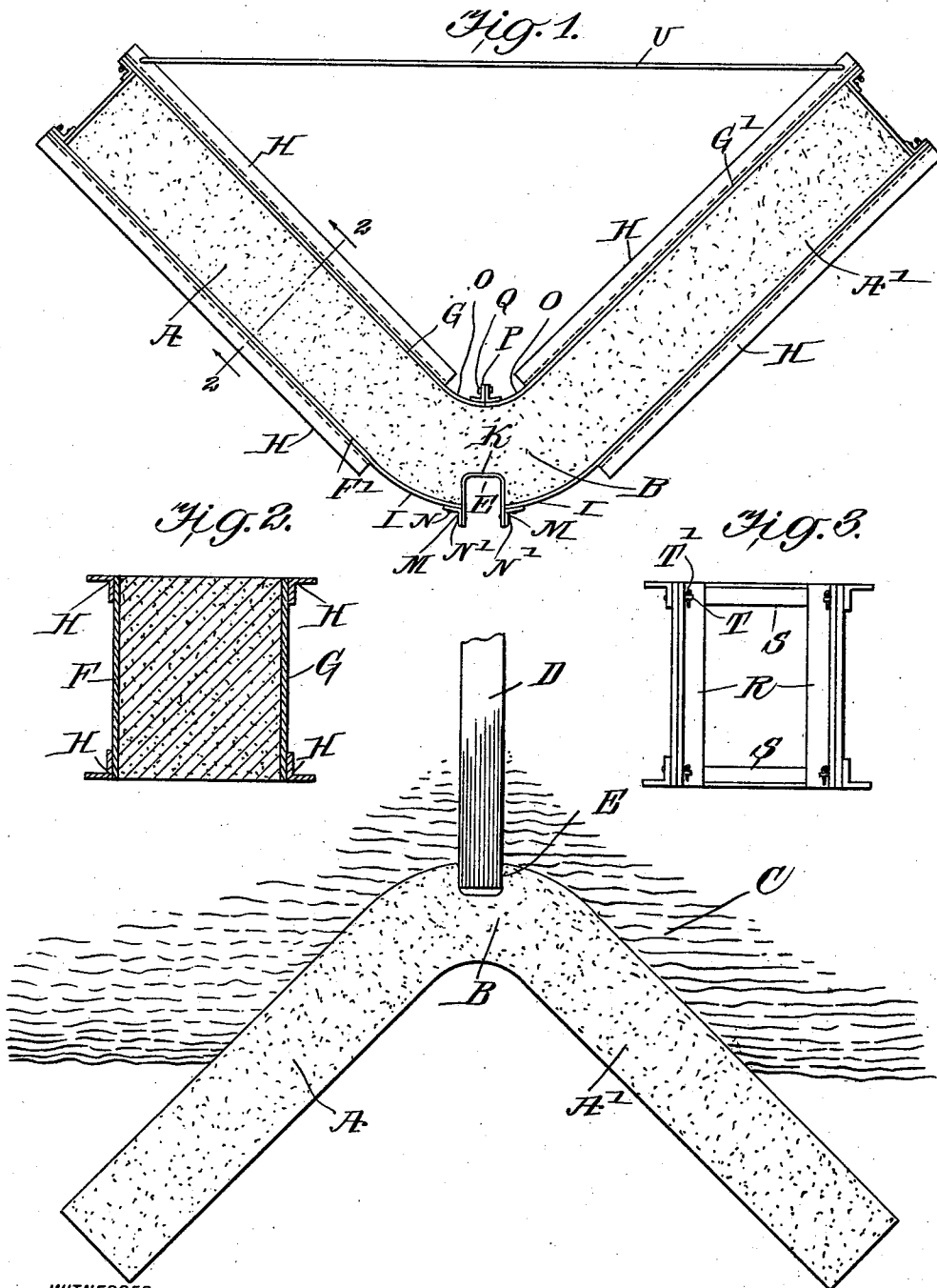


T. J. KELLY.
DAM MOLD.
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1,000,816.

Patented Aug. 15, 1911.



WITNESSES:
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UNITED STATES PATENT OFFICE.

THOMAS JAMES KELLY, OF FOND DU LAC, WISCONSIN.

DAM-MOLD.

1,000,816.

Specification of Letters Patent.

Patented Aug. 15, 1911.

Application filed July 8, 1910. Serial No. 570,921.

To all whom it may concern:

Be it known that I, THOMAS JAMES KELLY, a citizen of the United States, and a resident of Fond du Lac, county of Fond du Lac, State of Wisconsin, have invented certain new and useful Improvements in Dam-Molds, of which the following is a specification.

My invention is an improvement in dams and molds therefor and consists in certain novel construction, and combination of parts, hereinafter described and claimed.

The object of the invention is to provide an improved form for abutments for dams, especially adapted for irrigation dams, wherein the abutment is so arranged that the gate while supported in an efficient manner may yet be lifted to release the water or lowered to hold the same.

Referring to the drawings forming a part hereof, Figure 1 is a plan view of the improvement showing an abutment completed and the form removed, and the other abutment with the form in place. Fig. 2 is a section on the line 2—2, of Fig. 1, and, Fig. 3 is an end view of one wing of the form or mold.

The dam to be built is preferably composed of two abutments of concrete, one on each side of the stream, and connected by the dam proper. Each abutment consists of two wings A and A', arranged at approximately a right angle with respect to each other, and the apex B of the angle formed by the wings extends into the stream C, as shown, the free ends of the abutments seating in the shore.

The dam proper D is preferably of wood and in the form of a vertically movable gate, and is slidable in vertical grooves E, one in the apex of each abutment. The apex B of each abutment is rounded as shown, and the groove, or guide way, is of sufficient depth to securely hold the gate.

The form or mold for the abutment is composed of an inner and outer wall. The outer wall consists of two sections F and F'. Each section has secured to its upper and lower edge, in any suitable manner, a reinforcing angle plate H, one of the sides of the plate being connected to the outer face of the section, and the other extending laterally therefrom.

The inner ends of the sections of the outer wall are curved toward each other to form the peak of the abutment, as shown at I, and

the end of each section is connected to a vertical U-shaped plate K, by means of an angle plate M. One side of said plate M is secured to the section by nuts N and the other side to the adjacent side of the plate K by similar nuts N'. The U-shaped plate K is arranged with its concave face outward, and forms the groove E for the gate. The outer edges of the sides project beyond the outer faces of the sections a sufficient distance to permit the attachment of the angle plate. The inner wall of the form is also composed of two sections G and G', each section being reinforced at top and bottom by the angle plate H, in the same manner as the sections of the outer wall, and the plates stop short of the inner ends of the sections. The inner ends of the sections are curved, as shown at O, to form the inner face of the peak of the abutment, and the said ends are secured together by angle plates P. An angle plate is secured transversely of the end of each by one side, and the other sides of the plates lap, and are connected by bolts Q. The outer and inner walls are also reinforced on their inner faces at their outer ends, by vertical angle plates R, and the plates at each end are connected by cross bars S. The angle plates are connected to the sections by means of shafts T connected with the sections and passing through openings in one side of the angle plates, and the shafts are engaged by pins T'. The cross bars are secured to the free sides of the angle plates, and the said plates and cross bars may be disconnected from the sections by removing the pins. The angle plates H of the inner wall sections are provided at their outer ends with openings, through which pass the angular ends of rods U. The rods extend from the outer end of one section to the outer end of the other, and are preferably arranged one at the top and one at the bottom.

The operation of the device will be evident from the description, and it will also be evident that the improved dam will be very strongly supported and at a moderate cost. The gate may be raised or lowered, and the forms may be made of any desired size, in accordance with the size of the dam.

I claim:

A form for abutments, comprising inner and outer vertical walls spaced apart laterally, each wall consisting of two sections,

angle plates arranged longitudinally of each section at the top and bottom thereof, the ends of the angle plates being spaced apart from the inner ends of the sections, said
5 sections being arranged at approximately a right angle to each other and curved at their inner ends, angle plates connecting the inner ends of the sections of the inner wall, a substantially U-shaped plate arranged
10 vertically between the sections of the outer wall with its concave face outwardly, angle plates connecting the inner ends of the sections with the sides of the said plates, angle plates detachably connected with the inner face of the outer end of each section, cross
15 bars connecting the plates at each end of the form, and rods connecting the outer ends of the sections of the inner wall.

THOMAS JAMES KELLY.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."