H. F. GASKILL.

Pump Valve.

No. 229,881. Patented July 13, 1880.

FIG. 1.

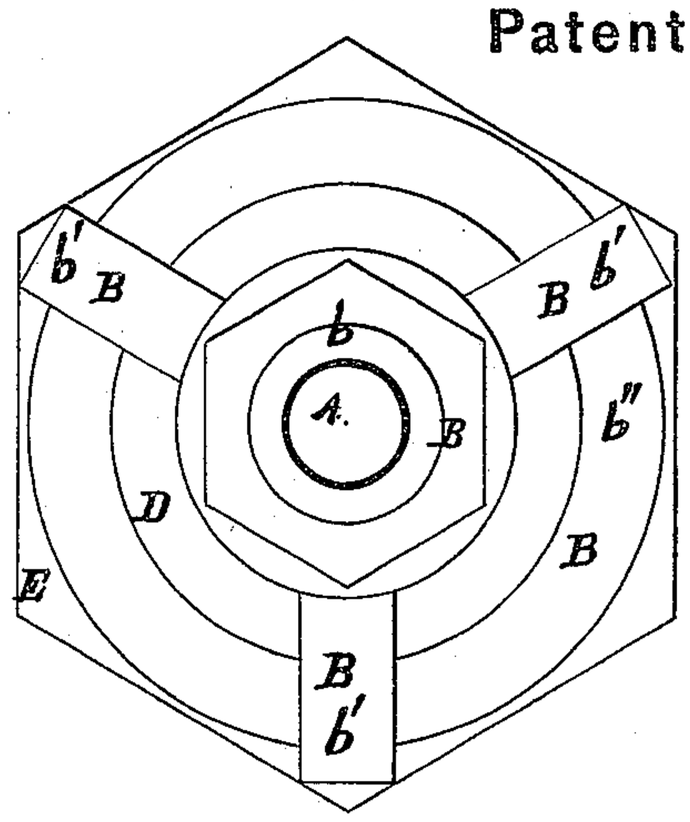
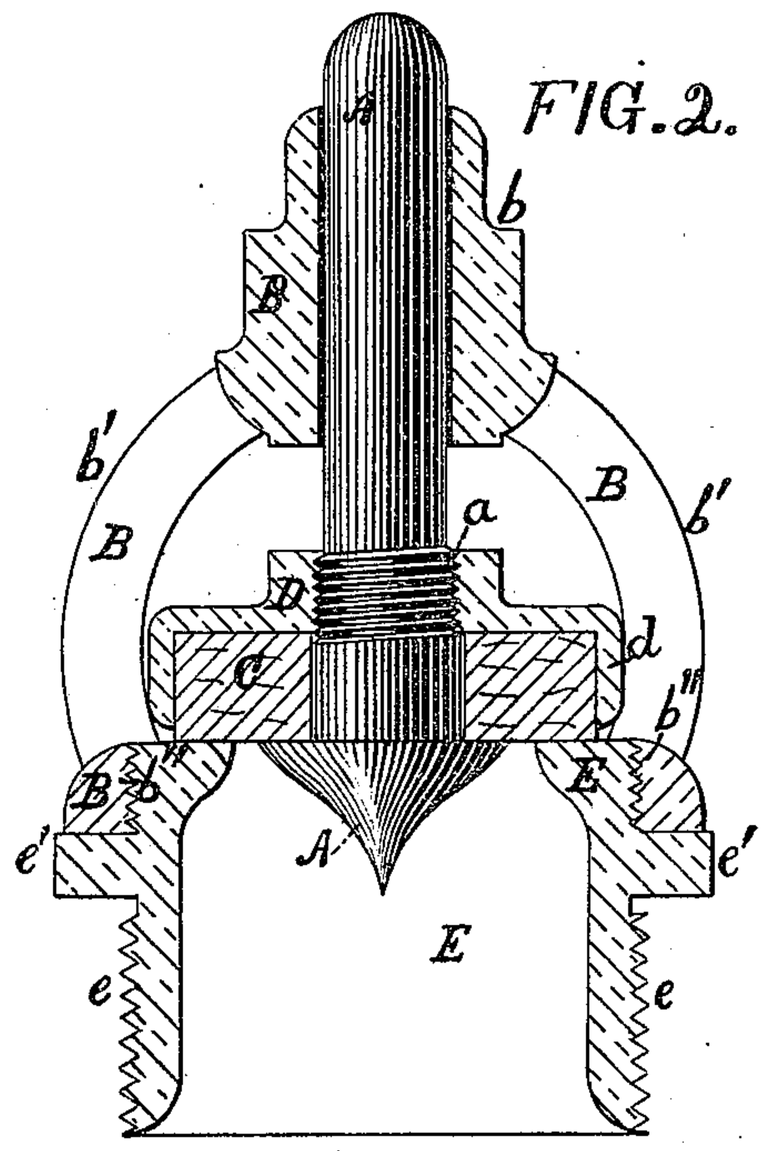


FIG. 2.



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UNITED STATES PATENT OFFICE.

HARVEY F. GASKILL, OF LOCKPORT, NEW YORK.

PUMP-VALVE.

SPECIFICATION forming part of Letters Patent No. 229,881, dated July 13, 1880.

Application filed January 23, 1880.

To all whom it may concern:

Be it known that I, HARVEY F. GASKILL, of Lockport, in Niagara county, New York, have invented certain Improvements in Pump-Valves, of which the following is a specification.

This invention relates to pump-valves; and it consists in certain novel constructions and combinations of parts whereby I secure great simplicity in manufacture and great efficiency in operation, as will be more particularly set forth in the claim at the end hereof.

In the drawings, Figure 1 is a top view of one of my valves, and Fig. 2 is a vertical section through the middle of the same, the valve-stem bolt, however, being in elevation.

For convenience of explanation I will divide my valve into three parts, to wit: first, the valve proper, A C D; second, the valve-seat E; and, third, the valve-cage B.

A is a bolt, whose upper part forms the guide-stem of the valve. The head of this bolt is conical, as shown, so that when the valve is open the current of water flowing through it will be divided and deflected to the circumference of the valve, thereby avoiding the loss of power due to a sudden change of direction and greatly reducing friction. *a* is a screw-thread on the bolt A, near the head. C is the rubber body of the valve, held in position between the bolt-head A and a metallic backing, D, screwed down against it by screw-thread *a*. D is a cup-shaped piece which incloses and backs up the rubber C, and also holds it in place, as stated. These three parts constitute the valve proper.

E is the valve-seat. On the lower part is cut a screw-thread, *e*, for screwing the seat into the valve-plate of a pump. *e'* is a flange, which provides a surface of contact to form a tight joint, and which is made polygonal, so that a wrench may be applied to it.

It will be observed that there are no obstructions below the valve to impede the flow, the opening being clear.

B is the valve-cage. It is composed of a head, *b*, through which the valve-stem A extends, and which, therefore, forms a guide for the valve. This head *b* also constitutes a stop for the valve when it is thrown open with any force.

b' are three legs supporting the head *b* from an annular base, *b''*, which latter has a screw-thread, as shown, for securing the cage B to the valve-seat. When the parts are proportioned as in the drawings the circumferential orifice, when the valve is wide open, will be greater than the orifice in the valve-seat E, so that there is no obstruction to the flow.

Having thus described one of my valves, I claim—

In a pump-valve, the combination of the bolt A, having the screw-thread *a* and the shank to form a guiding-stem for the valve, with the elastic body C, fitting against the head of the bolt, and the metal cup D, adapted to be screwed down on the bolt against the elastic body, when said parts are constructed and operate substantially as set forth.

HARVEY F. GASKILL.

Witnesses:
H. H. FLAGLER,
C. E. JAYNE.