24
Silver Band	250,000	0 25	0 12½
Slocan Queen	1,000,000	1 00	0 10
Star	1,000,000	1 00	0 06½
St. Keverne	1,000,000	1 00	0 05
Sunshine	500,000	10 00	
Two Friends	240,000	.30	
Washington	1,000,000	1 00	0 25
Wonderful	1,000,000	1 00	0 10
BOUNDARY.			
Old Ironsides	1,000,000	1 00	0 06
CAMP MCKINNEY.			
Cariboo	800,000	1 00	0 48
LARDEAU.			
Consolidated Sable Creek Mining Co.	1,500,000	1 00	0 10
TEXADA ISLAND.			
Texada Proprietary	250,000	25	0 25
Van Anda	5,000,000	1 00	0 15
Victoria-Texada	150,000	0 25	0 25
Texada Kirk Lake	600,000	1 00	
Raven	1,000,000	1 00	0 10
Gold Bar	100,000	0 10	
ALBERNI DISTRICT.			
Alberni Mountain Rose	250,000	1 00	0 06
Consolidated Alberni	500,000	1 00	
Mineral Creek	500,000	1 00	0 05½
Mineral Hill	750,000	1 00	0 10
Quadra	500,000	1 00	0 10
CARIBOO.			
Cariboo Gold Fields Ltd	£100,000		
Cariboo Hydraulic	300,000		
Horsefly Hydraulic	200,000		
Horsefly Gold Mining Co	1,000,000	10 00	1 50
Slough Creek	500,000	1 00	0 50
LILLOOET DISTRICT.			
Golden Cache	500,000	1 00	1 80
Alpha Bell	500,000	1 00	0 50
Cayoosh Creek Mines	500,000	1 00	0 50
Lillooet Gold Reefs	200,000	25	0 25
FAIRVIEW CAMP.			
Tin Horn	200,000	0 25	

† Dividends declared to date are as follows: Le Roi, \$400,000; War Eagle, \$187,000; Cariboo, \$156,000; Slocan Star, \$350,000; Reco, \$150,000; Rambler Cariboo, \$40,000; Idaho, \$152,000. Alamo, Cumberland, Noble Five and Goodenough have also paid dividends.

Agents.

THE RECORD is on file at 253 Broadway, New York.
 The following firms will receive subscriptions for the B.C. MINING RECORD, at \$1.00 per annum—single copies may be had of them at 10 cents each. Foreign subscriptions 6s. 6d. sterling.

Street & Co., 30 Cornhill London, Eng
 Gordon & Gotch, St. Bride Street " "
 F. E. Clotten, 136 High Street Cologne, Germany
 San Francisco News Co. San Francisco, Cal
 Windsor Hotel Montreal, Que
 K. T. Takahashi " "
 Robt. Duncan & Co Hamilton, Ont
 John P. McKenna Toronto, Ont
 G. B. Salmond Brantford, "
 Clarke & Stuart Vancouver, B.C
 Bailey Bros " "
 Norman, Caple & Co " "
 Thompson Bros " "
 E. Galloway & Co " "
 Biddell & Co Vancouver, B.C.
 Hotel Vancouver News Stand " "
 C. P. R. News Agent " "
 T. N. Hibben & Co Victoria, "
 Geo. Marsden " "
 R. Jamieson & Co " "
 Cashmore's Bookstore " "
 Pimbury & Co Nanaimo, "
 J. F. Shaw Wellington, "
 H. Morey & Co New Westminster, "
 H. H. Lennie & Co " "
 D. Lyall & Co " "
 J. H. Clements Ashcroft, "
 Bailey Bros Kamloops, B.C
 W. T. Slavin " "

Lardeau=Trout Lake Purchasing Syndicate

Being formed to take over some rich Silver Properties in the above districts.

Assays : Lowest 292 ounces silver, 55 per cent. lead. Highest 760 ounces silver to ton, surface outcroppings.

Only \$17,000. Vendors show their faith in property by taking 75 per cent of amount in shares of the syndicate.

It is proposed to capitalize for \$500,000 in 50-cent shares, to be allotted as follows: Vendors 364,285 shares; Promoters 10 per cent. in shares in lieu of cash for placing shares, incorporating and all preliminary expenses. 200,000 to the public at 3½ cents, in blocks of not less than 5,000 shares each; 335,715 to Treasury, to be sold at highest market price, for further development if required. Shareholders to have first privilege.

As no salaries or expenses will be incurred the entire proceeds, less amount paid to vendors for properties, will go into development.

Prospectus and expert's report furnished on application.

Three monthly payments can be arranged if desired.

GEO. D. SCOTT, B.C. MANAGER
London and Lancashire Life Assurance Company.
42 FORT STREET,
VICTORIA, B.C.

Bank References Furnished.

Please remit through Bank of B.N.A.

Smith Bros.....	Vernon, B.C.
Wm. Parker.....	Deer Park, "
F. B. Wells.....	Revelstoke, "
C. J. Aman.....	" "
G. Stanley.....	Nelson, "
Thompson Bros.....	" "
J. F. Kennedy.....	Kaslo, "
W. J. Sanders.....	" "
P. Lamont & Co.....	" "
Slocan News Co.....	Sandon, "
F. W. Brown, Post Office.....	Trail, "
S. B. Shaw.....	Rossland, "
J. E. Saucier, Post Office.....	" "
H. S. Wallace.....	" "
M. W. Simpson.....	" "
H. G. Parson.....	Golden, "
P. H. Kellegher.....	Nakusp, "
M. Skojeski.....	Sicamous, "
Slocan News Co.....	Slocan City, "
Linton Bros.....	" "
W. H. Udall.....	" "
O. F. Nelson.....	New Denver, "
H. B. Munroe.....	Greenwood City, "
Bradford & Ellis.....	Salmo, "
G. Wolff & Co.....	Tacoma, Wash
Tamper Cigar Co.....	" "
Vaughan & Morill.....	" "
Central News Co.....	" "
Wm. M. Shaw & Co.....	Spokane, "

Shaw, Borden & Co.....	Spokane, Wash
J. W. Graham & Co.....	" "
Puget Sound News Co.....	Seattle, Wash
Lowman & Hanford.....	" "
B. B. Rich.....	Portland, Or
John Nowland & Co.....	Leadville, Col

Mining Papers on File.

The following papers are kept on file at the offices of the B.C. MINING RECORD for the use of visitors who may wish to consult their columns:

Mining and Scientific Press.....	San Francisco, Cal
Mining and Electrical Review.....	" "
Pacific Electrician.....	" "
Mining and Metallurgical Journal.....	Los Angeles, Cal
Mining Herald.....	Seattle, Wash
Washington Mining Journal.....	" "
Miner and Electrician.....	Spokane, Wash
Mining.....	" "
Spokesman Review.....	" "
North-Western Mining Facts.....	" "
Daily Call.....	Port Townsend, "
Western Mining World.....	Butte, Montana
Mine, Quarry and Metallurgical Journal.....	Chicago, Ill
American Adviser.....	" "
Engineering and Mining Journal.....	New York

COLLINS & HADDOCK,  
Livery, Sale and Feed Stables.
Saddle Horses, Single and Double Rigs for Hire.



WHOLESALE AND RETAIL DEALERS IN HAY AND GRAIN.

PAOK, SADDLE, DRIVING
AND WORK HORSES FOR SALE.



ASHCROFT, B.C.



LOOKING DOWN THE THOMPSON RIVER—NEAR KAMLOOPS, B.C.



HYDRAULIC MINING ON MOFFAT CREEK—NEAR ARMSTRONG, B.C.

Manufacturers' Record	Baltimore, Md	Nanaimo Free Press	Nanaimo, B.C.
Mining Journal	London, Eng	Mining Critic	Vancouver
Shareholder	" "	The Province	Victoria, "
The Colonies and India	" "	The Times	" "
Financial News	" "	Catalogues of Mining Machinery and Supplies.	
Canadian Gazette	" "	<i>We will be pleased to forward to any subscriber or reader catalogues and printed matter from the following firms:</i>	
Chamber of Commerce Journal	" "	Joshua Hendy, Machine Works, San Francisco, Cal. Mining machinery of all kinds.	
Australian Mining Standard	Sydney, N.S.W	The Giant Powder Co., San Francisco, Cal. Explosives.	
Standard and Diggers' News	Johannesburg, South Africa	The Pelton Water Wheel Co., San Francisco. Water wheels.	
Canadian Engineer	Toronto, Ont	John Taylor & Co., San Francisco, Cal. Mine and mill supplies, chemicals, etc.	
" Electrical News	" "	Canadian Rand Drill Co., Montreal and Rossland. Mining machinery.	
Canada Miner	" "	Fried. Krupp Grusonwerk, Magdeburg-Buckau, Germany, and Montreal, Mining and Milling Machinery of every description.	
Industrial Canada	" "	Hamilton Powder Co., Montreal and Victoria. Explosives.	
Canada Lumberman	" "	M. Beatty & Sons, Welland. Dredgers, ditchers, etc.	
Monetary Times	" "	Theodor Lexow, New York. Carbons, diamond drills, etc.	
Toronto World	" "	James H. Lancaster, New York. Steam shovels, etc., etc.	
Toronto Globe	" "	James Macbeth & Co., New York. Electric blasting supplies.	
Mining Review	Ottawa	Bradley Pulverizer Co., Boston. Griffin mill.	
Money and Risks	" "	The Reliance Oil & Grease Co., Cleveland, O. Valve-oleine.	
Mining News	Montreal	Northey Co., Ltd., Toronto. Pumps for mining.	
Revelstoke Herald	Revelstoke, B.C	Colorado Iron Works, Denver, Col. Milling and smelting plants, etc.	
Rosslander	Rossland, B.C	Canadian General Electric Co., Electric supplies, Vancouver.	
Rossland Miner	" "	John Boyd & Co., Machinery and Supplies, Vancouver.	
Evening Record	" "	Jas. Leffel & Co., Water Wheels, Springfield, Ohio.	
Kootenaiian	Kaslo, "	Girard Water Wheel, San Francisco.	
Miner	Nelson, B.C	Electrical Engineering Co., San Francisco.	
The Tribune	" "	Geo. W. Pennington & Sons, " "	
Trail Creek News	Trail, "	Union Gas Engine Co., " "	
Trail Creek Miner	" "	Gates Iron Works, Chicago. Mining machinery of all kinds.	
Boundary Creek Times	Greenwood City, "	Royal Electric Co. Electric Power and Supplies, Montreal.	
Slocan City News	Slocan City, "	Victoria, B.C.	
Slocan Pioneer	Slocan City, "		
Grand Forks Miner	Grand Forks, "		
Ledge	New Denver, "		
Golden Era	Golden, "		
Vernon News	Vernon, "		
Paystreak	Sandon, "		
Advance	Midway, "		
Prospector	Fort Steele, "		
Inland Sentinel	Kamloops, "		
B.C. Mining Journal	Ashcroft, "		

The Royal Electric Company

MONTREAL, QUEBEC.

— MAKERS OF —

Electrical Mining Machinery

MOTORS

Adapted for Operating Stamps, Compressors, Hoists, Trams, Drills, Pumps.

Lighting Plants for Mines and Buildings.

OUR S. K. C. SYSTEM

RENDERS DISTANT WATER POWERS AVAILABLE

FOR ALL CLASSES OF MINING WORK.

— WRITE OUR BRITISH COLUMBIA BRANCHES AT —

Rossland.

36 Government St., Victoria.

Milwaukee Brewing Co., Ltd. Ltd.

(SUCCESSORS TO JOHN LEAHY.)

President and Manager, HERMAN KURTH.

124 Johnson St., - VICTORIA, B. C.

CAPITAL STOCK, - \$20,000.

— BREWERS OF —

Lager Beer, Ale and Stout.

P.O. BOX 105

TELEPHONE 539

You can get 100 per cent.
better quality when you purchase

OKELL & MORRIS'

*PRESERVES,
PICKLES AND
SAUCES.*

We guarantee our manufactures to be
the best selling lines in Canada. . . .



For Purity and Excellence of Quality
We are on Top. . . .

WRITE US FOR CATALOGUE AND PRICES.

Factory, - - VICTORIA, B.C.

James A. Fraser,

MINES & MINING STOCKS

Bought and Sold

SECRETARY & TREASURER,

Channe Mining Co.

A.B.C., 4th Edition, Moreing & Neal.



627 Hastings Street,
VANCOUVER, B. C.

C. M. WOODWORTH, ^{M.A.} _{LL.B.}

— Notary, Etc., —

Mines, Stocks and Real Estate;
Investments Made;
Property and Stocks
Reported on

SLOCAN CITY,
— B.C. —

M. L. GRIMMETT, LL.B.

Barrister, Solicitor, Notary Public, Etc.

Solicitor for the
Bank of British Columbia.

SANDON, B.C.

J. W. CAMPION, Secretary-Treasurer. Telephone 310.

J. E. W. MACFARLANE, Manager. Telephone 449.

B.C. IRON WORKS CO., Ltd.

Makers of All Classes of Machinery.

ENGINEERS, GENERAL FOUNDERS AND BOILER MAKERS.

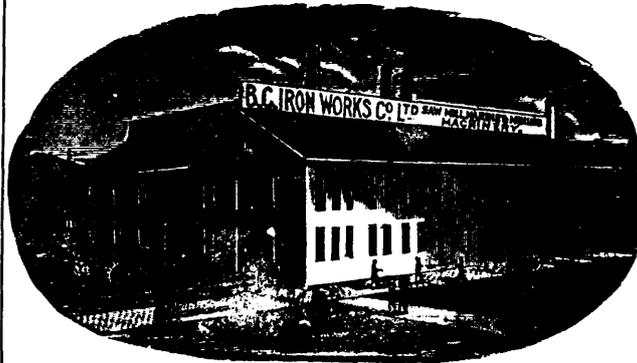
SOLE MANUFACTURERS OF

Kendall Band Mill,
B.C. Shingle Machines,
Steam Log Hauling
Machines,
Marion Steam Shovels,
Improved Winding Hoist,
River & Harbour Dredger,
King Ditching Machines,
Wrecking Machines,
Ballast Unloaders, etc.

AGENTS FOR

Reeve's Wood Split
Pulleys.

CABLE ADDRESS, "COVE;"



WE MAKE A SPECIALTY OF

MARINE ENGINES and
BOILERS, and undertake
building steamers com-
plete. Also all classes of
Hoisting Machinery—In-
cluding Mining Hoists.
Whins, Mining Pumps,
Mining Tramway Outfits,
Cars and Brakes, Air
Compressors, Cornish
Pumps, Rock Crushers,
Stamp Mills and
Concentrators.

Sawmill Machinery generally, Engines and Boilers for all land purposes.

We keep in stock a full supply of Engineers' and Mill supplies. Pipe and Fittings,
Brass Goods, Steam Fittings, etc. Estimates for boilers and engines on application.

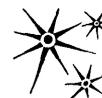
Mail Orders receive Prompt Attention.

Telephone 316. P.O. Drawer 754.

Corner Alexander Street and Westminster Avenue,

VANCOUVER, B.C.

Pemberton & Son,



MINING BROKERS

Real Estate, Financial & Insurance Agents.

MINING PROPERTIES FOR SALE. AGENTS for the TOWNSITE of ALBERNI.

Farming Lands for Sale in all parts of the Province.

Fort Street,

VICTORIA, B.C.

Telegraphic Address—"GOLD PROP."

"Risk, minimum. Profit, Maximum."

Mining Code used—Bedford-McNeill's.

THE BRITISH PACIFIC GOLD PROPERTY CO., Limited Liability.

Incorporated 18th March, 1897

CAPITALIZATION, \$5,000,000—Divided in 5,000,000 Shares of \$1.00 each; issued fully paid up and non-assessable.
Provision made for issuance of first block of Treasury Stock at Ten Cents per share.

OFFICERS

PRESIDENT—Alex. J. McLellan, Esq., President of the Kimberly Mining Company, and Vice Pres. of the San Joaquin Mining Company.

VICE PRESIDENT—R. T. Williams, Esq., Publisher of the Williams' Directory of the Province, and Secretary-Treasurer of the Caledonia General Mining Association.

BOARD OF DIRECTORS:

Hon. T. R. McInnes, Senator, Victoria, B.C.; W. H. B. Aikins, Esq., M.D., Toronto, Ont.; D. Lowrey, Esq., M.D., Pres. of the Brantford Starch Co. Ltd., Pres. of the Brantford Stoneware Co.; B. M. Britton, Esq., Q.C., M.P., Kingston, Ont.; W. W. B. McInnes, Esq., M.P., Nanaimo, B.C.; J. W. Frost, Esq., Q.C., Owen Sound, Ont.; Prof. E. Odium, London, Eng.; Geo. Gillies, Pres. Gillies Co., Gananoque; Frank Dowler, Esq., Merchant, Guelph; A. T. Watt, Esq., M.D., Supt. Dominion Quarantine, William Head, B.C.; R. L. Fraser, Esq., M.D., Medical Health Officer, Victoria, B.C.; Frank Hall, Esq., M.D.; Moses McGregor, Esq., Alderman, Victoria, B.C.; Chas. Hayward, Esq., Chairman Board of School Trustees, Victoria, B.C.; Lawrence Goodacre, Esq., Ex. Ald. Dwyer, James Muirhead, Esq.; R. Erskine, Esq., A. B. Erskine, Esq., E. A. Morris, Geo. Powell, Esq., Victoria, B.C.
Consulting Metallurgist and Mining Engineer—W. J. R. Cowell, B.A., F.R.G.S., M.E., Principal of the Victoria Metallurgical Works.
Consulting Civil Engineer—H. P. Bell, Esq., C.E., M.I.C.E.
Solicitor—Mr. Archer Martin, of the firm of Messrs. Martin & Langley, Victoria, B.C.
Bankers—The Bank of Montreal.

CHARTER POWERS.

The Memorandum of Association has been prepared with great care, and includes every provision and power required by mining companies.

OBJECTS OF THE COMPANY.

The objects of the Company are principally to acquire, develop and dispose of with profit, mineral properties in B.C. and elsewhere. It is a well known fact that the first rise in values in mineral properties located, invariably takes place after the first development work has been done upon them, and in many instances it has been found that the assessment work required by law has been sufficient to demonstrate their prospective value. Large sums of money are paid every day for what only a short time ago were mere prospects. It is the intention of the Company that these profits, which have been reaped largely by the original holders of claims, shall be participated in similarly by every shareholder in this Company.

ACQUIREMENT OF PROPERTIES.

The means employed by the Company to secure good mining properties embrace a comprehensive scheme, including every lawful and proper method. In addition to fitting and sending out a number of experienced prospectors to locate claims for the Company in the leading mining districts of the Province, the Company has secured reliable confidential agents in prominent mining localities to co-operate with the Company, and promote its interest in such localities by:

1. Discovering and locating new mineral bearing properties prospectively of value.
2. By locating good claims as annexes to well known mining properties already developed.
3. By making use of such means as will enable them to be informed at once of new rich "strikes" or "finds" made in the vicinity.
4. By noting the lapses made on mineral property of value.
5. By advising the Company promptly in the event of any owner of valuable property desiring to dispose of same at a low figure. And in general do all such things as may advance the interests of the Company in that locality, but always under instructions from the Company. Travelling confidential agents, with similar instructions, have also been employed.

These features, and others which might be mentioned, are all framed with a view of securing to every shareholder a minimum of risk with a maximum of profit.

.....

THE COMPANY began operations by the acquirement of the "Teutonic Mineral Claim," on the East Fork of the North Fork of the Salmon River, Kootenay, and the "Brittanic," adjoining, through both of which claims a highly mineralized vein four feet in width runs. A staff of experienced prospectors has been fitted out to prospect in the different mining divisions of Kootenay and on the Coast. Reports already received are highly encouraging. Genuine mining properties are being discovered by them at present and recorded in the name of the Company nearly every week on the coast and in the interior. Negotiations are pending at present whereby a large number of rich mineral properties between Rossland and Revelstoke may be acquired. Arrangements have also been made to secure a number of rich placer claims in the Yukon. In the course of the next sixty or ninety days the Company expects to be in possession of mineral properties of great value. The affairs of the Company are in the hands of gentlemen of high standing and reputation. They are, besides, experienced in mining matters, and every guarantee possible is afforded that the Company's affairs will be managed economically and honestly, wisely and well, and with profitable results to every shareholder.

The Head Office of the Company is at Victoria, where applications for stock will be received at present, though arrangements are being effected as rapidly as possible to establish branches in the Eastern cities of Canada, and the United States, and in London, England.

.....

FOR FURTHER INFORMATION, ADDRESS

The Secretary-Treasurer of the **BRITISH PACIFIC GOLD PROPERTY CO., Ltd.,** Box 112 **VICTORIA, B.C.**

John A. Wilson & Co.

Mining Brokers and General Commission Agents.

MINING : CLAIMS : IN : ALL : STAGES : OF : DEVELOPMENT : FOR : SALE.

As we have Agents and Correspondents in all the leading Mining Camps in B.C. we are in a position to give thoroughly reliable information regarding any property.

COMPANIES PROMOTED.

Cable Address: "JOHNAW."

SYNDICATES FORMED.

CODES: J.A.W. & Co. (private code).

- - CLOUGH'S.

- - A.B.O.

MINERVA MINING COMPANY, LTD., LY.,

CAPITAL, - \$200,000.

Divided into 4,000,000 shares of a par value of five cents each; 1,000,000 of which have been set aside to be sold for development purposes only. The property is a full sized claim, 1,500x1,500 feet, and situated on Granite Creek, about one mile from Kootenay Lake. A contract has just been let to continue the present tunnel 100 feet further. 50,000 shares are now offered to the public at Five Cents par. Prospectuses and all information can be obtained from the Secretary-Treasurer or

JOHN A. WILSON & CO.,

COMMISSION BROKERS, - - VICTORIA, B.C.

Cariboo Lillooet

STAGE TRAVEL

Stages for the undermentioned points leave Ashcroft as follows:

CLINTON and Way Points—Monday, Wednesday and Friday.

ALL POINTS IN CARIBOO—Monday and Friday.
(Connecting with Str. "Charlotte" at Soda Creek.)

LILLOOET, Direct—Monday and Thursday.

LILLOOET, via Clinton—Wednesday.

Through and Return Tickets at Reduced Rates.

Special Conveyances Furnished.

BRITISH COLUMBIA EXPRESS CO., LTD.,

Head Office: ASHCROFT, B.C.

PACIFIC COAST

STEAMSHIP COMPANY.

Victoria, B.C., and Puget Sound Route.

THE COMPANY'S Elegant Steamers, UMATILLA, CITY OF PUEBLA and WALLA WALLA, carrying H.R.M. Mails, leave Victoria, B.C., for San Francisco at 8 p.m., May 4, 9, 14, 19, 24, 29. June 3, 8, 13, 18, 23, 28, July 3, 8, 13, 18, 23. Due at San Francisco, a.m., May 7, 12, 17, 22, 27, June 1, 6, 11, 16, 21, 26, July 1, 6, 11, 16, 21, 26. Leave San Francisco for Victoria, B.C., at 9 a.m., May 1, 6, 11, 16, 21, 26, 31, June 5, 10, 15, 20, 25, 30. July 5, 10, 15, 20, 25. Due at Victoria, a.m., May 4, 9, 14, 19, 24, 29, June 3, 8, 13, 18, 23, 28, July 3, 8, 13, 23, 28.

Alaska Route.

THE Elegant Steamers CITY OF TOPEKA, MEXICO and QUEEN leave Victoria for Alaska May 9, 14, 24, 29, June 8, 13, 23, 28, July 8, 13, 23. Due back at Victoria May 21, 26, June 5, 10, 19, 25, July 4, 10, 19, 25, Aug. 3. The Company reserves right to change, without previous notice, steamers, sailing dates and hours of sailing.

R. P. RITHET & CO., Agents,
61 and 63 Wharf St., - VICTORIA, B.C.

GOODALL, PERKINS & CO.,
General Agents, - - SAN FRANCISCO.

VAN ANDA Copper & Gold Co.

CAPITAL STOCK, = = \$5,000,000.00.
Treasury Stock, - - - = \$3,000,000.00.

• OFFICERS •

President, Edward Blewett. Secretary, R. E. Hall. Treasurer, Harry W. Treat.
Trustees, Edward Blewett, Hon. C. E. Pooley, Henry Saunders,
C. S. Neras, H. W. Treat.

PROPERTY—TEXADA ISLAND, British Columbia.
786 Acres Crown Granted Land.

THIS PROPERTY embraces fifteen or sixteen Claims, and has several known veins; work, however having been done on only one, and the work to date having been largely of an exploring nature. A shaft has been sunk 125 feet, partly on the vein and partly through the adjacent lime, ore having been developed to a depth of sixty feet. It is expected the shaft will again strike the vein in about thirty feet. The ore taken from this vein has ranged in value from \$2 to \$3 at the surface to over \$1,000 assays on picked samples. A recent shipment of FORTY TONS to the Everett Smelter gave returns of: Copper, 18 1-2 per cent.; gold, \$18.60; silver, 11 ounces. About thirty tons of ore on the dump would average fully 25 per cent. copper. The vein, as far as developed, has shown from one to four feet of shipping ore, commencing about twenty feet below the surface, and the ore increasing in value and depth as well as in quantity. A drift has been run 180 feet at the sixty-foot level, and the bornite ore, above alluded to, came from this drift. Preparations are being made for pushing the work actively and in a systematic manner to reach the permanent formation at the 200-foot level. It is the intention to make regular shipments once in two weeks for the present; one shipment being made of 550 sacks March 3rd, and one of 330 sacks March 20th. At the 125-foot level the cross-cut forty-five feet struck the ore body, and there was three and one-half feet of ore in the face of the cross-cut, with the drills still working in ore.

• OFFICES •

108 La Salle Street, CHICAGO, ILL.

613 BAILEY BUILDING, SEATTLE, and VICTORIA, B.C.

Armstrong & Morrison

WE MANUFACTURE THE CHEAPEST AND BEST



Steel Pipe for Hydraulic Mining, and
Municipal Water Works Plants to be had on the Coast,
Ore Cars, Ore Buckets, Steel Wheelbarrows, Monitors,
Deflectors and Elevators, Pelton Water Wheels.

IF YOU intend putting in a PLANT this season, do not fail to communicate with us, we will cheerfully furnish estimates on plant f.o.b. cars, or fitted up complete on the ground. - - - -



ARMSTRONG & MORRISON, Vancouver, B.C.

Henry Benjamin

GEOLOGIST AND MINING EXPERT

Large experience in Johannesburg, South Africa.

Mines and Mining Stocks for Sale.
 Properties Bought

CODE :—BENGELEE—

No. 2 Arcade, Hastings St., VANCOUVER.

VICTORIA-TEXADA Mines

MINING CO., LTD.

Capital, only \$150,000. - Treasury, \$75,000.

COMPANY'S OFFICE, 28 BROAD ST.

Four Claims, - All Surveyed.

Vendors' Stock pooled and not transferable. Free milling ore of the finest quality. See samples at Company's office, or visit mines and invest. Positively no further liability, as Treasury Shares are 25 cts. Par Present Price, 25 cts.

BEAUMONT BOGGS & CO.,

Company's Brokers, = = 28 Broad St.

—AND—
Mining Stocks

In all parts of the Province.

❖ ❖

Information Cheerfully Furnished.

❖ ❖

BEAUMONT BOGGS & CO.

ABC, Clough's and Bedford McNeil's Codes

W. PELLEW-HARVEY, F.C.S.

ASSAY · OFFICES · AND · CHEMICAL · LABORATORY.

FOR several years with Vivian & Sons, Swansea, and local representative for them. . . . For five years Manager for the Assayers to the Rio Tinto Co., London. Canadian Representative of The Cassel Gold Extracting Co., Limited, Glasgow (Cyanide Process). N.B.—All work personally superintended. Only competent men employed. No pupils received.

ESTABLISHED 1890. VANCOUVER, B.C.

HYDRAULIC MINING PARTIES requiring the services of an expert (Californian) Hydraulic Engineer, can obtain his services on reasonable terms on application to

Mahon, McFarland & Mahon, Limited,
MINING & FINANCIAL BROKERS,

519 Hastings Street, VANCOUVER, B.C.

THE NEWMARKET HOTEL

HENRY STEGE, Proprietor.

Headquarters for Mining and Commercial men.
Special accommodations for hunting and fishing parties.

Located on Lake Slocan. NEW DENVER, B.C.

H. J. ROBERTSON—Tinsmith—Galvanized and
H. Sheet Iron Worker—Stoves, Granite & Tinware.
Liberal discount given to mine owners. Main St., SLOCAN CITY, B.C.

ORDWAY & CLARKE

P. O. Box 258. ROSSLAND, B. C.

.. Mining Engineers and Assayers ..

Contracts Made for Underground Surveying and Assaying.
Specialty superintending development and reporting on mineral properties

Harris Cousins & Co.

CABLE ADDRESS:
Graham, Rossland
Codes:
{Moreing & Neal's
{Clough's

P. O. Box 157 **MINING BROKERS**
Agents for Mining Machinery and Insurance. Mines reported on. Members
Rossland Stock Exchange. Reference: Geo. Freeman, 23 Throgmorton St.
London, E.C. Correspondence Solicited. **ROSSLAND, B. C.**

J. Clynne Smith, M.E.,

PRACTICAL MINING, MECHANICAL
AND CONSULTING ENGINEER. ::

P. O. Box 416.

VANCOUVER, B.C.

Large field experience as mine and mill manager in the U.S. and
Canadian gold fields. Modern American mining and
milling methods a specialty.

Canadian and U.S. references upon application.

Code: Moreing & Neill.

Telegraphic address: "Clinic."

J. C. GWILLIM, B.A. Sc.

W. S. JOHNSON, B.A., Sc.

Gwillim & Johnson,
MINING ENGINEERS,
ANALYTICAL CHEMISTS
AND ASSAYERS. ★ SLOCAN CITY,
—B.C.—

HOTELS

OCCIDENTAL HOTEL

CENTRALLY LOCATED.

RATES—\$1.00; \$1.25, and \$1.50 per day, according to Room. Weekly Rates less.

This old and well-known hotel is under the management of Walter Porter, who will always endeavour to make its patrons feel at home

Corner Wharf and Johnson Streets.

VICTORIA, B.C.

LANCASTER HOTEL

First-class in every respect.

LOUIS O. GARNETT, Proprietor.

ROSSLAND, B.C.

THE MEAKIN HOTEL.

Newly fitted and equipped with all modern conveniences.

SAMPLE ROOMS FOR TRAVELLERS.

Mrs. W. J. MEAKIN, Proprietress.

TRAIL British Columbia

The Kaslo



W. VIDLER PAPWORTH
J. WM. COCKLE.

FAMILY AND COMMERCIAL HOTEL.

Heated throughout with hot air.
Lighted with electric lights.
All modern conveniences.

Front Streets,

KASLO, B.C.

Late of the Royal Hotel, Calgary.

The Clarke Hotel,

JOSEPHINE STREET,

E. C. CLARKE, Proprietor.

NELSON, B.C.

J. A. MACFARLANE,

(Fellow of the Chemical Society, London, since 1880.)

Mines Examined and Reported On. Assays Made with scrupulous personal care.

623 HASTINGS STREET,

VANCOUVER, B.C.

THE PAYSTREAK



Of the Remington Standard Typewriter never pinches nor peters out, but is solid high-grade from hanging to foot-wall. The lead is distinctly traceable in every civilized country. We have just staked that portion running through British Columbia and offer the stock at best market rates. As an educator, time saver and money earner it is the best investment on the market. Important letters should be type-written.

We carry in stock supplies for all machines, papers, carbons, oils, brushes, also letter and note-books, etc. Machines rented, exchanged, re-fitted and repaired. All classes of typewriting neatly done. Terms Cash. Canvassers and dealers wanted in every principal town in British Columbia. Good commission paid. Terms on application.

LYSTER & CO., College Block, Hastings St., VANCOUVER, B.C.

GENERAL DEALERS FOR BRITISH COLUMBIA.

Columbia House



RATES:
\$1.00 PER DAY.

THE LARGEST HOTEL IN TOWN
CENTRALLY LOCATED.
BEST ACCOMMODATION.
ST. LEON HOT SPRINGS, on Upper Arrow Lake, run in connection.

CHOICE WINES, LIQUORS & CIGARS.

BROWN & CLARK, Props. REVELSTOKE, B.C.

PACIFIC HOTEL

W. E. Terrill, Prop.

CODY, B.C.

CODY CREEK SAW MILL

Capacity—30,000 feet.

W. E. TERRILL, Prop.

FOR SALE—LUMBER, of all descriptions

C. M. Gething.

R. G. Henderson

THE ARLINGTON HOTEL

GETHING & HENDERSON, PROPS.

Headquarters for Commercial and Mining Men.
Sample Rooms for Commercial Travellers.

RATES: \$2.50 to \$3.50 per day.
Guests are treated to the best in the market

SLOCAN CITY, British Columbia.

St. James Hotel

—ANGRIGNON BROS., PROPS.—

New House
New Furniture
Everything First-class.

Rates, \$2.00 and upwards.

NEW DENVER, B.C.

F. ADRIAN MEYER BROKER

Sub-Collector of Customs. . . .

Deputy Collector of Inland Revenue.

Notary Public

VERNON, B.C.

**A. W. TAYLOR,
Stock : and : Mining : Broker.**

MINING SHARES AND MINES BOUGHT AND SOLD.

Full List of Standard Stocks at Lowest Quotations

No "Wild-Cats" Handled.

VICTORIA, B.C.

MINING BROKERS

P.O. BOX 126.

OPPOSITE DRIARD.

**BEAUMONT BOGGS,
BROKER.**Commissioner for Nova Scotia.
Notary Public for British Columbia.Correspondence Solicited.
A.B.C. and CLOUGH's Codes.

MINES AND MINING STOCKS FOR SALE.

Kootenay, Slocan, Texada Island and Alberni.

VICTORIA, B.C.

PLATINUM REFINERS

N.Y. OFFICE:—

121 LIBERTY STREET.

WE are always in the market for : : :
: : : CRUDE OR NATIVE PLATINUM.**BAKER & CO.,**

NEWARK, N.J.

Wm. Meadows**MINING INVESTMENTS****KASLO, B. C.****B.C. Mining Prospectors Exchange, Ltd.,**

Incorporated March, '97, under Companies' Acts, 1890 and amending Acts.

HEAD OFFICE: 612 CORDOVA ST., VANCOUVER, B.C.

OFFICES: LONDON and BOURNEMOUTH, ENGLAND.

A PROSPECTING, PROMOTING, DEVELOPING AND GENERAL BROKERAGE EXCHANGE.

PRESIDENT, MR. C. CATTELL, Director Cayoosh
Creek Mining & Milling Co.
VICE-PRESIDENT, CAPT. R. E. BOURCHIER.
SECRETARY, T. R. HARDIMAN.

CAPITALIZATION, 1,000,000 shares of 25 cents each par and no further liability. All syndicate stock posted for 12 months. The Exchange, Ltd., are issuing only \$15,000 of stock in the province, thus leaving a good treasury reserve. Stock offered for a limited period only. Registered Cable address: "AURUM." ABC Code. - Agents wanted. - Send for Prospectus.

We have acquired groups in the principle mining camps of the province, including the Danmore Group, Cayoosh Creek (four claims), Free Milling, etc. Our men are prospecting in the best portions of the Mineral Belt.

Davey AND Bosomworth

STOCK AND MINING BROKERS,

Gold, Silver and Copper Mines Bought and Sold.

Holland Block, Cordova St., VANCOUVER, B.C.

Code: Moreing & Neals. Telegraphic address: Bedrock, Vancouver, B.C.

F. REICHENBACH,

M. Assoc. B.C., M.E.

Assayer and Mining Broker,

NEW WESTMINSTER.

Cowper-Coles & Johnson

MINING BROKERS & AGENTS,

ROSSLAND, B.C.

W. J. TWISS**Mining, Real Estate, Insurance and Commission Broker**

CHOICE BUSINESS, RESIDENTIAL AND ACREAGE PROPERTIES FOR SALE.

Property holders will find it to their advantage to list with me.

Correspondence Solicited. P. O. BOX 10.

Front Street, Kaslo, B.C.

J. W. AUSTIN, ASSAYER, Etc.

Assay Office, and Chemical Laboratory.

Opposite Bank of B.N.A.

P.O. Box 327.

504 Hastings St. West, VANCOUVER, B.C.

S. B. HENDEE & CO.

Investments, Mining Brokers, Mines,

BANKERS—Bank of B.C., Sandon.

SANDON, B.C.

A. W. MORE & CO., MINING STOCK BROKERS

SHARES FOR SALE
in all the principal Mines in

TRAIL CREEK, NELSON, ALBERNI, SLOCAN,
CARIBOO, BOUNDARY CREEK. TEXADA.

Correspondence Solicited.

TELEGRAPH CODES USED—Clough's,
Moering & Neal, Bradford McNeil and A.B.C.

70 GOVERNMENT ST.,

VICTORIA, B.C.

The Kamloops Mining & Development Co.

(Limited Liability.)



C. C. WOODHOUSE, JR., Min. Eng. & Assayer
H. E. D. MERRY, Metallurgical Chemist.
FRED M. WELLS, Mine Examiner.

DIRECTORS:

H. E. FORSTER, - - - President.
C. C. WOODHOUSE, JR., - Secretary.
F. M. WELLS.

CHEMICAL LABORATORY AND ASSAY OFFICE
ROSSLAND, B. C.

Mining - Properties - Examined
Reports made with maps and photographs.
We are ready to supply investors with
good properties.

Telegraph Address:
Woo dhouse, Rossland."
Mining Code:
"Bedford McNeill."

NOTICE TO JOINT STOCK COMPANIES.

THE following section, numbered 161, of the "Companies' Act, 1897," relative to the issue of a free miner's certificate is published for the information of JOINT STOCK COMPANIES.

JAMES BAKER,

Minister of Mines.

Provincial Secretary's Office,
14th May, 1897.

161. Notwithstanding anything to the contrary in section 4 of the "Mineral Act, 1896," or section 4 of the "Placer Mining Act, 1891," or elsewhere in the said Acts or other the mining laws of the Province, no free miner's certificate shall be issued to a Joint Stock Company for a longer period than one year, and such certificate shall date from the 30th day of June in each year; and every free miner's certificate held by a Joint Stock Company at the passing of this Act shall be valid and existing until and shall expire on the 30th day of June, 1897. Upon applying to renew any such certificate on or before said 30th day of June, the Joint Stock Company shall be entitled to a rebate of a proportionate amount of the fee paid for a certificate heretofore issued according to the further time for which it would but for this section have been valid.

NOTICE TO PROVINCIAL LAND SURVEYORS

HIS HONOUR the Lieutenant-Governor-in-Council has been pleased to make the following rules and regulations with reference to the survey of Provincial lands and mineral claims:—

1. All surveys shall be personally made by duly qualified Provincial Land Surveyors.
2. All Surveyors shall use the departmental field book and paper, and at the bottom of each page of the field notes shall be entered the date and signature of Surveyor.
3. The original field-notes shall be accompanied by an affidavit in the subjoined form.
4. All Surveyors must promptly carry out the instructions of the Department in respect to the character and amount of information to be furnished in the field-notes, and at all times be ready to make such corrections and supply such additional data as seems expedient for the complete checking of their work in the field.
5. The Department will invariably exercise the right of refusing to accept surveys not made in accordance with the above regulations, and also will refuse to accept as satisfactory any and all surveys made by a Surveyor who has been guilty of repeated infractions of the preceding rules.

G. B. MARTIN,
Chief Com'r of Lands and Works.

Lands and Works Dep't,
Victoria, B.C., 15th April, 1897.

SURVEY OF PROVINCIAL LANDS. AFFIDAVIT.

I, of a duly authorized Provincial Land Surveyor for the Province of British Columbia make oath and say as follows:—

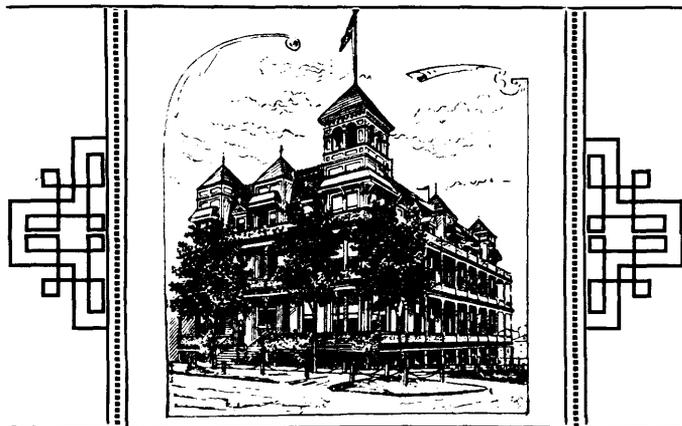
- (1.) I have surveyed.....
- (2.) I commenced the said survey on the day of 189 , and completed it on the day of 189 .
- (3.) I personally ran all the lines of the said survey on the dates set out in the annexed field-book marked A.
- (4.) The notes contained in the field-book are a correct representation of the work done on the ground by me.

Sworn before.....

Provincial Land Surveyor.

STRICTLY FIRST-CLASS.

RATES, \$2.00 AND UP



The Badminton,

(Late Manor House)

H. R. Stratton, Mgr., VANCOUVER, B.C.

DIRECT LINE to
Helena, Butte, Chicago,
New York, Montreal,
Toronto, and all Points in the EAST.



RUNS
Pullman Sleeping Cars,
Elegant Dining Cars,
Upholstered Tourist
Sleeping Cars.

ONLY 22 hrs. from Victoria to Spokane
 30 " " " " Rossland
 33 " " " " Nelson
 36 " " " " Kaslo
 36 " " " " Grand Forks

SAVE both **TIME** and **MONEY** if you are going to the gold fields of Kootenay or Kettle River Districts by travelling via

The Northern Pacific Railway

THE FASTEST ALL-RAIL ROUTE.

Quick Time, and no delay in transit

TRAVELLERS from the East or from the West will find this the Quickest and most Comfortable Route to the Gold and Silver Districts of British Columbia. . . .

TIME SCHEDULE—In effect March 28th, 1897—Trains leave Seattle for Spokane, St. Paul and East, Rossland Nelson, Kootenay and Kettle River points, 4.00 p.m. This card subject to change without notice. Through tickets to Japan and China via the Northern Pacific Steamship Co.
 For full information, Time Cards, etc., call on, or address

E. E. BLACKWOOD,

A. D. CHARLTON,

Freight and Passenger Agent, **VICTORIA, B.C.**

Asst.-Gen. Pass. Agt. 225 Morrison St. **PORTLAND, Ore.**

ATLANTIC STEAMSHIP AGENCY

THROUGH TICKETS to and from all European Points, at lowest rates, and by all Fast Lines. For Sailing Dates, Tickets, etc., apply to

E. E. BLACKWOOD, VICTORIA, B. C.

A Great Railway !

— THE —

Chicago,
Milwaukee and
St. Paul

Owens and operates 6,151 miles of thoroughly equipped road.

This Railway Co.

Operates its trains on the famous block system; Lights its trains by electricity throughout; Uses the celebrated electric berth reading lamp; Runs splendidly equipped passenger trains every day and night between **CHICAGO AND ST. PAUL** and **CHICAGO AND OMAHA**, connecting with all transcontinental lines. The

Chicago, Milwaukee & St. Paul

Also operates steam-heated vestibule trains, carrying the latest private compartment cars, library buffet smoking cars, and palace drawing room sleepers. Parlor cars, free reclining chair cars and the very best dining car service.

For lowest rates to or from any point in the United States or Canada, apply to nearest ticket agent, or address

CEO. H. HEAFORD,

General Passenger Agent,

Chicago, Ill.

C. J. EDDY, Gen. Agt. PORTLAND

FOR PUGET SOUND POINTS

TAKE THE FINE STEAMER

City of Kingston

Speed, 18 knots. Tonnage, 1147.

8.30 a.m. Lv	M 1	Victoria	110	Ar	3.30 a.m.
11.30 a.m. Lv	38	Pt. Townsend	72	Lv	12.30 a.m.
2.30 p.m. Lv	82	Seattle	28	Lv	9.30 p.m.
4.15 p.m. Ar	110	Tacoma	M 1	Lv	7.15 p.m.

Steamer City of Kingston makes connection at Tacoma with Northern Pacific trains to and from points East and South.

*Daily except Monday.

E. E. BLACKWOOD, Agent,
 Victoria, B.C.

Spokane Falls & Northern Nelson and Fort Sheppard Red Mountain Railways

The only all-rail route without change of cars between Spokane, Rossland and Nelson; also between Nelson and Rossland.

DAILY EXCEPT SUNDAY.

Leave.	Spokane	7:00 p.m.	Arrive.	Spokane	7:00 p.m.
7:30 a.m.	Rossland	3:25 p.m.	7:30 a.m.	Rossland	3:25 p.m.
9:00 a.m.	Nelson	5:20 p.m.	9:00 a.m.	Nelson	5:20 p.m.

Close connections at Nelson with steamer for Kaslo and all Kootenay Lake points.

Passengers for Kettle River and Boundary Creek connect at Marcus with stage daily.

The Finest Train in the World !

The long-talked of Limited Trains on

"The Northwestern Line,"

C., St. P., M. & O. Railway, to run between

Minneapolis,
St. Paul and
Chicago,

are now in service.

The press as well as the people who have inspected these trains admit that they represent the acme of the car builders' art. The engine is after the famous 999 pattern and from end to end the train is vestibuled with broad plate glass vestibules which completely enclose the platforms and add greatly to the beauty as well as to the comfort of the train.

IF YOU ARE GOING EAST

why not patronize the new

Northwestern Limited.

Excursion or other classes of tickets are good on this train and no extra fares are charged for the superior accommodations.

Tickets, sleeping car reservations and Map Folder on application to your home agent, or address

F. W. PARKER,

Commercial Agent,

606 First Avenue

SEATTLE.

T. N. HIBBEN & COMPANY



Is the Oldest Established BOOK AND STATIONERY HOUSE in British Columbia and carries the Largest and most Miscellaneous Stock of Goods of any other similar establishment in the Province. Orders by mail will receive prompt attention. The New MINING ACT, with all the amendments up to date, 25c. each.

69 and 71 Government Street,

VICTORIA, B.C.

MINING BROKERS.

F. C. INNES

MINES AND MINING STOCKS.



Mining properties of every description bought and sold.

Full list of standard Stocks at lowest quotations.

CORRESPONDENCE SOLICITED.

538 Hastings St. VANCOUVER, B.C.

S. C. CHEZUM.

JOHN JACKSON, JR.

Rossland Mining Abstract Company.

FULL INFORMATION CONCERNING TITLES TO MINING PROPERTIES IN TRAIL CREEK DIVISION.

General Mining Business Transacted. Correspondence Solicited.

MINING BLANKS CAREFULLY AND NEATLY EXECUTED.

Office: Taylor Block, Columbia Ave. P.O. Box 568, ROSSLAND, B.C.

NELSON HOTEL RATES, \$2 PER DAY

STEVE WHITE, Prop.
Late of White's Hotel, Virden, Manitoba.

Strictly First-class in all its Appointments:

NELSON, B.C.

Thos. T. McVittie,

—P.L.S. AND C.E.,—

FORT STEELE, B.C.

McKinnon, DeBeck & Co.,

Land, Mineral and
Timber Brokers . .

VANCOUVER, B. C.

Telegraphic Address: "Cortes," Vancouver.

E. H. HEAPS & CO.

MACHINERY, MINING AND INVESTMENT
BROKERS.

506 Cordova St. VANCOUVER, B.C.

MANUFACTURERS' AGENTS,
AND DEALERS IN

New and Second-Hand Machinery, Diamond Drills, Canning and Saw Mill Machinery, etc., etc., etc.

REPRESENTING—Cowan & Co., A. R. Williams, M. C. Bullock Manufacturing Company, Clayton Air Compressor Works, and other first-class manufacturers.

RANKIN & THYNNE, 523 Hastings St. - - - VANCOUVER, B.C.

MINES AND MINING STOCKS.

Having correspondents in all sections of British Columbia we are placed in an exceptionally favored position to obtain information regarding any Mines or Stocks in the Province.

GOLDEN CACHE and all leading Mining Stocks
Bought and Sold on Commission.

FOR SALE—Slocan, Cayoosh Creek, Blackwater, Kamloops, and Coast Properties, Developed and Undeveloped.

Mining Properties Negotiated. - A.B.C. and Clough's Code.

HERCULES GASOLINE ENGINES & HOISTS

—FOR MINES—

THEY are reliable. A standard everywhere. In use all over the world. 3,200 Engines sold. Single or double Engines. Vertical or horizontal. Every "HERCULES" Engine is fully tested and guaranteed. Sizes range from 2 h.p. to 200 h.p.

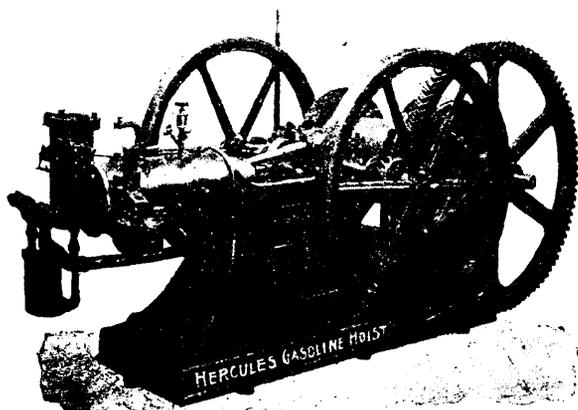
When writing us, give full particulars concerning service Engine or Hoist must perform. ADDRESS,

HERCULES GAS ENGINE WORKS,

405-407 Sansome Street,

SEND FOR CATALOGUE.

SAN FRANCISCO.



Canadian Pacific Railway

THE WORLD'S HIGHWAY TO THE PACIFIC COAST, THE ORIENT AND THE ANTIPODES.

THE BEST, CHEAPEST AND QUICKEST WAY TO

British Columbia, Japan and China, Oregon, Hawaii, Washington,
Fiji and Australia,

OR

AROUND THE WORLD.

The Gold Fields of Cariboo and the famed Kootenay Country in British Columbia are reached only by the Canadian Pacific Railway via Revelstoke, B.C.

FOR FURTHER INFORMATION, APPLY TO ANY AGENT OF THE COMPANY OR TO

A. H. NOTMAN, District Passenger Agent, St. John, N.B.

H. J. COLVIN, District Passenger Agent, 197 Washington St., Boston, Mass.

E. V. SKINNER, General Eastern Agent, 353 Broadway, New York.

O. E. McPHERSON, Asst. Gen. Passenger Agt., 1 King St. E., Toronto, Ont.

C. SHEEHY, District Passenger Agent, 11 Fort St. W., Detroit, Mich.

J. F. LEE, District Passenger Agt., 232 S. Clark St., Chicago, Ill.

C. E. USSHER,

Asst. Gen. Passenger Agent,

MONTREAL.

M. M. STERN, District Passenger Agent, Chronicle Building, San Francisco, Cal.

G. McL. BROWN, District Passenger Agent, Vancouver, B.C.

W. R. GALLAWAY, General Passenger Agent, Soo Line, Minneapolis, Minn.

ROBERT KERR, General Passenger Agent, Western and Pacific Divisions, Winnipeg, Man.

ARTHUR BAKER, European Traffic Agent, 67 and 68 King William St., E.C., and 30 Cockspur St., S.W., London, Eng.; 7 James St., Liverpool, Eng., 67 St. Vincent St., Glasgow, Scotland.

D. McNICOLL,

General Passenger Agent,

MONTREAL.

FOR INFORMATION REGARDING THE

Mineral Resources

OF BRITISH COLUMBIA,

—WRITE TO—

HENRY CROFT,

Rossland, B.C.

Assoc. M. Inst. C.E.

M.I.M.E., England.

FOURTEEN YEARS' EXPERIENCE IN BRITISH COLUMBIA.

Mining Properties Managed.

Reports Made on Mines.

HUNTER BROS. Handle a Complete Stock of Everything.

Rossland, B.C. Sandon, B.C.

LARGEST SUPPLY HOUSE IN WEST KOOTENAY.
MINING SUPPLIES A SPECIALTY.

The Victoria Metallurgical Works with which is incorporated THE VICTORIA ASSAY OFFICE

Prices for Assaying

Gold.....\$1 00	Gold and Silver.....\$1 50
Silver.....1 00	Silver and Lead.....1 50
Lead.....1 00	Gold, Silver and Copper 3 00
Copper.....2 00	

Ores tested in small quantities or in bulk by any known process. Mill tests up to 20 tons.

For prices on other metals, Mill Tests etc. Apply to W.J.R. COWELL B.A. F.G.S. M.E.

43 FORT ST.

VICTORIA B.C.

REPRESENTING
VIRDEN ROLLER MILLS, Manitoba. GREAT WEST ROLLED OATS, Pilot Mound.
SMITH, FISCHER CO., CIGAR MANUFACTURERS, St. Jerome, Quebec.

ASSAYING

CUT RATES I am prepared to make accurate and reliable assays upon ores at the following rates:

Silver....\$ 50	Silver and Gold....\$1 00
Gold....1 00	Copper.....1 00
Silver, Lead, Gold and Copper.....2 00	
Silver, Lead and Gold.....1 50	

Ores may be sent by mail or express, and all charges must be prepaid in full. The charges for the assaying must also accompany the sample.

MONEY furnished to prospectors to develop their claims for an interest in same. Claims bought and sold. Good Prospects stocked. PROSPECTORS are invited to correspond with me.

WALTER J. BROWN, NELSON, B.C.

STROBECK & CO.

MINING OPERATORS.

Will furnish you with any kind of a proposition you wish, and guarantee all properties as represented.

JUST OUT

The Only Up-to-Date Map of this Camp. Price \$1.00.

AINSWORTH, B.C.

G. P. MULCAHY COMPANY,

Mines bought and sold. Companies organized for future Development. Mining Investors

We deal in safe propositions and steer clear of "wildcats." Never organize or stock a property until we know it to be of determined value. Investments with us are perfectly safe.

General Office: Rooms 8 & 9 Great Eastern Bldg., SPOKANE, Wash.

C. D. RAND.

D. S. WALLBRIDGE

RAND & WALLBRIDGE, MINING BROKERS

Mining Properties for sale in all parts of Kootenay District. Special attention given to the Mines of Slocan District.

SANDON, B.C.

M. McDonald

General Commission and Manufacturers' Agent

AND DEALER IN Hay, Grain, Etc. Calgary, N.W.T.

This Space is Reserved for
HUGHES & INSLEY,
COLONIAL HOTEL,
New Westminster, B.C.

HILL & CO., Chemists and Assayers. SANDON, B.C.

J. M. REX. J. T. JORDAN.

REX & JORDAN,

MINE INCORPORATORS AND BROKERS.

SPECIALTY.—Eldon Gold and Silver Mining Co's Treasury Stock, in the great Slocan mining district, surrounded by sixteen pay mines.....

Rooms 315-316, "The Rookery," SPOKANE, WASHINGTON.

TRANSPORTATION COMPANIES.

Canadian Pacific Navigation Co., Ltd.

TIME TABLE NO. 28.
(Taking effect December 28th, 1896.)

VANCOUVER ROUTE.

VICTORIA TO VANCOUVER daily except Monday at 1 o'clock.
VANCOUVER TO VICTORIA daily except Monday at 13 o'clock or on arrival C.P. Railway No. 1 Train.

NEW WESTMINSTER ROUTE.

LEAVE VICTORIA—For New Westminster, Ladner's Landing and Lulu Island Sunday at 23 o'clock; Wednesday and Friday at 7 o'clock. Sunday's steamer to New Westminster connects with C.P.R. Train No. 2 going east, Monday.

FOR PLUMPER PASS—Wednesdays and Fridays at 7 o'clock.
FOR MORESBY AND PENDER ISLANDS—Fridays at 7 o'clock.
LEAVE NEW WESTMINSTER—For Victoria Monday at 13:15 o'clock. Thursday and Saturday at 7 o'clock.

FOR PLUMPER PASS—Saturday at 7 o'clock.
FOR PENDER AND MORESBY ISLANDS—Thursday at 7 o'clock.

FRASER RIVER ROUTE.

Steamer leaves NEW WESTMINSTER for CHILLIWACK and way landings every Tuesday, Thursday and Saturday at 7 o'clock during river navigation.

NORTHERN ROUTE.

Steamships of this Company leave Victoria for Fort Simpson via Vancouver and intermediate ports on the First and Fifteenth of each month. If sufficient inducements offer, will call at points on the West Coast and Queen Charlotte Islands.

BARCLAY SOUND ROUTE.

Steamer "Teas" leaves Victoria for Alberni and Sound ports the 10th, 20th and 30th of each month.
The Company reserve the right of changing this Time Table at any time without notification.

G. A. CARLETON, JOHN IRVING,
General Agent, Manager.

Union Steamship Co., Ltd., B.C.

Head Office and Wharf, VANCOUVER, B.C.

NORTHERN SETTLEMENTS—SS. Comox sails from Company's wharf every Tuesday at 9 a.m. for Bowen Island, Howe Sound, Sechelt, Jervis Inlet, Froeck, Texada Island, Lund, Hernando Island, Cortez Island, Reid Island, Valdez Island, Shoal Bay, Phillips Arm, Frederick Arm, Thurlow Island, Loughborough Inlet, Salmon River, Port Neville; and sails every Friday at 11 a.m. for way ports and Shoal Bay, calling at Bute Inlet every six weeks.

MOODYVILLE & NORTH VANCOUVER FERRY.

LEAVES MOODYVILLE—8, 9.15, 10.45, 12 noon, 2, 4, and 5.45 p.m.
LEAVES VANCOUVER—8.35, 10, 11.20, 1.15 p.m., 3.15, 5.15, and 6.20. Calling at North Vancouver each way, excepting the noon trip.

Freight steamers SS. Capilano, and SS. Coquitlam; capacity, 300 tons d.w.
Tugs and scows always available for towing and freighting business. Large storage accommodation on Company's wharf.

H. DARLING, Manager.

Telephone 94. P.O. Box 77.

Kaslo & Slocan Railway.

TIME CARD NO. 1.

To take effect Wednesday, Nov. 20, 1896. Trains run on Pacific standard time	
Going west.	Going east.
Leave 8.00 a.m. Kaslo	Arrive 3.50 p.m.
" 8.36 " South Fork	" 3.15 "
" 9.36 " Sproule's	" 2.15 "
" 9.51 " Whitewater	" 2.00 "
" 10.03 " Bear Lake	" 1.48 "
" 10.18 " McGuigan	" 1.33 "
" 10.30 " Bailey's	" 1.21 "
" 10.39 " Junction	" 1.12 "
Arrive 10.50 " Sandon	Leave 1.00 "
SANDON AND CODY.	
Leave 11.00 a.m. Sandon	Arrive 11.45 a.m.
Arrive 11.20 a.m. Cody	Leave 11.25 a.m.

For rates and information, apply at Company's offices.
ROBT. IRVING, Traffic Manager. R. W. BRYAN, Superintendent.

The Columbia & Kootenay Steam Navigation Co., Ltd.

TIME TABLE NO 10.
In effect June 8th, 1896.

ARROWHEAD-TRAIL ROUTE, STEAMER "NAKUSP."

South bound; read down.		North bound; read up	
Mon. Wed. Fri. 7 p.m. De	ARROWHEAD	Ar 11.30 a.m. Wed. Fri. Sun	
" " " 11 p.m. Ar	NAKUSP	{ De 7.30 a.m. " " "	
" " " 12 m. De		{ Ar 6 " a.m. " " "	
Tues. Thurs. Sat. 9 a.m. Ar	ROBSON	{ De 8.30 p.m. Tues. Thurs. Sat	
" " " 12 noon De		{ Ar 8 " p.m. " " "	
" " " 2 p.m. Ar	TRAIL	De 4.30 p.m. " " "	

Connections at Arrowhead with C.P.R. to and from Revelstoke and all points east and west; at Nakusp with Nakusp & Slocan R. to and from Slocan points; at Robson with C. & K. R. to and from Nelson and Kootenay Lake points; at Trail with C. & W. R. to and from Rosland; at Trail with Str. "Trail" to and from Waneta, Northport and Spokane.

TRAIL-NORTHPORT ROUTE, STEAMER "TRAIL."

Daily except Sun. 8 a.m. De	TRAIL	Ar 4.30 p.m.
" " " 9 a.m. Ar	WANETA	De 3 p.m. Daily except Sun.
" " " 10 a.m. Ar	NORTHPORT	De 1 p.m.

Connections at Northport with S.F. & N.R. to and from Spokane and way points; at Trail with C. & W. R. to and from Rosland, and with Str. "Nakusp" to and from Robson, Nakusp and Revelstoke.

KOOTENAY LAKE ROUTE, STEAMER "KOKANEE."

Daily except Sun. 4.00 p.m. De	NELSON	Ar 9.30 a.m. Daily except Sun.
" " " 8 p.m. Ar	KASLO	De 5.30 a.m.

Saturday, June 6th and every second Saturday following, steamer leaves Kaslo at 10 p.m. for Bonner's Ferry; returning leaves Bonner's Ferry Sun. at noon. Connections at Nelson with C. & K. R. to and from Robson, Trail, Rosland, Nakusp, Revelstoke and C.P.R. points; at Nelson with N. & F.S.R. to and from Spokane and way points; at Kaslo with K. & S. R. to and from Slocan points; at Bonner's Ferry with G.N.R.

The right is reserved to change this schedule at any time without notice.
For tickets, rates, etc., apply at Company's office, Nelson.

T. ALLAN, J. W. TROUP,
SECRETARY, MANAGER, Nelson, B.C.

o—INTERNATIONAL—o

Navigation & Trading Co.,
LIMITED

STEAMERS INTERNATIONAL AND ALBERTA
on Kootenay Lake and River.

TIME CARD IN EFFECT FEBRUARY 1st, 1897.
Daily except Sunday—Subject to change without notice.

Leave Kaslo for—	Nelson, Ainsworth, Pilot Bay, Balfour, Way Points.. 5.30 a.m.
Leave Nelson for—	Kaslo, Ainsworth, Pilot Bay, Balfour, Way Points.. 4.40 p.m.
Close connection at Five-Mile Point with all passenger trains of the N. & F.S.R.R. to and from Northport, Rosland and Spokane.	
Leav Kaslo.....	5.30 a.m. Leav Spokane..... 7.00 a.m.
Arriv Northport..	12.30 p.m. " Rosland..... 10.30 a.m.
" Rosland..	3.25 p.m. " Northport..... 1.27 p.m.
" Spokane.....	7.00 p.m. Arriv Kaslo..... 8.00 p.m.

Through Tickets sold at lowest rates, and Baggage checked to all United States points.
GEORGE ALEXANDER, General Manager.
Kaslo, B.C., January 30, 1897. Head Office, KASLO, B.C.

Columbia & Western Railway Co.

Schedule No. 4, February 4th, 1897.

EASTBOUND.	
No. 4 Passenger, daily except Sunday; leaves Rosland 4 p.m., arrives Trail 5 p.m.	
No. 2 Passenger, daily except Sundays; leaves Rosland 7 a.m., arrives Trail 8 a.m.	
WESTBOUND.	
No. 3 Passenger, daily except Sunday; leaves Trail 8.00 a.m., arrives Rosland 10.00 a.m.	
No. 1 Passenger, daily except Sunday; leaves Trail 5.45 p.m., arrives Rosland 7.40 p.m.	

Connections made with all boats arriving and departing from Trail.
GENERAL OFFICES: F. P. GUTELIUS, General Superintendent.
TRAIL, B.C.

IMPORTANT NOTICE—Prospecting.

PROSPECTOR open for engagement to a Syndicate or Company desirous of securing mineral claims in British Columbia the coming season. Is well up in the geology and general conditions prevailing in the various mining districts. The past season located a number of valuable properties for his employers.

Address "INITIAL POST," Care of this Journal.