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H. E. WARREN.
VALVE.

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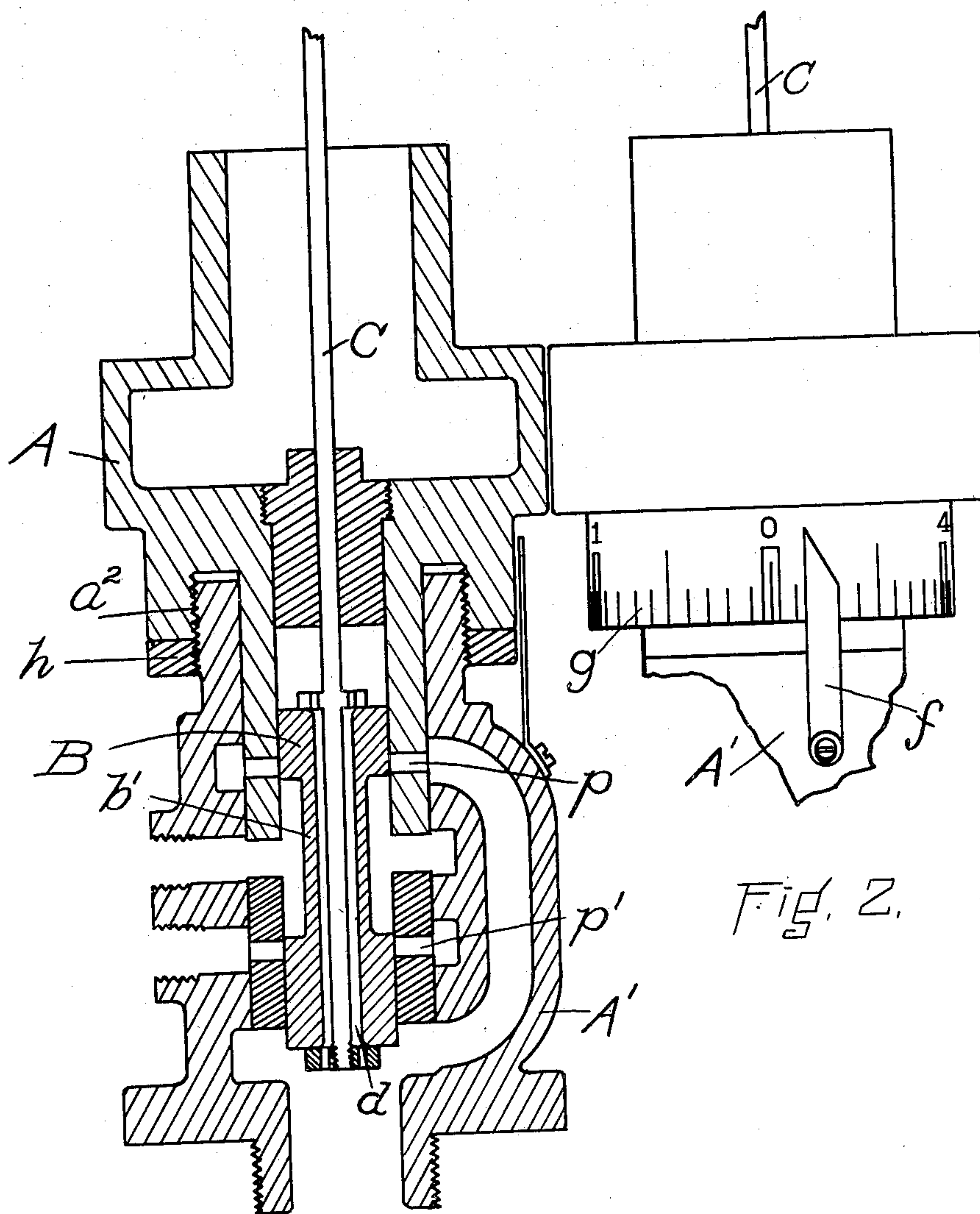


Fig. 1.

Fig. 2.

WITNESSES =
Reuben L. Roberts.
J. A. Collins.

INVENTOR =
Henry E. Warren

UNITED STATES PATENT OFFICE.

HENRY E. WARREN, OF NEWTON, MASSACHUSETTS, ASSIGNOR TO THE LOMBARD GOVERNOR COMPANY, OF ASHLAND, MASSACHUSETTS, A CORPORATION OF NEW JERSEY.

VALVE.

No. 828,832.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY E. WARREN, a citizen of the United States of America, and a resident of Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Valves, of which the following is a specification.

The invention relates to valves; and it consists in a construction by which the lap of the two portions, which may be termed the "movable" or "sliding" member and the "stationary" member, is made adjustable to compensate for wear of the overlapping surfaces. This adjustability may be contained either in the stationary member or in the sliding member, and preferably the construction should be such that the adjustment can be effected without taking the valve from its position or removing the sliding member from the stationary member.

In the drawings, Figure 1 is a central longitudinal section of the entire valve, illustrating the adjustable construction of the sliding member. Fig. 2 is a detail showing a gage upon the exterior of the case to indicate the amount of adjustment which has been made in the stationary member.

Referring to the drawings, the valve-case is made in two parts A A', made adjustable longitudinally upon one another by the screw-joint a^2 . One port p is contained in the part A and another port p' in the part A'. These two parts are what constitute the stationary member of the valve, and in the central chamber within this stationary member is the usual sliding member B, carried by the valve-stem C. The middle portion of the sliding member is reduced in diameter at b' , and the longitudinal extent of this reduced portion will determine the amount of lap of the end portions thereof over the ports $p p'$. As the port p is in the part A and the port p' in the part A', the distance between

these ports may be varied by turning the part A upon the part A' at the screw-joint a^2 , and the amount of the lap of the coacting cut-off edges of the valve may be adjusted thereby, making it more or less sensitive to linear displacement by the action of a speed-governor or other mechanism.

The construction shown in Fig. 1, wherein the ports in the stationary member are adjustable in relation to each other by moving one part of the case upon the other, is most convenient, and this may be accomplished by applying a wrench externally to the part A and turning it even while the valve is in use. For the purpose of determining accurately the amount of such adjustment a graduated scale or gage g upon the part A is provided with a superposed finger f , attached to the part A', as shown in Fig. 2. The sliding member of the valve is balanced by making one or more passages d longitudinally through the central portion thereof. A check-nut h may be employed to lock the parts A A' after they have been adjusted.

I claim—

1. In a valve, a two-part casing with an induction-port in each part, which parts are adapted to be moved longitudinally upon one another to adjust the distance between said ports.

2. In a valve, means to adjust the distance between the ports to vary the lap beyond the coacting cut-off edges of the movable member which controls the ports.

3. In a valve, means to adjust the distance between the ports to vary the lap beyond the coacting cut-off edges of the movable member which controls the ports, and a gage upon the exterior of the valve-case to indicate the amount of linear or longitudinal adjustment.

HENRY E. WARREN.

Witnesses:

R. L. ROBERTS,
F. A. COLLINS.