L. WILKINS.
Gate.

No. 219,789. Patented Sept. 16, 1879.

FIG. 1.

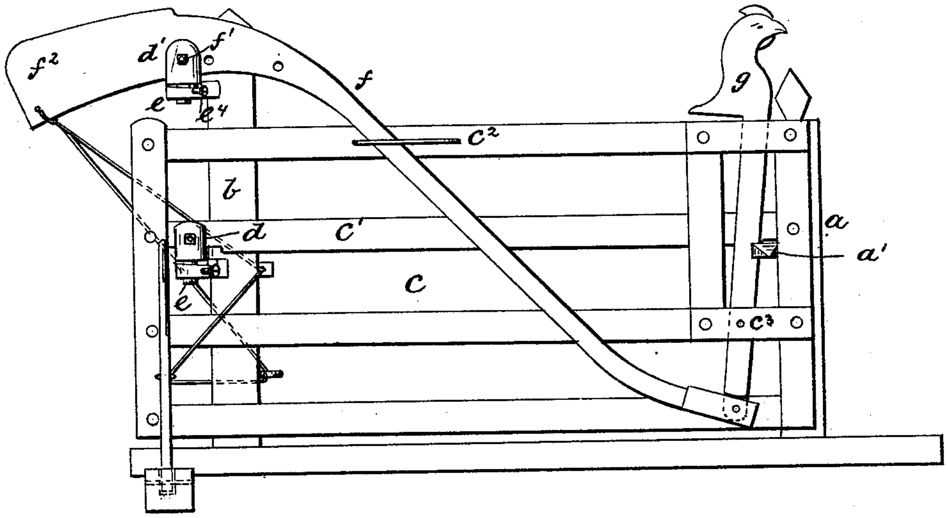


FIG. 3.

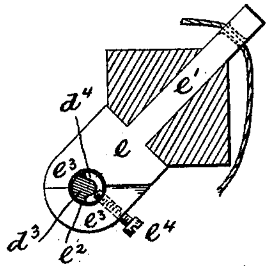


FIG. 2.

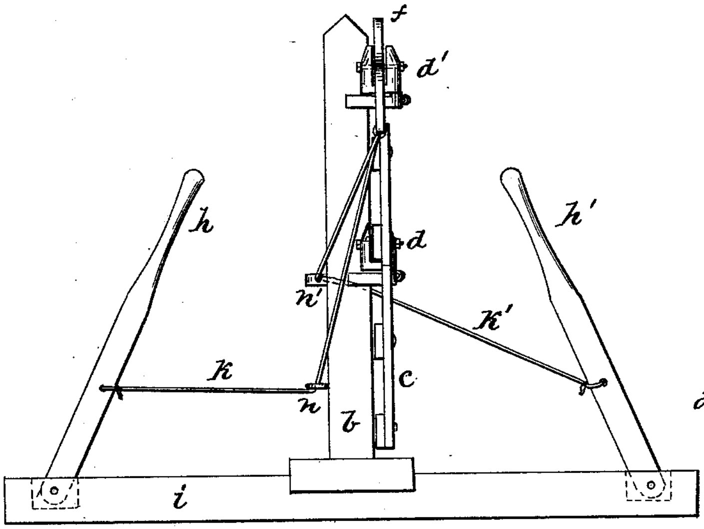
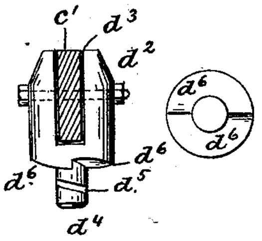


FIG. 4.



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LEVIN WILKINS, OF MAYSVILLE, MISSOURI.

IMPROVEMENT IN GATES.

Specification forming part of Letters Patent No. **219,789**, dated September 16, 1879; application filed July 31, 1879.

To all whom it may concern:

Be it known that I, LEVIN WILKINS, of Maysville, in the county of De Kalb and State of Missouri, have invented certain new and useful Improvements in Gates; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention has for its object the improvement in the method of opening farm-gates; and it consists in the peculiar construction and arrangement of the operating mechanism hereinafter fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a side elevation of a gate constructed according to my invention. Fig. 2 is a rear end elevation of the same. Figs. 3 and 4 are detail views of the hinges.

a is the post against which the gate closes. It is provided with a spring-catch, a', which fastens the gate when the latter is closed.

b is the post to which the gate is hinged. Its top extends above the top of the gate *c*, so as to provide facilities for attaching parts of the mechanism of my improvements.

The gate *c* is of ordinary form, and is made longer than the distance between the two posts *a* and *b*, so that its rear or hinged end extends beyond the post *b*, and when opened the said rear end turns behind the said post *b*, leaving the passage-way between the two posts entirely clear, and puts the gate out of the way of injury by a passing vehicle.

d d^1 are the hinges composed of the heads d^2 and the sockets *e*, on which the gate and operating mechanism are hung. They are inserted diagonally into the post *b* from one of the rear angles of the latter, so that the gate when closed, will rest against one of the sides, at right angles to the carriage-way, and, when open, will rest against the rear side thereof, parallel with the carriage-way. The gate is supported on the single hinge *d*, which is fastened to the rear end of one of the middle bars, c^1.

The heads d^2 are constructed with slots or mortises d^3, in which the rear end of the board c^1 and the end of the lever *f* are secured. They are also provided with short central stems or shanks, d^4, in which are the inclined slots d^5, and are constructed with the inclined planes or cam surfaces d^6 d^6 on the under ends, as shown.

The under part or socket-bar, *e*, of the hinge is provided with the ordinary shank e^1, which is driven into the post and has a socket, e^2, which receives the stem d^4, and is formed with inclined or cam surfaces e^3 corresponding to the surfaces d^6, and is provided with a retaining-screw, e^4, the point of which may be turned into the inclined slot d^5 and hold the head d^2, so that it cannot be withdrawn, and so that it will turn freely as the gate is opened or closed. The slot d^5 is made of the same inclination with the cam-surfaces d^6.

The gate, when opened, is elevated by the cam-surfaces, and when released will automatically swing shut by the action of said cam-surfaces.

f is a lever of peculiar form and arrangement. Its forward end is secured to the lower end of the latch-bar *g*, at or near the lower corner of the front or free end of the gate *c*, from its point of attachment with the bar *g* is extended diagonally upward and across the face of the gate through a loop, c^2, and backward over the top of the rear end of the said gate, and is secured by a bolt, f^1, in the slot in the head-piece of the upper hinge, *d*, which is driven into the post *b*, above the top of the gate, as shown. It is secured in the upper hinge, d^1, so that it will turn slightly on its pivot f^1. Its rear end, f^2, extends beyond the rear end of the gate, so as to provide ample lever-power for raising the front end of the gate, as hereinafter explained. The latch-bar *g* is pivoted at c^3 to the gate, below the catch a'.

h h' are the levers for opening the gate. They have their lower ends pivoted to posts set in the ground or to a sill, *i*. They are set outward from the post *b*, in a line parallel with the carriage-way, within easy access by the person desiring to open the gate. Attached to these levers are the ends of two cords, k k'. These other ends of these cords are carried