

(No Model.)

L. GABELE & H. MATTES.
SELF ACTING GATE FOR DRAW BRIDGES.

No. 470,118.

Patented Mar. 1, 1892.

Fig 1

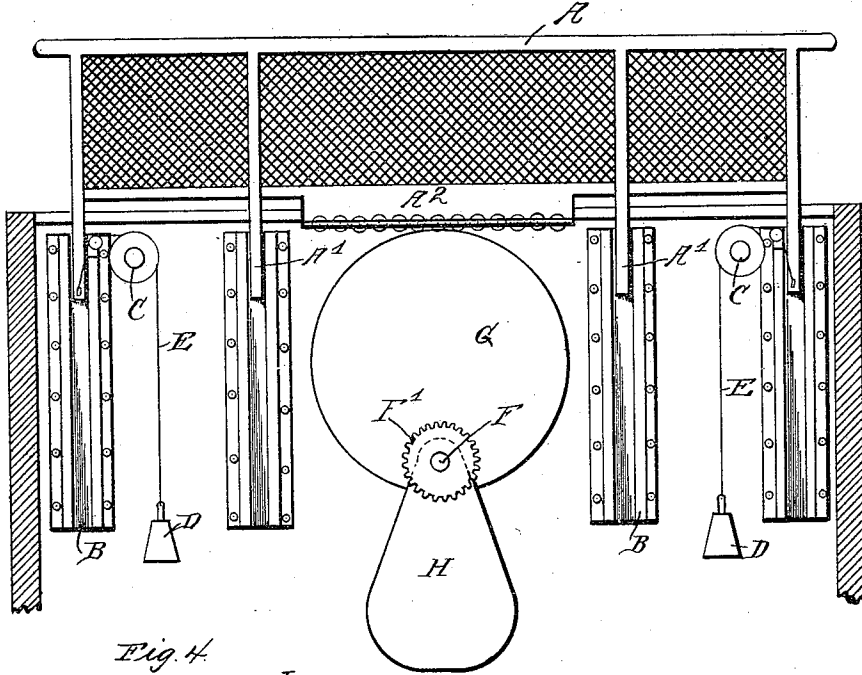


Fig 4

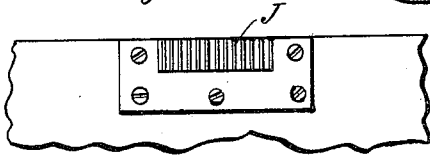


Fig 3

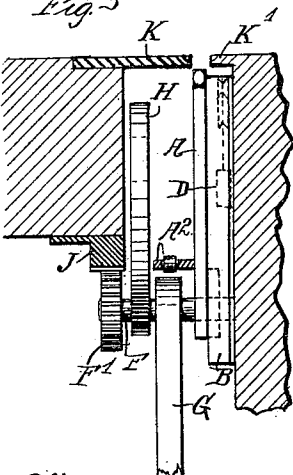
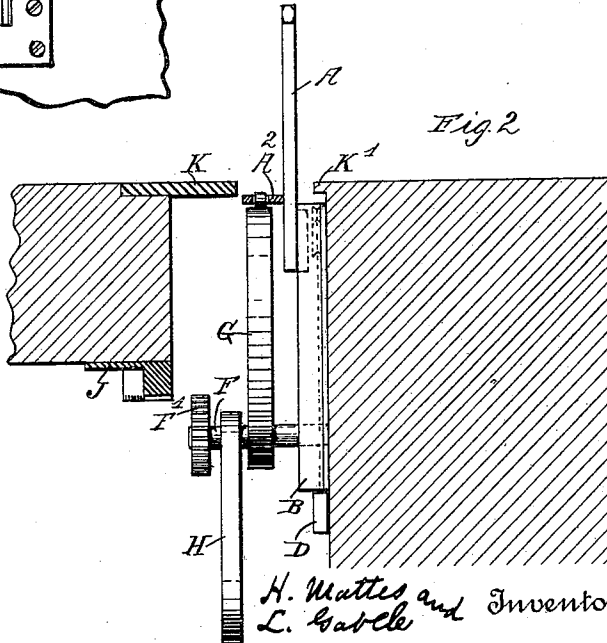


Fig 2



Witnesses
V. P. Wilson.
F. Mackenzie

H. Mattes and Inventors
L. Gabele
By their Attorney J. O. Fowler Jr

UNITED STATES PATENT OFFICE.

LAWRENCE GABELE AND HENRY MATTES, OF NEW YORK, (BEDLOE'S ISLAND,) N. Y.

SELF-ACTING GATE FOR DRAW-BRIDGES.

SPECIFICATION forming part of Letters Patent No. 470,118, dated March 1, 1892.

Application filed June 23, 1891. Serial No. 397,186. (No model.)

To all whom it may concern:

Be it known that we, LAWRENCE GABELE and HENRY MATTES, citizens of the United States, and residents of New York, (Bedloe's Island,) State of New York, have invented certain new and useful Improvements in Self-Acting Gates for Draw-Bridges, of which the following is a specification.

Our invention relates to self-acting gates whereby the approaches to draw-bridges may be protected, and has for its object the provision of a device simple in construction, inexpensive in manufacture, and efficient in practical use.

To attain the desired end our invention consists in the construction and arrangement of parts hereinafter described and claimed.

In the drawings which form a part of this specification, Figure 1 represents a front elevation of our invention. Figs. 2 and 3 are side views, partly in section, of our invention, showing the gate respectively in an open and closed relation; and Fig. 4 is a detail view showing the rack on the draw.

Like letters of reference, wherever they occur, indicate corresponding parts in all the figures.

Referring again to the drawings, A represents a gate, which may be constructed of any suitable material and of any size and shape that may be preferred, the top rail of the same being ordinarily made to conform to the grade of the roadway of the pier which is to be provided with our device.

The gate A is provided with two or more depending legs A', adapted and arranged to work in vertical guides B. Our gate may be counterbalanced by the use of any suitable means, as in the present instance by cords or chains E, secured to the bottom of the outermost legs A' and passing over pulleys C, the ends of the chains being provided with weights D. The guides B are to be placed upon the ends of the piers adjacent to the draw, which piers are also provided with horizontal shafts F, provided with gear F', eccentric G, and weight H, which parts may, if preferred, be partly covered over, so that only the gear F' may project and appear to view.

The gate A is provided with a horizontal flange A², preferably located at the lower central portion of the same, in which flange are ordinarily placed a number of rollers adapted and arranged to work on the edge of the eccentric G. This eccentric G and flange A² are so located in relation to each other that when the parts are in their normal position the gate A will be elevated and upon the eccentric making half a revolution the gate A will be lowered. In order that the parts may work more easily, the eccentric G is counterbalanced by a weight H, hung, as stated, upon the shaft F.

Upon the end of the draw and hanging from the center of the bottom part thereof is a rack J, adapted and arranged when the draw K is very nearly closed to engage with the projecting gear F of the pier and to rotate the same half a revolution by the time the draw is entirely closed, this operation of parts serving, as stated, to lower the gate A by means of the engagement of the flange A² of the gate A with the eccentric G, which has by the movement of the gear F been also caused to make half a revolution, as is represented in Fig. 3 of the drawings. As soon, however, as the draw K begins to open again the rack J will turn the gear F once more and the gate A will commence to rise, and the roadway of the pier K' will consequently be closed before the draw has opened sufficiently for any damage or injury to be caused thereby, the weights D and H serving to maintain the parts in their normal raised relation, as shown in Figs. 1 and 2.

It will be observed that our gate falls in a slot, as it were, transversely placed as regards the roadway, this slot being placed at or near the end of the pier, and when the gate, one of which may be placed at the end of each pier, is lowered all the parts are out of sight, and the top rail of the gate then conforming to the grade of the roadway no obstruction to travel is caused thereby.

As it is evident that many slight changes in the construction and relative arrangement of parts might be resorted to without departing from the spirit and scope of our inven-

tion, we would have it understood that we do not restrict ourselves to the particular construction and arrangement of parts shown and described, but that we reserve the right to make such changes, and that

5 What we claim as new, and desire to secure by Letters Patent, is—

10 1. The combination, with the counter-balanced eccentric G and the self-acting sunken gate A, operated by the said counter-balanced eccentric G, provided with a gear F', projecting therefrom, of the said gear F' and a draw provided with a rack J, adapted and arranged to engage with said gear.

2. The combination, with the gate A, of the guide B, counter-balance D, and eccentric G. 15

3. The combination, with the gate A, of the guides B, counter-balance D, eccentric G, gear F', and rack J.

In testimony of the foregoing specification we do hereby sign the same, in the city of New York, county and State of New York, this 25th day of May, A. D. 1891. 20

LAWRENCE GABELE.
HENRY MATTES.

Witnesses:

J. ODELL FOWLER, Jr.,
WM. M. V. FOWLER.