

(No Model.)

L. LUNDQUIST.
GATE.

No. 582,826.

Patented May 18, 1897.

Fig. 1

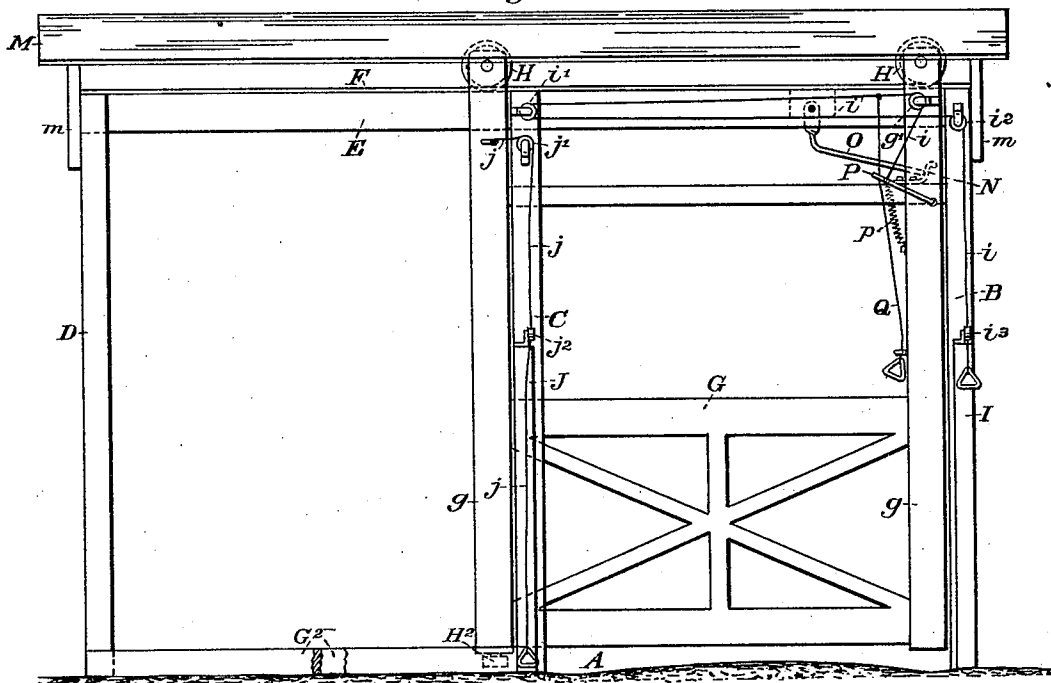
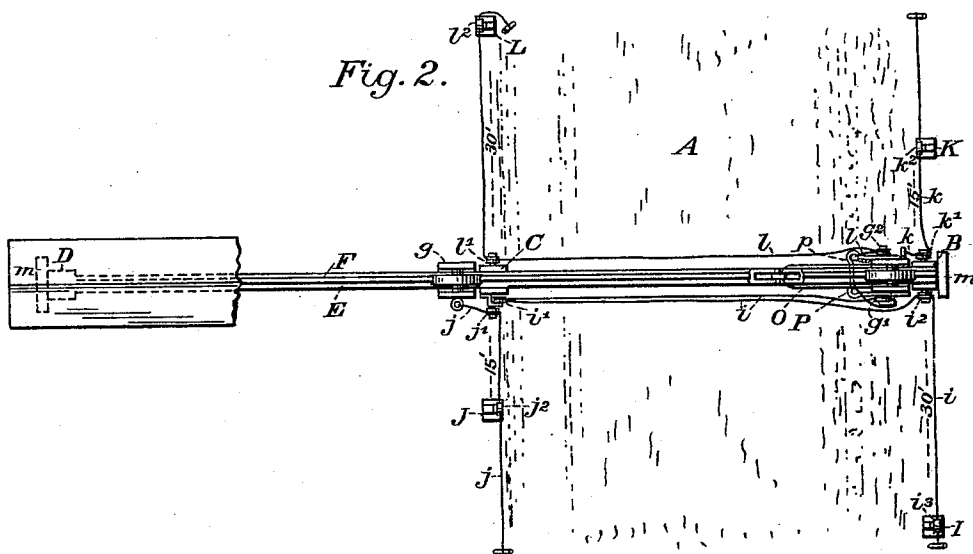


Fig. 2.



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UNITED STATES PATENT OFFICE.

LEVI LUNDQUIST, OF MIDDLETOWN, CALIFORNIA.

GATE.

SPECIFICATION forming part of Letters Patent No. 582,826, dated May 18, 1897.

Application filed December 17, 1896. Serial No. 615,994. (No model.)

To all whom it may concern:

Be it known that I, LEVI LUNDQUIST, a citizen of the United States, residing at Middletown, county of Lake, State of California, have invented an Improvement in Gates; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of gates which are adapted to be readily opened and closed by the approaching or receding traveler without requiring him to alight from his vehicle or conveyance.

My invention consists in the hereinafter-described sliding gate with the operating-ropes, in combination with the locking mechanism adapted to be operated by said ropes, as well as to be operated by hand when the traveler is on foot.

The object of my invention is to provide means for opening and closing the gate and at the same time operating the lock thereof, said means being so located as to be most conveniently reached by the traveler in approaching the gate from either direction, so that he may both open and close the gate from the right-hand side in whichever direction he may be going.

Referring to the accompanying drawings, Figure 1 is an elevation of my gate. Fig. 2 is a plan of the same, the roof or hood M being broken away.

A is the roadway. On one side of the roadway is a post B, and on the other side is a two-part or slotted post C, while beyond and in the line of the two posts is a third post D. These posts carry at their tops the beam E, on which is supported the track F.

G is the gate, having end standards *g*, the tops of which are forked and pass up on each side of the beam E and carry in their tops the rollers H, which rest and travel upon the track F and by which the entire gate is supported.

The gate plays back and forth through the two-part or slotted post C. When in position closing the roadway, its end standard comes up into contact with the post B, and when over to the other side its other end standard comes up against the post D. Within the forked top of one of the gate-standards *g* is fixed a catch-lug N.

Pivoted to the track-beam E is a gravity

latch-bar O, the lower end of which hangs down normally in the path of the catch-lug N, so that the gate in closing will carry the catch-lug under the gravity latch-bar and past it, and the latch-bar will then drop down behind said lug and engage, it so that the gate is thus locked in a closed position and can be freed only by lifting the latch-bar from its engagement with the catch-lug. To effect this release, I have pivoted to the gate-standard *g* a swinging lifter P in the shape of a bail, said lifter being controlled by a spring *p*. This lifter acts directly under the latch-bar and will lift said bar to free it from the catch-lug and allow it to drop by gravity to its position again.

I, J, K, and L are posts on each side of the gate. These are located at each side of the roadway and are four in number, two being on one side of the gate and two on the other.

Attached to the lifter P, and thence extending upwardly to the standard *g* of the gate and around a guide-pulley *g'* thereon, is a rope or cord *i*, which thence extends over to the middle post C and around a guide sheave or block *i'* thereon, thence back again to the post B and around a guide sheave or block *i''* thereon, and thence to a guide sheave or block *i'''*, supported by the post I, said rope or cord hanging down within reach and weighted, as shown. Secured to the other end standard of the gate is a rope or cord *j*, which thence passes to and around a guide sheave or pulley *j'* on the center post C, and thence to a guide sheave or pulley *j''* on the post J, its end hanging down within reach and weighted. Connected with the other side of the first end standard *g* of the gate is a rope or cord *k*, which thence extends to and around a guide sheave or pulley *k'* on the post B, and thence to a guide sheave or pulley *k''* on the post K, hanging down within reach and weighted. Secured to the lifter P and thence passing up and over a pulley *g''* on the first end standard of the gate is a cord or rope *l*, which thence passes to and around a guide sheave or block *l'* on the center post C, and thence to a guide sheave or block *l''* on the post L, from which it hangs down within reach and is also weighted.

The operation is as follows: Approaching the gate the traveler pulls upon the right-hand

rope. This being connected with the lifter P first raises said lifter and causes it to lift the latch-bar O from its engagement with the catch-lug N. The gate being free continued pulling on the rope causes said gate to slide open. Passing through the traveler pulls on the right-hand rope and thus closes the gate, which automatically locks.

In order to open the gate by hand, I have provided a hand-cord Q, depending from rope *z*. This is guided downwardly to within reach and may be taken hold of from either side of the gate. A pull down on rope Q will raise the lifter P and the latch-bar O, thus unlocking the gate, which may then be slid over by hand. Thus by this arrangement of ropes the gate can be moved from side to side to open and close the roadway. The advantage of this arrangement lies in the fact of having four ropes, two of which extend from opposite sides of the gate to posts on the other side of the roadway. The object of this is to enable the gate to be operated from the right-hand side no matter in which direction the traveler may be approaching. Consequently the ropes which are to his right as he approaches the gate from either direction are those which are arranged to pull the gate open, and those which are upon his right as he recedes from the gate in either direction are arranged to pull the gate closed. This arrangement is a most complete one and results in an ease of operation not to be had in those gates where the pulling devices are arranged, as usual, only upon one side of the gate, whereby although approaching and receding in one direction the pulling devices are conveniently located, yet in the other direction they are inconveniently located.

M is a roof-shaped protector or hood over track F. It is supported on brackets *m*, secured to the posts B and D, and is adapted to form a covering over the rollers of the gate and the track on which they run, thereby keeping these parts protected from weather and keeping them cleaner and dryer than otherwise.

G² are guides extending between the posts, and H² is a roller under the end standard *g* of the gate. The guides and roller are very useful for heavy gates and to hold the gates in place during heavy winds.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a gate, the overhead track and the gate having rollers whereby it is suspended from and is adapted to travel on said track in opening and closing, in combination with a catch-lug fixed in the upper portion of the gate, a gravity latch-bar hanging from the overhead track and adapted to engage said catch-lug to lock the gate, and a swinging

lifter carried by the gate and adapted to operate under the latch-bar to lift it from its engagement with the catch-lug and free the gate.

2. In a gate, the overhead track and the gate having rollers whereby it is suspended from and is adapted to travel on said track in opening and closing, in combination with a catch-lug fixed in the upper portion of the gate, a gravity latch-bar hanging from the overhead track and adapted to engage said catch-lug to lock the gate, a swinging lifter carried by the gate and adapted to operate under the latch-bar to lift it from its engagement with the catch-lug and free the gate, and a rope connected with the lifter to operate it.

3. In a gate, the overhead track and the gate having rollers whereby it is suspended from and is adapted to travel on said track in opening and closing, in combination with a catch-lug fixed in the upper portion of the gate, a gravity latch-bar hanging from the overhead track and adapted to engage said catch-lug to lock the gate, a swinging lifter carried by the gate and adapted to operate under the latch-bar to lift it from its engagement with the catch-lug and free the gate, ropes or lines attached to said lifter and connected with the gate whereby when pulled upon, the lifter is operated to free the gate, and the latter is slid open, and ropes or lines connected with the gate for closing it again.

4. In a gate, the overhead track and the gate having rollers whereby it is suspended from and is adapted to travel on said track in opening and closing, in combination with a catch-lug fixed in the upper portion of the gate, a gravity latch-bar hanging from the overhead track and adapted to engage said catch-lug to lock the gate, a swinging lifter carried by the gate and adapted to operate under the latch-bar to lift it from its engagement with the catch-lug and free the gate, and four ropes or lines having each one end connected with the gate, two of said ropes or lines, one on each side of the gate being for closing the gate, and the other two for opening it, said last-named being also connected with the lifter whereby the latch-bar is released preliminarily to opening the gate, said ropes or lines being properly guided to four posts on opposite sides of the roadway and gate whereby they are conveniently located for a traveler approaching or receding in either direction.

In witness whereof I have hereunto set my hand.

LEVI LUNDQUIST.

Witnesses:

DAVID LUNDQUIST,
A. LUNDQUIST.