

F. C. BECK, dec'd.  
H. E. T. SCHEEL, Administrator.  
Draw-Bridge Gate.

No. 219,119.

Patented Sept. 2, 1879.

Fig. 1.

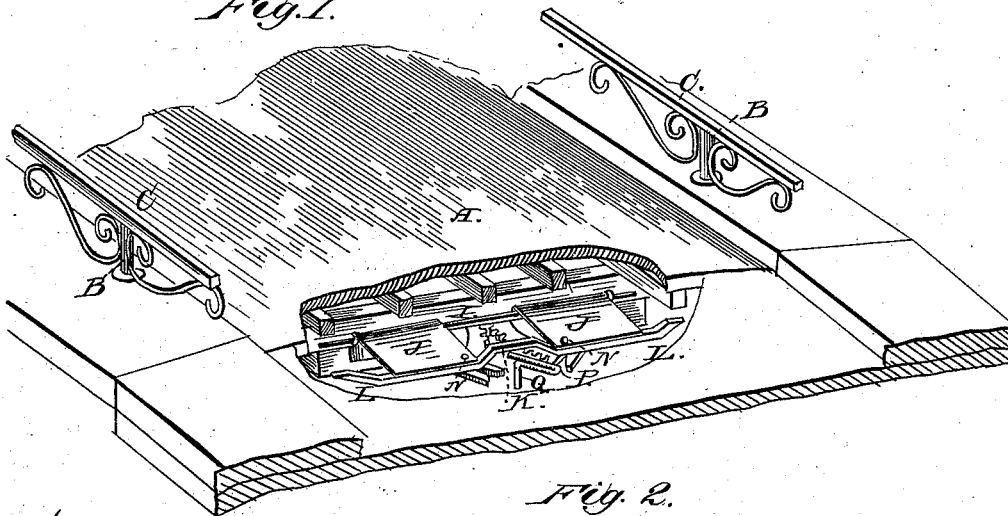


Fig. 2.

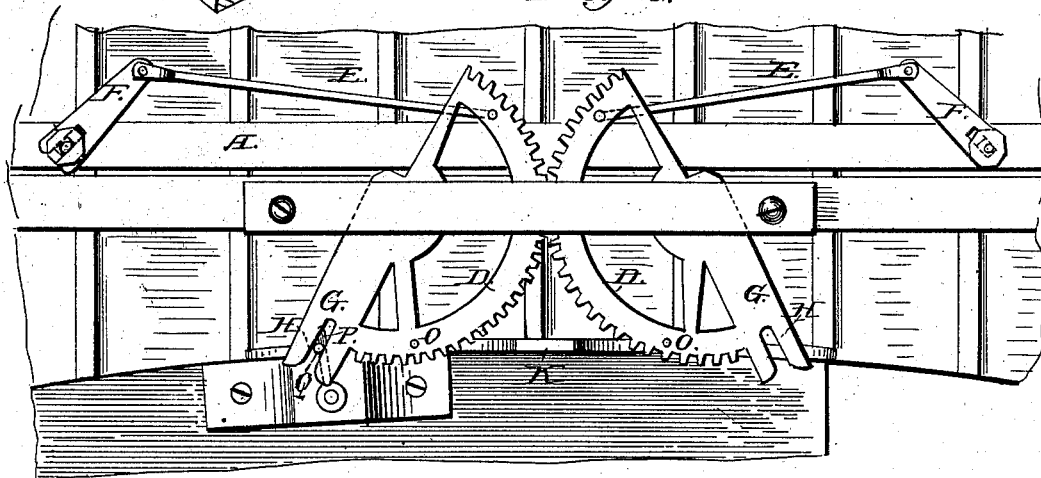
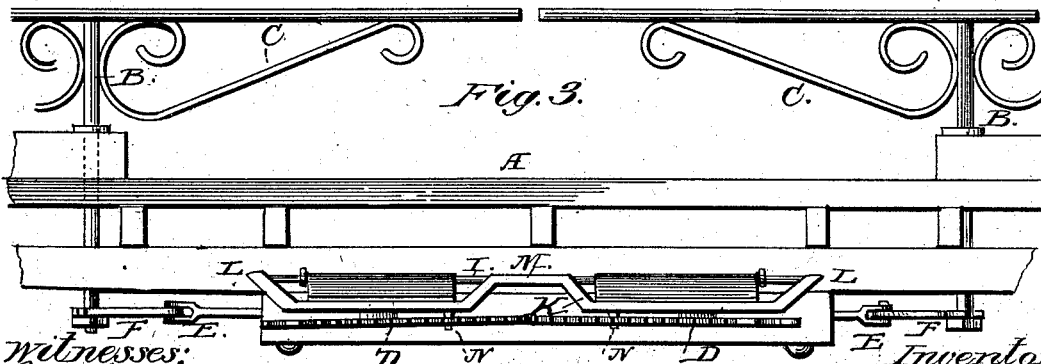


Fig. 3.



Witnesses;  
Fred. G. Dietrich  
J. R. Littell,

Inventor,  
Frederick C. Beck, deceased  
Hans Scheel, Administrator,  
J. C. Snow & Co. Attys

# UNITED STATES PATENT OFFICE.

HANS E. T. SCHEEL, (ADMINISTRATOR OF FREDERICK C. BECK, DECEASED,) OF MANITOWOC, WISCONSIN.

## IMPROVEMENT IN DRAW-BRIDGE GATES.

Specification forming part of Letters Patent No. **219,119**, dated September 2, 1879; application filed June 4, 1879.

*To all whom it may concern:*

Be it known that FREDERICK C. BECK, of Manitowoc, in the county of Manitowoc and State of Wisconsin, did invent certain new and useful Improvements in Automatic Gates for Draw-Bridges; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 is a perspective view of the device in position for operation, parts of the bridge and approach having been broken away in order to better illustrate the construction. Fig. 2 is a bottom plan of the approach, showing the device in position; and Fig. 3 is a front view of the device in position.

Corresponding parts in the several figures are denoted by like letters of reference.

This invention relates to automatic gates for barring the approach to draw-bridges; and it consists in certain improvements in the construction of the same, which will be more fully hereinafter described.

Referring to the drawings hereto annexed, A represents the bridge-approach, which is suitably supported in the usual manner. B B are two vertical shafts or standards, journaled at the edges of the sidewalks, and provided with suitable horizontal gate-bars C C, of such length that when the standards are turned by the mechanism which will be later described the short ends of said gate-bars shall bar the sidewalks, while the long ends shall meet, or nearly meet, at the center of the street. Suitable modifications in the length or structure of the gate-bars may, however, be made to suit the circumstances of any particular case.

In suitable bearings under the approach at or near the edge of the bridge are journaled two horizontal segmental gears, D D, engaging each other. The rear ends of said segments are connected by rods E E with cranks F F, upon the lower ends of the vertical gate-

standards B B. The front ends of the gears are provided with arms G G, having slots H H. Directly above the gears D D is a horizontal rod, I, having forwardly-projecting plates J J, which in front are connected by a rod, K, the extreme ends of which are bent upwardly at L L, while between the plates it is arched, as at M. At the ends of the arch studs N N, which project downwardly, are adapted to fit in the slots H H of the gears, or, when the gate is in a different position, in perforations O O in the gear-plates.

The end of the bridge is provided with a horizontal pin, P, and a vertical downwardly-projecting pin, Q, by which the mechanism above described is operated, as follows: When the gate is open, as shown in Fig. 1, the studs N N rest in the slots H H at the front of the gear-plates. The latter, being thus rigidly secured, prevent the gates to which they are connected from being moved. When the bridge is opened for the passage of vessels the pin P will strike one of the inclined sides of the arch M, thus raising the plates J J and releasing studs N N from the slots H H, into one of which the pin Q now enters, thus operating the gears so as to close the gates through the mechanism above described. When the gates are closed the studs N drop into the perforations O, which have been properly placed for this purpose, the pin Q leaves the slot H, and the bridge is opened, while the gate remains closed and locked. When the bridge is closed the operation above described is simply reversed, the pin P, however, striking one of the inclined ends of the rod or bar K instead of one of the sides of the arch.

I do not claim a gate unobstructed in its central portion, or composed simply of single horizontal bars attached to vertical standards with or without braces; but,

Having thus described the invention, I claim and desire to secure by Letters Patent of the United States—

1. In an automatic gate for draw-bridges, the combination, with the segmental gears D D,

having slots H H and perforations O O, of the hinged lock-plates J J, having studs N N, as set forth.

2. In an automatic gate for draw-bridges, the combination, with the segmental gears D D, having slots H H and perforations O O, of the hinged lock-plates J J, having studs N N, rod K, having inclined ends L L and arc M, and the bridge having pins P Q, as set forth.

In testimony that I claim the foregoing I have hereto affixed my signature in presence of two witnesses.

HANS ELIS THIELE SCHEEL,  
*Administrator of the estate of Frederick C. Beck.*

Witnesses:

A. WITTMAN,  
HUBERT FALGY.