

N. STOLL.
Draw-Bridge Gate.

No. 220,260.

Patented Oct. 7, 1879.

Fig. 1.

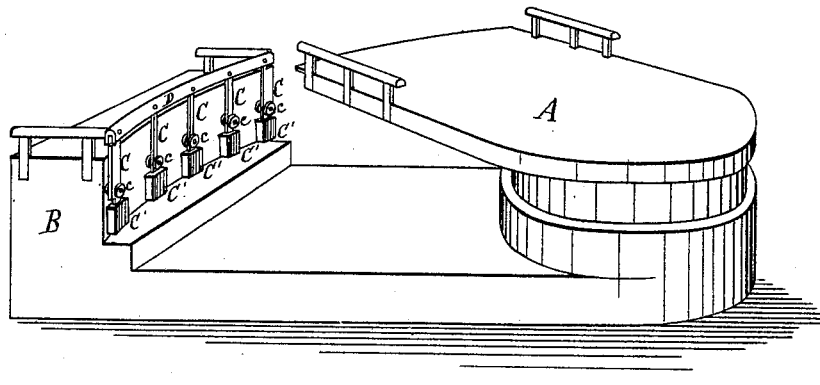


Fig. 2.

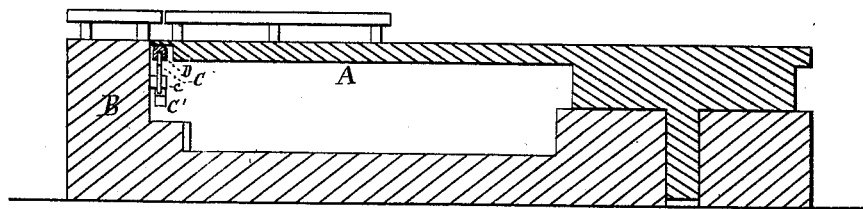
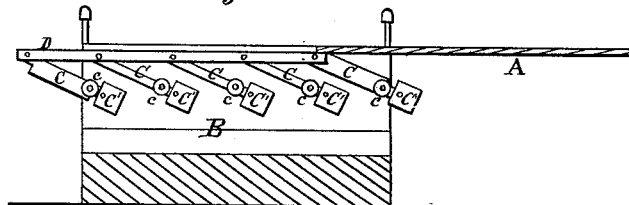


Fig. 3.



Witnesses:

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NICOLAUS STOLL, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN DRAW-BRIDGE GATES.

Specification forming part of Letters Patent No. **220,260**, dated October 7, 1879; application filed August 18, 1879.

To all whom it may concern:

Be it known that I, NICOLAUS STOLL, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Bridge-Gates; and I do declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

The nature of my invention relates to an improvement in that class of gates which are placed on the approaches of draw-bridges in order to prevent accidents; and it is my object to produce such a gate that will be simple in construction, and will be opened and closed automatically from the swinging of the draw-span.

My invention consists in the combination, with the abutment and draw-span, of a gate composed of a rail, which is pivotally connected to and supported upon the ends of a series of pendulum-bars pivoted against the end of the abutment and counterweighted below their fulcrums to assume a vertical position by gravity. While the draw-span of the bridge is swung away from the abutment, the pendulum-bars will elevate the rail a sufficient height above the roadway for constituting a barrier, and when the draw-span is turned to connect with the abutment its end will come in contact with and will turn the pendulum-bars, so that it can pass over the gate-rail.

In the accompanying drawings, Figure 1 represents a perspective view of a portion of a draw-span partly turned open, and with the abutment having my improved gate in the position to close the approach. Fig. 2 represents a longitudinal vertical section of the draw-bridge when closed, and showing the position of the gate turned under the end of the same; and Fig. 3 represents the end of the draw-span in section and an end view of the abutment with my gate attached, showing the manner of opening the gate with the closing of the bridge.

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

A denotes the draw-span of the bridge, and B the abutment. C C are a series of bars or posts, pivoted at *c c* to the abutment, and provided each with a counter-weight, C' C', which,

by gravity, will hold the bars C in an upright position. These bars C, with their upper extremities, enter a grooved or slotted rail, D, and are flexibly connected therewith. This rail D, when the draw-span A of the bridge is turned away from the abutment, will be elevated by the counterweighted pivotal posts C to occupy a sufficient height above the roadway for forming a fence or gate across the end of the same, and when the bridge is being closed the end of the draw-span at the side from which it approaches the abutment will come in contact with the end pivotal post, C, which will yield to the pressure, and will cause the posts to turn on their pivots and lean sidewise sufficiently for the draw-span to pass over and cover the rail D. These posts C will yield toward either direction whence the draw-span is swung, and as soon as released by the turning away of the draw-span they will reassume their upright positions.

The rail D may be arranged to be locked at its elevated position by latches or other suitable mechanism on the abutment, which latches are to be operated automatically by the swinging draw-span for the purpose of preventing rocking or forcible depression of said rail from willful or accidental causes; and the rail D may also be made in sections for closing and opening the passage to or from the bridge by degrees as the bridge is swung open or closed.

Rollers or wheels may be attached to the bottom end of the draw-span of the bridge, which will travel upon the rail D while the bridge is closing or opening, whereby extraordinary friction is done away with.

As will be noticed, a bridge-gate of my above-described construction is very simple and substantial, and cannot very well get out of order, while at the same time it affords full security against all accidents which may be expected with the use of draw-bridges.

I am aware that a counterbalanced railroad-gate operated by a hand-lever, composed of upright pivoted posts connected by a rigid top rail, and adapted to be thrown down in one direction beneath the roadway by such hand-lever, and to rise automatically by counterbalance-weights fastened to the lower ends of the posts when such lever is released is old; and I am also aware that a draw-bridge gate com-

posed of upright pivoted posts connected by chains in a peculiar manner, and counterbalanced by weights connected to their lower ends by ropes running over pulleys, said gate being depressed by the closing of the swinging span, and rising automatically when such span is opened is old.

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

1. The combination, with the abutment and the swinging span of a draw-bridge, of the rigid rail D, pivotally connected to the upper ends of a series of swinging posts, C, pivoted upon the abutment, and counterbalanced so as to assume an upright position and elevate such

rail across and above the roadway when the draw is open, substantially as described and shown.

2. In combination with the draw-span of a bridge, a gate composed of rail D, flexibly connected to a series of pendulum-posts, C C, pivoted at *c* against the abutment of the bridge and below the roadway, and having counterweights C' to their bottom ends, the same being constructed and arranged to operate substantially as described and shown.

NICOLAUS STOLL.

Witnesses:

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