

# THE CANADIAN GOLD FIELDS SYNDICATE, LIMITED.

## LEADING FEATURES :

Incorporated December 9th, 1896, under the great Imperial Companies Act.

Entire Capital Stock, "Treasury."

There being no Promoters' Shares.

Absolutely no personal liability following the Shareholders.

*Shares sold at TEN CENTS are actually Fully-Paid and Non-Assessable.*

Empowered to do a General Mining Business anywhere for profit.

Ample Capital Stock to enable successful accomplishment of any undertaking.

*Every Share participates in all of the Syndicate's operations.*

Will not risk all of its working capital upon success or failure of any single mining undertaking.

Begins business with control and vigorous development of the justly celebrated Sunset Group of rich Gold-Copper properties at Rossland.

Owens the "Jennie," a Slocan property, the clean ore from which assays \$80 to \$650 per ton.

Is officered by men, more than one of whom, in any emergency, can step into the breach and do expert work, whether the "sharpening of steel," the use of any mine workman's tools, or the conduct of financial operations of magnitude be necessary.

Orders and Remittances for *Fully-Paid, absolutely Non-Assessable Shares* of the Canadian Gold Fields Syndicate, Limited, at 10 cents, may be sent direct, or through any bank, to

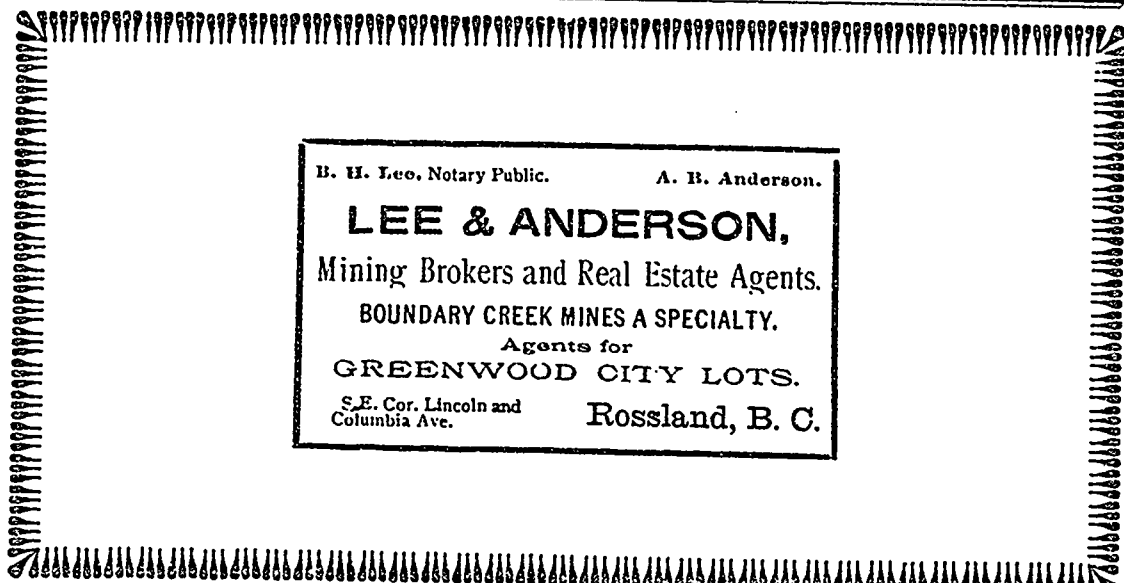
## THE WALTERS COMPANY, Ltd., Rossland, B. C

No Order Filled for less than FIVE HUNDRED SHARES.

AGENTS WANTED EVERYWHERE.

### AN ELECTRIC PROCESS.

The application of the Pelatan-Clerici electric process to the De Lamar Idaho mine has proven successful. The theory of the treatment is the solution of the bullion in pulp by the use of cyanide, and then recovering the values by electricity, much after the manner in which ordinary electroplating is done. It has been found that the familiar cyanide process, in which the values are recovered by leeching through zinc shaving, could not be employed on talcy ores of this and many other camps, because the solution could not be drawn from the slimy pulp. The electric process extracts the value from the solution while still mixed with the pulp. The plant consists of two circular wooden tanks, or vats, with copper bottoms, each with a four-armed sweep, or stirrer, rotating horizontally, a few inches from the bottom. The lower side of the sweep arms is attached to plates of boiler iron, in which are wooden pins to keep the pulp and solution thoroughly in motion. Through these iron plates an electric current is carried from a dynamo, the plates serving as the anode of the electric bath. In the bottom of the tank a heavy layer of quicksilver is placed, which is connected with the negative pole of the current and serves as the cathode of the battery, in which the bullion carried in the solution is deposited. A charge of two or one-half tons of pulp is put in the tank and treated with the cyanide and is kept in constant motion for 11 hours, with the current of electricity constantly passing through it, taking up the bullion in the solution and depositing it in the quicksilver cathode in the bottom of the tank. It is found that 11 hours is sufficient time to practically dissolve all the values in the pulp, and to extract and deposit them in the quicksilver cathode. It is only the work of a few minutes to draw off the exhausted pulp and recharge the tank, repeating the operation every 12 hours, or treating five tons per day in each tank, the bullion remaining in the quicksilver being left there until the weekly or monthly clean-up. The ore is crushed in a Huntington mill, and the pulp deposited



B. H. Leo, Notary Public. A. B. Anderson.

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BOUNDARY CREEK MINES A SPECIALTY.  
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**GREENWOOD CITY LOTS.**  
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in reservoir tanks, where it is constantly agitated in order to keep it in condition to be drawn into the treatment tanks as required. The official test made consisted of 100 tons of the same big mill, and, second, of 85 tons of ore of lower grade. In the first test the percentage saved, as shown by careful assays of pulp and tailings, was 87; but the bullion recovered was 3 per cent. less, the discrepancy being accounted for by the amount remaining upon the new copper plates. The test of the low grade ore showed practically a saving of 83 per cent. These are considerably higher percentages than are made on these ores on the excellently equipped big pan amalgamation process mill. The loss of quicksilver in the 100 ton test was 15 pounds; in the 85 ton test it was 13 pounds. Eight more tanks will now be added to the plant, making its capacity, as per original agreement, 50 tons per day.

In regard to the cost of treatment by this process, the following demonstrates that it will be comparatively small. (1). A 25-horse-power engine is required

to run the dynamo and agitators for the 50-ton plant; (2) one man on each shift can run it; (3) one man on one shift in 24 hours can run the Huntington mills to crush the 50 tons of ore—practically requiring only three men to run the plant; (4) no grinding is done with mullers, as in the pan process, and there are no shoes and dies to wear out and be replaced; (5) the power required, as compared with the amalgamation process, is comparatively small, which, with the cost of fuel here, is an important saving; (7) the loss of quicksilver is comparatively slight.

The manager of one of the largest Utah smelters says that he believes that in a very short time prices will advance, and that the advance would be to a figure which will justify the producers of silver-lead ores in again going forward with their energetic extraction.

The Alpha and Black Bear, in the Slocan, are reported sold for \$75,000.