

Water Powers of Central Canada and Conditions for Economical Mining.

BY FREDERICK H. HOLMES.

In connection with the gold mining industry now rapidly developing in these new Canadian gold fields, special attention should be directed to the exceptional facilities for economical working afforded by the unlimited supplies of water power, everywhere available for mining purposes.

This power is fairly distributed throughout the whole mining region, and in no part of Canada is it more prolific and easily available than in the Lake of the Woods, Manitoba, Selma River and Wabigoon gold fields.

In these districts, the majority of the working mines and locations in course of development, are in close proximity to this greatest of all facilities for economical mining, abundant water power, and it is safe to estimate that there are few, if any, opened reefs at a greater distance than ten miles from this great factor for economical mining, which could be cheaply and effectually supplied to all of them by electrical transmission.

The most important of these water powers are the magnificent falls at Keowatin (now bridged by a substantial stone dam), over which it is estimated seventy to one hundred thousand horse-power is always running, not yet utilized for any purpose whatever.

Nothing is, however, clearer than that this is the destined power for crushing the unlimited supplies of auriferous ores of this large district, and are simply awaiting the necessary capital for their remunerative extraction.

Owing to this important factor, taken in conjunction with the practically unlimited supplies of lumber and timber for mining and building purposes, fuel, low cost of provisions, cheap transport by water, both inter-provincial and from United States ports on the lake, the necessities of life are good, cheap and abundant, including what would be considered luxuries elsewhere, viz.: feathered game and water fowl, venison, and some of the finest fish on the American continent, amongst which are the sturgeon, trout, whitefish, bass, maskalonge, pike, pickerel, and many others, and it is safe to say, few other mining regions could support as large a population in comfort and abundance from its natural resources alone.

The railway communications are all that can be desired, for not only does the great system of the Canadian Pacific railway pass through this district (350 by 150 miles in area) communicating with the wharves on the Lake of the Woods at Rat Portage, but the Canadian Northern railway has a section running through the southern portion of the district, connecting with the railway systems of the United States, so that this gold field has the advantage of competing lines for its great potential traffic, and is in direct touch with all ports on the Atlantic and Pacific coasts from which, owing to its central position, it is about equal distance, viz., 1,500 miles.

In addition to this, both the ports of Wabigoon and Rat Portage are distant only some 200 miles from Port Arthur and Fort William on Lake Superior, which are both ports for ocean steamers, and from which, vessels now trade to all parts of the world.

This enables mining machinery, equipment, and supplies to be brought wholly by ocean steamers, and landed in close proximity to the mining region at a minimum of cost, which cannot fail to prove advantageous in the rapid and economical equipment of these mines now rapidly opening up.

Taking into consideration all these exceptional facilities for economical mining and the almost inexhaustable resources of both high and low grade auriferous ores, outlined and indicated in this and previous issues of the statistical analysis of gold returns, results, and discoveries, issued under the auspices of the Central Chamber of Mines, it is the opinion of those

competent to judge that this gold field cannot fail in the near future, to take its justified position, as one of the most important gold producing centres of the world, and should prove one of the (if not the) most important of all the industries of the Dominion of Canada.

All that is now required to make it so, is the serious mining (and not promoting exploiters) and the adequate equipment of proved mines with improved mining machinery, and other modern gold saving appliances. That this is reasonable, is evident upon taking into consideration the fact that the economic conditions for mining and milling are such that those ores can be mined and milled, with adequate modern equipment, at a cost of from \$1.25 in the case of open dykes, to \$3.50 for mines worked by shafts, and as the mines are in many cases payable from or near the surface, a small proportion of the working capital essential elsewhere, will suffice to place on them the equipment requisite for the effectual and remunerative extraction of their gold deposits.

This is self-evident when comparisons are made with the low grade, \$9 ores of South Africa, extracted from 10 feet reef bodies at average depths of about 2,000 feet, the other facilities for economical working, being in no way comparable with the conditions obtaining on these fields, yet nevertheless Transvaal mines, although of sedimentary origin, pay substantial dividends upon apparently enormous capitals, compared with what are required in Canada, where the reefs are mostly large true fissure veins, ranging to and even exceeding 200 feet in width, auriferous from the surface, and can be worked theoretically to the earth's centre.

That this opinion is justified may be gathered from the fact that the total number of mill batteries running on the South African gold fields up to the outbreak of the war, never reached four thousand stamps, the average weight being about 1,250 pounds, the available steam engine power about thirty thousand.

This power, insignificant in comparison with the water powers of Central Canada and much more costly, has nevertheless, enabled the low grade ores of Africa to be produced at substantial profit and on such a scale of magnitude and regularity as to have had of late such an important influence on the markets of the world.

The ores of Canada are, in the opinion of the writer, of much greater body and extent, of higher average grade, and being mineable from the surface, should with the exceptional facilities referred to prove with suitable equipment, of equal, if not of greater importance.

In point of accessibility, it is also one of the most available gold fields in the world and can be reached cheaply from most European ports in about 10 days, and being comparatively new country, quite nine-tenths of the land is still in the hands of the government, which can be acquired in mining locations at nominal cost.

From present indications there is no doubt that the discovery of these practically inexhaustible deposits cannot fail to greatly stimulate interest in the material prosperity of our great colonies, which will lead, doubtless, in the near future to an access in population and a corresponding increase in the volume of trade generally.

Winnipeg Hardware and Metal Prices.

- ANVILS.—Per lb. 10¢ to 12¢; anvil and vice combined, each, \$20 to \$40.
AUGERS.—Post hole, Vaughan's, each, 35¢.
AXES.—Bench, 30 and 40 per cent. chopping axes, per dozen, \$7 to \$12; double bit, per dozen, \$12 to \$18.
BARS.—Crow, \$4.50 per 100 lb.
BELLOWS.—20-24 \$4.50; 26, \$4.65; 28, \$4.80; 30, \$4.95; 32, \$5.10; 34, \$5.25; 36, \$5.40; 38, \$5.55; 40, \$5.70.
BELTING.—Agricultural, 65 per cent; No. 1, 40 per cent; extra, 50 per cent off new list.
BITS, ADGER.—American, 50 per cent. Jennings' Excelsior, 45 per cent.
BOLTS.—Carriage, 42 1/2 per cent; machine, 45 per cent; plow, 40 per cent; sleigh shoe, 65 per cent; stove, 55 per cent; tire, 65 per cent.
BUILDING PAPER.—Anchor, Cyclone and Jubilee, plain, 65¢; Cyclone and Jubilee, tarred, 80¢; Anchor, plain, 60¢ per roll; Anchor, tarred, 70¢; Shield, tarred, 55¢.
BUTTS.—Cast, loose pin, com. 60 per cent; Peterboro, 33 1/3 per cent; wrought steel, narrow, 60 per cent; loose pin, 60 per cent; bronze, 45¢ up.

- CARTRIDGES.—Rim fire, American discount 10 per cent; Dominion, 50 and 5 per cent, central fire, pistol, American discount 10 per cent; Dominion discount 30 per cent; military and sporting, American net list, Dominion 15 per cent.
CEMENT.—Portland, barrel, \$4.25 to \$4.50.
CHAIN.—Coll, proved, 3/16 in per 100 lb, \$11; do., 1/4 in., \$8; do. 5/16 in., \$6.25; 3/8 in., \$5; 7/16 in., \$3.75; 1/2 in and up, \$3.50. Jack, iron, single, per dozen yards, \$5.75; double, per dozen yards, \$5.40. 1/2" 6-10, \$8.50; 3/4", \$8. Trace, per dozen pairs, \$3.75 to \$5.50.
CHURNS.—B. B. Steel frame, 65 per cent; wood frame, 20 cents less net.
COPPER.—Tinned sheets, 23¢, plain tinned, 33¢, boiler and T. K. pits, plain tinned, per lb, 23¢; spun, 33¢.
FILES.—Com. 70 and 10 per cent; Nicholson's and Black Diamond, 60 per cent.
GLUE.—Sheets, 15¢ lb, broken, 12 1/2¢. glue, white, for kalsomining, 18¢ to 25¢.
CHEESE, AXLE.—Packer's, per case \$3.75; Diamond, light, \$1.75 case; dark, \$1.75, Mica, \$1.
GRINDSTONES.—\$1.50 100 lb.
HAIR.—Plasterers', 90¢ bale.
HARVEST TOOLS.—55 per cent.
HOES.—Iron shoes, keg, 0 and 1, \$4.00; 2 and larger, \$4.65; Less than 100 kegs, 25¢ extra; Steel shoes, 0 and 1, \$3.20; 2 and larger, \$4.05.
HINGES.—Heavy T and strap, per 100 lb, \$2.50 to \$3.20; light do., 60 per cent; screw hook and hinge, 6 to 10 in., 5¢ per lb; 12 in. lb, per lb, 4¢.
IRON.—Bar iron, 100 lb, base price, \$2.75. Band iron, 100 lb, \$3.05. Swedish iron, 100 lb, \$5.00. Sheet, black, 10 1/2" gauge, \$3.50; 22 1/2" gauge, \$3.75; 28 gauge \$4. Galvanized American, 10 gauge \$4.25; 18 1/2" gauge, \$4.50; 24 gauge, \$4.75; 26 gauge, \$5; 28 gauge, \$5.25 per 100 lb. Queen's head, 25¢ advance on American prices. Canada plates, Garth and Malina, 4" x 12" Russian sheet, 24 1/2" x 36"; genuine Russian sheets, lb, 12¢ to 13¢.
LEAD.—Pig per lb, 6¢; sheets, 6 1/2¢.
NAILS.—Cut—300 up, \$3.20, 200, \$3.25, 100, \$3.40; 24, \$3.45; 16, \$3.60; 12, \$3.70; 8, \$3.85; 4, \$4.00; 3 in, \$3.85; 3 1/2 in, \$3.90; 2 in, \$4.05; 1 1/2 in, \$4.15; 1 1/4 in, \$4.40; 1 in, \$4.75. Horse nails, pointed, finished, oval heads, list price, No. 6, \$7.50 box; No. 6, \$7.75 box; No. 7, \$8 box; No. 8, \$8.75 box; No. 9, 10 and 11, \$5.50 box; discount on these prices, 45 per cent.
NATUM.—Navy, \$1.25 bale; U S navy \$2.75; spun, \$3.00.
PICKS.—Clay, \$7 doz.; pick mattocks, \$3 dozen.
PIPE.—Iron, black, per 100 feet, 1/4 in, \$1.20; 3/8 in, \$1.30; 1/2 in, \$1.40; 5/8 in, \$1.50; 1 in, \$1.60; 1 1/4 in, \$1.75; 1 1/2 in, \$1.85; 2 in, \$1.95; 2 1/2 in, \$2.10; 3 in, \$2.25; 3 1/2 in, \$2.40; 4 in, \$2.55; 4 1/2 in, \$2.70; 5 in, \$2.85; 5 1/2 in, \$3.00; 6 in, \$3.15; 6 1/2 in, \$3.30; 7 in, \$3.45; 7 1/2 in, \$3.60; 8 in, \$3.75; 8 1/2 in, \$3.90; 9 in, \$4.05; 9 1/2 in, \$4.20; 10 in, \$4.35; 10 1/2 in, \$4.50; 11 in, \$4.65; 11 1/2 in, \$4.80; 12 in, \$4.95; lead, 6 1/2¢ lb.
PIPE.—Stove—6 in, \$9.25; 7 in, \$10; per 100 lengths.
PITCH.—Pine, \$4 per barrel.
PLASTER.—Per barrel, \$3.25.
RIVETS AND BIRRS.—Carriage, section 3/4, per cent; M rivets, black and tinned 3/4, per cent; copper rivets and birrs, 3/4, copper rivets, 20¢, cartons 1¢ per lb extra net.
ROPE.—Cotton, 3/4" x 1/4 inch and larger, 15¢ lb; deep sea, 10 1/2¢; lat, 11¢; Manila, per lb, 15¢ base; sisal, 9 1/2¢ base.
SCREWS.—F. H. Bright discount, 75, 10 per cent; F. H. discount, 70, F. H. brass, discount 70; R. H. brass, discount 60 and 5 per cent. Bench, wood, per doz, \$2.75 to \$4.50; bench, iron, per doz, \$5.25 to \$7.25; coach screws, 57 1/2 per cent.
SHIELDS.—Loaded—Eley's black, 12 gauge, per 100, soft, \$1.65, chilled, \$1.80; 10 gauge, soft, \$2.15, chilled, \$2.30; Eley's smokeless, 12 gauge, soft, \$2.10, chilled, \$2.25; 10 gauge, soft, \$2.60, chilled, \$2.75.
SHOT.—Soft, 66.5¢ per 100 lb, chilled, 67.15; buckshot, 67.65; ball, 23, 67.65.
SOLDER.—Half and half, per lb, 22¢.
SOLDERING IRONS.—Per lb, 32¢.
SPADES AND SHOVELS.—40 per cent. SPIKES.—Pressed, V, \$4.85, 5 1/2, \$4.65, 1/2, \$4.40; 7-16 up, \$4.10.
STEEL.—Sleigh shoe, \$3.60 base, spring, \$4.25; machinery, \$4.25 base; share, com. \$4.75 base share, cradle, \$5.50; toe coll, \$4.25 base; tire steel, \$3.75 base; cast tool steel, lb, 9 1/2¢.
STEEL ROLLER PLATE.—3-16 inch, \$4.25; 1/4, 3/8 and thicker, \$4.00.
STAPLES.—Galvanized, \$4.25 per 100 lb.
TAR.—Coal tar, per barrel, \$6.50.
TIN.—Lamb and flags, 56 and 25 lb ingots, per lb, 35¢.
TIN PLATES.—Charcoal plates, I C, 10 1/4, 12 1/2, and 14 1/2, \$4.50; 10 X same size, I C, \$4.50; I C charcoal, 20 X 28, 112 sheets to box, \$10.50; I X box, 20 X 28, 112 sheets, \$12.50.
TERNY PLATES.—I C, 20 X 28, \$10.00.
TINWARE.—Plain, 75 and 2 1/2 per cent; returned, 70 and 10 per cent.
TRAYS.—Game, H. & N. No. 0, \$1.92 each; No. 1, \$2.25; No. 1 1/2, \$2.38; No. 2, \$4.73; No. 3, \$6.20; No. 4, \$7.42; bear, No. 3, \$7.50.
TUBES.—Roller, 2 inch, 16 1/2¢ per foot; 2 1/2 inch, 21 1/2¢; 3 inch, 23¢ per foot.
VISES.—B. S. Wright's, 14¢; Sampson, 40-50 lb, \$6.50; 47 1/2 lb, parallel, \$2.85; each.
WADS.—Gray felt, 75¢ per lb; thin card wads in boxes of 500 each, 12 and smaller gauges, 20¢ per M, thin card wads in boxes of 500 each, 10 gauge, 25¢ per M. Chemically prepared black edge gray

- cloth wads, in boxes of 250 each, 11 and smaller gauges, 65¢ per 1,000; 9 and 10 gauges, 70¢ per 1,000, 7 and 8 gauges, \$1 per 1,000.
WIRE.—Brass and copper wire, 20 per cent advance on the list; clothes line wire, 15 gauge, per 1,000 feet, \$3.50. Galvanized 4 barb, regular, \$3.70; galvanized plain twist, \$3.75.
ZINC.—Sheets in casks, \$7.50 per 100 lb; broken lots, \$8.00.

Winnipeg Prices Paints Oils Glass, Etc.

- ALABASTINE.—Cases of 20 packages, \$6.50, Murano, do., \$6.50.
BENZINE.—Case, \$3.50.
DRY COLORS.—White lead, lb, 7 1/2¢ red lead, 7¢, yellow ochre in barrel lots, 24¢, less than barrel lots, 30¢; golden ochre, barrels, 39¢; less than barrels, 40¢; Venetian red, barrels, 30¢, less than barrels, 32¢; American vermilion, 16¢, English vermilion, \$1 per lb, Canadian metallic oxide, barrel lots 24¢, less than barrel lots, 30¢; English purple oxides, in casks, 32¢, less quantities, 40¢ lb.
GASOLINE.—Stove, per case, \$3.50.
GLASS.—Single glass, first break, 16 to 25 united inches, \$2.50; 20 to 40, \$2.75 per 100 feet boxes; 40 to 50, \$3; 50 to 60, \$3.50; 61 to 70, \$7 per 100 feet boxes.
LINED OIL.—Raw, gal., 8¢; boiled, gal., 8 1/2¢ in barrels, less than barrels, 5¢ gal, extra, with additional charges for cans and cases.
OILS.—Black oils, 25 to 30¢ gal.; clear machine oil, 30¢; cylinder oil, \$3.78¢, 10 to quality, motor oil, 11¢ per lb; tanners' or harness oil, 65¢; motor oil, \$1; steam refined oil, 85¢; pure winter-bled sperm oil, \$2 gal.
PREPARED PAINTS.—Pure liquid colors, gal., \$1.30 to \$1.50, as to shade and quality.
PUTTY.—In bladders, barrel lots, 2 1/2¢ lb; in 100 lb kegs, 2 3/4¢; do. less than barrels, 3¢ lb.
REFINED PETROLEUM.—Silver Star, 20¢; Onionhead, 22¢; Sunlight, 23¢; and Locomotive 25¢ per gallon.
TURPENTINE.—Pure spirits in barrels, 7 1/2¢, less than barrels, 7¢ per gal. An additional charge for packages of small quantities.
VARNISHES.—No. 1 furniture, per gal, \$1 extra furniture, \$1.35, pale oak, \$1.50; elastic oak, \$1.75; No. 1 carriage, \$1.50 to \$1.75, hard oil finish, \$1.50 to \$2; brown Japan, \$1; house painters' gold size Japan, \$1.50; coach painters' do., \$2 to \$2.25; No. 1 brown sic lac, \$2.25, pure orange shellac, \$2.50.
WHITE LEAD.—Pure, \$7.25 per 100 lb; No. 1, \$7.00.
WHITING.—1 1/2¢ per 100 lb gross weight.

Reports have been in circulation in Winnipeg of late to the effect that a larger number of commercial travelers have been here recently from the east than is usual. One report stated that there were 55 commercial men at a certain Winnipeg hotel on one day. Such reports are misleading and erroneous. Investigation shows that quite a number of the men who have been counted in these estimates are country merchants and other business people from the country, who have been in the city on business. Then again the poor prospects in the country have deterred many travellers who are regularly employed on routes on this country and who are seldom seen in the city to take up their quarters here temporarily, while waiting for the crop prospects to improve. This has made it appear that there are a larger number of travellers this year than usual.

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