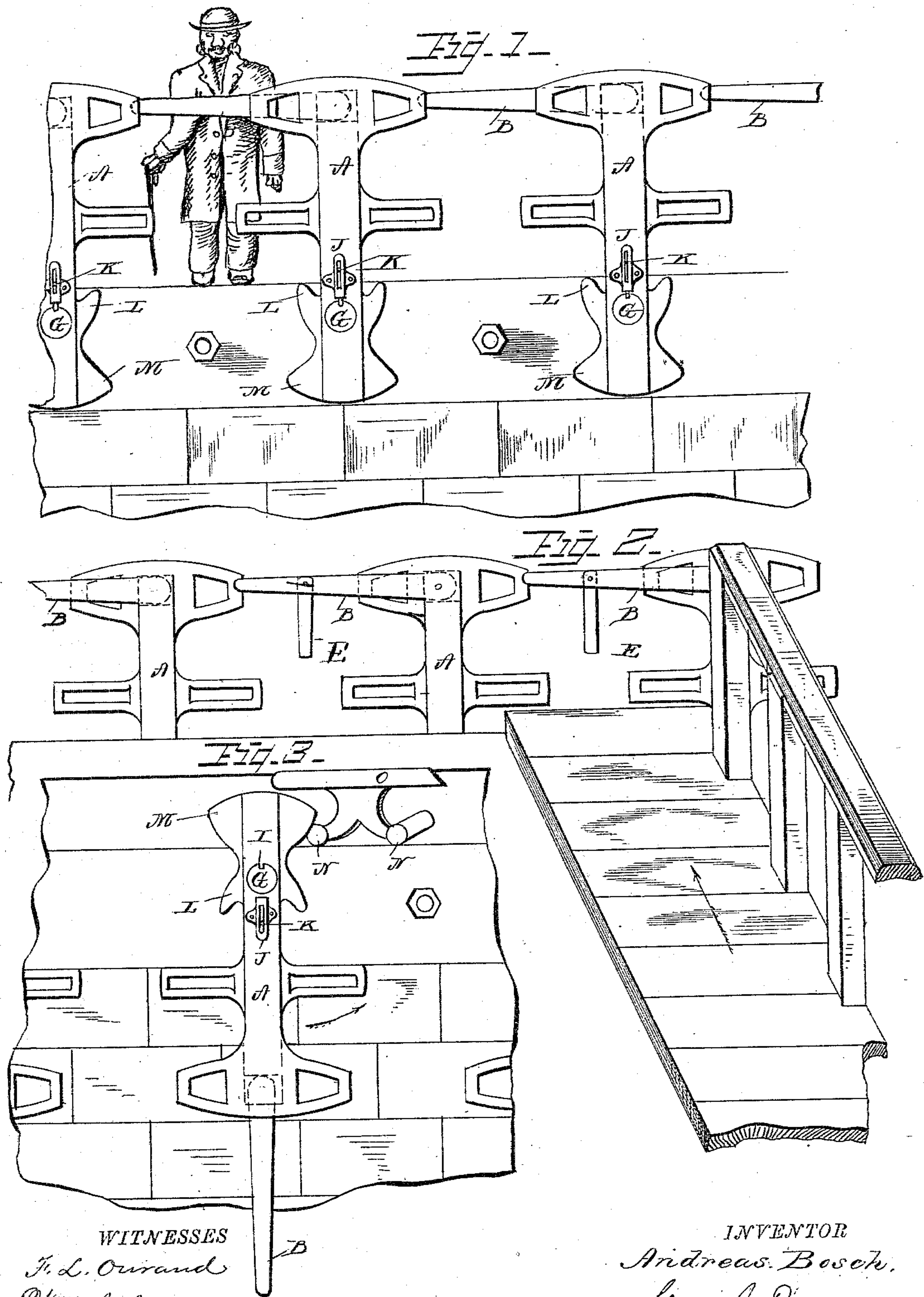


(No Model.)

2 Sheets—Sheet 1.

A. BOSCH.
GUARD FENCE FOR DRAW BRIDGES.
No. 295,104. Patented Mar. 11, 1884.



WITNESSES
J. L. Ourand
Wm. A. Garner.

INVENTOR
Andreas Bosch.
by L. Deane
his Attorney

(No Model.)

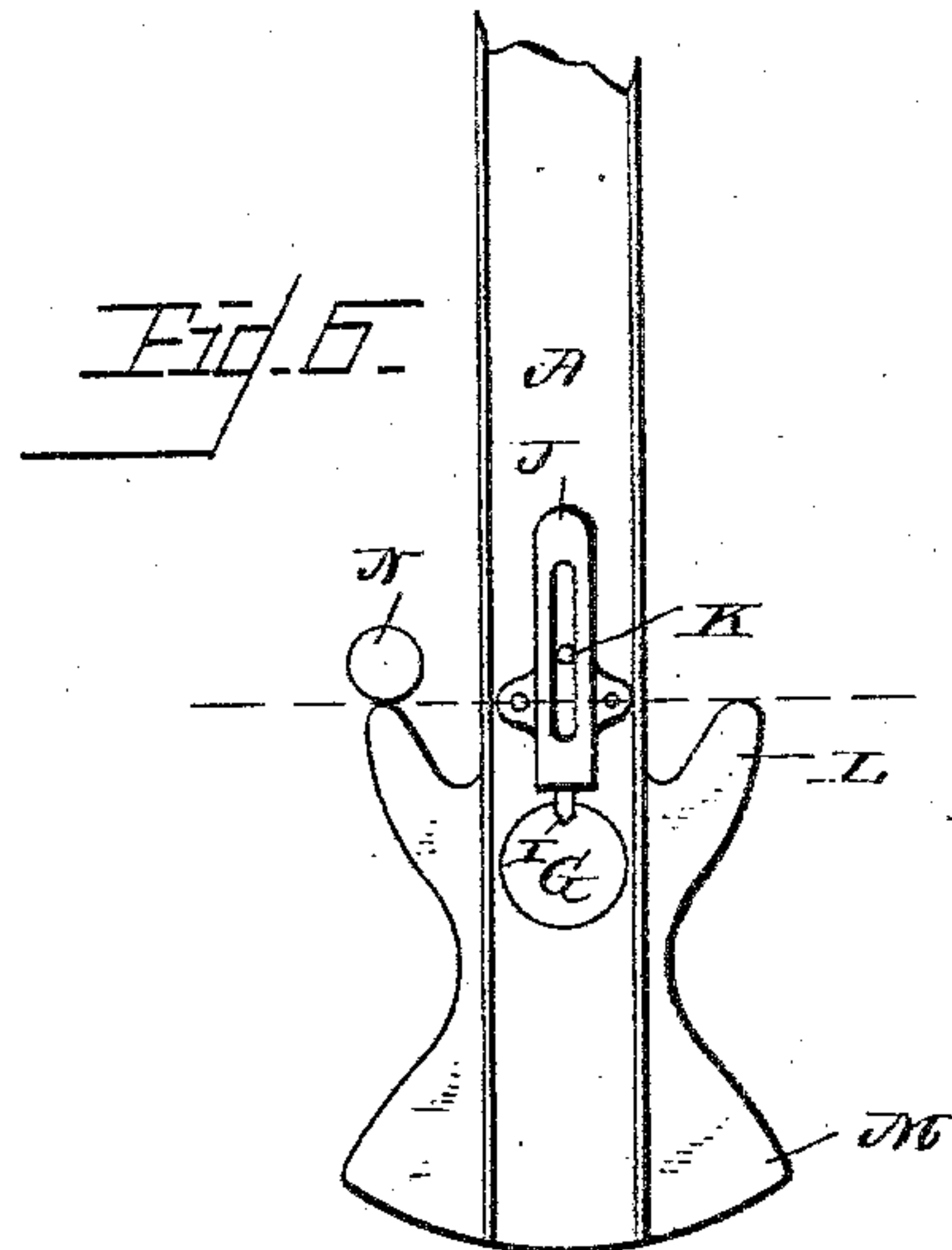
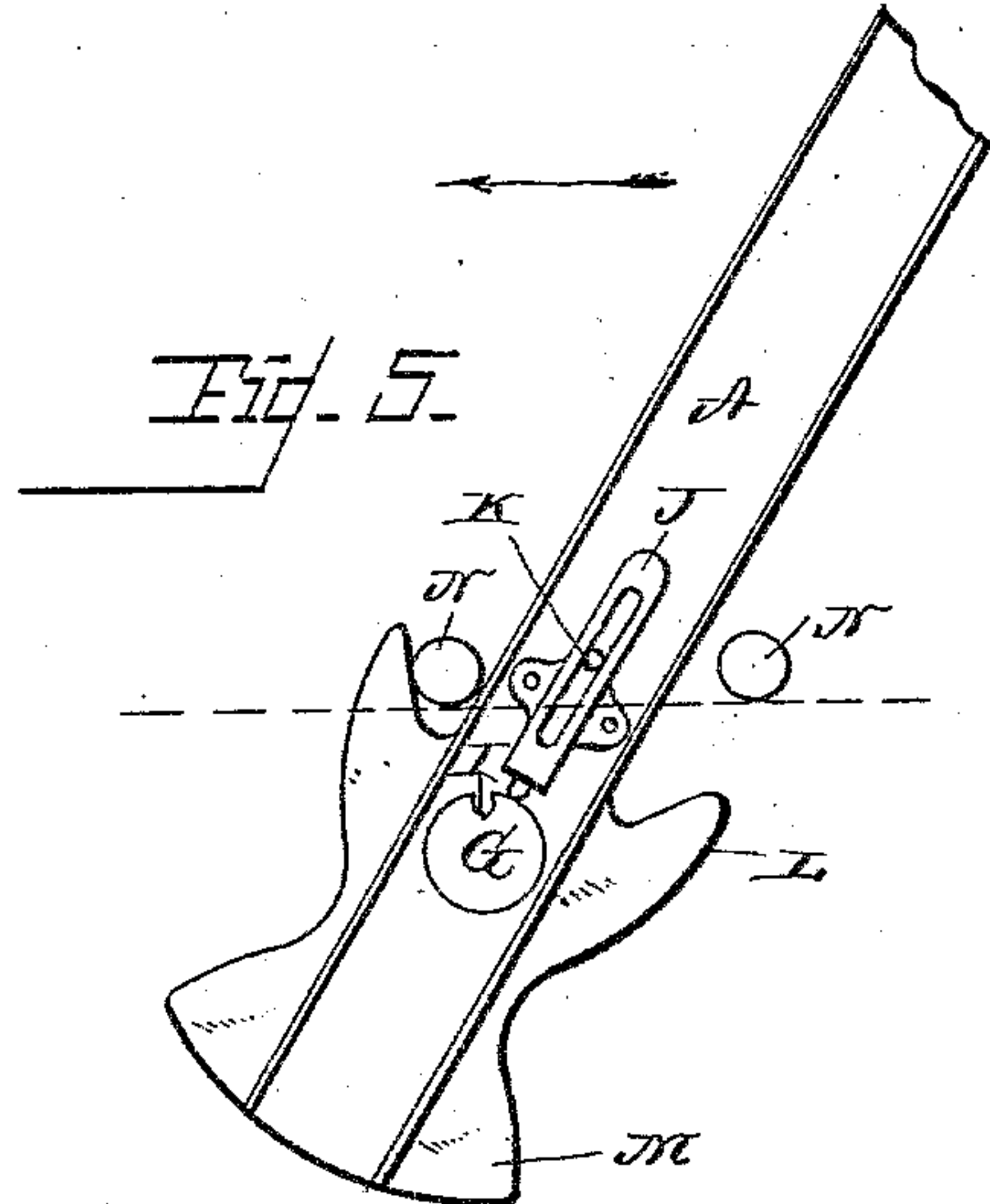
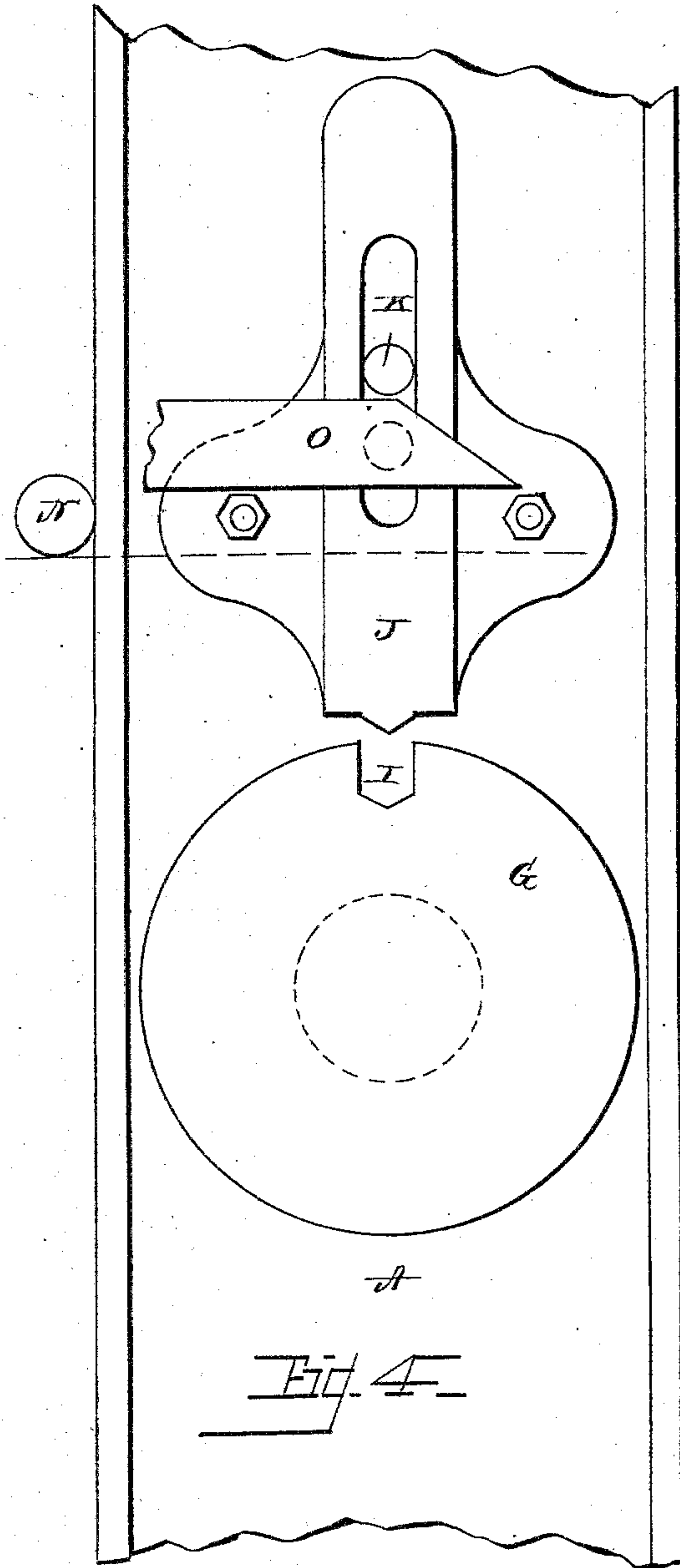
2 Sheets—Sheet 2.

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F. L. Oirand
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His Attorney

UNITED STATES PATENT OFFICE.

ANDREAS BOSCH, OF PRAIRIE DU CHIEN, WISCONSIN.

GUARD-FENCE FOR DRAW-BRIDGES.

SPECIFICATION forming part of Letters Patent No. 295,104, dated March 11, 1884.

Application filed December 4, 1883. (No model.)

To all whom it may concern:

Be it known that I, ANDREAS BOSCH, a citizen of the United States, residing at Prairie du Chien, in the county of Crawford and State of Wisconsin, have invented certain new and useful Improvements in Guard-Fences for Draw-Bridges, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 shows my improved fence erected across the passage-way of a bridge at the draw-opening. Fig. 2 is a view of the opposite side of the fence, showing it as it appears on approaching the draw. Fig. 3 shows the fence adjusted below the roadway. Figs. 4, 5, and 6 are details.

My invention relates to fences which are designed for guarding the approaches to swaying draw-bridges; and it consists, essentially, in pivoted swinging bridge-sections, constructed and arranged as will be hereinafter explained, whereby they can be automatically thrown up into position to serve as a fence or guard, or adjusted below the level of the roadway, as will be fully understood from the following description, when taken in connection with the annexed drawings.

The fence is composed of a number of sections or palings, A, which I prefer to construct of malleable iron, of the form shown by drawings, and which have suitably pivoted to their ends arms B, adapted for closing the spaces between the said sections, as shown in Fig. 1, and to assume the position indicated in Fig. 3 when the fence is just below the level of the roadway. The sections A are pivoted, by means of bolts G, to the stationary parts of the bridge at the draw.

To each section A, I apply a gravitating latch, J, which, when said sections are in upright positions above the level of the roadway, will engage in a notch, I, in a pivot-bolt, G, and hold them rigidly.

At the four corners of the draw are rigidly secured brackets O, as shown in Fig. 3, which brackets are provided with pins or rollers N, and constructed with beveled ends.

It will be observed by reference to the drawings that the sections A are constructed with cam-shaped ends M L, which are acted on by the pins N in opening and closing the draw, the object of which is to adjust the sections

A in the upright positions shown in Fig. 1, above the level of the roadway, and also to throw them down in the positions shown in Fig. 3, below the level of the roadway.

The beveled ends of the brackets O are designed for engaging with pins K, projected from the latches J, and lifting these latches out of the notches I in the heads of the stationary bolts G.

The operation is as follows: When the draw is closed, sections A are all below the level of the roadway. At the commencement of opening the draw, one of the actuating-pins N strikes the end M of the cam of the first section A, and as it passes therefrom the other pin N catches in the recess between this projection L and the upright of the section, raising the section fully to an upright position, as shown in Fig. 1. As the draw continues to move, the fence-sections A are alternately thrown up, so that when the draw is fully open all of said sections will be latched in a position above the level of the roadway. In closing the draw, the beveled end of the bracket O lifts the latches J and releases sections A. The pins N then strike the cams M L, and successively turn the sections A down below the level of the roadway, as shown in Fig. 3.

It will be seen from the above description that the fence-sections are all operated automatically in the act of opening and closing the draw.

Gravitating pieces E may be pivoted to the arms B, so that they will assume a perpendicular position between the sections A, when the latter are above the roadway, as shown in Fig. 2.

Instead of using the gravitating latches J, I may employ for each section A a long stiff spring attached to the section near the center, and extending down far enough to engage with the notch I in the pivot-bolt G; and in combination with such spring I use a spiral spring near its end, by means of which, when the notch I is reached by the main spring in erecting the fence-section, the end of the main spring will be forced into the notch in the head of bolt G.

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

1. A fence which is composed of pivoted

sections, in combination with latching devices, and with brackets O, applied to the draw, and adapted for adjusting the fence-sections above and below the level of the roadway, substantially as described.

2. The combination of pivoted fence-sections constructed with cams L M on their ends, latching devices, and brackets applied to the draw and adapted to operate substantially as described.

3. Fence-sections A, pivoted to the stationary part of a bridge by means of a bolt, G, having notched heads, in combination with gravitating latches and means for releasing these latches from said bolt-heads, substantially as described.

4. The combination, with swinging pivoted fence-sections, of separate arms, one pivoted

to each section, substantially as described, whereby the spaces between said sections can be closed when the sections are thrown up.

5. In combination with a bridge-draw, brackets O, provided with beveled ends, and pins N, pivoted fence-sections constructed with cams M L, and provided with latching devices, substantially as described.

6. The combination of the swinging sections A, the pivoted closing-arms B, and the pivoted gravitating pieces E, substantially as described.

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

ANDREAS BOSCH.

Witnesses:

C. S. FULLER,
O. B. THOMAS.