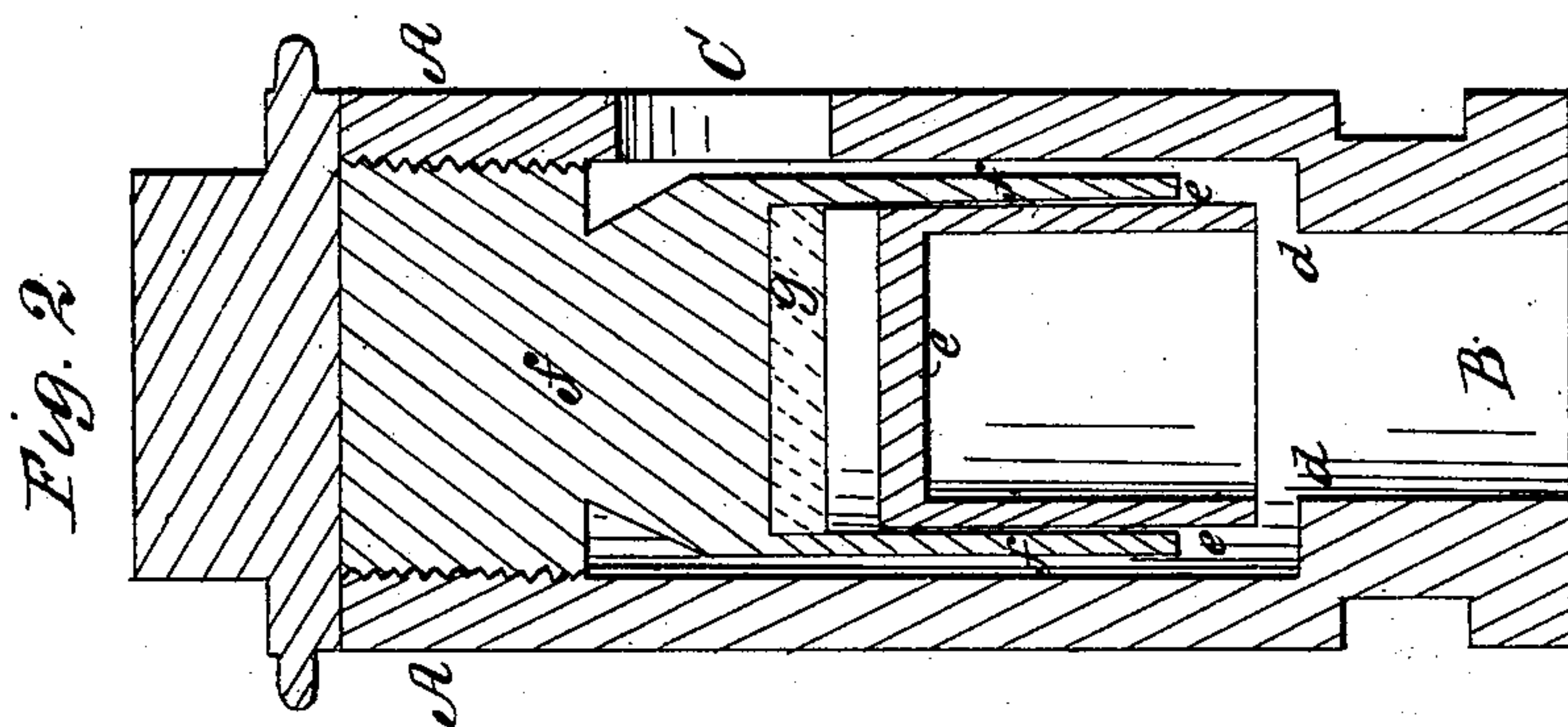
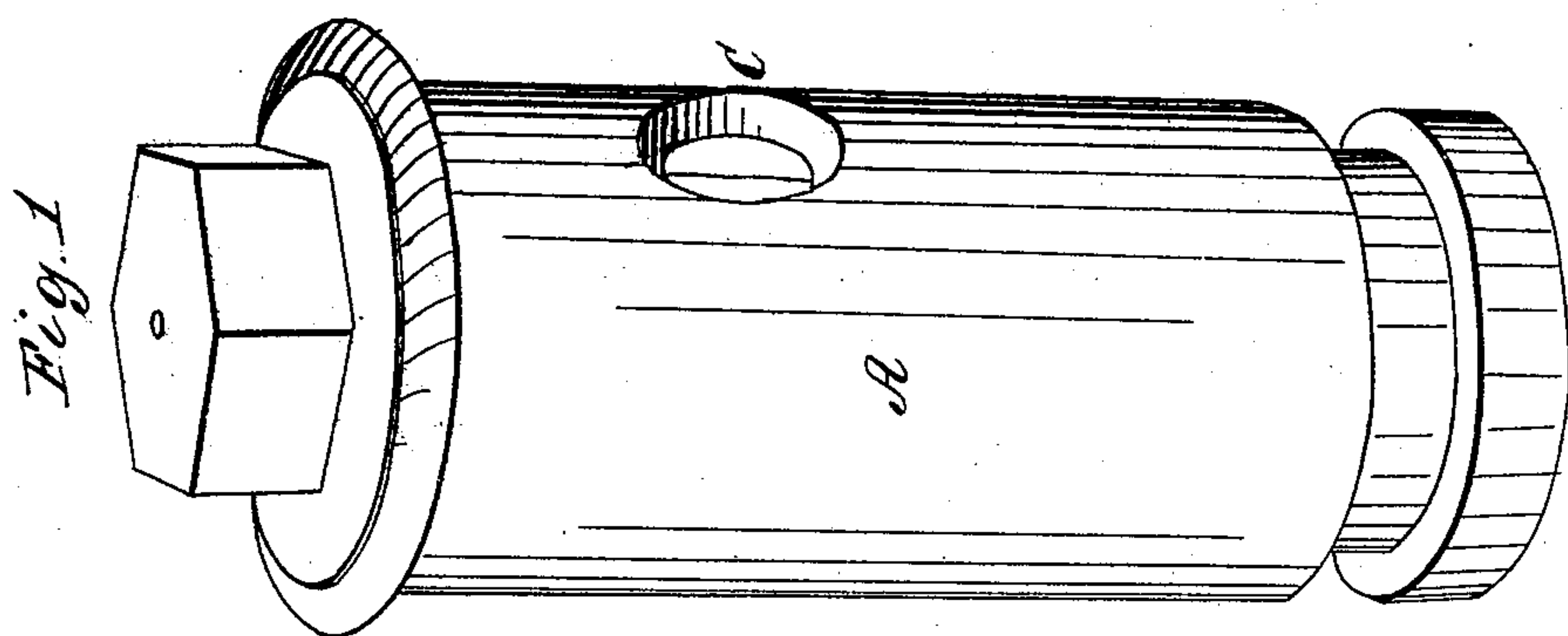


A. Jimason,
Check-Valve,
Nº 8,402, Patented Sep. 30, 1851.



UNITED STATES PATENT OFFICE.

ALEXR. JIMASON, OF PARKESBURG, PENNSYLVANIA.

SHIELD FOR VALVES.

Specification of Letters Patent No. 8,402, dated September 30, 1851.

To all whom it may concern:

Be it known that I, ALEXANDER JIMASON, of Parkesburg, Chester county, in the State of Pennsylvania, have invented an Improvement in the Guarding of Valves; and I do hereby declare the following to be a full and exact description thereof, reference being had to the annexed drawings, making part of the specification.

10 This improvement consists in furnishing the valve with a shield to protect it from the action and reaction of the fluid which surrounds it when in operation; thus preventing in a great measure the rapid destruction of the valves, valve-seats and chambers, in which the valve is generally made to work.

20 The drawings annexed exhibit this arrangement in connection with the check valve for a locomotive engine, Figure 1, being a perspective view of the chambers containing the valve and shield, and Fig. 2 a section through the axis of Fig. 1, showing the construction and operation of the shield, the same letters referring to like parts of both figures.

25 A is the valve chamber having its receiving port at B and discharging port at *c, d, d*, the seat of the valve, and *f, f, f*, the valve shield, the upper end of which is fitted to screw into A, as its cap, and the lower end terminating above the seat *d, d*, where it is recessed to receive the cap valve *e, e, e*, which is fitted to move neatly within said recess.

35 *g* is a circular piece of gum or other suitable substance, the thickness of which regulates the lift of the valve.

40 Between the chamber A and the shield *f*, is a space for the water to discharge at, C, which can be increased by enlarging the chamber A. In the operation of this valve

it is relieved from the strain incident to similar valves in manner as follows, being surrounded by a sufficiently close fitting shield to regulate the ingress, and egress of the fluid so as to prevent the slamming of the valve. When the valve is down the space above the valve is filled with steam or water according to circumstances, which when the valve commences the upward stroke acts as a spring or pad to prevent it from striking with that violence which causes the rapid destruction of these valves, in other arrangements. When the valve begins its descent owing to this shield the water and steam which commences to rush toward the receiving port, cannot act immediately upon the top of the valve and thus permits it to fall simply by its own gravity, thus saving the face of the valve and the seat from the blow which it would otherwise receive.

A further benefit derived from the use of this shield consists in the fact that it saves the necessity of new chambers as all the wear is prevented on the sides of the chambers, and transferred to the shield which can be replaced when worn out at a mere nominal expense compared with the cost of a new chamber.

What I claim and desire Letters Patent for, is,

Surrounding the valve by a shield constructed substantially in the manner as herein described and set forth, and fitting closely enough to regulate the ingress and egress of the water or steam to such a degree as to prevent the slamming of the valve in opening and closing.

ALEXANDER JIMASON.

Witnesses:

CHARLES LAVERTY,
ROBT. LAVERTY.