

L. D. HOVEY.  
PUMP-PISTON.

No. 172,440.

Patented Jan. 18, 1876.

Fig. 1

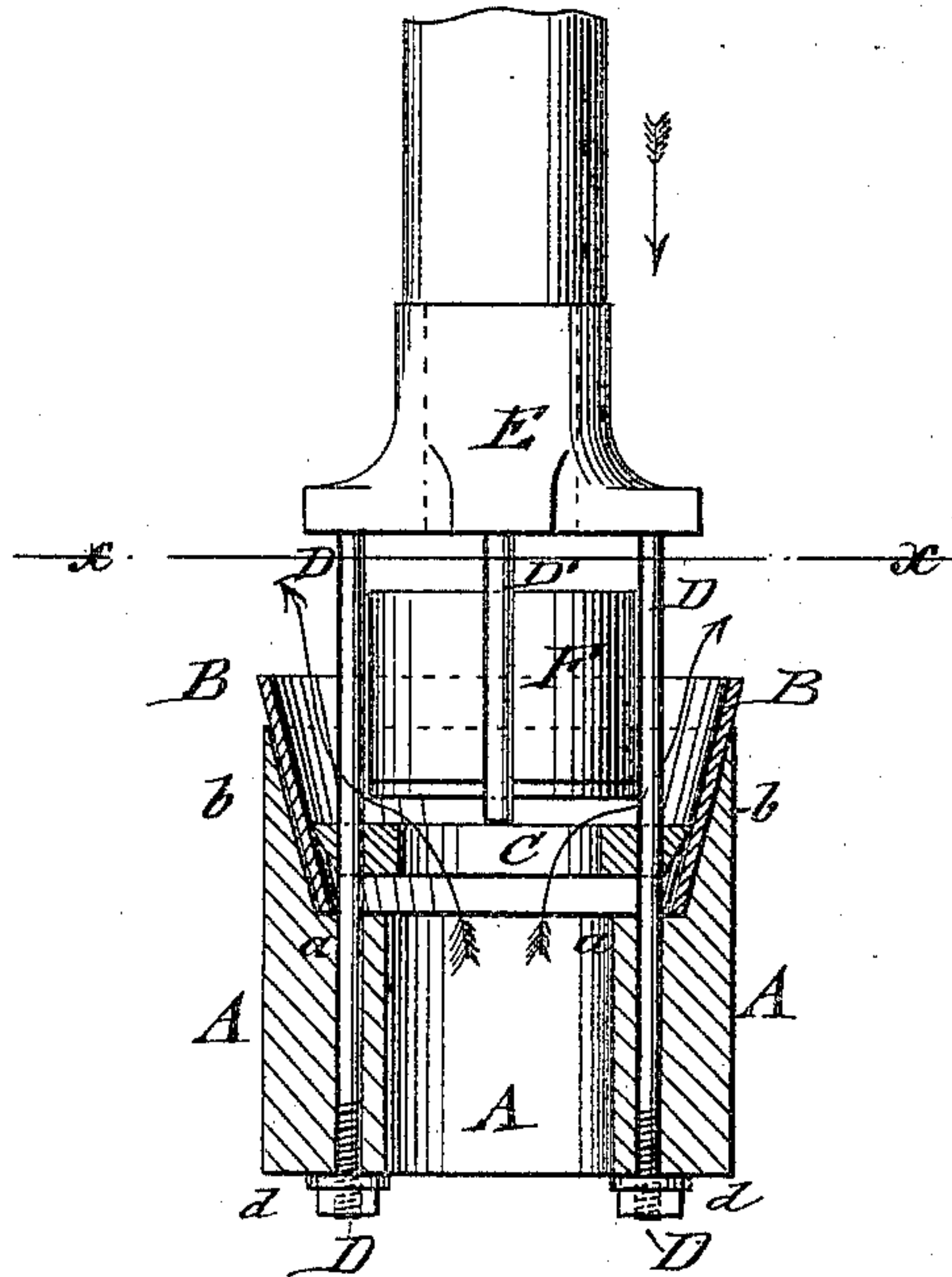
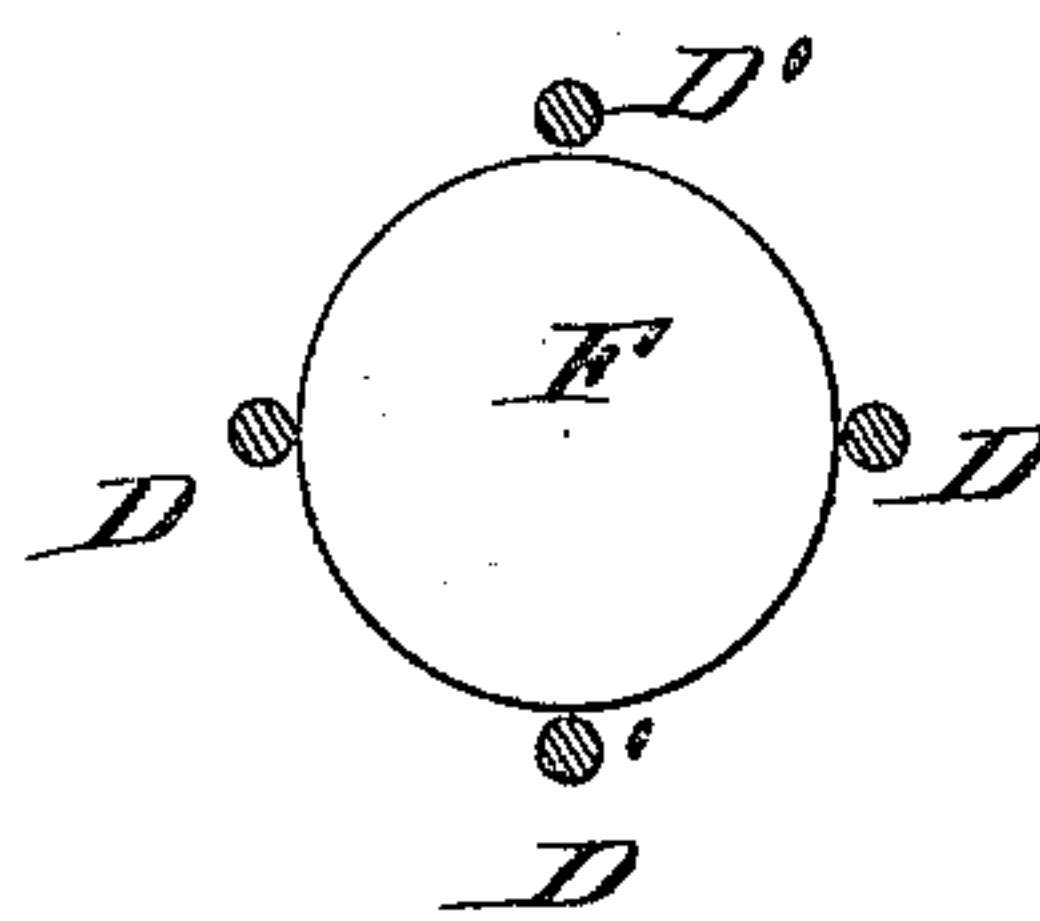


Fig. 2



WITNESSES:

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# UNITED STATES PATENT OFFICE

LORENZO D. HOVEY, OF CLINTON, ILLINOIS.

## IMPROVEMENT IN PUMP-PISTONS.

Specification forming part of Letters Patent No. **172,440**, dated January 18, 1876; application filed July 24, 1875.

*To all whom it may concern:*

Be it known that I, LORENZO D. HOVEY, of Clinton, in the county of De Witt and State of Illinois, have invented a new and Improved Pump-Piston, of which the following is a specification:

Figure 1 represents a vertical central section of my improved pump-piston; and Fig. 2 a horizontal section of the same on the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The invention relates to certain improvements in pump-pistons; and it consists in the combination of a beveled or conically-shaped ring, a socket or base ring tapered or beveled interiorly, the leather packing interposed between, the bail or guide rods for the valve, the socket for the pump-rod, and lugs for holding the parts together, as hereinafter more fully described.

In the drawing, A represents a ring-shaped base with interior shoulder *a* and upwardly-tapering bearing *b*, between which and the ring C the conically-shaped packing-ring B of leather, rubber, or other elastic material is firmly secured. The edge of the ring C is beveled at a different angle from the tapering outer bearings, so that it acts like a wedge on the interposed packing B. The rings A and

C are, preferably, made of metal, and perforated for the U-shaped bail or guide-rods D that pass through the same, and are secured by screw-nuts *d* applied to the lower threaded ends to the bottom of ring A. The upper ends of the guide-rods D are attached to the connecting-socket E of the pump-rod. The ring C is held in place chiefly by means of the lugs or rods D', which project down from socket E, and whose lower ends bear against said ring, as shown. The bail or guide-rods D are of such height that a heavy cylindrical valve, F, of wood, or other material, may slide vertically within the same. On ascent of the plunger, its (the valve's) leather-lined or otherwise packed bottom bears on the interior wedge-ring C, so as to close the opening through it water-tight. The descent of the piston lifts the valve E, and allows the passage of the water through the base-rings, as indicated by arrows in Fig. 1.

What I claim is—

The combination of the tapering base and wedge rings A C, the interposed conical packing, bail or guide-rods, lugs D', and socket E, as shown and described.

LORENZO D. HOVEY.

Witnesses:

CHARLES CONWELL,  
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