

No. 709,102.

Patented Sept. 16, 1902.

J. H. MARTIN & D. ORMAND.

WATER GATE.

(Application filed Mar. 24, 1902.)

(No Model.)

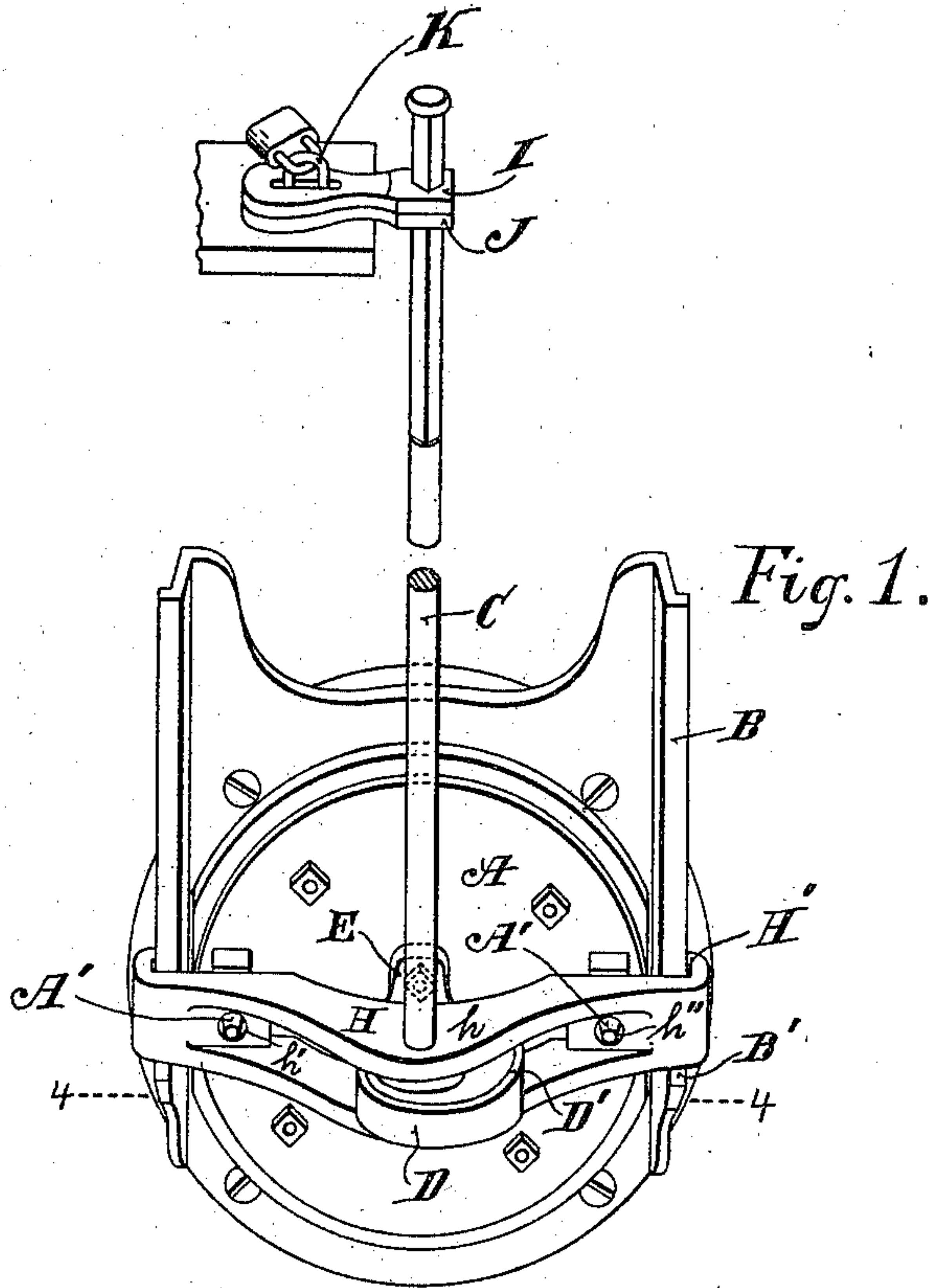


Fig. 2.

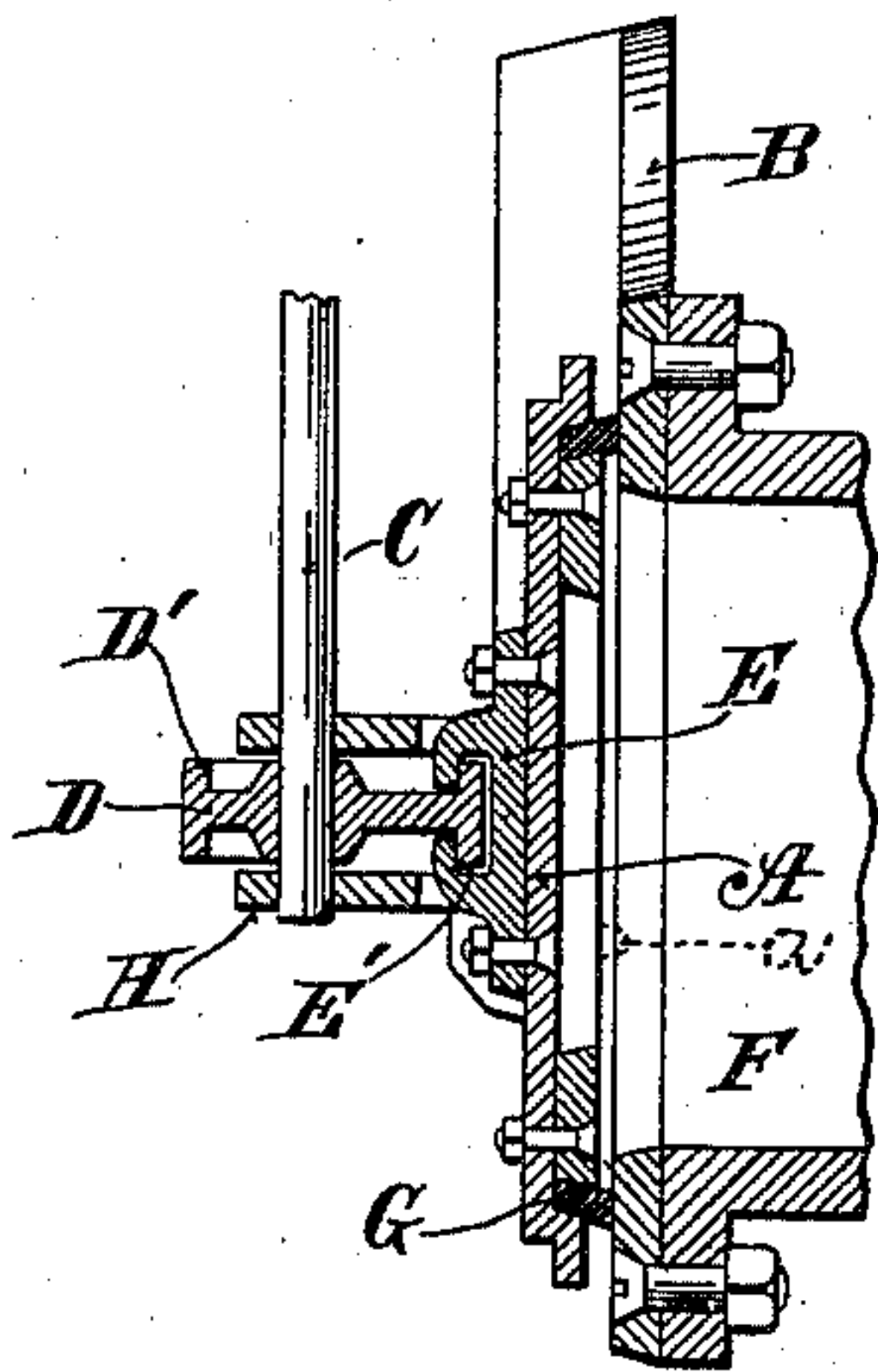


Fig. 3.

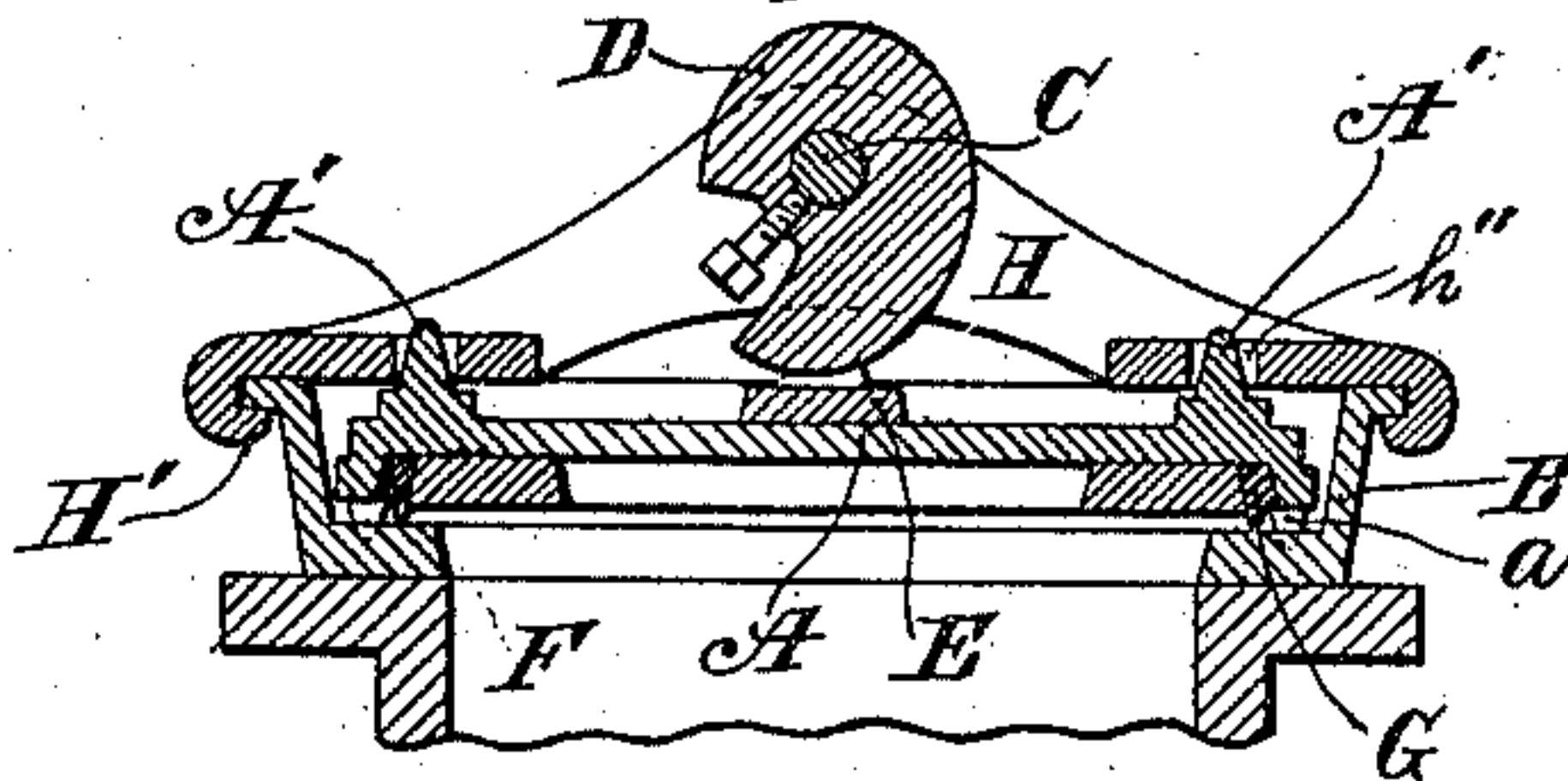
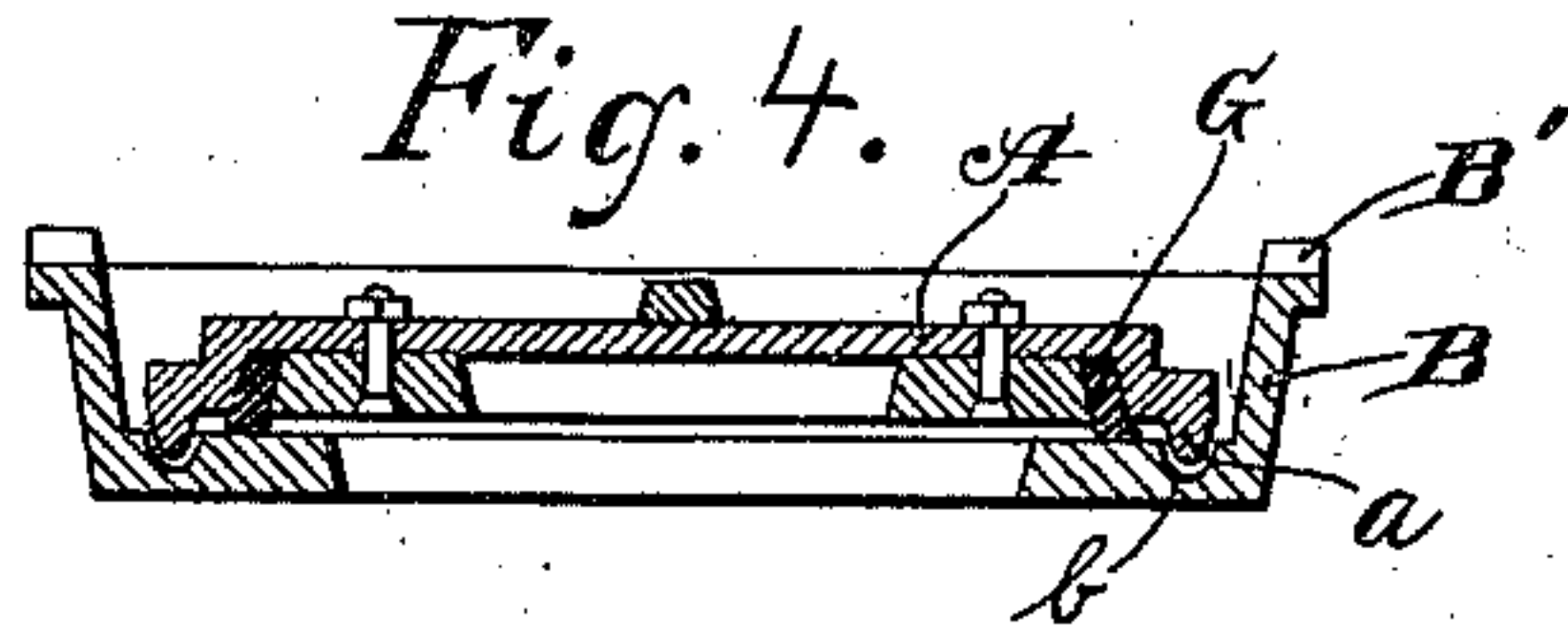


Fig. 4.



WITNESSES:

Chas. L. Hyde.
M. B. Nickerson.

INVENTORS:

Joseph H. Martin.

David Ormand.

BY *Harold H. H. H.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOSEPH H. MARTIN AND DAVID ORMAND, OF RIVERSIDE, CALIFORNIA.

WATER-GATE.

SPECIFICATION forming part of Letters Patent No. 709,102, dated September 16, 1902.

Application filed March 24, 1902. Serial No. 99,811. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH H. MARTIN and DAVID ORMAND, citizens of the United States, residing at Riverside, in the county of Riverside, State of California, have invented new and useful Improvements in Water-Gates, of which the following is a specification.

Our invention relates to water-gates used for cutting off a part or all of the water flowing in the pipe-line where it is diverted for irrigation.

The object of our invention is to provide a water-gate of simple construction that will be reliable in action and dispense with springs and gearing which have heretofore been used in water-gates of this character, to provide at the same time means to place the gate in exact register with the seat and to press the same directly against the seat without turning the gate or moving it up or down while doing so, and to provide means in opening the gate so the gate will move back and away from the seat to provide ample clearance for the movement of the gate vertically to and from its position in register with and in front of the seat. We accomplish these objects by means of the device described herein and shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a gate embodying our invention. Fig. 2 is a central vertical section thereof. Fig. 3 is a central longitudinal section. Fig. 4 is a longitudinal section taken on the line 4 4 of Fig. 1.

In the drawings, A represents the gate, mounted in guideways B, secured to the end of a pipe-line F to open and close the same by the vertical movement of the gate in said guideways. The gate is raised and lowered by means of the stem C. On the lower end of this stem a cam D is keyed and is carried by the sliding bracket H, particularly hereinafter referred to. This cam is provided with flange D', arranged to enter the groove E' of the flange-guide E, and thereby engage the said guide, which is securely bolted to the face of the gate and over the center thereof. Projecting inwardly from the gate-plate are teats a, (see Fig. 4,) adapted to enter depressions b in the flanged guideway B and hold the plate in exact register with the opening in the guideway B, which forms the gate-seat.

An annular rubber gasket G is removably secured to the inner face of the gate-plate and adapted to contact with the gate-seat on the flanged guideway and form a water-tight connection between the gate and the seat when the seat is pressed home. To cause the gate-plate as it is moved down into position to stop directly over the gate-seat, we have provided in addition to the teats a on the plate stops B' on the flanged guide-plate arranged to limit the downward movement of the gate-plate over the gate-seat, the projecting ends of the bracket H being adapted to rest on these catches. The stem C is journaled at its lower end in this bracket H between the upper and lower members h and h' thereof. This bracket H has a vertical movement along the flanged guide-plate B, the flanges H' thereof engaging the flanges on the guide-plate B. Openings h'' in the bracket are provided to receive the projecting teats A' on the gate-plate, and to thereby provide means whereby the gate-plate can be moved toward or from the bracket when the cam is rotated and thereby crowd the gasket G into air-tight contact with the seat or remove it away therefrom. From the above it will be plain that a gate secured to the sliding bracket as shown may be placed in the flanged guideway and permitted to drop down and in register with the gate-seat, the cam being turned so that the face-plate stands away from the seat. While in this position, the face-plate can be moved up and down over the seat without contacting therewith, injuring the gasket thereby. The flanges on the cam entering the opening in the flanged guide E and moving therein cause the gate-plate to have a positive movement to and from its seat, dispensing with the use of springs and gear so objectionable in devices of the kind as heretofore constructed. The upper end of the gate-stem C is made square to fit a square opening in the lever I, by means of which the stem is rotated, a round opening being provided in the lever J, so that it may remain on the staple K while the stem is being rotated to seat or unseat the gate, longitudinal openings being provided in both levers, so that they can be passed over the staple K and securely locked thereon.

Having described our invention, what we

claim as new, and desire to secure by Letters Patent, is—

1. A water-gate for use in an irrigating system, comprising the gate-plate slidably
5 mounted on the end of an irrigating pipe-line and movably connected with a sliding bracket, a sliding bracket having means to engage a vertical flanged guideway, a vertical flanged
10 guideway secured to the end of the pipe-line and having an opening therein to register with the opening in the pipe-line, the portion of the flanged guide surrounding the opening forming the seat for the gate, a vertical stem
15 journaled in the sliding bracket, a cam keyed to said stem and having flanges thereon adapted to engage flanges on the flanged guide; a flanged guide secured to the face-plate and means to rotate said stem to open and close the gate.
- 20 2. A water-gate of the character herein described comprising the cam D keyed to the stem C the said cam provided with guide-engaging flanges D', a sliding bracket H carrying said cam, the said stem being journaled
25 in said bracket, the gate-plate A having secured thereto a flanged guide E adapted to engage the flanges on the cam, whereby the

rotation of the operating-stem will cause the gate-plate to move to or from the stem substantially as shown and described. 30

3. In a vertically-sliding water-gate of the character herein described, means to limit the downward movement of the gate-plate, and hold the same in register with the seat in the gate, comprising a flanged guide-plate 35 B having catches B' thereon a bracket H adapted to contact with said catch, the said bracket having perforations *h''* therethrough, the gate-plate being provided with the projecting teats A' adapted to enter into the perforations *h''* in the bracket, the face-plate being provided also with projecting teats *a*; recesses *b* in the flanged guide B to hold the teats when the gate-plate is seated substantially as shown and described. 40 45

In witness that we claim the foregoing we have hereunto subscribed our names this 18th day of March, 1902.

JOSEPH H. MARTIN.
DAVID ORMAND.

Witnesses:

HENRY T. HAZARD,
G. E. HARPHAM.