

(No Model.)

2 Sheets—Sheet 1.

M. & J. HIMMES.
BRIDGE GATE.

No. 460,797.

Patented Oct. 6, 1891.

Fig. 2

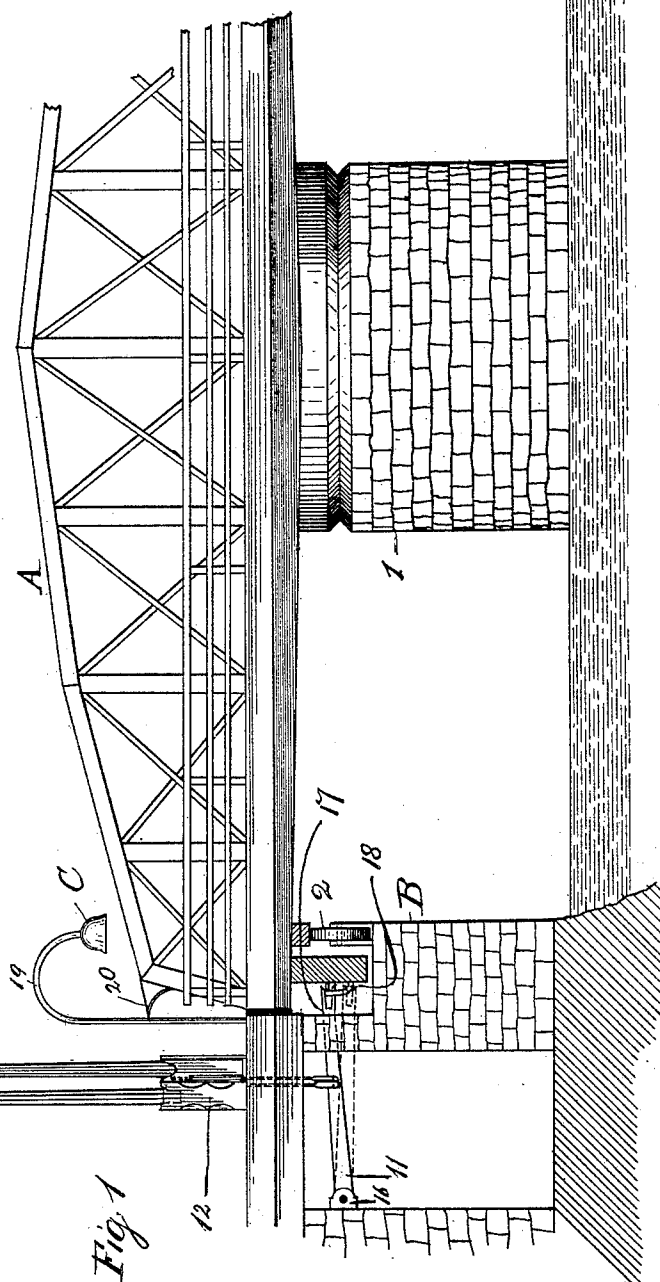
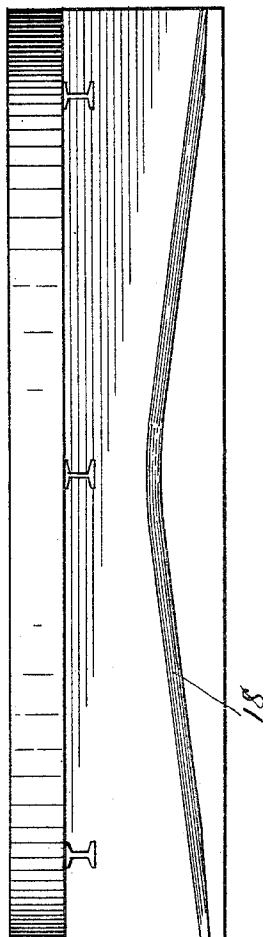


Fig. 1

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Michael Himmes & Jacob Himmes
By their Attorneys
S. J. Kennedy

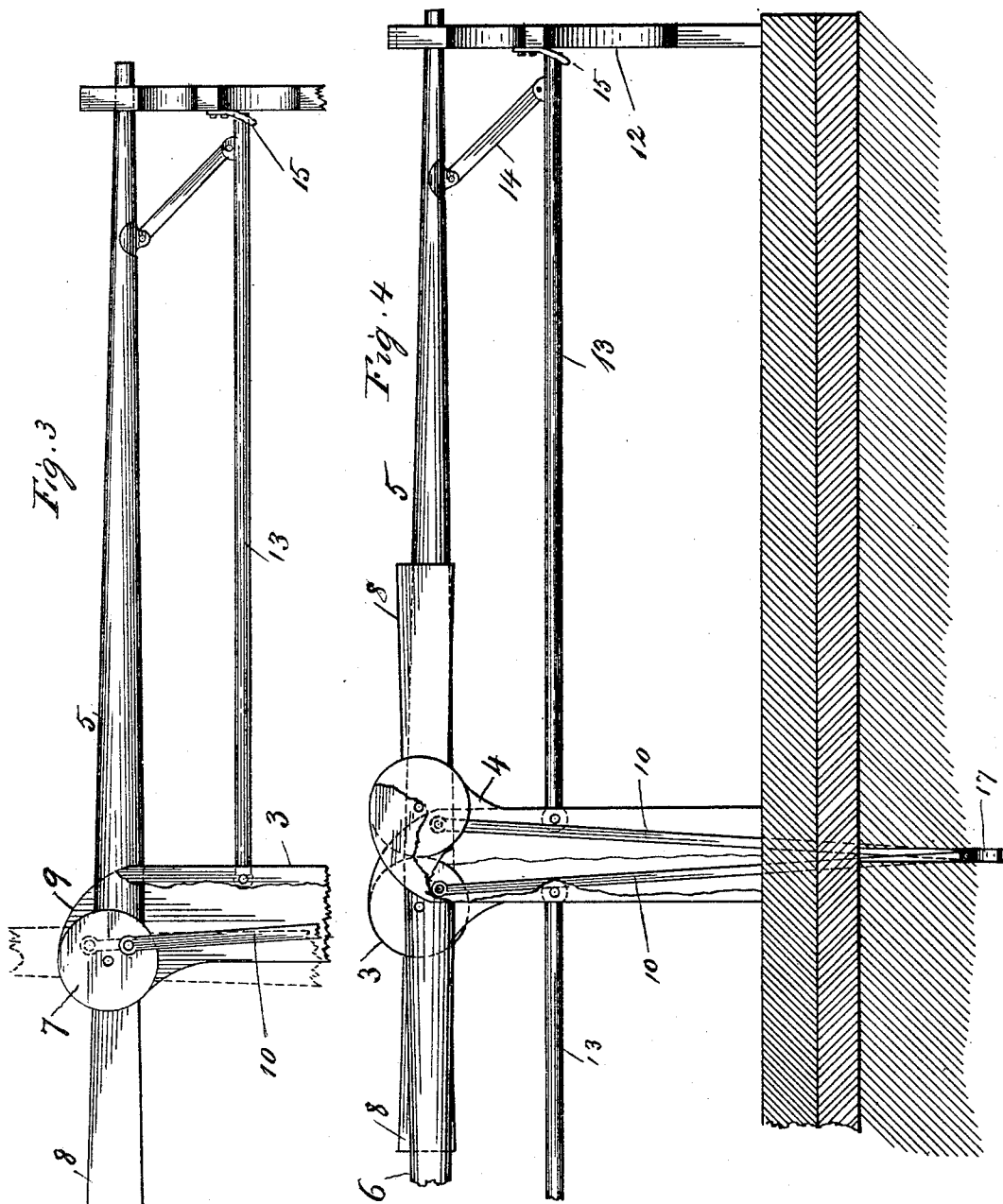
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Lotus Kennedy.

UNITED STATES PATENT OFFICE.

MICHAEL HIMMES AND JACOB HIMMES, OF CHICAGO, ILLINOIS.

BRIDGE-GATE.

SPECIFICATION forming part of Letters Patent No. 460,797, dated October 6, 1891.

Application filed April 8, 1891. Serial No. 388,106. (No model.)

To all whom it may concern:

Be it known that we, MICHAEL HIMMES and JACOB HIMMES, citizens of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bridge-Gates, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to automatic bridge-gates, and more particularly to a gate adapted for use in connection with a swinging or pivoted bridge, and so arranged that it is opened and closed by reason of the movement
15 of the bridge.

The object of this invention is to provide a device of this character of simple and durable construction.

20 The invention consists in the features of construction and combinations of parts, hereinafter fully described, and specifically claimed.

In the accompanying drawings, illustrating our invention, Figure 1 is a side elevation of a bridge and abutment constructed in accordance with our invention. Fig. 2 is an end elevation of the bridge. Fig. 3 is a side elevation of a part of one of the gate-arms and its post, and Fig. 4 is a cross-section of the
30 abutment, gate-arms, and devices for operating same.

Referring to said drawings, A indicates the bridge; 1, the pier therefor; B, the abutment, and 2 friction-rollers upon the abutment for
35 supporting said bridge when closed.

In the construction shown two posts 3 and 4 are located in the middle of a double roadway, and swinging gate-arms 5 and 6 are pivoted upon said gate-posts and are adapted to
40 swing on opposite sides of the same across the roadways. In Fig. 3 the post 3 and arm 5 are shown in detail. The said arm is provided with a hub 7 and a counter-balance end 8. The hub 7 is pivoted between the sides 9
45 of the upper end of the post, and a link or connecting-piece 10 is pivoted to the said hub away from its center, and extends downward through the hollow post 3 and is connected

with a vibrating lever 11. In said Fig. 3 the arm 5 and link 10 are shown in full lines in
50 the position they will assume when the lever 11 is depressed; but it is obvious that when the lever is elevated it will raise the link, and thereby turn the hub 7 on its pivot and elevate the arm 5, as shown in dotted lines in
55 said Fig. 3. A support or standard 12, having a bifurcated upper end, is arranged to support the outer end of the gate-arm when it swings downwardly. To strengthen said gate-arm and provide a more effectual barrier, a
60 supplemental arm 13 is pivoted at one end to the post and is pivotally connected by a bar 14 to the outer end portion of the gate-arm. A bracket 15 is secured to said support or
65 standard 12, and is located that the end of the supplemental arm 13 will rest thereon when the gate-arm is in a horizontal position. The links 10 are pivoted to the lever 11 at a point between its ends, and at one end said
70 lever is pivoted in a bearing 16, secured to the abutment. The other or free end of the lever is forked, as shown at 17, and is located in position to be engaged by a cam-bar 18, secured to the bridge. The highest part of said
75 cam-bar is located in the middle of the bridge, so that when the bridge is closed the lever is thrown to the upward limit of its movement, and thereby lifts the gate-arms, as shown in Fig. 1 and in dotted lines Fig. 3. It will of course
80 be seen that if the bridge swings in either direction the cam-bar will depress the end of the lever 11, and thereby draw the gate-arms down by means of the links 10.

C indicates a bell supported by a spring-arm 19, which is located in the path of a projection 20, mounted upon the bridge, so that
85 as said bridge swings open the spring-arm will be agitated, and thus ring the bell.

It is obvious that by slight change in the construction of certain parts the devices could
90 be arranged for operation with a single roadway or single gate-arm.

We claim as our invention—

The combination, substantially as hereinbefore set forth, in a bridge-gate, of a swinging
95 bridge having a cam-bar, a gate-arm pivotally

supported upon a post upon the abutment
having a counterbalanced end, a link pivoted
to said gate-arm away from its center, and a vi-
brating lever pivoted at one end to the abut-
5 ment and pivoted between its ends to said
link and having a forked end located in the
path of said cam-bar, substantially as herein-
before set forth.

In testimony whereof we affix our signatures
in presence of two witnesses.

MICHAEL HIMMES.
JACOB HIMMES.

Witnesses:

WILLIAM H. LOTZ,
HARRY COBB KENNEDY.