

J. EVERED.
Balanced Slide-Valves.

No. 144,268.

Patented Nov. 4, 1873.

Fig. 1.

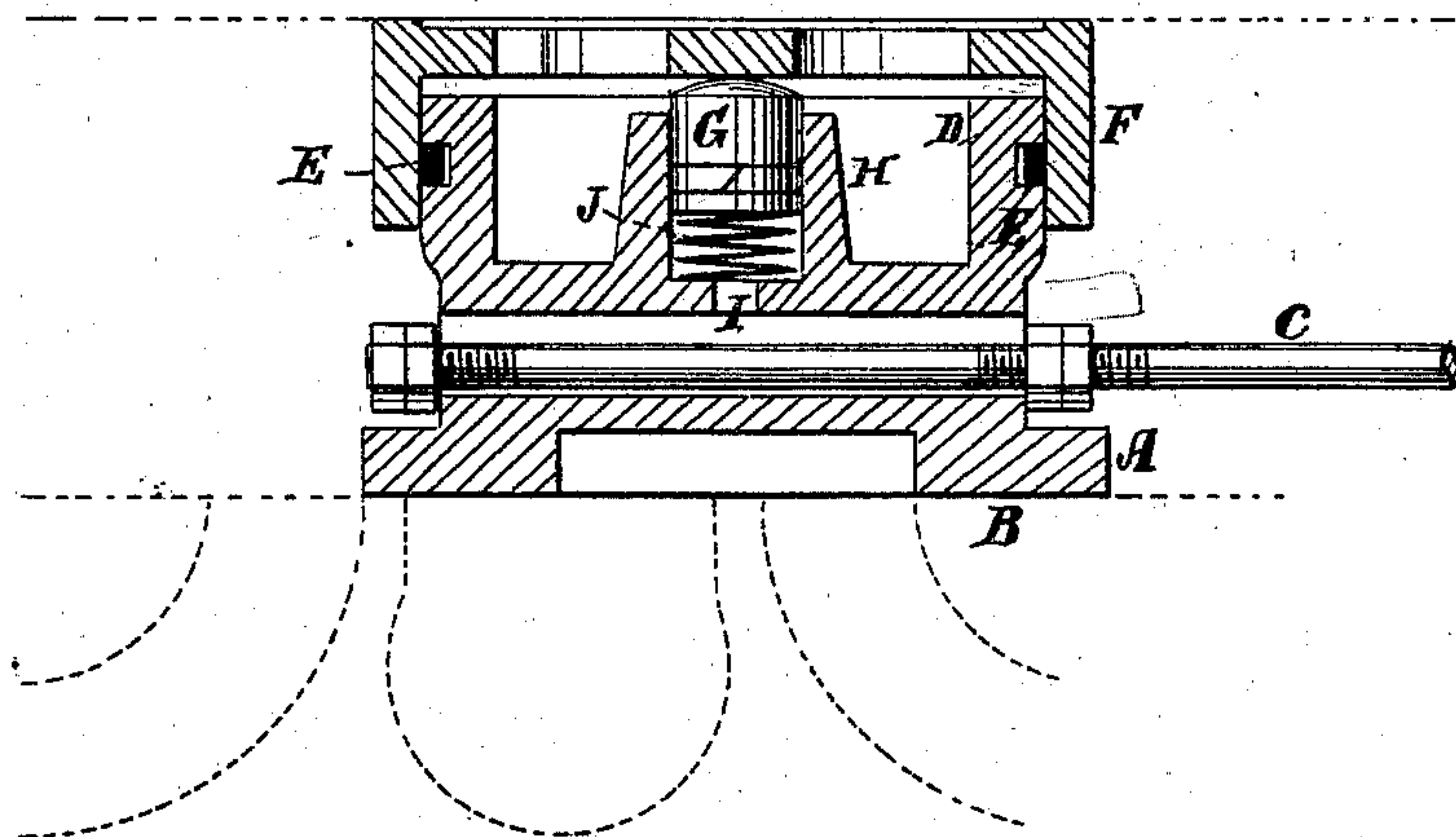


Fig. 2.

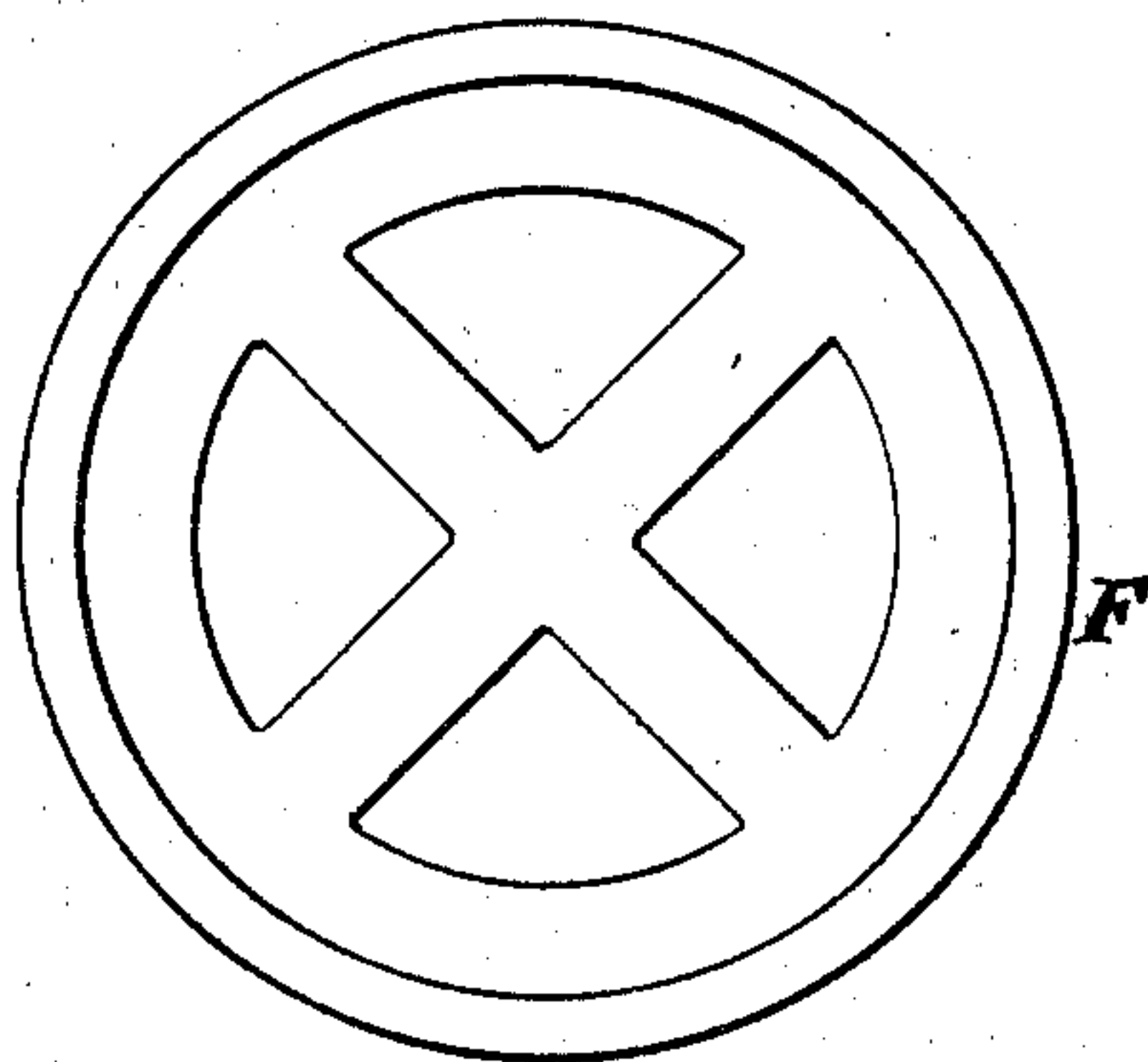
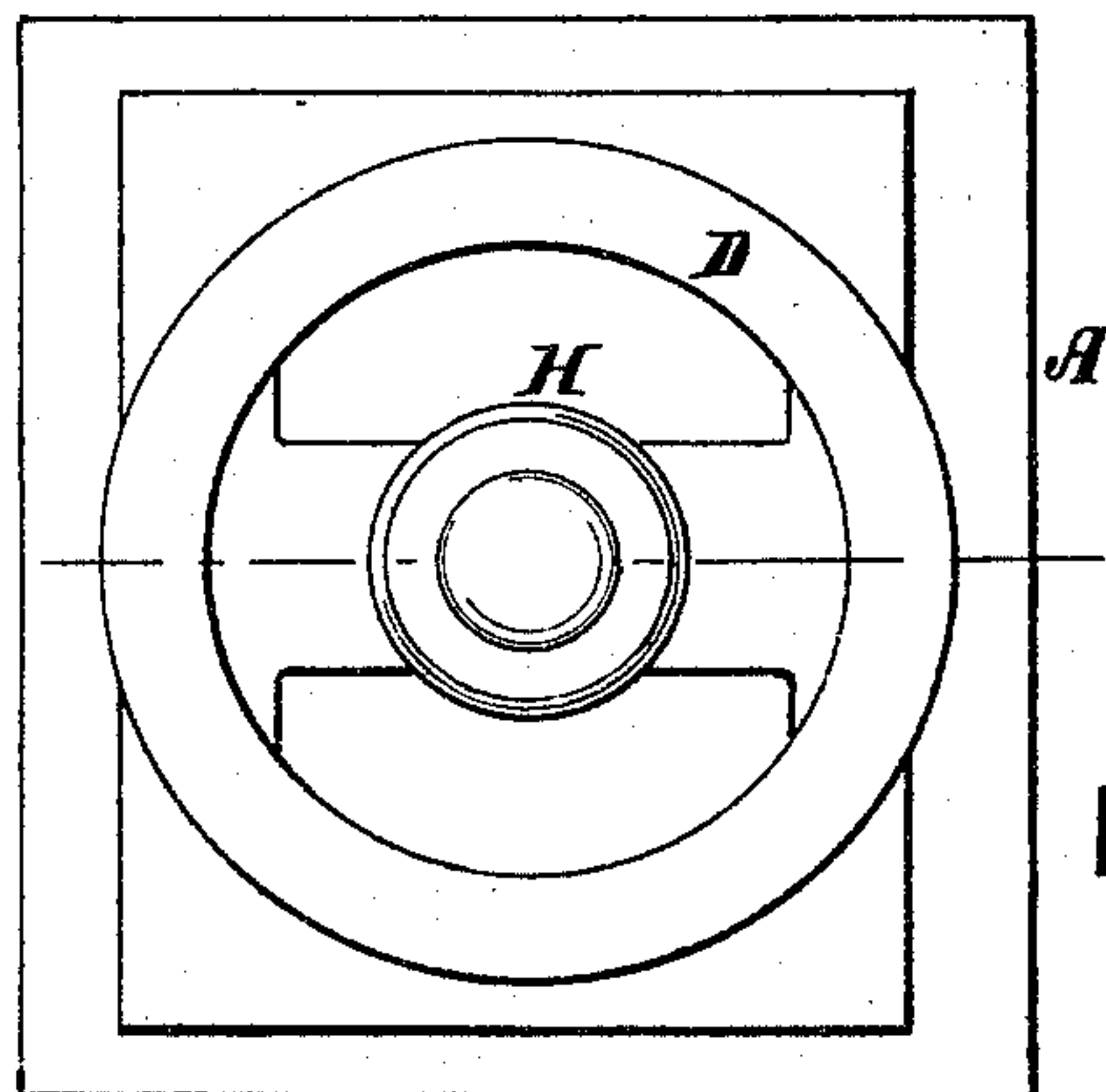


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOSHUA EVERED, OF MUSKEGON, MICHIGAN, ASSIGNOR TO HIMSELF AND
JOSHUA DAVIS, OF SAME PLACE.

IMPROVEMENT IN BALANCED SLIDE-VALVES.

Specification forming part of Letters Patent No. **144,268**, dated November 4, 1873; application filed
September 13, 1873.

To all whom it may concern:

Be it known that I, JOSHUA EVERED, of Muskegon, in the county of Muskegon and State of Michigan, have invented a new and useful Improvement in Balanced Slide-Valve, of which the following is a specification:

The invention will first be fully described and then pointed out in the claim.

In the accompanying drawing, Figure 1 is a vertical section of Fig. 3 taken on the line *x x*. Fig. 2 is an inside view of the sleeve or cover. Fig. 3 is a top view of the valve, showing it with the sleeve or cover off.

Similar letters of reference indicate corresponding parts.

A is the slide-valve. B is the face. C is the valve-rod. On the back of this valve is the cylinder D, the outside of which is accurately turned and grooved for a packing-ring, E, as seen in the drawing. To this cylinder is fitted a sleeve or cover, F, so that it plays freely but steam-tight on the cylinder D packed by ring E. The top surface of this sleeve slides in contact with the under side of the cover of the steam-chest. In the center of the cylinder

D is the piston G, which works in the interior cylinder H, and which is in communication with the valve-rod hole, as seen at I. J is the spiral spring beneath the piston G, the purpose of which is to force the piston against the sleeve or cover F, and hold the sleeve up against the steam-chest cover when the valve is not under steam-pressure. By this construction the pressure is so far taken off the face that the valve works with but slight friction, and results in a very material saving of power. The piston G is designed to work steam-tight in the interior cylinder H, and may be packed if deemed necessary.

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

A slide-valve having an outer cylinder, D, and an interior cylinder, H, a sleeve, F, and piston G, arranged substantially as and for the purposes described.

JOSHUA EVERED.

Witnesses:

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