

in a strong cast iron mortar, into which the rock is fed, and through which a constant stream of water is kept flowing. As fast as the rock is crushed fine enough, it is carried by the water through a screen of wire cloth, about 40 meshes to the linear inch, and passes into a vat where it is deposited, while the water is continually pumped back again to supply the mortar. When the vat is filled, the crushed ore is taken up and placed in the amalgamators, which are two large wooden cylinders, placed in a horizontal position and suspended by iron journals at the ends, one of each pair being hollow, and connecting by an iron pipe with the exhaust of the engine which drives them. These cylinders are open at the top for about one-fifth of their circumference, and along the middle of each extends a fixed screen, having an iron pipe pierced with numerous small holes running along the lower edge and up one end. This pipe communicates with the hollow journal, and admits a column of steam which issues from the small apertures, and at once heats and agitates the contents of the cylinders. Into these vessels the crushed ore is introduced in sufficient quantities for a "charge" along with the necessary proportion of water, the chemicals, which play an important part in the process, and are varied as the ore contains gold or silver, and the proper quantity of quicksilver. The cylinders are then connected with the engine shaft, and by an eccentric motion are made to oscillate slowly in an arc of about 60°. This motion is continued for some four hours, when the charge is withdrawn, the mercury and amalgam collected from the "tailings," by the aid of Dr. Wurtz's Sodium-amalgam, and re-torted off, leaving the precious metals behind. The proprietors have recently added to the original apparatus an electric agitator, the invention of Mr. Dunstan, their chief operator, for the purpose of preventing the escape of any small particles of mercury or amalgam, which operates to a charm. For this, as well as for the rest of their apparatus, they have secured patent rights.

I shall make Messrs. Turley & Gilbert's establishments the theme of a future communication, as it differs materially from that of Messrs. Daniels & Co.

The Richardson mine is still yielding large quantities of valuable ore. I saw to-day, in possession of Mr. Glass, a piece of rock weighing about four ounces, fully half of which was pure gold; also a large piece in several parts of which gold was richly inlaid.

I had a conversation on Saturday with Mr. Anstee, the contractor for the building of the Richardson reduction house. He informed me that they expected to have every thing ready to commence work with ten stamps, by the 1st of January.

Notwithstanding the cold weather, new discoveries continue to be made, which extend the limits of the gold region in all directions much further than was anticipated. The latest of these is the finding of gold at Brockville, in a very promising development.

An apparently very rich deposit has been struck on lot 19 in the 4th concession of Madoc, cornering with the lot on the east half of which the Richardson mine is situated. A piece of the rock, about 6 pounds in weight, gave to an assay by amalgamation, nine grains of gold, or at the rate of \$1 50 per ton of 2,000 lbs.

Insurance.

INSURANCE STOCKS, &c., IN HALIFAX.—At a sale of stocks on the 14th Dec., as reported by an exchange, the following took place: Ten shares in Acadia Fire Insurance Co., \$20.50 each. Fifteen shares in the Commercial Bank of Windsor, \$56 per share. Four shares in Halifax Gas Light Company, £14 2s. 6d. each, and fourteen other shares in same £14 ls. 3d. Eight shares in Halifax Fire Insurance Co., \$40.50 per share. One share in Skating Rink, \$40. A \$400 City Debenture realized \$392.

FIRE RECORD.—Orillia, Dec. 19.—Benner's Mill; not stated as to insurance.

—Ottawa, Dec. 21. The residence of Mr. Baine, on the Deep Cut road, totally destroyed with most of its contents; no insurance; loss heavy.

—Picton, Dec. 14.—The dwelling house of Mr. Chas. Black, in Sophiasburg, was consumed, with contents; insurance \$750. Also the house of Mr. D. Ogden, West Lake; no insurance mentioned.

—Innisville, near Perth. The house of Mr. J. Swain totally destroyed; loss probably \$600; no insurance.

—London, Dec. 21. The house of Mr. Gooderwood, Bathurst street, totally destroyed with contents, including \$500 in bank bills. Owing to the ropes being broken, the alarm bell was not rung, and the steamers and firemen were mostly too late to be of service. Property insured: house for \$1,000; furniture in Etina for \$400.

—Uxbridge, Dec. 20. The house and buildings of Mr. Hannan, known as the Uxbridge House, and the adjoining property of Mr. Hilary, completely destroyed. Only insurance on Mr. Hannan's house for \$1,000.

—Toronto, Dec. 18.—A row of five small frame buildings on Queen street; contents saved; not of much value, and insured.

—Caledonia, Dec. 20.—Bakery of R. McKinnon. Loss \$400. No insurance.

—Woodstock, N. B. The dwelling house of John Harper, Jacksontown, was destroyed by fire; insured for \$400; loss \$1,200.

—Dec. 22.—Nordheimer's Music Hall, Montreal; loss about \$70,000. Insured as follows: Liverpool London and Globe, \$10,000; Commercial Union, \$8,000; Etina of Dublin, \$10,000; London and Lancashire, \$5,000; Western of Canada, \$1,000. Of the occupants Messrs. Dion's loss is put at \$12,000, covered by \$7,500 in the Citizen's, and \$3,000 in the Scottish Provincial, and \$2,000 in the Western of England. Mr. Pagel's loss \$600, insured for \$1,600 in the North British. Mrs. Davis, loss \$800, covered by \$1,000 in the Scottish Provincial. Gould & Hill insured for \$17,500 in the Etina and Hartford; loss not stated.

PREMIUM RECEIPTS OF CHICAGO INSURANCE COMPANIES FOR OCTOBER.—The law requires that insurance companies shall make returns to the United States Assessor, of the aggregate amount of their premiums for each month, and that such report shall be made by the 10th of the succeeding month, and the tax paid by the 15th; in accordance with this routine, we usually publish the returns of each company by the 20th; the reports given below should have appeared three weeks ago, but some of the companies were dilatory in making their returns, and the report not being complete, we have delayed until it was. The "Travellers" having failed to report in the proper time, the Assessor, in accordance with the law, estimated the amount of its premium receipts, and added thereto a penalty of 10 per cent.

Assessor's Office, Dec. 3, 1867.—Gross receipts of insurance companies for the month of Oct., 1867:—Chicago Fireman's, \$13,188.81; Commercial, \$9,100; Equitable, \$6,107.43; Garden City, \$5,433.74; Germania, \$4,534.39; Home Mutual, \$6,347.27; Lumberman's, \$16,166.54; Mercantile Mutual, \$3,441.75; Merchants', \$7,192.54; National, \$2,285.84; Provident Life Ins. and Investment, \$2,188.17; Republic, \$3,751.55; Stock and Mutual, \$11,376.57; Traders', \$12,482.97; Travellers' (assessed and penalty added, 10 per cent., \$4.50), \$3,000; West Phoenix, \$3,480. Total, \$140,077.57.—*Ins. Chronicle.*

FROZEN IN.—The New York World gives a list of the names of boats frozen in on the Erie Canal, between Syracuse and Troy, and a detailed statement of their cargoes, from which we compile the following facts:—

31 boats with flour	43,746 brls
204 boats with wheat	1,484,356 bu
79 boats with corn	583,929 bu
78 boats with oats	1,019,916 bu
15 boats with rye	56,115 bu
48 boats with barley	452,815 bu
8 boats with peas	48,649 bu
13 boats with petroleum	12,714 brls
24 boats with lumber and staves	
1 boat loaded with malt	3,769 bu

There are besides a considerable number of boats laden with pig iron, cheese, mill feed, apples, potatoes, and other farm produce. It is estimated that there are 50,000 brls apples and 50,000 to 60,000 brls.

Financial.

LA BANQUE JACQUES CARTIER.—The annual general meeting of this institution was held at the office, Montreal, on the 19th inst. The profits on the year's operations are stated at \$101,006 21, from which deducting two half-yearly dividends, amounting together to \$75,699 96, leaves \$25,206 25 as the net profits of the year. This sum, with the balance at the credit of profit and loss account from last year, gives a total of \$89,914 24. From this sum the directors have taken \$85,000 to form a reserve fund, leaving a balance at credit of profit and loss of \$4,914 24.

AMERICAN FINANCES.—The Congressional committee of finance has reported a plan for consolidating the debt by a new forty years loan, payable, principal and interest, in coin at six per cent., one per cent., however, to be deducted in lieu of taxes of all kinds. Holders of 5-20 bonds may convert them into these 5 per cent forty year bonds at their option, or may after the five years redeem them in legal tenders. Another 4 per cent loan is to be authorized in Europe, payable principal and interest in coin, which may be disposed of either by sale or by the conversion of 5-20 bonds, at the option of the holders.

Phoenix Insurance Company.
BROOKLYN, N. Y.
PHILANDER SHAW, EDGAR W. COWELL,
Secretary. Vice-President.
STEPHEN CROWE, President.
Capital, \$1,000,000. Surplus, \$666,416 02. Total, 1,666,416 02. Entire income from all sources for 1866 was \$2,131,839 82.
CHARLES G. FORTIER, Marine Agent.
Ontario Chambers, Toronto, Ont. 19-1y.

Honore Flamonden,
CUSTOM House Broker, Forwarder, and General Agent, Quebec.
Office—Custom House Building.
Quebec, 9th December, 1867. 17-1y

Western Canada Permanent Building AND SAVINGS SOCIETY.
NINTH HALF-YEARLY DIVIDEND.

NOTICE is hereby given, that a Dividend of 5 per cent on the capital stock of this institution has been declared for the half-year ending 31st inst., and the same will be payable at the office of the Society No. 70 Church St., on and after

WEDNESDAY, 8th DAY OF JANUARY NEXT.
The transfer books will be closed from the 10th to 31st December inclusive.
By order of the Board.

WALTER S. LEE,
Sec and Treasurer.
Toronto, Dec. 21. 19-1y.
Canada Life Assurance Company.
ESTABLISHED IN 1847.
Incorporated under Special Act of Parliament.

Amount of Capital and Funds, over	\$1,800,000
Assurances in force, over	\$1,600,000
Number of Policies in force, over	3,000
Annual Income, over	\$170,000
Claims paid for Deaths since commencement of Company, over	\$450,000

This Company was specially established for the purpose of granting to assurers every security, advantage and facility which prudence or liberality can suggest; and that course has resulted in a larger amount of Life Assurance in Canada than any other Institution there.

Table of Rates for the more general form of Life Assurance, and every information, may be obtained at the Head Office, Hamilton, or at any of the Agencies.

A. G. RAMSAY,
Manager.
Office in Toronto, Toronto Street.
E. BRADBURN,
Agent.
19-3m.