No. 730,354. PATENTED JUNE 9, 1903.

E. W. EASLEY.

AUTOMATIC OPENING, CLOSING, AND LATCHING GATE.

APPLICATION FILED FEB. 10, 1902.

NO MODEL.

Fig. 1.

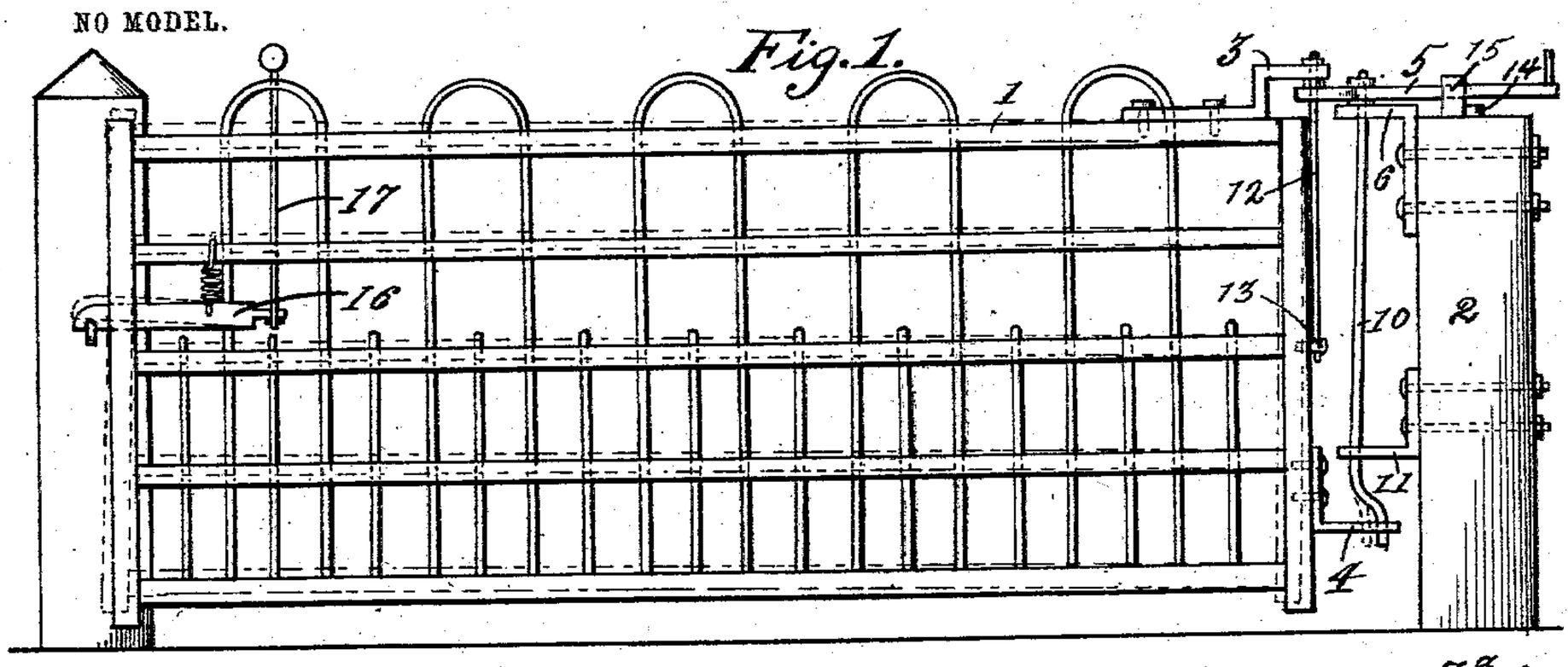


Fig. 2.

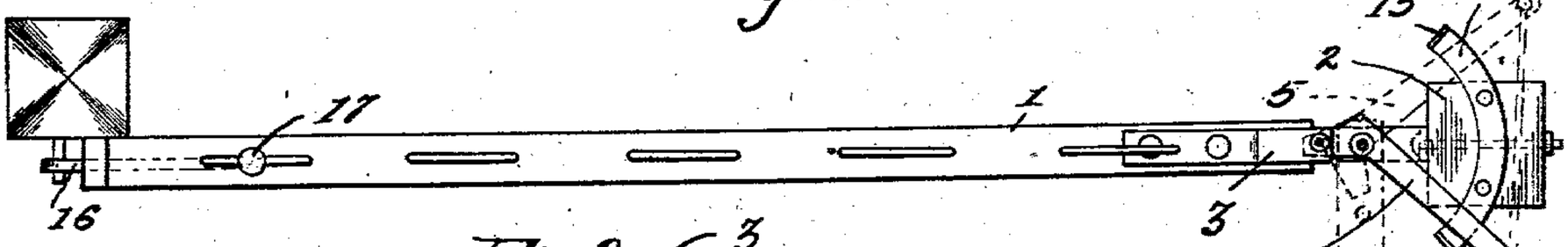


Fig. 3.

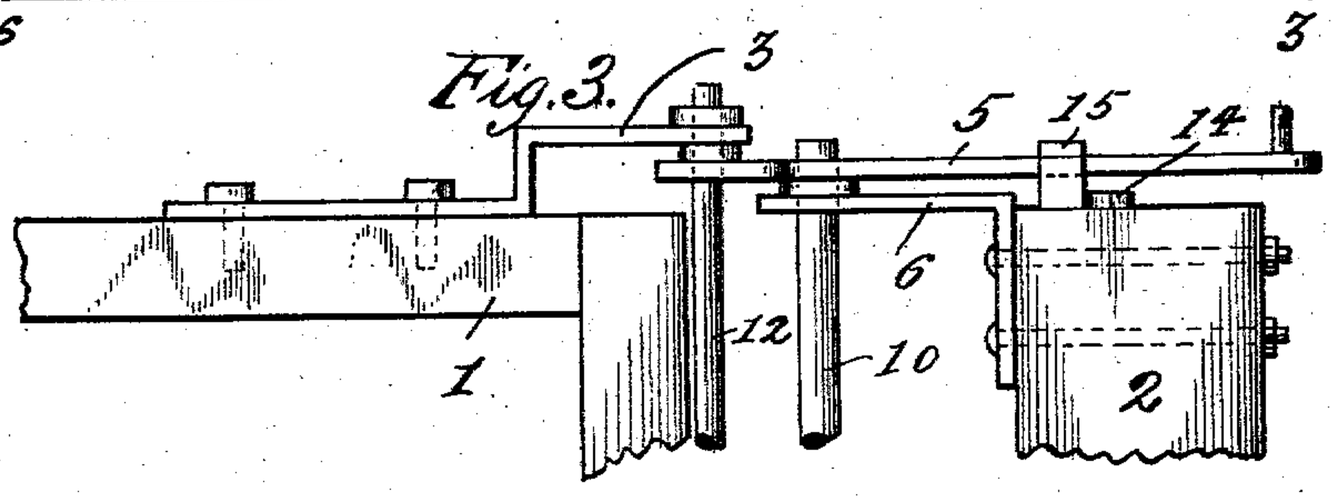
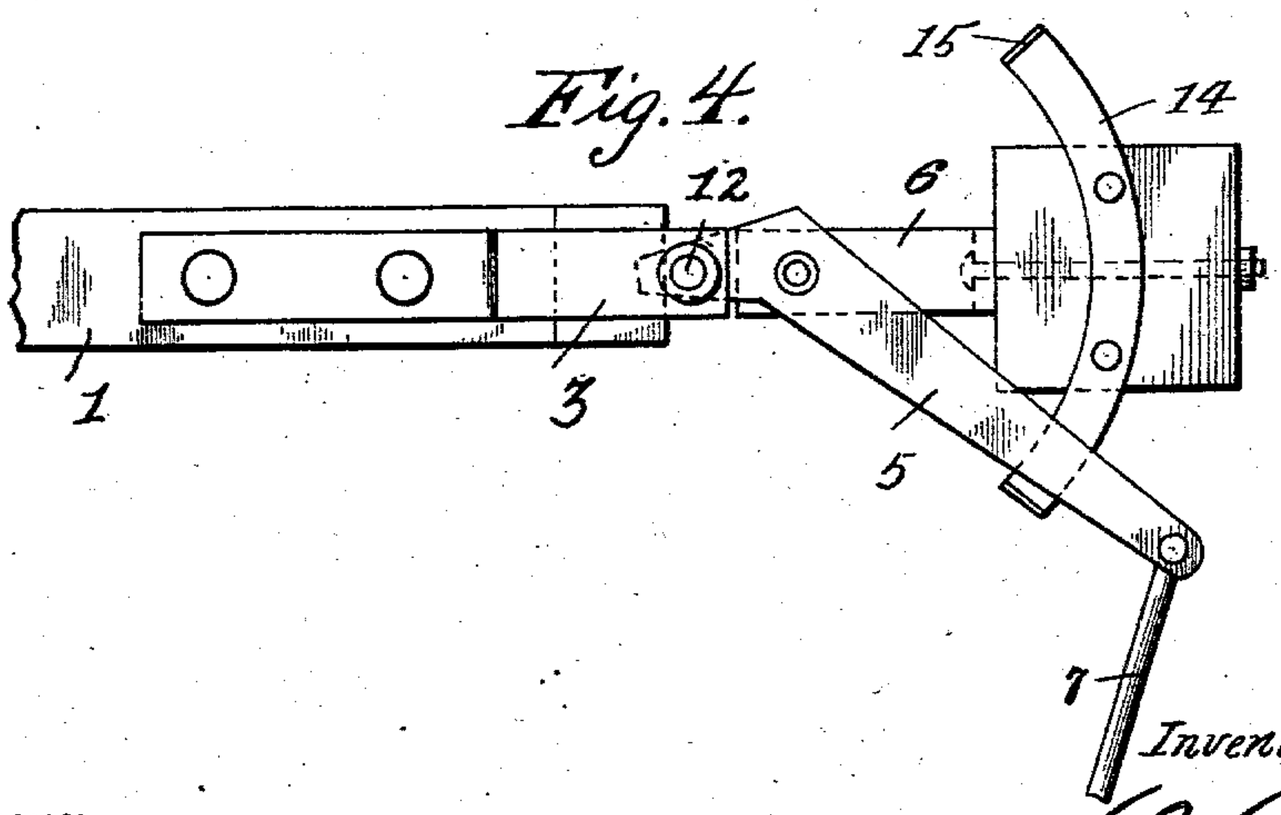


Fig. 4.



Witnesses
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No. 730,354. Patented June 9, 1903.

UNITED STATES PATENT OFFICE.

EMZY W. EASLEY, OF PLEASUREVILLE, KENTUCKY.

AUTOMATIC OPENING, CLOSING, AND LATCHING GATE.

SPECIFICATION forming part of Letters Patent No. 730,354, dated June 9, 1903.

Application filed February 10, 1902. Serial No. 93,475. (No model.)

To all whom it may concern:

Be it known that I, EMZY W. EASLEY, a citizen of the United States, residing at Pleasureville, in the county of Henry and State of Kentucky, have invented a new Device for Automatic Opening, Closing, and Latching Gates, of which the following is a specification.

The present invention relates to automatic gates of that type in which a push-rod is conveniently placed with respect to the drive or road way and readily accessible from a carriage, which push-rod serves to manipulate gate-operating devices in such manner as to throw the gate from closed to open position, and vice versa.

In the drawings herewith I have illustrated one embodiment of my invention.

In said drawings, Figure 1 is a view, in side elevation, of my improved gate in closed position. Fig. 2 is a plan view of the gate closed, the open position of the same being shown in dotted lines. Figs. 3 and 4 are detail views of parts of the operating mechanism, to which reference will be made hereinafter.

Referring to the drawings by numerals, like numbers indicating like parts in the several views, 1 denotes the gate proper, which may be of any suitable or desired construction. The said gate 1 is hung to its supporting-post 2 by means of an upper strap or hinge-plate 3 and a lower strap or hinge-plate 4, the upper supporting-plate 3 being upheld by a lever 5, which is carried by a post-lug 6, secured to the side of the post 2. Said lever 5 is of an angular shape (see Fig. 4) and serves as the operating-lever for the gate, the tail of the lever extending rearwardly and being connected with the push-rod 7, which passes through an eye or staple 8 in the top of a latch-post 9, against which the gate rests when in open position (see Fig. 2, dotted lines) and is thus held in convenient position to be operated from the roadway. The said operating-lever 5 has secured thereto to turn therewith a crank-rod 10, which serves as a pivot on which the lever 5 turns on its post-lug 6, said crank-rod passing downwardly through a second post-lug 11 and engaging at its lower cranked end with the lower hinge-plate 4 on the gate 1. The upper hinge-plate 3 is secured to the end of lever 5 by means of a rod 12, which passes down through the hinge-plate 3 and the end of lever 5 and is secured by a staple or other suitable securing means 13 to the end of the gate-frame. The said lever 5 rests upon an arc-shaped plate 14, fixed to the top of post 2 and provided at each end with vertical projections 15, which serve to limit the swing of the lever 5.

It will be seen from the foregoing description that the gate 1 is hung at the top from the lever 5 and at its bottom is connected with the crank-rod 10, so that as the lever 5 is thrown from one of its extreme positions to the other by means of the push-rod 7—for example, from the position shown in full lines in Fig. 2 to the dotted-line position in the same figure—the combined action of the lever 5 and crank-rod 10 will so cant or tilt the gate that the top of the gate will be moved in one direction by the lever 5 and the bottom of the gate will be moved in an opposite direction by the crank at the lower end of the crank-rod 10, this same action of the operating devices elevating the forward end of the gate sufficiently to throw the latch from its keeper. The gate will then swing automatically from closed to open position, where it may be held in place by its latch engaging with a suitable keeper on the latch-post 9. (See Fig. 2.)

The latch 16 at the forward end of the gate is of any suitable spring type and is preferably provided with a short vertical operating-rod 17 for the use of pedestrians or horsemen in opening the gate directly without using the operating mechanism above described.

The lever 5, angular in shape, as shown, is preferable to a straight lever, for the reason that the gate may be swung through the quadrant of its movement without bringing the tail of the lever 5 and the push-rod 7 parallel and on a dead-center, as would be the case if the said lever 5 were straight.

The gate will of course be provided with an operating-rod 7^a on its other side, (see dotted lines, Fig. 2,) so that it may be operated when approaching from either side, the action of the gate-operating mechanism being the same in both cases, rod 7 being pushed in one case and rod 7^a being pulled in the other case.

From the foregoing it will be seen that I have provided a gate which is simple and inexpensive in construction, which may be

readily operated from either side without alighting from the conveyance, and which will automatically swing to its two different positions when the operating devices are started.

Having thus described my invention, I claim—

1. A gate provided with an angular lever to which it is hinged at its upper end, a crank-rod connected with said lever and serving as a pivot therefor, a hinge-plate at the lower end of said gate engaging the cranked lower end of said crank-rod, and means for operating said lever and crank-rod to lift the gate to unlatching position and cant it so that it will automatically swing to open position.

2. A gate provided with an angular lever to which it is hinged at its upper end, a crank-rod connected with said lever and serving as a pivot therefor, a hinge-plate at the lower end of said gate engaging the cranked end of said crank-rod, a push-rod for operating said lever and crank-rod to lift the gate to unlatching position and cant it so that it will automatically swing to open position, and means for limiting the movements of said lever.

EMZY W. EASLEY.

Witnesses:
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