

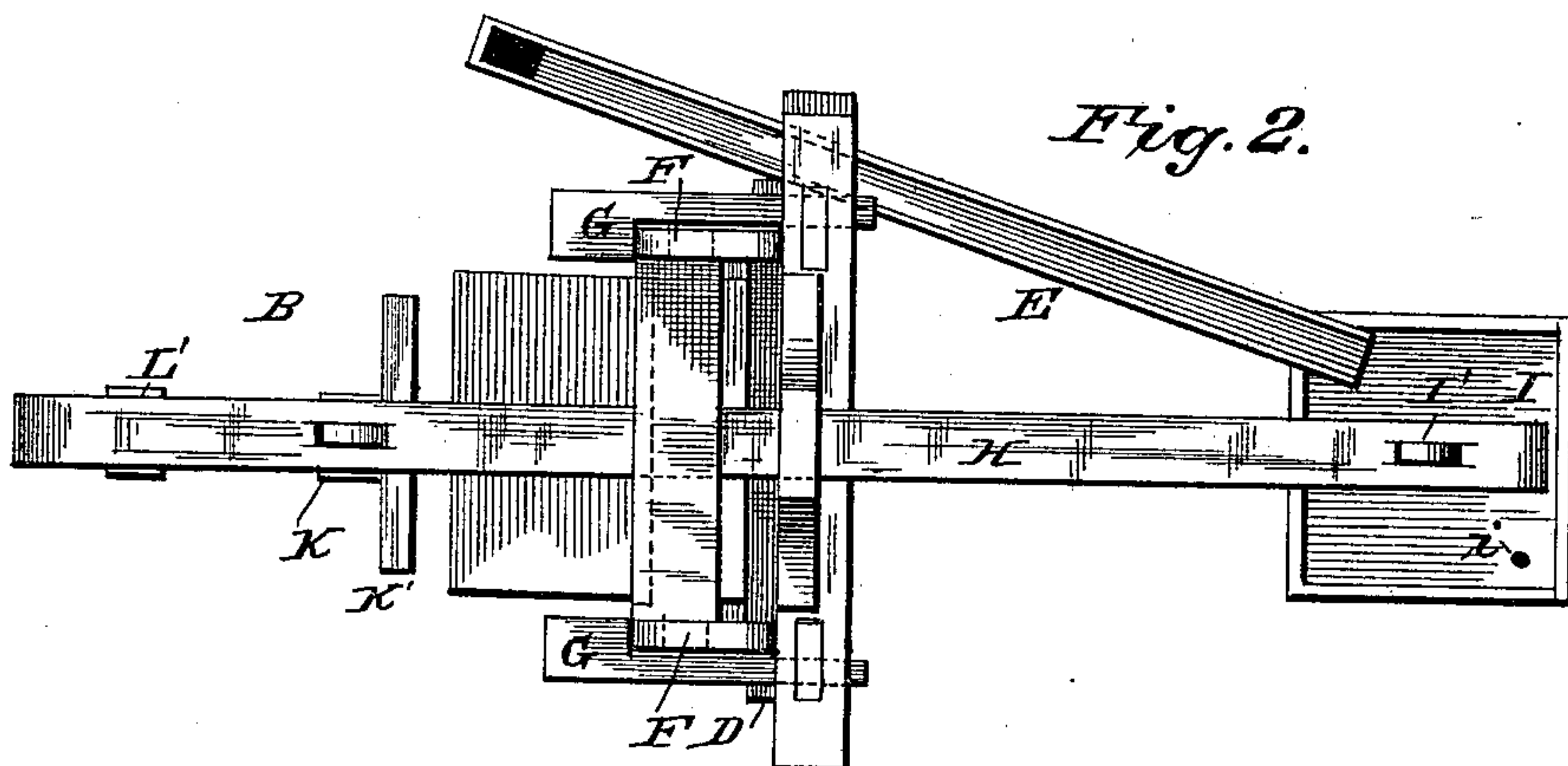
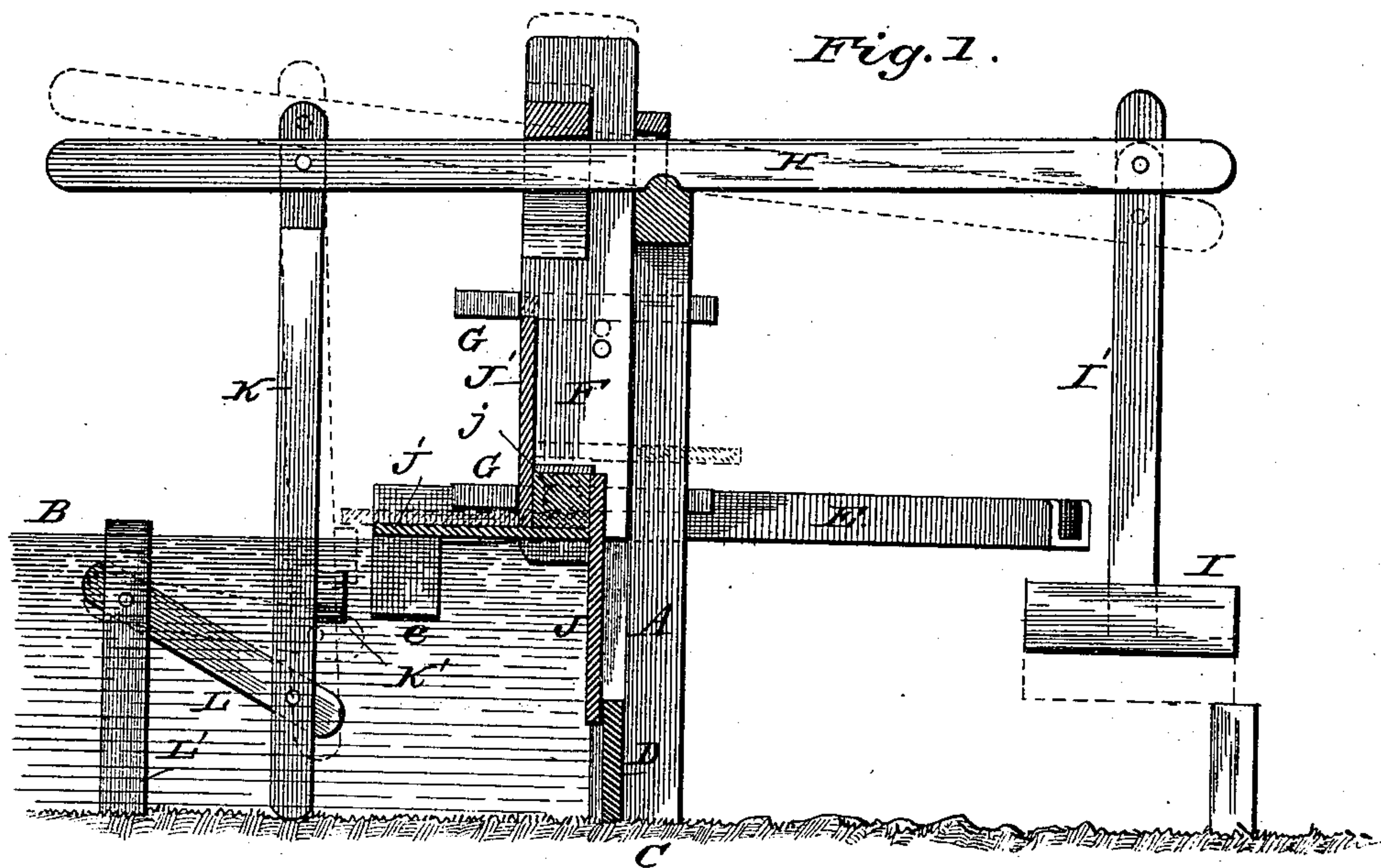
(No Model.)

J. A. GALLOWAY.

FLOOD GATE.

No. 329,728.

Patented Nov. 3, 1885.



WITNESSES :

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UNITED STATES PATENT OFFICE.

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FLOOD-GATE.

SPECIFICATION forming part of Letters Patent No. 329,728, dated November 3, 1885.

Application filed June 17, 1885. Serial No. 169,015. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. GALLOWAY, a citizen of the United States, residing at Spring Hill, in the county of Sumter and State of South Carolina, have invented certain new and useful Improvements in Flood-Gates, of which the following is a description.

This invention is an improvement in flood-gates, and particularly in that class of such inventions represented by my Patent No. 291,327, issued January 1, 1884.

The invention has for an object to provide simple constructions by which the gate may be held open and stopped from revolving, its several parts being held out of the way of timber and other floating objects likely to damage it, and a clear way provided for the water.

To this end the invention consists in certain novel constructions and combinations of parts, as will be hereinafter more fully described and claimed.

Referring to the drawings, Figure 1 is a side view with dotted motions, and Fig. 2 a plan view of my gate.

The dam-posts A, forebay B, base C, flush-board D, spout E, frame F, and bucket I may be located and constructed substantially as in my former patent. The gate-carrying frame F may also slide vertically in grooves formed in the inner faces of the dam-posts. I prefer, however, to support said gate-frame in guide-frames G, projected forward from the dam-posts, so that the gate will be supported more to the front of the dam, in order that the lower end of the gate will be held more firmly against the flush-board D by the force of the water. The lever H is pivotally supported on the dam-posts and projects at its rear end over the base C and at its other or forward end in front of the gate-frame. On the rear end of the lever I support the bucket I by means of a suitable hanger, I'. This bucket moves vertically to and from the base C, and receives water from the discharge end of the overflow-spout E. It also has a small opening, *i*, through which the water discharges much slower than it is received from the spout E. The end *e* of the spout within the forebay is preferably projected vertically downward, in order to avoid the formation of

currents, likely to occur in the use of an inclined spout, such as is shown in my former patent, which currents may operate to draw floating matter into the spout. The gate J is pivoted at *j* to the frame F, and is made of proper length to engage the flush-board when the frame is lowered and to escape such board when the frame is raised. I provide the gate with one or more paddles, J', made shorter than the gate. These parts I term "paddles," because they operate as such to revolve the gate when such gate is released from the flush-board. It will be noticed that I do not employ one of these paddles at right angles to the gate on its rear side, the object of which arrangement is to leave the way through the dam clear when the gate is opened. A bar, K, is pivoted to the forward end of the lever, and depends therefrom into the forebay. This bar is provided near its lower end with a shoulder, K', adapted to receive the gate in the operation of the device. To the lower portion of the bar K, which I term the "stop-bar," is pivoted one end of a hanger, L, the other end of which is pivoted to a suitable support, L'. This hanger serves as a guide by which to force the shoulder K' forward toward the dam as the gate is released, so it will be in position to support the gate in its opened position. The hanger also operates to withdraw the shoulder K' when the stop-bar is lowered, and so releases the gate in order that the same may automatically close.

In operation, when the water reaches high-water mark it flows out of the spout into the bucket, which, when filled, depresses the rear end of the lever. This raises the gate-frame and also the stop-bar, and throws the shoulder of such bar into position to receive the gate when the latter is forced around by the action of the water on it and its paddles. When the water falls below the high-water mark, it will cease to flow out of the spout. The water in the bucket will slowly pass out through opening *i*, and the lever will tilt on its pivot, the stop-bar being lowered and releasing the gate, which adjusts against the flush-board and closes the dam. When the water again rises to high-water mark, the before-described operation will be repeated, the operation being wholly automatic, as will be seen. Except

for this automatic operation the spout, bucket, and base might be dispensed with and the lever be operated by hand.

Having thus described my invention, what I claim as new is—

1. The combination of the vertically-movable gate-frame, the gate supported thereon, the pivoted lever connected with said gate, a stop-bar depending from the forward end of said lever, and a guide whereby to direct the said stop-bar, substantially as set forth.

2. The combination, with the gate, the frame thereof, the lever, and the stop-bar, of a support, L', and a hanger, L, pivoted at one end to the support and at its other end to the stop-bar, substantially as set forth.

JAMES A. GALLOWAY.

Witnesses:

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