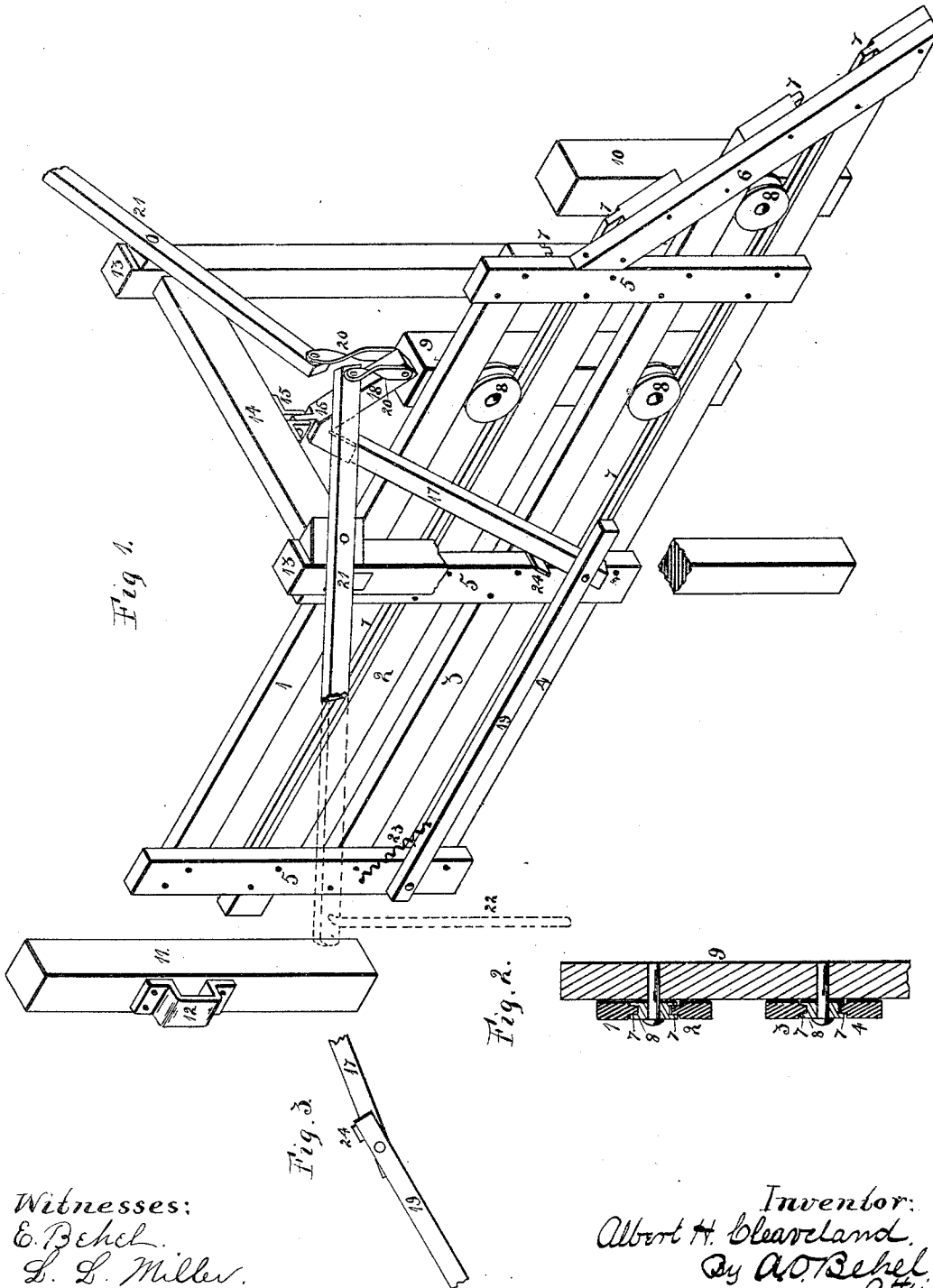


(No Model.)

A. H. CLEAVELAND.
GATE.

No. 461,093.

Patented Oct. 13, 1891.



Witnesses:
E. Behel.
L. L. Miller.

Inventor:
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Att'y.

UNITED STATES PATENT OFFICE.

ALBERT H. CLEAVELAND, OF BELVIDERE, ILLINOIS.

GATE.

SPECIFICATION forming part of Letters Patent No. 461,093, dated October 13, 1891.

Application filed May 4, 1891. Serial No. 391,468. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. CLEAVELAND, a citizen of the United States, residing at Belvidere, in the county of Boone and State of Illinois, have invented certain new and useful Improvements in Gates, of which the following is a specification.

The object of this invention is to construct a gate for farm use, consisting of suitable supports and rollers upon which the gate slides and levers for opening and closing the gate from a vehicle or from the ground.

In the accompanying drawings, Figure 1 is an isometrical representation of my improved gate. Fig. 2 is a vertical section through the post 9 and the supporting-rollers. Fig. 3 is a detached view of the pivotal connection between the bars 17 and 19, showing the stop for limiting the upward movement of the bars.

The gate proper is composed of longitudinal bars 1, 2, 3, and 4, held rigidly in position by vertical braces 5. The three lower longitudinal bars of the gate are longer than the upper bar, extending beyond it at one end and being joined together by the diagonal brace 6. The braces are all located on one side of the gate, leaving an unbroken face on the other side. From the under side of the upper bar 1 and the upper side of the second bar 2 tongues 7 extend, and the lower edge of the third and the upper edge of the lower bar have like tongues.

My gate is supported free to slide on three rollers 8, journaled to the faces of two supporting-posts 9 and 10. The posts are on the side of the gate opposite to that on which the braces are secured, and the rollers are located one on each post between the lower pair of bars, and one between the upper pair of bars on the post 9. These rollers are grooved to correspond to the tongue in the bars, and the flanges of the roll being of greater diameter than the distance between the tongues of the adjacent bars the gate cannot accidentally be displaced. Thus the gate will bear on the upper side of one or more of the rollers and on the lower side of the other, this depending upon the position of the gate. At the forward end of the gate at the limit of its forward

movement I place a post 11, on the face of which is secured a metallic box-loop 12 of proper size to permit the entrance of the end of the second bar, which extends beyond the others to hold the gate firmly in position. This post, like the others, is on the side of the gate opposite to the braces.

To provide for the opening of the gate from a vehicle, I set two posts 13 of considerable length one on each side of and in line with the roller-bearing post 9, and between these posts near to their tops I place a cross-beam 14. On the lower face of this cross-beam I fasten a casting 15, provided with two downwardly-extending ears having holes extending transversely through them, between which ears I pivot a casting 16, which forms the connection between two arms 17 and 18 forming a bell-crank. One arm of this bell-crank is of considerably greater length than the other, and this long arm is secured to the forward end of the gate by a pivoted connecting-bar 19. To the shorter arm 18 of the elbow-lever are secured, by twisted shackles 20, two lever-bars 21, extending in opposite directions at right angles to the gate, and each is pivoted to one of the supporting-posts. From the outer ends of each of these levers is suspended a drop-bar 22 to bring it within easy reach of the operator.

To operate the gate, one of the drop-levers is raised or lowered, and turning the bell-crank lever thus on its pivot imparts motion to the gate through the connecting-bar. When the gate is closed the connecting-bar and the tongue of the bell-crank are nearly in a straight line, their common joint being slightly above such a line, and forms a brace to hold the gate in a closed position. To hold the connecting-bar from jarring down and allowing the gate to slide open, which it might be caused to do by its weight, I fasten a spring 23 to the gate and to a point in the bar, and the elasticity of the spring overcoming the weight of the bar holds the gate in position.

To prevent the bar and long arm of the lever from throwing too far, I place a stop 24 on the upper edge of the long arm of the bell-crank lever, which, overlapping the connect-

ing-bar, forms a stop to limit the movement of these bars in an upward direction, and the spring holds the bar against this stop.

I claim as my invention—

- 5 1. A gate capable of a sliding movement supported upon grooved rollers, two uprights, a connecting-bar between the uprights, a bracket secured to said connecting-bar, said
10 inner side of the cross-bar and two ears extending therefrom provided with coinciding holes, a bell-crank lever pivoted in said bracket and having a pivotal connection with the gate through one of its arms, that portion of the
15 bell-crank lever pivoted in the bracket being

an ear extending from the junction of its two arms and secured to these arms by side plates, and levers for sliding the gate by moving the bell-crank lever.

2. A gate capable of a sliding movement, 20 operating-levers having a pivotal connection with the gate through the medium of links, a projection from the edge of one of the links at or near their pivotal connection to limit the upward movement of the links, and a 25 spring to hold the links elevated.

ALBERT H. CLEAVELAND.

Witnesses:

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