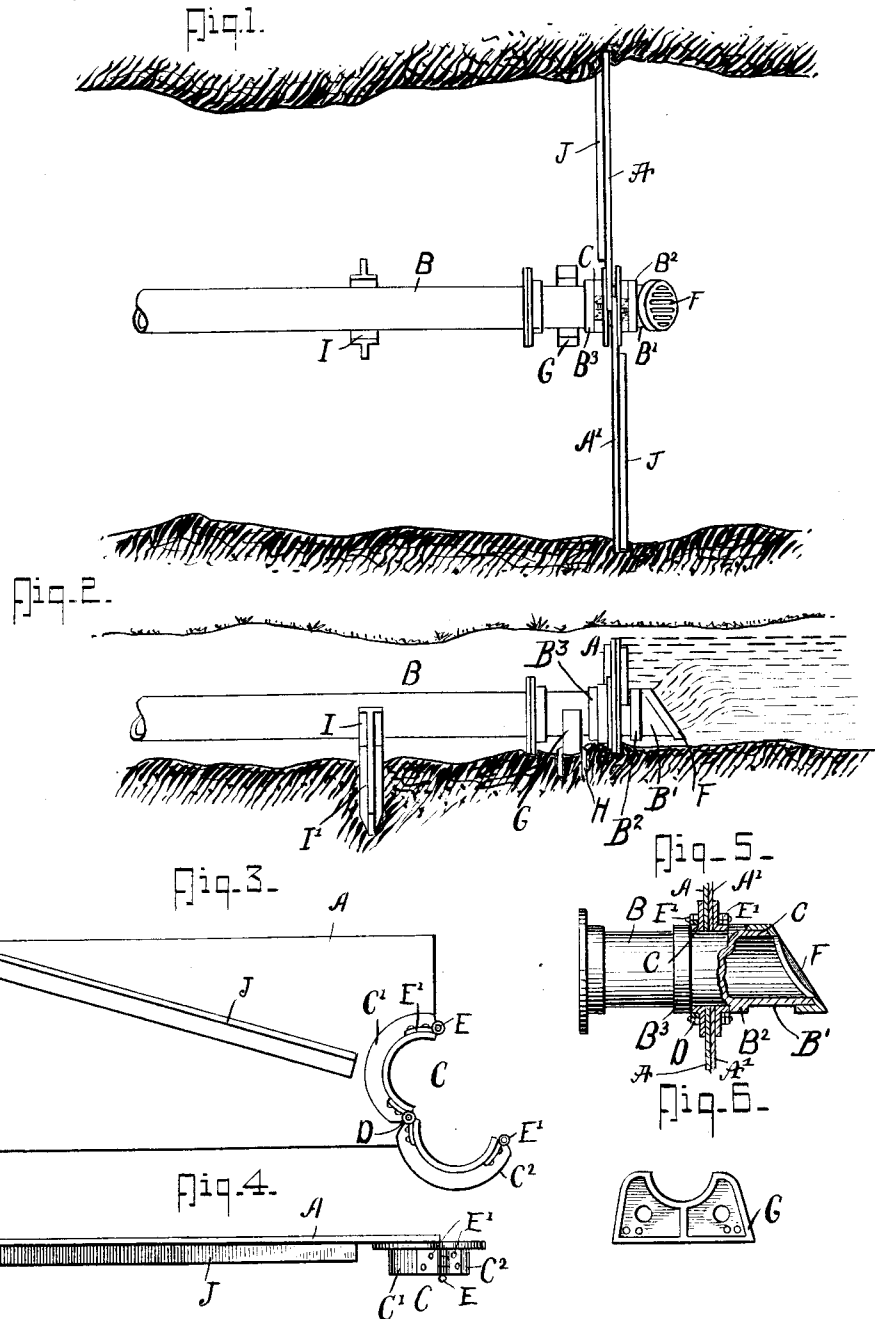


C. F. HOLMES.
SECTIONAL DAM AND FLUME.
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CLAYTON F. HOLMES, OF BEAUMONT, TEXAS.

SECTIONAL DAM AND FLUME.

1,052,338.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CLAYTON F. HOLMES, a citizen of the United States, and a resident of Beaumont, in the county of Jefferson and State of Texas, have invented a new and Improved Sectional Dam and Flume, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved sectional dam and flume, more especially designed for use in brooks and other small water-ways for damming the water and for conducting it by the flume to a turbine or other motor, and arranged to permit of conveniently placing the dam in position in the water-way and to support the flume.

For the purpose mentioned use is made of dam plates provided at their inner edges with collars made in hinged sections adapted to encircle the flume to support the latter and to hold the dam plates in place.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the sectional dam and flume as applied; Fig. 2 is a side elevation of the same and showing the water-way in section; Fig. 3 is an enlarged face view of one of the dam plates; Fig. 4 is a plan view of the same; Fig. 5 is a side elevation partly in section of the intake section of the flume with the plates shown in section; and Fig. 6 is a face view of a saddle for the intake end of the flume to rest on.

The dam proper is formed of two sheet metal plates A and A' of an aggregate length corresponding approximately to the width of the water-way with the side or outer edges of the plates embedded in the sides of the water-way and the bottom edges embedded in the bottom of the water-way, as plainly indicated in Figs. 1 and 2. The inner or adjacent ends of the plates A, A' are provided with semicircular cut-out portions for the reception of the intake end B' of a flume B for conducting the water accumulating above the dam to a turbine or other motor located a distance down stream.

The plates A and A' at the cut-out portions are each provided with a collar C made in two sections C', C², of which the section C' is fastened to the corresponding plate A and the other section C² is connected at one

end by a hinge D with the corresponding fixed section C', and the free end of the section C² is adapted to be fastened to the corresponding end of the fixed section C' by a pintle E engaging hinge members E' on the sections C' and C². The collars C of the two plates A and A' are located on opposite faces thereof, and the hinges D are placed a distance from the inner edges of the plates so that when the flume intake B' is encircled by the collars then the adjacent inner edges of the plates A, A' overlap to prevent leakage of water at the middle of the dam. It will be noticed that when the sections C² of the collars C are in open position, the dam plates A and A' can be readily placed in position on the intake B' of the flume, and when this has been done the collar sections C² are swung around into closed position and fastened by the pintle E. The collars C of the plates A and A' fit between annular flanges B², B³ integral on the intake B' of the flume so as to hold the intake against longitudinal movement. It will further be noticed that by the arrangement described the dam plates A and A' are securely fastened to the flume intake B' and the flume intake is supported by the collars C of the plates A and A' thus forming a strong structure in the water-way.

The upper terminal of the intake B' is beveled and in closed by the grate F to prevent rubbish from passing into the flume and to conduct such rubbish upwardly and downwardly toward the upper edge of the dam plates A and A' to overflow with the water and thus prevent clogging up of the flume. The portion of the intake B' below the dam plates is supported on a saddle G fastened to the bed of the water-way by staples, bolts or other suitable means H, and the flume below the intake B' is supported on saddles I provided with posts I' adapted to be driven into the bed of the water-way, as plainly indicated in Fig. 2.

The plates A and A' are preferably reinforced by angle irons J extending from the collars C outwardly and upwardly, as plainly indicated in Figs. 3 and 4.

The sectional dam shown and described is very simple in construction, and can be readily and economically set up in small water-ways without requiring skilled labor.

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

1. A sectional dam, comprising plates

adapted to be set transversely across the water-way to form a dam, collars at the inner edges of the plates and adapted to encircle the flume to support the latter and to hold the dam sections in place.

2. A sectional dam, comprising plates adapted to be set transversely across the water-way to form a dam, and collars at the inner edges of the plates at opposite faces thereof, the collars being adapted to encircle a flume, each collar being made in two hinged parts, of which one is secured to the corresponding plate and the other one is free to swing around the flume, the free end of the hinged collar part being adapted to be fastened to the fixed collar part after encircling the flume.

3. A sectional dam, comprising plates adapted to be set transversely across the water-way to form a dam, collars at the inner edges of the plates at opposite faces thereof, the collars being adapted to encircle a flume, each collar being made in two hinged parts, of which one is secured to the corresponding plate and the other one is free to swing around the flume, the free end of the hinged collar part being adapted to be fastened to the fixed collar part after encircling the flume, and a flume having an intake section provided with spaced fixed flanges, the said plate collars encircling the said intake section between the said flanges.

4. A sectional dam, comprising plates adapted to be set transversely across the water-way to form a dam, collars at the inner edges of the plates at opposite faces thereof, the collars being adapted to encircle a flume, each collar being made in two hinged parts, of which one is secured to the corresponding plate and the other one is free to swing around the flume, the free end of the hinged collar part being adapted to be fastened to the fixed collar part after encircling the flume, and a flume having an intake section provided with

spaced fixed flanges, the said plate collars encircling the said intake section between the said flanges, the terminal of the said intake section being beveled, and a grate fitting over the said terminal.

5. A sectional dam, comprising plates adapted to be set transversely across the water-way to form a dam, and collars at the inner edges of the plates at opposite faces thereof, the collars being adapted to encircle a flume, each collar being made in two hinged parts, of which one is secured to the corresponding plate and the other is free to swing around the flume, the free end of the hinged collar part being adapted to be fastened to the fixed collar part after encircling the flume, one of the centers of the connecting points of the collar sections being disposed a distance from the inner edge of the corresponding plate to allow the inner edges of the plates to overlap.

6. A sectional dam, comprising plates adapted to be set transversely across the water-way to form a dam, collars at the inner edges of the plates at opposite faces thereof, the collars being adapted to encircle a flume, each collar being made in two hinged parts, of which one is secured to the corresponding plate and the other is free to swing around the flume, the free end of the hinged collar part being adapted to be fastened to the fixed collar part after encircling the flume, a flume having an intake section provided with spaced fixed flanges, the said plate collars encircling the said intake section between the said flanges, and a saddle held on the bed of the water-way and on which rests the lower end of the intake section.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CLAYTON F. HOLMES.

Witnesses:

THEO. G. HOSTER,
JOHN P. DAVIS.