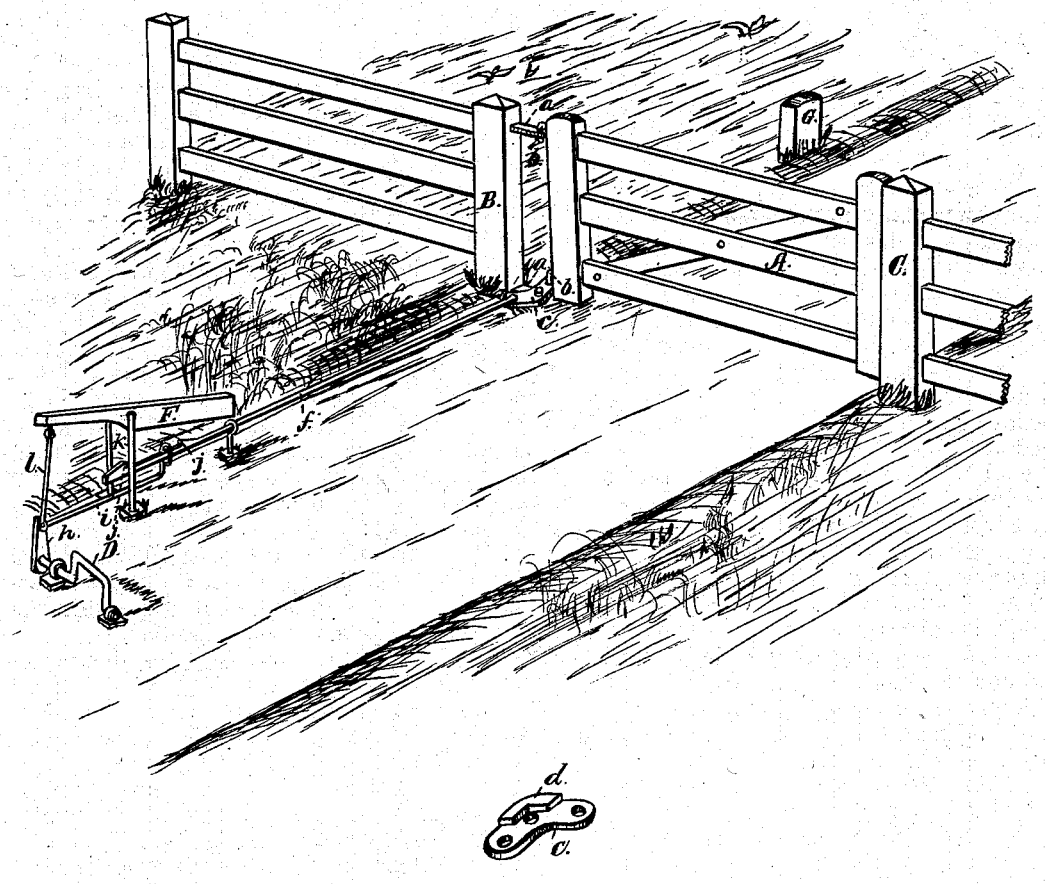
E. J. COLER.

AUTOMATIC GATE.

No. 186,415. Patented Jan. 23, 1877.



Witnesses;
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UNITED STATES PATENT OFFICE.

ELIJAH J. COLER, OF DAYTON, OHIO.

IMPROVEMENT IN AUTOMATIC GATES.

Specification forming part of Letters Patent No. **186,415**, dated January 23, 1877; application filed September 8, 1876.

To all whom it may concern:

Be it known that I, ELIJAH J. COLER, of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Automatic Gates; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to that class of automatic gates which are opened and closed by the wheels of carriages passing over levers connected to the operating mechanism.

My improvements consist in the arrangement and general structure of the devices for actuating the gate, as will be herewith described and specifically claimed.

To enable others skilled in the art to which my invention appertains to make and use the same, I would thus proceed to describe it, referring to the accompanying drawing, in which the figure represents, in perspective, the application of my invention.

A represents any ordinary roadway-gate, closing the passage between the swinging-post B and the shutting-post C. It is hung as follows: Gate-hooks *a* are driven at the top and bottom into the post B, as seen, and the leaf *b* at the top is secured in the usual way. Upon the bottom hook is pivoted horizontally the bell-crank lever *c*. (Shown in reversed position just under the figure.) This lever has on its bottom a right-angular shoulder, *d*, which, abutting against the sides of the hook *a*, limits the movement of the lever. The lower part of the gate is hung in one end of the lever *c*, as represented. From the other end of the lever a rod, *f*, extends along the side of the roadway, and is held in a bearing-post, *g*, of any convenient description. D is the single-wheel lever or trip, made in the usual way, and pivoted in the roadway, as shown. Upon its outer arm is keyed a crank, *h*, from whose top extends a rod, *i*, having at its end a loop encompassing the rod *f* at a portion where it is slotted to form shoulders *j*, for the loop to act against in opening and closing the gate. F is a wooden or metal bar, pivoted between standards *k*, over the end of the rod *f*. The rear end of this bar is united to the top of the crank *h* by a rod, *l*, and the bar serves as a weight to retain the lever or trip D always in a vertical position, as represented.

When the wheels of a vehicle approaching the gate pass over the lever D, it is pressed forward and flat, causing the loop of the rod *i* to press against the shoulder *j*, or equivalent device upon the rod *f*, and force it forward. By thrusting this rod forward the lever *c* is turned, carrying with it the lower part of the gate until it is out of a vertical plane, and thrown into a position which will cause it to open by its gravity, and be stopped by the post G. Upon passing the trip, the bar F, by its weight, throws the lever into a vertical position, in readiness for the next vehicle. A spring might be used to perform the same office, though I prefer the bar.

The gate may be closed by the same mechanism on the opposite side.

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

1. The rod *f*, having its rear end slotted or provided with shoulders or stops *j*, in combination with the connecting looped rod *i*, crank *h*, and rod *l*, whereby, after opening or closing the gate, the bar F may return the trip-lever to a vertical position, substantially as and for the purpose specified.

2. The combination and arrangement of the trip-lever D, crank *h*, rod *l*, bar F, rods *i* and *f*, lever *c*, and gate A, the whole constructed substantially as and for the purpose specified.

Witness my hand this 1st day of September, A. D. 1876.

ELIJAH J. COLER.

Witnesses:

CHAS. M. PECK,

WM. RITCHIE.

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