TOFFLEMIRE & LINNELL.

Gate.

No. 107,638. Patented Sept. 20, 1870.

FIG. 1

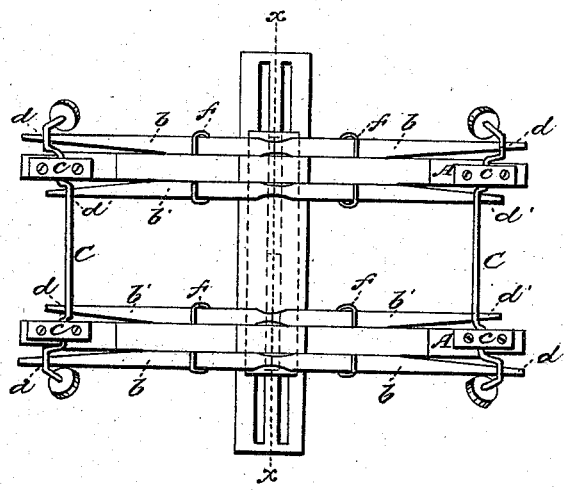


FIG. 2

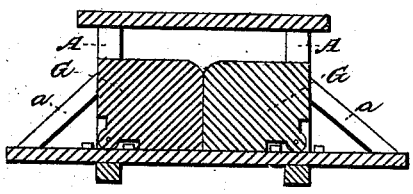
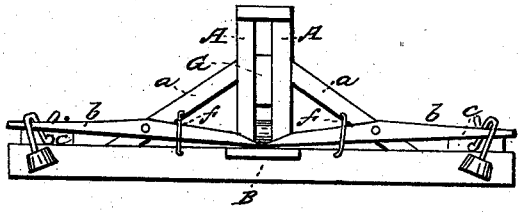


FIG. 3



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JOHN J. TOFFLEMIRE AND JOSEPH D. LINNELL, OF ROCKFORD, ILLINOIS.

Letters Patent No. 107,638, *dated September* 20, 1870.

IMPROVEMENT IN GATES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, JOHN J. TOFFLEMIRE and JOSEPH D. LINNELL, of Rockford, in the county of Winnebago and State of Illinois, have invented a new, useful, and improved Gate; and we do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

This invention relates to gates for carriage-ways, and consists of an improved arrangement of levers and cranked bars, constructed and operating as hereinafter more fully set forth.

In the drawing—

Figure 1 represents a plan view of the arrangement of levers and weighted crank-shaft.

Figure 2, a sectional view, taken through the line *x x*, showing the pivots and notches where the ends of the levers rest; and

Figure 3 is a side elevation.

The posts A A, which are preferably made double, for the passage of the gates between them, may be set in the ground, or suitably framed and braced in any convenient manner.

The construction shown in the annexed drawing is, perhaps, the stronger and more convenient, and will be more particularly described.

A A are represented as mortised into bed-pieces B B, having a transverse plank and braces *a a*.

The lower outer corner of each of the gates G G is recessed and pivoted in the manner shown, permitting the gate to be thrown over and entirely outside of the way between the posts.

Arranged longitudinally of the beams or bed pieces B B are levers *b b' b b'*, shown here as pivoted to the braces.

The inner may be shorter at its outer end, and projects beneath the gate, (when closed,) in the recessed corner.

The outer lever extends to meet its fellow on the opposite side of the gate, directly beneath the middle part of the gate itself.

The gate being closed, and the inner levers on one side of the gate being depressed, both leaves of the gate are thrown outward, bringing the ends of each resting on the extremities of the outer levers, the like depression of which throws the gate back into position across the roadway.

To operate these levers, each set properly in its turn, there is provided a cranked bar, C, at the outer end of each set, and arranged across the roadway. These cranked bars are more clearly shown in fig. 1. They are bent as shown, the parts *c c* forming the bearings on which they turn, and the parts *d d* and *d' d'* striking the outer and inner sets of levers. These bars are deflected at the cranked parts, out of line, so tkat on the outer side of the journals *c c* the crank inclines one way, and, on the inner, the bar across the roadway inclines the other.

The weights on the outer extremities of the bar are so arranged that, when at rest, the bar shall automatically hang with each deflected part equally inclined from a perpendicular line drawn between them. Thus left to hang undisturbed, the central portion of the bar across the roadway and over the inner levers inclines always toward the gate, and the cranked part over the outer lever always away from the gate.

From this arrangement it results that a carriage approaching the gate will strike the bar with the forward wheels, and tip it toward the gate, thus opening the valves, and, on the other side, leaving the gate, the wheels inevitably strike the other bar, and tip it in the other direction, thus bringing the outer cranks against the outer levers, and throwing in the gates to to the closed position. These gates may be made of any material, and mode of construction. They may be provided with a recess and tongue, as shown at *e*, to hold the gate, when closed, against lateral displacement.

The levers may be protected by guard, as shown at *f f*, to limit their motion.

The devices are exactly the same on both sides of the gate.

The operation of this gate is fully shown in the description of its parts.

Having thus fully described our invention,

What we particularly claim as new, and desire to secure by Letters Patent of the United States, is—

1. The gates, pivoted as shown, in combination with the double set of levers on both sides of the gate, arranged and operating in the manner set forth, when depressed by any suitable transverse bar across the way, all as described.

2. The gates, levers, and bars C C, when arranged as described, for the purpose set forth.

This specification signed and witnessed this 20th day of May, 1870.

JOHN J. TOFFLEMIRE.
JOSEPH D. LINNELL.

Witnesses:
G. W. FORD,
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