A. J. COLLAR.

SPILL GATE.

APPLICATION FILED MAY 14, 1914.

1,139,104. Patented May 11, 1915.

Fig. 1.

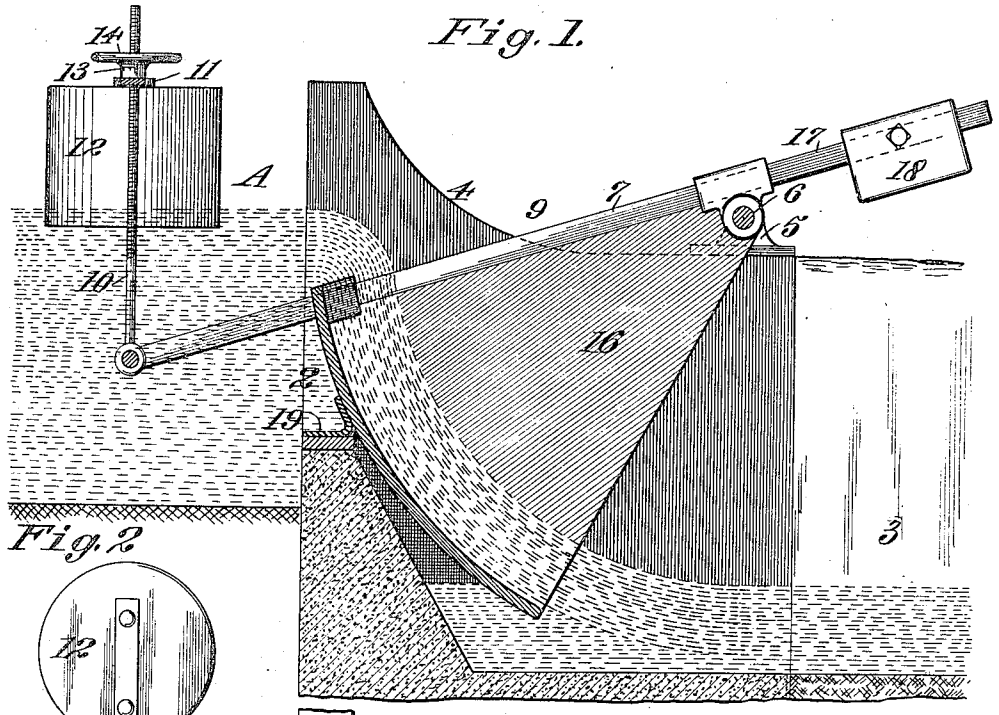
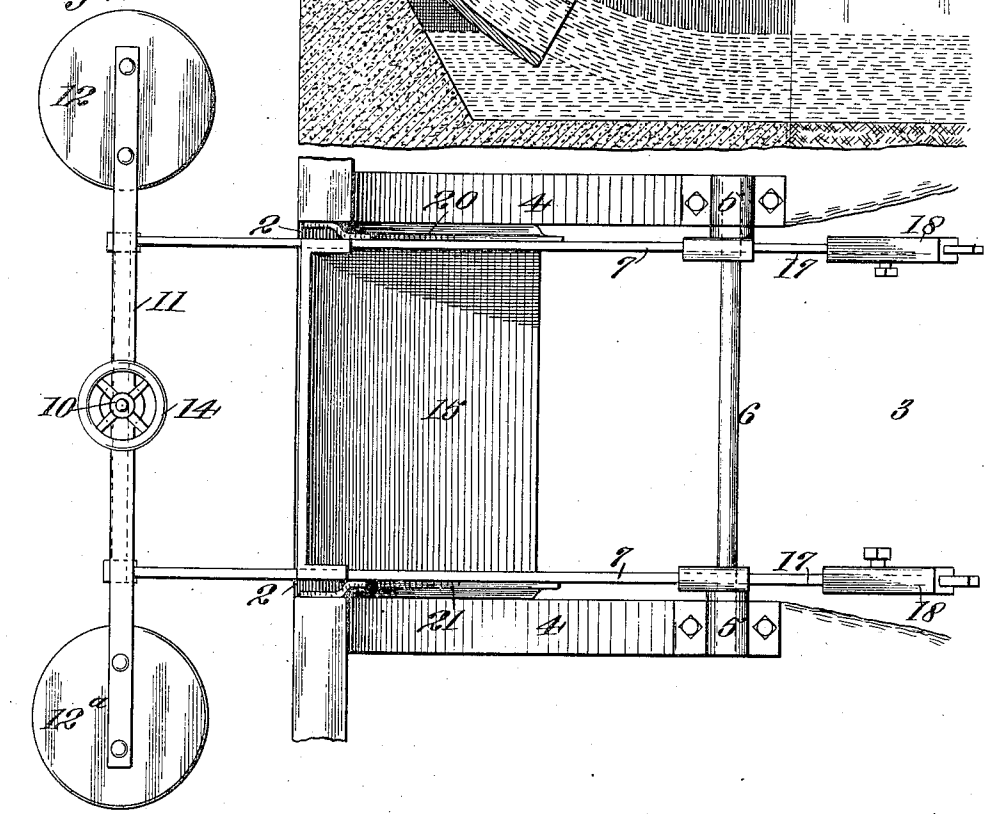


Fig. 2.



WITNESSES:

Charles Pickles

Theodore Steeg.

INVENTOR

Adoniram J. Collar.

BY G. H. Strong.

ATTORNEY

UNITED STATES PATENT OFFICE.

ADONIRAM J. COLLAR, OF YREKA, CALIFORNIA.

SPILL-GATE.

1,139,104. Specification of Letters Patent. Patented May 11, 1915.

Application filed May 14, 1914. Serial No. 838,419.

To all whom it may concern:

Be it known that I, ADONIRAM J. COLLAR, a citizen of the United States, residing at Yreka, in the county of Siskiyou and State of California, have invented new and useful Improvements in Spill-Gates, of which the following is a specification.

This invention relates to a spill or feed gate for laterals or small water ditches.

The object of the invention is to provide a simple, substantial, cheaply manufactured gate of the character described, which is particularly adapted for installation in small water ditches, laterals and the like.

Another object of the invention is to provide a gate which is adapted to deliver a constant volume or feed of water from a canal or ditch in which it is mounted, regardless of any change of water level in the canal or ditch.

Further objects will hereinafter appear.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a vertical, central section, showing the application of the invention. Fig. 2 is a plan view of same.

Referring to the drawings, A indicates the main canal, and 2 the gate-way which connects with the ditch, or lateral, indicated at 3; 4 indicates the side walls of the gateway, and 5 a pair of bearings in which is journaled a shaft 6. Secured to, and carried by said shaft at one end is a rectangularly shaped frame 7, and secured in said frame, as at 8, is the gate proper, indicated at 9. The other end of the rectangular frame is carried by a screw rod 10, which in turn is supported in a cross-bar 11, which connects a pair of floats, indicated at 12 and 12ª. The position of the screw rod with relation to cross-bar 11 is controlled by a nut 13 which is operated by a hand-wheel 14, or like means. The gate proper is, in this instance, shown as consisting of a round-faced front section 15 and side section 16. This produces a gate, the center portion of which is entirely open, and through which the water may overflow and discharge, the position of the gate, or in other words, the volume of discharge being controlled by raising or lowering the rectangular frame in which the gate is supported by means of rod 10 and nut 13. The change of water within the canal or ditch A will not affect or change the volume of discharge passing through gate 9, as floats 12 and 12ª will rise and fall as the water level in the canal changes. The adjustment of the gate with relation to the water level is thus never changed, and will consequently remain constant, causing an even discharge of feed at all times. The rear ends of the rectangular frame may be extended, as indicated at 17, to form lever arms upon which adjustable counterweights 18 may be secured. This may be applied to advantage where the canal or ditch is comparatively shallow, and where it is consequently necessary to use small or shallow floats. Weights will, in that instance, counterbalance the weight of the gate, and thereby make it possible to reduce the size of the floats. The front packing curtain 19 is provided to prevent leakage by the front face of the gate, and side curtains 20 and 21 are provided to prevent leakage around the side sections of the gate.

A gate constructed and positioned as here shown can be installed to great advantage in the cross laterals of irrigation systems and the like, as they are very inexpensive and easy to install. The gate, furthermore, provides means for delivering a constant feed, and it is therefore, possible to measure and determine the exact amount of water which a customer has received. The materials and finish of the several parts of the gate are such as the experience and judgment of the manufacturer may dictate.

I wish it understood that various changes in form, proportion and minor details of construction may be resorted to within the scope of the appended claims, and that I do not wish to limit myself to the specific design and construction here shown.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. In combination with a gateway having spaced side walls and an end wall, a gate having an inclined end which projects above and below said end wall and also having sides which are mounted between the side walls of the gateway, a frame consisting of side bars connected to the sides of the gate and an end bar which connects the side bars and is disposed on the outer side of and spaced from the end wall of the gateway, a shaft extending across the side walls of the

gateway and connected to the latter at the opposite end of the gateway, the free ends of the side bars extending beyond the shaft, adjustable weights on said free ends of the side bars, a threaded vertical rod extending upwardly from and pivoted to the center of the end bar of the frame, a pair of floats on the respective outer sides of the frame, a cross-bar connecting the floats and having an aperture to receive said threaded rod, and means on the threaded rod engaging the cross bar to enable vertical adjustment of the floats in unison.

2. In combination with a gateway having side walls, a U-shaped frame having its sides pivoted between the ends of the frame, weights on the free ends of the sides and spaced from the frame pivots, a gate secured to the frame between the pivots thereof and the closed end of the frame, a pair of spaced floats, means to connect the floats, and a member pivoted to the closed end of the frame and adjustably connected to the means for connecting the floats whereby the latter may be adjusted in unison.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ADONIRAM J. COLLAR.

Witnesses:
H. M. SERKLAND,
B. H. WHITNEY.