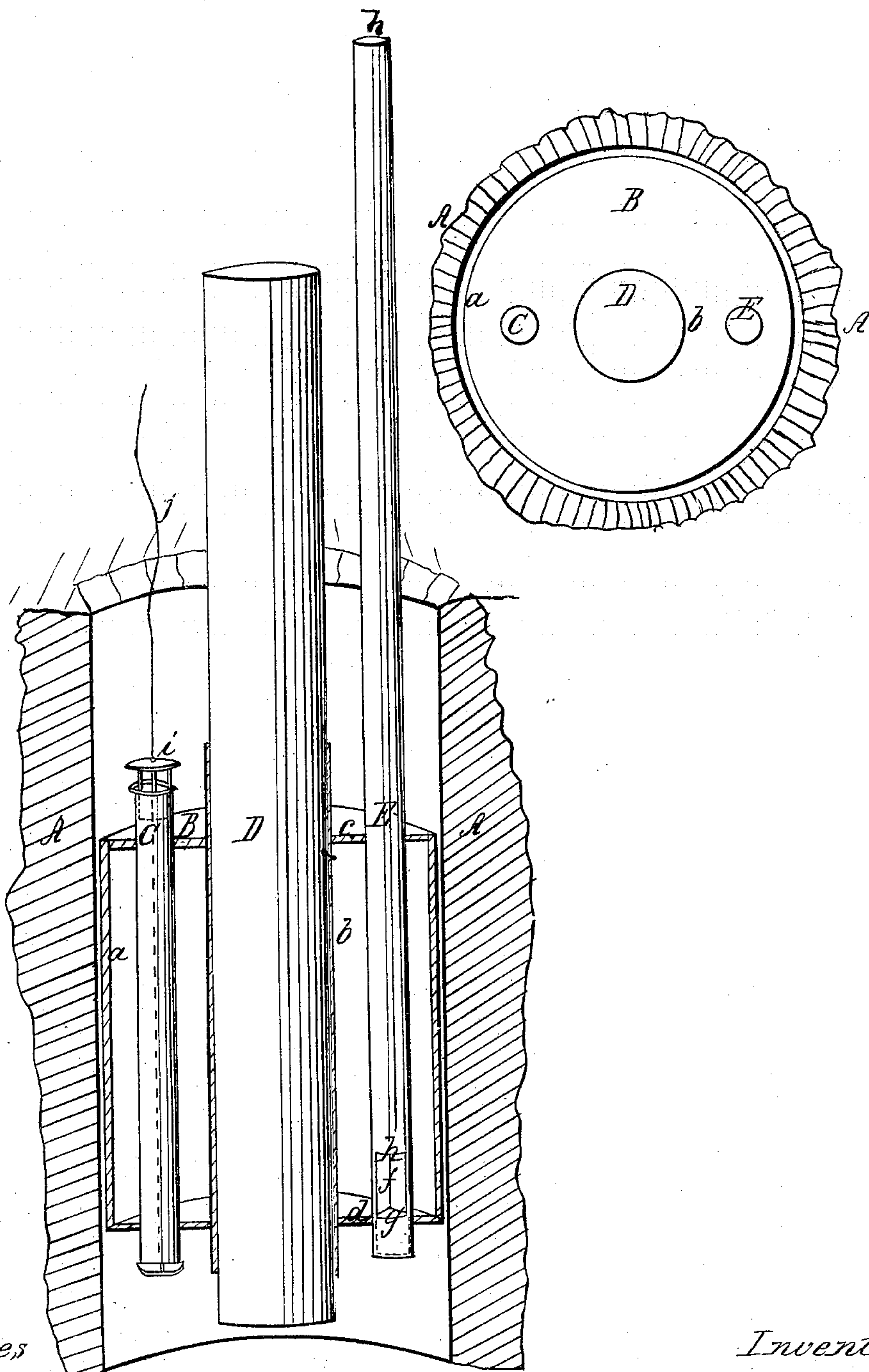


R. A. Wilder,
Well Packing.

N^o 50,194.

Patented Sep. 26, 1865.



Witnesses

Geo. S. Hoffman
J. M. Orell

Inventor

R. A. Wilder

UNITED STATES PATENT OFFICE.

R. A. WILDER, OF CRESSONA, PENNSYLVANIA.

IMPROVEMENT IN PACKING TUBES OF OIL-WELLS.

Specification forming part of Letters Patent No. 50,194, dated September 26, 1865.

To all whom it may concern:

Be it known that I, R. A. WILDER, of Cressona, in the county of Schuylkill and State of Pennsylvania, have invented a new and Improved Mode of Packing Oil-Wells; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in providing one or more flexible bags so constructed as to leave a water-tight compartment between the discharge-pipe and the walls of the well, into which water or its equivalent may be forced, by gravity or otherwise, to fill the said compartment and press the flexible sides of it against the walls of the well, and also against the discharge pipe or pipes, in such a manner as to prevent the passage of water or gases or oil past it, and also to let the water out of it again, so as to admit of its being raised or lowered in the well at pleasure without disturbing the discharge-pipe.

Figure 1 is a sectional elevation. Fig. 2 is an annular section.

A A are the walls of the well.

B is the flexible bag for packing the well.

D is the discharge-pipe of the well.

C is a pipe to convey water or air into the well.

E is a pipe to convey water or its equivalent into the flexible bag to press it out and fill the space of the well around the discharge-pipe, so as to prevent the water or gases from passing it.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my flexible bag B for packing oil-wells of leather or any other suitable material, of an annular form and any desirable length. It is generally made of four parts, but I do not confine myself to that number. The part *a* is annular and about the size of the well. The part *b* is also annular and about the size of the discharge-pipe, but loose enough to let it move freely up and down it. The parts *a* and *b* are firmly attached together at their

ends by the parts *c* and *d*, the whole forming a water-tight bag, which can be placed on the discharge-pipe and moved to any part of the well where it is desired to pack it.

The packing is effected by filling the flexible bag with water or its equivalent through the pipe E, which communicates with the top of the well for this purpose, and also serves as a means of raising it to the desired point, the bag being firmly attached to it. Near the bottom of this pipe, and within the bag, there is an opening to pass the water into the bag to press it out. Below this opening there is a valve, *g*, which when in place keeps the water in the bag, but when it is desired to move the bag the water must be let out of it, so as to loosen it. This is effected by raising the valve by the wire rod *h*, which is operated from the top of the well, to a point above the opening *f*, through which the water will flow from the bag. At the same time the valve closes the pipe above the opening, and prevents any more water descending into the bag. In this way it is loosened from the well and discharge-pipe D, and can be raised or lowered at pleasure and refilled to pack the well at a new point. In this manner every part of the well can be tested by the most rapid and efficient means, and thereby save the great expense, delay, and uncertainty of removing the discharge-pipe every time a new point is to be tested.

It is sometimes desirable to let a portion or all the water into the well to keep the pump working properly where the oil has to be pumped out. I do this by means of the pipe C, by raising the valve *i* with the rod *j*, operated from the top of the well. This rod also assists in raising the bag B when necessary to do so.

I claim—

In combination with the flexible bag B, the pipes C and E, with the valves *i* and *g*, and wire rods *j* and *h*, for the purposes specified.

R. A. WILDER.

Witnesses:

SAMUEL CHRISMAN,
JNO. SILLYMAN.