

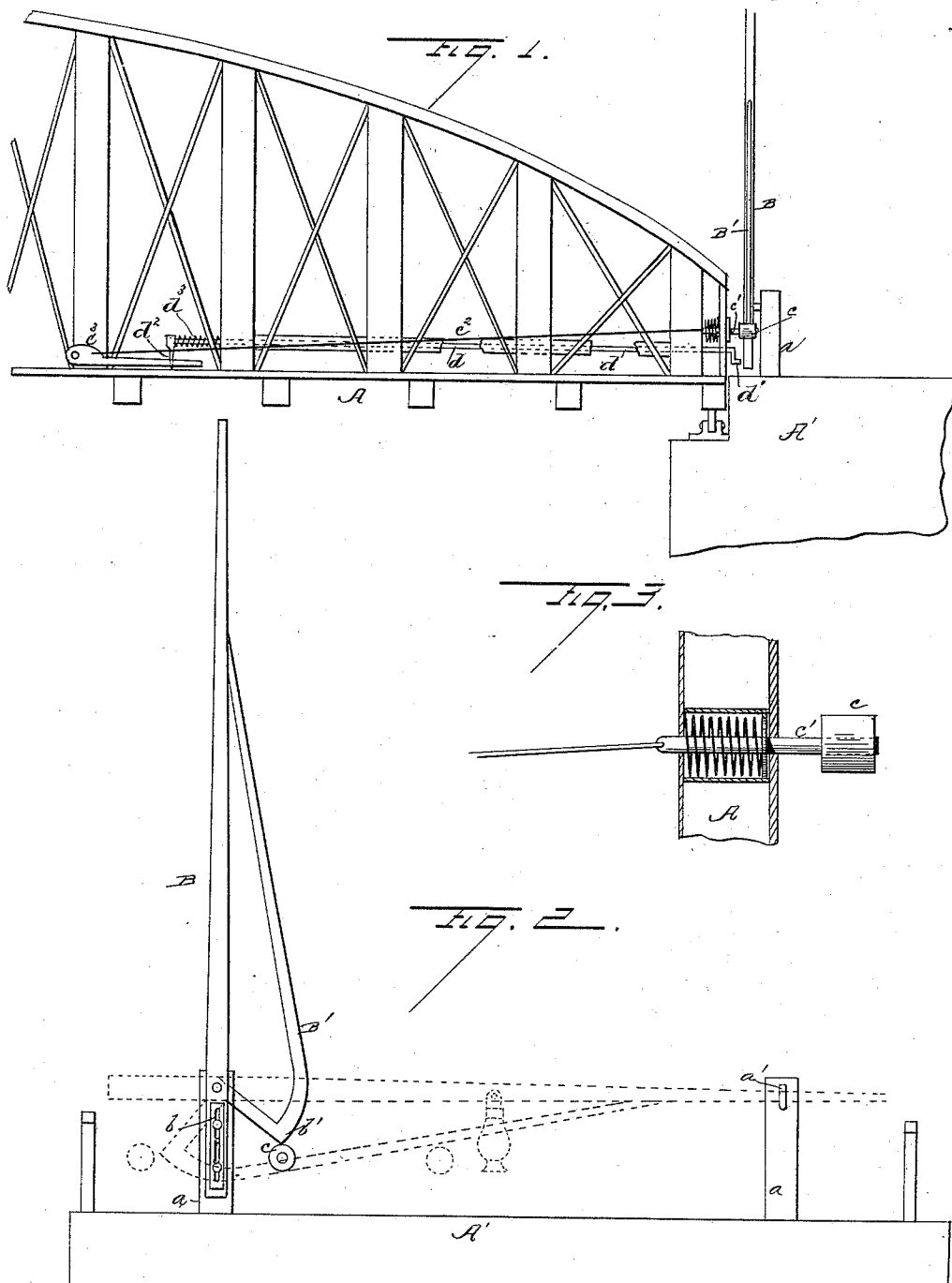
(No Model.)

P. WINKLER.

BRIDGE GATE.

No. 341,979.

Patented May 18, 1886.



Witnesses:

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UNITED STATES PATENT OFFICE.

PAUL WINKLER, OF CHICAGO, ILLINOIS.

BRIDGE-GATE.

SPECIFICATION forming part of Letters Patent No. 341,979, dated May 18, 1886.

Application filed August 17, 1885. Serial No. 174,546. (No model.)

To all whom it may concern:

Be it known that I, PAUL WINKLER, 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, of which the following is a specification, to wit:

This invention relates to bridge-gates; and it consists in the peculiar construction and arrangement of the same, substantially as will be hereinafter more fully set forth and claimed.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and use, referring to the accompanying drawings, in which—

Figure 1 is a side elevation of a portion of a bridge and gate. Fig. 2 is a front elevation of the abutment and gate, and Fig. 3 is a detail view of the operating-roller.

A represents a draw-bridge of any desired form, arranged to swing upon a central pivot, and A' is the abutment or approach. On this abutment is planted a post, *a*, on each side, to one of which is pivoted a long arm or gate, B, having its lower end provided with a weight, *b*, adjustable, as shown, by which the gate-arm is nearly balanced, so that if released it will fall easily, and also to prevent too much power being required to move it. To the under side of the gate-arm is secured an eccentric operating-arm, B', the central point or point of rest being below and in rear of the pivotal point, as in the drawings. This arm is herein shown as acting to brace and stiffen the gate-arm as it is extended out some distance thereon, and at the heel forms a sharp corner or angle, *b'*, from which it slopes upward in either direction to the gate. Upon the end of the bridge is a roller, *c*, secured upon the end of a sliding spring-actuated arm, *c'*, secured on the bridge-frame, and connected by a rod or wire, *c''*, with a lever, *c'''*, eccentrically hinged near the center of the bridge, as in Fig. 1.

In use the bridge-gate is elevated in the position shown in Fig. 2 when the bridge is closed, and the point of the incline rests on the roller to hold the gate up. Should the bridge be turned in either direction, the gate-arm is al-

lowed to slowly fall till it extends across the roadway and rests at its point in a socket, *a'*, in the opposite gate-post, thus preventing any accident. When the bridge is closed again, no matter in which direction, the roller engages the eccentric arm or track and lifts the gate. Should it at any time be advisable to close the gate without moving the bridge, or quicker than it would close in the ordinary course, the operator has only to throw over the lever *c''* and withdraw the roller, when the gate falls of its own weight.

The device is so simple it cannot readily get out of order and is easily applied to any bridge desired. Any projection would act the same as the roller, except that it would involve more friction, and as the idea of this projection is simply to provide some means of causing the bridge to engage and operate the gate automatically any equivalent of the roller may be used for this purpose.

The dropping of the gate, as described, will of course involve a jar, which in time may injure the gate, and in any event is liable to extinguish the signal-light. To obviate this, I provide a rock-shaft, *d*, journaled in any convenient way upon the bridge-frame, which shaft is on its outer end provided with a crank-arm, *d'*, which normally passes freely by the gate without engaging it. The inner end of the shaft is provided with an operating-handle, *d''*, and a spring, *d'''*, which holds it back. This shaft is at any time slid forward to engage the gate-arm and enable the attendant to lower it slowly when the roller is withdrawn or lift it in a similar manner, and when this shaft is released its spring draws it back out of the way of the gate. This prevents all injury to the gate, and is under the entire control of the attendant, who has only to hold the handle *d''* to let the gate fall as slowly as desired, the gate resting on the rock-shaft when the roller is withdrawn, and following its cranked end down as fast as the attendant permits it to turn.

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

1. In a bridge-gate, the combination, with a gate on the approach, of an operating-roller

on a spring-actuated rod sliding on the bridge, an eccentric-lever within easy reach of the attendant, and a connecting rod or wire, whereby the roller may be withdrawn at any time to
5 allow the gate to close, substantially as and for the purpose set forth.

2. The gate A, provided with the spring-actuated roller *c*, in combination with the pivoted gate-arm B, having one end provided
o with the weight *b*, and the eccentric track B', formed with a point, *b'*, resting normally on

the roller, and inclined from this point in either direction toward the gate-arm, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in 15 presence of witnesses.

PAUL WINKLER.

Witnesses:

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