

higher. The yield, however, is so much less than in computing total values the average quotations of Petrolea crude are taken. On this basis, the price of crude last year was 4.209 cents per gallon for the entire yield of 33,351,997 gallons. The lowest price received for crude in the last five years was ninety-two cents per barrel, paid in January, 1894; the highest was \$1.70, paid in December last; the average price, \$1.47 1-3.

Last year, the total number of wells in the Petrolea district was 6,787, and in the Oil Springs field 3,176, making a total of 9,963. There has been vigorous developments in various fields since Mr. Blue's report was compiled. Wells have been put down in Plympton township, in Bothwell, and on Pelee Island, and many new wells have been drilled in the original oil field, so that to-day there are considerably over 10,000 wells in this oil field. The contract price for drilling a well in the Petrolea field is about \$110, the oil being usually reached at 460 to 465 feet. Forty sets of tools were running last year in the territory, much greater activity being shown since the price of crude went up. One rig, working in day time only, will complete a well in two weeks, and the average number of wells drilled is about eighty per month. About 100 wells are abandoned every year, but this is owing to local obstructions and not to failure of oil, it being found cheaper to drill a new well than to clean out an old one. In the early days of the industry many wells were abandoned which now would be regarded as first-class yielders; and as none of these wells were plugged the gas was allowed to escape freely, the result of which has been, in the opinion of some careful observers, a reduction of pressure upon the oil held in the rock

and a consequent falling off in the daily production. New wells will average one to one and half barrels for a month or six weeks, when they gradually fall off to the rate of eight or ten barrels per month. But there are, Mr. Blue points out, exceptions. In July, 1873, Mr. W. K. Gibson drilled a well upon a five-acre lot on Durham Creek, lot 14, con. 10, Enniskillen, which for a long time pumped forty to fifty barrels per day, and after a period of two years he was shipping from it 900 barrels per month. In 1890, when Mr. Gibson sold the property, this well was producing 105 barrels per month, and he states that the present yield is seventy-five barrels per month. The Barnes wells, which occupy forty-eight acres of lot 9, con 14, Enniskillen, were bored in June, 1893, and began with a yield of seventy-five barrels per day. In May, 1895, the property was purchased by Mr. John Fraser, and he informed the director of mines that the yield of the two wells is now 550 barrels per month. It is Mr. Englehart's belief that if wells were bored down to reach the Trenton formation oil would be struck to rival that of the Ohio fields. In 1881 his company sunk one well to a depth of 1,505 feet, but abandoned the work before reaching the Trenton. Salt was stuck at 1,087 feet, and the drill went through three or four beds until at 1,380 or 1,390 feet it reached one of pure solid salt, continuous to 1,505 feet, without getting through it. Ten years ago it was the custom to hold in stock about 500,000 barrels of crude, for which purpose underground tanks were constructed sixty feet deep and 300 feet in diameter, sunk in an impervious blue clay and lined with a wooden curb. Now the stocks are very light, not exceeding 50,000 barrels.

Improvements have recently been made in lubricants. By filtering through charcoal, the refiners produce a grade of oil which is required for dynamo machines and other fine purposes. It has been demonstrated by tests at the Imperial Oil Works that Canadian oils thoroughly desulphurized give better light and burn longer than the best American. Mr. Jenkins, a leading Petrolia oil man, indeed, claims that one gallon of Canadian oil will last as long as one-and-a-third gallons of American. What is needed to produce the best result in lighting with our oil is a lamp which gives a good supply of oxygen, and thus increases combustion. The class of lamps that suits United States oil will not prove effective with Canadian oil.

The Imperial works now use from 50,000 to 60,000 barrels a year. Formerly these were made chiefly of oak, but as this timber is now growing scarce, elm is used in its stead and is made oil-tight by giving it a double coating of glue. A smaller percentage of empties comes back now than was the case in past years, as many are being used as packing cases for the nickel and copper matte shipped from the smelting works at Sudbury. The National Company is adopting steel barrels for shipping its products. It produces oil for use in the manufacture of binder twine, which must be free from all acids, must not evaporate under 250 degrees Fahrenheit, and is required to contain 50 per cent pure paraffine wax. Mr. Fairbank, M.P., a leading refiner, owns the greatest number of wells of any one producer. He controls 300, but there are hundreds of individual owners of wells, all interested in finding a market for their products.

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