

L. HUBBARD & W. A. HART.

PUMP-VALVE.

No. 170,737.

Patented Dec. 7, 1875.

Figure 1.

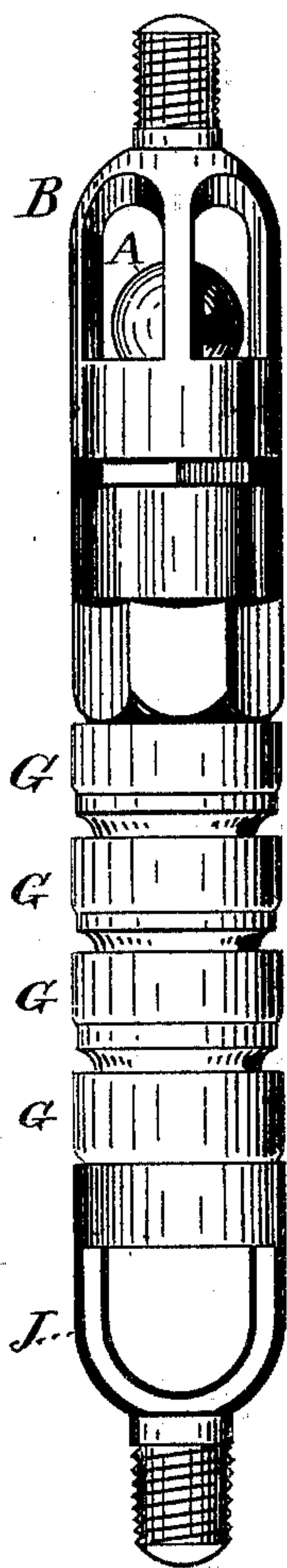


Figure 2.

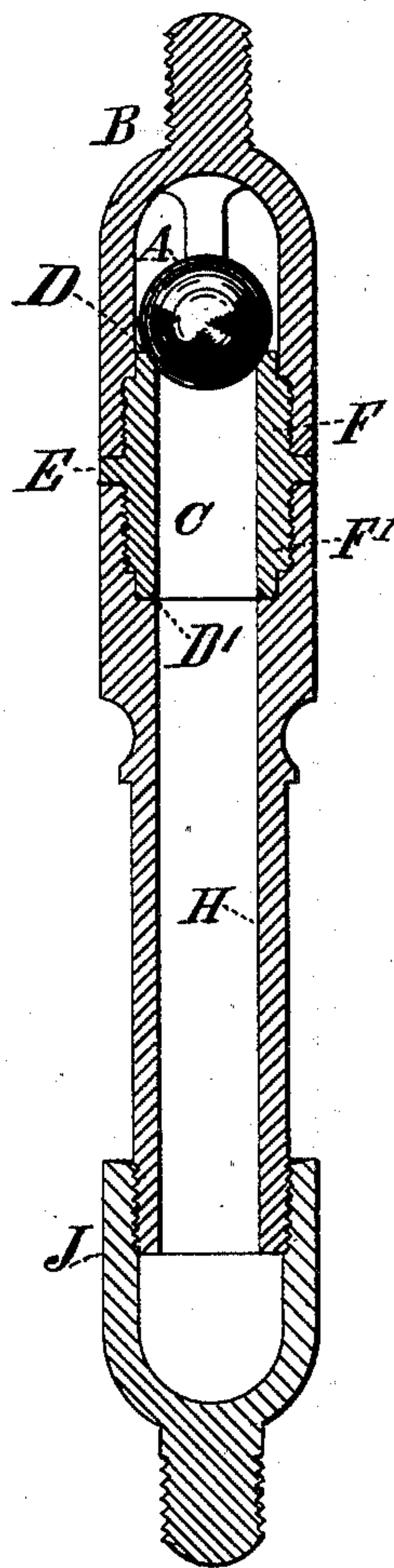


Figure 3.

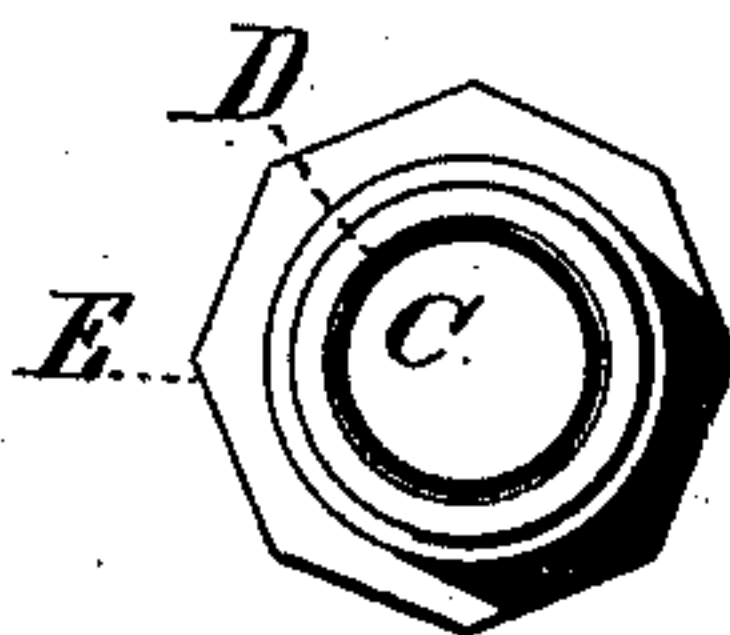


Figure 4.

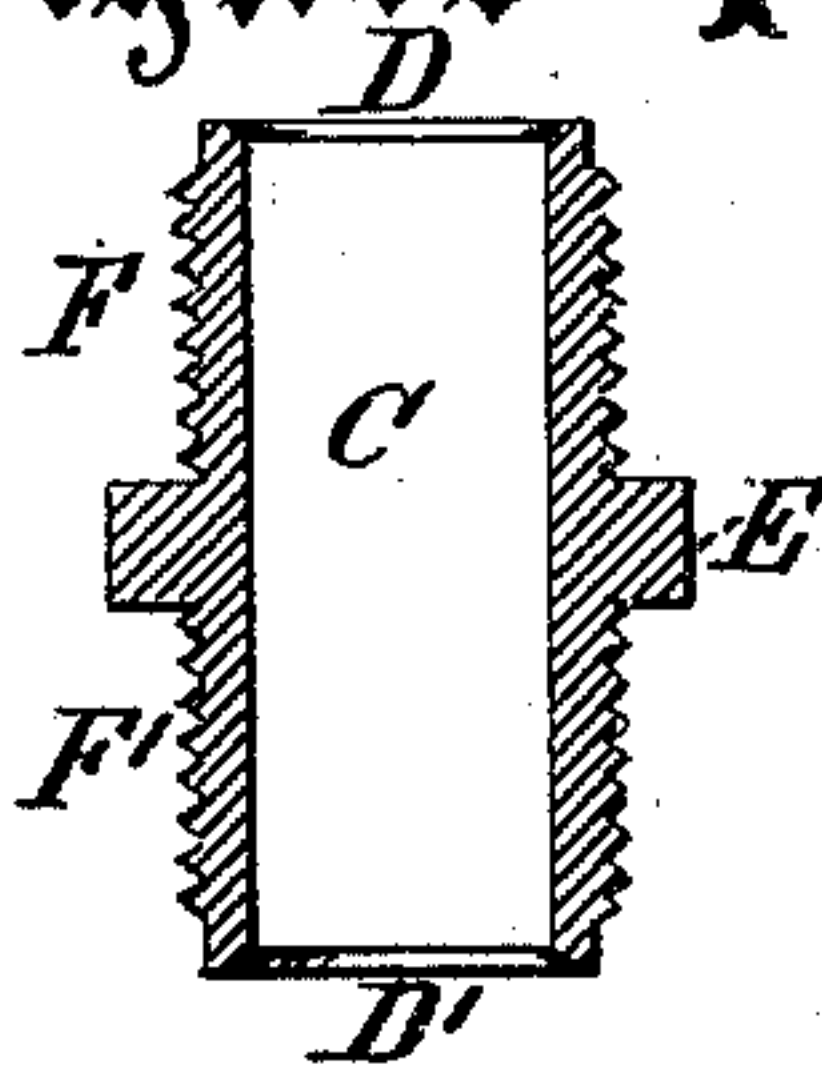
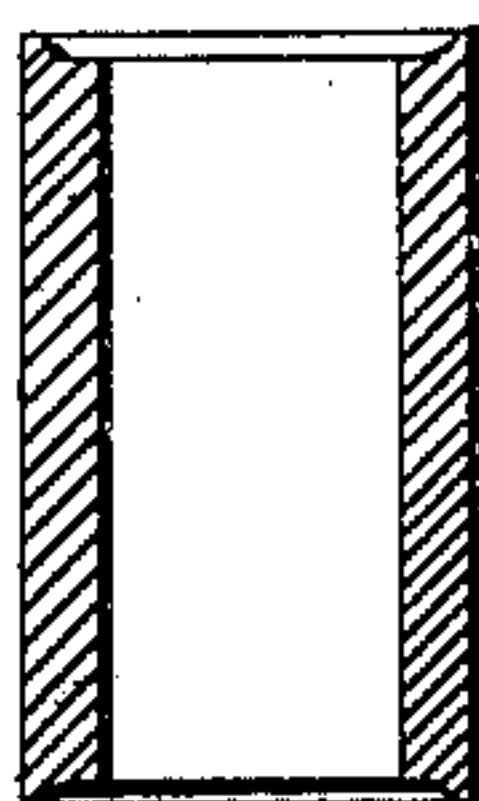


Figure 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

LINUS HUBBARD AND WILLIAM A. HART, OF BUFFALO, NEW YORK.

IMPROVEMENT IN PUMP-VALVES.

Specification forming part of Letters Patent No. **170,737**, dated December 7, 1875; application filed November 18, 1875.

To all whom it may concern:

Be it known that we, LINUS HUBBARD and WILLIAM A. HART, both of the city of Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Pump-Valves, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

The object of this invention is to increase the durability of pump-valves; and it consists of a steel or other hard-metal tubular valve-seat piece, having a wrench-section, two screws, and two valve-seats arranged thereon—one screw to connect the body of the valve, and one to connect with the valve-cage; or it consists in combining with a pump-valve a reversible double-seated section, as will be more clearly hereinafter shown by reference to the drawing, in which—

Figure 1 represents a side elevation of a pump-valve, showing our invention combined therewith; Fig. 2, a vertical longitudinal section through the valve-body and double valve-seat, the packing-rings being left off; Fig. 3, a top view, showing one of the valve-seats; Fig. 4, an enlarged section through the double valve-seat piece; and Fig. 5, a section, representing a modification of our said invention.

A represents a ball-valve; B, a cage for retaining it in place; C, the double valve-seat piece; D D', the valve-seats thereon. E is a nut or wrench section, arranged between the two valve-seats, so that a wrench may be used to force it in place when required; F F', the screws on each side of the wrench-section. The letters G in Fig. 1 represent the ordinary packing-rings, of leather, which are put on and kept in place, in the usual manner, by means of the part J being screwed tightly against them.

We claim as our invention—

1. A steel or other hard-metal valve-seat piece, C, provided with a wrench-section, E, valve-seats D D', and screws F F', adapted to screw into the body H on one side, and the cage B on the opposite side, substantially as described.

2. A removable reversible double-seated valve-piece, in combination with the parts B and H, as and for the purposes set forth.

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Witnesses:

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