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ON THE CARBURATION OF ILLUMINATING GAS BY PURIFIED PETROLEUM, AND ON THE MANUFACTURE OF GAS FROM THE CRUDE PETROLEUM OF CANADA AND THE U. S.

The importance of petroleum or rock oil, may be gathered from the following extract which we take from a circular by Mr. Alexander Macrae, oil and produce broker, of Liverpool, dated 16th December:—

"The introduction of petroleum, kerosine, photogene, or rock and well oil, is making tremendous strides, though it does not surpass the prediction in my first circular, namely, that it would be second only in extent to cotton. I will even go a step further, and venture to assert that if the rocks and wells of Pennsylvania, Canada, and other districts continue their exudation at the present rate of supply, the value of the trade in this oil may even equal American cotton. Montreal (internally, and likely externally by this time) is lit with the white refined, and I can see no reason why London and Liverpool should not also be, for the oil gas distilled from the raw petroleum is immensely superior and much more brilliant than our own coal gas. For years we have sent coals to America for gas works, and it will be a singular freak of events if she and Canada should now supply us with a better expedient. Invested interests will perhaps stay it for the moment, but will they ultimately?

"The refined for burning (known in this country as paraffin oil, and of which about 500 tuns a week are sold), has been selling at £30 to £40 per tun (of 252 gallons) for yellow to white, while the crude varies in value from £6 to £25, according to test. The merits of the petroleum will be better understood when importers are informed that beside the uses already named, lubricating oils of every colour and specific gravity can be obtained from it; wax also for the manufacture of paraffin candles, naptha, and consequently benzole (from which the fashionable dyes, magenta, rosenine, aniline, &c., are obtained), pitch, &c., &c., all of them having several other applications. It is reported on the very best authority, that they have discovered from it now, an available substitute for spirits of turpentine for paints, and also a solvent for india-rubber, results, I understand, that they have not effected in America or Canada, and the importance of which cannot be over estimated.

"In my first circular it was stated that some 7,000 barrels of crude and refined were on their way to this country, and the *Times* of the 13th instant, mentions 8,000 barrels on the way to London. There are 10,000 barrels coming to Liverpool, and 2,000 barrels to Glasgow, in all about 20,000 barrels (or £100,000 sterling, and the trade not six months old), a simple tithe of what we want! American hostilities and the ice in the St. Lawrence (although we have still St. John's, New Brunswick) may stop supplies to some extent, but I have no doubt the future will vindicate the expectations I have so frequently expressed."

The London *Engineer* of recent date, says, that—

"A prospectus has been issued inviting subscriptions for an increase of the capital of the Asphaltum Company to £200,000, or double its original amount. The business of the company, which is respectably constituted, is to work certain mines of asphaltum near Havana, for the distillation of oil, which commands a ready sale in England at apparently a very remunerative price. The outlay for the property in Havana has been £68,000, of which only £18,000 was in cash, the payment for the remainder being in shares, which are not to rank for dividend until ordinary holders have received 5 per cent. The purchase included a concession from the Spanish Government of the exclusive privilege of making oil from asphaltum in Cuba and Porto Rico for fifteen years, and as the annual consumption of oil in Cuba is estimated at £250,000, this is considered valuable. The directors, engineer, and manager of the company are to be remunerated by a per centage on the profits."

The exportation of rock oil from Canada will probably affect the interests of this Company. As soon as easy and cheap communication with the petroleum springs of Enniskillen is effected the attention of English capitalists will no doubt be directed to the abundant supply of this material which exists in Canada. If the Gaspé springs yield freely great advantages will accrue to that part of the province in consequence of its proximity to the seaboard.

One of the most recent and important applications of Petroleum is the carburation of gas, by its introduction into common coal gas, as ordinarily supplied to consumers. Subjoined is a brief description, from the *American Gas-light Journal*, of 'Gwynne's Gas Carbonizer.'

A hollow globe, A, is introduced into the gas pipe before the burner. This globe is partly filled with naphtha, benzole, or other suitable liquid hydrocarbon, and the illuminating gas is brought into it at the top through the pipe B. The gas passes down through the hollow wick, C, into the liquid, and rising charged with vapour, passes out through the pipe, D, to the burner. The lower end