

(No Model.)

C. L. HUDLER.
SWINGING GATE.

No. 436,421.

Patented Sept. 16, 1890.

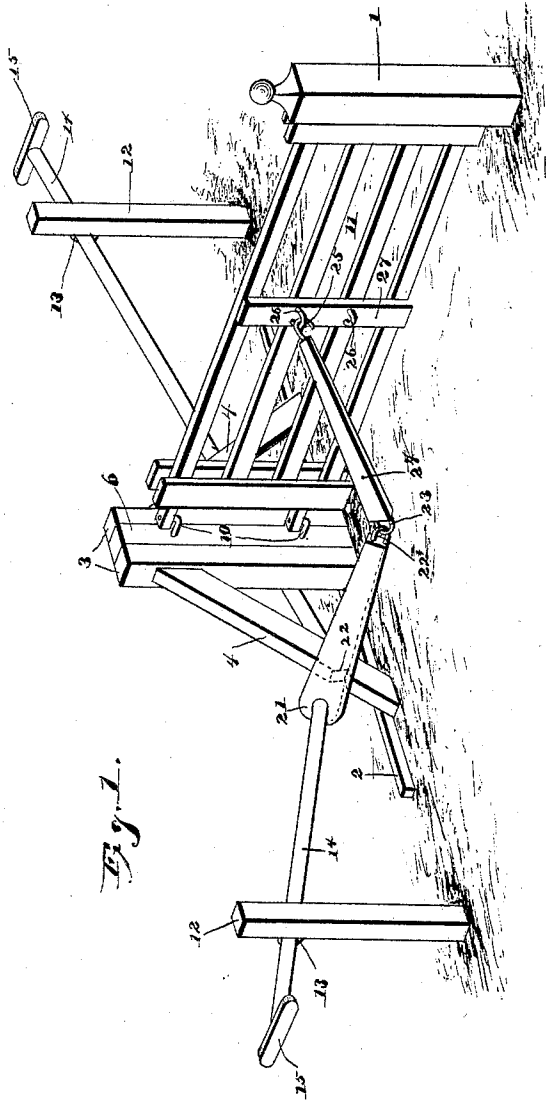


Fig. 1.

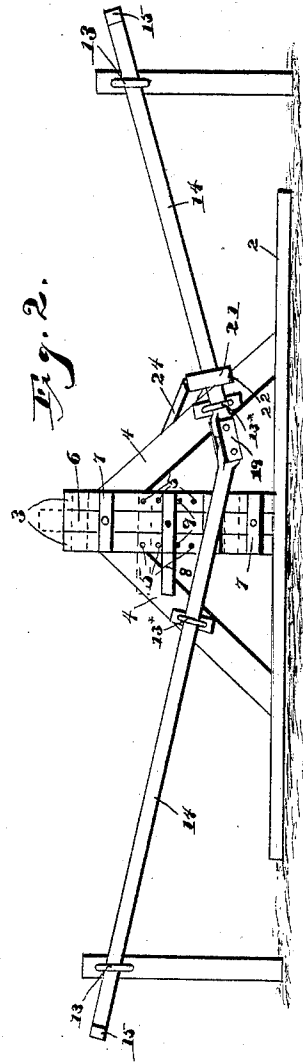


Fig. 2.

Witnesses:

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SWINGING GATE.

SPECIFICATION forming part of Letters Patent No. 436,421, dated September 16, 1890.

Application filed December 30, 1889. Serial No. 335,330. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. HUDLER, a citizen of the United States, residing at Hermitage, in the county of Hickory and State of Missouri, have invented a new and useful Swinging Gate, of which the following is a specification.

This invention has relation to improvements in swinging gates, and among the objects in view are to provide means for opening and closing the gate from vehicles or on horseback and to provide means for raising and lowering the gate to permit of the passage thereunder of small stock or for the avoidance of mud or snow.

With these general objects in view the invention consists in certain features of construction, hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a gate constructed in accordance with my invention. Fig. 2 is a side elevation of the same.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents the latch-post, which in this instance is set into the ground and is stationary and may or may not be provided with a latch of any character adapted to fasten the gate when closed and liberate the same when actuated, which latter is accomplished by the mechanism hereinafter described.

2 represents a side sill, upon which near its center there is mounted opposite the post 1 a pair of vertical parallel posts 3, braced to the sill by means of opposite inclined braces 4. The posts 3 are each provided with a series of perforations 5, and between said posts there is mounted a sliding hinge-post 6, having cleats 7 secured thereto at one side near its upper and lower ends, the ends of the cleats overlapping the parallel posts.

8 represents a pivoted bar secured to the sliding post at about its center, the ends of said bar overlapping the parallel posts, and 9 represents opposite removable pins adapted to be inserted in any of the opposite pairs of perforations formed in the parallel posts and under the opposite ends of the pivoted bar, whereby the sliding posts may be adjustably supported in position by means of the pivoted bar and pins. The opposite face of the

sliding post is provided with vertically-opposite brackets 10, upon which is hung the swinging gate 11, which may be of any ordinary construction.

At each side of the gate and at the opposite ends of the sill there are set into the ground vertical posts 12, having eyes 13, and from each of the inclined braces project similar eyes 13*, and in each pair of eyes thus located there is mounted an inclined rock-shaft 14, said shafts terminating at their outer ends in operating cross-bars 15. The inner ends of the rock-shafts are loosely connected by means of a toggle-joint 19, so that a rotation or partial rotation of one rock-shaft produces a similar movement upon the part of the other. One of the rock-shafts near its lower bearing is provided with a rock-arm 21, which when in a horizontal position rests in a notch 22, formed in the adjacent inclined brace, so that the strain caused by the weight of the arm is not imparted to the rock-shafts and their bearings. A staple 22* projects from the forward end of the rock-arm, and loosely linked with the same is a staple 23, projecting from the rear end of a pitman or connecting-rod 24, the opposite end of which is provided with a hook 25, which is adapted to take into either of a series of staples 26, secured to the usual vertical brace 27 of the gate. The object of this series of staples is to adapt the pitman for connection at a proper point regardless of the vertical adjustment of the gate.

To operate the gate it will be at once obvious from the previous description that it is simply necessary to turn the rock-shaft through the medium of its cross-arms, whether on horseback, in a vehicle, or on foot, which operation swings the rock-arm to one side, drawing upon the pitman and swinging open the gate. After passing through the gate, the same may be closed by a reversal of the above operation through the medium of the opposite rock-shaft. Through the medium of the pivoted bar the removable pins, and the perforated parallel posts, it will at once be apparent that any sag in the gate may be compensated for by an elevation of the hinge-post; also, that the gate may be raised to permit of the passage thereunder of small stock or for the purpose of avoiding mud or snow

or other obstructions calculated to impede the gate in its swinging movements. By inclining the rock-shafts the arm 22 travels in an inclined path and toward the post, so that said arm exerts a tendency to lift the free end of the gate simultaneous with its swinging movement. In this manner the gate is not dragged and broken, but any ordinary sagging is compensated for and ordinary obstacles passed. Furthermore, the inclined posts cross the rock-shafts nearer the centers of the latter, so that they provide bearings at better locations than if the bearings were only at the ends of the shafts.

By the above description it will be seen that I have provided an extremely simple, cheap, and positively-operating gate, and have avoided in its construction the use of springs, cords, or ropes or any material calculated to be impaired or rotted by the atmosphere, dampness, &c. It will also be noticed that the only really stationary parts of the gate are the latch-post and the two opposite posts for supporting the rock-shafts, whereby the easy transportation of the gate from one point to another and the setting up of the same is positively assured. The hinge-posts are of course supported by the adjacent fence-panel, as will be readily understood.

Having thus described my invention, what I claim is—

1. The combination, with opposite vertical guide-posts having a series of perforations, of the hinge-post mounted for sliding between the same and having cleats engaging said posts, a pivoted bar mounted on the hinge-post and overlapping the guide-posts, removable pins for insertion in the perforations below the ends of the bar, and a gate hinged to the post, substantially as specified.

2. The combination, with a gate-post and a gate, of opposite rock-shafts inclined toward each other, bearings for the same and an intermediate coupling, and a rock-arm projecting from one of the shafts and loosely connected with the gate, substantially as specified.

3. The combination, with a hinge-post and

a gate, of opposite rock-shafts inclined toward each other, bearings for the same and a loose connection for the ends of the shafts, a rock-arm projecting from one of the shafts, and a pitman having one end loosely connected with the rock-arm and the other with a gate, substantially as specified.

4. The combination, with a vertically-sliding hinge-post and means for adjusting the same and a gate pivoted thereto, of opposite rock-shafts loosely connected at their inner ends, bearings for the rock-shafts, an arm projecting from one of said shafts, a pitman having one end loosely connected with the arm and terminating at its opposite end in a hook, and a series of vertically-arranged staples or eyes on the gate for engaging said hook, substantially as specified.

5. The combination, with the sill, the opposite vertical posts having a series of perforations and the opposite inclined braces, of the intermediate sliding hinge-post loosely connected with said posts, a pivoted bar on the hinge-post and pins for insertion under the same and into the perforations, a gate hinged to the sliding post, posts arranged opposite the ends of the sill, bearings mounted on said posts and on the inclined braces, inclined rock-shafts mounted in the bearings and provided at their outer ends with cross-arms and with a loose connection at their inner ends, a rock-arm mounted on one of the shafts and resting normally in a notch formed in the adjacent inclined brace, an eye projecting at the end of the rock-arm and engaging a pitman having a similar eye projecting from its rear end, a hook projecting from the opposite end of said pitman, and a series of staples projecting from the gate, either one of which is adapted to engage the hook, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

CHARLES L. HUDLER.

Witnesses:

J. HOUSTON CHILDERS,
JOSEPH S. HARTMAN.