

No. 697,358

Patented Apr. 8, 1902.

J. E. PENNER.
VENT CLOSING VALVE FOR PUMPS.

(Application filed Oct. 5, 1901.)

(No Model.)

Fig. 1.

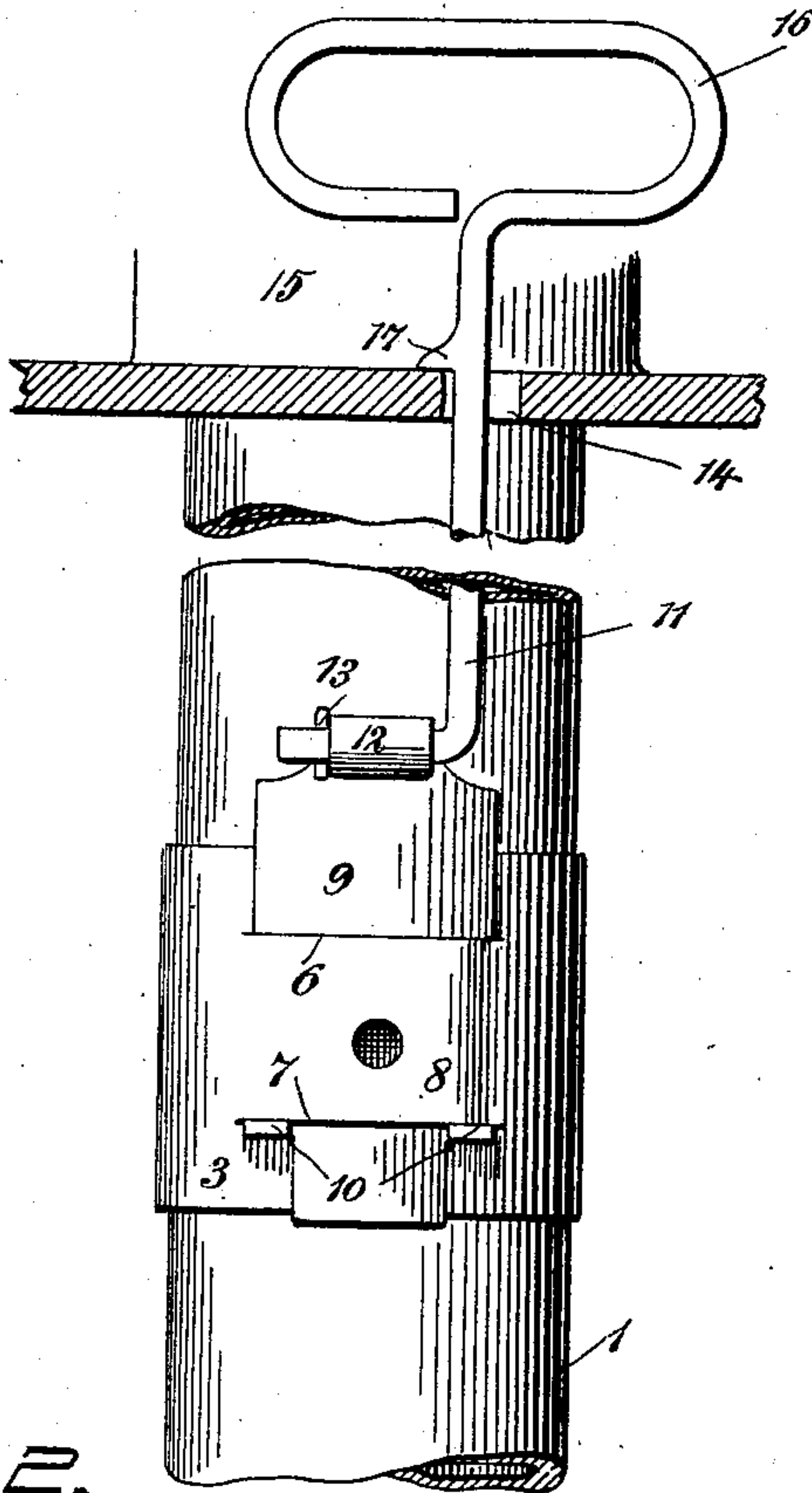


Fig. 2.

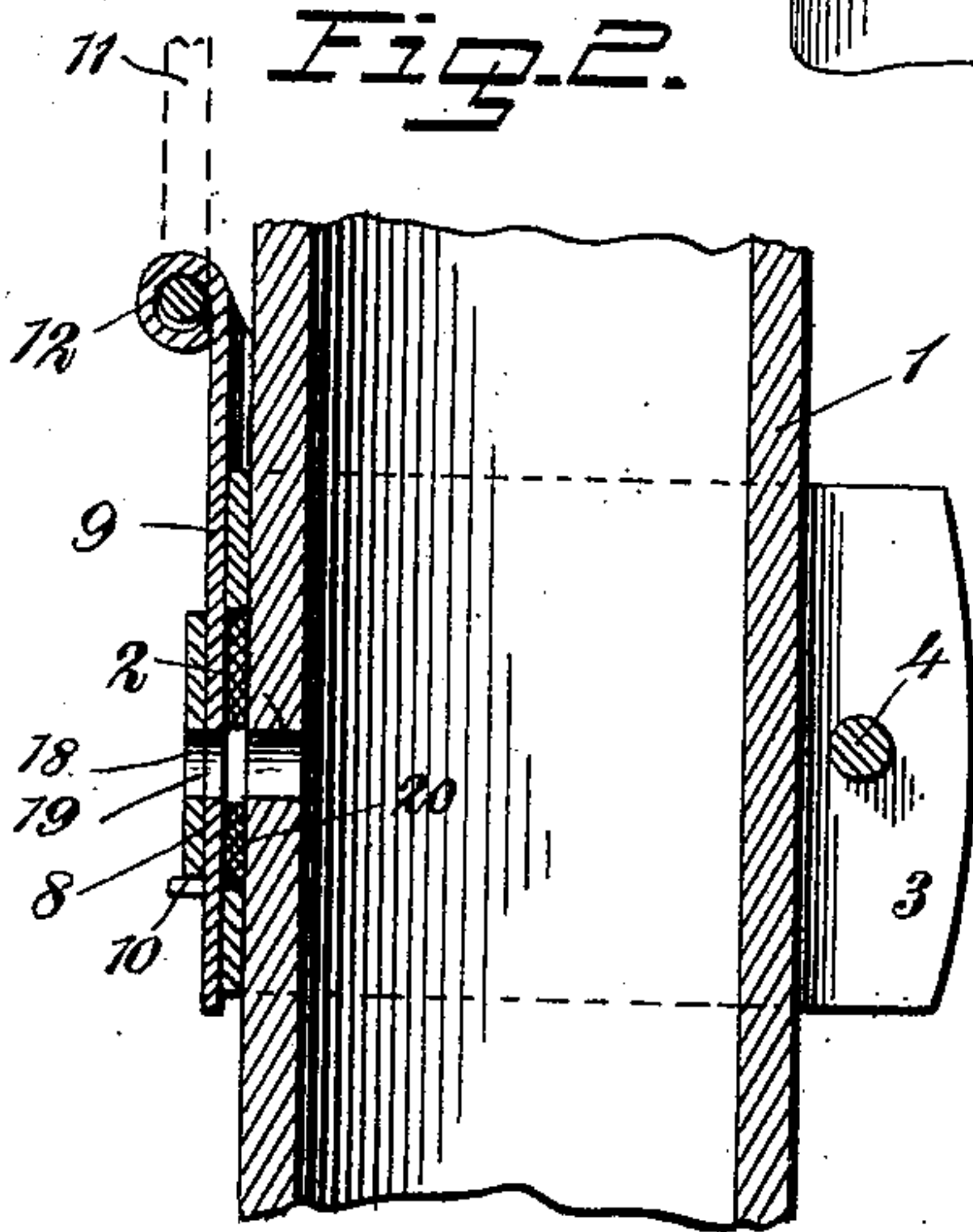
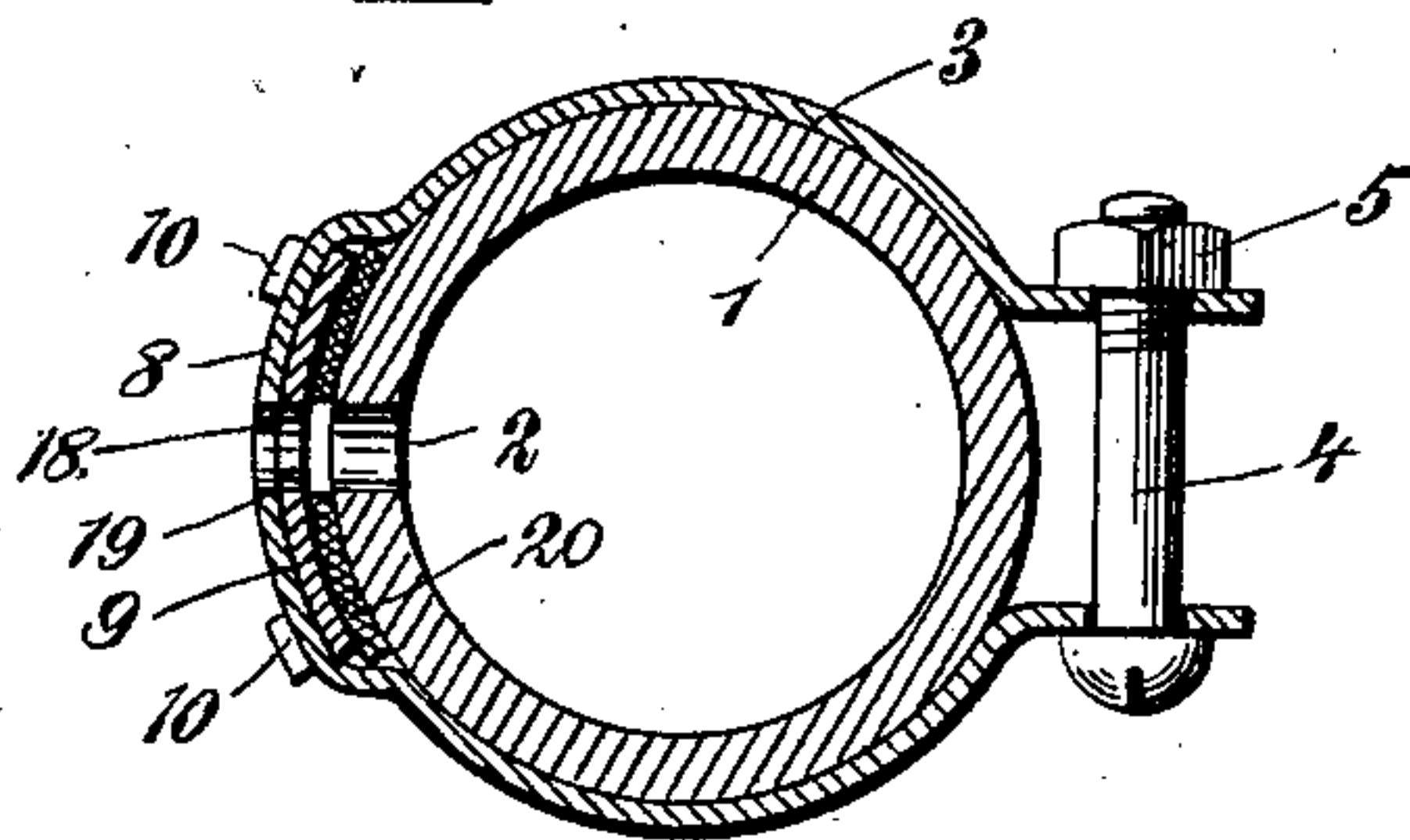


Fig. 3.



WITNESSES:

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JOHN E. PENNER, OF KINBRAE, MINNESOTA.

VENT-CLOSING VALVE FOR PUMPS.

SPECIFICATION forming part of Letters Patent No. 697,358, dated April 8, 1902.

Application filed October 5, 1901. Serial No. 77,674. (No model.)

To all whom it may concern:

Be it known that I, JOHN EDWARD PENNER, a citizen of the United States, and a resident of Kinbrae, in the county of Nobles and State of Minnesota, have invented new and useful Improvements in Vent-Closing Valves for Pumps, of which the following is a full, clear, and exact description.

My invention has for its object the provision of means whereby the vent-hole of the supply-pipe leading to a pump may be readily closed or opened whenever desired. It is well known that considerably more work is required to pump a given quantity of water when the vent-hole is open than when it is closed, thus prematurely wearing out the pump and windmill. With my device this extra wear is entirely avoided, as the vent-hole may be readily closed whenever it is desired to use the pump.

The invention consists in the novel construction, arrangement, and combination of parts hereinafter particularly described, and pointed out 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 side elevation, partly in section, showing my device applied to a pipe. Fig. 2 is a vertical section, and Fig. 3 is a transverse section of the pipe and my improvement attached thereto.

1 represents the supply-pipe, leading to a pump and provided with a vent-hole 2. My improvement comprises a curved metallic strip 3, inclosing the pipe and tightly clamped thereto by the bolt 4 and nut 5. The strip is slit at 6 and 7, and the portion 8 is offset or struck up from the face of the strip to permit the insertion of a slide 9. To prevent leakage, a packing 20, of leather, is placed between the slide 9 and the pipe 1, against which pipe the packing is clamped. Said packing is of a size to snugly fit in the space that is left in the clamping-strip 3 by the formation of the offset or struck-up portion 8 thereof, and the packing-strip is thus held or confined in place by the edges of said space in the clamping-strip, as clearly shown by Figs. 2 and 3. After

the slide is inserted the ears 10 10 are bent forward and serve as stops to limit the upward movement of the slide, said ears 10 being formed by slitting the lower part of the slide and bending the slit portion, as shown by the drawings. The slide is operated by the rod 11, the lower end of which is bent at a right angle and passes through a loop 12 on the upper end of the slide, being securely held therein by a pin 13. The rod passes through an aperture 14 in the base of the pump 15 and is provided with a handle 16. The rod is held in its uppermost position by a catch or detent 17. When in this position, the apertures 18 and 19 in the parts 8 and 9 respectively register with the vent-hole 2 and an opening in the packing 20.

By moving the handle to one side the catch 17 may be liberated from the base of the pump and the rod thrust down, so as to cause the slide 9 to close the vent-hole.

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

1. A vent-closing valve, comprising a clamping-strip having a struck-up portion provided with an aperture, and a slide mounted between said struck-up portion and the body of the strip and having an aperture therein.

2. A vent-closing valve, comprising a clamping-strip having a struck-up portion provided with an aperture, and a slide mounted between said struck-up portion and the body of the strip, said slide having an aperture therein and provided with a stop.

3. A vent-closing valve comprising a slitted clamping-strip having an apertured offset portion forming a guide, an apertured packing held in the space formed by said offset, and a slide movable in the guide formed by the offset and adapted to traverse the apertures in the packing and the strip.

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

JOHN E. PENNER.

Witnesses:

L. F. MILLER,
JOSEPH STONE.