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NEW-YORK, WEDNESDAY, JULY 1, 1863.

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PETROLEUM ITEMS.

PETROLEUM FOR AFRICA—A house in Toronto, C. W., have just filled an order for two thousand gallons of oil for the colony of Natal.

DESTRUCTION OF PETROLEUM BY FIRE AT MONTREAL.—A destructive fire occurred at Montreal, C. E., on June 2d, by which a large amount of property was destroyed. The conflagration originated in the oil-sheds of the Grand Trunk, at the upper end of the Canal Basin. In these sheds were stored between 2,000 and 3,000 barrels of petroleum, and a number of men were at work there at the time, when the flames suddenly appeared, and in a few minutes were breaking through the roof. The fire is supposed to have originated from the flame of a candle. The workmen were compelled to leave their clothes, and escape by taking to the water and floating on pieces of timber. The Montreal witness says:

"The oil escaped from the barrels and, as they burst, vast jets of flame shot upward, only to be enveloped the next instant in a cloud of the densest smoke. The sight soon became terribly grand. The oil spread over the wharf and upon the water, burning wherever it ran, and igniting a large pile of lumber belonging to M. K. Dickson, forwarder, and soon seizing upon several hundred tons of coal, the property of Mr. Copland.

"Meantime, the steamer *Alexis* and three barges were lying moored at the wharf, and one of the latter was got off, but the others, including the steamer, were laid hold of by the devouring element. They not length drifted away, and the steamer—an old one, belonging to Mr. M. K. Dickinson, out of which the engines had been taken—burned to the water's edge; the two barges reached the neighborhood of Mr. Gould's City Mills, where the firemen played upon them, and at length extinguished the flames after their decks and other portions were destroyed. All this time the wind was blowing very strong, and a slight change in its direction might have been fatal either to these mills, as well as to the oil-mills of Messrs. Lyman & Clare, or to the sheds and craft in the opposite quarter. Masses of burning timber were floating downwards, but these were extinguished, or else guided by parties in boats so as to do no damage, whilst several barges removed to a higher situation. A Grand Trunk car, laden with barrels of petroleum, which had been standing near the shed, waiting to be discharged, had been burned, and the sleepers of the railway-track laid down to this place, as also a quantity of material belonging to the Grand Trunk, were now on fire, the flames being hindered from making rapid progress only by the superincumbent earth and the exertions of the firemen. But to the immediate right of the track might be said to be the core of the disaster. It was here where the oil-shed had stood, and where the flames, although diminished in height, were still raging with a sort of savage intensity, grovelling over the embers, and causing the water beneath and around them to simmer, and even boil, and the steam to ascend from the remotest part of the now tepid pool, whilst over all arose a noise compounded of a mingled hiss and roar, and amidst the fire appeared a heap of iron hoops, looking like a multitude of charred skeletons. But the material on which the burning element had fed was fast being exhausted, and by midnight all further danger seemed past. During the night the fire gradually fell, and the next day was merely smouldering. We may add that the coal mentioned was but little consumed, owing to the strenuous exertions of the firemen, also that the roof of Lyman & Clare's mills was slightly injured."

NEW PETROLEUM ENTERPRISE.—We understand that a company has been formed in the neighborhood of Sparta, with a capital of a thousand dollars, to prospect for coal-oil near New Salem, about seven miles east of this town. The indications of oil in that quarter, we understand, are quite strong, so much so that the best and most influential farmers have subscribed to the capital stock without hesitation. Tenders are asked for digging a well.—*St. Thomas Home Journal.*

PETROLEUM FOR LIGHTHOUSES.—The London *Observer* informs us that at a meeting of the Mersey Dock Board, held on Thursday, May 21, the proceedings included the following report from Lieut. Parks, R. N., the marine surveyor, on the letter of Mr. Prentiss, proposing the use of petroleum in lieu of coal and olive oil, at the lighthouses and lightships:

The marine surveyor having been ordered to report on the letter of Mr. Prentiss, proposing to use petroleum as a substitute for olive or coal oil for lighthouse purposes, has to inform the committee that the subject having been already mentioned, he had procured a sample, and requested the engineer to test it, together with the samples of olive and coal oil recently under consideration.

The result of that test was reported by the engineer on Tuesday last, and it appears that the oil burned for ten minutes, giving a good flame, when an explosion took place, blowing the lamp to atoms.

The lamp used was the ordinary lighthouse lamp as at present in use, and the disaster is partly to be attributed to the fact that the lamp in question was unsuited for the description of oil to which it was applied; this being the case, it becomes obvious that a change from olive or coal oil to petroleum, must involve the sacrifice of the lighting apparatus at present in use, and the purchase of lamps proper for the purpose.

The fact of an explosion having occurred, however, opens the question of risk arising from the use of the new substitute, as it is quite certain that no description of lamp in use could entail such a disaster by the combustion of coal or olive oil.

It is the nature of petroleum to volatilise at a very low temperature, setting free a highly inflammable gas; and the explosion which has taken place testifies to this fact. On purchasing the sample in question, the marine surveyor received an assurance that the burning of petroleum involved no danger—"that it was as safe as water." It was thought right to test the matter before sending the sample to the engineer, when a piece of lighted paper, dropped into a saucer of the oil, almost instantaneously involved the whole surface in a fierce flame; indeed, lamps constructed for the use of petroleum, are similar in principle to those used for spirits of wine, naphtha, &c., intended to act upon the property described, viz., that of volatilising at a low temperature.

In these lighthouses, where several lamps are used, the heat from the concentration of many flames, is very considerable; much greater than is requisite to set free the inflammable gas of petroleum. In the single lamp used at the Orin-head, to produce the required amount of light, the heat is so great that instances have occurred of the melting of the wick-holders. In either of these cases, therefore, the use of petroleum must involve constant risk of unexpected combustion; and in the lightships, where the motion of the vessels sometimes not only fills the bottom of the lanterns with oil, but the oil runs down on the decks, a piece of broken wick falling from a lamp by the motion of the vessel, in the nightly repeated process of trimming, would, in all probability, involve the burning of the ship.

Mr. Darbyshire moved the confirmation of the proceedings. He thought the report of the marine surveyor upon petroleum oil was conclusive—at all events, till some new lamps were discovered. With regard to the alterations in the light-houses, the engineer had found that such was the dilapidated state of the Lower Lighthouse, that it would be totally impossible to repair it, and that it was necessary to rebuild it entirely.

If the proposed change of site could be effected, they could go on without disturbing the present lights till the new building was finished.

Mr. Fernie seconded the motion, which was agreed to.

GAS CELEBRATION IN LONDON.

An English paper gives an account of a banquet given by the governor, deputy-governor, and directors of the Chartered Gas Company to the chairman, deputy-chairman, and secretaries of the Metropolitan Gas Companies to celebrate the first jubilee of the first gas company that was ever established. On the 31st of December, 1862, the Chartered Gas Company entered upon the fiftieth year of their incorporation, and during the half century they have been in existence they have had times of struggling to overcome great difficulties, as well as abundant success. The paper from which we quote says:

"The history of the Chartered Company and the history of gas-lighting are so closely associated that they are almost identical; for though Murdoch and Clegg had previously shown the practicability of the application of coal-gas to illumination, and Winsor had, for a few years, undauntedly contended to introduce what he termed his 'discovery,' the wild and fanciful schemes of the latter did not assume a practical form until they were embodied in the Chartered Company, which his assiduity and perseverance were the means of establishing. The governor, at the last half-yearly meeting, appropriately alluded to the difficulties and prejudices against which the company had to contend in the first years of their efforts to introduce so novel a mode of illumination, and to the want of success that for some time discouraged them; and, contrasting that period of loss and depression with the present flourishing condition of their affairs, he congratulated the shareholders that, notwithstanding the enormous cost of erecting works in the first instance, when every step in advance was experimental, the company had not only maintained their ground, but had been enabled to pay as large a dividend as any other gas company in the kingdom. It was not until six years after the Chartered Company were incorporated that the investment of capital in gas-works ceased to be regarded as a most hazardous speculation. After that time, more confidence was placed in such undertakings. The Chartered then considerably extended their works, and many provisional companies were founded; but it was only in 1824 that the Imperial Company first laid their mains in the extensive district they now occupy. In the same year the Phoenix Company was founded, having for their object to purchase a small gas-work belonging to private individuals in Southwark. From that period, the extension of gas companies has rapidly progressed; and, though occasionally checked by reverses, unexampled prosperity is now, with but few exceptions, the order of the day."

COCHINEAL SUPERSEDED BY ANILINE.—The *Scientific American* says that cochineal, which formerly commanded an enormous price, has been, to a great extent, superseded by aniline. This aniline is now worth eighty dollars a pound. We need hardly remind our readers that it is extracted from coal-tar, and that it is superior to cochineal from the fact that it gives, by different treatments, every shade of purple, from the deepest royal to the faintest lilac—every variety of blue, from the pale tint of blue sky to the deepest ultramarine, and all the gradations of scarlet and crimson.