

E. HAWKES.
Pump Valve.

No. 210,691.

Patented Dec. 10, 1878.

Fig. 1

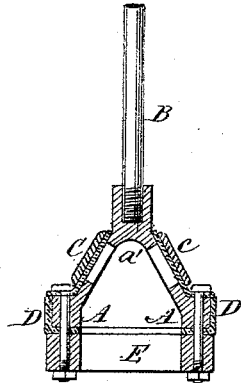


Fig. 3

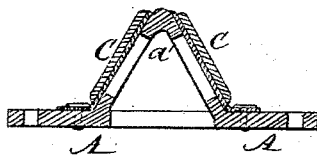
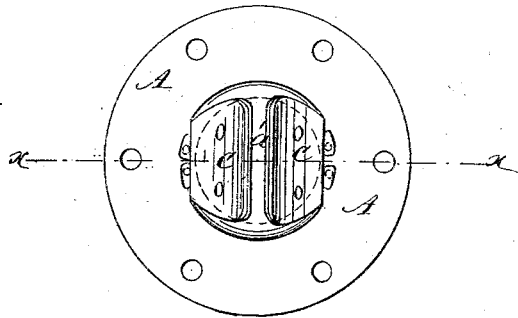


Fig. 2



WITNESSES:

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UNITED STATES PATENT OFFICE.

EUGENE HAWKES, OF SAN DIEGO, CALIFORNIA.

IMPROVEMENT IN PUMP-VALVES.

Specification forming part of Letters Patent No. **210,691**, dated December 10, 1878; application filed December 24, 1877.

To all whom it may concern:

Be it known that I, EUGENE HAWKES, of the city and county of San Diego, and State of California, have invented a new and useful Improvement in Pump-Valves, of which the following is a specification:

Figure 1 is a longitudinal section of one of my improved pump-valves. Fig. 2 is a top view of a modified form of the same. Fig. 3 is a longitudinal section of the same, taken through the line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish pump-valves which shall be so constructed as to afford a more direct and free passage to the water, will close quicker, and with less shock or jar; which shall be less subject to wear than valves constructed in the usual way; and which shall be simple in construction, easily repaired, and not liable to get out of order.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

A represents the body of the valve, which may be made in the form of a ring or plate, having a hollow wedge-shaped projection, *a'*, formed upon its middle part.

When the valve is used as a plunger, the valve-stem B is attached to its top, as shown in Fig. 1.

In the flat sides of the projection *a'* are formed openings for the passage of the water, and said flat sides serve as seats for the valves C, which are hinged at their lower edges to the ring or plate A, so that they may open into a vertical position by the upward pressure of the water. The valves C are closed by the downward pressure of the water, which acts first upon their lower parts, and thus closes them very quickly, so that very little of the water above them will pass down.

Springs may be used to assist in closing the valves C, if desired.

Leather packing D may be clamped between the body A of the valve, and a ring or plate, E, bolted to its lower side, so that there will be no metallic surface to wear and cause friction.

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

The combination, in a pump-valve, of the plate A, having side-open projections *a'*, the two outwardly-opening valves C, the packing D, and the ring E, arranged as shown and described.

EUGENE HAWKES.

Witnesses:

A. H. JULIAN,
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