

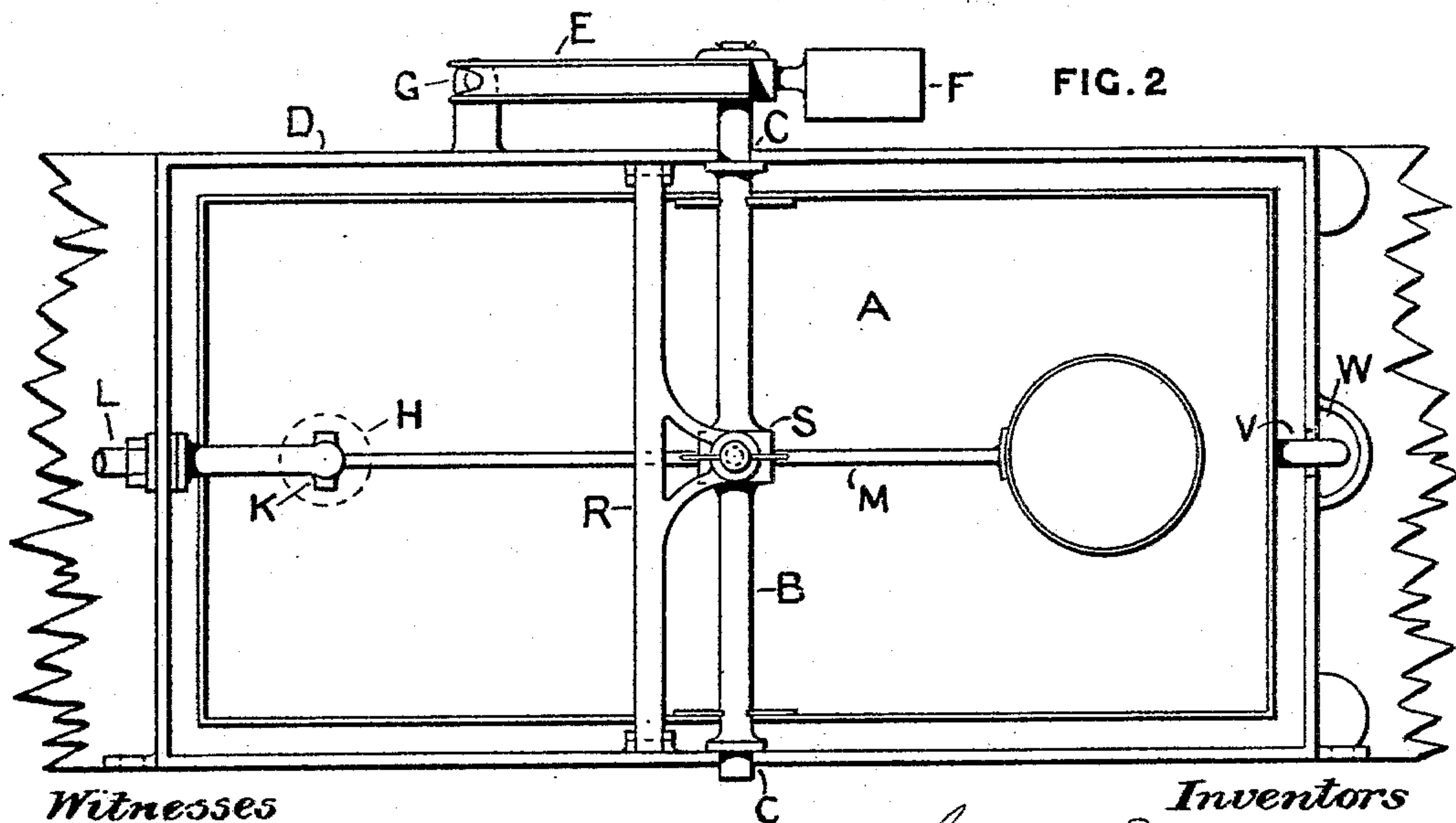
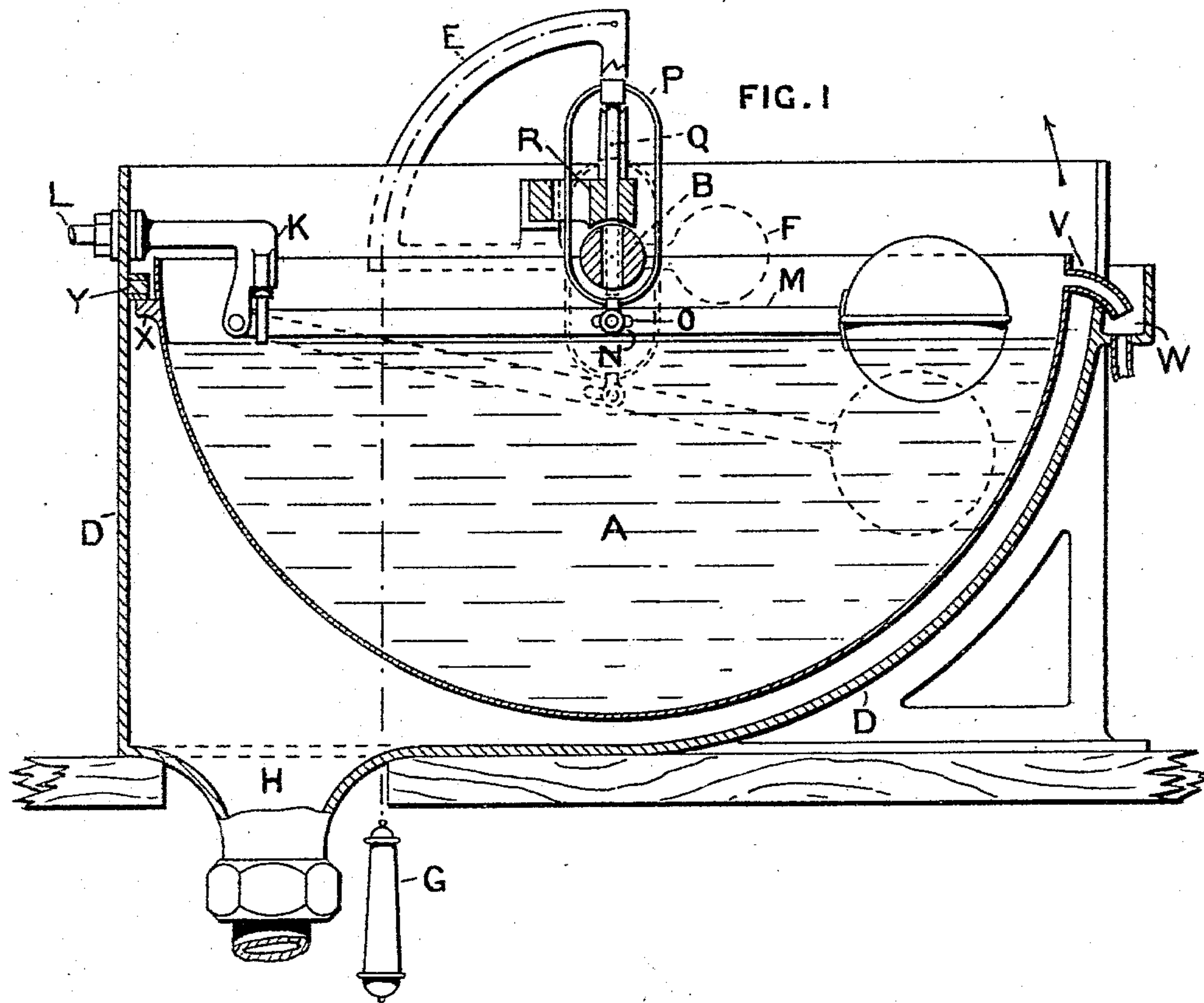
(No Model.)

2 Sheets—Sheet 1.

J. & W. J. SHERMAN.
FLUSHING CISTERN.

No. 551,514.

Patented Dec. 17, 1895.



Witnesses

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(No Model.)

2 Sheets—Sheet 2.

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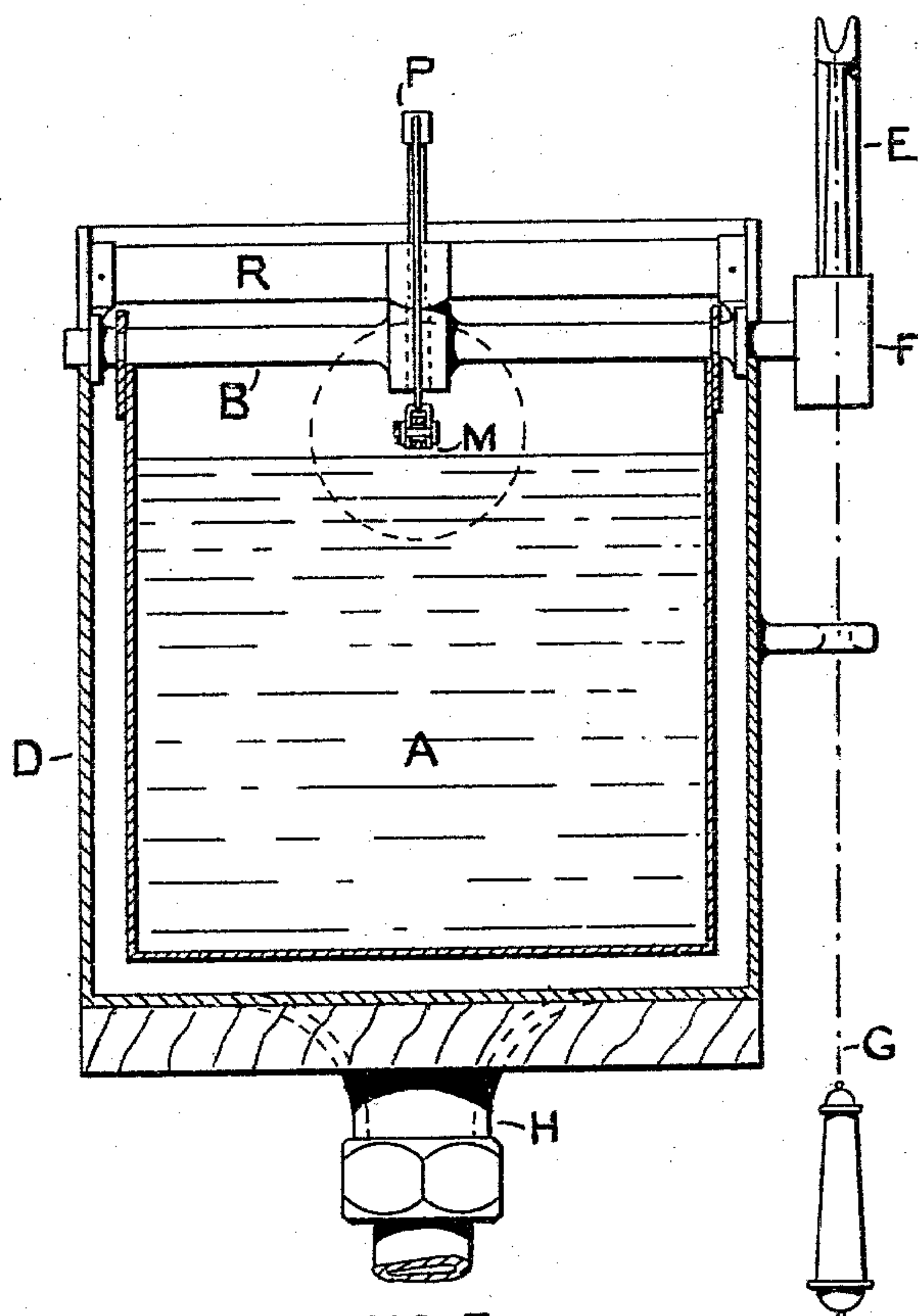


FIG. 3

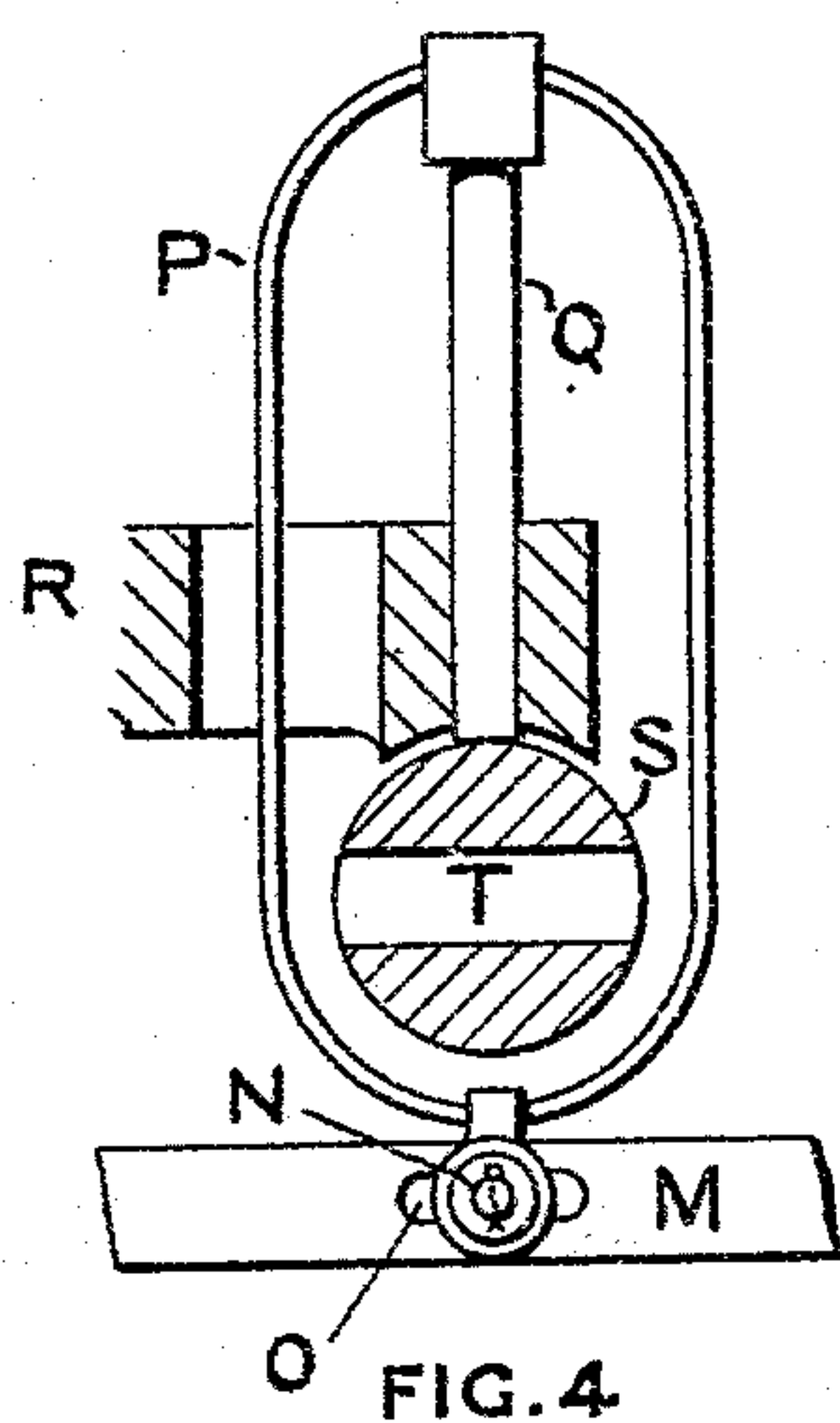


FIG. 4

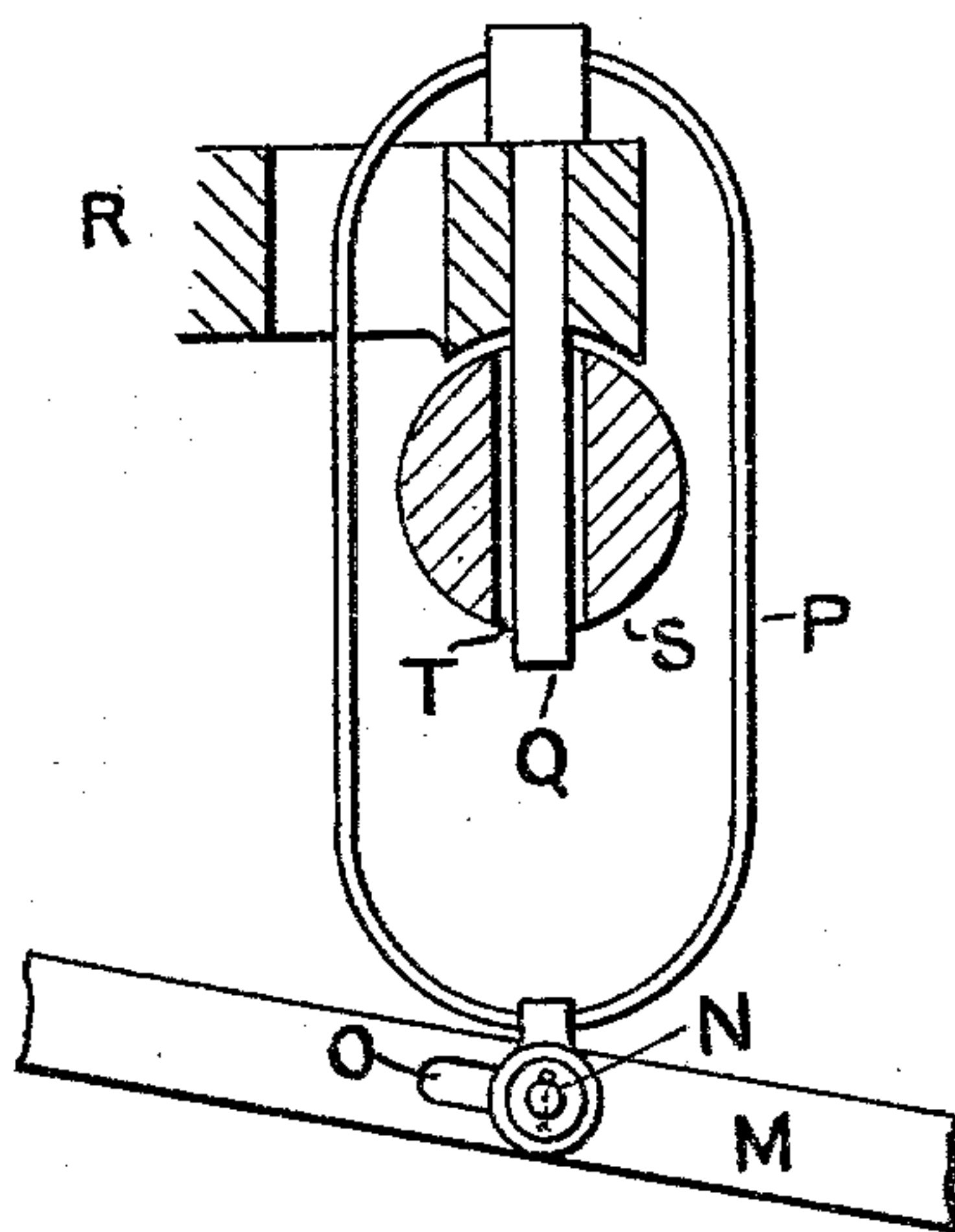


FIG. 5

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UNITED STATES PATENT OFFICE.

JAMES SHERMAN AND WILLIAM JAMES SHERMAN, OF LONDON, ENGLAND.

FLUSHING-CISTERN.

SPECIFICATION forming part of Letters Patent No. 551,514, dated December 17, 1895.

Application filed January 11, 1895. Serial No. 534,581. (No model.)

To all whom it may concern:

Be it known that we, JAMES SHERMAN and WILLIAM JAMES SHERMAN, subjects of the Queen of Great Britain and Ireland, residing at London, England, have invented an Improvement in Flushing-Cisterns, of which the following is a specification.

This invention relates to flushing-cisterns; and it consists in improved apparatus whereby a sudden flush of a definite volume of water may be given, with small effort, by the pulling of a handle, no further discharge of water being obtainable until the flushing-trough has again been filled, all waste from the main supply being prevented by the locking up of the ball-valve during the return movements of the flushing-trough, and the locking of the flushing-trough in its filling position while the ball-valve is open.

Figure 1 is a longitudinal section through our apparatus complete. Fig. 2 is a plan thereof. Fig. 3 is a transverse section thereof. Fig. 4 is a detached and enlarged detail of the locking apparatus with the ball-valve lever locked up. Fig. 5 is a similar enlarged detail with ball-lever down and the flushing-trough locked in position for filling.

A is the internal flushing-trough, conveniently of the shape of a half-sector of a circle, mounted on a pivot or axis B, resting on bearings C in an external tank D. The pivot or axis B is placed preferably at the radial center of the sector-shaped flushing-trough.

A quadrant or arm E is fitted at the end of the pivot or axis B, outside the external tank D, counterbalanced by a weight F, and the said arm or quadrant E is operated by a chain or wire and handle G, though rod connections and a lifting-handle may be equivalently employed.

The pull of the handle and chain G serves to tilt the flushing-trough A and to discharge its contents, as a sudden flush, into the external tank D, and thence by the flushing-pipe H to the water-closet or other apparatus.

K is the ball-tap fitted to the main supply-pipe L.

To the ball-lever M is attached by a pin N, working in a slot O in the said ball-lever, a bridle P, provided with a central locking-pin Q. The said locking-pin Q works in a fixed guide R attached to the external tank D and coacts

with a locking-body S which turns with the trough A and is conveniently formed by an enlarged portion of the pivot or axis B. The lower end of the locking-pin Q rests upon the locking-body S and thus holds the ball-tap lever up, as in Fig. 4, when the flushing-trough is in any other position than that for filling, as in Fig. 1. In this filling position of the flushing-trough the pin Q coincides with a hole T in the locking-body S and the ball-tap lever is allowed to descend to the position shown in Fig. 5, while the flushing-trough is then locked in position until full. The tilting movement of the flushing-trough, as it returns empty to rest, may be checked by a tongue X on the trough and a stop Y on the external tank. The overflow of the flushing-trough, should there be leakage at the ball-tap, may either be permitted to overflow into the external tank and thence discharged by the flushing-pipe H, or, preferably, may be carried by a nozzle V, attached to the trough, into a fixed catch-cup and waste-pipe W, attached to the external tank. In connection with this arrangement the locking-pin Q and locking-body S serve to insure the discharge of all waste water through said catch-cup and waste-pipe W, and thus to facilitate the detection of such overflow.

Having fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a flushing apparatus, a tilting flushing-trough, means for tilting the same, and a locking-body turning with said trough, in combination with a locking-pin, a fixed guide for said pin, and a ball-tap lever connected with said pin, substantially as hereinbefore specified.

2. In a flushing apparatus, a tilting flushing-trough, means for tilting the same, and a locking-body turning with said trough and having a hole, in combination with a locking-pin, a fixed guide for said pin, a bridle for said pin, and a ball-tap lever pivotally attached to said bridle, substantially as hereinbefore specified.

3. An improved flushing apparatus consisting of a tilting trough in the form of a sector of a circle provided with an overflow nozzle, a fixed external tank provided with a fixed catch-cup and waste-pipe to coact with said

nozzle in the filling position of the tilting
trough, means for tilting said trough, a ball-
tap within said trough and means for locking
the ball-tap lever when said trough is tilted
5 and keeping the same locked until the trough
returns to said filling position, substantially
as hereinbefore specified.

In testimony whereof we have signed our

names to this specification in the presence of
two subscribing witnesses.

JAMES SHERMAN.

WILLIAM JAMES SHERMAN.

Witnesses:

RICHARD A. HOFFMANN,

CHARLES A. CARTER.