

S. Hewit,

Pump Lift,

No 25,898,

Patented Oct. 25, 1859.

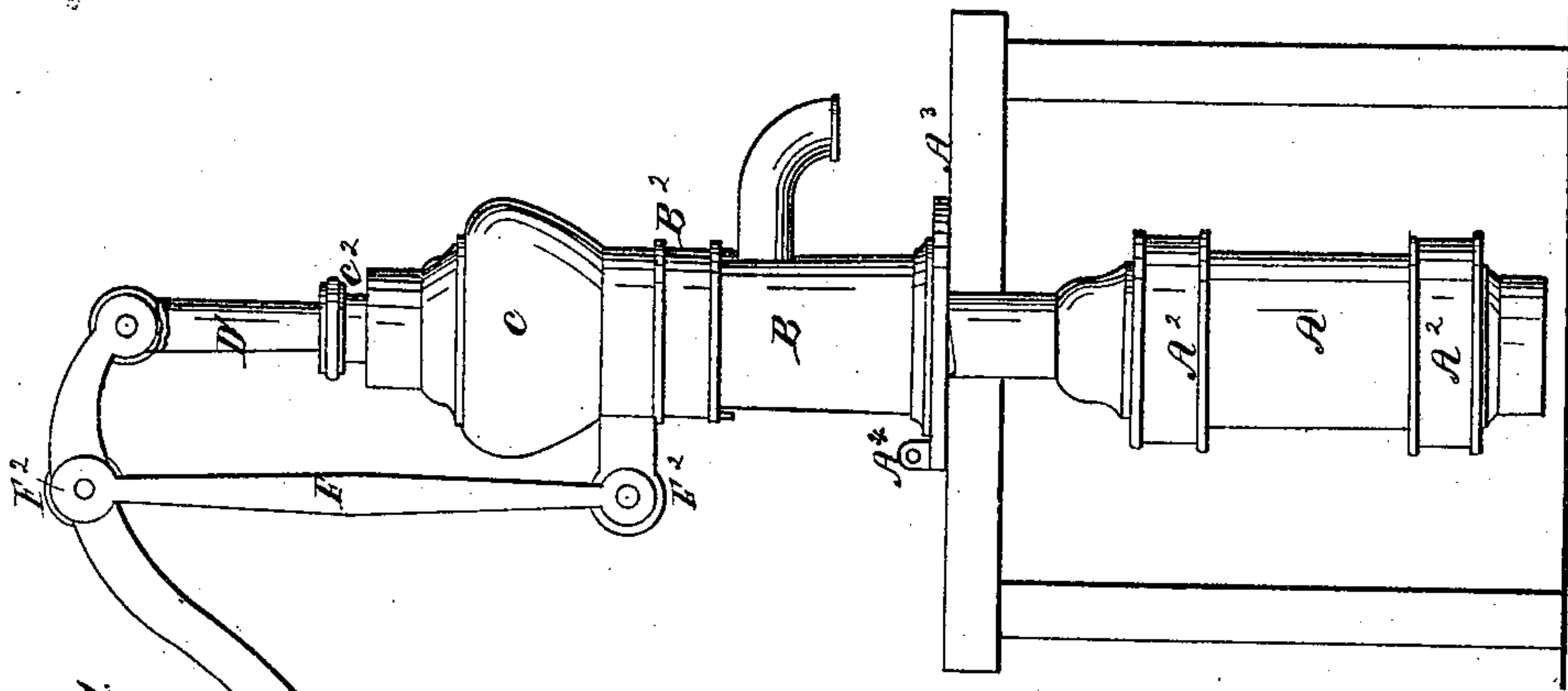


Fig. 1

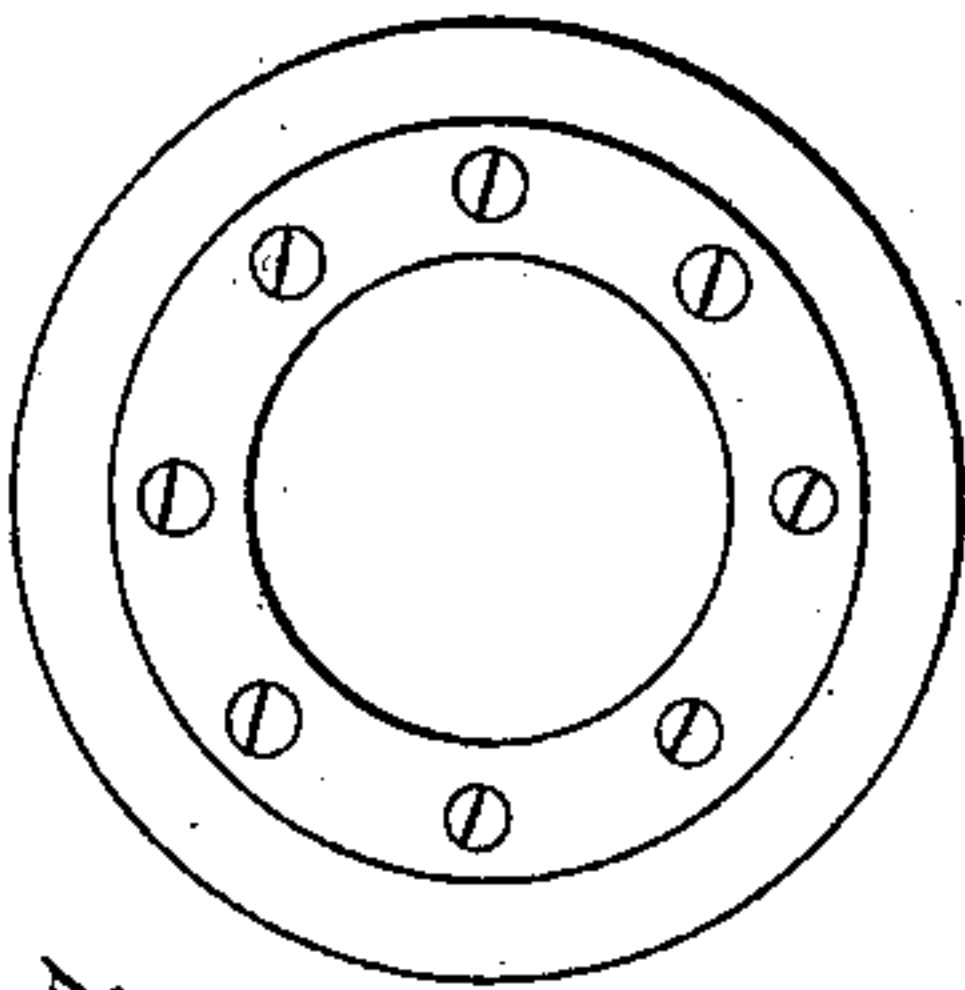


Fig. 7

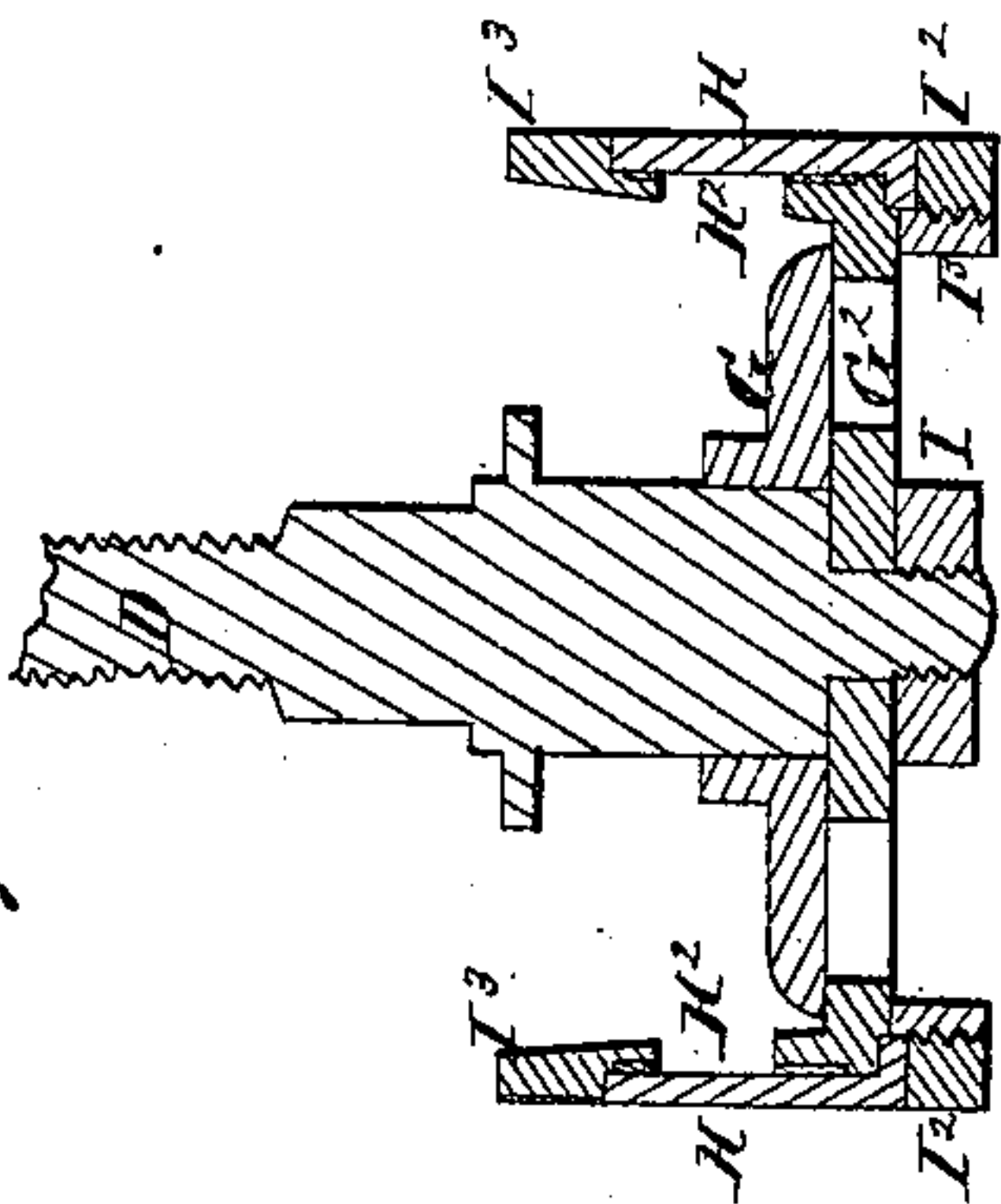


Fig. 3

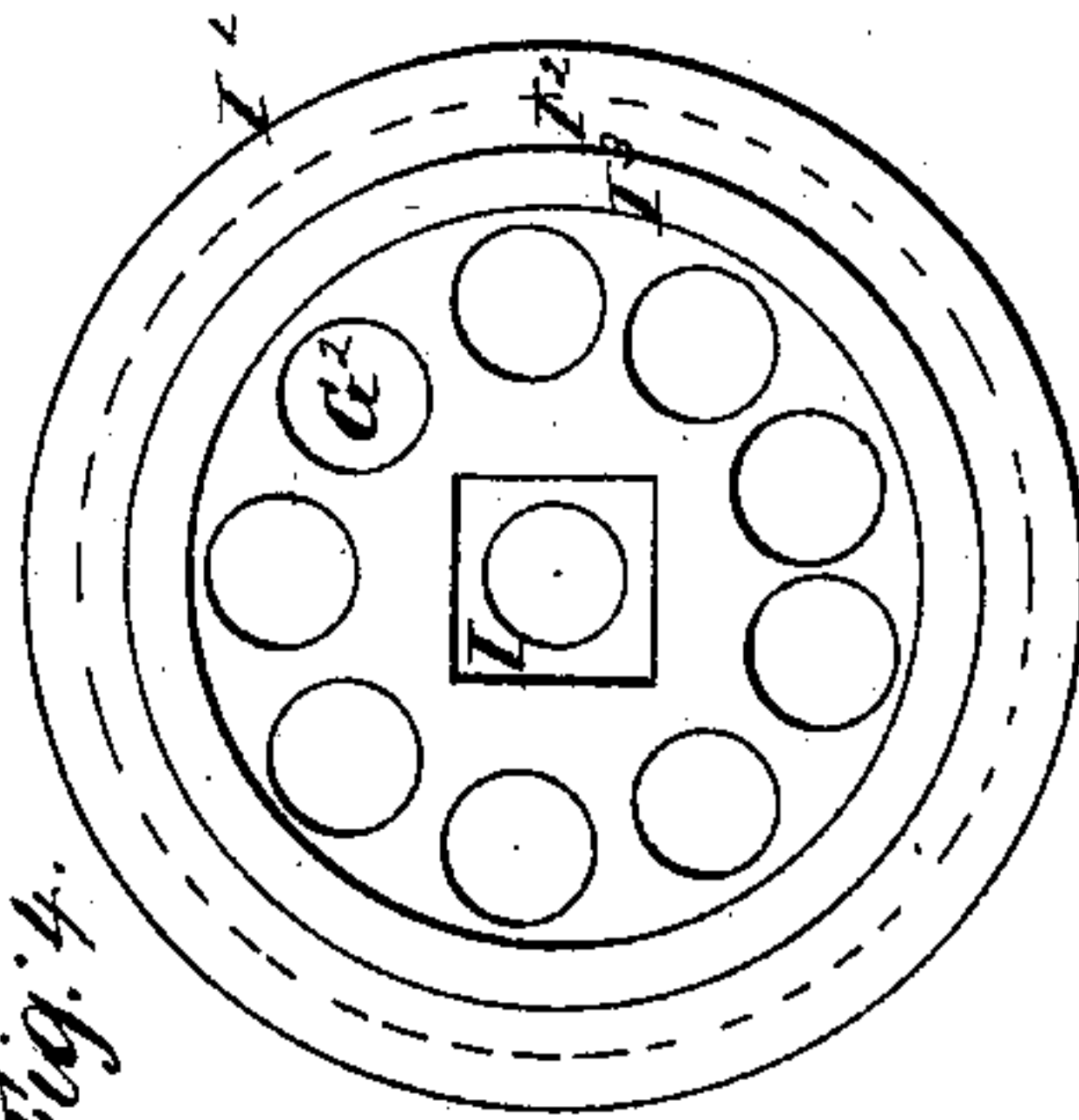


Fig. 4

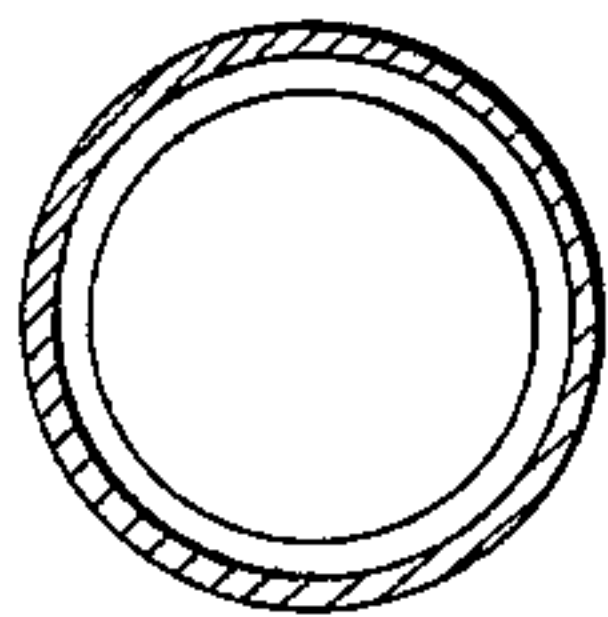


Fig. 6

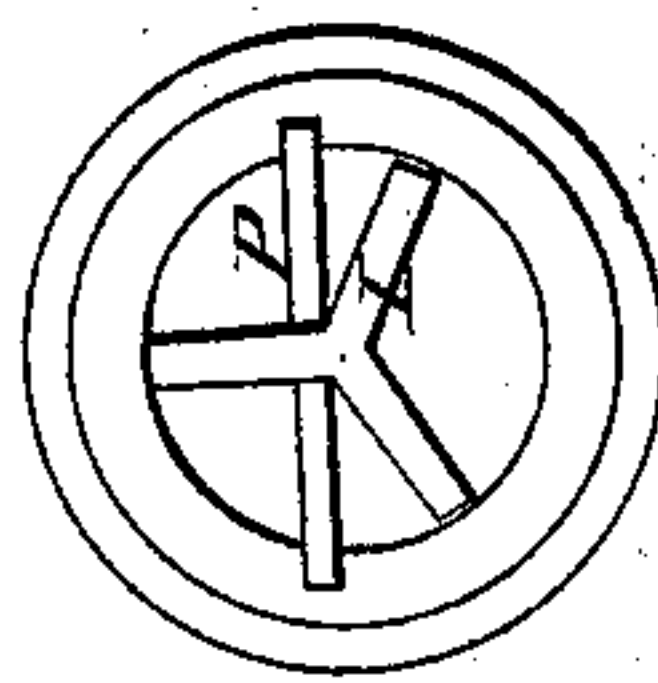


Fig. 5

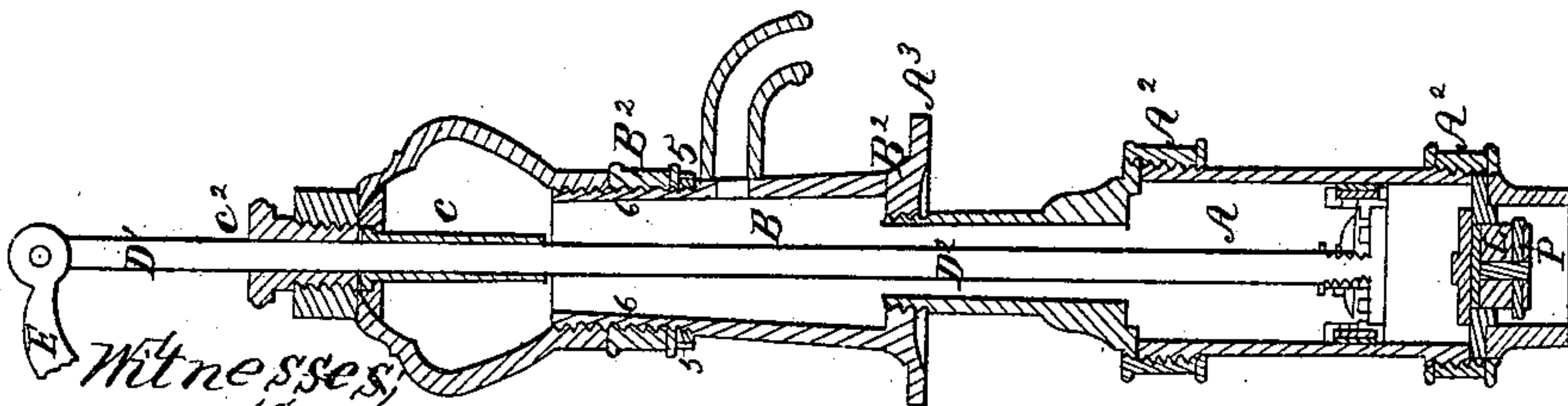


Fig. 2

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UNITED STATES PATENT OFFICE.

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PUMP.

Specification of Letters Patent No. 25,898, dated October 25, 1859.

To all whom it may concern:

Be it known that I, SILAS HEWIT, of Seneca Falls, in the county of Seneca, in the State of New York, have invented a new and Improved Mode for Constructing Pumps; and I hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the characters of reference marked thereon.

The nature of my invention consists in a certain improvement in the plunger or piston of pumps.

Figure 1 of the accompanying drawings represents the pump set up in order for work. Fig. 2 shows a longitudinal section of the same. Figs. 3 and 4 show a cross-section of the plunger. Fig. 5 is a bottom independent valve. Fig. 6 is a cross-section of a ring or ferrule. Fig. 7 shows a flange which may be attached to the stock of the pump, on which the standard to the lever rests when the ring or ferrule B² is dispensed with.

I will now proceed to describe the application of the respective parts.

E is the handle; F, the standard.

F² is the fulcrum or step for the standard. This step may be attached either to the air chamber C or may be attached to the ring or ferrule B².

D' is the piston rod.

Now it often occurs in preparing a piston in joints for a deep well pump, as shown at D' and D² in Fig. 2, that the piston and standard F are not well adjusted, in which case the end of the lever E would be too high or too low to work freely, and for the purpose of forming a complete and ready adjustment of the same I cut a screw on the upper end of the stock of the pump B, as shown at 6, 6, Fig. 2. I then form the ferrule B² with a flange, as shown at 5, 5, Fig. 1, which extends in below the screw, as shown as 6, 6, Fig. 2, for the purpose of protecting the screw above described.

Now it will be perceived that by raising or lowering the air chamber C and the ferrule B² the adjustability above described will be effected, and the whole will be firmly secured at all times to the stock B. In case I wish to dispense with the ferrule B² and the step F² I extend the standard F down to A⁴ as a rest, Fig. 7 being a section of the

flange to the stock B, on which the step A⁴ rests, the whole made fast to the top of the box A³, A being the cylinder and A⁵ being the cap and pipe connecting the same with the stock B; A² the basket connected with the lower end of the cylinder. Fig. 5 shows the lower end of the basket and independent valve; L, the valve; P, the pin for keeping it in place.

I will now proceed to describe the plunger or bucket by Figs. 3 and 4, Fig. 4 showing the bottom or underside of the plunger, G² being holes through which the water passes as the valve G rises, which will always be the case when the plunger descends. To prepare the frame of the plunger I³ I make it just to fill the cylinder and so that it will work freely without friction. I then turn in a groove to receive the packing H, represented by the red shade, to any desired thickness. Having done this I sink another groove still deeper in, as shown by the green shade, this last described groove serves as a chamber for the water which enters through the holes H² formed in the sides of the frame I³ for the purpose of pressing and expanding the packing H out against the cylinder as the piston or plunger rises, thereby always forming a complete packing. As the plunger goes down the water recedes in a measure, or its pressure is relieved from the packing H, which allows it to go down with little or no friction. The ring I² is screwed on the body 1, 3, for the purpose of securing the packing H. To prepare the packing, take a straight strip of leather; scarf both of its ends so as to allow a lap of about half an inch, as seen at I⁴, Fig. 4. I then form it into an L shape and apply it to the groove above described and turn on the ring nut I², which secures the packing H in its place. The valve G is made to work freely in the stem D, and the distance which may be required to rise and fall is governed by the flange J.

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

The plunger or bucket when constructed in the manner and for the purposes set forth.

SILAS HEWIT.

Witnesses:

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