

No. 755,858.

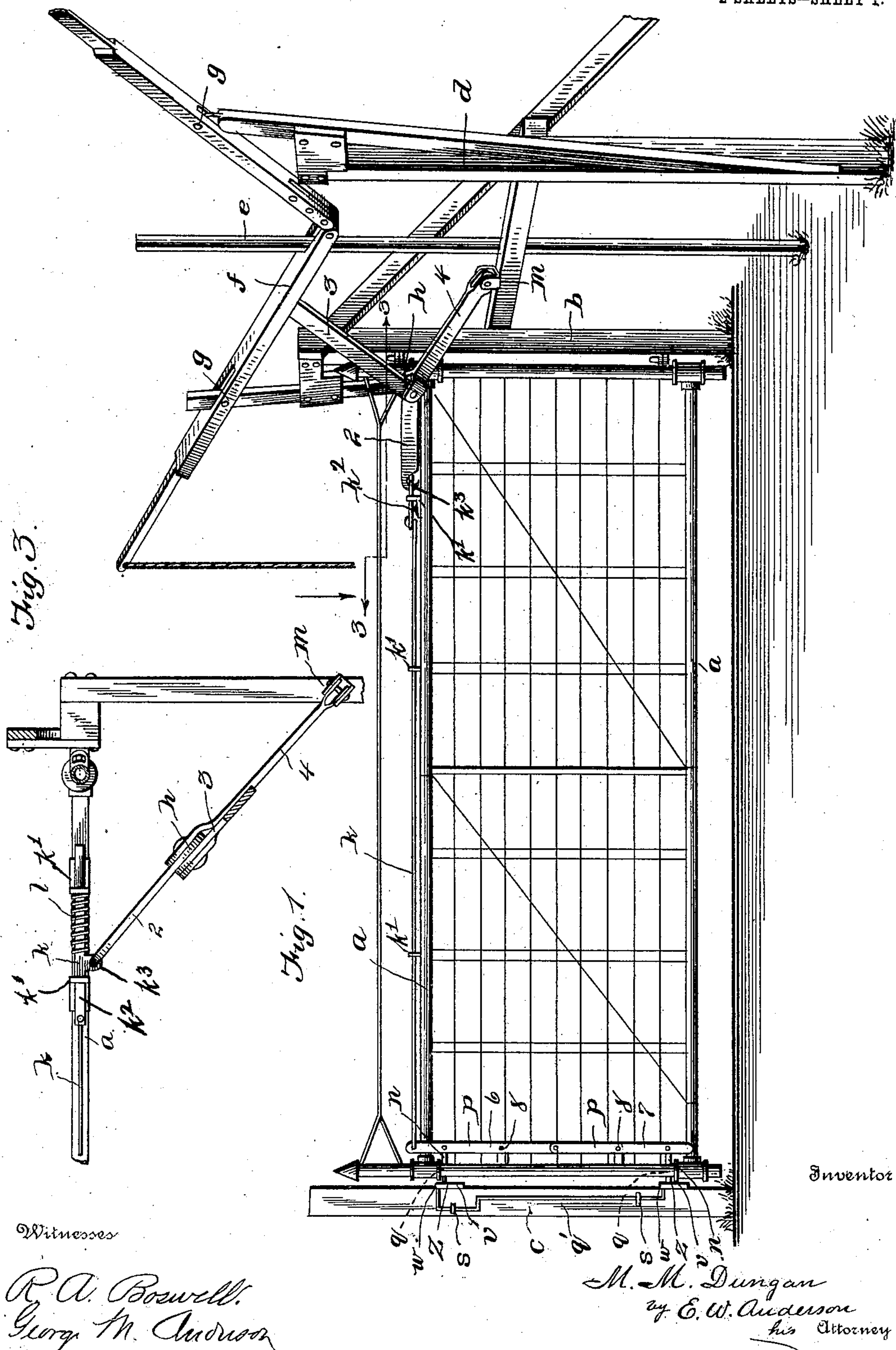
PATENTED MAR. 29, 1904.

M. M. DUNGAN.
GATE.

APPLICATION FILED OCT. 27, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



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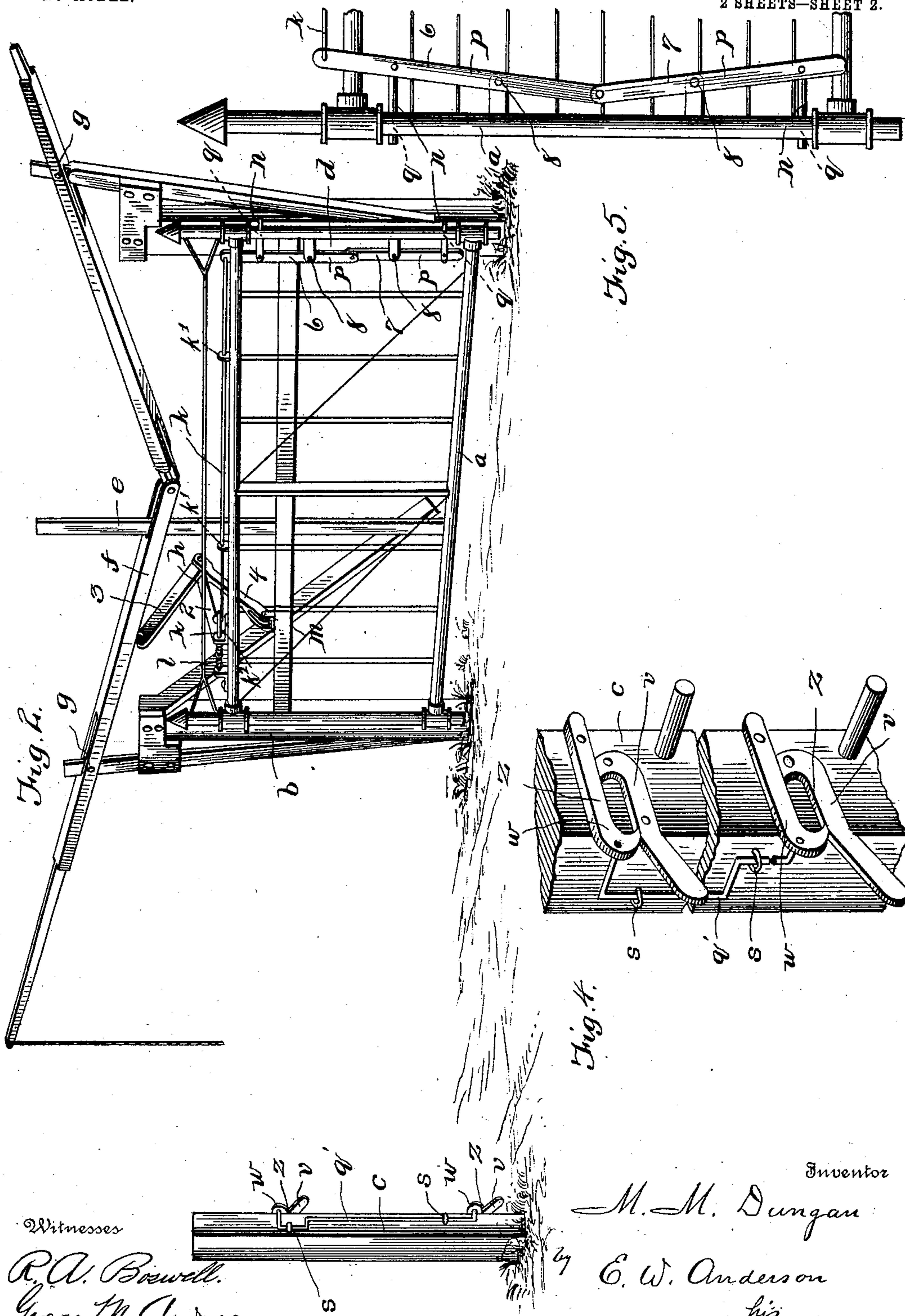
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2 SHEETS—SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

MICHAEL M. DUNGAN, OF HOMER, ILLINOIS.

GATE.

SPECIFICATION forming part of Letters Patent No. 755,858, dated March 29, 1904.

Application filed October 27, 1903. Serial No. 178,670. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL M. DUNGAN, a citizen of the United States, and a resident of Homer, in the county of Champaign and State of Illinois, have made a certain new and useful Invention in Gates; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters and figures of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view of my invention with the gate in closed position against the latch-post. Fig. 2 is a similar view with the gate in open position against the side post. Fig. 3 is a section on the line 3 3, Fig. 1. Fig. 4 is a perspective view of the latch devices in detail. Fig. 5 is a detail view of the latch-bolt device.

The invention relates to swinging farm-gates; and it consists in the novel construction and combinations of parts, as hereinafter set forth.

In the accompanying drawings, illustrating the invention, the letter *a* designates the body of the gate; *b*, the hinge-post for the gate; *c*, the latch-post, and *d* the side or road post. A guide-post *e* is provided usually between the hinge-post and the road-post for the hinge-lever *f*, which is slotted near the hinge-joint for the passage of the guide-post. The hinge-post and the road-post are provided with shoulders or fulcrums at *g* for the branches of the lever *f*.

h represents a triple-arm toggle-jointed connection, the middle arm of which is attached to a slide-rod *k*, arranged in bearings *k'* along the top of the gate. This slide-rod is provided with a coil-spring 1, the tension of which is adjusted in bearings to cause the slide-rod to push forward or toward the locking edge of the gate, and the arm 2 of the triple-bar connection *h* is connected to said slide-rod in front of said spring. This is accomplished by means of a short slide-rod attachment *k²*, having a lateral lug *k³*, to which the arm 2 is connected. The lateral lug *k²*

abuts forwardly against one of the slide-bearings *k'*, and the coil-spring 1, which surrounds said slide-rod attachment in rear of said lug, abuts in rear against one of said slide-bearings *k'*. The arm 3 of the triple-bar connection is attached to the road-lever *f* and the arm 4 to a side bar or bearing *m* between the hinge-post and the road-post. The attachments of the arms of the triple-bar connection are pivotal in character. The three arms 2, 3, and 4 of the connection *h* are pivoted together in such wise that they have radial movement from the common pivotal center.

Near the swinging end of the gate is provided a double lever latch-bolt device *p*, which consists of the vertical levers 6 and 7, pivoted together at their adjacent ends and pivoted to bearings 8 of the gate. The levers 6 and 7 carry the bolts *n*, which are designed to extend through bearings *q* of the gate. To the upper end of the double lever is connected the end of the slide-rod *k*, and when the slide-rod is pulled toward the hinge end of the gate the double lever will be operated to withdraw the bolts *n* by endwise movement out of engagement with the latches of the latch-post.

The latching arrangement is double, there being preferably two latches on the post *c*, one being above the other in corresponding position to the bolts *n* of the gate, whereof one is near its upper portion and the other near its lower portion. The latches are indicated at *z z*, and each consists of a gravity-hook *w*, normally resting on a guide bearing and stop *v* and forming therewith bolt-receiving recesses. The gravity-hooks of the two latches are connected by a handle-rod *q'*, working in bearings *s* of the post, as indicated. The two latches may be operated together at the latch-post by means of this handle-rod, rendering it unnecessary for a foot-passenger to pull the operating-arm of the road-lever.

The gate when closed is supported at one end by its hinges and at the other by the guide-bearings *v*, on which the bolts of the gate rest. These bolts have longitudinal horizontal movement and brace the gate when it is closed in a strong manner. As the gravity-

latches will not open automatically, it is necessary to withdraw the bolts before the gate can be moved by means of the lever devices. The guide-bearings *v* have no keeper projections, so that the gate is not jolted in closing.

In opening the gate for a team the road-lever is pulled, thereby extending the arms 3 and 4 of the triple-bar connection and pulling the arm 2, which pulls the slide-rod of the gate, withdrawing the bolts *n* and continuing its action pulls the gate open. The gateswings open until it rests against the road-post, when the arms 3 and 4 will be forced closed toward each other and toward the gate-arm 2 in reverse position from that which they have when the gate is closed. In this reversed position the gate is held open by the bracing action of the two arms 3 and 4, so that there is no liability of its swinging closed upon the team or moving at all until the road-lever is pulled to reverse the action of the triple-bar connection and close the gate. The engagement of the bolts *n*, which in closing the gate are protruded with the gravity-hooks of the latches, is prompt, there being no liability to spring out of the latches. The lock is secure, and there is no liability of the bolts being thrown out by stock. The bearings of the latches are engaged by the bolts *n* of the gate in such wise as to relieve the hinge-post of strain and put the weight of the gate equally on the hinge-post and the latch-post.

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

1. In a gate, the combination of the slide-bearings, the slide-rod having movement in such bearings, a slide-rod attachment having a lateral stop-lug abutting at its forward end against one of said slide-bearings, a spring in connection with said slide-rod attachment and in rear of said lug, pivoted bolt-levers connected to said slide-rod, longitudinally-movable latch-bolts, a triple toggle-arm device connected to the lateral lug of said slide-rod attachment, and a road-lever connected to said triple-arm device, substantially as specified.

2. In a gate, the combination of the slide-bearings, the straight slide-rod having movement in such bearings, and provided with a lateral stop-lug abutting forwardly against one of said slide-bearings, a spring for pressing said slide-rod forwardly and located in rear of said lug, pivoted bolt-levers connected to said slide-rod, longitudinally-movable latch-bolts, a triple toggle-arm device connected to said lateral lug, and a road-lever connected to said triple-arm device, substantially as specified.

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

MICHAEL M. DUNGAN.

Witnesses:

CHAS. H. HALL,
B. F. WAUGH.