# FIELDING IS **VINDICATED**

## Queen's - Shelbonrne Re-Elects Him by Splendid Majority

North Bruce Turns Former Tory Majority of 107 Into Liber I Majority of 246 by Electing John Tolmie

Halifax, N.S., Oct. 31.-The election in the constituency of Queen's-Shelbourne to fill the vacancy for the house of commons caused by the unseating of Hon. W. S. Fielding for corruption by agents, held today, resulted in the re-election of Fielding by a majority of 865, with two polls to hear from, over Dr. Weldon, conservative.

The vote polled was larger than at

the general election. Port Elgin, Ont., Oct. 31.—Today's election for the house of commons for the constituency of North Bruce, to fill the vacancy caused by the death of L

r. Bland, resulted in the return of John Tolmie, ex-M. P. liberal, by a majority of 246 over McLellan, conservative (Special to The Daily News) Ottawa, Oct. 31.—Parliament will probably be called for November 22nd.

until after the Fielding election.

Writs for St. Marys and St. Annes, Quebec constituencies, were issued to-day, nominations November 7th, elections November 21st.
The marine department says that cap-

The announcement has been held back

bain Gaudin is making a special inquiry into the Kestrel matter and until that is completed captain Newcombe is suspended. Inspector Roy's report was re-ceived some time ago.

Hon. H. R. Emmerson will address

the Canadian club on Saturday on the aims and objects of the Intercolonial railway.

Something is wrong with the mechanism of the Ross rifles supplied to the mounted police. They are being sent back to be fixed, but it is not intended to re-arm the force.
The Grand Trunk Pacific, Canadian

orthern and the C. P. R. were represented before Hon. Mr. Emmerson on Monday regarding the route between Winnipeg and Portage la Prairie. The minister approved of lines east of Portage and said he would leave the balance intil the terminals at pproved. He told the rival railway interests they must get together and arrange for a central station in Ednton. He also informed the Grand Trunk Pacific and Canadian Northern epresentatives that they must do some

thing at Winnipeg.

The customs receipts of the domnion how another large increase this month The revenue from this source was increase of \$670,373 over the same me last year. Receipts for four months of the fiscal year show an increase of

### FATALITY AT PHOENIX.

Miner Run Over by a Loaded Ore Car Phoenix, Oct. 29.—An unfortunate accident occurred last night at the Granby mines, which resulted in the death of a John Holmes, at the hospital shortly after he was removed there. Be-tween 9 and 10 o'clock Holmes was working in the No. 3 tunnel level, and was letting a heavily loaded mine ore ar down the grade in one to a point where the train is made up for hauling by the electric locomotive. Unfortunately he placed himself in front the car, and it is thought stumbled fell, the car passing over and crushng him so badly that he expired a few inutes after being hurried to the hos-

Holmes was a native of Finland, where is said to leave a widow and several hildren. He was a member of Phoenix liners' Union No. 8, having joined but couple of weeks since. It is under-tood that no inquest will be held, it not being deemed necessary under the rcumstances.

FIRE TEAM RUNS AWAY

(Special to The Daily News) nix, Oct. 31-The extensive trestles the V., V. and E. railway, within the stern limits of the city were endangerabout midnight last night, by a fire which broke out in a log cabin, occup section men and located in the gulch to the trestle. Long blasts from a ilway locomotive whistle brought ne fire brigade in short time and with a ne of hose from the nearest hydrant the aze was soon extinguished, arted two Italians were sleeping in the

In hitching up the city fire team, the rses started before they had the bits in eir mouths, and ran away, going over mile with the wagon and paraphernalla, ofore a wheel was broken and the horses opped without further injury.

WOOLEN MILL BUILDINGS. Lethbridge, Oct. 31.-A contract for erection of new woolen mill build ings was awarded to Rex Virtue this morning. It will cost in the neighborood of twenty or twenty-five thousand ollars and will be entirely of brick. have three The main building is to ries and basement and contain 27,000 eet of floor space. It will be fireproof roughout. It is also reported that a ontract for the steel works on the eat C. P. R. bridge here has been varded to the Dominion Bridge Co. or \$780,000. This will not cover foundations or approaches.

LAND NOTICES

NOTICE is hereby given that 60 days date I intend to apply to the Hon Chief Commissioner of Lands and Works permission to purchase the following permission to purchase the following peribed lands in the Lower Arrow lake listrict, about three miles above the Needles postoffice on the west side of the mencing at the southwest cor-F. B. Lucas' pre-emption, post No 40 chains west to Post No. 2; thence chains north to post No. 3; thence 40 hains east to post No. 4; thence 20 chains outh to place of commencement.

Dated this 23rd day of October, 1906.

NOTICE is hereby given that sixty days Chief Commissioner of Lands and Works for permission to purchase the following described lands, situate in West Kootenay strict, starting from a post market McLeod's S.W. corner," thence chains east; thence 80 chains north; ace 40 chains west; thence 80 chains south to point of commencement, covering Chas. E. Ehl's abandoned pre-emption on the Arrow lake, about eight miles south f Nakusp. Dated this 9th day of October.

ROBERT McLEOD. J. E. TAYLOR, Agent.

NOTICE is hereby given that 60 days after date I intend to apply to the Hon. the Chief Commissioner of Lands and Works for permission to purchase the following described lands in West Koot enay district: Commencing at a post marked "M.E.T.'s northwest post" and planted on the east line of Lot No. 3872, about one mile from Kootenay river or the south side, thence 80 chains south; thence 20 chains east; thence 80 chains north; thence 20 chains west, to point of beginning.

M. E. TAYLOR. W. J. TOYE, Agent. Dated this 22nd day of Aprest, 1906.

NOTICE is hereby given that sixty days from date I intend to apply to the Hon-the Chief Commissioner of Lands and Works for permission to purchase the Works for permission to purchase the following described lands, situate on the lower Arrow lake. Commencing at a post planted about 10 chains east of Sand creek, "W.R.H.'s N.E. corner." the marked "W.R.H.'s N.E. correct west; thence 20 chains south; thence 20 chains west; thence 20 chains north; thence 20 ceast to point of commencement, contain 40 acres, more or less; said land adjoint Paul Auder's pre-emption on the north side.

W. R. HOBBS Located Oct. 5, 1906.

NOTICE is hereby given that 60 days artedate I intend to apply to the Hon. to-chief Commissioner of Lands and Works for permission to purchase the following described lands in the West Kootenay disrict: Commencing at a post marked "C. F. at the S.E. corner of Lot No. 3333, thence south 40 chains; thence west 6 chains; thence north 40 chains; thence east 6 chains

to point of commencement.

Dated this 15th day of October, 1906. JOS. BLACKBURN, Agent.

NOTICE is hereby given that 60 days atter date I intend to apply to the Hon. Chief Commissioner of Lands and Works for permission to purchase the following described lands in West Kootenay district: Commencing at a post marked "B. Bi sell's N.E. corner," planted about 3 1-2 miles on the west shore of Upper Arrow lake, half a mile south of Fosthall creek thence 80 chains west; thence 40 chains chains north to point of commencement Containing 320 acres, more or less.

Dated this 18th day of Oct., 1906.

J. E. TAYLOR, Agent 10-2 NOTICE is hereby given that sixty days after date I, J. H. Taylor, intend to apply to the Chief Commissioner of Lands and Works, Victoria, B.C., for permission to purchase the following described lands, thate in the West Kootenay district an more particularly described as follows: On the west side of the Columbia river. opposite Makinson's pre-emption, starting at a post planted near the northwest corner of Gus. Adolph's pre-emption and on Gerhard Ludwig's south boundary, and marked "J. H. Taylor's N.E. corner," running thence west 20 chains; thence south 40 chains: thence east 20 chains t Gus Adolph's west boundary; thence north the chains to point of commencement.

Located this 30th day of August, 1306.

J. H. TAYLOR. NOTICE is hereby given that 60 day: after date I intend to apply to the Hon-he Chief Commissioner of Lands and Works for permission to purchase the following described lands in West Koot. following described lands in west about may district: Commencing at a post-blanted ten chains east of the southwest orner of Lot 6890, Group 1, thence south or chains; thence west 80 chains; thence east 80 chains; the Dated this 17th day of August, 1906.

NOTICE is hereby given that 60 days after e I intend to apply to the Chief Com-sioner of Lands and Works for permist of land: Commencing at a post Padley's Southwest corne it." placed at the southeast corner of Fitzsimmons' land, thence 20 chains thence 40 chains east; thence 2 ins south; thence 40 chains west along he north bank of the Lardo river, to the

. PADLEY, Locator. M. MORGAN, Agent.
Poplar Creek, B.C., Sept. 20, 1906.

OTICE is hereby given that 60 days after tend to apply to the Hon, the nief Commissioner of Lands and Works
r permission to purchase the following ibed lands, situate in West Kootena istrict: Commencing at a post marked John Logan's N.E. corner," and situated sst of the Upper Arrow lake, near Fost-il creek, thence running west 80 chains; ence south 40 chains; thence east 80 ains: thence north 40 chains, and con-Dated Oct. 16, 1906.

JOHN LOGAN. J. E. TAYLOR, Agent, 10-20

OTICE is hereby given that 60 days afhief Commissioner of Lands and Works ribed lands in the West Kotenay disrict: Commencing at a post marked "C. district, starting from a post market

M. Gaylord's N.E. corner," at the north-east corner of Frank Corte's old pre-emption claim, near Brooklyn creek, and about two miles back from the southwest shore of Lower Arrow lake, thence west 30 chains, more or less, to the boundary line between said pre-emption and lot 5817; thence south 80 chains, more or less, to the oundary line of said lot and old pre-emp tion; thence east 80 chains, more or less, to the boundary line of said lot and old pre-emption; thence north 80 chains, mor less to point of commencement, Dated Oct. 10, 1906.

NOTICE is hereby given that 60 days after date I intend to apply to the Hon the Chief Commissioner of Lands and Works for permission to purchase the following described lands in West Kootenay district: Commencing at a post planted at the southwest corner of 5079, Group 1, thence west 40 chains; thence north 80 chains to the Kootenay river; thence east 40 chains; thence south 80

chains, to place of beginning.

C M GAYLORD.

Dated this 17th day of August, 1906. M. C. MONAGHAN. NOTICE is hereby given that 60 days after date I intend to apply to the Hon, the Chief Commissioner of Lands and Works for permission to purchase the following described lands in West Kootenay district: Commencing at a post marked "T.B.'s N.E. corner," said post being south of Cedar creek, Kootenay lake, thence 40 west; thence 40 chains south; thence 40 chains east to lake shore; thence 40 chains north to place of commencement.

Dated this 17th day of October, 1906.

NOTICE is hereby given that 60 days after date I intend to apply to the Hon. Chief Commissioner of Lands and Works for permission to purchase the following de-scribed land, situated in the West Kootenay district: Commencing at a post plant-ed at the S.E. corner of Lot 222, thence west 80 chains; thence south 20 chains; thence east 80 chains; thence north 26 chains to point of commencement.

Dated Oct. 22, 1906. 0-27 M. McLeod, Locator. NOTICE is hereby given that 60 days after date I intend to apply to the Hoa, the Chief Commissioner of Lands and Works for permission to purchase the following described lands, situate in West Kootenay District: Commencing at a post market "Peter McPherson's southeast corner," three miles west from the Upper Arrow Lake, near Fosthall creek, thence 80 chains north; thence 80 chains west; thence 80 chains south; thence 30 chains east to point of commencement, containing 540 acres, more or less.

PETER McPHERSON.
J. E. TAYLOR, Agent.

Dated this 8th day of October, 1906. NOTICE is hereby given that W days after date I intend to apply to the Hon. Chief Commissioner of Lands and Works for permission to purchase the following described lands, situated in West Kootenay district: Starting at N. D. Stuart's southeast corner of his purchased land, hence 30 chains north; thence 40 chains chains west to point of commencement.

10-13 FRANK PENNOCK. Located this 8th day of October, 1906.

NOTICE is hereby given that 60 days after date I intend to apply to the Hon. the Chief Commissioner of Lands and Works for permission to purchase the following described lands, situate in West Kootenay District: Commencing at a post marked "Florence Richardson's N.E. corner," and "Florence Richardson's N.E. Corner, assituated about four miles west of the Upper Arrow lake, near Fosthall creek, thence running west 40 chains; thence south 80 chains; thence east 40 chains; thence north ontaining 320 acres, more or less.

Dated Oct. 9, 1906. FLORENCE RICHARDSON. J. E. TAYLOR, Agent. 10-20 NOTICE is hereby given that sixty days after date I intend to apply to the Hon.

Chief Commissioner of Lands and Works for permission to purchase the following district: Starting 400 feet west of post marked "R. Corlett's southeast corner out ten chains from Kootenay river, 15 chains west to lot 5082, more of less; thence 15 chains north; thence 15 chains east, more or less; thence 15 chains Dated this 13th day of Oct., 1906.

Sixty days after date I intend to apply Hon, the Chief Commissioner o Lands and Works, for permission to pur chase the following described lands in West Kootenay District: Com a post marked "A. M. Pingle's S.E. post, hence 40 chains north to S.E. corner of ot 2512, near south shore of West Arm o tenay lake; thence 40 chains wes hence 40 chains south; thence 40 chains east to point of commencement, the whole

ontaining 160 acres.

A. M. PINGLE, Locator.
S. E. OLIVER, Agent. Sept. 12, 1906.

NOTICE is hereby given that 60 day after date I intend to apply to the Ho the Chief Commissioner of Lands and Works for permission to purchase the following described lands in West Kootenay district: Commencing at a post planted at the southwest corner of Lou 5283, Group 1 thence south 20 chains; thence east 40 chains; thence north 20 west 40 chains to place of beginning Dated this 17th day of August, 1906. W. J. MURPHY.

NOTICE is hereby given that two months after date I intend to apply to the Chief Commissioner of Lands and Works for permission to purchase the following described lands, situate in West Kootenay district: nencing at the southwest corner Lot 4682, thence south 60 chains; thence west 40 chains, more or less, to the Koote nay river; thence following the shore of same river northeasterly to point of commencement, comprising 160 acres, more or

Dated Sept 25, 1906.

NOTICE is hereby given that sixty days NOTICE is nerepy given that sixty days after date I intend to apply to the Hon-Chief Commissioner of Lands and Works for permission to purchase the following described lands, situate in West Kootenay

"Margaret McLeod's southwest corner," adjoining application to purchase of W. J. Toye on the Arrow lake, about eight mires south from Nakuep, thence 30 chains east; thence 40 chains north; thence 30 chains west; thence 40 chains south to point of

Dated this 10th day of October, 1908.

MARGARET MCLEOD.

J. E. TAYLOR, Agent.

NOTICE is hereby given that 60 days after date I intend to apply to the Yon, the Chief Commissioner of Lands and Works for permission to purchase the followin. described lands, situate in West Kootenay District: Commencing at a post marked "Minnie McPherson's northeast corner," and situated three miles west of the Up-per Arrow lake, near Fosthall creek, thence running 80 chains south; thence 80 chains west; thence 80 chains north; thence 80

ontaining 640 acres, more or less.

MINNIE McPHERSON.

J. E. TAYLOR, Agent. 10-20 Dated this 8th day of October, 1906. NOTICE is hereby given that 60 day after date I intend to apply to the Chie Commissioner of Lands and Works f. permission to purchase the following described land in West Kootenay district. scribed land in West Kootenay distriction of the commencing at a post marked "G. A. Brown's N.E. corner," said post being a chains north of southwest corner of tot 301A and at contract the corner of tot 301A.

chains north of southwest corner of 10' 30IA, and at southeast corner of 10t 6591, thence 20 chains south; thence 40 chains west; thence 20 chains north; thence 40 chains east, to place of beginning; containing 30 corre taining 80 acres.
G. A. BROWN.
K. K. BJERKNESS, Agent.

Located this 15th day of August, 1906. Sixty days after date I intend to ap-Bixty days after date I intend to ap-ply to the Hon. Chief Commissioner of Lands and Works for permission to pur-chase the following described lands situate in West Kootenay district, and adjoining N. D. Stewart's pre-emption, starting 15 chains west from N. D. Stewart's northeast corner post, thence west 40 chains; thence north 40 chains; thence east 40 chains; thence south 40 chains to point of

Dated Sept. 22nd, 1906. N. D. STEWART.

Sixty days after date I intend to apply to the Hon the Chief Commissioner of Lands and Works, for permission to pur-chase the following described lands in West Kootenay District: Commencing at post marked "E.T.'s S.E. corner," on a post marked "E.T.'s S.E. corner," on west shore of Koctenay lake, about four miles south of Wilson creek, thence 20 chains west; thence 30 chains north; thence 20 chains east, more or less to lake; thence 30 chains south along shore line, to point

Sept. 17, 1906.
ERROL TRELEAVEN, Locator.
S. E. OLIVER, Agent.

NOTICE is hereby given that 60 days after date I intend to apply to the Hon. Chief commissioner of Lands and Works at Victoria, for permission to purchase the following described lands situate in Fire Valley, West Kootenay district, joining L. C. Morrison's ranch, starting at a post marked "L. C. Morrison's N.W. corner post," running 40 chains east; thence 80 chains south; thence 20 chains west; chains south: thence 20 chains west; thence 40 chains north; thence 20 chains west; tence 40 chains north, to place of encement, containing 240 acres more

NOTICE is hereby given that sixty days from date I intend to apply to the Hon-the Chief Commissioner of Lands and Works for permission to purchase the works for permission to purchase the following described lands situate on the west side of lower Arrow lake: Commenc-ing at a post planted about 30 chains north of Paul Auder's pre-emption reek, marked "P.A.'s S.E. corner," thence 40 chains north; thence 30 chains west; thence 40 chains south; thence 30 chains east to point of commencement.
PAUL AUDERS.

W. R. HOBBS, Agent. Toopted Oct 5th 1906

APPLICATION FOR TRANSFER OF

I, J. H. Smith, of Slocan Junction, B.C., intend to apply at the expiration of 30 days from the first p notice to the Board of License Commissioners for the Ymir License District, for a transfer of my hotel license to sell intoxicating liquors under the provisions of the that behalf, in the premise Falls Hotel," at Slocan Junction afore said, to Napoleon Mallette and Peter John-

Dated the 5th day of October, 1906.

NOTICE is hereby given that a meeting of the Board of License Commissioners of the Ymir License Ditrict will be held at he Provincial Constable's Office at Nelson, B.C., on Wednesday, the 7th November, 1906, at 11 o'clock in the forenoon to onsider the application of J. H. Sr for the transfer of the license of the Koot-enay Falls Hotel at Slocan Junction afore-said, to Napaleon Mallette and Peter

W. H. BULLOCK-WEBSTER, Chief License Commissioner, Ymir License District. Chief Constable's Office, Nelson, B.C., 5th October, 1906.

## FOR SALE

Hotel Hume, 2 lots, 50x120, furniture, Block V at Balfour, 12 lots ....... .. 8,000 ings, partly rented \$45 month

lots, block 44D, with bearing fruit

2,000 Half interest 200 acres Slocan lake.. 500 

J. FRED HUME

COMMISSION NO QUESTION AS TO ABUNDANT SUP-

EXTENDED SUMMARY OF REPORT OF

PLY OF ORE

Below is given a more extended summary of the report on British Columbia's sinc resources that the brief telegrapric synop-sis we received from Ottawa the other day; reproduced from the columns of the To-The investigation was undertaken in re-

sponse to petitions from the Silver Lead association and the associated boards of trade of British Coulmbia. Mr. Walter Renton Ingalis, editor of the Engineering and Mining Journal, New York, was apted chief of staff, with Mr. Philip gall, M.E. of Denver, Colorado, and Mr. A. C. Garde of Nelson, B.C., as his assistants, the former taking the field work in connection with developed mines, of the province, the fatter acting as Mr. Argail's assistant. Dr. A. E. Barlow and Argall's assistant. Dr. A. E. A. E. Mr. Joseph Keele of the geological survey were detailed to investigate the underground zinc ore deposits. The metallurgical investigation of the samples of ore oclected was conducted by Mr. Henry E. Wood of Denver under the supervision of Mr. Argall and in consultation Mr. Ingails.

The investigation was intended to cover The investigation was arrended to the following points: (i) The examination of the present development of mines to determine approximately the tonnage of zinc ore immediately available; it soccurrence and character and the future prospects together with the cost of mining. (2) Extogether with the present mathod of milling. (3) Invetsigation of the adaptability of the ores to the new methods of concentration (magnetic electrotastic etc.) (4) The study of the conditions affecting the marketing of the concentrate, including the question of smelting in the province of sewhere in Canada. (5) The investiga-

thoroughly investigated and the commis-sion ascertained that zinc in large com-mercial quantities could be produced in British Columbia. The tonnage immediately available in the Ainsworth and Slocan districts was estimated at approximately 30,000 tons of nominal zinc content of 50 per cent, corresponding to a production of upwards of 12,000 tons of spelter, or ap-proximately four times the present con-sumption of the dominion. The Canadian sumption of the dominion. The canadian consumption moreover is only about one half in the form of spelter, the remainder consisting of sheet and rolled plate. It is to be expected, therefore, Mr. Ingalis says, that for a long time to come a large portion of the zinc ore or spelter produced in British Columbia will be exported. The spelter cannot enter the United States ecause the American tariff of 1.5 cents per pound is prohibitive, besides America per pound is prohibitive, besides America itself is at times a considerable exporter of speiter. The plans that are on foot for zinc smelting in Australia would appear to provide for the requirements of the Australian market and much more. The prospects are consequently that the major portion of any spelter that may be pro-duced in Canada must be marketed in Europe. With respect to the occurrence and character of the zinc ores, these have in every case been carefuly examined and described in detail. The report is accompanied by plates illustrating their geological features and mades of occurrence.

The future prospects are that with the employmenth of the correct methods of milling and treatment for the different classes of ore and a careful observance of the suggestions made by the commission, a stable zinc industry, capable for a long time of meeting the demands of the do-minion will be established. The cost of nining in every possible case was determined by the commission, and amounted to about \$2.50 for every ton of raw materia taken out in two of the largest mines. This, sum includes the general and en-gineering expenses. The examination of the methods of milling at present carried of milling for each class of ore is set forth in the report, and if closely fol-lowed will enable these non-producers to resume operations at a profit. Several schemes for milling with descriptions of the best appliances to be used are enumerated in the report.

In regard to the investigation of the adaptability of the ores to the new methods of concentration-magnetic, electrostatic and so forth-the exhaustive experiments made with the many classes of ore demonstrated that the zinc ores of British Columbia can be highly concentrated by magnetic treatment, it being possible in every case to produce zinc concentrate assaying upward of 40 per cent zinc, in many cases concentrates assaying 50 per cent zinc and in some cases concentrates assaying 50 per cent zinc and in some cases concentrates assaying as high ac 57 according to the concentrate assaying as high ac 57 according to the concentrate assaying as high ac 57 according to the concentrate assaying as high ac 57 according to the concentrate assaying the saying as high as 57 per cent zinc. As regards the conditions affecting the marketing of the concentrates, the report treats the subject in a most comprehen ner. Up to 1906 the production of zinc ore in British Columbia was approximately 11,000 tons, which was chiefly exported to the United States, a small quantity being sent to Europe. Since the establishment of the Canadian Smelting works at Frank, Alberta, Canada has entered the market for these ores. There are consequently three markets open to the ores of British Columbia, viz., Europe, the United States and Canada. The most profitable market and Canada. The most programs market for ores is governed by the prevailing price of spetter in London and New York, the former ruling the European market and the latter that of the United States. Accordingly the London and New York prices, together with the freight rates to the destined points must be considered in determining where the ore shall be marketed to the best advantage. Another fact to be barne in mind is that British Columbla ores going to the United States are subject to a duty of 20 per cent ad valorem, whereas no duty is imposed on

these ores into Europe..

The question of smelting in British Colmbia or elsewhere in Canada is minutely treated in the report. So far as fuel is con-cerned, British Columbia and Alberta are rned, British Columbia and Alberta are there situated for smelting than are the ne smelters of the United States, for the ason that coal can be procured in either by the Payne and Slocan Star. zinc smelters of the United States, for the reason that coal can be procured in either

ZINC RESOURCES OF B.C. | of these provinces named for between si and & a ton, a much lower price than can be obtained in the adjoining republic. And since one for or required approximately two tens of coal for smelting, it is an item of considerable importance. On the other hand the cost of labor in the United States is somewhat cheaper than in Canada and the former country also enjoys the advantage gained. Mills of two large capacity have been built and atvantage of already possessing skilled workers, while this country has yet to produce trained men. The investigation of this phase of the subject by the commission has demonstrated that the smelting of zinc ores is commercially feasible in Canada The high silver zinc ores, the report de clares, are commonly not considered as material for the zinc smelters, but for the silver lead smelters, to whom they are

disposed of.

The report of the commission, dealing as it does so thoroughly with the metal-urgy of zinc and magnetic separating and concentrating experiments is the only work of its kind in existence and is already recognized by those competent to judge as the greatest authority on these subjects which has yet been published. Already he volume. It consists of 378 pages, ifully illustrated with photographs, plates there are valuable reports by Messis. Philip Argall, A. C. Garde, Henry E. Wood and Dr. Barlow.

## ZINC RESOURCES OF B.C

COMPILED FROM REPORT OF ZINC COMMISSION COST OF PRODUCTION AND PRODUC TIVE CAPACITY

Whilst a great part of the report of th mmisison that investigated the zinc resources of British Coumbia is of too technical a nature for reproduction in a daily newspaper, a good deal of it is of general interest and from time to time we purpose publishing in these columns extracts that will give our readers a pretty clear in-

The first part of the report is written by Walter Renton Ingalls, the well known editor of the New York Mining and Engineering Journal, and admittedly, the greatest living authority on zinc. In open-ing he gives an historical sketch of the production of zinc ores in the United States, followed by statistics of production Then follow general observations on the Lucky Jim, American Boy and other mines; the market for ores, valuation of zinc ores, cost of smelting, value of argentiferous blende and wet process of extraction. He then devotes several pages to "The Zinc Mines of British Columbia," and it is from these pages that the extracts hereunde

are taken:
There are certain mines in the West
Kootenay which are essentially zinc mines.
The best examples of these are the Lucky Jim and Blue Bell. In each case they were worked originally as silver-lead mines, but as such were probably unprofitable— at all events they were allowed to lie idle for many years after the original explaits was of low grade in silver. The Lucky
Jim has recently produced upwards of 5000
tons of zinc blende assaying 50 per cent
concentrating grade will afford conisdererable extent from solid bodies of mineral
and shipped in lump form without culling.
The Blue Bell also shows rich faces of blende ore, which although mostly of a concentrating grade wil lafford considerable that can be selected as comparatively high grade lump ore by hand sorting.
The majority of the mines of the Wes Kootenay are, however, essentially silver-lead mines, in which zinc blende occurs as an accessory ore. In this respect they differ in no wise from many other mines in the Rocky mountains from British Col-umbia to Mexico, in which zinc blende oc-curs in association with galena, pyrite and other argentiferous and auriferous ores. The widespread and abundant occurrence the methods of miling at present carries on in British Columbia disclosed the fact that an imperfect knowledge of the classes of ore dealt with was the cause of some of the mills, which were formerly operated, being closed down. The proper methods cent zine oxide, or approximately 5 per cent zine oxide, or approximately 5 pe ing of 2,500,000 tons of ore per annum, which is considerably under the quantity now actually treated, and the product of 0.9 ton of slag per ton of ore there is annually discarded in this form about 112,500 tons of zinc, which is the result after the zinc ore has been so far as possible culled out by the miner or left behind in his

ing the last few years, which is by all means likely to continue, has made valuable as a by-product in many cases what was formerly an objectionable impurity, to be culled out as far as possible and thrown over the dump. This represents precisely the situation in connection with the ma-jority of the mines in the Slocan. There are comparatively few which can be work-ed profitably as zinc mines; there are many which can be worked for silver-lead ore, wherein the zinc ore will be a valuable by-product, as has already been thoroughly well demonstrated in the case of the yield or silver-lead ore will always be the dominating factor in the operation of these

extremely irregular. They are generally narrow and the paystreaks are thin. Exceptions to this generalization are to be found in certain wide veins, like one at least on the south fork of the Kaslo, and certain thick stopes of ore in the Slocan Star mine. The general association of siderite with the ore is highly characteristic of the entire region; there are few of the silver lead mines which do not show it in some degree. The tendency of the veins towards impoverishment with depth is strongly marked, the proportion then the of siderite first increasing and proportion of quartz. The ore shoots are rather short and the stretches of barren vein between them are rather long; the stoping area of the vein is therefore rather small and the cost of prospecting is cor-respondingly high. The silver lead ore is generally of high grade in silver which

ever, it has been the fallure to recognize the true conditions, which has been the cause of many disasters in the distowards reduction of operating cost per ton of one rather than towards securing the maximum percentage of the valuable minerals of the ore, which should have Thi serror in mill design appears to have been due to a mistaken following of the practice in the Court d'Alene district of Idaho, where the conditions as to ore detain in the Slocan. The large number of mill sstandin idgle throughout the Slocan in spite of the bounty on lead ore, is the est possible evidence of the mistakes of the past. In future attempts to reopen these mines with a view to augmenting the yield of argentiferous galena by the marketing of the argentiferous blende as a by-product, it is important that profit be taken of previous experience. Operation prospecting in the veins must be pushed boldly and must always be kept well ahead of stoping. Installation of plant, either nining or milling, must be carefully considered with respect to the probability of reimbursement of the cost of the plant. If there be only 100 tons of ore to be hoist-

Neither the average grade of the ore

nor the cost of mining in the Slocan can be satisfactorily generalized. The samples taken by Mr. Argall and Mr. Garde which

are referred to in their reports and are summarized in the report of Mr. Henry Harris, indicate the general character of

the ore, but it must not fail to be ob-served that they were taken from only partially developed showings of pay ore, in most cases from narrow streams, and

lower than the assays of the samples. This

by windlass than to buy a steam hoist, and

enay, which were examined by Mr. Argait and me, are not properly to be considered as zinc mines at all, altho duobtless contains in ore developed more zinc than can be shown by any other mine

lower than the assays of the samples. This would depend chiefly on the method of mining and the cleanness with which the ore would be separated underground.

The cost of mining per ton of material in the West and East Kootenays does not appear to vary greatly from the cost in the Coeur d'Alene district of Idaho, where the conditions are similar. In each district timber is abundant and obtainable at nearly equal cost. The mines are workable generally through adit levels, eliminating hoisting and pumping costs. Rates of wages are practically the same. TO WORK ON SILVER KEY AT ONCE.

wages are practically the same.
At Wardner, Idaho, miners are paid \$3.6 per day; shovelers, \$3; foremen, \$6 to \$7;

shift bosses, \$4 to \$6; timbermen, \$3.75 to \$4; hoisting engineers, \$4; head blacksmiths, \$4.50; generally eight hour shifts. The rate for board is \$1 per day. At the Blue Bell mine, opposite Ainsworth, miners are paid \$3.25 to \$3.50; shov-

elers, \$3; smiths, \$4; all per shift of eight hours. The rates in the Slocan and East Kootenay are about the same.

The cost of mining 50,000 tons of ore in the Slocan Star mine in 1904-05 was about \$2.50 per ton; the cost of milling the same ore was about 41 cents per ton.

A mining cost of \$2 @ \$2.50 per ton of material may be assumed as a broad generalization of the conditions which obtain in the Slocan. Such a figure is obtainable in a vein of solid ore of fair stoping width way & feet. The cost of mining and dirctly as the occurrence of the When the pay streak is narrower than the minimum width of efficient stoping, say 3 feet 6 inches, the cost of production per ton of ore increases directly as the width of the pay streak decreases. If, for example, we should have a pay streak of have to be removed in stoping, a square foot of vein would yield—assuming clean separation of the minerals to be possible, which, however, would never be entirely practicable-one cubic foot of blande weigh. ing 20 pounds, and 2. cuble feet of quartz weighing about 412.5 pounds, wherefore, out of every ton of material broke down there would be obtained 8-8 of a ton-blende, and if the cost of mining p tor of material were \$3, the cost per to of blende would be \$8. If the blende assay ed 60 per cent zinc, the mining of a 12 inc topes.

The increased demand for zinc ore during the last few years, which is by all zinc, but the solid streak would have the advantage of avoiding the milling ex pense. The ultimate consideration, how-ever, would depend greatly upon the clean-ness with which the ore could be broken down and handled. In the case of ore which must be milled, the cost of production per ton of concentrates is obviously dependent chiefly upon the yield per t

rude ore and the c ost of mining the lat The method of development in the miner of the Slocan has been such that at the by well demonstrated in the case of the slocan Star and certain other mines. The ore that can be estimated as blocked out There have been several mines, the most noteworthy being the Payne and Slocan Star, which have made large outputs in The silver-lead veins of the Slocan are value and a high percentage of profits i the production. It is probable that new and profitable ore bodies will be found in some of the mines, and it is proba over that many new veins, not now known will be discovered within the mineralized area of the district. It is, finally, quit certain that intelligent management wil materially add to the value of the production of many mines by careful recovery zinc blende, although the latter may feto

only a small amount per ton.

The present lack of development, together with the irregularity of the ore bodies. make it difficult to formulate any reliable estimate of the zinc producing capacity of the Slocan. That this will bear a derelation to the production of lead ore may be accepted. The statistics of several mines indicate a probable yield of two tons of blende concentrate containing 50 pe cent zinc to one ton of galena blende con-taining 60 per cent lead. Unfortunately no statistics of the production of galena concentrate are available. The total produc-tion of lead ore in the Slocan during the

too large capacity have been built and attention in their design has been directed if all the zinkiferous ore were concentratresult. Many of the zinc-lead mines are small affairs, for which it would never that their ore can not profitably be delivered to a central mill. Many of the lead producers, moreover, have too little zinc in the ore to make its recovery worth while. On the other hand, rich zinc ore with very little lead ore, and it is possible that further chimneys of sinc ore may be found in that property, or similar chimneys in other properties. All things considered, it is probable that 15,000 tons of zinc ore of 50 per cent grade would

tons of zinc ore of 50 per cent grade would be a liberal estimate for the productive capacity of the Slocan.

Mr. Argall considers that the mines of Ainsworth camp can produce from present to attain an output of 100 tons daily of 46 to 50 per cent zinc in the course of a year or so if the extensive ore deposits be mined and milled on a scale commensurate with their magnitude. These estimates would correspond to 16,000 to 30,000 tons per annum, and in my opinion are extremely lib-

The two large mines of the East Koot

TRIAL SHIPMENTS TO BE MADE

LARGE FORCE EMPLOYED TAKING OUT ORE AT THE ARLIGTON

(Special to The Daily News)
Slocan, Oct. 31.—Mesars. Teeter, Benedum and Skinner began work on the Eliver Key, situated on Dayton creek.

ore had been left on the dump, also hanging along the wall of the tunnel for 30 feet. This will no at once knocked down, sacked and shipped. If the shipment proves satisfactory, development work will proceed. The Silver Key is a continuation of the ledge of the well known Dayton claim, and is only three niles from Slocan City.

A good force is taking out ore at the Arlington. This will be increased as soon as the smelter notified them that through the settling of the Fernia strike, the ore can be handled.

Messrs. Tattersall and Waring have a fine showing at the Myrile, and are rapidly blocking out ore. They have four feet of fine ore.

W. J. Kyte, who has been down in the Yakima country, Ward ington, has returned to Slocan. Mr. Kyte had intended taking up government irrigated land,

turned to Slocan. Mr. Kyte had intended taking up government irrigated land, but found conditions most discouraging. Only alkali water to drink and high winds carrying clouds of stiffing sand into throat and nostrils. Mr. Kyte says he is glad to get back and asserts that there's no place like the Slocan.

D. St. Denis paid a business, visit to Nakusp this week.

John Wafer has returned to Slocan, after spending two months at the Canadian group.

J. H. Howarth, who has for years,

in Cody, after a trip east, recently visited Mrs. Joseph Law, here.
Engineer Colbeck, of the S. S. Slocan, arrived in Slocan, this week.
The annual shoot of the Slocan Rifle association began yesterday, and will continue today. All are invited to compete, and substantial prizes are offered.

EASTERN CANADIAN NEWS NOTES Halifax, Oct. 21.—Edward Way, a young man employed as a section man on the Halifax & Southeastern railway, was brutally murdered on Monday. Clairlance L. Spears, of Sable River, Clairlance L. Spears, of Sable River, a laborer in the Brownell lumber mill at Granite village, is held in connection with the murder. Robbery is said to

Hamilton, Oct. 31.-Andrew Murdock 51 Oxford street, is dead from injuries received by being run down by a deliv-

Plum Coulee, Man., Oct. 31.—Rosener & Brownstone's stable here was burned this morning together with the contents, which included nine horses and two ows. The loss is heavy.

Montreal, Oct. 31.—The collection of October were the greatest in the history of Montreal, being \$1,326,511, or \$219,929 greater than in October of last year. The collections for the calendar year will exceed \$15,000,000.

SMALL-POX OUTBREAK.

Moneton, N. B., Oct. 31.—A rather alarming situation has been created by the small-pox outbreak in certain sec-tions of Kent county, near the border of Westmoreland. There are probably one hundred cases in two or three par-