

a return would damage irretrievably both the mine and the mill! A consultation was held, and it was agreed that the proprietors of the mine should procure a sufficient quantity of gold to make up about \$20 to the ton, and that D. S. T. & Co. should stamp the same, and enter that amount in their returns. The secret was kept for some time, and the mine was sold to certain parties in Belleville; but some misunderstanding having occurred among the parties concerned, the piece of petty rascality which had been perpetrated came to light, amid their mutual recriminations. Just at this time too, came the letters from Dr. Hunt, completely confirming the previous assay, and shewing that under proper management, the mine was likely to turn out an exceedingly rich and profitable concern; so that the perpetrators had the satisfaction of reflecting, that their imposture was as needless as it was criminal.

This affair cannot of course affect the value of the mine in question, after the testimony of Dr. Hunt shews that the smallness of the return must have been due to the mill not being adapted to secure only the free gold, and not the silver, or the gold contained and perhaps mineralized in the ore, but it will undoubtedly have a very prejudicial effect in destroying confidence in the mill returns, and rendering them as unreliable as most of the assays hitherto made have proved.

In dealing with the mining laws, our legislature might with advantage inflict a heavy penalty, not only a pecuniary fine, but a term of imprisonment with hard labour, upon those who render bogus returns, and commit the crime of perjury to float them off; and it would do no harm if the provision were extended so as to embrace dishonest assayers.

A STEAM STAMP QUARTZ CRUSHER.—We had the opportunity a few days since, of examining a stamping mill constructed according to "James & Condict's Patent," with the latest improvements, at the foundry of Messrs. Dickey, Neil & Co., of this city. This mill is very neat, compact and light, and seems well suited for the purpose intended. It was patented by C. R. James and N. W. Condict, junr., of New Jersey, on the 19th June, 1866, and has since been used, we believe, more or less in the principal mining districts of the United States. The chief objections against stamps, namely the great weight of metal, the heavy cumbersome frame work, and slowness of movement, seem to be, in a very great degree, overcome in this mill. Its total weight is about 1,500 lbs. There are two stamps which are attached to pistons passing through two perpendicular cylinders. Each pair of cylinders and stamps makes a complete battery, and may be constructed to any required size, even to stamps weighing a ton each. These stamps work in a kind of mortar which is filled with water, and into which the quartz, previously broken into pieces about the size of a man's fist, is fed. Under the stamps which strike alternately, and with any desired speed from 40 to 300 blows per minute, the quartz is reduced as fine as dust, so that it can pass with the water through a kind of sieve which contains 60 meshes or holes to the inch. Against this sieve the water is splashed by the motion of the stamp, and gradually escapes through it with a portion of the quartz held in solution. The water after thus making its escape, passes through the amalgamating process where the gold or silver is separated, the operation of which it is not our object to describe here. Probably the most important feature of this mill is the ingenious way in which the steam is applied to raise the weight of the stamp and overcome the friction met with in returning it to the upward end of the cylinder. This is accomplished by a steam drum or reservoir, connected by means of a flexible hose or pipe with the lower end of the cylinders, and supplied with live steam from the boiler in whatever quantity is found to be requisite to accomplish the above object. By this means a lower valve to the cylinders is entirely dispensed with, the working of which was always one of the greatest difficulties in the management of steam stamp mills. The blow of a steam stamp is always variable, depending upon the quantity of ore introduced into the mortar or stamp box, and the wearing

away of the stamp head or die on which the ore is crushed. By means, therefore, of the improvement just noticed, when steam is admitted to one of the cylinders it drives the stamp home until the force is expended on the ore or stamp-die below, and is held there until relieved by the action of the other stamp rising and reversing the valve. The motion of the stamp is regulated by a safety valve attached to the reservoir; the lower the pressure on the reservoir, the slower the movement of the stamps, and vice versa. In estimating the force of the blow of these stamps, the gravity or weight is not counted, as it is balanced by a steam cushion under the piston head, which counterbalances the weight; the direct pressure of steam from the boiler and the momentum of the stamp give the measure of the force delivered by each blow, less the number of pounds pressure required to overcome the friction of the upward stroke of the piston. No engine is used, the steam being applied directly from the boiler.

The machine is put up on a strong wooden frame, very simple in its construction, and which is so arranged as to prevent the jar or vibration of the blow being communicated to the working parts of the machine.

It will be seen from the foregoing brief description, that several important advantages are claimed for this machine over others, which entitle it, at least, to a fair trial. As it is expected to be in operation in a few days, we shall have occasion again to allude to it. After seeing it in actual operation, we shall be prepared to express a more decided opinion as to its merits, and can only say now that it looks like *work*. Our townsmen, Messrs. Dickey, Neil & Co., deserve credit for the spirit with which they have taken hold of the enterprise, and prepared themselves to supply the demand which must arise, if our mining territory proves to be as important as it is now believed to be.

TORONTO MINING EXCHANGE.—The committee appointed by the Mining Exchange have forwarded a petition to the Government praying that the Act lately passed by the Ontario Legislature be not enforced until the next Session of Parliament. The request is based on the following reasons: "That up to the time of the passing of the Act referred to, but little had been done towards the development of the mines, either in Madoc or Algoma, and that the delay asked for would put the Government in possession of facts relating to the productiveness of the mines, and aid the Government in forming a policy with regard to the mines which may receive the unanimous support of the Province." The memorial is signed as follows: Josias Bray, President, William Kersteman, Hugh P. Savigny, T. D. Ledyard, Hugh Miller, William Wharlin.

Railway News.

GREAT WESTERN RAILWAY.—Traffic for the week ending March 6, 1868.	
Passengers.....	\$16,172 89
Freight and live stock.....	33,876 39
Mails and sundries.....	3,249 84
Total.....	\$53,299 12
Corresponding week, 1867.....	\$79,278 12
Decrease.....	\$25,979 00
NORTHERN RAILWAY.—Traffic receipts for week ending 14th March, 1868.	
Passengers.....	\$2,472 89
Freight.....	3,485 66
Mails and sundries.....	201 63
Total Receipts for week.....	\$6,160 18
Corresponding week, 1867.....	\$10,172 59
Decrease.....	\$4,012 51

ST. LAWRENCE GLASS COMPANY.—A general meeting of the shareholders of the St. Lawrence Glass Company was held at the office of the company, 388 St. Paul street, when the following gentlemen were elected Directors for the ensuing year:—William Workman, A. M. Delisle, Peter Redpath, A. McK. Cochrane, and Thomas Simpson.

Meetings.

UNION PERMANENT BUILDING AND SAVINGS SOCIETY.—The annual meeting of the stockholders of this Society took place on the 16th inst., when the following gentlemen were elected as Directors for the year 1868:

Francis Richardson, Esquire.
Thomas Henning, "
Arthur Lepper, "
Isaac C. Gilmor, "
George Goulding, "
J. C. Fitch, "
Alex. Henderson, "

From the statement submitted it appeared that the increase in the amount of stock paid up during the past year was \$30,664—making the present paid up capital \$92,219. An addition of \$2,000 was made to the Reserve Fund out of the past year's profits, making the total reserve \$3,183 43. The present value of Loans on Mortgage is \$713,589 74. The business of the year is correctly indicated by the following statement:

Amount received on deposit during the year.....	\$46,288 40
Amount repaid on deposits do do.....	43,082 35
Increase in deposits since last year's statement.....	4,306 10
Increase in Paid up stock do do.....	30,664 07
Amount invested on mortgage during the year.....	61,005 00
Amount received in payment of mortgages.....	32,911 86

Two semi-annual dividends at the rate of 10 per cent. per annum have been declared, viz., on the 1st Sept., 1867, and 1st March, 1868.

At a subsequent meeting of the Directors for the election of office bearers, and other business, Francis Richardson, Esq., was elected President, and Arthur Lepper, Esq., Vice-President for the ensuing year.

FIRE RECORD.—Montreal, March 21st.—Jordan's building on St. Paul st., occupied as a wine and spirit store, by Thos. Coghlan. An explosion occurred during the progress of the fire, killing two firemen, Scott and Thompson. Damage to property estimated at \$50,000. Building insured for \$2,000 in the Royal, and for further amount in other offices. Contents owned by Coghlan, covered by \$2,000 in the Royal, and \$1,000 in the Queen. The upper flat was occupied by Mr. Rolland, but no particulars are given as to loss or insurance. Cause unknown.

Strathroy, March 20.—A fire originated in the grocery store of A. Johnson & Co., and did much damage. The following particulars are furnished:—Isaac Moore, furniture insured for \$600 in the Provincial; no insurance on barn. Hotel owned by McKellar & Strathroy, covered by \$1,000 in the Home of New Haven. Thomas Carre, insured in the Provincial for \$1,200; partial loss. A Johnson & Co., stock insured in the Commercial Union for \$1,000, Western \$500 and Home \$500; building insured for \$800 in Commercial Union. A Meekinson, fruit store, insured for \$500 in Niagara Mutual. D. Dwyer, boot and shoe store, stock insured in Aetna of Dublin for \$400, and in the Niagara Mutual for \$400. F. Hilton, boots and shoes, stock insured in Aetna of Dublin for \$500. P. O'Dwyer, groceries, stock insured in Aetna for \$900, and \$800 in Niagara Mutual. John A. Scoon, building insured in Home for \$450, nothing on furniture. A. Goodwin, groceries, stock insured in Commercial Union for \$1,000, and \$500 in Niagara Mutual. W. H. Stewart, confectioner, no insurance. G. Orchard, \$600 on stock and \$600 on building in Royal, and \$600 on stock and \$600 on building in Western. James Wright, boots and shoes, stock insured in Provincial for \$1,500; loss partial. Moore's Hotel, property of McKellar and Strathroy, fully covered by insurance. Johnson & Co., store owned by A. Johnson, loss about \$400 on store over insurance in Commercial Union. D. Dwyer and A. Meekinson's stores, owned by A. Meek-