

W. A. LINKLETTER.
FOLDING DAM FOR IRRIGATING DITCHES.
APPLICATION FILED JULY 11, 1912.

1,059,174.

Patented Apr. 15, 1913.

Fig. 1.

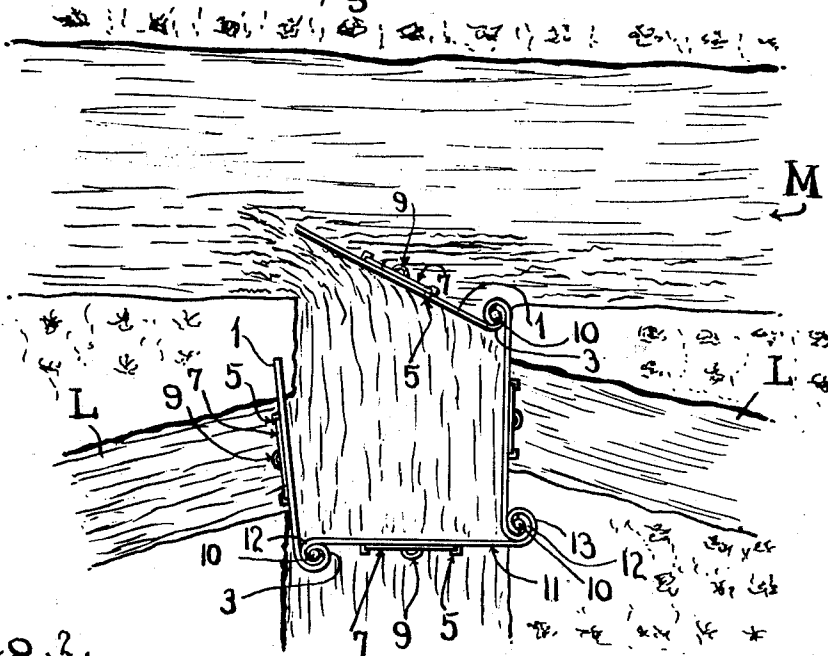


Fig. 2.

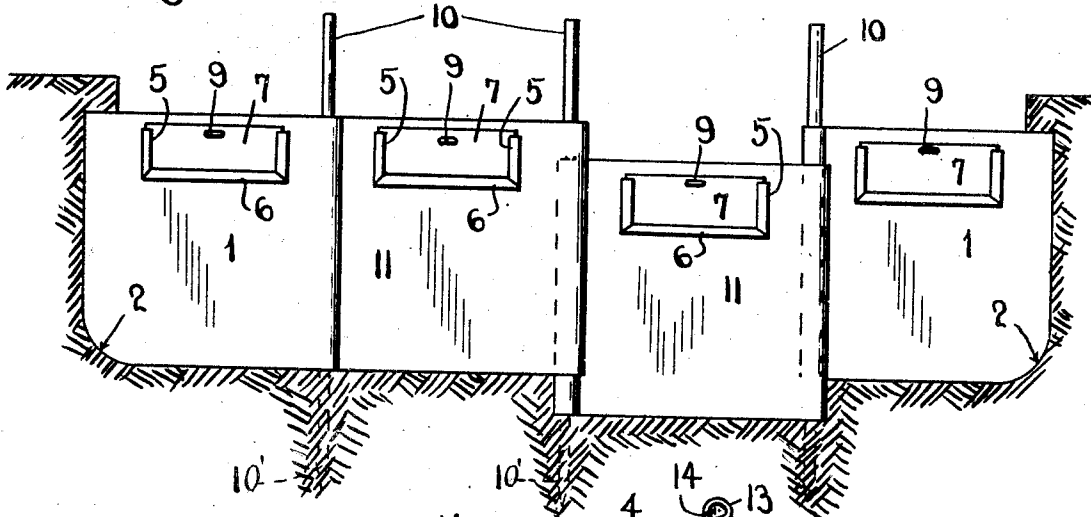
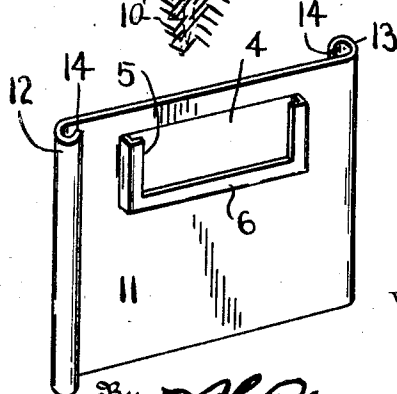


Fig. 3.



Witnesses

L. B. James
N. L. Callamer

Inventor

W. A. Linkletter

By

A. B. Wilson & Co

Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM A. LINKLETTER, OF BOULDER, COLORADO.

FOLDING DAM FOR IRRIGATING-DITCHES.

1,059,174.

Specification of Letters Patent.

Patented Apr. 15, 1913.

Application filed July 11, 1912. Serial No. 708,891.

REISSUED

To all whom it may concern:

Be it known that I, WILLIAM A. LINKLETTER, a citizen of the United States, residing at Boulder, in the county of Boulder and State of Colorado, have invented certain new and useful Improvements in Folding Dams for Irrigating-Ditches; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to water distribution, and more especially to irrigating systems; and the object of the same is to produce a cheap and serviceable folding dam which can be conveniently transported to the point of use or from the same, and which has means for adjusting its width so that it can be used in ditches of a variety of widths within limits. This and other objects are accomplished by constructing the dam in the manner hereinafter more fully described and claimed, and as shown in the drawings, wherein—

Figure 1 is a plan view showing the use of my invention as hereinafter described; Fig. 2 is an elevation of a dam of considerable length made up of some two intermediate elements and two end elements; Fig. 3 is a perspective detail of one of said intermediate elements.

In Fig. 1 of the drawings I have shown a field with a main irrigation ditch M and laterals L. Ordinarily the water is led along one side of the field and into a series of said ditches which cross the field and are slightly inclined, so that the water flows down said ditches and the ground is irrigated sufficiently to produce crops. I propose to construct a portable folding dam from sheet metal made in leaves which are substantial duplicates of each other and of a size convenient for handling and storage, the metal being by preference properly treated to prevent rust. Each end leaf 1 is substantially rectangular as shown and may be made in sizes, the smallest perhaps being about one foot wide by one foot high, and the largest much larger, with a possibility that there may be intermediate sizes. One corner of the body is by preference rounded off as at 2, and this corner will occupy one side of the bottom of the ditch. The opposite upright edge is rolled into a scroll or tube 3 throughout its entire length. Through the body 1 at a point near its upper end is

cut an opening 4 whose side edges are preferably flanged as at 5 and whose lower edge is flanged as at 6, all these flanges producing guides for a gate 7 which may be a piece of sheet metal like the body 1 and by preference will have a handle 9 at its upper edge so that it can be raised to expose more or less of the opening. Finally the numeral 10 designates a pole such as any farmer can cut from the nearest young woods, and in length this will be about three times the height of the gate when finished; and will be sharpened at its lower end as at 10'.

The intermediate leaf or leaves will each have a substantially rectangular flat body 11, preferably corresponding in general contour with the size of the other units, and both its opposite edges rolled into scrolls or tubes 12 and 13 standing on respectively opposite sides of the body and each open along its throat 14 next to the body, as in the other elements. These intermediate leaves may also have the gate openings and gates as above described, and whose description therefore need not be duplicated here. The use of the device is well illustrated in Fig. 1 which shows the main ditch M and several laterals L, certain of the leaves as closing some of the laterals, and one of the endmost leaves 1 acting as a gate to regulate the inlet or flow into another lateral while the other endmost leaf acts as a gate to divert some of the water from the main ditch M. It is quite possible to use one of the intermediate elements 11 for a gate at the end of a series of wings, and in fact it might be advisable to do so because its free end can then be held by the pole against displacement under the strength of the current of water.

In Fig. 2 is illustrated how one of the elements can be depressed to a lower level than the others, as when it is desired to permit water to flow over the upper edge of this element into the lateral across which it stands and thus dispense with the use of the gate. A dam made up of a number of intermediate elements and two end elements might be built of sufficient length to span a brook or stream; and if the units were elaborated in all dimensions, the dam might in fact be used to span a large sized stream or a river. As conducive of this use of the invention, attention is directed to the fact that the interengaging scrolls or tubes along the edges of the elements permit the latter to be inserted one by one and built up, as would be neces-

sary in placing this dam across a river of considerable width. That is to say, starting at one shore line, the user would doubtless employ one of the end elements and insert its rounded corner 2 in the bank and permit its upright scroll 3 to stand out in the water, then he would use one of the intermediate elements, telescoping its scroll 13 with the scroll 3 of the element already in place by pushing the intermediate element downward, and finally using a pole 10 through its outermost scroll to hold it in place; then he would add the next and the next intermediate elements, and so on across the river; and finally he would apply the last end element at the other side of the stream, or another operator could be building from that side toward the one first referred to. By preference the various elements across a swiftly flowing stream would be disposed in zig-zag fashion so as the better to resist the current, and it is quite possible that one or more of the intermediate elements near the center of the stream would be depressed below the level of the upper edges of those remaining, so that the surplus water could flow over the top of the dam at this point without a tendency to wash it away. When it came time to remove such a dam or obstruction from the river, the operation could be reversed, or the operators could begin at the middle and pull up one of the intermediate elements, and the next on either side of the opening thus formed, and thus toward each shore until the whole was disassociated, after which it could be packed in a wagon and transported to the place of storage.

What is claimed as new is:—

1. The herein described folding dam for irrigation ditches, the same made up of a series of sheet metal leaves, the meeting upright edges of contiguous leaves being rolled in relatively opposite directions into nearly complete cylindrical scrolls extending

throughout the entire height of said leaves and slidably, rotatably, and removably engaging each other, the outermost leaves of the series omitting these scrolls along their outer edges and having the lower corners of such edges rounded, and a series of round poles longer than the height of the leaves and disposed within the respective pairs of engaging scrolls with their lower ends adapted to be driven into the bottom of the ditch.

2. The herein described portable dam consisting of a series of sheet metal leaves, all having one upright edge and the intermediate leaves having both upright edges rolled on respectively opposite sides of the bodies thereof, to produce a tubular hinge element with which the like element on the contiguous leaf is adapted to slidably and rotatably engage, and a pole passing through the innermost roll of each pair of engaging rolls.

3. The herein described portable dam consisting of a series of sheet metal leaves, all having one upright edge and the intermediate leaves having both upright edges rolled to produce a tubular hinge element with which the like element on the contiguous leaf is adapted to slidably and rotatably engage, the rolls on the intermediate leaves being disposed on respectively opposite sides of the bodies thereof and having their throats open next to said body, and upright fastening means passing through the innermost roll of each pair of engaged rolls, for the purpose set forth.

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

WILLIAM A. LINKLETTER.

Witnesses:

W. W. WHITE,
W. W. POTTER.