

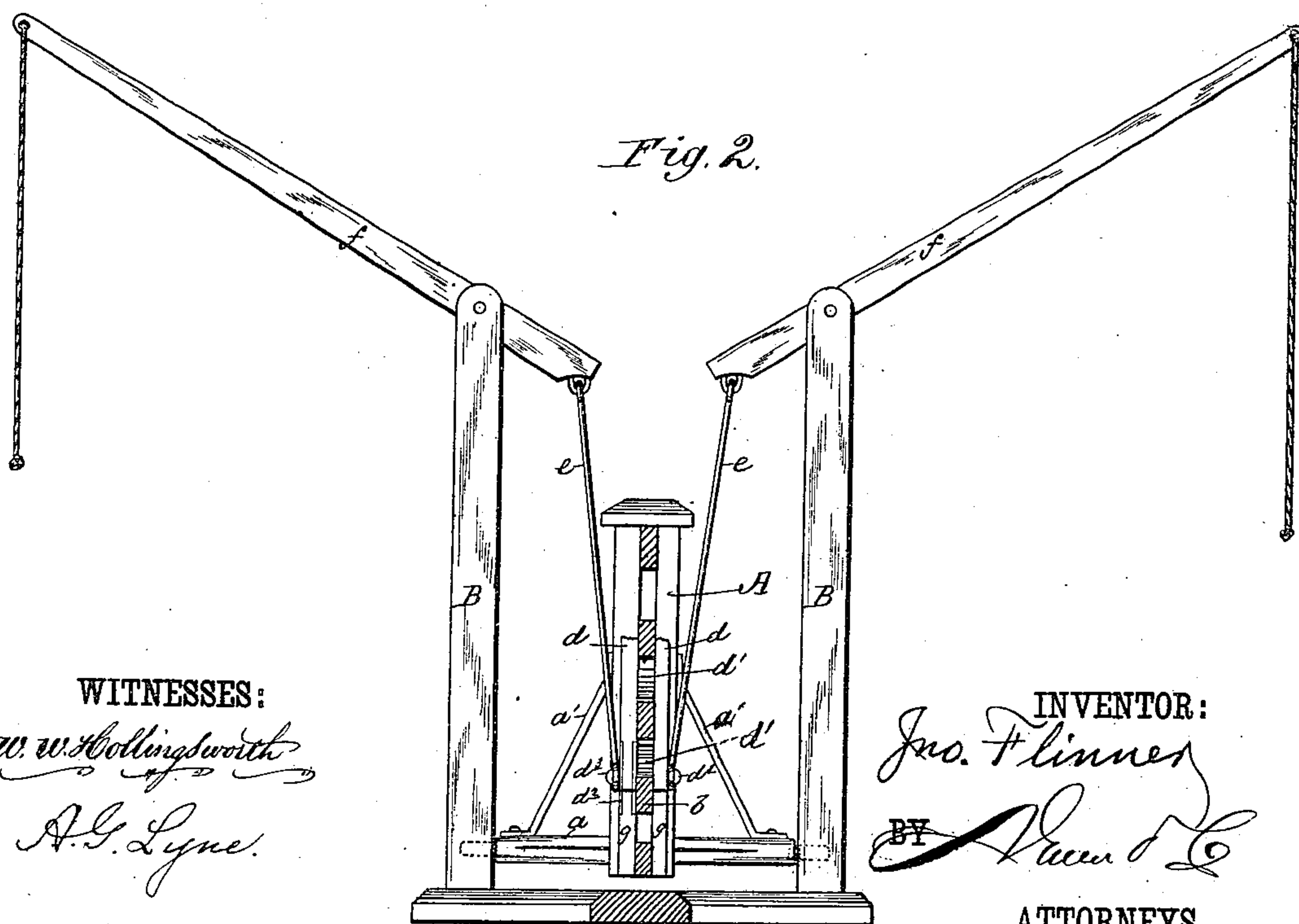
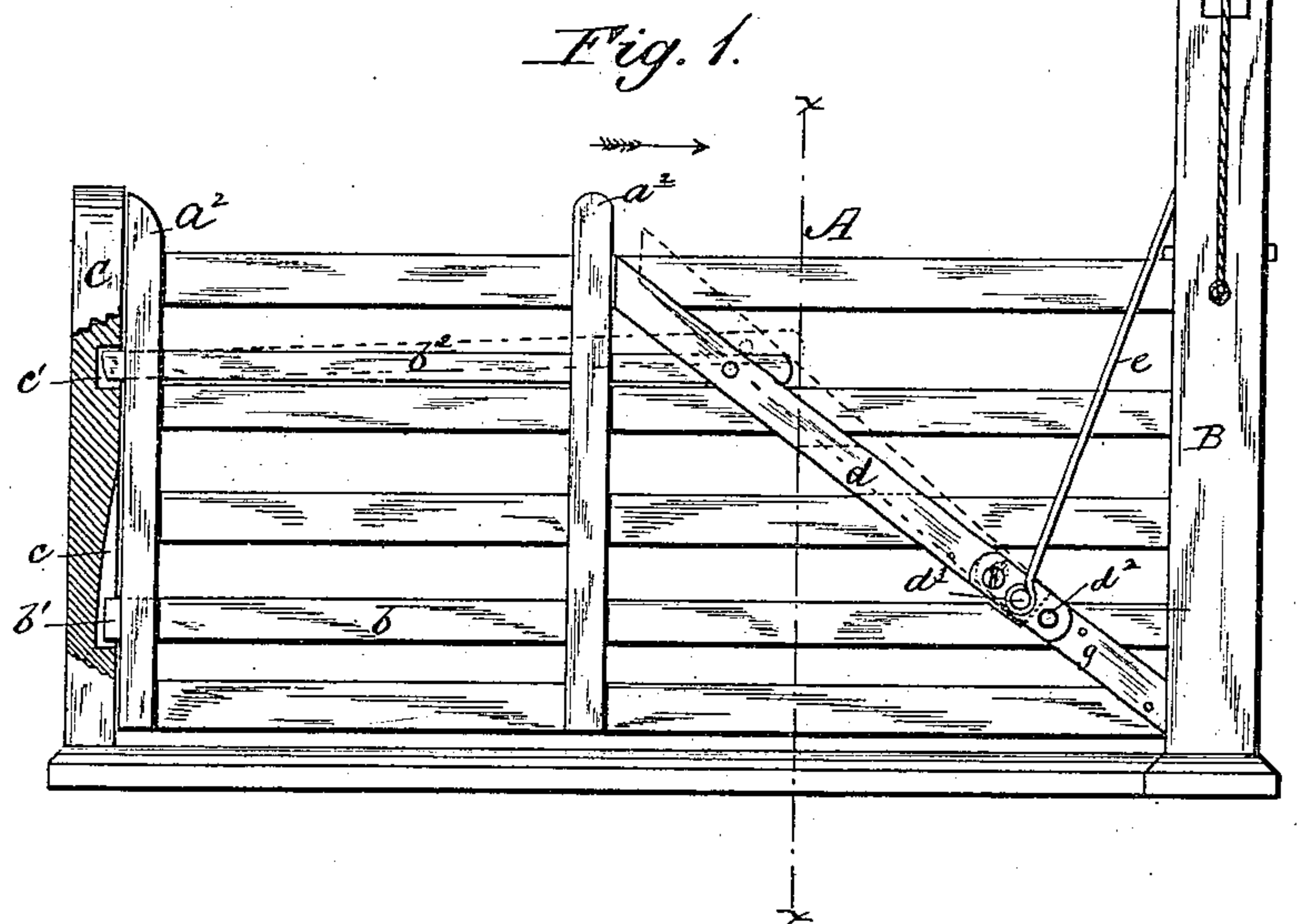
(No Model.)

J. FLINNER.

GATE.

No. 246,112.

Patented Aug. 23, 1881.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN FLINNER, OF MILLERSBURG, OHIO.

## GATE.

SPECIFICATION forming part of Letters Patent No. 246,112, dated August 23, 1881.

Application filed June 23, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN FLINNER, of Millersburg, in the county of Holmes and State of Ohio, have invented a new and useful Improvement in Vertically-Swinging Gates, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

10 Figure 1 is a side elevation of the gate, with the gate-post partly in section; and Fig. 2 is a vertical section through the line  $x x$  of Fig. 1, looking in the direction of the arrow.

15 The object of my invention is to combine with a vertically-swinging gate a suitable latching device adapted to be operated by the lifting-rods and the levers by which the gate is raised.

20 My invention consists in a gate having a stationary latch near the bottom of its swinging end and a sliding latch near the top of same end, in combination with a recessed gate-post and suitable mechanism for operating the sliding latch and raising the gate.

25 In the accompanying drawings, A represents the gate, which is supported at its pivotal end by means of a cross-bar,  $a$ , whose ends are journaled in suitable bearings in the lever-post B. Iron stay-rods  $a'$ , which are secured to the upper surface of the cross-bar  $a$ , near its ends, 30 and to opposite sides of the said end of the gate at a suitable point near or above the center, serve the purpose of supporting the gate in a vertical position. The advantage of this arrangement over the guide-posts, between which such gates are usually pivoted, is that greater strength, with a corresponding diminution of friction, is secured than where the usual small pivot-rod is used.

40 One of the lower bars  $b$  of the gate is made to project beyond the free end of the gate to form a stationary latch,  $b'$ , which sinks into a longitudinal recess,  $c$ , in the gate-post C as the gate is lowered to a closed position. The recess  $c$  increases in depth from top to bottom to correspond with the arc described by the end of latch  $b'$  as the gate is raised or lowered, and the bottom of the recess serves as a rest for supporting the free end of the gate by means 50 of said latch.

Between the two topmost bars of the gate,

and resting upon the upper surface of the second from the top, is a sliding latch,  $b^2$ , which is made to move between the upright braces  $a^2$  at the center and free end of the gate to engage 55 with the recess  $c'$  in the gate-post. The inner end of latch  $b^2$  is pivoted between two diagonal strips, which are secured together on opposite sides of the bars of the gate by means of connecting-bolts and intermediate blocks,  $d'$ , and 60 which extend from the top of the gate at the center to the lower corner at the pivotal end. At a point just above the second bar from the bottom of the gate the strips are severed on a line at right angles thereto, and the lower severed 65 portions,  $g$ , rigidly secured to the bars included between them. The upper severed portions, or the oscillating strips  $d$ , are then jointed to the rigid strips  $g$  by means of plates  $d^2$ , which are rigidly secured to the outer sides of said oscillating strips and pivoted to the outer sides 70 of the said rigid strips, respectively. These plates are provided with wrists  $d^3$ , to which the lifting-rods  $e$  are secured, and by means of which the gate is lifted and made to rest upon its pivotal end when the levers  $f$ , to which the rods 75  $e$  are connected, are depressed at their outer ends. As the oscillating strips  $d$  are thus pivoted at a point below their connection with the lifting-rods and are simply connected to each 80 other above the wrists  $d^3$  by intermediate blocks,  $d'$ , which are made small enough to allow a given amount of oscillation to the upper ends of the said strips, the first movement of the levers in lifting the gate will oscillate the strips 85  $d$  sufficiently to draw the latch  $b^2$  from the recess  $c'$  in the gate-post, and then, as the intermediate blocks are thus drawn against the undersurface of the bars immediately above them, they limit the oscillation of the strips  $d$ , and 90 serve as rests for the gate while the latter is being lifted. When the gate is lowered the upper ends of the strips  $d$  are made to oscillate in the opposite direction by force of gravity until they rest against the central upright braces, 95  $a^2$ , and thus cause the latch  $b^2$  to engage with the recess  $c'$  in the gate-post.

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

1. In a gate, the combination of the gate-post C, having longitudinal recess  $c$ , which increases 100

in depth from top to bottom, and recess  $c'$ , and the gate A, having stationary latch  $b'$  and sliding latch  $b^2$ , the oscillating diagonal strips  $d$ , the lifting-rods  $e$ , and levers  $f$ , substantially as shown and described.

5 2. In a gate, the combination of the gate C, the sliding latch  $b^2$ , the oscillating diagonal strips  $d$ , pivoted thereto and connected with each other by the intermediate blocks,  $d'$ , the

plates  $d^2$ , which are rigidly secured to said strips 10 and pivoted to rigid strips  $g$ , and provided with wrists  $d^3$  and the lifting-rods  $e$  and levers  $f$ , substantially as shown and described.

JOHN FLINNER.

Witnesses:

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ANDREW J. BELL.