

No. 665,765.

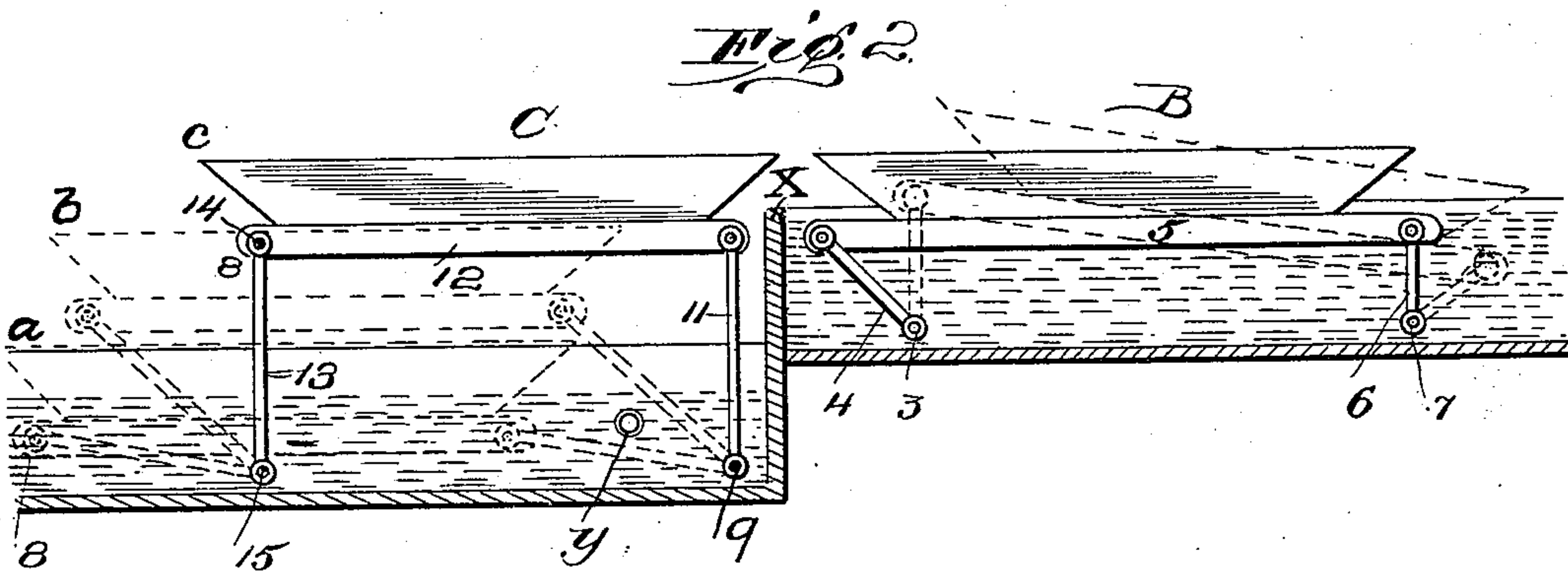
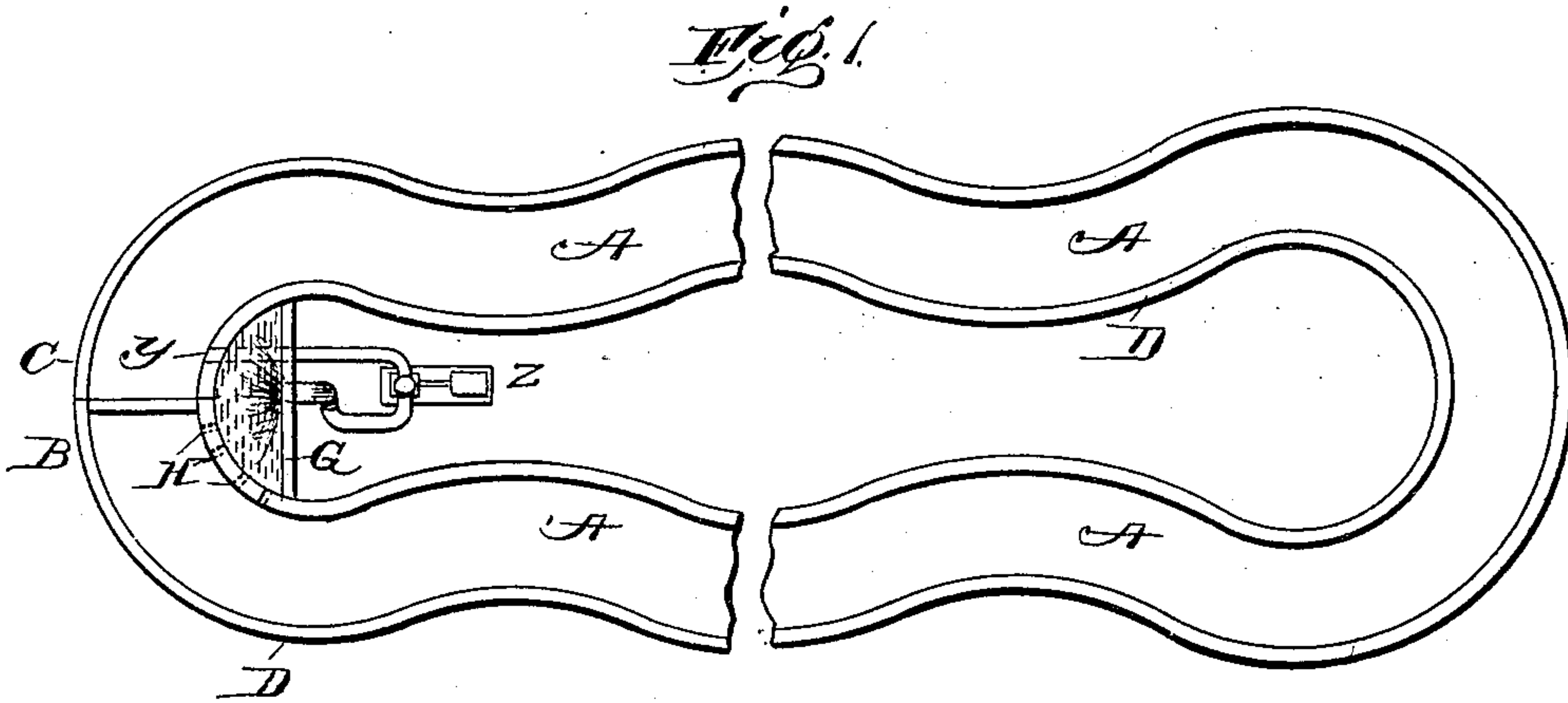
Patented Jan. 8, 1901.

LA MARCUS A. THOMPSON.  
CANAL BOAT OPERATING MECHANISM.

(Application filed Sept. 17, 1900.)

(No Model.)

2 Sheets—Sheet 1.



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Fig. 3.

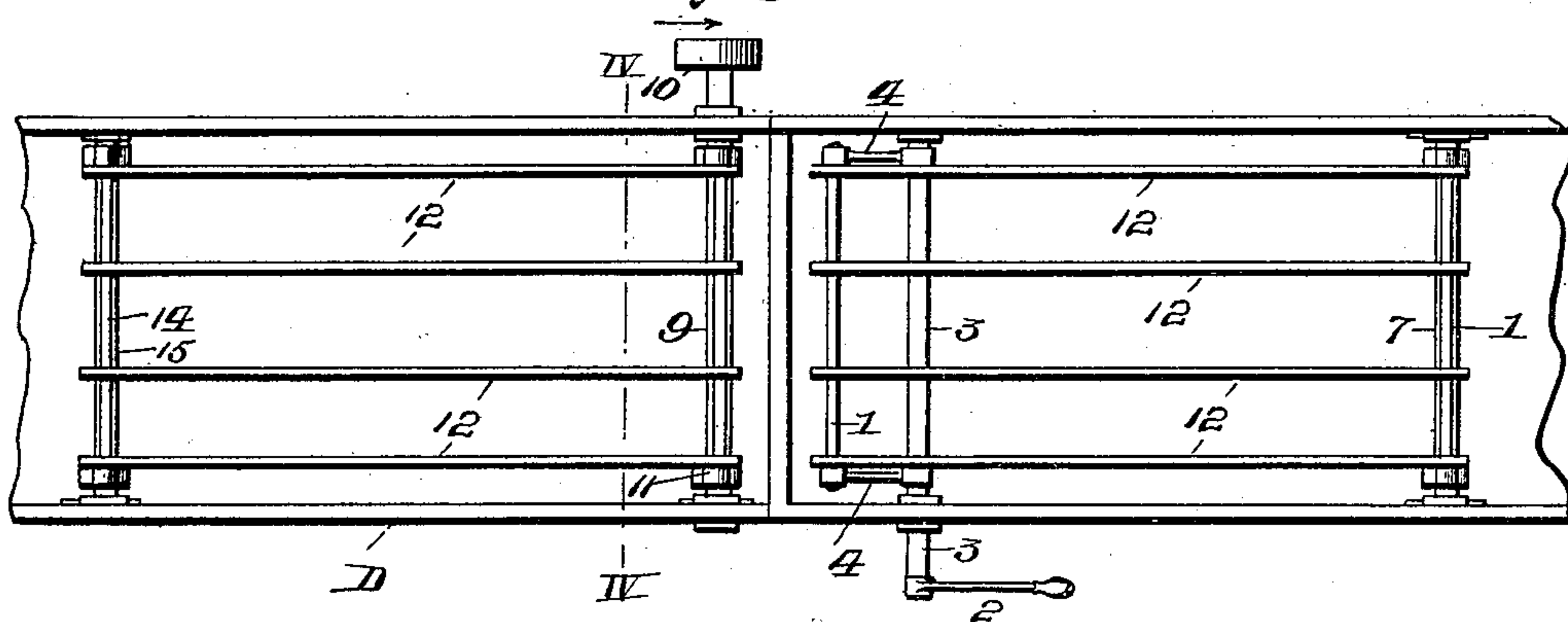


Fig. 4.

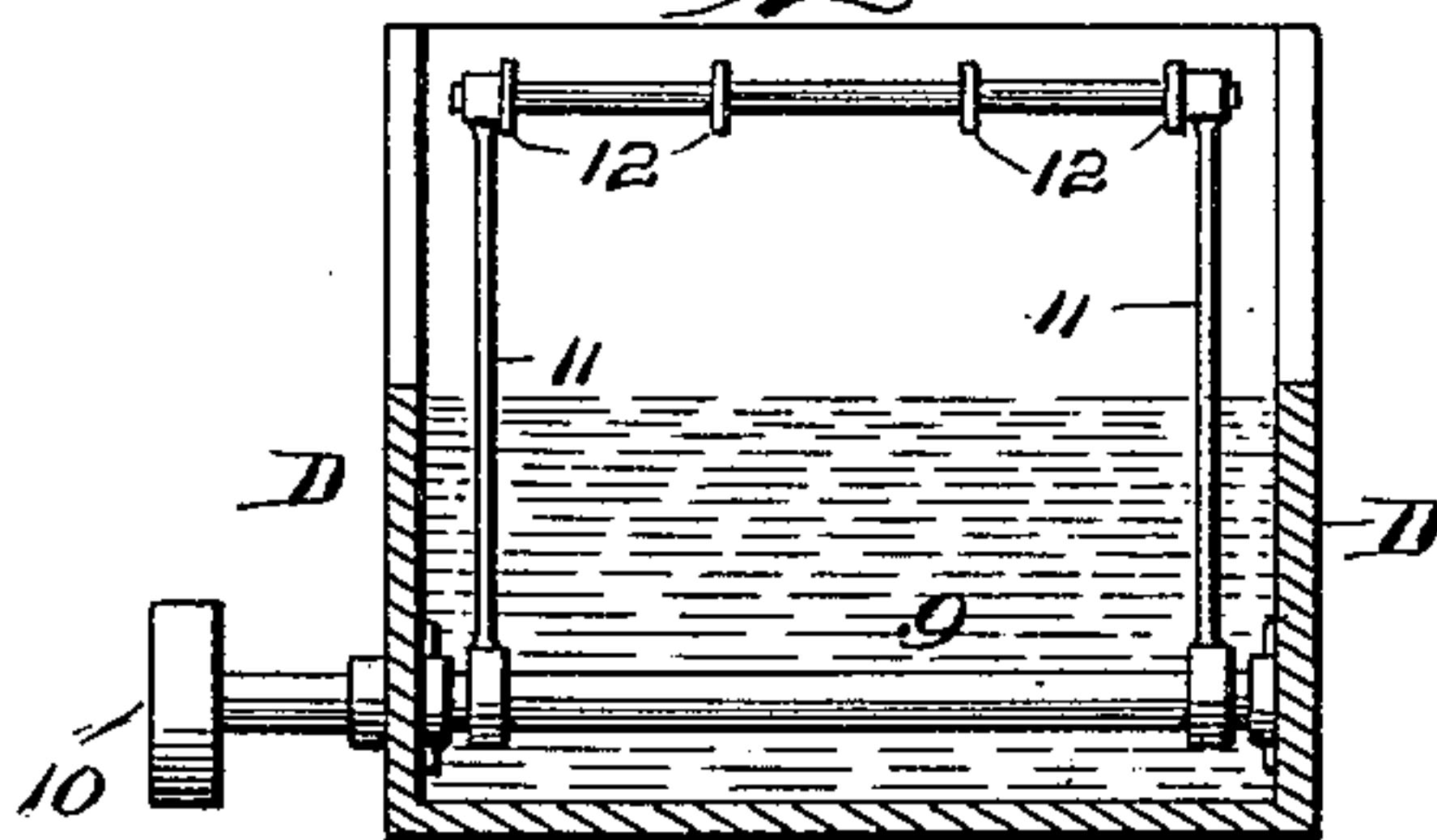
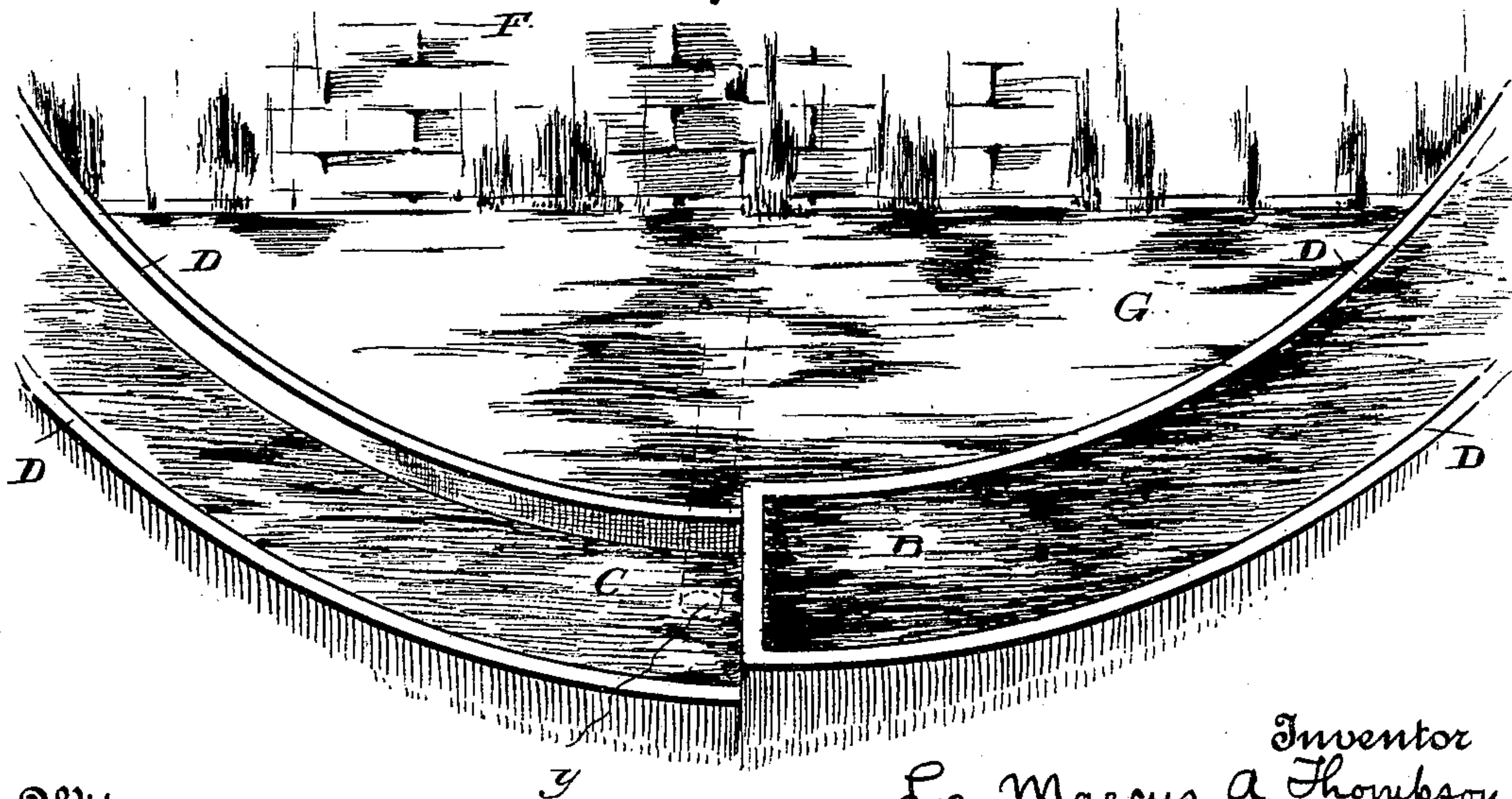


Fig. 5.



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# UNITED STATES PATENT OFFICE.

LA MARCUS A. THOMPSON, OF CHICAGO, ILLINOIS.

## CANAL-BOAT-OPERATING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 665,765, dated January 8, 1901.

Application filed September 17, 1900. Serial No. 30,274. (No model.)

*To all whom it may concern:*

Be it known that I, LA MARCUS A. THOMPSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Canal-Boat-Operating Mechanism; and I do hereby 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.

My invention relates to the operation of boats on canals, and more especially of those used on pleasure-canals. By "pleasure-canal" I mean what may be designated as an "endless waterway"—that is, one in which the boats, after beginning their travel, traverse a course which brings them around to the landing-place, which is close to the starting-point, there being a difference of level of the water at the points of embarkation and debarkation sufficient to give to the boats the desired speed of travel. By reason of this difference in water-level it is necessary to provide mechanism by which the boats may be raised, after traversing the canal, from the lower to the higher level, so as to be in readiness for another voyage. My invention relates to mechanism for raising the boats, as just referred to, for steadying the same during the embarking of the passengers and while they are being landed, and for giving to the boats a starting impetus.

I shall now describe my invention more particularly, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view designed to represent a pleasure-canal such as has been referred to. Fig. 2 is a vertical section of the canal at the points of loading and unloading the passengers. Fig. 3 is a plan view of the mechanism shown in Fig. 2. Fig. 4 is a vertical section on the line IV IV of Fig. 3 viewed in the direction of the arrow. Fig. 5 is a perspective view of a portion of the canal.

Like symbols of reference indicate like parts in each.

In the drawings, A indicates the canal, inclosed by side walls D, and B the loading, and C the unloading, point, it being understood that suitable platforms are arranged at these

places. In Fig. 2 the boat is shown at B in position ready to take on its passengers, being held steady for such purpose by the frame 1. To start the boat on its way after loading, the rear end of the frame 1 is elevated by means of the crank-lever 2, shaft 3, and levers 4, the crank-lever 2 and levers 4 being fixedly mounted on the shaft. At the same time, through the medium of the bars 5 of the frame, levers 6, and shaft 7, the front end of the frame 1 is lowered. This simultaneous raising of the rear end and lowering of the front end of the frame causes the boat to assume an inclined position and gives to it a starting impetus. Thereafter, by reason of the inclination of the bed of the canal, and consequently of the water therein, the boat by the natural flow of the water, aided by artificial speeding mechanism, if desired, floats through the canal and is brought to the terminal or unloading point C and over the frame 8, at this time submerged, the boat being then in the position *a* indicated by dotted lines. Then by means of the shaft 9, rotated by the power-wheel 10, the levers 11, fixedly mounted on said shaft 9, the frame-bars 12, pivotally connected to the levers 11 and to levers 13, mounted at their upper ends on the shaft 14 and at their lower ends to the shaft 15, the boat is raised to the position *b* indicated by dotted lines. The boat is held steady at this point until the passengers have alighted. It is then raised, by means of the mechanism just described, to the position *c*, which is at or a little above the edge of the dam X and of the water in the canal at the point B. From the position *c* it is slid off the frame 8 onto the frame 1 in readiness for another journey.

At the point C the water is pumped from the canal by means of the pipe Y and the pump Z to the top of an artificial waterfall F, whence it finds its way into the basin G, and from thence into the canal at the point B by means of the openings H in the canal-wall at that point.

The advantages of my invention will be readily appreciated by those skilled in the art.

It will be understood that modifications may be made in the construction and operation of the various parts without departing from the spirit of the invention, since



What I claim is—

1. In canal-boat-operating mechanism, a frame for supporting the boat mounted and fixed in the canal and adapted to maintain a substantially horizontal position during the embarking of the passengers and to be lowered at its front end and elevated at its rear end so as to give to the frame an inclined position when the boat is to be started on its journey.

2. In canal-boat-operating mechanism, a frame for supporting the boat during the embarking of the passengers, levers pivotally connected to the said frame and adapted to elevate the rear end of said frame above its normal position, and levers also pivotally connected to said frame and adapted to lower the front end of the frame below its normal position.

3. In canal-boat-operating mechanism, a frame for supporting the boat during the embarking of the passengers, levers pivotally connected to the said frame and adapted to elevate the rear end of the frame above its normal position, levers also pivotally connected to the said frame and adapted to lower the front end of the frame below its normal position, and mechanism for operating said levers.

4. In canal-boat-operating mechanism, a frame for supporting the boat during the embarking of the passengers, levers pivotally connected to the said frame and adapted to elevate the rear end of the frame above its normal position, levers pivotally connected to the said frame and adapted to lower the front end of the frame below its normal level, shafts on which said levers are fixedly mounted, and mechanism for turning one of said shafts and thereby operating the levers and the connected frame.

5. In combination, a waterway, a frame mounted and fixed therein for receiving the boat at the end of its journey and for steadying the same, and holding it in a horizontal position during the disembarking of the passengers, and adapted to be raised with the

boat supported thereon from its reception position to a higher level to enable it to be floated onto a higher level of water in said waterway.

6. In combination, a waterway, a frame mounted and fixed therein for receiving the boat at the end of its journey and for steadying the same, and adapted to be raised with the boat supported thereon from its reception position to a higher level to enable it to be floated onto a higher level of water in said waterway, said frame consisting of a set of bars on which the boat rests, two sets of levers pivotally connected to said bars, and mechanism for operating said levers.

7. In canal-boat-operating mechanism, a frame for receiving the boat at the end of its journey and for steadying the same, and adapted to be raised with the boat supported thereon from its reception position to a higher level to enable it to be floated onto a higher level of water in the canal, said frame consisting of a set of bars on which the boat rests, two sets of levers pivotally connected to said bars, shafts on which said levers are fixedly mounted, and mechanism for turning one of said shafts and thereby operating the levers and the frame connected thereto.

8. In canal-boat-operating mechanism, a frame for receiving the boat at the end of its journey and for steadying the same, and adapted to be raised with the boat supported thereon from its reception position to a higher level, in combination with a second frame for receiving the boat when said first frame is raised to its uppermost position, said second frame being adapted to maintain a substantially horizontal position during the embarking of the passengers and to be given an inclined position when the boat is started on its journey.

In testimony whereof I affix my signature in presence of two witnesses.

LA MARCUS A. THOMPSON.

Witnesses:

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W. B. CORWIN.