(No Model.)

J. S. FLORY.

IRRIGATING DAM.

No. 306,602. Patented Oct. 14, 1884.

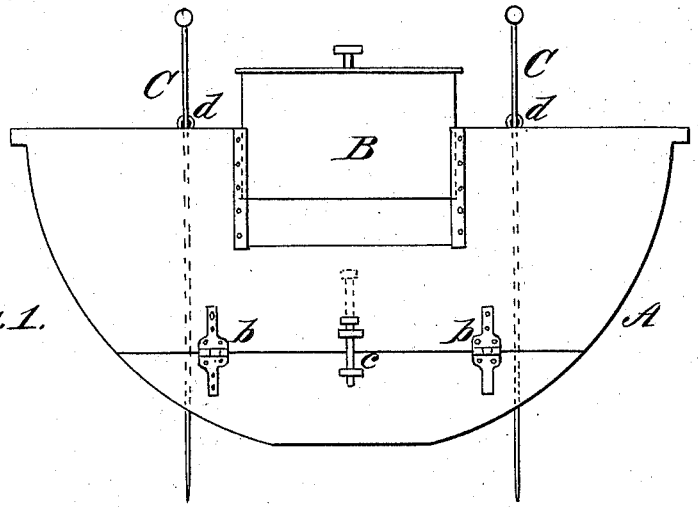

Fig. 1.

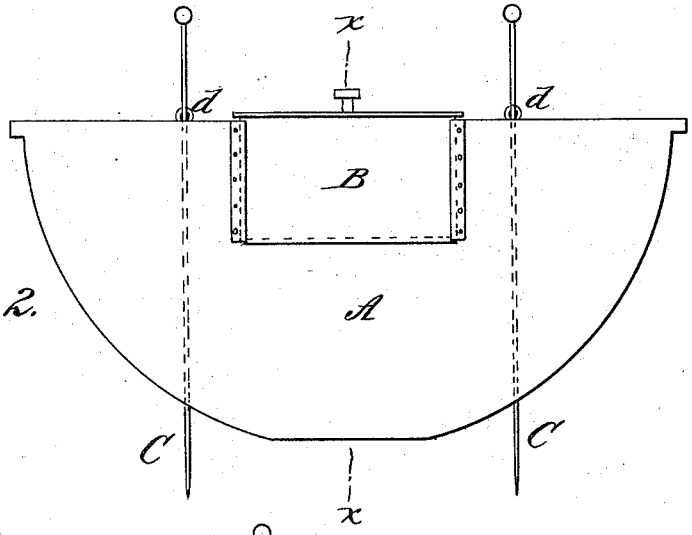

Fig. 2.

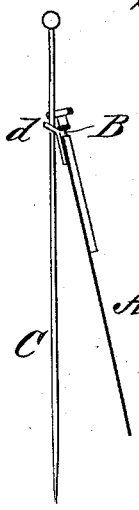

Fig. 3.

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JACOB S. FLORY, OF HYGIENE, COLORADO.

IRRIGATING-DAM.

SPECIFICATION forming part of Letters Patent No. 306,602, dated October 14, 1884.

Application filed April 11, 1884. (No model.)

To all whom it may concern:

Be it known that I, JACOB S. FLORY, of Hygiene, in the county of Boulder and State of Colorado, have invented certain new and useful Improvements in Irrigating-Dams, of which the following is a full, clear, and exact description.

This invention relates to dams for irrigating purposes, under a system as now practiced in various sections of the country, in which ditches are plowed through the fields after the crop is sown, and through which ditches the water is run at different points. Under this system the water requires to be dammed up so as to flow out over the crop. Sometimes only a portion of the water is required to run out, and a part of it to pass on to the next dammed section, and so on. The expedients for thus damming the ditches have heretofore been very rude and imperfect, bundles of straw, sacks of chaff, and other temporary devices or articles, to dam the water as required, being generally used.

My invention is designed to supersede all such rough, imperfect, and temporary expedients for damming and turning the water out of the ditches as required, whereby much labor and time will be saved, and a more perfect control of the water is obtained.

The invention consists in the peculiar construction and arrangement of parts, as hereinafter fully described, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a face view of a diaphragm-dam of sectional hinged construction; Fig. 2, a like view of the dam when not of hinged construction, and Fig. 3 a vertical section on the line *x x* in Fig. 2.

A indicates a diaphragm or plate, made either of wood or iron, for insertion within and across the ditch. When made of wood, it should have feather-edges to admit of its readily sinking into the banks of the ditch. This diaphragm or plate is of diminishing area in a downward direction, and may approximate a semicircle in shape to adapt it to fit narrow or wide ditches. In Figs. 2 and 3 said diaphragm is of a single construction, but in Fig. 1 it is shown as made up of upper and lower sections hinged together, as at *b*, so as to double up when applying the dam to a shallow broad ditch, and of being extended by the lowering of the lower leaf of the diaphragm, and securing of it by a sliding bolt or bar, *c*, to adapt said diaphragm to deeper ditches, when said diaphragm will occupy an upright position.

B is a gate in the upper portion of the diaphragm, and which is raised, as required, to pass water through the diaphragm from one dammed section to another, or to let off the water, as circumstances may require, or which may be wholly closed when the water is required to be turned or run out otherwise than through the diaphragm.

C C are iron pins or stakes arranged to pass through eyes or rings *d d* at the back of the upper edge of the diaphragm A, and serving to allow of said diaphragm sitting in any required inclined direction, the top of the diaphragm in such case leaning against the stakes, which are driven to any desired distance in the ground, and are of a suitable length to thus support the diaphragm. When the diaphragm occupies an upright position then the stakes, C C may bear against the diaphragm throughout its whole depth, and so give a firm support thereto. The varied upright or inclined position of the diaphragm may not only be used to suit ditches of different depths and widths, but to control the amount of water at the back of the dam.

In further explanation of the advantages of my invention, it may be stated that in shoveling in the banks on each side to make a dam as it is ordinarily constructed, said banks are frequently spoiled, more or less grain destroyed, and it is quite common for such earth dams to be washed out, thereby causing much loss of time and waste of water, besides being very annoying. My improved dam obviates to a large extent or wholly these risks and losses.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A diaphragm or plate-like dam for irrigating purposes, of diminishing area in a down-

ward direction, and provided with a gate in its upper portion, substantially as and for the purposes herein set forth.

2. A diaphragm or plate-like dam for irrigating purposes, of diminishing area in a downward direction, and constructed of upper and lower sections hinged together and secured by a bolt or fastening when extended, but providing for the doubling up of the lower leaf or section when required, essentially as and for the purposes specified.

3. In a diaphragm or plate-like dam for irrigating purposes, of diminishing area in a downward direction, and either made of a single section or upper and lower hinged sections, as described, the combination, with the diaphragm or plate A, of attached stakes C, fitted to support the diaphragm both when upright and when occupying various inclined positions, essentially as described.

4. In a dam for irrigating purposes, the combination, with the diaphragm or plate A, made either of a single section or of upper and lower hinged sections, as described, of the gate B, and the stakes C, fitted to support the diaphragm in different positions, substantially as and for the purposes herein set forth.

JACOB S. FLORY.

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