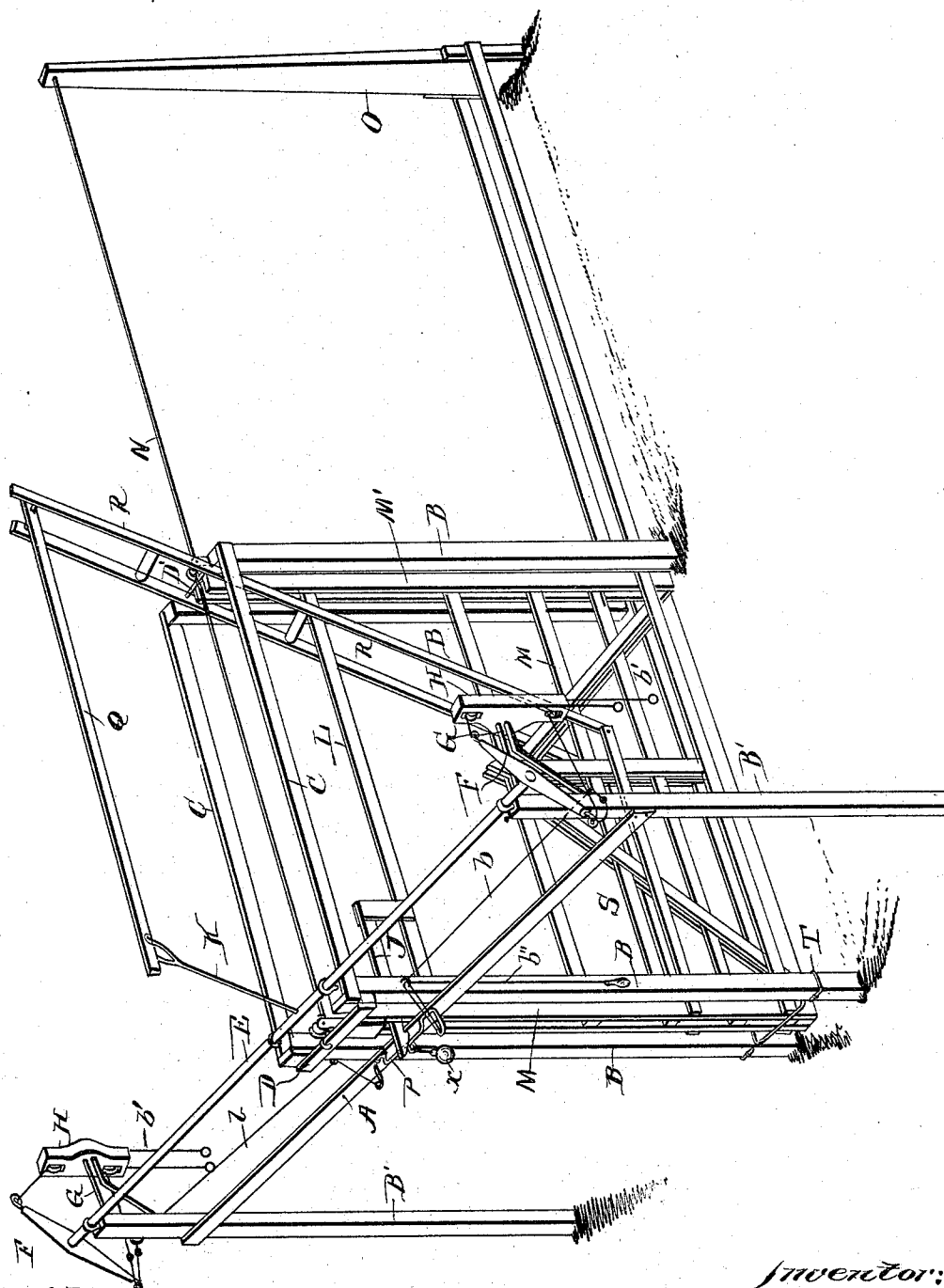


(No Model.)

L. DEARMONT.
SLIDING GATE.

No. 571,343.

Patented Nov. 17, 1896.



Witnesses:

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UNITED STATES PATENT OFFICE.

LEE DEARMONT, OF MOUND CITY, MISSOURI.

SLIDING GATE.

SPECIFICATION forming part of Letters Patent No. 571,343, dated November 17, 1896.

Application filed January 20, 1896. Serial No. 576,092. (No model.)

To all whom it may concern:

Be it known that I, LEE DEARMONT, a citizen of the United States, residing at Mound City, in the county of Holt and State of Missouri, have invented certain new and useful Improvements in Sliding Gates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to sliding gates and is an improvement on the gate for which I obtained a patent dated September 17, 1895, No. 546,306.

The improvements relate to certain changes in some of the parts which simplify and cheapen the construction and render the gate more practical and effective in use, and for the details thereof reference is made to the following specification describing the same and to the accompanying drawing forming a part of said specification.

On the drawing like reference-letters indicate corresponding parts, and where the parts are unchanged they are referred to by the same letters of reference which are used in the patent above referred to.

The drawing is a perspective view of the gate in a closed position.

Four posts or standards B are inserted in the ground. They are arranged in pairs at each end of the gate and are set some distance apart. Instead of a pair of posts at the end a single solid post may be used with a mortise or aperture through it at the proper place for the latch and latch-bar. The posts are connected at the top by side rails C C, and the end posts by a cross-bar or rail D. A post O is set in the ground at a point distant from the closed gate not less than the width thereof, which acts as a stop therefor, and it may or may not be provided with a buffer o.

The parts thus far described are like those in my former patent and need no further explanation.

A rail, rod, wire, or bar N is secured at one end to the end posts B and at the other end to the outer post O. It may be and preferably is supported in the center by a rod or bar D', extending across the middle pair of posts B, near the top of the same.

The rail or rod N forms the way or support for the gate, on which it is adapted to be opened and closed, as hereinafter explained.

The gate M is of any desired form or style and is constructed of any suitable material.

The end rails M' M' extend above the top of the gate and are provided with antifriction-rollers, by means of which the gate is supported on the rail or rod, along which it is adapted to be moved to open and close it. A cross-bar or rail L extends across from one of the vertical rails M' to the other and is secured thereto. A latch J is pivoted to the front end of the rail L, and this latch is to hold the gate in a closed position. Arranged transversely on top of the entire frame at the front end thereof and supported in suitable bearings on top of the end or front posts B is a large arm or rod E, which is adapted to be rotated in the bearings. Supplemental posts B' B' are provided outside of and in line with the end or front posts B, and are also provided with bearings for the long arm E near its ends. A bar or rail A extends across and is secured to the posts B and B', and that part of this bar between the two posts B B' forms a means of engagement for the latch J.

The arm or rod E has short arms F at each end provided with eyes or apertures, and the function of the rod and its arms will be presently explained.

Brackets or supports G are secured to the insides of the two end posts B' B', and to them are secured suitable blocks H, provided with sheaves at the top and bottom thereof.

A cam-arm P is secured to the bar A or the end posts B, or both, and has eyes or other means at or near its ends, by means of which cords or chains may be attached to it for operating it to release the latch J. The cam has a weight *x* secured to or formed as a part of it to hold it away from the latch until it is desired to operate it to release the latch from the bar A. Suitable cords or chains *b* are attached at each end of the cam-arm P, passed through eyes or guides on the posts, extending to each side, then passed through the lower eyes on the short arms F, and through the lower sheaves on blocks H, and the free ends or extremities are provided with suitable pulls, knobs, or handles. Two cords *b'* are se-

cured to the upper ends of the short arms F and through or over the upper sheaves in blocks H, and these ends are also furnished with handles or pulls.

- 5 A supplemental cord or chain *b''* is secured at one end to the cam-arm P and passed through eyes or guides on one of the posts, so as to be in reach of a person walking, by means of which the latch may be released by operating the cam-arm P from the ground. Two of these cords *b''*, one at each side of the gate, may be used, if desired. It will be clear that the foregoing description refers to a duplex mechanism for operating the gate, that is to say, 10 one on each side thereof, so that it may be operated in going either way. At or near the center of the long arm or bar E is a vertical support or bracket K.

- A long horizontal bar Q is pivoted at one 20 end to the support or bracket K and at the other end to a slotted vertical arm or lever R, which is pivoted upon a rod or bar between the tops of the two middle posts B B. The lever R is pivoted at its lower end to a bifurcated lever or arm S, which in turn is pivoted at its 25 front end to the front vertical rail of the gate. The two lever-arms R and S straddle the gate M, and they may comprise two arms each or they may be partly solid and slotted or bifurcated where they would interfere with other parts of the structure. 30

- A suitable metallic brace, as T, is provided at or near the bottom of the two front posts to hold them vertically parallel, and the brace in the inside has inclines to guide the gate between the front posts when the gate is being closed. 35

The operation of the gate is similar to that in the patent above referred to.

- 40 A pull on the lower cord or chain by a person on horseback or in a vehicle turns the cam-arm P and releases the latch. At the same time the long arm E is rotated, and through the operation of the system of levers the gate is opened. A pull on either of the upper or 45 short cords rotates the arm E in the reverse direction and closes the gate, the latch J engaging the bar A.

- A supplemental cord or chain within easy 50 reach of persons on foot is used for releasing

the latch, and the gate can then be readily opened.

Changes in the size, proportions, and minor details of construction may be made within the scope of my invention without departing 55 from the spirit or sacrificing any of the advantages thereof.

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

1. A sliding gate comprising vertical posts, 60 a single horizontal bar upon which the gate slides, a post at one end for supporting one end of the rod or bar; a gate with antifriction-rolls at its top, a latch pivoted to a rigid part of the gate, a releasing device for the latch 65 comprising a pivoted cam-arm, a long rotary arm at the front end of the gate, transverse arms at the ends of the long arm having supplemental arms carrying antifriction-bearings for the cords or chains; cords or chains connected to the releasing device, and extended to and connected with the transverse arms, supplemental cords depending from said arms, and a toggle connecting the rotary arm and the gate and pivoted thereto substantially as described. 75

2. A sliding gate comprising vertical posts, a single horizontal rod or bar upon which the gate slides, a single post for supporting the end of the rod or bar, a gate with antifriction-rolls at its top; a latch for the gate, a releasing device for the latch, a long rotary arm at the front end of the gate, transverse arms at the ends of the long arms, blocks with sheaves at top and bottom, supported on 85 brackets on the insides of the front posts, cords or chains connected at one end to the releasing device and extended to and connected with the short arms and passed through or over one of the sheaves in the block and supplemental cords or chains attached to the other end of the short arms, and passed through or over the other sheave in the block, substantially as described. 90

In testimony whereof I affix my signature 95 in presence of two witnesses.

LEE DEARMONT.

Witnesses:

D. W. PORTER,

HUGH MONTGOMERY.