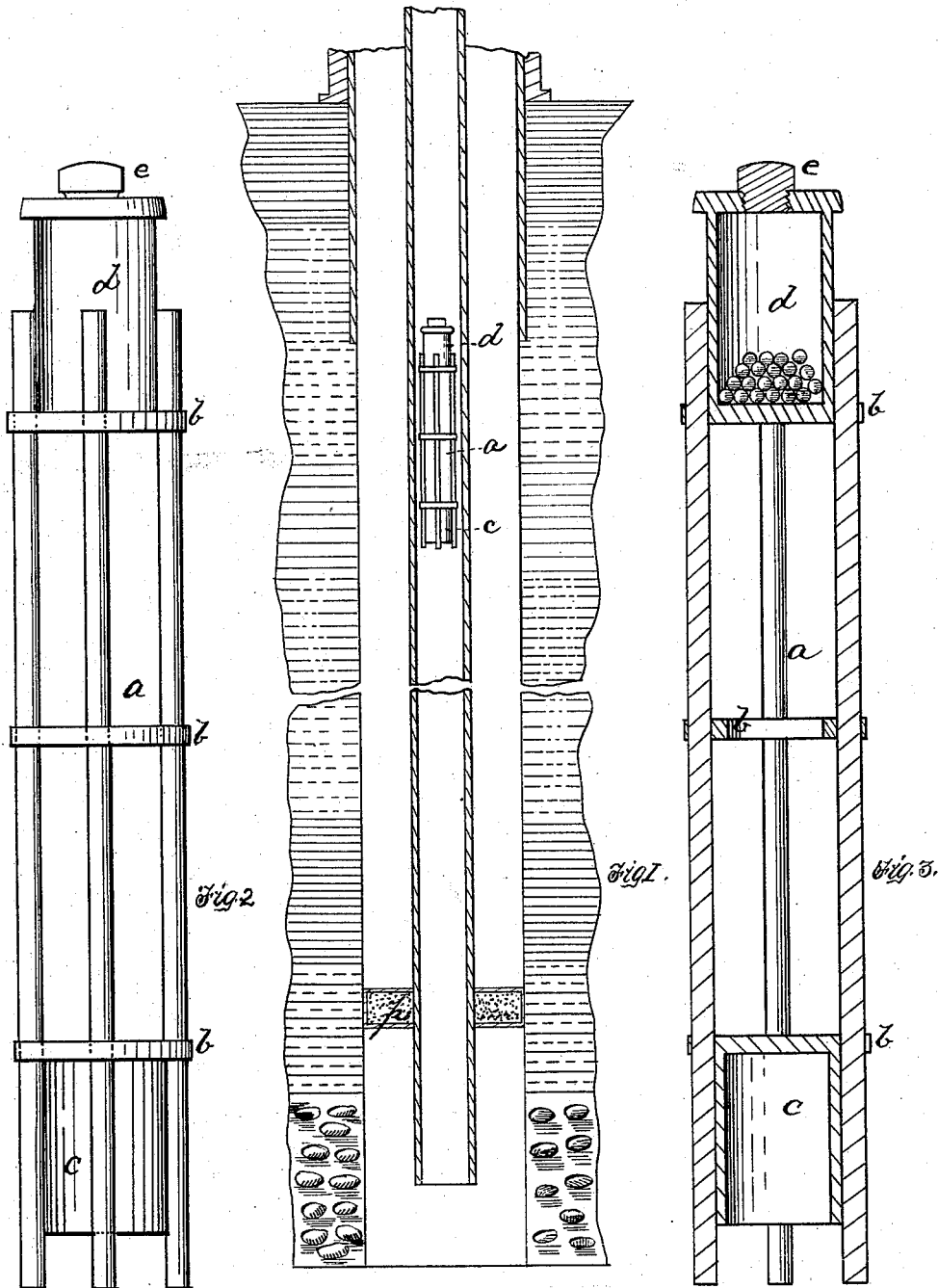


J. D. GLENN.

Device for Removing Paraffine from Oil-Wells.

No. 209,253.

Patented Oct. 22, 1878.



WITNESSES.

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UNITED STATES PATENT OFFICE.

JAMES D. GLENN, OF PLEASANTVILLE, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND EDWARD A. L. ROBERTS.

IMPROVEMENT IN DEVICES FOR REMOVING PARAFFINE FROM OIL-WELLS.

Specification forming part of Letters Patent No. **209,253**, dated October 22, 1878; application filed October 10, 1878.

To all whom it may concern:

Be it known that I, JAMES D. GLENN, of Pleasantville, in the county of Venango and State of Pennsylvania, have invented a new and useful Improvement in Devices for Automatically Removing Paraffine from Oil-Wells; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a view of an oil-well having my devices applied. Fig. 2 is a detached view of the devices. Fig. 3 is a longitudinal vertical section.

Like letters refer to like parts wherever they occur.

My invention relates to devices for automatically removing the paraffine, "B. S.," and like substances from tubes of flowing oil-wells; and consists in a device adapted to rise and fall within the tube as actuated by the gas, said device having a gas cup or disk for receiving the gas by which the device is operated, and such other general construction as will cause it to rub or scrape the tube.

Much trouble exists, especially in flowing wells, from the clogging of the tube by paraffine, "B. S.," and like substances, which are deposited from the oil, said deposit materially reducing the caliber of the well and interfering with the flow. Heretofore when this clogging of the well has taken place, which is likely to occur in every twenty-four or forty-eight hours, a scraper, usually a pipe with wire bristles attached, and having a suitable sinker, has been lowered in the pipe or tube to remove the paraffine. This only partially obviates the difficulty, as the paraffine being removed in quantity is not readily taken up by the oil.

The object, therefore, of my invention is to prevent the deposit, causing the paraffine to remain in solution with its own body of oil.

I will now describe my invention, so that others skilled in the art to which it appertains may apply the same.

In the drawings, *a* indicates a cage or series of rods, united by a ring or rings, *b*, and provided at one end with an inverted cup-disk or equivalent device, *c*, which is adapted to receive gas, which buoys up the device. The gas-cup *c* may be perforated, if desired, in order to enable it to discharge readily, and a chamber, *d*, or a plurality of rings may be used to weight the valve to the pressure of the gas.

When the chamber *d*, as shown, is employed, it is loaded by shot or equivalents, according to the pressure of the gas in the well, and should be closed by a plug or cap, *e*.

Instead of the cage shown, any network or device which is adapted to enter the tube and can rise and fall as actuated by the gas may be employed.

In use, the device is entered in the tube at any time, the cup *c* being entered first, so as to fill with gas, and the device being lifted by the pulsations of the gas scrapes the bore of the tube, removing the paraffine as fast as deposited, causing the same to remain in and be discharged with its own body of oil.

Having thus described the nature and operations of my invention, what I claim, and desire to secure by Letters Patent, is—

A device or devices adapted to enter the tube of an oil-well, and provided with a cup or equivalent means, whereby it will rise and fall as actuated by the pulsation of the gas, substantially as and for the purpose specified.

In testimony whereof I, the said JAMES D. GLENN, have hereunto set my hand.

JAMES DIXON GLENN.

Witnesses:

F. W. RITTER, Jr.,
JOHN O'NEILL.