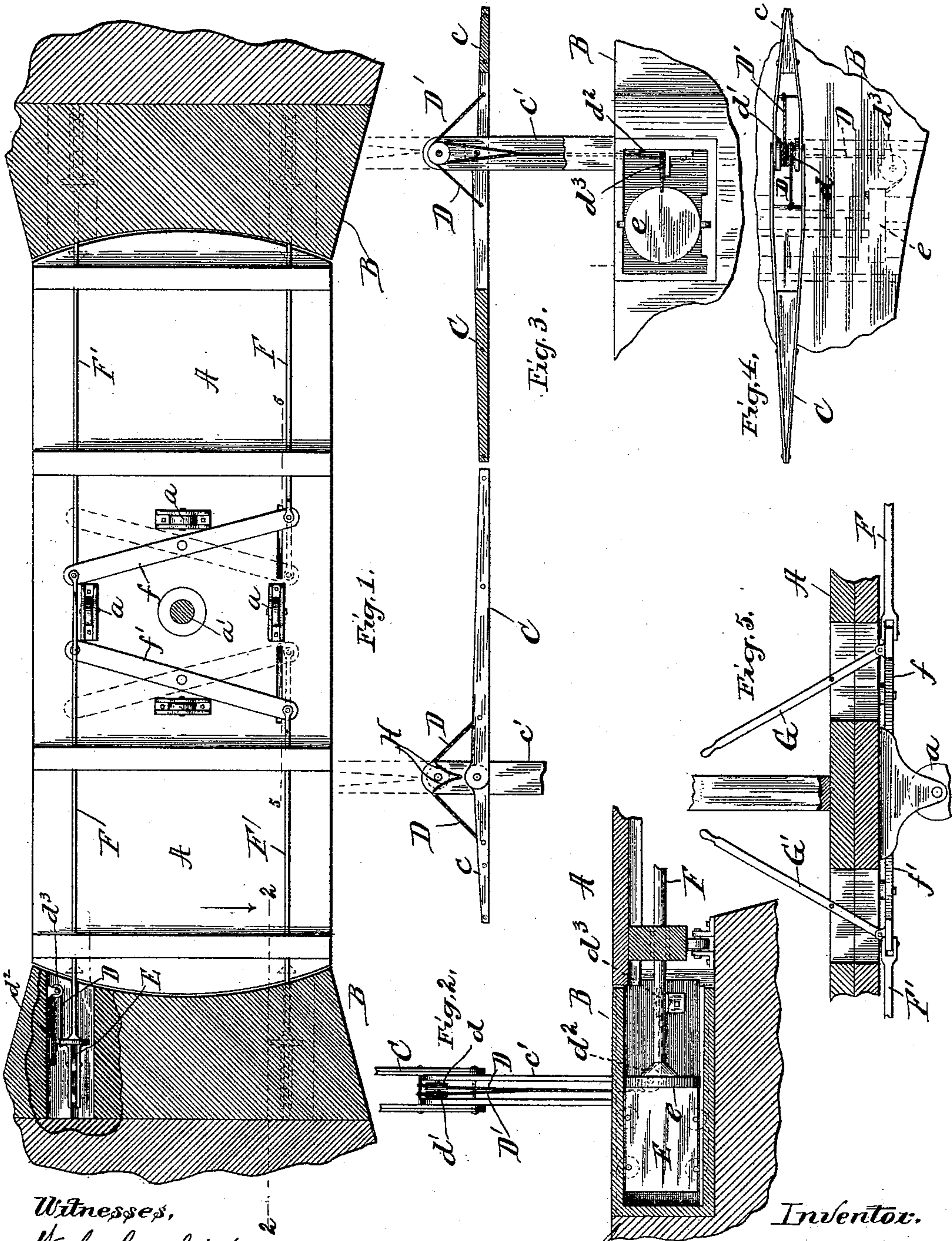


(No Model.)

L. NAPION.
BRIDGE GATE.

No. 500,290.

Patented June 27, 1893.



Witnesses,
W. C. Collier
S. M. Brainerd.

Inventor.
Louis Napion
By Louis K. Willson
His Attorney.

UNITED STATES PATENT OFFICE.

LOUIS NAPION, OF CHICAGO, ILLINOIS.

BRIDGE-GATE.

SPECIFICATION forming part of Letters Patent No. 500,290, dated June 27, 1893.

Application filed November 15, 1892. Serial No. 452,086. (No model.)

To all whom it may concern:

Be it known that I, LOUIS NAPION, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bridge-Gates; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to bridge-gates, and consists in the various parts and arrangement of parts as hereinafter described, adapted to give the bridge tender control of the gates.

In the accompanying drawings, Figure 1 is a bottom plan view of a swinging bridge, and a bottom plan section of the bridge abutments. Fig. 2 is a longitudinal vertical section of one of the abutments and a portion of the bridge on the line 2, 2, Fig. 1. Fig. 3 is an elevation of a portion of the face of one of the abutments and of the gates, partly in section. Fig. 4 is a plan view of one of the gates, closed. Fig. 5 is a longitudinal vertical section of a portion of the bridge on the line 5, 5, of Fig. 1.

I show at A, the bottom of an ordinary swinging bridge carried by the pivot pin a' , and the rollers a ; at B, B, the abutments of the bridge; and at C, C, sweep-gates for closing the driveway. The sweep-gates, C, C, are pivotally carried by hollow posts c' , c' , and similar but shorter gates c , c , are carried by the same pivot pins and are adapted to close the foot passage ways. Four pairs of these gates are used, two upon each of the abutments. As they are all alike I will describe but one pair.

The gates C, c , are controlled respectively by cables D, D', which are attached to the gates a short distance from their pivotal point, and pass over sheaves d , d' , mounted in the posts c' , above the pivotal point of the gates. The cables pass over these sheaves, downwardly through the post, and may be spliced together for convenience as shown. Below the surface the united cable passes over a vertical sheave d^2 , and around a horizontal sheave d^3 , which is located near the face of the abutment. The end of the cable is se-

cured to a carriage or traveler E, which as shown, is mounted on rollers and adapted to move longitudinally with the drive way, in a chamber in the abutment, which chamber is open at its forward end. It will be seen that as the traveler E, is moved backwardly within this chamber it carries the cable D, with it, and consequently raises both of the gates C, c . These gates are adapted to fall by their own weight and draw the traveler E, forwardly in its compartment. In order to start the gates from their vertical position it is advisable to use a light spring as H, mounted upon the posts in such manner as to bear against the gates when they are elevated.

The travelers E, are moved by the bridge tender by means of thrust rods F, F', hung in brackets on the under side of the bridge. The forward end of the traveler E, is provided with an enlarged plate or face e , against which the end of the thrust rod presses. These thrust rods are operated by means of hand levers G, G', projecting upwardly through the floor of the bridge and pivoted therein. The thrust rods F, F', upon opposite sides and ends of the bridge are connected by a rocking lever f , pivoted midway of its length, to the bridge so that by means of the lever G, both of the rods F, F', are moved simultaneously out in opposite directions. The rods F' F' are similarly located and operated by means of the lever G'.

It is the universal practice in the use of bridges having a double drive way for teams in crossing to keep to the right. The arrangement of levers as above described enables the bridge tender to lower the gates across the right hand track at both ends of the bridge, thus stopping teams from getting onto the bridge, while leaving the left hand track open for those which are already upon it to cross before the gates on that side are lowered.

It is clear that the form of the carriage or traveler E, as well as of the mechanical connection between the traveler and the gate can be greatly varied without departing from the essential feature of the invention and I do not desire to be limited to the precise form of construction shown.

I claim as my invention and desire to secure by Letters Patent—

The combination with a draw bridge and

with weighted sweep-gates, for controlling the
approaches thereto, of thrust rods carried be-
low the bridge and projecting beyond its ends,
hand levers near the center of the bridge for
5 actuating the thrust rods, carriages located
within recesses in the abutments, one below
each gate post, and adapted to receive the
impact of the thrust rods and recede under
their pressure, a cable connecting each car-
10 riage with its cooperating gate, a sheave for
the cable located near the front of the recess,
and a second cable sheave located immedi-

ately below the gate, whereby the recession of
the carriage elevates the gate, and the descent
of the gate returns the carriage to the front 15
of the recess, substantially as described and
for the purposes set forth.

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

LOUIS NAPION.

Witnesses:

L. K. GILLSON,
J. H. DORIAN.