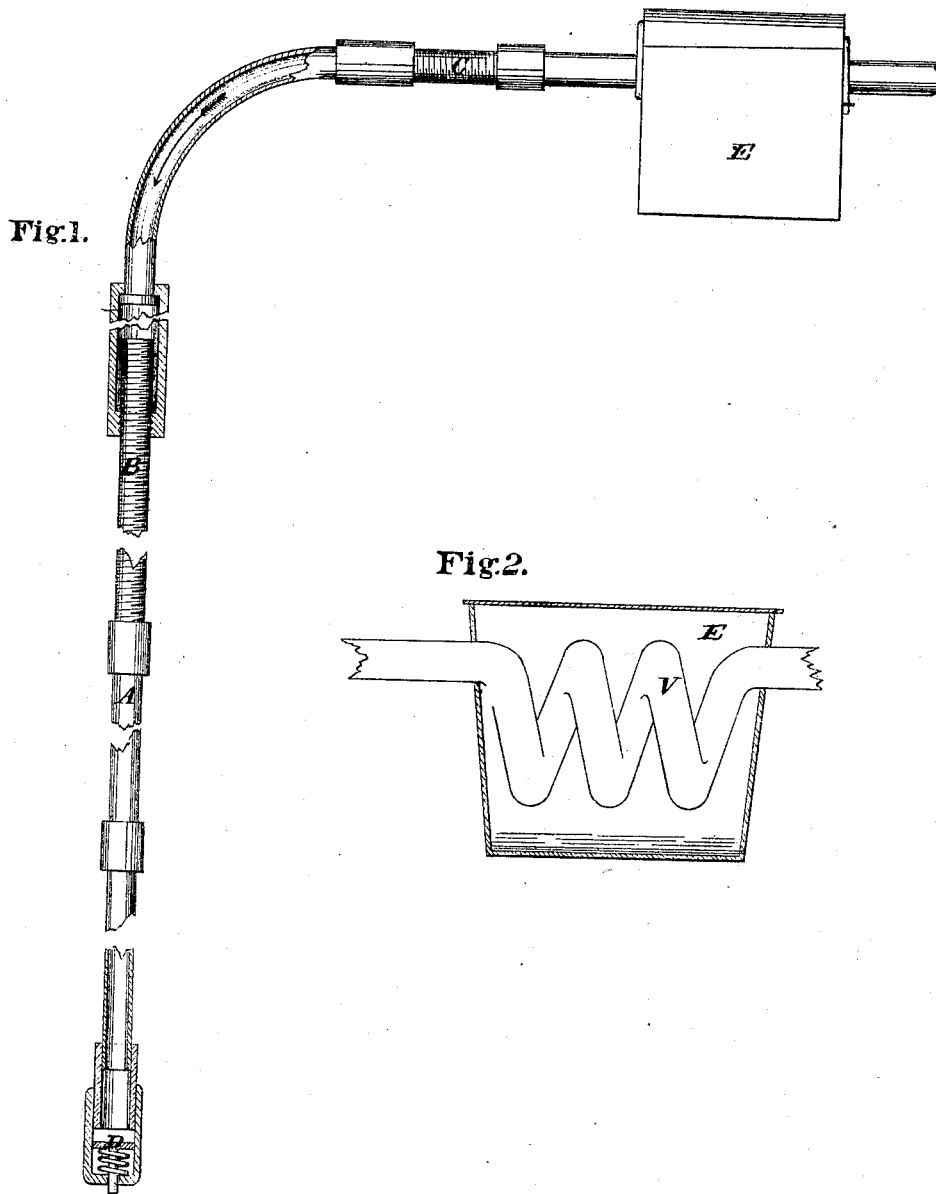


W. NEVINS.
Oil-Well Cleaner.

No. 112,069.

Patented Feb. 21, 1871.



Witnesses.
Villette Anderson
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WILLIAM NEVINS, OF TITUSVILLE, PENNSYLVANIA.

Letters Patent No. 112,069, dated February 21, 1871.

IMPROVEMENT IN APPARATUS FOR STEAMING OIL-WELLS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM NEVINS, of Titusville, in the county of Crawford and State of Pennsylvania, have invented a new and valuable Improvement in Means for Steaming Oil-Wells; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of my steaming-pipe and superheater.

Figure 2 is a vertical section of superheater, showing the coil.

My invention relates to means for steaming oil-wells, and consists in the construction and novel arrangement of devices designed to provide and convey superheated steam into an oil-well, emitting the same below the column of water, and in such a manner as to effectually search the crevices of the well.

The letter A of the drawing designates the steam-pipe, made in sections, which should be short toward the top of the pipe, to admit of their removal as the pipe is raised, and at short intervals.

B represents a tubular section, having a screw-thread turned upon its outer surface, and so arranged that its rotation will elevate the entire steam-pipe below it.

In order to render the connection secure between the screw and the first joint, the lower end of the screw has a reverse thread, by which it is secured in the thimble.

C designates a similar screw-pipe, arranged in the line of pipe which communicates with the superheating-vat, and designed to regulate the distance between the boiler and the well when the variation is but a few inches.

D represents a valve, arranged at the lower end of the lowermost section of pipe, and adapted to prevent an upward flow of water in the pipe, while it offers

an egress to the head of steam down the pipe whenever turned on.

E is the superheater—a vat adapted to contain an inch or so of oil, which, when set on fire, presents a convenient and effective means of superheating the steam as it passes through the coil, V, therein contained.

By the arrangement above described the superheated steam is conveyed downward through the column of water, which sometimes rises several hundred feet in the well, and is emitted below it, creating an upward current, which will tend to lessen the pressure of the column of water on the paraffine in the cracks and crevices, the removal of which and the consequent restoration of the flow of oil are the object of the steaming process. But, as the jets of steam are emitted through the apertures at each side of the valve-casing, and shoot out horizontally against the wall of the well, actuated by the rotation of the tubular screw above, these jets will sweep around the wall, and, the valve being at the same time slowly elevated, will search all the crevices in an effectual manner.

The pipe can be turned during the entire elevation, if necessary; but, in ordinary cases, it will be found sufficient if the screw is turned every few feet.

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

The sectional steam-pipe herein described, provided with a valve, D, at its lower end, and arranged to be rotated and elevated by means of a tubular screw, B, at its upper end, when constructed and operated in the manner and for the purposes specified.

In testimony that I claim the above I have hereto subscribed my name in the presence of two witnesses.

WM. NEVINS.

Witnesses:—

GURDON S. BERRY,
JOHN VANLIEU.