

there. In fact, we believe the watchmen were there on the night the fire broke out; but the incendiary was sufficiently adroit to escape their vigilance. Another of the insurance offices, which did not send watchmen, yet caused an examination upon the spot to be made, by its inspector, a week before the fire broke out, and he made a report upon the best plan to save the city in that event. This plan was actually carried out at the fire. We have heard it stated that all the insurance companies will suffer, and some of them heavily. It is said the Western of England loses \$10,000 or \$15,000; the Western of Canada \$10,000, and the Home \$10,000 to \$12,000. These are the largest amounts. The others are losers, but not so great. An effective guard was kept on the other stores last night, which will be continued for some time.

In commenting on the report of the Superintendent of the Insurance Department of the State of New York, the *N. Y. Insurance Journal* remarks, that "Great as were the disastrous inflictions of the fire companies, they were exceeded by those engaged in marine underwriting; for whilst the average percentage of loss of the former was 76.08 in the year 1866, that of the latter amounted to 83.13. These calamities have had the effect of diverting the companies to wiser methods of conducting their business. Experience may be a stern teacher, but she instructs correctly, and those who are wise enough to profit by her admonitions will not a second time fall into the meshes from which they have once escaped."

MARINE AND FIRE INSURANCE COMPANIES IN HALIFAX.—The following Insurance Companies exist in Halifax:—The Nova Scotia Marine, the Union Marine, the Merchant's Marine, the Halifax Fire, and the Acadia Fire. There are established agencies of the Provincial of Toronto, the Western of England, the Imperial of London, the Phoenix of London, the North British and Mercantile of London, the London and Lancashire, the Queen of Liverpool, the Royal of Liverpool, and the Liverpool, London and Globe.

Petroleum.

THE STORAGE OF PETROLEUM.—The Select Committee of the House of Commons on Fire Protection has finished its labors. The chief recommendations contained in its report are to the following effect: "To prevent the frequency of fires from the faulty construction of buildings, there should be a general building act for every town or place in the United Kingdom having a municipal corporation, improvements, commission, or local board of health, similar in its provisions to the Metropolitan Building Act and to the building acts of Liverpool. It should be a standing order of the House that every unopposed water bill, providing that the supply need not be constant or at high pressure, should be referred to the referees to inquire and report whether constant service should not be required. Where, on an investigation into the origin of a fire, it is proved to have been caused by the culpable carelessness of some person or persons, such person or persons should be deemed guilty of a punishable offence. No oil produced by distillation from coal, shale, peat, petroleum, rock oil, Rangoon or Burmah oil, or other bituminous substance, and used for illuminating purposes, should be sold for such purposes with an igniting point under one hundred and ten degrees Fahrenheit."

"The committee point out that stringent measures have been adopted in America as to the sale of petroleum, and add there is reason to fear that much of that oil, with a low igniting point, will be imported into England. They suggest that it would be well to have all mineral oils imported tested as to their igniting point, and marked before being stored, and to place careful restrictions on the mode of storing. The classification of goods in storing is also recommended for consideration."

A Manchester paper, commenting upon this report, says:

"Petroleum has already been the object of legislation. By an act passed a year or two since, it is directed that not more than forty gallons of petroleum shall be kept within fifty yards of a dwelling house, or of a building in which goods are stored, without a special license. But this act goes on the assumption that the igniting point of the oil is one hundred degrees Fahrenheit. The great source of mischief, however, is the use of petroleum which ignites at a point below that limit. Some of the petroleum which is sold is capable of ignition at a point as low as sixty-eight degrees. Moreover, it has been shown

that in some cases, after a mineral oil lamp has been burning for twenty minutes, the temperature of the brass ranges from one hundred degrees to one hundred and ten degrees, so that even when the flame is blown out the heat of the brass part of the apparatus is more than sufficient to explode the vapor which is given off. In the United States a law has been passed imposing heavy penalties on any one selling petroleum oil for illuminating purposes which is inflammable at a less temperature than one hundred and ten degrees Fahrenheit; and, as far as we are concerned, the effect of this and other restrictions has been to stimulate the export of the forbidden oils to this country."

SHIPPING CRUDE PETROLEUM.—The recurrence of fatal accidents through explosions at sea of crude petroleum cargoes, has caused a good deal of newspaper clamor in favor of a law "prohibiting" the shipment of this dangerous article. The marine insurance offices also are vitally interested in the question, and, indeed, it is one affecting the whole commercial community. Prohibition in this, as in some other things, is a foolish expedient. To stop the shipment of crude petroleum is to kill the trade and make the oil a drug in the market. But, according to a *Titusville Journal*, there is a remedy, not only simple but even profitable, which consists in removing the gasoline from the petroleum before shipment. "Surely," says the journal referred to, "enterprise enough can be found among our dealers and well-owners to steam all crude petroleum in a closed iron still, collect the lightest portions, for which there will be a market this winter at a good profit, and ship only the forty-five degree oil, which has the preference now, and will soon be the only oil that can be sold, because it will be the only oil that ship-owners and insurance companies will permit in the holds of ships. The waste steam from any portable engine would remove all danger from two hundred barrels of petroleum every day, and render it more valuable at the end of the process, besides yielding a profit on the gasoline driven off." With such an easy remedy at hand, prohibition would seem wholly unnecessary.

PETROLEUM.—The disastrous fire of August 4th, which swept away nine of the best producing wells of Petrolia, and consumed from 30,000 to 35,000 barrels of crude petroleum, will doubtless exert a corresponding influence upon the oil market, both crude and refined. In six short hours, accumulations of oil pumped since October last were swept by the all-devouring element, together with a hundred tanks of the capacity from 100 to 900 barrels each. Nor is the loss in oil to be calculated merely by what is consumed, for so complete was the destruction, that ten engines and boilers were rendered useless, and all the driving machinery, tanks, derricks, and the paraphernalia of ten oil well "rigs" were likewise destroyed. It will take from a month to six weeks to replace these wells in pumping order, and but for the loss of time, at least 20,000 barrels more crude would have been available by September. The actual loss to the market, then, cannot be computed at less than 45,000 to 50,000 barrels.

But while this conflagration has swept away the largest and best stock of crude, other stocks are available, but not immediately so. Prior to the fire, crude oil was selling at the nominal value of 50 cents (fifty cents) per barrel—a price which may well be termed a "panic price." This fall, from \$1.50 in May last, is traceable to several causes; first, over-production at a period when refineries were not in active operation; second, the need of many of the producers, and the consequent necessity for pressing the oil upon the market at any figure; and lastly, the want of tankage. It has always been deemed unsafe to store crude oil in wooden tanks, and the lesson of Sunday last will not be forgotten. The only safe method of storage is by underground tankage, sunk in the clay; there are dozens of these now in use at the oil regions, ranging in capacity from 1,200 to 4,000 barrels each. The cost for this description of storage is 35c. per barrel capacity, but with oil at 50c. it may readily be assumed that producers did not care to invest in tankage to the extent necessary to keep pace with the production—hence the rapid fall in price.

There is undoubtedly a good deal of crude still left in Petrolia, but it is not, as we have said, available. One lot of 30,000 barrels, held by the iron tank company, and purchased during the early spring, cannot be put on the market till oil reaches \$2.25 to \$2.50, without a loss to the company, and as they intend to hold for a higher figure, that may be considered as certainly out of the market. There is also

a considerable quantity of "heavy," "red," and "lubricating" oil in different lots, but which is utterly unfit for the refiners, and is now quite unsaleable on account of its low gravity. Deducting these lots, there is but little good oil left, certainly not so much as at this period in 1866.

Another element in the business, and which bids fair to entirely alter the market, is the presence of American and Canadian speculators at the oil wells, who are about entering into tanking operations on a large scale. Attracted by the low price of crude, several gentlemen are prepared to invest considerable sums in storing the oil. One gentleman named Judge Higgins, of Chicago, is about investing \$100,000 in the business: Messrs. Duffield, of London, are also about operating on a large scale; Mr. Base, of Hamilton, is another investor, besides others that could be named. The plan these gentlemen intend to adopt is to construct this underground tankage and store the crude, if necessary, for one or two years, till \$3 or \$4 is reached. The utter failure of the Oil Springs territory (first discovered in 1862), and the subsequent collapse of the famed Bothwell district, and the knowledge that vast tracts of land at Petrolia itself are equally "played out" as the phrase is, points to a day when the present large wells will likewise succumb. In 1862 oil was to be had for ten cents a barrel, from the flowing wells at Oil Springs, and in three years after, in 1865, it ran up to \$10 per barrel! Last October it stood at \$4, and as soon as the present oil territory is drained, up must go the price again. It is merely a question of time. The refiners then, who, up to the present, have had a monopoly of the market, and could "bull" or "bear" it as they pleased, will now have to compete with capitalists who will outbid them with the producers for the sake of storing it to a future day.

One thing is certain, "bottom" has been reached with crude and refined, and the upward tendency of the market must be apparent to all. In the States an extraordinary rise has taken place, crude advancing from \$1.50 to \$3.50 and \$3.75 at the wells, and refined from 20c. to 30c. and 33c. at New York. Indeed, the large advance on the other side would suggest to our Canadian merchants the advisability of venturing on a cargo or two of refined for the Liverpool market, seeing that the margin is so largely in our favour. We look with confidence, then, to an immediate and continuous advance in both descriptions of oil, the raw and the manufactured article. The time may now be said to have arrived when both producers and refiners will reap a more adequate reward for their capital invested than has, since last fall, been their lot.—*Free Press.*

Mines.

MINING IN LANARK.—A writer from Perth states that there is a steady progress in developing the rich mineral deposits of that section, particularly in the county of Lanark, and in the vicinity of Perth. Mica, apatite and iron ore, are produced in considerable quantities for market, and are beginning to pay well; they are likely to continue profitable for a long time to come. Mr. W. T. Brunton is producing a regular supply of mica at the rate of about 250 lbs. per week. It is cut into various sizes of from 2x4 inches to 8x10 inches. The smaller sizes being from \$1 to \$2.50 per lb., and some of the largest sizes bring as high as \$6 per lb. It finds a ready sale in Troy, Albany and other cities of the States, where it is used chiefly in connection with the manufacture of stoves. Mr. Brunton informs me that there is no difficulty in marketing all he can produce, and that the mine where he obtains it is practically inexhaustible. It has been recently found that the waste mica, when ground to a fine powder, is nearly or quite equal to lead, for purposes of anti-friction in machinery; also, that this mica powder serves an admirable purpose for facings for foundries in their fine castings. In these two ways there may be utilized a large amount of waste material, at a good profit. Mr. Brunton has also (in connection with Mr. Mitchell, who has for some years given attention to the mineral deposits here) discovered and purchased a deposit of iron ore of exceeding richness. It is situated about six miles from the Rideau Canal. The deposit forms a small mountain of many acres in extent, where thousands of tons of ore can be taken from the surface. The ore contains about 80 per cent. of pure iron—herewith I furnish you a small specimen for inspection. The apatite—or mineral phosphate—quarry of Mr. Thos. Aspden is now being actively worked. Already Mr. Aspden has shipped about 500 tons. It goes by railway to