G. MOODY.

DRAW-BRIDGE.

No. 180,491. Patented Aug. 1, 1876.

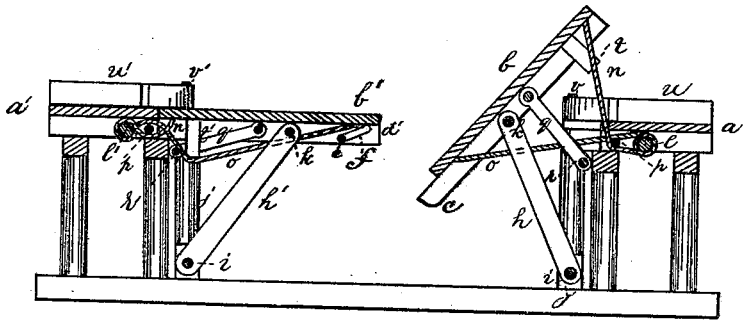

Fig. 1.

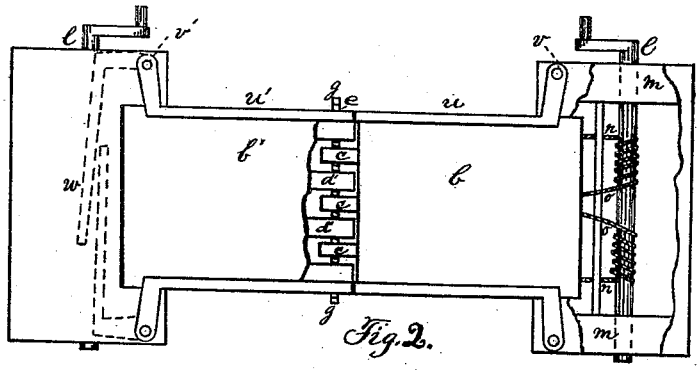

Fig. 2.

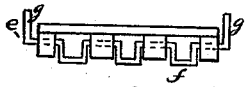

Fig. 3.

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GLENDY MOODY, OF FALMOUTH, MAINE.

IMPROVEMENT IN DRAW-BRIDGES.

Specification forming part of Letters Patent No. **180,491**, dated August 1, 1876; application filed January 29, 1876.

To all whom it may concern:

Be it known that I, GLENDY MOODY, of Falmouth, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Draw-Bridges; and 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 pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a side view in section; Fig. 2, a top plan, parts broken out; Fig. 3, a detail of the locking device.

Same letters show like parts.

The purpose of my invention is to produce an improved draw-bridge.

The nature of the invention will be best understood by a description of the parts.

a a' show portions of the bridge at each end of the draw. *b b'* show the two parts of the flooring of the draw. The part *b* has the projecting beams *c*, which are so arranged in relation to the beams *d'* that when the two ends of the two parts of the draw are brought together, or, in other words, when the draw is closed or down, these projecting parts may pass into the spaces between the ends of the floor-beams of the part *b'*, as illustrated. The part *b'* carries the fastening *e*, which has the loops *f*. When the two parts of the draw are brought together the loops *f* are thrown around the projecting beams *c* by turning the crank *g*.

When the draw is to be opened, by a proper motion of the same crank, the loops are turned upward and away from the projections *c*.

The parts *b* and *b'* are supported by two braces, *h* and *h'*. These are pivoted at their lower ends, as shown at *i*, being supported by the piles of the bridge or by other supports, as shown at *j*. At their upper ends these braces are jointed or pivoted to the two parts of the draw, as shown at *k*. When the parts of the draw are horizontal, these braces support the same, and in conjunction with the loops *f*, enable it to sustain the weight of teams, &c. *l* show shafts turning in bearings *m*, and having two sets of lines or chains, *n o*. These are so arranged in relation to the said shaft that when one is wound up the other is loosened, and vice versa. The lines *n* pass under a pulley, *p*, and are those which are employed to draw down the parts of the draw-bridge into the position shown in Fig. 2. The lines *o* pass over the pulley *p*, and are those which are employed to draw inwardly toward the other parts of the bridge the outer ends of the two parts composing the draw, or, in other words, to raise or open the draw. The latter set of lines pass over the shaft *l*—the other wind under the same. The shaft may be operated by any proper device, such as a crank or power.

Two guide-braces, *q*, are set on a pivot, *r*, in the frame-work of the bridge, and are also jointed or pivoted to the under sides of the two portions *b* and *b'* of the draw. These braces direct the movements of the two parts *b* and *b'* of the draw when they are being lowered or closed. Their office is to throw the two parts, or cause the said parts to move, toward each other, as well as downwardly, when the draw is being closed. They also serve to steady and regulate the movements of the two parts of the draw, and render them firm.

t t' show projections from the floor-timbers of the two parts *b* and *b'* of the draw, which, when the parts are dropped, bear upon the lines *o*. The object of this to lift the outer ends of the two parts *b* and *b'* by the drawing of the cords up against these projections before the draw or either part of it has taken any motion toward the other fixed parts of the bridge. Thus the cords or lines in combination with these projections prevent any binding or biting of the outer ends of the two parts of the draw against the planks of the bridge at the first movement of the two parts when the draw is being opened.

u u' show balustrades or railings of the parts *b b'* of the draw, and turning on posts *v v'*. These also serve, when turned back from the draw, as shown at *w*, to prevent entrance to the draw itself, while it is being operated. (See dotted lines in Fig. 2.)

It will thus be seen that by the operation of the shafts *l* and the lines or chains *n o*, the draw-bridge can be lowered or raised in accordance with the direction in which the shafts are caused to rotate.

The two parts of the draw can be so poised or balanced upon their supporting-braces *h h'*

that very little power is required to open or close the bridge.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the parts *b* and *b'* of a draw, of the braces *h h'*, shafts *l*, lines *n o*, and pulley *p*, as herein described.

2. The combination of the parts *b b'*, braces *h h'*, projecting beams *c*, fastener *e*, with its loops *f* and crank *g*, as herein described.

3. The combination, with the parts *b b'*, of the braces *h h'*, shafts *l*, lines *n o*, guide-braces *q*, and pulley *p*, as herein described.

4. In combination with the parts *b b'*, the projections *t t'* and lines or chains *o*, for the purpose herein described.

5. The balustrade or railing *u u'*, to operate as herein described, in combination with the parts *b b'*, as herein described.

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

GLENDY MOODY.

Witnesses:

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