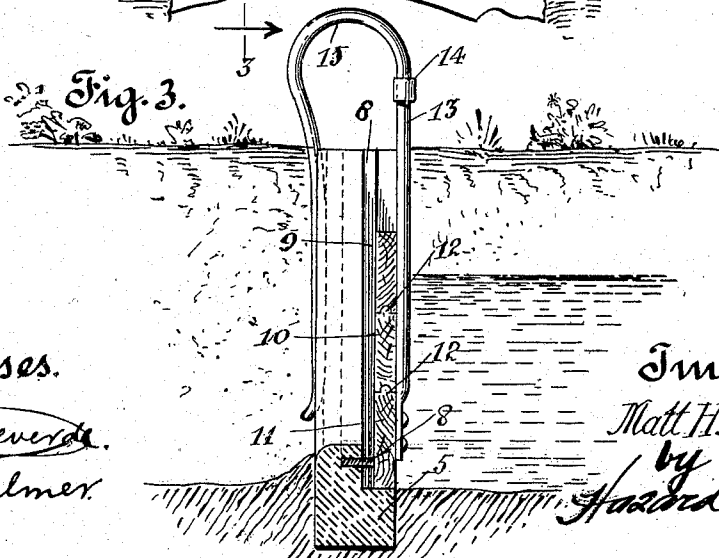
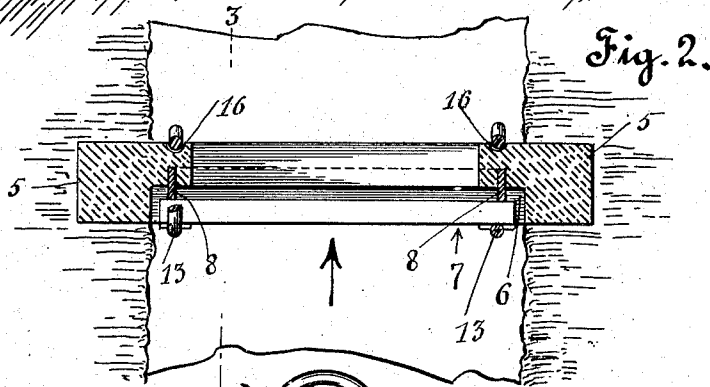
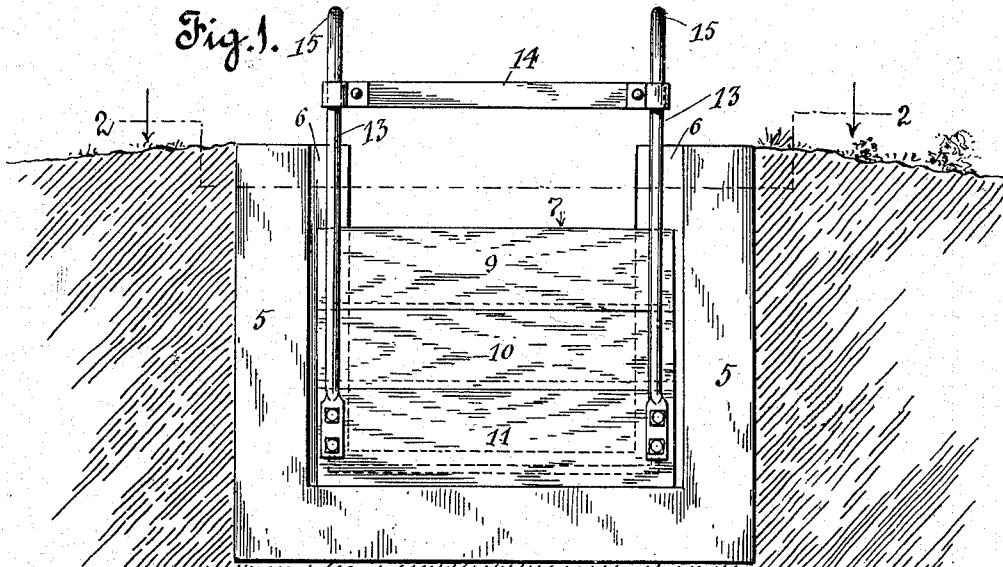


M. H. WORLEY.  
FLUME GATE.  
APPLICATION FILED JUNE 23, 1909.

952,658.

Patented Mar. 22, 1910.



Witnesses.

*H. Monteverde*  
M. A. Palmer

Inventor,  
Matt H. Worley,  
by  
*Harold Thause*  
Attorneys

# UNITED STATES PATENT OFFICE.

MATT H. WORLEY, OF REDLANDS, CALIFORNIA.

## FLUME-GATE.

952,658.

Specification of Letters Patent.

Patented Mar. 22, 1910.

Application filed June 23, 1909. Serial No. 503,778.

*To all whom it may concern:*

Be it known that I, MATT H. WORLEY, a citizen of the United States, residing at Redlands, in the county of San Bernardino and State of California, have invented new and useful Improvements in Flume-Gates, of which the following is a specification.

This invention relates to flume gates for shutting off a part or all of the water flowing in an irrigation ditch or flume, and a main object thereof is to provide a construction, whereby the gate may be opened to any desired extent and maintained in position without the employment of any locking device.

A further object is to provide a gate that will remain in spring pressed engagement with its seat in a desired position, and one in which the flow of water passing there-through may be regulated.

Another object is to provide a gate construction that will not clog or stick with sand, and that obviates the excessive amount of friction usual in gates that operate in guideways.

In the accomplishment of the above objects I preferably employ a concrete gate-frame provided with metallic gate-seats embedded therein, and a sliding gate composed of a plurality of sections maintained in water tight engagement with each other by any suitable means, spring means being secured to the gate to maintain it in spring pressed engagement with its seat, the spring means working in grooves formed on the face of the gate frame opposite the gate-seat.

In the drawings attached hereto and forming a part of this specification, Figure 1—is a cross section of an earthen flume showing the method of placing the gate therein. Fig. 2—is a sectional plan of the flume with the gate in place therein taken on line 2—2 of Fig. 1. Fig. 3—is a longitudinal section taken on line 3—3 of Fig. 2.

In the drawings, 5 designates a gate-frame, preferably formed of concrete or similar material and rectangular in configuration. This frame is adapted to be embedded in the earth which forms the flume herein illustrated, the inner edges which form the opening therein projecting into the flume. One face of this frame is depressed to form a rectangular depression 6 for the reception of the sliding gate 7, which will be more particularly described hereinafter.

The vertical faces of the depression 6 are provided with metal bars 8 which project from the faces thereof to form a water tight gate-seat. These bars are preferably formed of thin metal, so as to present as little frictional surface for the sliding gate as possible.

The gate 7 is preferably formed of a plurality of horizontally disposed sections 9, 10, 11 held in detachable relation with each other by means of tongues and grooves 12, thus permitting the removal of as many sections as desired to retard the flow of water passing over the gate when it is in its seated position, as illustrated in the various views of the drawings. Rigidly secured to the lowermost section 11 are a plurality of vertically extending rods 13 which terminate at their upper ends above cross-bar 14 in spring members 15, which extend downwardly and bear in grooves 16 formed in the face of the gate-frame. It will be apparent that by means of these spring members 15, the gate may be instantly raised at any desired height, and maintained in that position without the employment of any locking or similar devices, the flow of water against the gate tending to assist the springs in maintaining a water tight engagement of the gate with its seat. It will also be apparent from the above description that I have provided a gate which is simple in construction and which may be efficiently employed in various situations.

Having described my invention what I claim as new and desire to secure by Letters Patent is:—

1. A flume gate, comprising a frame provided with a gate-seat, a gate vertically movable therein, and resilient means secured to the gate and acting against said frame to maintain the gate in water tight engagement with the seat.

2. A flume gate, comprising a frame formed of concrete, a metallic gate-seat embedded therein, a gate composed of a plurality of detachable sections vertically movable therein, and resilient means secured to one of said sections and bearing against the opposite face of said frame to maintain the gate in frictional engagement with its seat.

3. A flume gate, comprising a rectangular frame formed of concrete and provided with a metallic gate-seat embedded therein projecting beyond the face of the frame, a gate composed of a plurality of detachable

sections vertically movable therein, and a pair of springs secured to the lower of said sections, the upper ends of said springs contacting with the face of said frame opposite the gate-seat.

4. A flume gate, comprising a frame provided with a gate-seat, a gate vertically movable therein, and spring means secured to the gate and acting against said frame to maintain the gate in water tight engagement with the seat.

5. A flume gate, comprising a frame formed of a cementitious material, a me-

tallic gate seat rigidly embedded therein, a gate slidably mounted in said frame and acting against said seat, and resilient means secured to said gate and contacting against said frame to maintain said gate in water tight engagement with said seat.

In witness that I claim the foregoing I have hereunto subscribed my name this 17th day of June, 1909.

MATT H. WORLEY.

Witnesses:

CHAS. E. TRUESDELL,  
W. J. ANDERSON.