U. W. HARDY

Gate.

No. 85,306. Patented Dec. 29, 1868.

Fig. 1

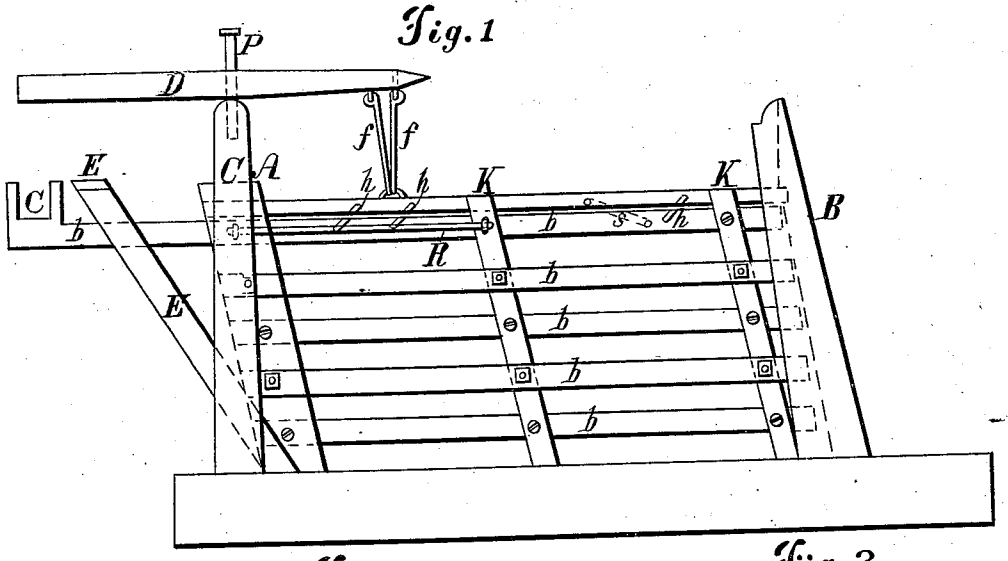


Fig. 4

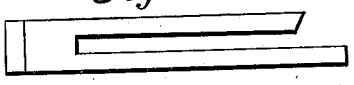


Fig. 3

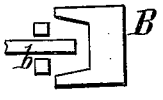
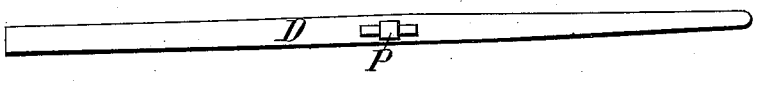


Fig. 2



Witnesses:
Oph Lee
Jno. L. Stevens

Inventor:
Ulrich W. Hardy

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

United States Patent Office.

URIAH W. HARDY, OF ABINGDON, ILLINOIS.

Letters Patent No. 85,306, *dated December* 29, 1868.

IMPROVEMENT IN GATES.

The Schedule referred to in these Letters Patent and making part of the same.

Be it known that I, URIAH W. HARDY, of Abingdon, in the county of Knox, and State of Illinois, have invented a new and useful Improvement in Gates; and I do hereby declare that the following is a full and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the gate and its attachments complete;

Figure 2, a view of the lever for opening the gate;

Figure 3, a sectional view of the bottom of the latch-post; and

Figure 4, a view of the guide-bar.

The nature of my invention consists in providing a gate of simple and cheap construction, and which, by means of a simple lever may be unlatched and opened by one motion, and may be closed in the same manner, and so constructed that it may be operated by a driver or a horseman, without dismounting, and may also be conveniently operated by footmen.

To enable others to make and use my invention, I will proceed to describe its construction and operation.

I construct my gate by attaching horizontal bars *b b*, (fig. 1,) to the inclined hinge-post A, and to the cross-bars *k k*, the horizontal bars alternating, on opposite sides of the post A and cross-bars *k k*, and I attach them at each point by bolts, with washers between to prevent friction, and I place the horizontal bars on alternate sides, to allow them to fold closely together when the gate is opened.

I construct the top bar *b* longer than the others, and extend it back through a slot in a guide-bar, (fig. 4,) and place at the end the weight *c*. The guide-bar, as shown in fig. 4, is attached at the foot of the hinge-post A, and is placed in an inclined position, the top being in front of the weight *c* when the gate is closed, and is held to its place by the braces E E, which extend from the lever-posts C.

At a proper distance from the gate on opposite sides, I place two posts C, in a vertical position, and opposite the top of the hinge-post A. To the top of these posts I attachl the levers D, (fig. 2,) by means of a bolt or pin, *p*, and pace them at nearly right angles with the gate, with the inner ends over the gate. I attach the latch-bar L to the top bar of the gate, by means of the pivot-hinges *h h h*. I connect the inner ends of the levers D to the latch-bar, by means of the rods *f f*, one attached to the end of each lever. I make the latch-post B with a groove for the gate to drop into, to hold the gate firm.

The latch-post is also placed in an inclined position, corresponding with the hinge-post A, in order that the gate, when opened, may stand perpendicular.

The groove of the latch-post is shown in fig. 3, and also the bottom bar of the gate, which passes between two stakes or blocks, which I place at the foot of the post B, to hold the gate when closed. I attach to each of the lever-posts C, rods, which extend from the lever-posts to about the middle of the gate, and are attached to the cross-bar *k*, as shown at R, which are so attached, that they will rise and fall with the gate, and which will hold the gate to its proper position, and guide it with certainty into the groove in the post B. These rods, when used, supply the place of the guide-bar, fig. 4, which may then be dispensed with, and either or both may be used.

The latch-bar L is held forward into the mortise in the post B, by means of any ordinary spring.

To operate the gate, the driver, on approaching it from either side, grasps the lever D, and by pulling down upon it, the latch-bar L is drawn back by the combined action of the pivot-hinges *h h h* and the rod *f*, and the gate is thus unlatched and raised by the same motion and power, and when the gate has been raised to about an angle of forty-five degrees, the weight *c* being properly adjusted, carries the gate to a vertical position, and the ends of the levers D will then rest against the top of the gate. Having passed to the opposite side, to close the gate the driver grasps the end of the opposite lever D, and by pushing it from him, the gate is pressed down until it overcomes the weight *c*, and falls into the groove in the latch-post, and the spring throws the latch forward into the mortise, and thus the gate is closed and latched.

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

1. The manner of attaching the horizontal bars *b b b* to alternate sides of the post A and cross-bars *k k*, with bolts and washers to prevent friction, in such a manner that they will fold closely together, and making the hinge-post A supply the place of a cross-bar to the gate, and the rod R, and guide-bar, (fig. 4,) all operating in combination, substantially as described and for the purpose set forth.

2. The combination and arrangement of the levers D D, the rods, ropes, or chains, *f f*, the latch-bar L, the hinges *h h h*, and the rod R, acting with a proper adjustment of the weight *c*, substantially as described and for the purposes set forth.

URIAH W. HARDY.

Witnesses:

O. F. PRICE,

JNO. C. STEWART.