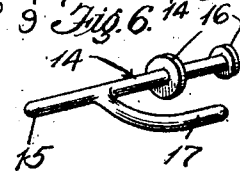
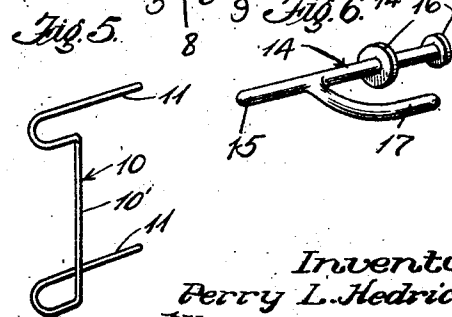
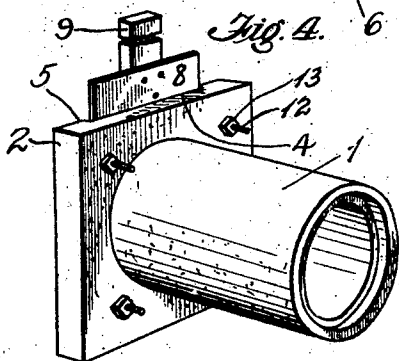
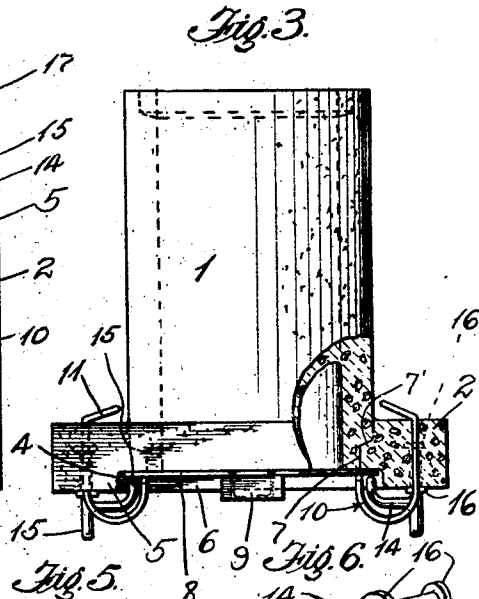
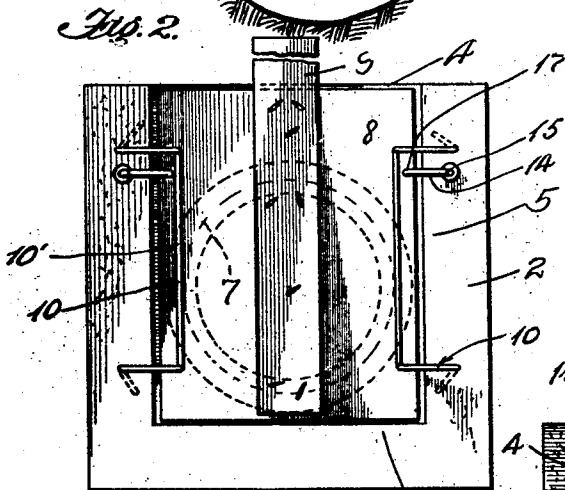
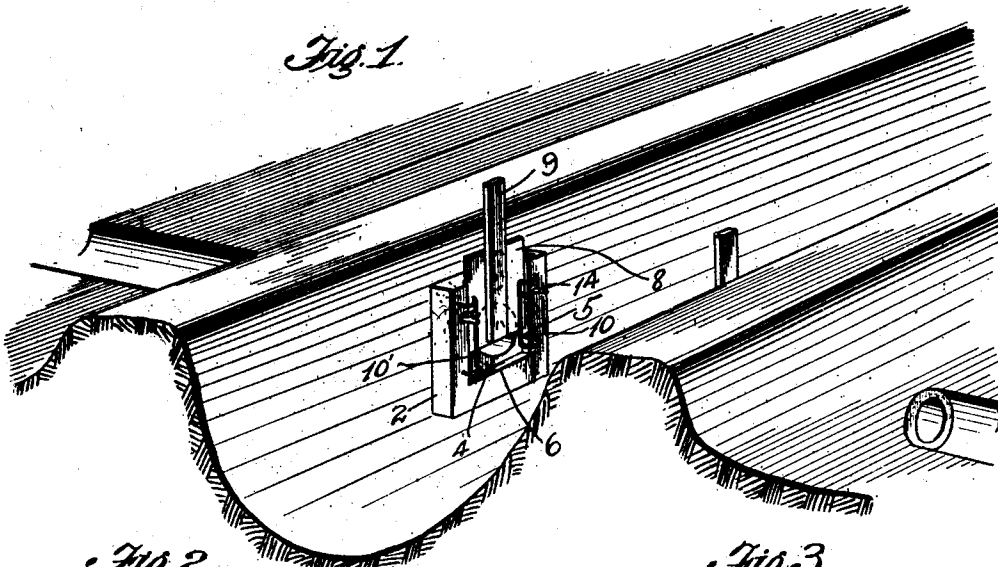


P. L. HEDRICK.
FLUME GATE.
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1,062,778.

Patented May 27, 1913.



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UNITED STATES PATENT OFFICE.

PERRY L. HEDRICK, OF EL CENTRO, CALIFORNIA.

FLUME-GATE.

1,062,778.

Specification of Letters Patent.

Patented May 27, 1913.

Application filed June 10, 1912. Serial No. 702,720.

To all whom it may concern:

Be it known that I, PERRY L. HEDRICK, a citizen of the United States, residing at El Centro, in the county of Imperial and State of California, have invented a new and useful Flume-Gate, of which the following is a specification.

This invention relates to those types of gates usually employed in irrigating ditches or flumes, and an object thereof is to provide a structure that is economical in manufacture, and which may be readily put in place in a flume or ditch without the employment of complicated structures or connections.

A further object is to provide a composite flume gate construction which is formed of cementitious material and provided with metallic bearing springs to hold the sliding gate in place on its seat.

I accomplish these objects by means of the device described herein and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my flume gate placed in position in an ordinary lined earthwork irrigating ditch. Fig. 2 is a front elevation of the gate holder. Fig. 3 is a plan view of the flume gate construction with a portion broken away to disclose the method of mounting the gate holding springs. Fig. 4 is a perspective view from the rear of my complete gate construction. Fig. 5 is a perspective view of one of the gate holding springs. Fig. 6 is a perspective view of one of the gate stops.

Referring now more particularly to the drawings, my improved device consists of two members, preferably formed of a cementitious material, such as concrete, and consists of a cylindrical pipe section 1 and a gate holder 2. This holder is preferably rectangular in form and is provided with a rectangular recess 4 in its front face having an open top; the two oppositely disposed sides of said recess forming a gate guideway 5. The lower edge 6 of the recess forms a stop to limit the downward movement of the gate. Gate holder 2 is also provided with a centrally disposed circular aperture 7 which is preferably shouldered as at 7' to receive the male end of pipe section 1 as clearly indicated in Fig. 3 of the drawings. These two sections are preferably cemented together in any well known manner, such as by pouring liquid cement between the contacting portions.

The recess 4 is of a suitable depth to per-

mit of a lateral play of a sliding gate 8 that is mounted therein. This gate is preferably formed of galvanized iron or other non-corrodible metal and is of less width than the transverse width of the recess so as to readily slide therein. A suitable handle 9 is riveted or otherwise secured to the gate for operating the same.

Mounted in the oppositely disposed sides of the gate holder are springs 10 preferably formed from heavy resilient wire and of a general U shaped configuration, as clearly shown in Fig. 5 of the drawings. The ends of the wires are inserted in apertures formed in any suitable manner while the holder is in a green condition and are clenched on the rear face of the holder as clearly illustrated in Fig. 3 of the drawings. Springs 10 adapted to contact with the outer face of the metal gate as clearly shown in Figs. 2 and 3 of the drawings, holding the gate firmly against the seat 4 of the holder. I have found this method of securing the springs in the holder a very simple and convenient one, necessitating little or no labor in attaching them.

In Fig. 4 instead of clenching the ends of the springs 10 as in the preferred form, the ends may be threaded as at 12 for the reception of nuts 13 so that the springs may be readily detached from the holder at any time should they become broken or otherwise disarranged.

To further secure the gate 8 in position on its seat should the springs become broken or for any other reason should fail in their action, I provide a metallic member 14 which preferably consists of a shaft or spike 15, the inner ends of which are embedded in the holder adjacent the springs 10, annular shoulders 16 being provided on the shaft 15 to prevent any movement of the same after being embedded in the holder. Each member 14 is provided with an inturned stop arm 17 formed integrally therewith and which projects into the recess 4, and into such relation to the gate and springs as to not interfere with the action of the same. The outer ends of the shaft 15 of member 14 project beyond the plane of the springs 10 and serve to protect the springs or holder from injury by animals contacting with the same, it being a common practice for animals such as hogs to rub their bodies against sharp objects for the purpose of scratching themselves.

From the foregoing description it will be

noted that as the gate bearing surface is large that the gate will withstand considerable pressure and that the gate need not be opened to its fullest extent, the frictional contact of the springs holding the same in any desired position.

By constructing the gate holder of a cementitious material and providing metallic springs which are embedded therein I am enabled to economically manufacture an efficient gate construction without the use of machine tools or forming machine such as one required in metallic constructions.

What I claim is:

15 1. A flume gate construction, comprising a centrally apertured body portion formed of a cementitious material and provided with a rectangularly formed recessed seat on its outer face, a metallic gate slidably mounted in said seat, and resilient means secured to the face of said body portion and contacting with said gate to hold the same in contact with the seat.

20 2. A flume gate, comprising a body formed of cementitious material having an aperture formed therein, said body being also provided with a recessed seat on its outer face, the straight sides of said recess forming a guide way, a metallic gate slidably mounted in said seat, and springs secured to said body portion and extending into said recessed seat to bear against the said gate.

35 3. A flume gate, comprising a cementitious pipe, a gate holder formed of cementitious material on one end of said pipe, said gate holder being provided with a centrally disposed aperture, said aperture registering with the bore of the pipe, the outer face of said holder being recessed to form a gate seat, a metallic gate slidably mounted in said seat and adapted to close the aperture in the gate holder, and resilient means extending from the face into said recess to press said gate against said seat.

45 4. In a flume gate construction, a centrally apertured gate holder formed of cementitious material and being provided with a recess in the outer face thereof, said recess

forming a gate seat, a sliding gate mounted in said seat, and springs of approximately U shape mounted in the face of said holder and bearing against said gate.

5. As a new article of manufacture, a flume gate construction, comprising a cylindrical pipe section formed of cementitious material, a gate holder, said gate holder comprising a rectangular structure provided with a circular aperture coinciding with the openings in the pipe structure and provided on its outer face with a recess, said recess being open in its upper end, and a pair of oppositely disposed metallic wire springs formed of resilient material attached to the face of the holder adjacent the recess, said springs adapted to bear against a slide gate, and a gate mounted in said recess and movable therein.

6. A flume gate construction, comprising a centrally apertured body portion formed of a cementitious material and provided with a rectangular seat on its outer face, a metallic gate slidably mounted in said seat, springs secured in said body portion and contacting with said gate to hold the same in contact with said seat, and stops mounted in said body portion and extending into said recess seats, said stops being out of contact with the sliding gate.

7. In a flume gate construction, a centrally apertured body portion formed of a cementitious material and having a recessed gate seat formed on its outer face, resilient means secured to said body portion and extending beyond the face thereof, and a gate mounted in said seat and interposed between the face of said recessed portion and the resilient means, said resilient means tending to force the gate in contact with the face of the recessed gate seat.

In witness that I claim the foregoing I have hereunto subscribed my name this first day of June, 1912.

PERRY L. HEDRICK.

Witnesses:

S. H. STERNER,
J. MACHTERP.