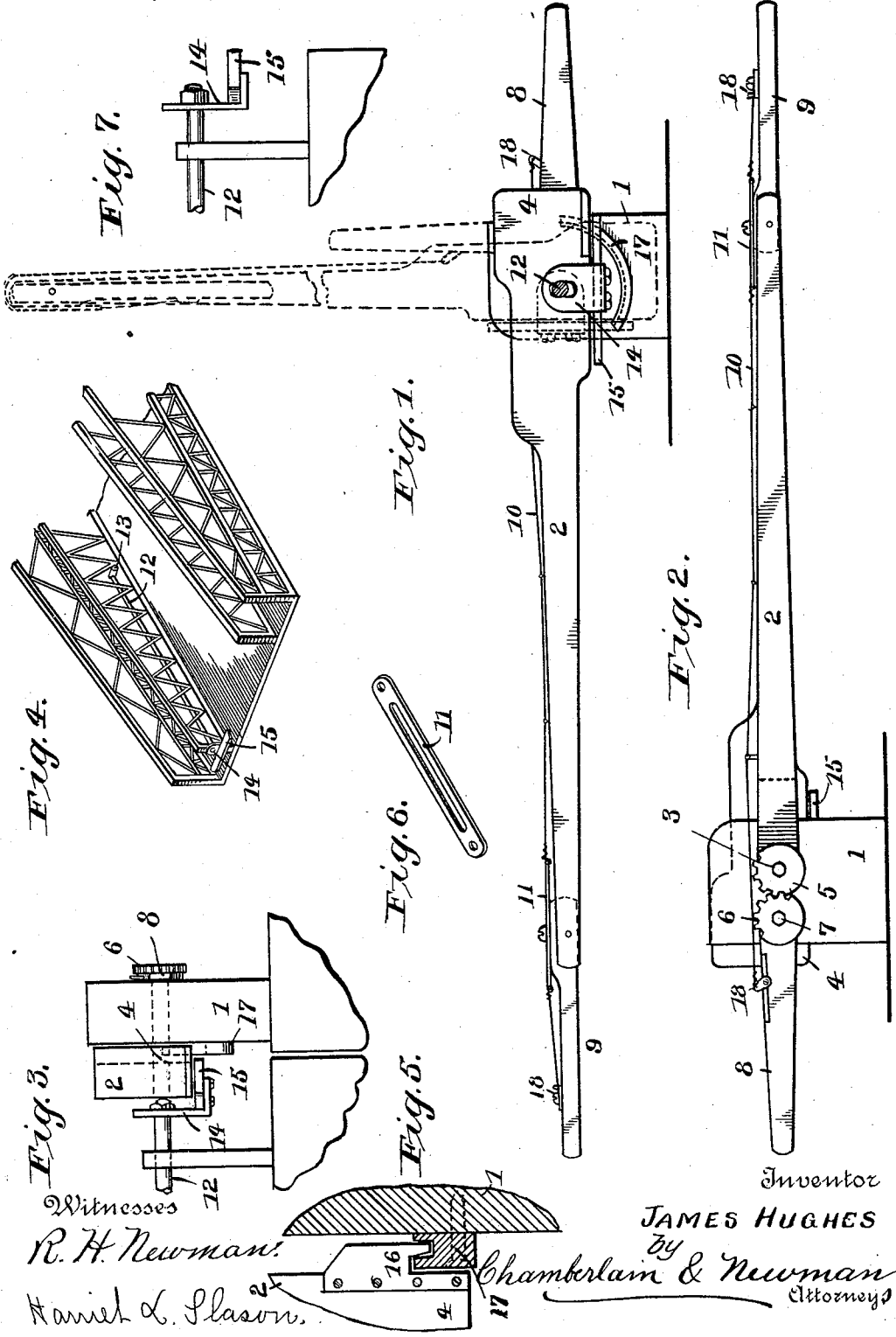


(No Model.)

J. HUGHES.
DRAWBRIDGE GATE.

No. 568,761.

Patented Oct. 6, 1896.



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JAMES HUGHES, OF BRIDGEPORT, CONNECTICUT.

DRAWBRIDGE-GATE.

SPECIFICATION forming part of Letters Patent No. 568,761, dated October 6, 1896.

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To all whom it may concern:

Be it known that I, JAMES HUGHES, a citizen of the United States, and a resident of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Drawbridge-Gates, of which the following is a specification.

This invention relates to new and useful improvements in gates for drawbridges and means for operating said gates.

It is the object of my invention to provide a gate for a drawbridge consisting of substantially three parts, namely, a main or roadway gate and a sidewalk-gate upon either side of said main gate; to construct and arrange said gates in such a manner that they may be particularly adaptable for drawbridges over which trolley-wires are swung, so that said gate can be operated without interfering with said wires; to provide means and connections from the center of the draw whereby said gates are simultaneously operated by an attendant at that point.

With the above objects in view I have devised the simple and novel construction shown upon the accompanying drawings, which form a part of this specification, and of which—

Figure 1 shows a side elevation of my improved gate in a lowered position and also indicating by dotted lines the raised position of said gate. Fig. 2 shows an opposite side elevation from that shown in Fig. 1. Fig. 3 is a detail view of the gate in a lowered position and a part of the connection for operating the same. Fig. 4 is a perspective view of one end of a drawbridge, showing the novel mechanism carried thereby for operating my gate. Fig. 5 shows a detail cross-sectional view of a portion of the post upon which the gate is hinged and also a portion of the butt-end of the main gate and its connection with said post. Fig. 6 is a detail perspective view of the metallic strip 11, covering the joint of sections 2 and 9. Fig. 7 is a detail side view of the shoe connection for engaging and operating the gate.

Referring to the numerals of reference marked upon the drawings, 1 indicates the support or post upon which the several sections of my gate are mounted. Said post is

preferably located substantially upon the curb-line of the roadway and in such a manner that the gates are operated vertically and swing crosswise thereof. The main section 2 is fixed to a trunnion 3, journaled in the post 1, before mentioned, and is further provided with an enlarged weighted extremity 4, as clearly appears in the drawings, which enlargement serves as a counterbalance for the extended portion of the gate in the usual manner. Said trunnion 3 of the gate is further provided with a segment 5, which is firmly fixed thereto and meshes with a corresponding trunnion 7, journaled in the post 1 and bearing a short sidewalk-gate 8, which can be arranged upon either side of said post.

Upon the end of the roadway-section 2 is pivoted an extension 9, which, as shown in the drawings, is of a length to accommodate the ordinary sidewalk, but which, as will be obvious, could be longer if desired. Said extension 9 is connected with and operated by the gate 8, before mentioned, by means of wire connections 10, adjustably secured to said sections 8 and 9, as at 18. Said wire is provided with a strip 11, slidably connected over the hinged joint of the sections 2 and 9, as appears in Figs. 1, 2, and 6. It will thus be apparent from the above that through the slacking of the connection 10 by the ascent of 8 the member 9 is permitted to fold down upon 2, substantially as shown by dotted lines in Fig. 1.

The connections upon the draw for operating the gates consist in a rod 12, mounted on the draw and in line with the trunnion 3 and bearing a manipulating-handle 13 upon its inner end and an adjustable angle-iron 14 upon its outer end. Said iron is provided with a shoe 15, the forward end of which engages and presses upon the gate-arm 2, forward of its pivoted point 3, and thereby causes it to turn and assume a vertical position. Said shoe is adapted to normally lie horizontal when the draw is open and vertically when the draw is in a closed position and the gates raised. It will further be apparent that this shoe is free to move in and out under the section 2 when the same is in a lowered position and that the draw can be swung in either direction.

Gates arranged and constructed in accord-

ance with my invention are easily and conveniently operated by a single person, who can perfectly control their position through different kinds of weather and other varying 5 circumstances. Further advantages will be apparent by reason of the fact that all the mechanism is located above the draw.

In order to stiffen the main section 2, I not only have it straddle the post 1 and give it 10 a bearing upon the trunnion 3 at each side of the post, but I further provide upon the enlarged base 4 a lug 16, as clearly appears in Figs. 1 and 5, which engages and swings in a radial grooved cleat 17, secured to the side 15 of the post, as clearly appears in Figs. 1, 3, and 5 of the drawings.

I am aware that it is not broadly new to construct railroad-gates of folding sections and to manipulate the extended sections 20 thereof by means of a wire which is secured to a fixed point. I am also aware that it is not broadly new to operate drawbridge-gates from the center of a draw, and my invention does not consist in such application of these 25 principles, but resides and consists in the combined construction of gates and means for operating the same herein shown and described, and recited in the following claims.

Having thus described my invention, what 30 I claim, and desire to secure by Letters Patent, is—

1. In a drawbridge-gate of the class described, the combination with the hinged section 2, bearing a segment, a secondary section 35 8 bearing a segment meshing with and operated by the section aforesaid, of an op-

erating-rod journaled upon the draw and in line with the trunnion of said main section, and adapted to be operated from the center of the draw, and an angle-iron upon the outer 40 end of the rod aforesaid and bearing a shoe to engage and operate said gates.

2. In a drawbridge-gate of the class described, the combination with the hinged section 2 bearing a segment, a secondary section 45 bearing a segment meshing with and operated by the section aforesaid, and a section 9 pivoted to the outer end of the section 2, of connections between said outer sections and the secondary sections whereby the former is op- 50 erated by the latter, an operating-rod journaled upon the draw and in line with the hinged section 2, and a shoe mounted upon the outer end of said rod adapted to engage and operate the gate, substantially as de- 55 scribed.

3. In a drawbridge-gate of the class described, the combination with a post, of a gate hinged thereto having an enlarged end, a radial grooved cleat secured to said post, a 60 lug upon the enlarged end of the gate, engaging the groove aforesaid, whereby said gate is braced, and means substantially as shown for operating said gates.

Signed at Bridgeport, in the county of Fairfield and State of Connecticut, this 23d day 65 of April, A. D. 1896.

JAMES HUGHES.

Witnesses:

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