(No Model.)

C. VON DER MÜHLEN.

GATE FOR SWINGING BRIDGES.

No. 374,435. Patented Dec. 6, 1887.

Fig. 1.

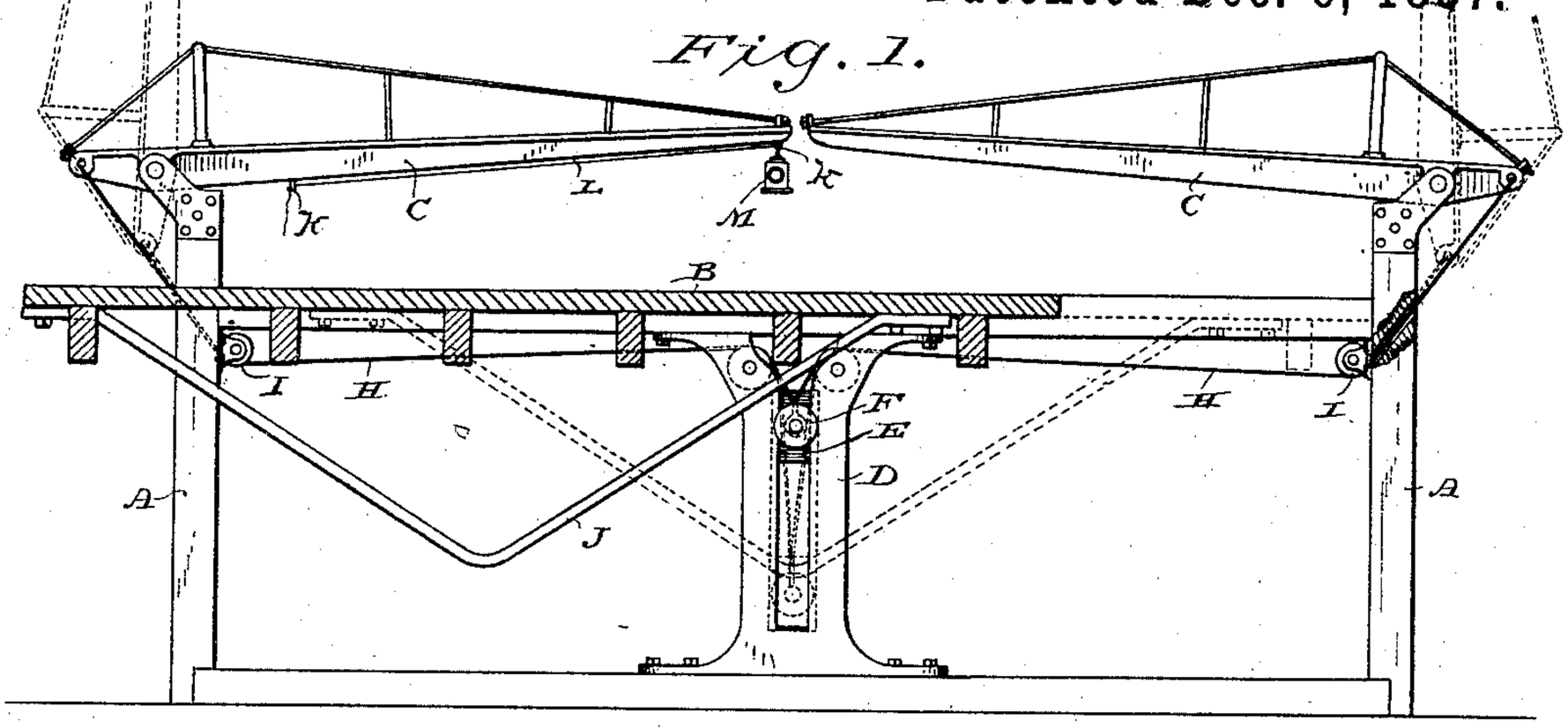


Fig. 2.

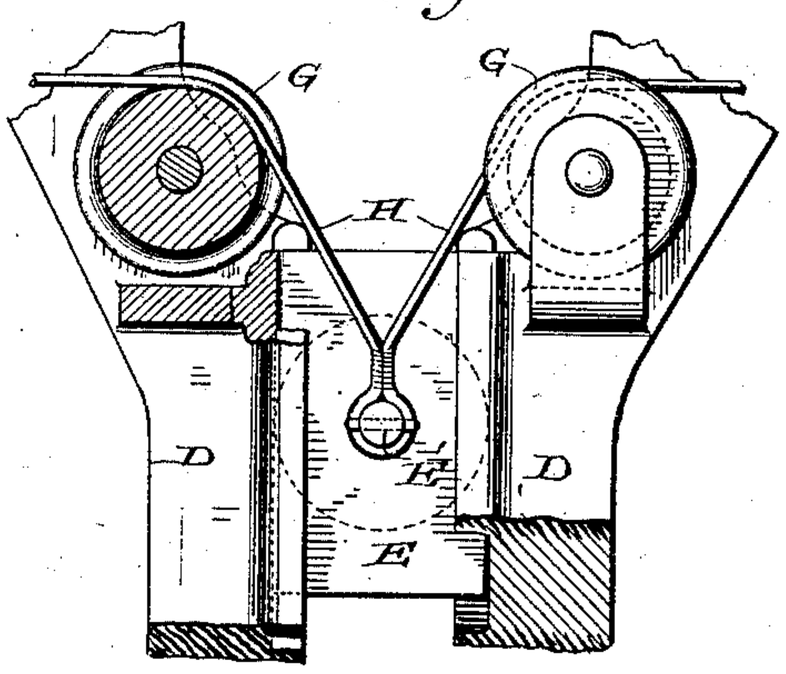


Fig. 3.

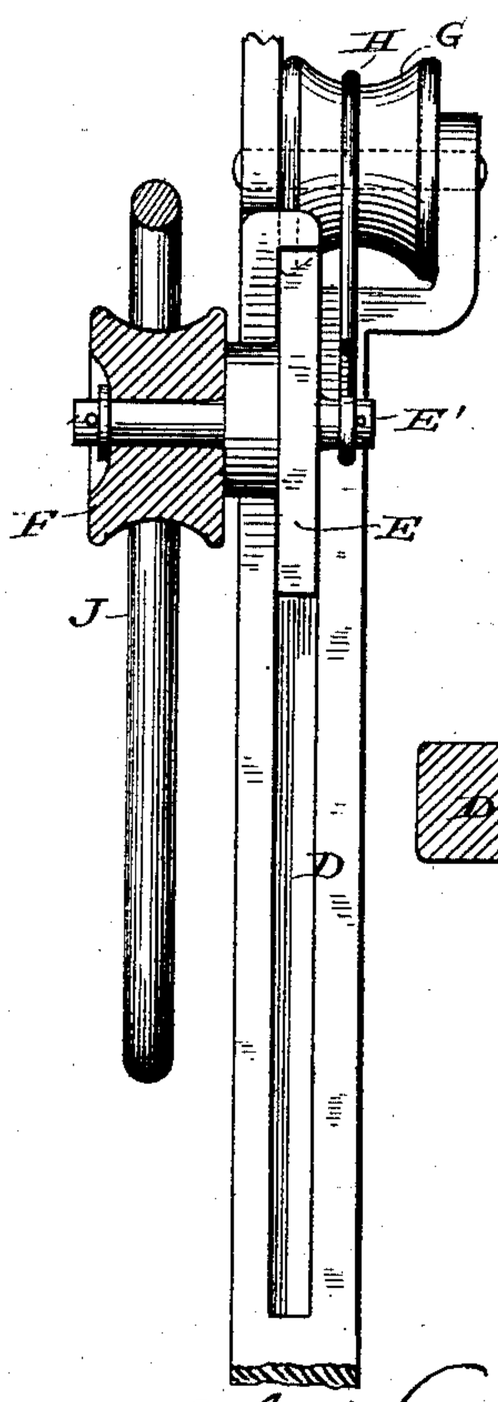


Fig. 4.

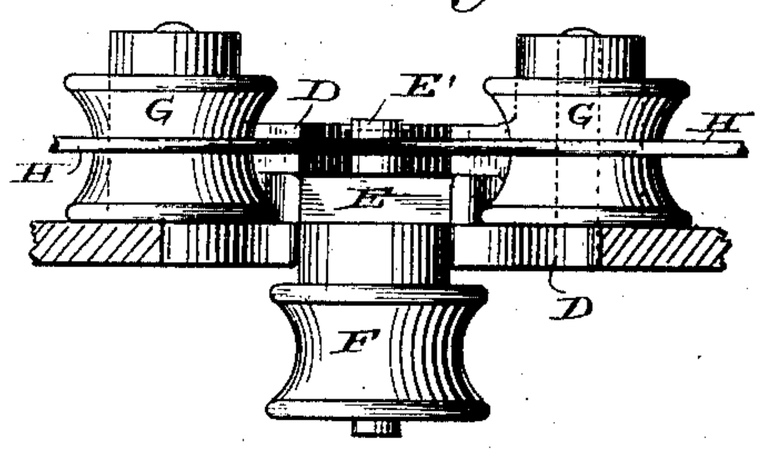
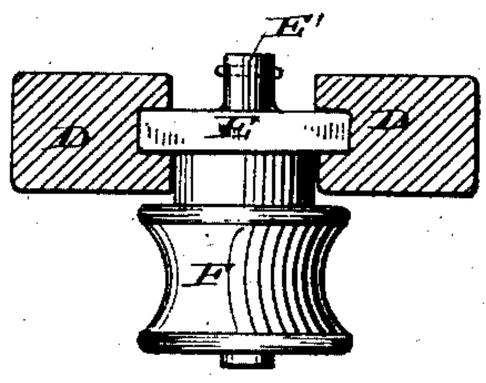


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES VON DER MÜHLEN, OF MILWAUKEE, WISCONSIN.

GATE FOR SWINGING BRIDGES.

SPECIFICATION forming part of Letters Patent No. 374,435, dated December 6, 1887.

Application filed August 1, 1887. Serial No. 245,839. (No model.)

To all whom it may concern:

Be it known that I, CHARLES VON DER MÜHLEN, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Gates for Swinging Bridges; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to gates for swinging bridges; and it consists in certain peculiarities of construction and combination of parts, to be hereinafter described with reference to the accompanying drawings, and subsequently claimed.

In the drawings, Figure 1 represents an elevation of my device, illustrating its application to a bridge, the latter being in section and partly open. Figs. 2, 3, 4, and 5 are detail views.

Referring by letter to the drawings, A A represent vertical standards that are fixed in the abutment at each end of a bridge, B. Pivoted to the upper ends of the standards A are gate-sections C C, and these sections are so arranged that they will slightly incline toward each other when raised.

Arranged midway between the standards A A is another standard, D, that is cut out to form guides for a sliding plate, E, this plate being provided with a projection, on which I prefer to arrange a roller, F. Journaled in the standard D at its upper end and on each side of the center is a pulley, G. Secured to a stud, E', on the back of the plate E is a chain or cable, H, that passes over the pulleys G, under pulleys I, arranged on the standards A, and has its extremities fastened to the pivot ends of the gate-sections C C.

Secured to each end of the bridge, so as to depend therefrom, is a triangular plate or rod, J, and the lowest point of this plate or rod normally rests upon the roller F in line with its center, as shown by dotted lines, Fig. 1.

As shown in Fig. 1, I provide one of the gate-sections with pulleys K, over which is run a cord, L, and to the outer end of this cord I may attach a lantern, M, in order to show the position of the gate at night.

In the operation of my invention, when the bridge B is swung around in either direction, the triangular plate or rod J will be brought away from the roller F and the gate-sections C C, by their own weight, will drop to the position shown in full lines, Fig. 1, and draw the sliding plate E, that carries the roller F, up in the path of said plate or rod. When the bridge is brought back to its normal position, the plate or rod J will strike the roller F and cause the plate E to run down and draw upon the chain or cable H, thereby raising the gate-sections C C to the position shown in dotted lines, Fig. 1.

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

1. The combination of a swing-bridge having its ends provided with depending triangular plates or rods, guide-standards centrally arranged in the bridge-abutments, sliding plates operative in the standards, and each of these plates having a stud upon its back and its front provided with suitable projections arranged to come in the path of said triangular plates or rods, pivoted gate-sections, and flexible connections secured to the studs on said sliding plates and having their extremities fastened to the pivot ends of the gate-sections, substantially as set forth.

2. The combination of the bridge B, the triangular plates or rods J, central standards, D, sliding plates E, each provided with a roller arranged to come in the path of said plates or rods, the pulleys G on said central standards, end standards, A, pulleys I, pivoted gate-sections C, and chains or cables H, all arranged to operate substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

CHARLES VON DER MÜHLEN.

Witnesses:
H. G. UNDERWOOD,
MAURICE F. FREAR.