

ceary indiscretion. It is usually run into a separate tank. After the naphtha has passed over, the oil used for illumination distills off. Steam is now forced into the retort and the heavy lubricating oil driven over. There now remains a black, oily, tarry matter, sometimes used to grease heavy machinery, and a black coke, employed as fuel. There are, therefore, five substances separated in this operation, but only the first three are of any economic importance.

The naphtha is used as a substitute for turpentine in paints, or by repeated distillations the benzole is separated from it and employed to remove spots from fabrics. This, however, is rather a drug in the hands of the refiner.

The burning oil, as it comes from the retort, is of a yellow colour, and in order to remove this, it is placed in a large lead lined cistern, and agitated with about ten per cent. of sulphuric acid. After the acid and impurities have subsided the oil is drawn off into another tank and agitated with four per cent. of soda lye. This last operation is to remove any acid remaining with the oil, and also to extract the residue of the colouring matter. In fact it is sometimes employed alone and a very good oil obtained. The oil is now agitated with water to remove the soda lye, and is then ready for consumption. The colourless oil is by no means the most economical, but on the contrary more light is obtained from the yellow article.

The heavy oil is cooled down to 30 degrees Fah. when the paraffine crystallizes out, and is separated from the oil by pressing. It is further purified by another pressing and by alternate agitation, in a melted state, with sulphuric acid and soda lye. It is then moulded into candles. It is a curious fact that the composition of paraffine and good coal gas is exactly the same.

In Egypt a substance derived from petroleum was used in embalming bodies; and in Persia and the neighbouring countries asphaltum is used to cover the roofs of the houses and to coat the boats. In France asphaltic pavements have been successful in several cities, and for the protection of stone no material is better adapted. Mixed with grease the Trinidad asphaltum is applied to the sides of vessels, to prevent the borings of the teredo, and with quicklime it affords an excellent disinfectant. Among the products of the distillation of petroleum are naphthalene and kerosene. The former is the substance from which is obtained aniline, the base of the beautiful colours mauve, magenta, and solferino. The latter has been proposed as a substitute for chloroform and ether. Many other substances have been separated, but as yet none of them have been applied. As this is comparatively a new field many discoveries may be confidently expected in the course of a few years.—*Scientific American*.

Great Oil Spring.

The somewhat celebrated Mr. Shaw of Springs village, is not destined to share the honour and profits of that remarkable locality. Yesterday, Tuesday, the 18th, another person, Mr. Bradley by name, has been boring at a spot situated about two hundred yards distant from Mr. Shaw's spring having reached to about an equal depth in rock as he attained, was rewarded for his exertions by an up-flow of oil to an extent of gallons per minute. There being no means of saving it, it has overflowed the land, as was the case with Shaw's spring, when it first flowed, and a pitiable waste is going on. Black oil has become literally a sewer for oil, and waters are covered over to a depth of three inches with the dark green fluid wastes from the surrounding wells and springs. The last success of Mr. Bradley was quite known to the men in the district, each of whom left his well and proceeded to witness the wonder. They saw in astonishment, and arrived at their respective lots, each determined to bore deeper and deeper until the source of supply should be tapped, and each possessed his own right not an oil well merely, but a table oil spring, which should bubble up spontaneously to the surface.

The fact is, the whole district is impregnated with oil. The soil is made viscid by a piece of earth adheres to your boot, and becomes at once odoriferous and offensive. It is everywhere. One tastes it in the beer, even whiskey fails to kill it out. The oil is detected in the bread. You eat butter, you taste oil. You smell it and taste it in the air, and hold your nose to lessen its unpleasant influence upon the olfactory. You go to bed, but the sheets are oily. You open a door, your hand which has touched the handle catches the contagion. You proceed to wash, and find a film of oil upon the water, and as you wipe your face, the skin is imbued by a greasy deposit from the towel. Oildom is its sway, and Oil is King?

But the means of transporting the immense supply of oil is altogether inadequate to the necessity of the case. Lumbering barrels \$2 each are behind the age, even if they were to be had in sufficient numbers, and it is unwise, therefore, that some new mode of conveying away the precious unctuous flow should be adopted. The plan now proposed is, to run down a five inch iron pipe to Sarnia, and the oil to flow into a common reservoir, and from thence to be filled into iron pipes and so conveyed to the seaboard. No new tools or implements once used in this traffic are available for other purposes, as the odour of the oil is so pungent and persistent, that it enters itself into every cranny of a ship in which