

UNITED STATES PATENT OFFICE.

JOHN JOHNSON, OF SACO, MAINE.

IMPROVEMENT IN COLLECTING THE LIGHT OILS FROM OIL-WELLS.

Specification forming part of Letters Patent No. **54,917**, dated May 22, 1866; antedated May 10, 1866.

To all whom it may concern:

Be it known that I, JOHN JOHNSON, of Saco, in the county of York and State of Maine, have invented the Gathering the Light Condensable Bodies from Oil-Wells, &c.; and I do hereby declare that the following is a full description thereof.

The nature of my invention consists in rendering liquid the vapors which rise with petroleum or are forced up with petroleum from subterranean deposits, or from reservoirs from which it is desirable to remove the light benzine, naphtha, &c.

In order that my invention be fully comprehended, I set forth that I provide suitable holder, gasometer, or vaporometer, and properly locate the same over an oil-well. The bottom edge of the vaporometer is pierced with holes, corrugated or notched, and this edge of the holder is set sufficiently deep into a well, channel, or seal, so that gaseous matter cannot escape from beneath the holder and allow the liquid to flow when the holder is placed therein, and the well, channel, or seal be filled with oil, water and oil, as the case may be. This seal, channel, or well I make of any required depth—say one, two, three, or more feet in depth.

In the center or otherwise of the top of the holder or vaporometer I provide a stuffing-box and packing, so that the pump-rod of the well may work freely through it, yet be sufficiently tight to prevent the escape of vapor through it. At a suitable place in the channel or seal, near its top, I provide a spout for the discharge of the oil, oil and water, &c.

From near the top of the vaporometer I insert a suitable size tube, and connect therewith a proper rotatory blower or exhausting-fan or lift and force pump. The exit-pipe of either of these arrangements or machines I connect to a suitable condenser, from which I gather the

condensed liquid products into barrels or other suitable vessels ready for shipment when set in action, thus producing a merchantable article from oil-wells now allowed to go to waste or utilized as fuel.

In gathering this new merchantable light product it is understood I employ power to actuate the pump, and that the holder, although fixed, may readily be removed at pleasure when occasion requires its removal.

To remove the lighter vapors from oils or petroleum already gathered, or which may rise to the surface and be stored under a holder preparatory for shipment, with suitable blowing machinery I force into, under, and through-out petroleum air or gases of suitable temperature under a proper holder to take up and convey to a proper condenser the light benzine, naphtha, or condensable bodies, thus removing these products from crude oils contiguous to the oil-wells, and rendering leakage and waste less as a general principle when barreled after such treatment, the lighter materials being removed and securely barreled.

What I claim, and desire to secure by Letters Patent, is—

1. The separating and gathering at the wells a new article of commerce—viz., the light condensable vapors which rise with petroleum, and which may be pumped off under any suitable seal and condensed, substantially as herein set forth.

2. Volatilizing and condensing the condensable products from petroleum at the wells by forcing air or gases through petroleum as carriers of the light products, for the purpose herein set forth, substantially as specified.

JOHN JOHNSON.

Witnesses:

T. L. OLDEN,
CH. A. AUBY.