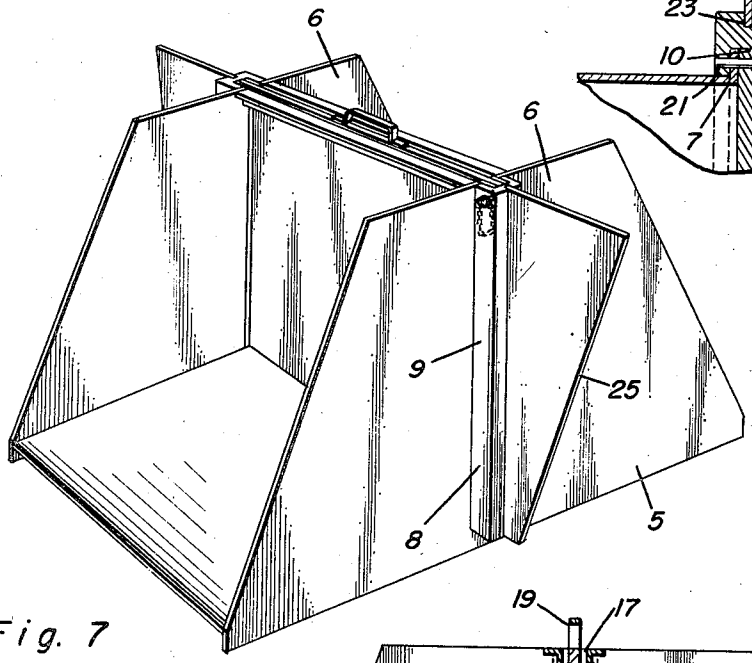
Nov. 16, 1954 J. E. WING 2,694,292

PORTABLE IRRIGATION GATE

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2 Sheets-Sheet 1

Fig. 1



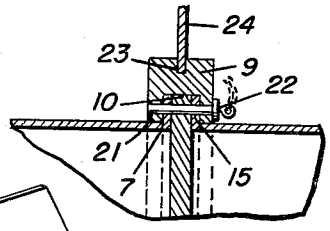


Fig. 5

Fig. 4

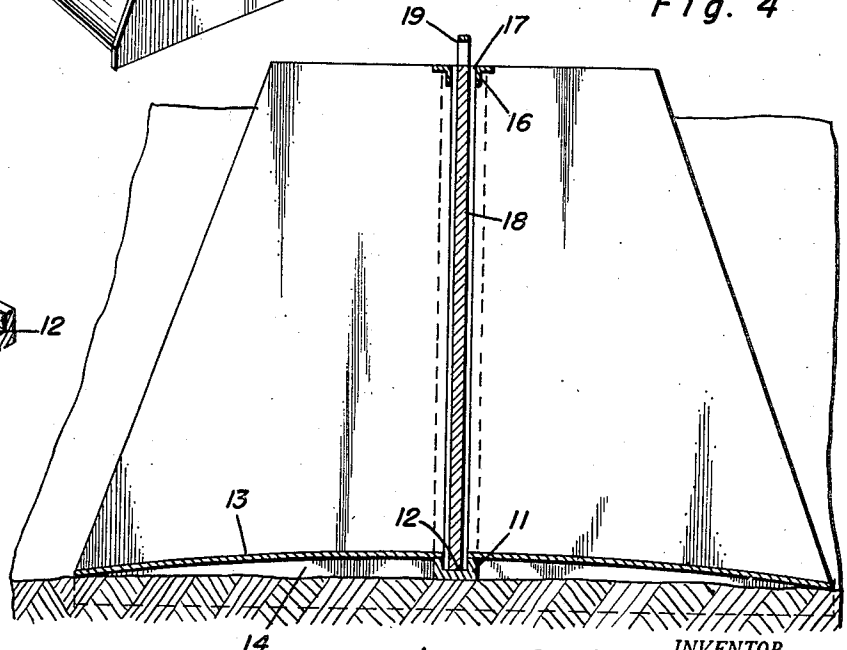
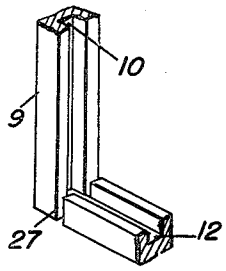


Fig. 7



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Fig. 2

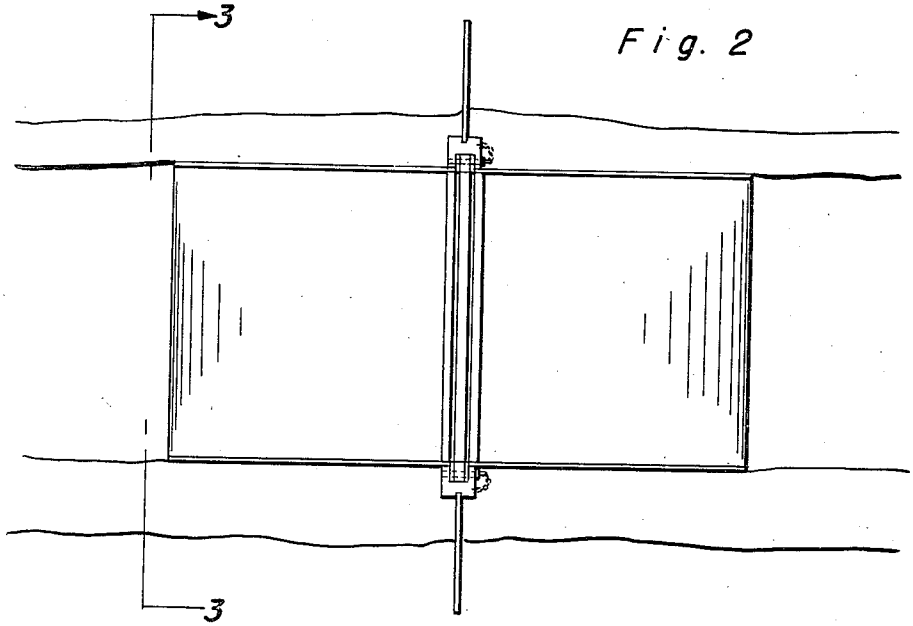
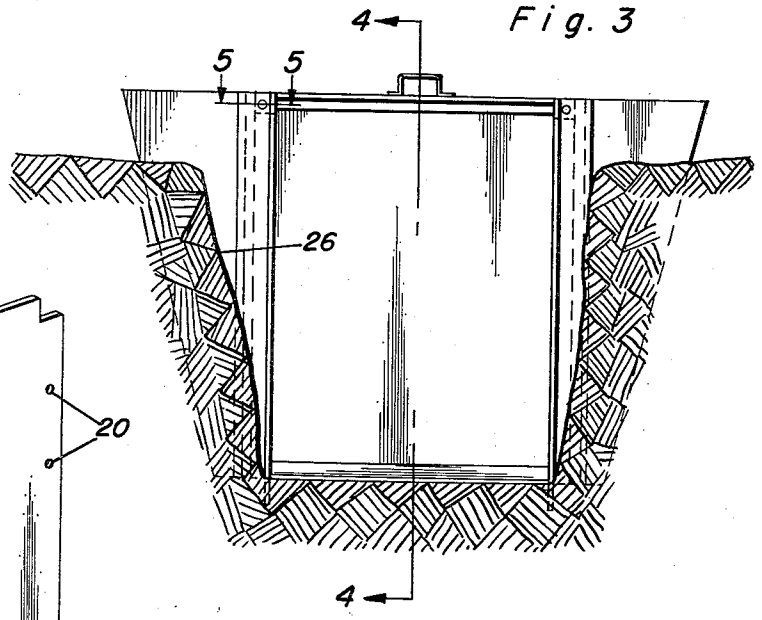


Fig. 3



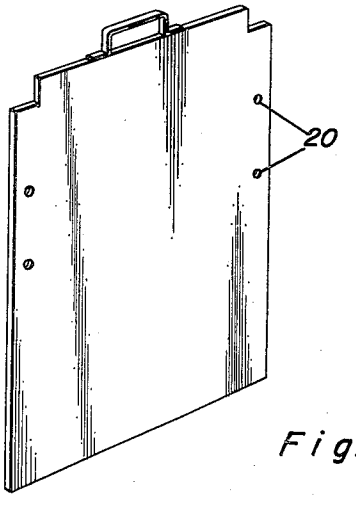


Fig. 6

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2,694,292

PORTABLE IRRIGATION GATE

James E. Wing, Beaumont, Tex.

Application October 31, 1952, Serial No. 317,998

3 Claims. (Cl. 61—29)

The present invention relates to new and useful improvements in portable gates for irrigation ditches whereby the flow of water in the ditch may be regulated at any desired point.

An important object of the invention is to provide a portable gate and box construction adapted for easily and quickly placing in a desired location in an irrigation ditch and which may be removed and stored when no longer needed.

Another object of the invention is to provide a novel box construction for the vertically slidable gate and which effectively prevents the flow of water between the banks of the ditch and the sides of the box.

A still further object is to provide an improved bottom construction for the box to reduce loss of water under the box.

A still further object is to provide a device of this character of simple and practical construction, which is efficient and reliable in operation, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view;

Figure 2 is a top plan view;

Figure 3 is a transverse sectional view taken on the line 3—3 of Figure 2;

Figure 4 is a longitudinal sectional view taken on the line 4—4 of Figure 3;

Figure 5 is an enlarged fragmentary sectional view of the guide for one side edge of the gate taken on the line 5—5 of Figure 3;

Figure 6 is a perspective view of the gate, and

Figure 7 is a fragmentary perspective view of the channeled guide.

Referring now to the drawings in detail, wherein for the purpose of illustration, I have disclosed a preferred embodiment of the invention, the numeral 5 designates the box of sheet metal construction and which includes a pair of side walls 6, each having a vertical slot 7 at its central portion and extending from the upper edge of the side wall to a point adjacent the lower edge of the side wall.

A U-shaped channel guide 8 has its side portions 9 positioned at the outer sides of the side walls 6 and with the channel or vertical groove 10 of said side portions 9 alined with the slots 7 and with the base portion 11 of the guide extending transversely of the side walls 6 and formed with a channel or groove 12 in the upper surface of said base portion 11.

A pair of sheet metal bottom plates 13 are positioned between the side walls 6 and have their inner ends resting on top of the base portion 11 of the channel U-shaped guide 8 and the bottom plates 13 are curved downwardly toward their outer ends and are welded at their side edges to the inner surface of the side walls 6 at a point above the lower edges of the latter to provide downwardly extending flanges 14 on each of the side walls 6 which project downwardly below the bottom plates 13.

The U-shaped channel guide 8 is also welded to the side walls 6 and wooden or other suitable sealing strips

15 are placed in the channels or vertical grooves 10 of each of the side portions 9 of the U-shaped guide.

The tops of the side walls 6 are braced by a pair of spaced parallel cross-bars 16 forming a slot 17 therebetween alined with the channel or vertical groove 10 and in which a sheet metal gate 18 is slidable and adapted to enter the groove or channel 12 in the base member 11 of the channel guide. A handle 19 is secured to the upper edge of gate 18 and a vertical row of openings 20 is formed adjacent each side edge of the gate adapted for selective alinement with openings 21 in the side portions 9 of the guide for locking the gate in vertically adjusted position by means of a pin 22 inserted in the alined openings.

The outer surface of the vertical portions 9 of the U-shaped guide are formed with vertical grooves 23 in which sheet metal wings 24 are welded or otherwise suitably secured to project outwardly at each side of the box 5. The outer edges of the wings 24 slope inwardly toward their lower ends to facilitate penetration of the wings in the banks 26 of an irrigation ditch while the downwardly projecting flanges 14 at the lower sides of the box penetrate the soil in the bottom of the ditch.

The handle 19 enables the gate 18 to be raised and lowered in the channels 10 of U-shaped guide 8 to regulate the flow through the ditch and also enables the box 5 to be lifted bodily from the ditch, when the gate is locked therein by the pins 22, for carrying the box to a desired location.

The wings 24 at the sides of the box penetrate the banks of the ditch to prevent flow of water at the sides of the box and the transverse base 11 of the U-shaped guide 8 rests on the bottom of the ditch to prevent flow under the box. The flow is deflected from passing under the box by the downwardly curved bottom plates 13.

The transverse base 11 of the U-shaped guide is formed with vertical slots 27 to receive the slots in the side walls in order to assemble the guide therewith.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. A portable control device for irrigation ditches comprising a box including a pair of side walls, said side walls having vertical slots extending downwardly from the upper edges of the walls to a point adjacent the lower edges of the walls, a U-shaped channeled guide positioned in said slots, said guide including vertical side portions positioned outwardly of said side walls and alined with said slots, and a vertically slidable gate having its side edges extending outwardly through the slots in the side walls and into the channels of said vertical side portions.

2. A portable control device for irrigation ditches comprising a box including a pair of side walls, said side walls having vertical slots extending downwardly from the upper edges of the walls to a point adjacent the lower edges of the walls, a U-shaped channeled guide positioned in said slots, and including a channeled base portion positioned transversely of the box above the lower edges of the side walls, a vertically slidable gate in the guide and adapted to enter the channel of said base portion, and a pair of bottom plates secured to said side walls, said bottom plates having inner end portions resting on top of the transverse base portion and curved downwardly toward their outer ends.

3. A portable control device for irrigation ditches comprising a box including a pair of side walls having vertical slots extending downwardly from the upper edges of the walls to a point adjacent the lower edges thereof, a U-shaped channeled guide having its lower portion positioned in the slots transversely between the walls and above the lower edges of the latter and having their upstanding end portions positioned at the outside of the side walls and with the channels of the guide alined

with the slots, a gate slidable in the alined slots and channels, and vertical wings projecting outwardly from each upstanding portion of the U-shaped guide adapted for anchoring the box in an irrigation ditch.

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