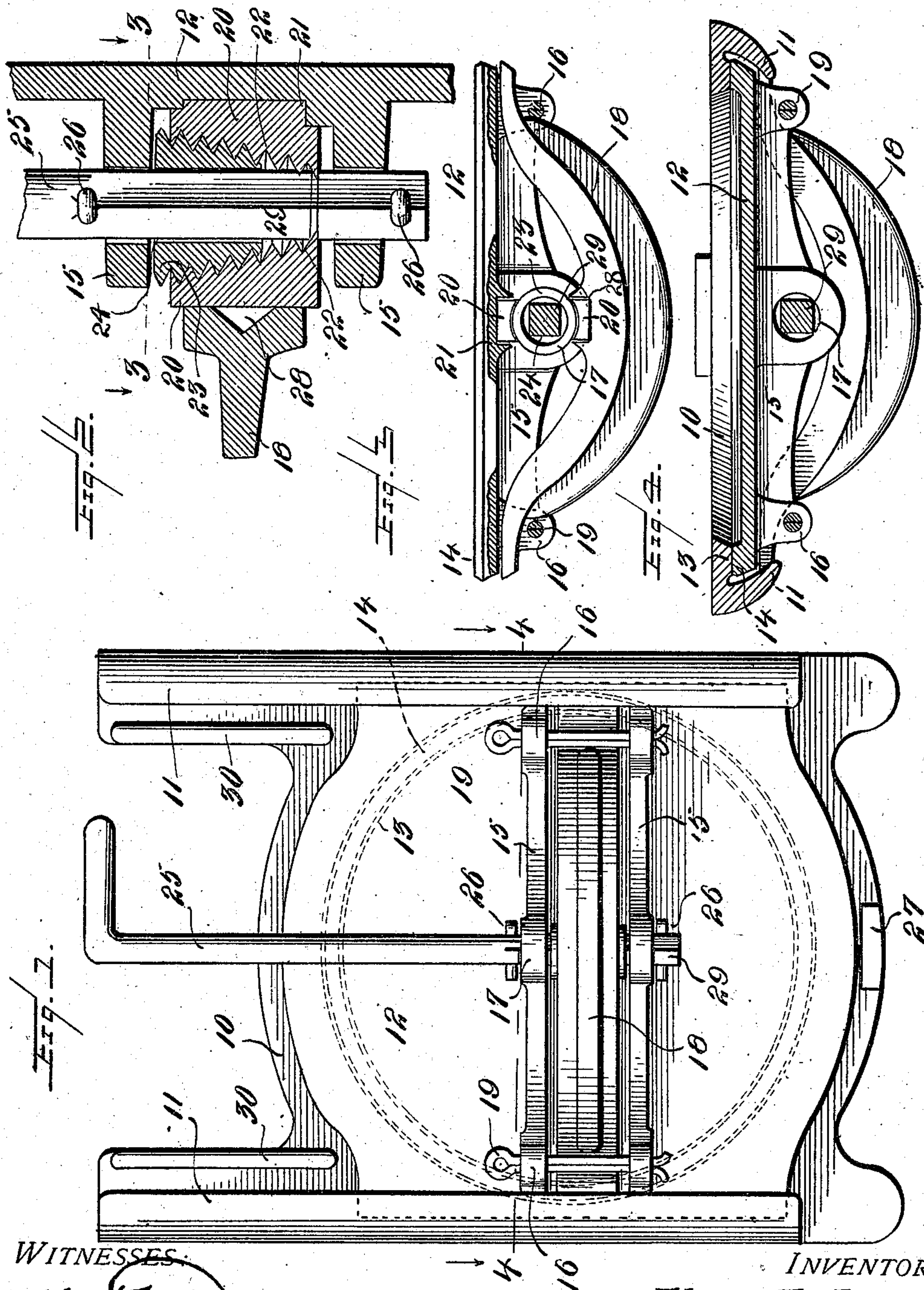


No. 881,692.

PATENTED MAR. 10, 1908.

E. E. IZER.
WATER GATE.

APPLICATION FILED AUG. 28, 1907.



WITNESSES:

Wm. F. Foye
Alfred S. Page

INVENTOR

Elmer E. Izer.

BY

E. B. Stouling

Attorney

UNITED STATES PATENT OFFICE.

ELMER E. IZER, OF POMONA, CALIFORNIA.

WATER-GATE.

No. 881,692.

Specification of Letters Patent.

Patented March 10, 1908.

Application filed August 28, 1907. Serial No. 390,521.

To all whom it may concern:

Be it known that I, ELMER E. IZER, citizen of the United States, residing at Pomona, county of Los Angeles, and State of California, have invented certain new and useful Improvements in Water-Gates, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to certain new and useful improvements in water gates, and particularly to the means for holding the cover thereof under pressure.

15 The invention has for an object to provide a novel and improved gate of the slide type wherein the frame thereof is provided with guideways in which the cover is adapted to slide, said cover having a brace or rib extending across the face thereof, the ends of which engage beneath said guideways, and means for placing said brace under holding position.

20 A further object of the invention is to provide a novel and improved means for forcing said brace and cover apart comprising nut members adapted to receive a tapered screw between them which is provided with any suitable operating handle, whereby a perfectly water tight joint is effected between the gate and cover.

30 Other and further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined by the appended claims.

35 In the drawing:—Figure 1 is a front elevation of the gate in closed position; Fig. 2 is a central vertical section through the screw and nut members; Fig. 3 is a reduced section on line 3—3, Fig. 2, and Fig. 4 is a section on line 4—4 Fig. 1.

40 Like numerals refer to like parts in the several views of the drawings.

Referring to the drawing, the numeral 10 designates the frame of the gate which is provided at opposite sides with the guideways 11 in which the cover 12 is adapted to slide. The frame is provided with the smoothed or finished portion 13 surrounding the opening therethrough to correspond with the portion 14 on the cover. The cover is provided upon one face with the parallel ribs or lugs 15 having the apertured lugs 16 at each end thereof and the apertured lug 17 at the center thereof. Across the face of the cover and between said ribs is the brace 18 having its opposite ends beveled and dis-

posed in the guideways 11 and adapted to engage the inner face thereof. This brace is arched and held in position between the lugs 15 by means of the cotter pins 19 passing through the lugs 16.

Interposed between this brace 18 and the face of the gate are the opposite nut members 20 one of which is seated at 28 in said brace and the opposite one being seated in the recess 21 of the cover, as shown in Fig. 2. These nut members are tapered and threaded interiorly as at 22 to receive the tapered screw 23 having the central angular aperture 24 by which it is mounted to travel upon the angular portion 29 of the operating handle 25 which passes through said screw and the lugs 15 and is secured in position by means of the cotter pins 26. The lower end of the frame of the gate is provided with the lug 27 to limit the downward movement of the cover, as shown in Fig. 1, while the clamping flanges 30 are disposed at the top against which the cover is held when open.

80 In the operation of the invention, after the cover has been brought to the desired position, whether open or shut, or only partially so, the handle is turned to the right thus forcing the screw between the nut members and moving them apart thereby forcing the cover away from the brace as the screw travels downward on the operating handle, and since the opposite ends of the brace engage the inner face of the guideways the cover is forced tightly against the frame of the gate thereby effecting a perfectly water tight joint. It will be seen that the cotter pins hold the brace closely in position against the cover so that when the cover is removed from the frame it cannot become displaced or separated from the cover, but can be readily reentered in the guideways. It will thus be seen that the invention presents a simple, economical and very efficient means for effecting a rigid engagement between the cover and frame of the gate to effect a perfectly water tight joint.

Having now described my invention and set forth its merits, what I claim and desire to secure by Letters Patent is:—

1. A water gate comprising a frame having guideways at its opposite sides, a cover mounted to slide in said ways, a brace extending between the guideways and across the cover, separable members interposed between said cover and said brace, and means for forcing said members apart.

2. A water gate comprising a frame having guideways at its opposite sides, a cover slidably mounted in said ways, an operating handle mounted upon the cover, an operating device carried by said handle, a brace disposed between said guideways, and separable members disposed between said brace and cover to receive said device for forcing the members apart.

3. A water gate comprising a frame having guideways at its opposite sides, a cover slidably mounted in said ways, a brace extended between said ways and across the cover, separable members interposed between said brace and cover to force the same apart, and a handle having an operating device disposed between said means and mounted to travel longitudinally upon the handle.

4. A water gate comprising a frame having guideways at its opposite sides, a cover slidably mounted in said ways, parallel lugs at opposite sides of the cover, a brace disposed between said lugs and having its opposite ends in said ways, retaining means extending between the lugs at one side of said brace, and means interposed between said brace and cover to separate the same.

5. A water gate comprising a frame having ways at opposite sides thereof, a cover to slide in said ways, a brace extending across the face of said cover with its opposite ends disposed in said ways, means carried by the cover to retain said brace in position, nut members interposed between said brace and cover, and means for separating said nut members.

6. A water gate comprising a frame having ways at opposite sides thereof, a cover to slide in said ways, a brace extending across the face of said cover with its opposite ends disposed in said ways, means carried by the cover to retain said brace in position, nut members having a tapering threaded face interposed between said brace and cover, a tapered screw to engage said face, and means for rotating said screw.

7. A water gate comprising a frame having

ways at opposite sides thereof, a cover to slide in said ways, a brace extending across the face of said cover with its opposite ends disposed in said ways, means carried by the cover to retain said brace in position, nut members having a tapering threaded face interposed between said brace and cover, a tapered screw to engage said face and having an angular aperture therethrough, and an operating handle having an angular portion disposed in said aperture.

8. A water gate comprising a frame having guideways at opposite sides thereof, a cover to slide in said ways, parallel lugs upon the face of said cover, a brace disposed between said lugs with its opposite ends disposed in said ways, means extended between the lugs to retain said brace in position, a nut member supported by said cover, an opposite nut member carried by the brace, a screw to engage and separate said nut members, and a rod extending through said screw and the lugs on said cover for rotating said screw.

9. A water gate comprising a frame having ways at opposite sides thereof, a cover to slide in said ways, an arched brace supported by the cover, a handle mounted on said cover, a screw carried by said handle, and separable nut members disposed between the brace and cover to cooperate with said screw.

10. A water gate comprising a frame having ways at opposite sides thereof, a cover to slide in said ways, an arched brace supported by the cover, a handle mounted on said cover, a screw carried by said handle, separable nut members disposed between the brace and cover to cooperate with said screw, means for retaining said nut members upon said brace and cover, and means to permit the travel of said screw upon said handle.

In testimony whereof I affix my signature in presence of two witnesses.

ELMER E. IZER.

Witnesses:

M. W. ZANDER,
RAE BROWNE.