(No Model.) 2 Sheets—Sheet 1.

M. MYRÉ & C. CHRISTOFFERSON.

BRIDGE GATE.

No. 386,154. Patented July 17, 1888.

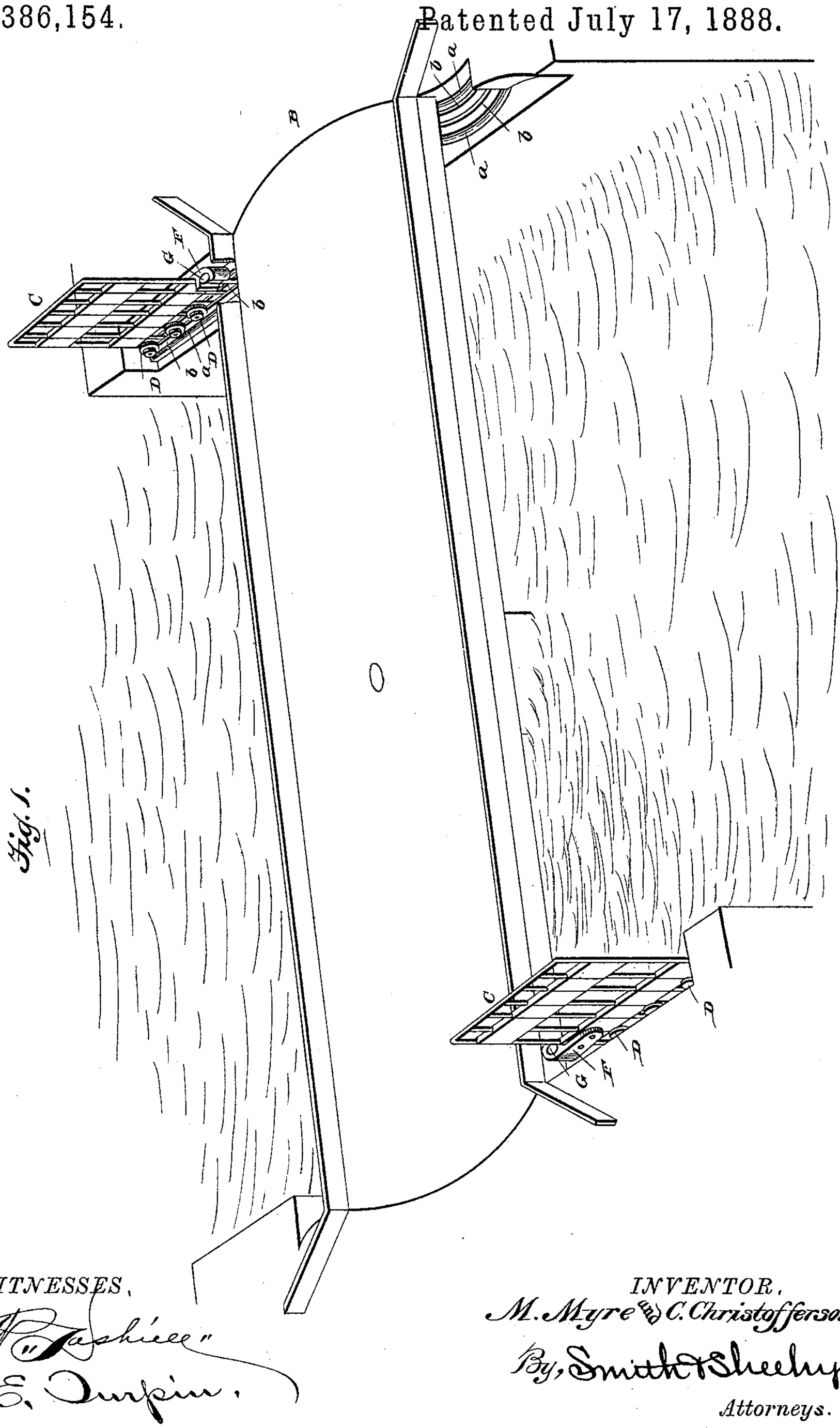

Fig. 1.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

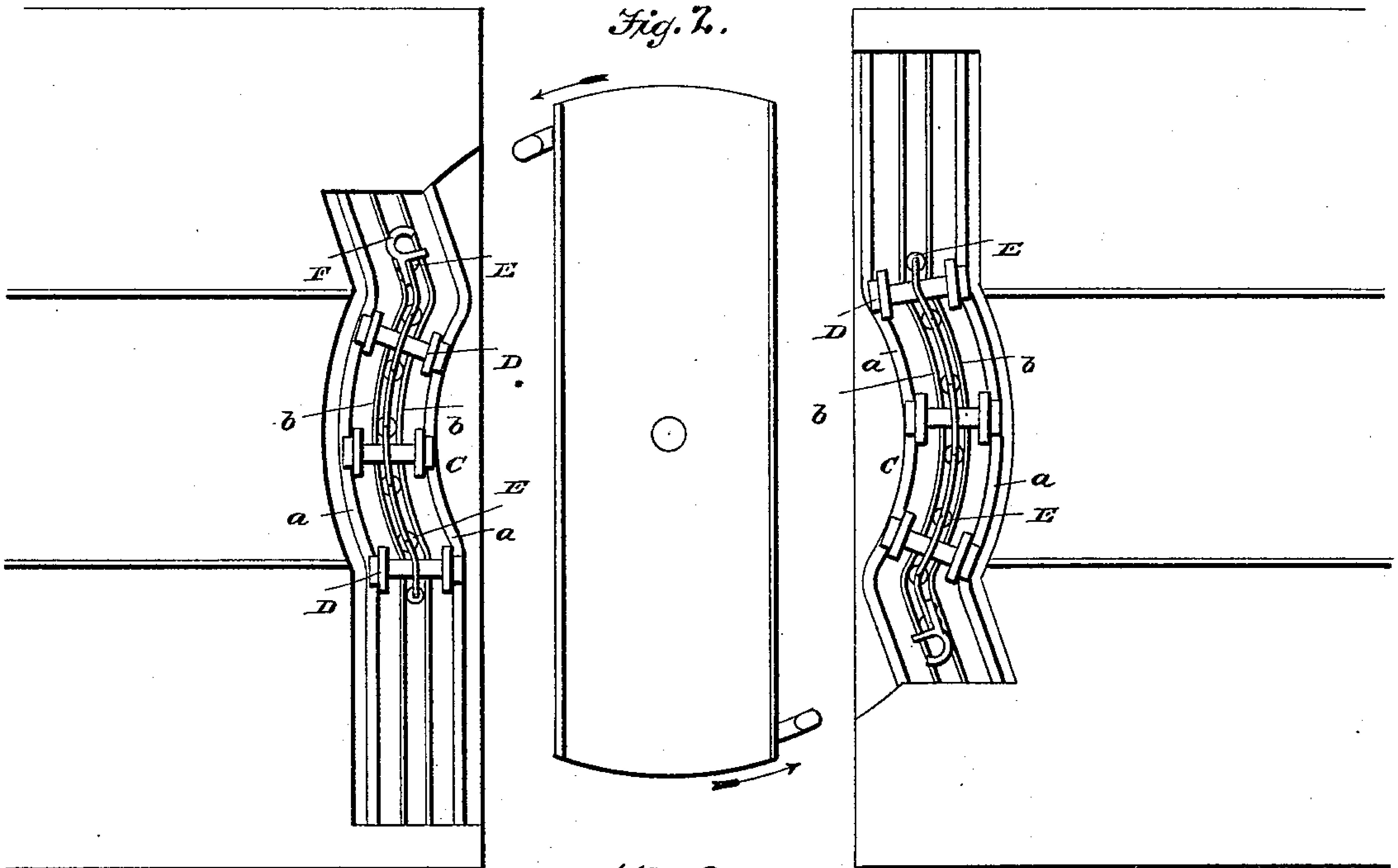


Fig. 3.

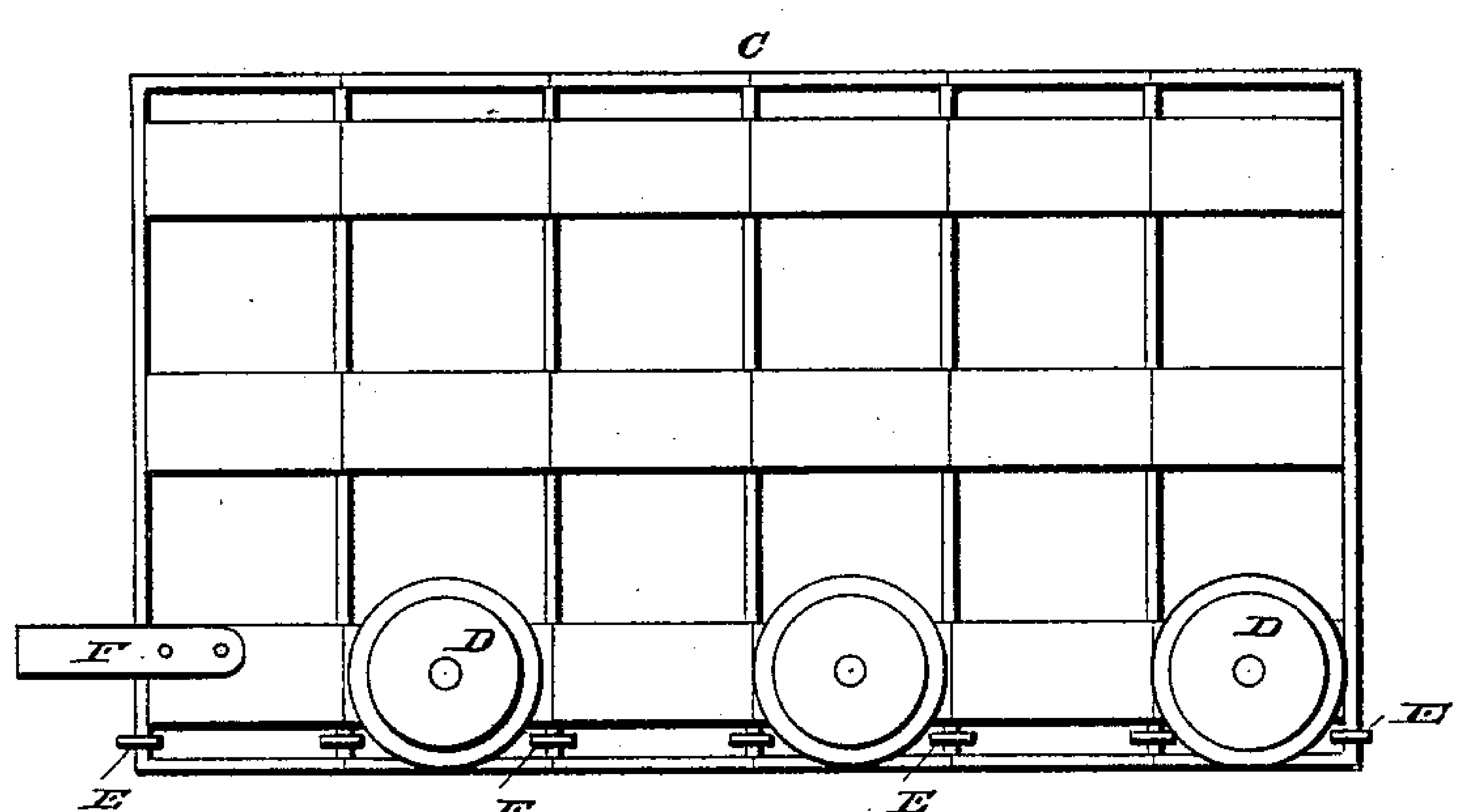
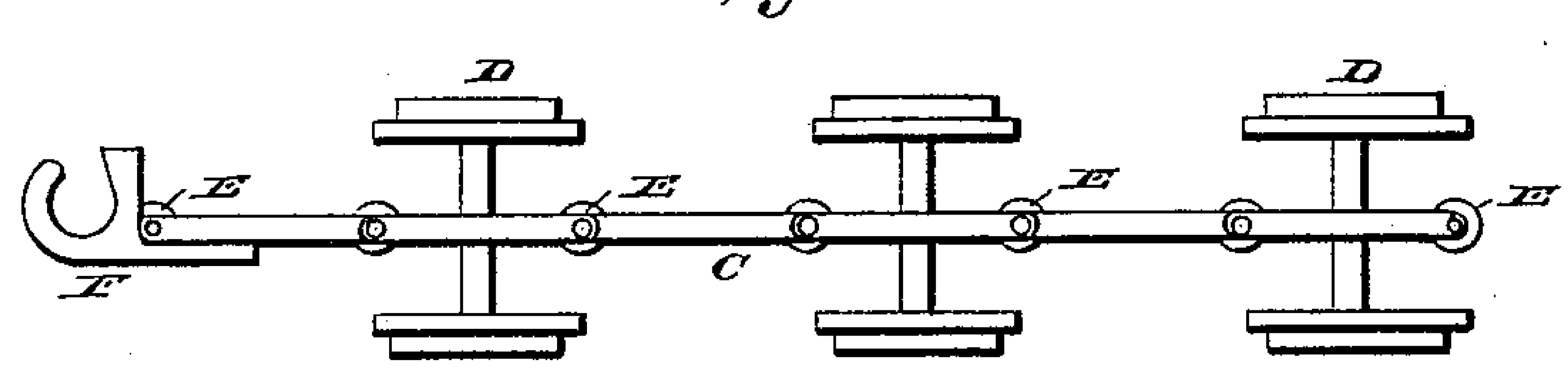


Fig. 4.



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UNITED STATES PATENT OFFICE.

MARTHINEUS MYRÉ AND CHRISTIAN CHRISTOFFERSON, OF WINONA, MINNESOTA.

BRIDGE-GATE.

SPECIFICATION forming part of Letters Patent No. 386,154, dated July 17, 1888.

Application filed April 13, 1888. Serial No. 270,594. (No model.)

To all whom it may concern:

Be it known that we, MARTHINEUS MYRÉ and CHRISTIAN CHRISTOFFERSON, citizens of the United States, residing at Winona, in the county of Winona and State of Minnesota, have invented certain new and useful Improvements in Bridge-Gates; and we 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 has relation to improvements in devices for closing the draw at bridges; and it has for its object to provide attachments for a pivoted bridge which, in connection with suitable ways, will automatically engage and disengage street-gates at the entrance to a bridge when the latter has been swung upon a pivot-fulcrum, so as to close the said entrance from the roadway when the bridge has been turned for the passage of a boat, and which, when swung into proper position for travel, will move the gates safely out of the way. These objects we accomplish by the means shown and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a bridge in an operative position, showing the gates in engagement therewith and ready to close the draw or roadway when the bridge has been swung open to navigation. Fig. 2 is a plan view showing the bridge open to navigation and the gates closing the street entering the bridge. Fig. 3 is a side elevation of one of the flexible gates, and Fig. 4 is a plan view of the gate.

Referring by letter to the said drawings, A indicates a bridge, which may be that of any ordinary or approved construction, such as the pivotal bridges at present in use, having a suitable guard-rail along its longitudinal edges; and B indicates the street-entrances to opposite ends of the bridge, which may be also guarded by a suitable guard, as more fully shown in Fig. 1.

At a suitable point in the masonry at the entrance to the bridge we provide a track or way for the travel of the gate. In the present illustration we have shown this way as being composed of double tracks *a*, and between the tracks are set curved guides *b*, the tracks being also formed with a similar curvature and arranged in a plane relatively at right angles to the street leading to the bridge, there being one at each end of the bridge and beneath the same. It should be here observed, however, that we do not wish to confine ourselves to any particular manner of forming the tracks or guides, as it is only necessary that a suitable means should be provided for the proper movement of the gates.

C indicates one of the gates, there being two employed. These gates are designed to be of a flexible character, so that they may yield to the curvatures in the guide and the swing of the bridge. These gates we have shown as being composed of hinged sections mounted upon rollers D, and having small horizontal friction-rollers E journaled in their lower ends, which are designed to engage the curve-guides *b* and ease the movement of the gates. At one end and at a suitable point of each gate we arrange a hook, F, for a purpose which will be presently explained, and these hooks are arranged on opposite ends with relation to each other.

The bridge is provided at opposite sides and near opposite ends with engaging-lugs G, which are arranged at a sufficient point laterally to enter the hooks F of the gates to move the same.

In operation it will be seen that when the bridge is in a position for traffic the lugs G are in engagement with the hooks F of the gates, and one gate is held on each side of the bridge in the guideways. Therefore when the bridge is swung on its pivot, so as to open the draw, the gates are moved in opposite directions until they are brought so as to close the entrance from the street to the bridge, as more fully shown in Fig. 2, when a disengagement of the gates and bridge is effected by the latter moving in the curvilinear course indicated. The bridge being now swung back to close it to navigation, its lugs G will engage the hooks of the gates and move them away from the roadway in their guide-tracks.

It is obvious that the gate may be operated by any suitable means, so as to serve in connection with the gates which we have illustrated.

It will be observed by reference to Fig. 2 of

the drawings that we employ a double track at each entrance of the bridge, and arrange between said tracks vertical guide-flanges which have a longitudinal curvature corresponding to those of the tracks. It will furthermore be observed that one end of each track, as well as the guide-flanges, terminates in a straight portion to receive the gates when the bridge has been closed and ready for travel.

The guide-flanges embrace the lower sides of the flexible gates, which latter have friction-rollers, as shown, to ease their movements.

Having described our invention, what we claim is—

1. The combination, with a pivoted bridge having lugs, as described, of the flexible gates having hooks F and mounted on rollers, and having rollers at their lower sides, the tracks in the masonry, and the guide-flanges between the same, substantially as specified.

2. The flexible gates mounted on rollers and having friction-rollers at their lower sides, in combination with the tracks and the guide-flanges between the same, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

MARTHINEUS MYRÉ.
CHRISTIAN CHRISTOFFERSON.

Witnesses:
W. A. FINKELNBURG,
JOHN VON ROHR.