THE PETROLEUM REGION—THE ROCK OIL BUSINESS—THE EXTENT AND SOURCES OF SUPPLY.

If El Dorado was a myth of the olden time *Oil* Dorado is a shining reality of the present. Under the names of Seneca and Indian oil petrolium had long been known and used in various sections of our country as a medicinal liquid. It was obtained in very small quantities from natural springs, and attracted very little attention until about three years ago, when it began to acquire distinction as an illuminating agent. When oil, obtained from the distillation of coal, had come into very general use, and had superseded fish oil as a burning fluid, its peculiar odor led to the suggestion that the natural oil obtained from some wells in Western Pennsylvania was a similar product, and it was believed that if it could only be obtained in large quantities it would prove to be the cheapest burning fluid for giving light in the world. These anticipations have been realized in a wonderful manner—the boring of a well at Titusville, on Oil Creek, in 1859, solved the question. At quite a moderate depth petroleum was found in great quantities, and this being noised abroad it caused much excitement, and soon led to the boring of other wells in the vicinity, with like results. An "oil fever" affected the community; many sections of the original farms in the region were purchased at high prices by speculators, and the creek bottom was staked out like California claims into patches of a few rods square, for the purpose of boring for oil, and, within the short space of three years, this quiet and sparsely-settled region has become studded with new villages, and supplied with a large population. Although Oil Creek valley seems to be the center of the oil business, petrolium is found throughout a wide extent of country on both banks of the Alleghany, and on many of the creeks which are feeders of this river. Numerous oil wells have been sunk in Tidioute Creek valley and other places, but we intend to describe more particularly the valley of Oil Creek, for although much has been penned and published respecting it, neither printers nor preachers have exhausted its peculiarities.

The petroleum oil trade has become gigantic in its proportions. An idea of it may be obtained from the late annual report of the Philadelphia and Erie Railroad, in which it is stated that in 1859 it carried only 325 barrels; in 1860, 21,794, and last year no less than 134,927 barrels. This railroad carries the oil to Erie, Pennsylvania, from whence it is transmitted to the East by the New York and Erie Railroad. The Atlantic and Great Western Railroad also carries large quantities of the oil, and in summer flat boats come up the creek and take down heavy cargoes to the Alleghany river, thence to Pittsburgh. The product of this pretroleum region is estimated at 75,000 barrels per month. On one day, two weeks ago, there were no less than 120,000 barrels on the surface of the ground on Oil Creek, as we have been assured by one who was on the spot at the time for the very purpose of obtaining accurate information. The yield of these oil wells is so bountiful that the crude petroleum can now be purchased at them for a few cents per barrel. It is so abundant and cheap that the pumping wells are suspended for the present, as it will not pay to incur the expense of using a steam engine for drawing up the oily fluid, hence only the "flowing wells"—those which throw up their petroleum—are in operation. The greatest expense in winter connected with the transit of the petroleum is the hauling of it to the railroad station by teams. The region is very rough and hilly, and the roads bad, hence the expense of teaming is necessarily high for drawing it from twenty to thirty miles to the nearest railroad stations. No less than 3,000 teams are now employed in the Oil Creek region, and yet they are incapable of taking it away as fast as the wells deliver it, therefore vast quantities are suffered to flow into the creek. Never before have men been supplied with such a cheap fluid for producing artificial light, as the refined article in large quantities of several barrels is but 37½ cents per gallon in New York, and only 40 cents per single barrel.

This oil district is peculiar in many respects. The far-famed Oil Creek, ordinarily, is a stream of about 100 feet wide and 3 feet deep. It flows for seventeen miles in a southerly direction from Titusville to Oil City, when it falls into the Alleghany river. It resembles a huge eel, wriggling through a narrow valley, about half a mile wide, with hills rising from 70 to 100 feet high on each side, forming banks. The oil wells are bored in the level meadows or bottoms forming the dry links on each side of the creek, and they extend through the whole valley. The pumping wells have been bored to a moderate depth; the flowing wells are bored from 350 to over 500 feet in depth. Oil City, McClintockville, Rouseville and Titusville are important oil villages, situated in the valley. The flowing wells vary in their productions from fifty up to five hundred barrels per day. As stated in the Titusville *Gazette*, of the 20th ult., the latter quantity is now flowing from a well recently opened, the amount in gallons being no less than 20,000 per diem. There is no evidence of the supply becoming exhausted, as the oldest flowing wells, yield as abundantly to-day as when first opened, and, excepting in a single instance, the flow of none has been affected by new wells, sunk within a short distance. A classical taste seems to pervade the neighborhood. This has been exhibited in the names given to the wells, such as the Buckeye, the Funk, the Eupion well, &c. The boring of these wells is mostly executed with steam power, but the oil is not reached at a uniform depth, although it is generally obtained in the same sandstone strata. It seems to be contained in rocky channels and chambers.

As the drilling of a well proceeds downward the bore is tubed, and when the oil is "struck" a goose-neck pipe is secured to the top joint, and delivers the oil into a tank. A great quantity of gas, under a high pressure, is contained in the subterranean oil chambers, as the oil when first tapped in a flowing well spouts up in a greenish-colored column from two to four inches thick, according to the bore, and to a hight of 100 feet above the surface. The sight is deeply interesting, and it attracts crowds of visitors from all neighboring parts. The liberated gas suddenly expands and saturates the whole atmosphere for a great distance around. Every fire in the vicinity has to be extinguished, and not a cigar allowed to be puffed, under the penalty of an explosion. The petroleum, although coming up from such a depth, is piercing cold, and in this respect it differs from the waters of most artesian wells, which are generally quite warm.

The virtues of petroleum are not confined to giving light. Besides being used for lubricating machinery, and some other purposes, the people in the oil regions value it highly as a panacea for almost all the ills with which human flesh is afflicted. It is applied with gentle rubbing to parts of the body affected with rheumatic pains, and it is said to make them fly as darkness disappears before its light. For coughs and lung diseases it is held to be equally efficacious. An acquaintance of ours, while on a visit recently to the oily regions, was treated to an interesting medicinal scene. A workman at one of the wells having been afflicted with a pain in his chest, lifted half a tumbler full of the crude stingo, said, "Now you see it and (down his throat it went) now you don't see it." It appeared to be a penetrating dose. "There is no accounting for tastes." What signifies the difference between Eupion oil and Epsom salts.

It will readily be appreciated how the *coal-oil* business has been extinguished by the petroleum oil wells, as about fifty gallons of crude oil was obtained from a tun of good cannel coal, costing from two dollars per tun at the mines to twelve and sixteen dollars in New York and other Eastern cities, whereas one well now delivers daily 20,000 gallons, equal to the product of 400 tuns of coal, and all this without the expense for coal or first distillation. The many coal works which were fitted up at great expense in various places, have been converted into petroleum refineries—the only way to save them from extinction. No coal oil manufactories can stand in competition with American petroleum wells, hence an encouraging export trade of the article to Europe has commenced, and if carefully conducted it may result in much benefit to our people. To secure such objects, greater railroad facilities for carrying the oil are required; and we are pleased to learn that branch lines are contemplated to tap the oil valleys, and thus obviate the great expense now entailed in drawing it by horses to the distanct stations. The carrying capacity of the Philadelphia and the Erie Railroad is only 1,000 barrels per day at present.

Comparative Value of Gold and Silver.

Ex-Gov. Pollock, Director of the Mint in Philadelphia, has published a circular giving the regulations of the Mint in relation to the purchase of silver bullion for coinage, the receipt of copper coins of the United States (O. S.) in exchange for cents of the new issue, and the exchange of new cents for the gold and silver coins of the United States:—

The Mint price of silver, heretofore 121 cents, is now raised to 122½ cents per ounce of standard fineness. The silver offered for purchase will be weighed, melted and assayed as usual, and the standard weight determined therefrom in ounces troy to the one-hundredth part of an ounce. The receipt given at the weighing must be presented by the seller or his order. This direction will apply to the Mint at Philadelphia and the Assay Office at New York. The silver purchased for coinage will be paid for in the silver coins of the United States of less denominations than the dollar.

For the information of the public it may be stated that according to the above rate of purchase, the yield of various classes of coin or bullion will be about as follows:—

Five-franc pieces	98.0 cents each.
Mexican and South American dollars	106.3 cents each.
Old Spanish dollars	105.1 cents each.
Revolutionary or "hammered" dollars, (often mistaken for the true Spanish dollar,)	101.2 cents each.
Half-dollar of the United States coined before 1837	52.2 cents each.
The same since 1837 to the last change of standard in 1853	52.5 cents each.
Spanish quarters	23.5 cents each.
Spanish eighths	10.9 cents each.
Spanish sixteenths	5.0 cents each.
Mexican quarters	25.3 cents each.

Quarter dollars are proportionately less productive of premium, while dimes and half dimes, coined before 1837, have lost rather more by wear, on an average, than the premium would make up; those coined since 1835 to 1853 will average a premium of five per cent on their nominal value.

German crowns	112.6 cents each.
Swedish, Danish and Norwegian crowns	111.4 cents each.
Old French crowns	113.9 cents each.
German florins	41.8 cents each.
Prussian and Hanoverian thalers	71.9 cents each.

Fine silver 136 1-6th cents per ounce.

American plate, usual manufacture, 120 to 122 cents per ounce.

Genuine British plate, 125.8 cents per ounce.

The old copper cents of the United States are received at their nominal values, in even sums of five dollars and upward, and cents of new issue given in exchange therefor; but no fractional part of that amount will be taken.

Cents of the new issue will be given in exchange for any of the gold or silver coin of the United States.

The reasonable expenses of transportation of the new cents, in sums of twenty dollars and upward, to any point accessible by railroad and steamboat, will be paid by the Mint.

Sorghum Sugar.

The *Prairie Farmer* says upon this subject:—"Mr. Bender, of the Chicago Refinery, informs us that he has lately completed an analysis of a quantity of the refined sorghum sirup, and finds it to contain 32 per cent of cane or crystallizable sugar, 20 per cent of grape sugar, 22 per cent of gummy, saline and other matters, and 26 per cent of water. The large amount of grape sugar not crystallizable would render the manufacture of this quality of sirup into sugar altogether unprofitable."

Other parties differ widely in opinion from Mr. Bender. In a letter to the Philadelphia *Post*, Mr. F. L. Stewart, of Chambersburg, Pa., asserts that cane sugar can be made profitably from the sorghum. He says:—"Planted in rows four feet apart and at the rate of two stalks to each foot in the row, the yield, when ripe, of crystallizable sugar will vary from 1,200 to 1,800 pounds to the acre, and from 75 to 150 gallons of molasses. It will be apparent to every one who studies the nature of the plant and its climate adaptations that we are to look for its best development in the great interior valleys of the continent where its sub-tropical relative, the maize, is most at home. Climate points to the great valleys of the Ohio and the Missouri as the future seat of this new department of industry. The soil is rich, pulverulent, silicious marl which covers the broad and beautiful bluff highlands abounding along the latter stream, and the dry, sandy or gravelly terraces along the former. The alluvial bottoms and wet prairies are unsuitable."

CAST-IRON NAILS.—Cast-iron nails are now extensively used, and are found to rust much less rapidly, under the influence of the atmosphere, than ordinary nails, or even those made of copper. They are used in making roofs for manufactories which produce gases that corrode common wrought iron. The nails, after being cast from very hot metal, in sand molds, are made malleable by being exposed to a red heat for 72 hours in retorts, containing pulverized oxide of iron and sand, and then allowed to cool slowly.

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