(No Model.)

H. DAMMEYER.

BRIDGE GATE.

No. 344,817. Patented July 6, 1886.

Fig. 1.

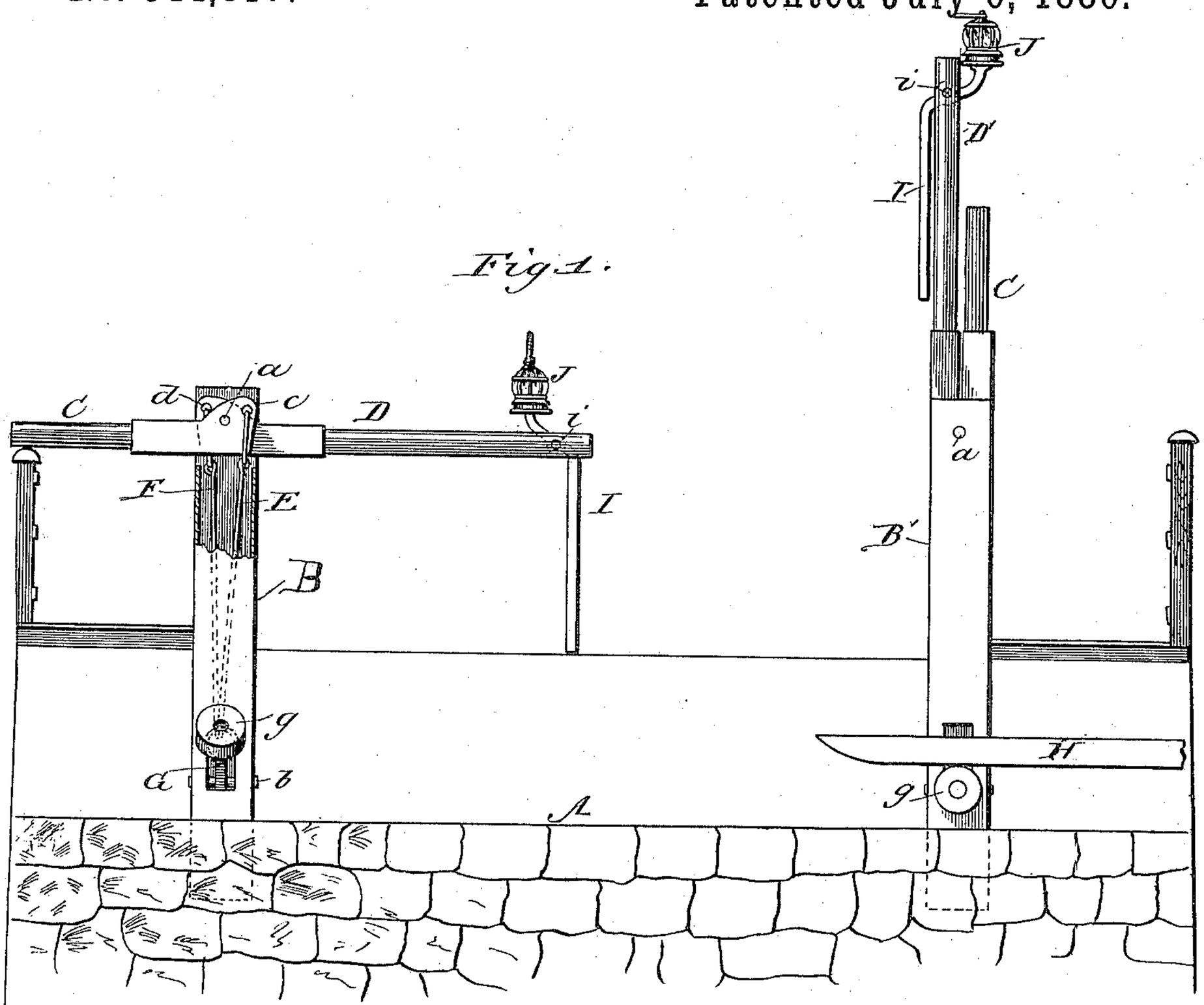
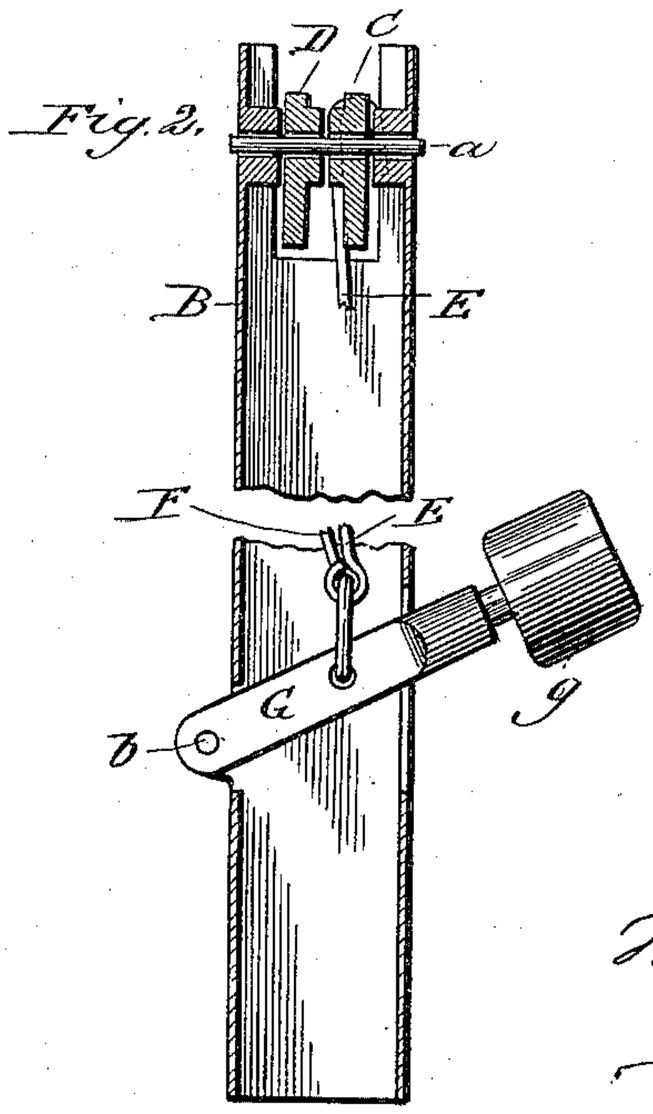


Fig. 2.



Witnesses.
W. Postlés
a Schoninger.

Inventor:
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UNITED STATES PATENT OFFICE.

HENRY DAMMEYER, OF CHICAGO, ILLINOIS.

BRIDGE-GATE.

SPECIFICATION forming part of Letters Patent No. 344,817, dated July 6, 1886.

Application filed January 9, 1886. Serial No. 188,115. (No model.)

To all whom it may concern:

Be it known that I, HENRY DAMMEYER, a subject of the Emperor of Germany, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bridge-Gates, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to gates for the approaches of draw-bridges, arranged to be automatically closed or opened with swinging the draw-span away from or into line with the abutments; and it has been my object to produce such a bridge-gate that is simple in its construction, is strong and durable, and is easy in its operation.

My invention therefore consists of the novel devices and combinations of devices hereinafter described and specifically claimed.

In the accompanying drawings, Figure 1 represents an end elevation of the bridge-abutment with my gate thereon, and with the gate-operating bar of the draw-span in position as when such draw-span is turned about one-half away from such abutment, thereby showing one part of the gate still closed, while the other part has been already opened; and Fig. 2 represents a vertical section of one of the gate-posts.

Corresponding letters in the several figures of the drawings designate like parts.

A denotes one of the abutments of a draw-bridge, into which are secured two hollow posts, B and B′, in a position to be in line with the trusses of the draw-span when closed. Into the upper extremity of each such post are pivotally secured upon a central pin, *a*, the hubs of two bars or beams, C and D, that are adapted to swing from a horizontal to a vertical position. The tail end *c* and *d* of each hub is connected by a rod, bar, or chain, E and F, with the center of a vibratable lever, G, projected through a slotted opening in the lower portion of each post B B′, and pivotally secured to the rear of such post on a pin, *b*. The projecting vertically-swinging end of this lever G forms the trunnion for a roller, *g*. A plate, H, having inclined ends is secured under the end of the draw-span of the bridge, which plate H will press upon and hold down the roller *g* and lever G, and thereby, by the connection of such lever G with the tail ends of bars C and D, will hold such bars in their vertical position; but as soon as such draw-span is swung away from its abutment, to open it for allowing a vessel to pass, the roller *g* of one post, B, and then of the other post, B′, is released, when the bars C D by their own gravity will swing from a vertical to a horizontal position, and will form a barrier against passing beyond the abutment. As the bridge is being closed again, the plate H, as its inclined end comes into contact with roller *g*, will depress the lever G, and will thus lift the bars C and D to their vertical position again for opening the roadway over the bridge.

As will be seen, each bar C will form the gate for the foot-passenger way, and the bars D D′ of posts B B′ together will form the gate for the wagon-road. The end of each bar D D′ is vertically slotted, and has pivoted on a pin, *i*, in such slot a rod, I, which by its gravity will retain a vertical position irrespective of the position of bar D, and thus it will form a support for the swinging end of such bar D when in its horizontal position; and to the upward extension of each bar I is secured a lantern, J, which will signal from a distance the position of the gates, and will thus indicate whether or not the bridge can be passed.

I am aware that swinging bars for the purpose herein described have been used, the same being pivoted in suitable posts, and each pair of said bars connected with a single rod, the said rod being connected at its lower end to a crank-arm formed upon a horizontal shaft, and said shaft having formed at its opposite end a second crank-arm adapted to engage the bridge-span, and I therefore disclaim such an arrangement of parts; but

What I claim is—

1. The combination, with plate H, secured under the end of the draw-span of a bridge, of bars C D, pivoted in posts B B′ of the abutment and connected with vibratable lever G, all substantially as described, to operate as specified.

2. The combination, with plate H, secured under the end of the draw-span of a bridge, of bars C and D, pivoted in posts B B′ of the

abutment and connected by rods or chains E F with vibratable lever G, having roller *g*, all substantially as described, to operate as specified.

3. The combination, with plate H, secured under the end of the draw-span of a bridge, of bars C and D, pivoted in posts B B′ of the abutment and connected with vibratable lever G, such bars D D′, having pivotal rods I with lanterns J, all substantially as described, to operate as specified.

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

HENRY DAMMEYER.

Witnesses:
A. SCHOENINGER,
HARRIS W. HUEHL.