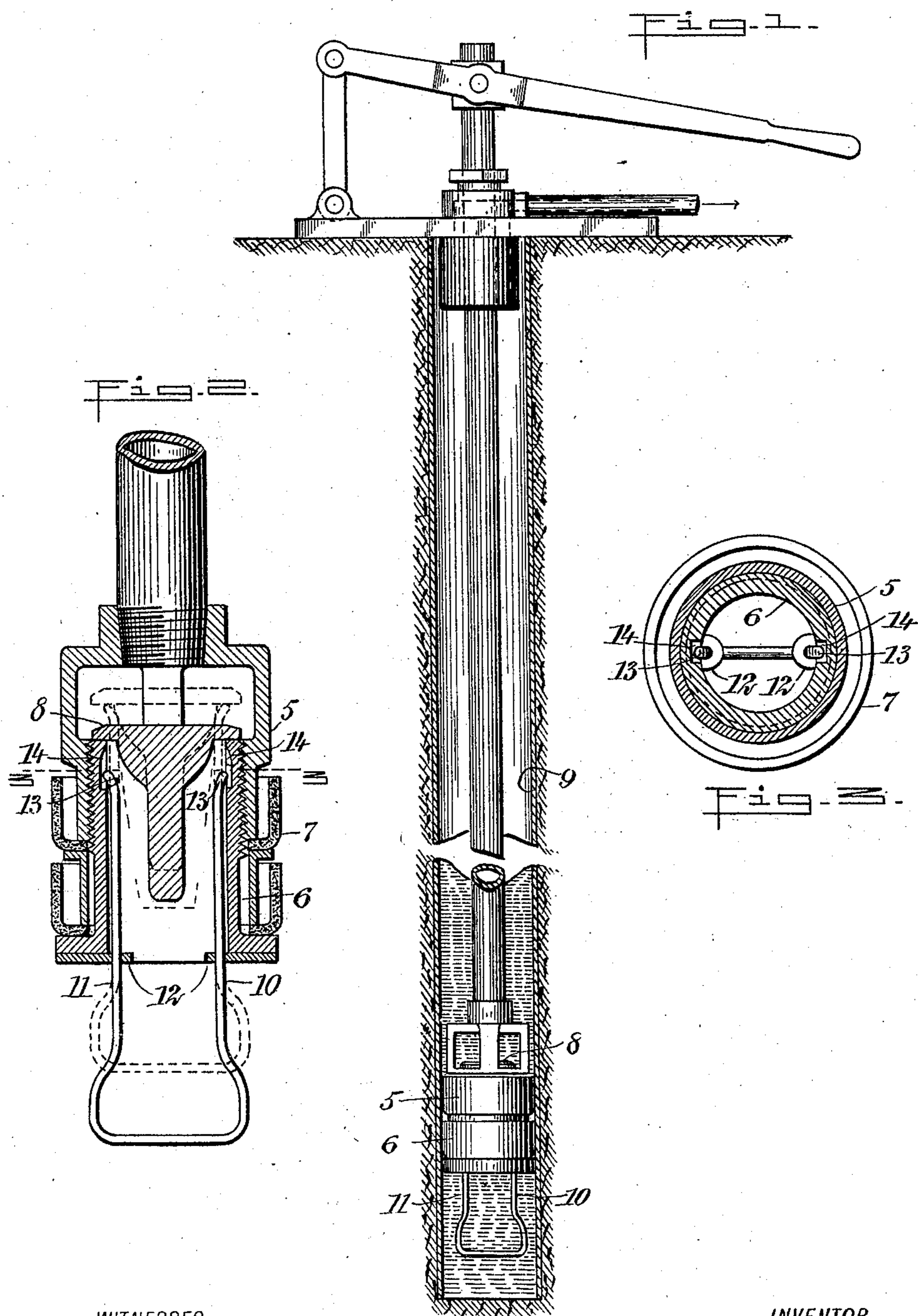


No. 805,922.

PATENTED NOV. 28, 1905.

E. R. LOCKWOOD.
TUBULAR WELL PLUNGER.
APPLICATION FILED MAY 5, 1905.



WITNESSES:
C. A. Jarvis.
C. R. Ferguson

INVENTOR
Elias R. Lockwood
BY *Mumford*
ATTORNEYS

UNITED STATES PATENT OFFICE.

ELIAS RIGGS LOCKWOOD, OF PRATT, KANSAS.

TUBULAR WELL-PLUNGER.

No. 805,922.

Specification of Letters Patent.

Patented Nov. 28, 1905.

Application filed May 5, 1905. Serial No. 258,921.

To all whom it may concern.

Be it known that I, ELIAS RIGGS LOCKWOOD, a citizen of the United States, and a resident of Pratt, in the county of Pratt and State of Kansas, have invented a new and Improved Tubular Well-Plunger, of which the following is a full, clear, and exact description.

This invention relates to improvements in tubular well-plungers, the object being to provide a simple device in connection with a plunger for raising and holding the valve open to permit water to pass through the plunger when it is withdrawn from the well-tube.

I will describe a tubular well-plunger embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of a well-tube, showing a plunger embodying my invention as arranged therein. Fig. 2 is a sectional view of the plunger, and Fig. 3 is a section on the line 3 3 of Fig. 2.

The plunger is substantially of the usual form—that is, it comprises two members 5 6, having screw-thread engagement one with the other—and supporting leathers 7 and operating in the tubular plunger is a puppet-valve 8. This plunger of course operates in the well-tube 9. Movable in the plunger is a device for raising the valve 8 and holding it open. This device consists of a length of spring metal having side members 10 11, which pass through perforations in lugs 12, secured to the lower end of the plunger. The upper ends of the side members 10 11 are turned outward, as indicated at 13, to engage normally in notches 14, formed in the inner side of the plunger-section 1, the inner walls of these notches being curved inward and upward, so that the spring-yielding members 10 11 may

readily pass along the same to engage with the valve.

In the operation when it is desired to remove the plunger from the well it is first forced downward, so that the lower connected ends of the members 10 11 will strike against the bottom of the well, forcing the said members upward to raise the valve, as indicated in dotted lines in Fig. 2, and the parts will be held in this position by the spring-pressure of the members 10 11 against the walls of the perforations in the lugs. Then as the plunger is drawn out the water will pass through the same.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A tubular well-plunger having opposite notches in its inner side, and a length of spring metal formed with side members movable in the plunger, the upper ends of said side members being turned outward to engage in said notches.

2. A tubular well-plunger having notches in its inner sides, the walls of said notches at the upper end being curved upward and inward, and a length of spring metal formed with side members movable in the plunger and having outwardly-turned ends for engaging in said notches.

3. A tubular well-plunger having notches in its inner side, perforated lugs at its lower end, and a length of spring metal formed with side members passing through the perforations of said lugs and having their upper ends turned outward to engage in said notches.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ELIAS RIGGS LOCKWOOD.

Witnesses:

CHAS. R. MAWDSLEY,
CHAS. BLAKE.