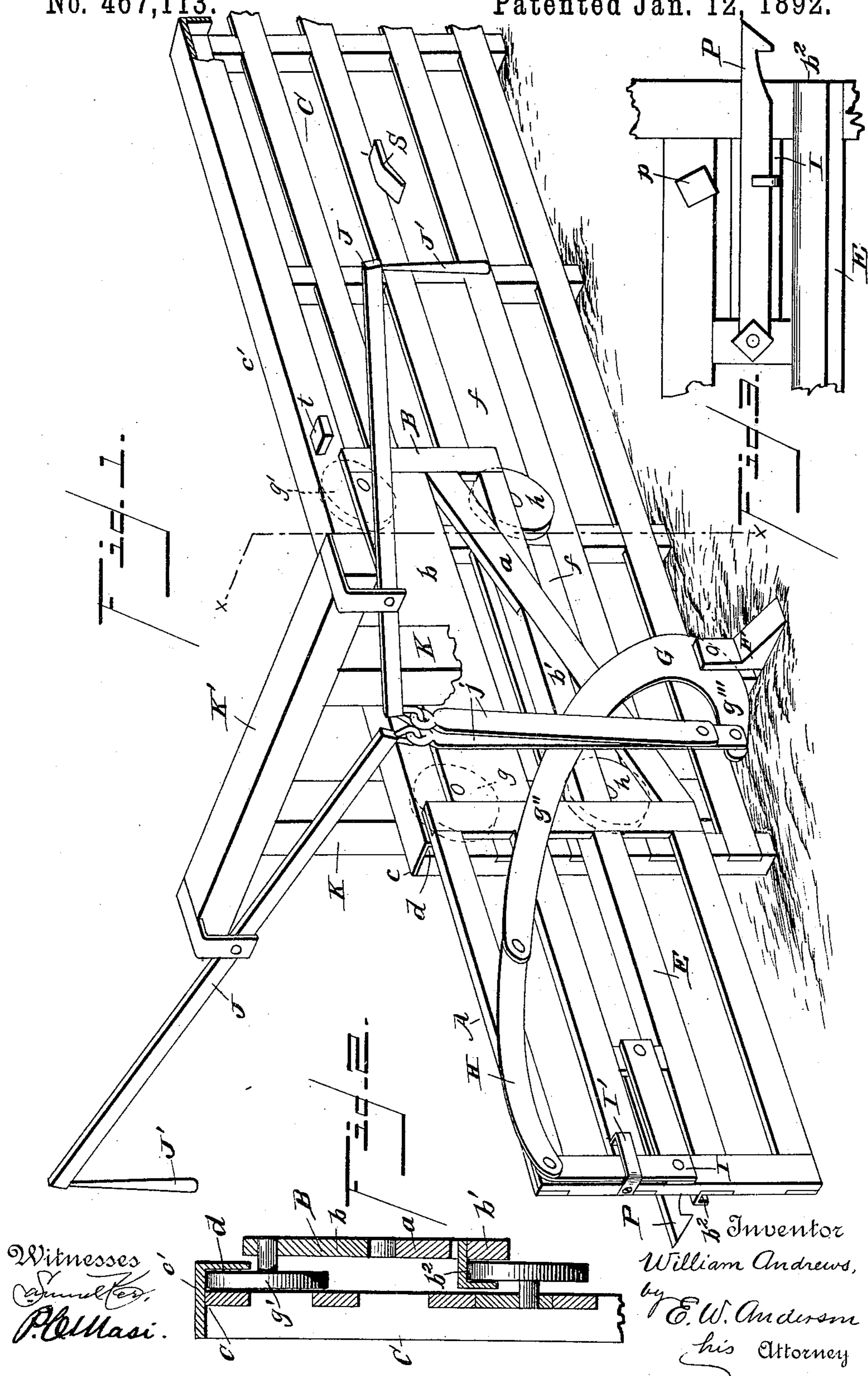


(No Model.)

W. ANDREWS.
FARM GATE.

No. 467,113.

Patented Jan. 12, 1892.



UNITED STATES PATENT OFFICE.

WILLIAM ANDREWS, OF DECATUR, ILLINOIS, ASSIGNOR TO PERMELIA A. ANDREWS, OF SAME PLACE.

FARM-GATE.

SPECIFICATION forming part of Letters Patent No. 467,113, dated January 12, 1892.

Application filed September 17, 1891. Serial No. 406,026. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ANDREWS, a citizen of the United States, and a resident of Decatur, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in Farm-Gates; and I do 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of the invention, and is a perspective view. Fig. 2 is a transverse section on line *xx*. Fig. 3 is a detail view.

This invention has relation to certain new and useful improvements in farm-gates, the object being to produce a cheap, strong, and easily-operated gate that may be opened and closed from a vehicle without dismounting and in which the rollers on which the gate moves are effectually protected from the weather; and the invention consists in the novel construction and combination of parts, as hereinafter specified.

In the accompanying drawings, the letter A designates a gate, which may be, generally, of any suitable construction, and provided at its rear end with the extension B, comprising the upper wide plate or bar *b*, the lower bar *b'*, parallel with plate *b*, and a suitable diagonal brace *a*.

C designates the adjoining fence-section, on which the gate is hung. The top rail *c* of said fence is provided with the longitudinal groove *d* therein, in which travel the rollers *g g'*, journaled on pivot-studs carried on the inner face of the bar or plate *b*. The top rail or board *c* has a broad horizontal portion *c'*, and the vertical portion is overlapped by the plate *b*, so that the rollers *g g'* are entirely protected from the weather, both when the gate is open and when it is closed, the length of the top plate being equal to the combined length of the gate and its extension.

h h are lower rollers which are journaled on studs carried by the lower fence-boards *f* and which are traveled by a longitudinal groove or guard *b²* in the bar *b'* of the extension

and in the corresponding gate-rail *e*. These rollers are protected by the fence-board *f*, which is made of considerable width, or an extra board provided, and by the upper portion of the bar *b'* or of the rail *e*.

It will be seen from the above that the upper rollers travel with the gate, while the lower ones remain stationary, although I do not wish to confine myself to this location and arrangement of said rollers.

The operating mechanism will now be described.

F is a short post held in the ground or bed-plate near the end of the fence-section, and has pivoted therein a bell-crank or U-shaped lever G, one arm of which is of greater length than the other, and the pivotal point is at the bend uniting the two arms. To the upper end of the longer arm *g²* is connected one end of a link H, the opposite or forward end of which is connected to the vertical arm of an angle-lever I, the rear end of the horizontal arm of which is pivoted to the gate. The play of this lever is limited by the keeper I', through which the vertical arm passes.

K K are two posts, one on either side of the forward portion of the fence-section, and which project some distance above the gate. Supported by these posts is a cross-head K', near each extremity of which is pivoted an operating-lever J. To the inner adjoining ends of each of these levers is connected one end of a link *j*, the opposite ends of which are connected to the short arm *g³* of the U-lever. The outer or long arms of the levers J extend into position to be operated from a vehicle approaching the gate, and may each have a downward arm or rod J' for convenience of operation. When the gate is open, the U-lever occupies a substantially vertical position. The long arm of either lever J being raised, the short arm of the U-lever is depressed by the corresponding link *j* throwing the long arm forwardly. This movement, by means of the link H, throws forward the vertical arm of the angle-lever I, which, bearing against its keeper, throws the gate forwardly and closes it. To open the gate, the long arm of either lever J is depressed, the operation of the parts being the reverse.

P is a pivoted latch arranged to automati-

cally catch when the gate is closed. This latch rests in a hook or keeper *p*, carried by the horizontal arm of the angle-lever *I*, so that when the lever *J* is operated to open the gate the rearward throw given the vertical arm of said angle-lever raises the horizontal arm and lifts the latch out of engagement with the lock on the post. The upward throw of the latch may be limited by a stop *p'*.

The backward movement of the gate is limited by the stops *t* and *t'*. The bar *b'* of the extension, when the gate is opened, is guided by and rests on the projection *S*.

The various pivotal points are so arranged that it is impossible to strike a position or "dead-center" where they will not operate.

Instead of the two posts *K K*, but one may be used to support the cross-head.

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

1. The combination, with the gate and its rollers, of the **U**-lever, its link-and-lever connection with the gate, the operating-levers, and their connections with the **U**-lever, substantially as specified.

2. The combination, with the gate and its support, said gate being capable of a longitudinal sliding movement, of the **U**-lever, the link connecting one of its arms with an angle-lever on the gate, the operating-levers, and their link connections with the opposite arm of said **U**-lever, substantially as specified.

3. The combination, with the gate and its

rollers, of the operating-levers, the **U**-lever pivoted in a short post, the links connecting said operating-levers with the short arm of said **U**-lever, the angle-lever pivoted to the gate and its keeper, and a link connecting one arm of said lever with the long arm of the **U**-lever, substantially as specified.

4. The combination, with a gate sliding on a pair of stationary and on a pair of movable rollers, the gate and its supporting fence-section being arranged, respectively, to form closures for said rollers, of the **U**-lever, its link-and-lever connection with the gate, the operating-levers, and their connections with said **U**-lever, substantially as specified.

5. The combination, with the sliding gate, its operating-levers, the **U**-lever pivoted in a short post, the links connecting one arm of said **U**-lever with said operating-levers, and the angle-lever pivoted to the gate and connected by a link with the other arm of said **U**-lever, of the automatically-locking latch having a connection with an arm of said angle-lever, whereby it is thrown from engagement with the lock when the operating-levers are operated to open the gate, substantially as specified.

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

WILLIAM ANDREWS.

Witnesses:

JOHN S. ERWIN,
JOHN PHELAN.