(No Model.)

B. HUCKEY.

SWINGING GATE.

No. 468,769. Patented Feb. 9, 1892.

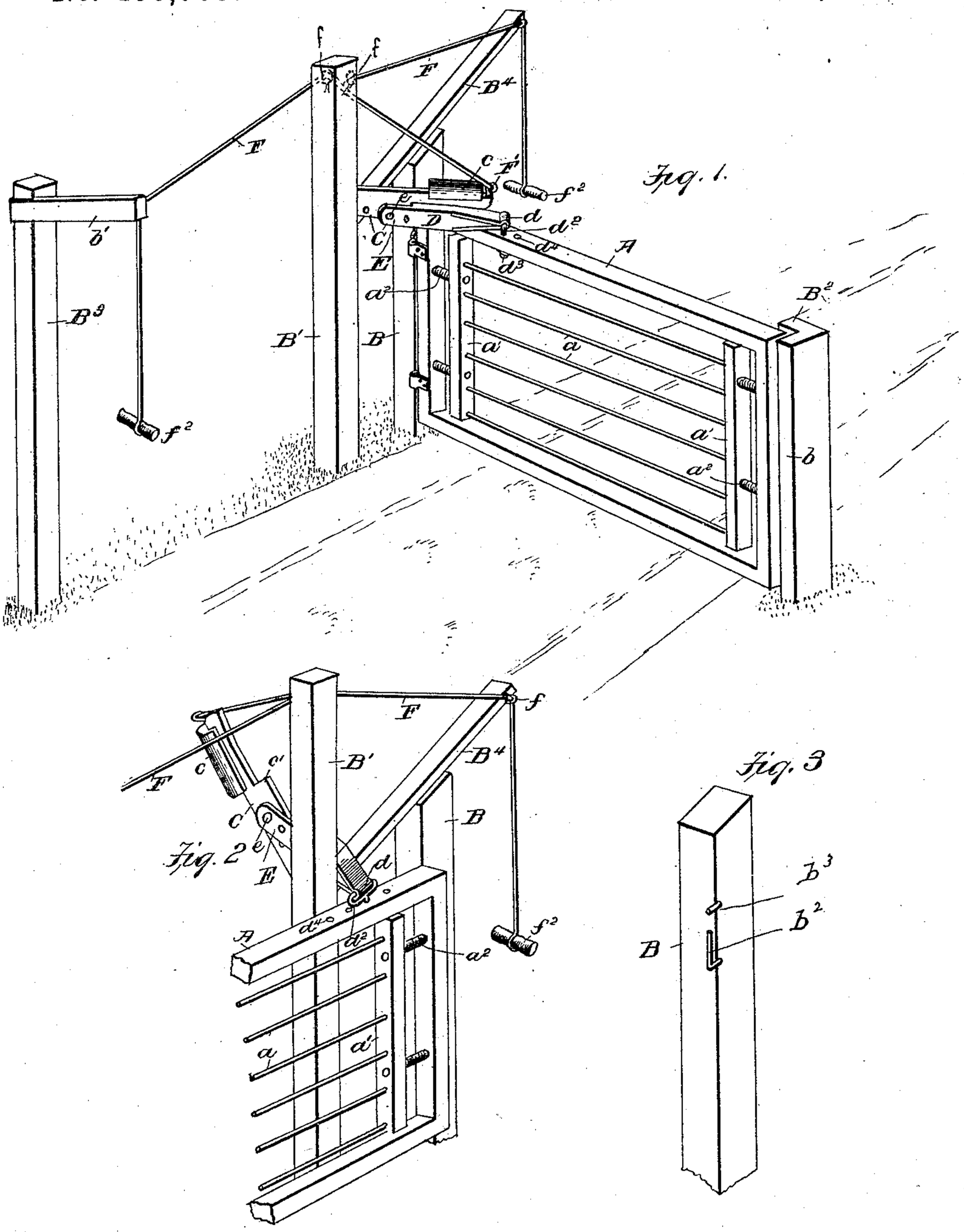

Fig. 1.

Fig. 2

Fig. 3

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UNITED STATES PATENT OFFICE.

BENJAMIN HUCKEY, OF GORIN, MISSOURI.

SWINGING GATE.

SPECIFICATION forming part of Letters Patent No. 468,769, dated February 9, 1892.

Application filed November 3, 1891. Serial No. 410,759. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN HUCKEY, a citizen of the United States, residing at Gorin, in the county of Scotland and State of Missouri, have invented certain new and useful Improvements in Swinging 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.

This invention relates to an improvement in swinging gates; and it consists in the peculiar features of construction and arrangement of parts more fully hereinafter described, and definitely pointed out in the claims.

The object of my invention is the provision of a self-locking swinging gate, which will be included in the class of gates known as "hand-openers," and to furnish means, in combination with the self-locking mechanism, for automatically holding the gate in an opened position. In carrying out this object—namely, the provision of self-locking means and means for automatically holding the gate in an opened position—I do away with the use of any locking or securing means between the gate and post against which it closes, the securing means between the gate and post against which it opens being indirect in the form of a lever and connecting-bar. These objects I accomplish by the construction illustrated in the accompanying drawings, wherein like letters of reference indicate like parts in the several views, and in which—

Figure 1 is a perspective of my gate, showing it in a closed position. Fig. 2 is a similar view showing it in an opened position, and Fig. 3 a detail view of the supporting-post for the gate.

In the drawings, A represents the frame of a gate, having the cross-wires a, which are secured at their ends to the auxiliary end bars a'.

a^2 are screws passing through the end bars of the frame A and into the auxiliary end bars a' and by means of which the said auxiliary end bars can be adjusted to tighten the wires. By this construction I provide means for keeping the gate tightly clamped together, which prevents sagging and misplacement of the opening mechanism.

B is a post to which the gate A is hinged and has a post B′ in close proximity thereto, against which the gate opens.

B^2 is a post having a flange b, against which the gate closes. I also provide a post B^3, having an arm b' extending out therefrom to support the actuating-cord.

B^4 is a diagonally-extending brace or support secured at one end to the post B′ and to the top of the post B. This brace extends to the opposite side of the gate from which the post B^3 is located.

C is a locking-lever, one end of which is loosely pivoted to the post B′ at a point at or about the plane of the top of the gate, the other end being provided with a weight c. The under side of the weighted end of the lever is formed with a shoulder or offset c', and is curved slightly downward from the offset to the end of the lever.

D is a connecting-rod having an eye d at one end thereof, preferably formed by a single piece of wide flat metal secured at its ends to the upper and lower faces of the rod.

d^2 is a flattened eye, which passes through the eye d, having a securing end d^3, which passes through a vertical opening d^4 in the top of the gate-frame A, thereby forming a swiveled connection between the connecting-rod and gate. One or more of these openings d^4 may be provided for the sake of adjustment. The object of the wide eye d^2 and the flattened eye d' is to prevent lateral rocking of the rod D, to allow the free end of the same to be vertically raised or lowered without binding by tipping sidewise, and to insure a direct interlocking of the parts. The opposite end of the rod D is bifurcated, forming the arms E E, between which the lever C is pivoted about midway of its length by a pin e, passing through the openings e' and e^2 in the lever C and arms E E, respectively. A number of these openings e' e^2 may be provided to allow of adjustment. The pivot-pin e is on the same plane or below the plane of the pivotal connections between the lever and post B′ and the connecting-rod and gate, so that when the gate is closed and the locking-lever and connecting-arm are in a locked position, as shown in Fig. 1, it would be impossible to open the gate without first raising the free end of the lever C or bending the joint. When the lever is in a locked position,

the curved under face thereof fits over the rod D, as shown in Fig. 1.

F and F are suitable operating-cords connected with the eye F′ on the weighted end of the lever, which pass through eyes *f* on the post B′, arm *b*′, and support B⁴, and have handles *f*² on the ends thereof.

The operation of my gate is as follows: A person desiring to open the gate gives one of the cords F a quick sharp pull, which throws the lever up and back to the position shown in Fig. 2, in which position the weight pulls the lever down, thereby holding the gate against the post B′. To close the gate, it is only necessary to give one of the cords F another sharp pull, which throws the upper end of the lever toward the post and past its center of gravity, after which the lever falls down to the position shown in Fig. 1, closing the gate. In this position the portion of the lever C between the pin *e* and the shoulder *c*′ fits between the arms of the bifurcated end of the lever and forms a rigid joint. In case the pivot-pin *e* bends or becomes misplaced by a heavy continuous pressure of the gate, the shoulder *c*′ forms an abutment for the same and holds the gate in its closed position. The arms E E also form a guide for the lever when the gate is being closed.

It will be seen that my device can be applied to any gate with but little expense and trouble, and it does away with the necessity of locks or latches, which are continually getting out of order or fail to make connections as the gate settles.

I am aware that many minor changes in the construction and arrangement of the parts of my device can be made and substituted for those herein shown and described without in the least departing from the nature and principle of my invention.

In Fig. 3 I have shown the hook *b*² on which the upper hinge is placed, which has directly above it a lug *b*³, located at a point to permit a slight vertical movement of the gate and yet retain the hinge on the hook. The gate is slightly raised as the locking-levers are thrown back, which decreases the friction of the hinges, thus facilitating the opening of the gate.

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

1. In a swinging gate, the combination, with the gate and a post situated near the hinged end thereof, of a locking-lever pivoted at one end to the post, a weight on the other end of the lever, a shoulder on the under side of the weighted end of the lever, a connecting-rod having a swiveled pivotal connection at one end with the top of the gate, and a bifurcated opposite end between which the lever works and to which the same is pivoted, and means for raising the free end of the lever, substantially as described.

2. In a swinging gate, the combination, with the gate and a post situated near the hinged end thereof, of a locking-lever pivoted at one end to the post, a weight on the other end of the lever, a shoulder on the under side of the weighted end of the lever, a connecting-rod having a wide eye *d* at one end thereof and a bifurcated opposite end between which the lever works and to which the same is pivoted, a flattened eye *d*², passing through the eye *d* and having a swiveled connection with the top of the gate, and means for raising the free end of the locking-lever, substantially as described.

3. In a swinging gate, the combination, with the gate and a post situated near the hinged end thereof, of a locking-lever pivoted at one end to the post, a weight on the other end of the lever, a shoulder on the under side of the weighted end of the lever, a connecting-rod having a swiveled pivotal connection at one end with the top of the gate and a bifurcated opposite end between which the lever works and to which the same is pivoted, means for raising the free end of the locking-lever, means for adjusting the connection between the lever and the connecting-bar, and means for adjusting the connection between the rod and the gate, substantially as described.

4. In a swinging gate, the combination, with the gate and a post situated near the hinged end thereof, of a locking-lever pivoted at one end to the post, a weight on the other end of the lever, a shoulder on the under side of the weighted end of the lever, a connecting-rod having a swiveled pivotal connection at one end with the top of the gate and a bifurcated opposite end between which the lever works and to which the same is pivoted at a point at or below the plane of the pivotal connections between the locking-lever and post and connecting bar and gate, and means for raising the free end of the locking-lever, substantially as described.

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

BENJAMIN HUCKEY.

Witnesses:
WILLIAM J. MURPHY,
J. T. JACKSON.