

UNITED STATES PATENT OFFICE.

JOHN W. HARVEY, OF FARLEY, IOWA.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. **195,273**, dated September 18, 1877; application filed July 23, 1877.

To all whom it may concern:

Be it known that I, JOHN W. HARVEY, of Farley, in the county of Dubuque and State of Iowa, have invented a new and Improved Gate, of which the following is a specification:

This invention relates to gates which, when opened, will close by their own gravity; and the nature of my invention consists mainly in a foot-plate for a swinging gate-post having a convex bottom and crossed slots through it, in combination with studs on a post driven into the ground, which studs enter the said slots and keep the gate in proper position, as will be hereinafter explained.

In the annexed drawings, Figure 1 is a side elevation of my improved gate. Fig. 2 is a top view, and Fig. 3 a bottom view of the slotted foot-plate.

Similar letters of reference indicate corresponding parts.

The letter A designates the post to which the gate is pivoted, B, the post to which the gate is latched when shut, and C the swinging post to which the gate bars are secured. The horizontal gate-bars are bowed, as shown in Fig. 2, and their ends are mortised into vertical bars D D', thus giving to the gate stiffness, strength, and lightness. The bar D is free to slide vertically between two plates, a a, which are bolted to the sides of the swinging post C, and the upper end of this bar is connected to the lower end of the bar D' by means of a diagonal brace, b, which prevents the gate from sagging. E designates a lever which is pivoted to the post C, and connected to the gate by a pin and slot, c, so that a person can raise the gate bodily with very little exertion. This allows the gate to be opened and shut over snow-drifts. G designates a block, which is firmly fixed into the ground at the foot of the post A, and which has an inclined surface from which rise two pins, e e, that

may have anti-friction collars applied on them. On this block G is supported a metal slot, J, which is rigidly secured to the lower end of the swinging post C, and formed with a convex bottom, and also with two curved slots, g g, that intersect each other in the form of the letter X. These slots receive the pins e e, and when the gate is opened either way it will be caused to slant in such direction that it will swing shut by its own gravity. The upper end of post C is pivoted to a bracket, f, on post A, so as to swing freely. The latch L is a flat strip applied to slide through the bar D', and constructed with a double-beveled end in which a notch is made to receive a rod, h, fixed to post B. A spring, s, holds the latch engaged with the catch-rod h. Instead of this fastening device any of the self-acting kind may be adopted.

I do not claim a gate whose pivot-post is stepped in a slotted bearing, since I am aware such bearing has been employed to cause a gate to unlatch automatically when its pivot-post is thrown out of a vertical position.

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

In combination with the fixed pivot-bearing f and the fixed block G, having the two studs or pins e, the gate provided with the shoe J attached to the lower end of post C, and having the two slots g g, each extending backward and crossing the other, as shown and described, whereby, when the gate is opened, it turns and bears against that one of the pivot-pins e that is adjacent to the side toward which the gate turns, so that the latter will swing shut by its own gravity, as set forth.

JNO. WESLEY HARVEY.

Witnesses:

J. J. WILSON,
S. A. GOODALE.