

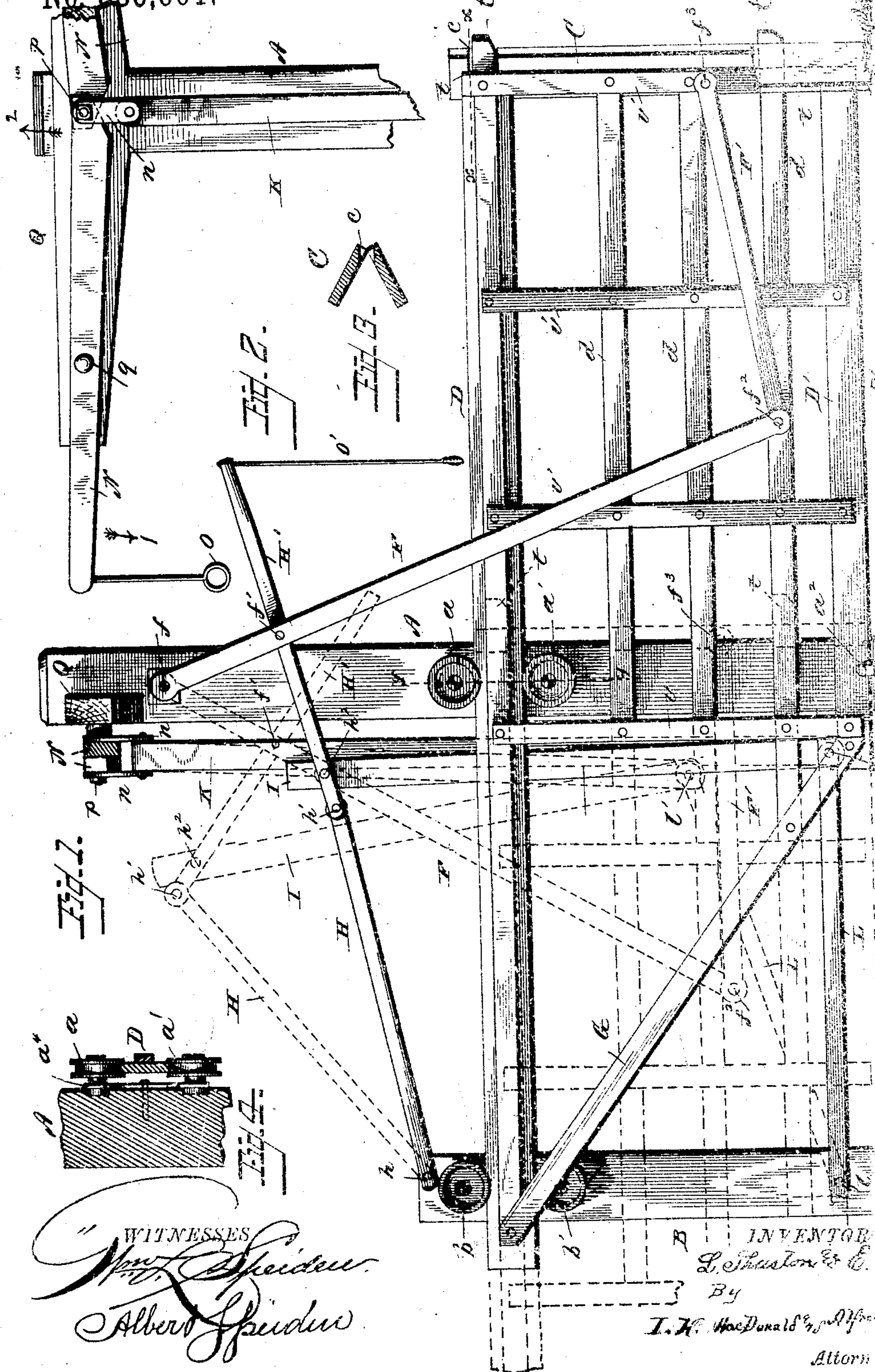
(No Model.)

L. THUSTON & E. R. CHASE

SLIDING GATE.

No. 336,601.

Patented Feb. 23, 1886





## UNITED STATES PATENT OFFICE.

LYCURGUS THUSTON AND EDWIN R. CHASE, OF FINDLAY, OHIO.

## SLIDING GATE.

SPECIFICATION forming part of Letters Patent No. 336,601, dated February 23, 1886.

Application filed November 18, 1884. Serial No. 149,269. (No model.)

*To all whom it may concern:*

Be it known that we, LYCURGUS THUSTON and EDWIN R. CHASE, citizens of the United States, residing at Findlay, in the county of Hancock and State of Ohio, have invented certain new and useful Improvements in Sliding Gates, of which the following is a specification, reference being had to the accompanying drawings.

Our invention relates to improvements in sliding gates actuated by suspended levers.

The invention consists in the novel combination of the several parts, as will be hereinafter more specifically set forth in the specification, and pointed out in the accompanying drawings, in which—

Figure 1 is a side elevation of our improved gate, and Fig. 2 a detail elevation of the suspended levers and pivoted lifting-posts; Fig. 3, an end section of the V-shaped post; and Fig. 4 a section on line *y y*, Fig. 1.

Referring more particularly to the drawings, the central or main gate-post, A, has secured to it at a suitable distance from the ground two rollers, *a a'*. The end post, B, has two corresponding rollers, *b b'*. The opposite or gate-holding post, C, is made V-shaped and provided with two beveled grooves or slots, *c*, to receive the tongues *t* of the gate.

The gate consists, essentially, of an upper and lower bar, D D', with the intermediate bars, *d*, and the vertical bars *v v'*. The upper bar extends entirely across the space between the posts B and C. The lower bar, which is raised above the ground, is supported upon a guide-bar, *a'*, which may also have a small roller placed thereon for the lower bar to roll on. Two lifting-bars, I K, are pivotally secured at their lower ends to a bar, L, pivotally secured to post B at *l*. The upper end of the lifting-bar K is pivoted to the links *n*, also pivoted to the levers N, said levers N being pivotally secured to the cross-bar Q at points *q*. The upper end of the lifting-bar I is pivotally connected to the lever II'. A lever, F, extends upward from the gate-frame to the post A and is pivoted at its upper end to the post at *f*. The lower end of this lever is pivoted to the lever F' at *f'*, this latter lever, F', being pivoted to the vertical bar *v'* at *f'*. A lever, H, is pivotally secured at one end to

post B at *h*, the opposite end being pivoted to the lever H' at *h'*, and said lever II' is also pivoted to bar I at *h'* and to lever F at *f'*. A bar, G, extends diagonally across the space between posts A and B, so as to brace and hold the gate firmly. The space between posts A and B may be closed by any suitable framework secured to said posts or placed inside of the inclosure between posts A and B, so as to effectually keep out stock, &c.

The rollers *a a'* and *b b'* may be cast on a frame, *a'*, Fig. 4, which may be bolted to the posts A B. The gate, as shown in full lines, Fig. 1, is in its normal or closed position, while the dotted lines, same figure, show the movable parts in open position.

The gate being closed, as set forth, and it being desired to open it, it is only necessary to pull down either lever N by means of the suspended catch O. The outer end of the lever moves down in the direction of arrow 1 and the inner ends move up in the direction of arrow 2. Now, as the bar K is secured to links *n* on levers N, it is evident that as the inner ends of said levers are raised the bar K must also be raised, and as the lower end of this bar K is pivoted to the bar I this bar I must also rise as bar K rises. Again, as bar I rises, the lever II', pivoted thereto at *h'*, must also move upward at its inner end, as indicated in dotted lines; but this lever II' is also pivotally secured to lever F at *h'*, and the upward movement of said bar I must cause a downward movement of the outer edge of lever II', and as it is pivoted to lever F at *f'* this downward movement tends to bring lever F to a vertical and then to pass the vertical into the position shown in dotted lines, and this movement of lever F, through the intervention of lever F', pivoted thereto and secured to the gate-frame, tends to throw the gate back or to open it. Having passed through the gate, and desiring to close it from the other side, it is only necessary to push up the corresponding catch-bar on the opposite side, and the parts resume their normal or closed position.

The levers N are for the convenience of horsemen or persons in vehicles, and as they are too high for persons on foot we provide the catch-bars O' on the end of the lever II',



which, being pulled down or pushed up, act in the same manner as pulling down or pushing up the levers N. These arms extend sufficiently on each side of the gate to enable it to be easily and quickly manipulated. When the gate is closed from its open position, the tongues *t* glide easily and smoothly into the beveled opening *c* in post C, so that no matter if the wind be blowing, the tongues, as they strike the bevel of the opening in the post, move directly into them, and this is greatly aided by the V shape of the post C. The posts may be of stone, wood, or metal, as desired.

The gate sliding as it does is not affected by snow or mud in its movements, and, when constructed as described, can be readily placed in position. As there are no hinges, tenoning, or mortising, the parts of the gate are not easily affected by the action of the weather.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination, with the gate and the posts A B C, of the lifting-bars pivoted to each other and to the bar L at their lower ends, one of said bars, K, being pivotally connected at its upper end with links pivoted to levers N on the main post A, the other lifting-bar, I, being pivoted at its upper end to a lever, H', which in turn is pivoted to a lever, H, secured at one end to post B, the lever H' being also pivoted to a lever, F, one end of which is pivoted to the main post and the opposite end pivoted to a lever, F', secured to the gate, substantially as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

LYCURGUS THUSTON.  
EDWIN R. CHASE.

Witnesses:

ALFRED GRABER.  
ORIN A. BALLARD.