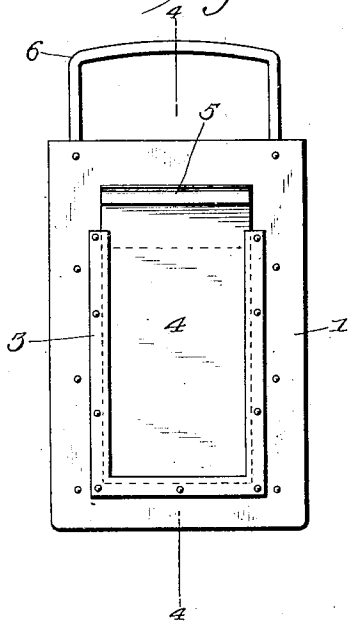
A. O. EDWARDS.

SLIDING GATE.

APPLICATION FILED AUG. 24, 1920.

1,370,296. Patented Mar. 1, 1921.

Fig. 2.



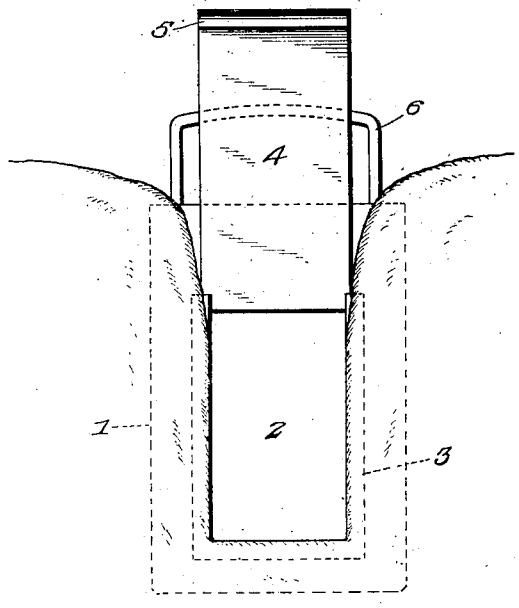


Fig. 1.

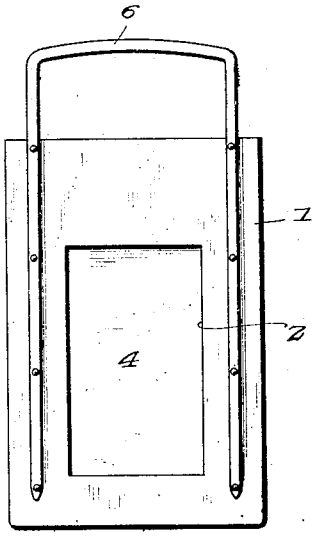


Fig. 3.

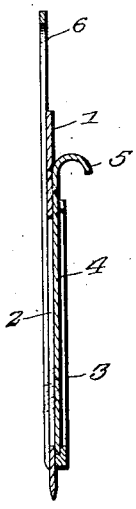


Fig. 4.

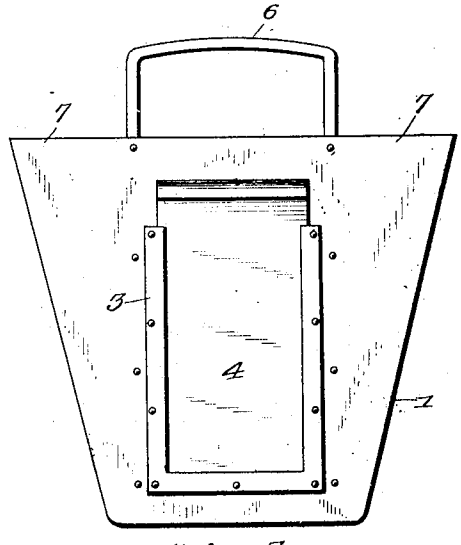


Fig. 5.

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SLIDING GATE.

1,370,296. Specification of Letters Patent. Patented Mar. 1, 1921.

Application filed August 24, 1920. Serial No. 405,628.

To all whom it may concern:

Be it known that I, AUGUST OTTO EDWARDS, a citizen of the United States, residing at El Centro, in the county of Imperial and State of California, have invented certain new and useful Improvements in Sliding Gates, of which the following is a specification.

This invention relates to water gates designed for use as outlets for irrigating ditches.

The object of the invention is to provide a simply constructed and efficient sheet metal gate which may be easily and quickly installed in the bank of a ditch and removed when desired with very little trouble.

Another object is to provide a gate of this character which may be equipped with wings to adapt it for use in sandy soil, and which requires no anchors or braces being inserted in the soil in the same manner as a spade or shovel.

Another object is to provide a gate of this character the first cost of which is comparatively cheap and which may be moved from place to place and installed by simply forcing it into the earth and which may be removed by pulling it up.

With these and other objects in view, the invention consists in certain novel features of construction as hereinafter shown and described and then specifically pointed out in the claims and in the drawings illustrative of the preferred embodiment of the invention.

In the accompanying drawing:

Figure 1 represents a front elevation of a gate constructed in accordance with this invention shown applied.

Fig. 2 is a similar view of the gate removed from the bank.

Fig. 3 is a rear elevation thereof,

Fig. 4 is a transverse section taken on the line 4—4 of Fig. 2, and,

Fig. 5 is a front elevation showing a slightly different form of the invention.

In the embodiment illustrated a frame 1 is shown constructed of heavy sheet metal having its edges sharpened to facilitate its insertion in the bank of a ditch in connection with which it is to be used. This frame 1 has an opening therein which is preferably rectangular in form although not necessarily so and is here shown at 2. Arranged around the side walls and bottom of this opening and spaced therefrom adjacent the edges thereof is a U-shaped reinforcing and guide frame 3 between which and the frame 1 is mounted to slide a closure 4 in the form of a plate which constitutes the gate or valve proper and which is equipped at its upper end with an outturned flange 5 to form a hand grip for opening and closing the valve. It will of course be understood that the closure or valve 4 may be opened to a greater or less extent to control the amount of water admitted through the opening 2 from the ditch onto the land to be irrigated.

An inverted U-shaped member 6 is secured to the rear face of the frame 1 by riveting or otherwise with the cross bar thereof positioned above the upper edge of the frame 1 to form a handle for lifting the gate from place to place and also to receive blows necessary for driving the frame 1 into the earth. The legs of this member 6 operate to reinforce the frame 1 and adapt it to withstand the strains to which it will be subjected.

In the use of these gates the opening 2 therein will be positioned flush with the opening in the ditch bank through which the water is to pass from the ditch to the land to be irrigated. The opening 2 is preferably made the same size as that which is formed in the bank of the ditch so that the water will have a clear passage and back wash be prevented. The water gate should be set when the soil is moist and it may be set while the water is running.

The installation of such gate requires only about five minutes and it may be as quickly removed by simply pulling up on the frame 1 thereof.

In Fig. 5 a slightly different form of the invention is shown, the frame 1 being provided with side wings 7 which are designed to assist in retaining the frame in sandy soil. Otherwise the gate is the same as that shown in the other figures.

It is of course understood that these sheet metal water gates may be made of any desired size and that the initial cost thereof will be small compared with wooden and concrete gates of this character and that they may be much more readily installed and removed and may be taken from place to place with very little trouble adapting them especially for use by tenants.

The preferred embodiment of the invention is disclosed in the drawings and set forth in the specification, but it will be understood that any modifications within the

scope of the claims may be made in the construction without departing from the principle of the invention or sacrificing any of its advantages.

What I claim is:

A water gate of the class described comprising a one-piece heavy sheet metal plate having its side and bottom edges sharpened to facilitate its insertion in a ditch bank, said plate having an opening therein for the passage of water, a reinforcing and guide frame arranged around the side and bottom walls of said opening, a gate valve in the form of a plate slidable in said guide frame to vary the size of the opening, said plate-like valve having its upper edge bent to form a hand grip, and an inverted U-shaped frame secured to the face of the gate opposed to that carrying the guide, the legs of said U-shaped frame being arranged between the edges of the opening and the side edges of the gate, said legs extending substantially the length of the gate whereby said gate is reinforced and strengthened, the cross bar of said member frame being positioned above the upper edge of the gate to form a combined handle and blow receiving element.

In testimony whereof, I affix my signature hereto.

AUGUST OTTO EDWARDS.