R. C. MOUNSDON.

DRAW-BRIDGE.

No. 189,320. Patented April 10, 1877.

Fig. 1.

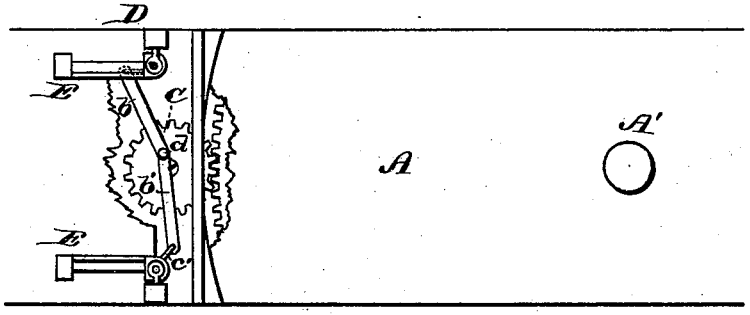


Fig. 2.

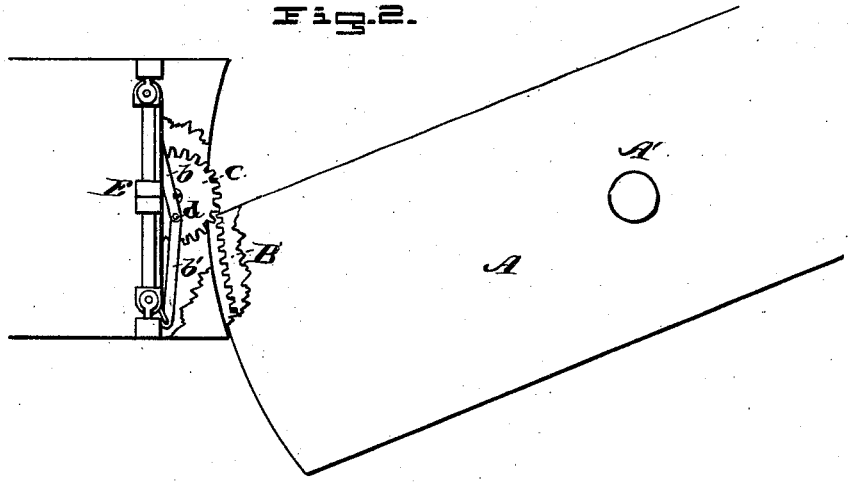
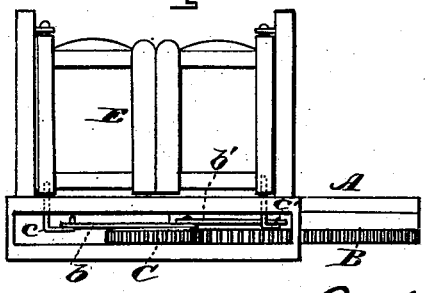


Fig. 3.



WITNESSES:

Jas. F. Dunhamel.

W. B. Brown

INVENTOR:

R. C. Mounsdon.

PER

A. C. Hobbs

ATTORNEY.

UNITED STATES PATENT OFFICE

ROBERT C. MOUNSDON, OF CLEVELAND, OHIO.

IMPROVEMENT IN DRAW-BRIDGES.

Specification forming part of Letters Patent No. **189,320**, dated April 10, 1877; application filed March 7, 1877.

To all whom it may concern:

Be it known that I, R. C. MOUNSDON, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Swing-Bridges; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in swing or turning bridges; and consists in the means of closing and opening gates on either or both sides of the bridge.

In the drawing illustrating my invention, Figure 1 is a view showing the gates open; Fig. 2, a view showing the gates closed; and Fig. 3, a section on the line *x x*, Fig. 1.

A represents an ordinary swing-bridge, moving on a vertical pivot, A′, one end being provided with a rack-bar, B, having a curvature common to that of the end of the bridge, which engages with a pinion-wheel, C, placed in the center of the abutment D, as shown in Figs. 1 and 2. To this pinion-wheel two levers, *b* and *b′*, are loosely attached by means of a pin, *d*, passing through their ends. These levers extend in opposite directions, and are attached to cranks *c* and *c′*, which are extensions of the gate-pivots, extending downward from the bottom of the gates E. These cranks are placed at different angles to the vertical plane of the gates, as will be seen in Figs. 1 and 3, so that the gates will have a simultaneous and uniform inward and outward movement upon the revolution of the pinion. The gate used is the ordinary one, with two wings opening outward from the center, and may be placed any suitable distance from the bridge.

Fig. 1 of the accompanying drawing shows the bridge closed and ready for use. Upon opening the bridge, by swinging it to either the right or the left, the rack-bar revolves the pinion, which will force the gates inward by means of the levers and cranks. The reverse movement of the bridge in resuming its position will open the gates.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination, with an ordinary swing or turning bridge, of the serrated curved bar B, pinion C, levers *b b′*, cranks *c c′*, and gates E, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

R. C. MOUNSDON.

Witnesses:
GEO. A. GROOT,
A. HIPPARD.