

L. GASSER & C. SEVERIN.

Draw-Bridge Gates.

No. 150,949.

Patented May 19, 1874.

Fig. 1

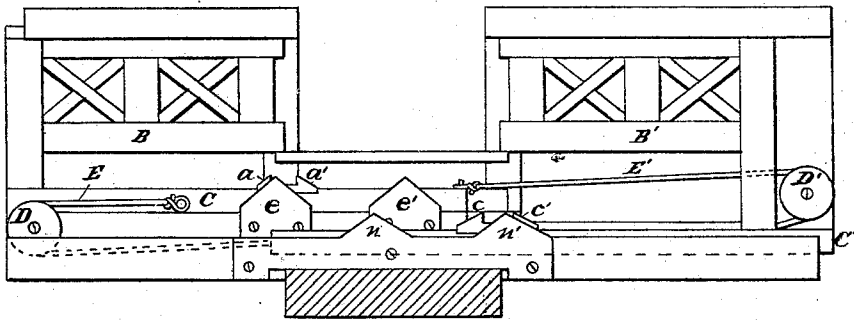


Fig. 2

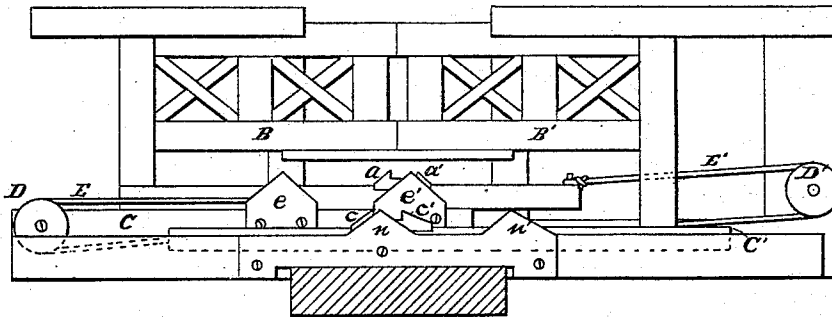
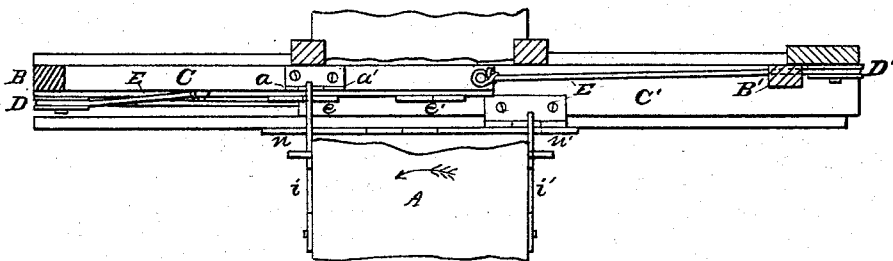


Fig. 3



WITNESSES

F. P. Herring.
J. A. McDoung.

INVENTOR

Louis Gasser
Christ Severin
By Lindley & Warner
their attys

UNITED STATES PATENT OFFICE.

LOUIS GASSER AND CHRIST SEVERIN, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN DRAW-BRIDGE GATES.

Specification forming part of Letters Patent No. **150,949**, dated May 19, 1874; application filed March 24, 1874.

To all whom it may concern:

Be it known that we, LOUIS GASSER and CHRIST SEVERIN, both of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Draw-Bridges, of which the following is a full, clear, and exact description, which will enable others skilled in the art to which our invention appertains to make and use the same, reference being had to the accompanying drawing forming a part hereof, and in which—

Figure 1 represents a side elevation of the open gates, and of a part of the means employed to shift them; Fig. 2, a like view when the gates are closed, and Fig. 3 a top or plan view of one end of the bridge and its approaches.

Like letters of reference indicate like parts.

The object of our invention is to improve the means employed for the purpose of guarding the approaches to the bridge when the latter is open; and consists in the novel features hereinafter described relating to the means employed for that purpose.

In the drawing, A represents a bridge of that class which is capable of being swung open to admit of the passage of vessels. B B' are horizontally-sliding gates arranged across the approaches to the bridge. C is a beam constituting a part of the gate B, and C' is a beam belonging to the gate B'. Both of these beams ride in fixed ways. D and D' are pulleys attached to the ways in which the gates ride. E is a cord or chain attached to the beam C, and arranged over the pulley D, and then attached to the beam C', as shown. E' is a cord or chain attached to the beam C' and arranged over the pulley D', and then attached to the beam C, as shown. By this means, when either gate is opened or closed, the other will also be opened or closed. *a a'* are beveled catches attached to the beam C, and *e e'* are beveled plates attached to the way in which said beam rides. *c* and *c'* are beveled catches attached to the beam C', and *n n'* are beveled projections, extending from the way in which the beam C' rides. *i i'* are arms or latches pivoted to each side of the bridge, and extending sufficiently from the ends of the bridge to engage the catches *a*, *a'*, *e*, and *e'*, in the manner hereinafter described.

When the bridge is closed the gates are open, and the parts operating in connection with gates are then arranged as shown in Fig. 1. The latch *i* lies between the catches *a* and *a'*, and the latch *i'* lies between the catches *c* and *c'*. If the bridge be swung open in the direction indicated by the arrow, the latch *i* will engage the catch *c* and draw the gates together, the plate *e* lifting the latch *i* from the catch *a*. By the time the gates are brought together the latch *i'* has reached the plate *u*, and is thereby released from its engagement with the catch *c*. The movement of the bridge may now be continued independently of the gates. When the bridge is turned in the opposite direction for the purpose of returning it to its original position, the latch *i'* rides into engagement with the catch *c'*, and the gates are thus opened. When the bridge is closed by being turned half-way around, the gates are closed by reason of the contact of the latch *i* with the catch *a*. If the bridge be opened by being turned from the catch *a* toward the catch *a'*, the gates will be closed by reason of the contact of the latter catch with the latch *i*, and they will be opened in a manner corresponding to that already described.

It will be perceived from the foregoing description that the approaches to the bridge will be open only when the bridge is closed, and that the action of the gate is automatic. It is also to be understood that the gates and the mechanism operating in connection therewith are arranged at each approach. The means employed to open and close the gates are simple in construction and operation, cheap, and not liable to get out of order.

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

The combination of the gates B and B', cords or chains E E', pulleys D D', catches *a a'* and *c c'*, beveled pieces *e e'* and *n n'*, and latches *i i'*, all arranged and operating together substantially as and for the purposes specified.

LOUIS GASSER.
CHRIST SEVERIN.

Witnesses:

F. F. WARNER,
N. C. GRIDLEY.