

(No Model.)

A. C. HENDRICKS.
GATE LATCH.

No. 440,919.

Patented Nov. 18, 1890.

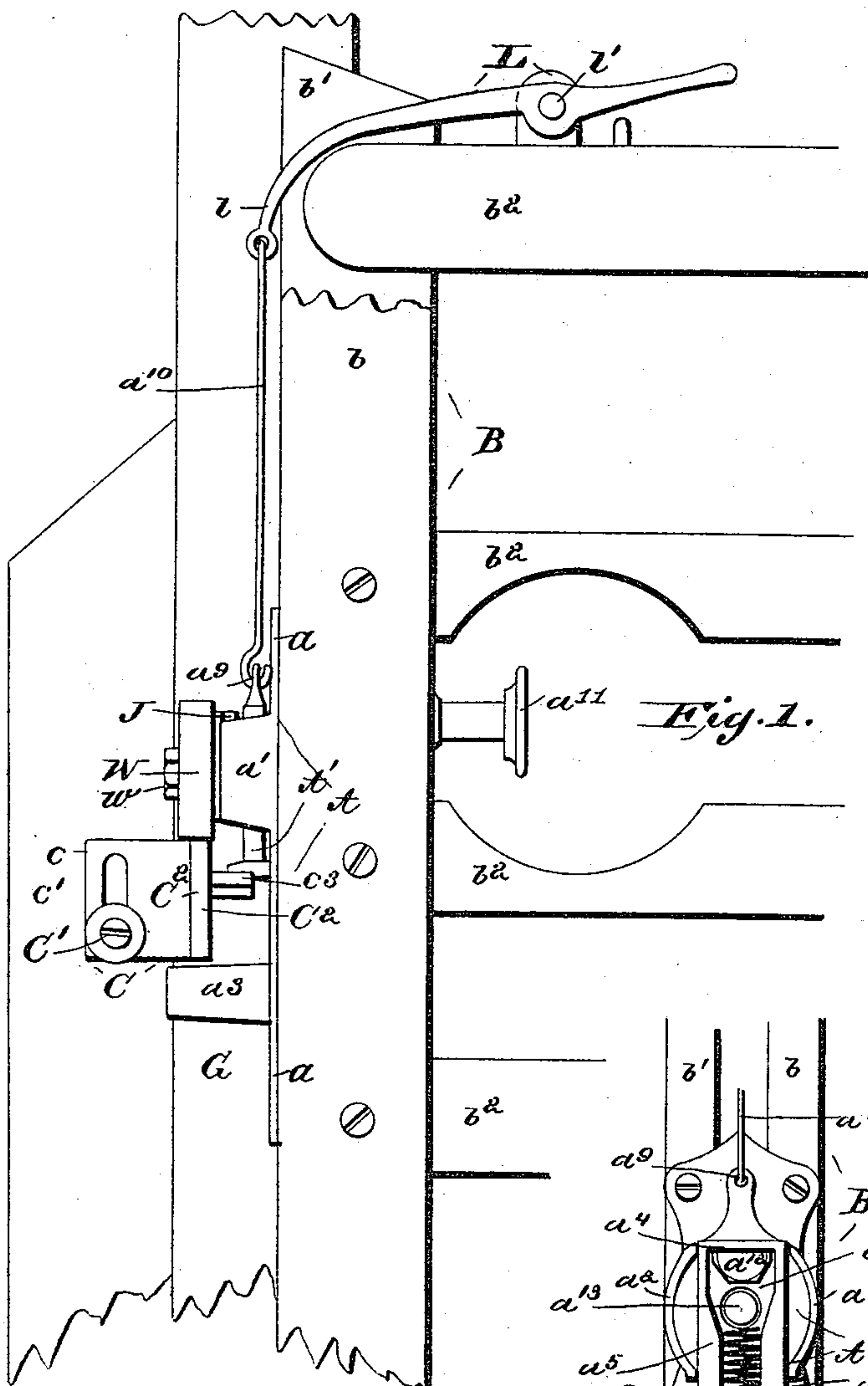


Fig. 1.

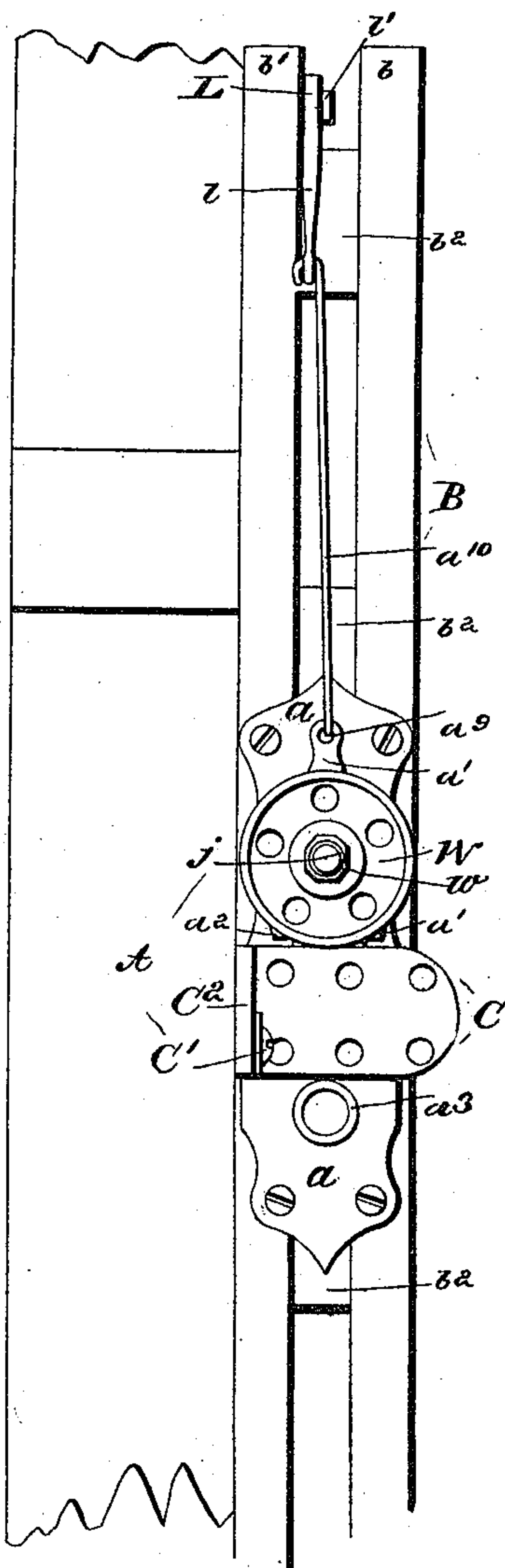


Fig. 2.

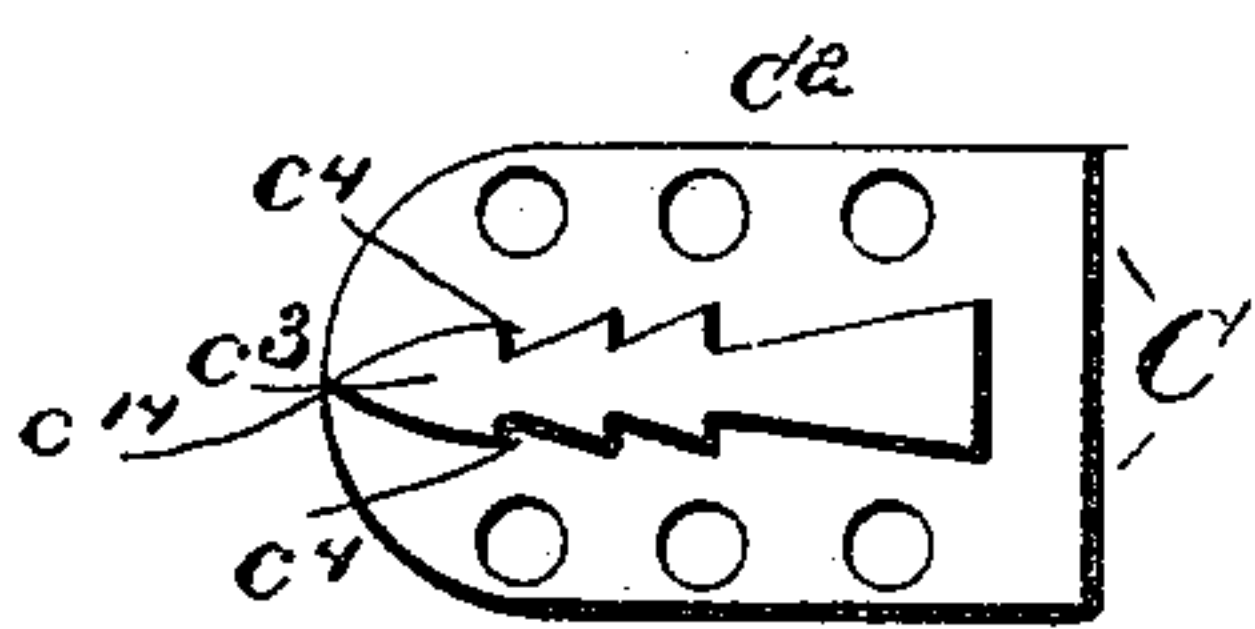


Fig. 3.

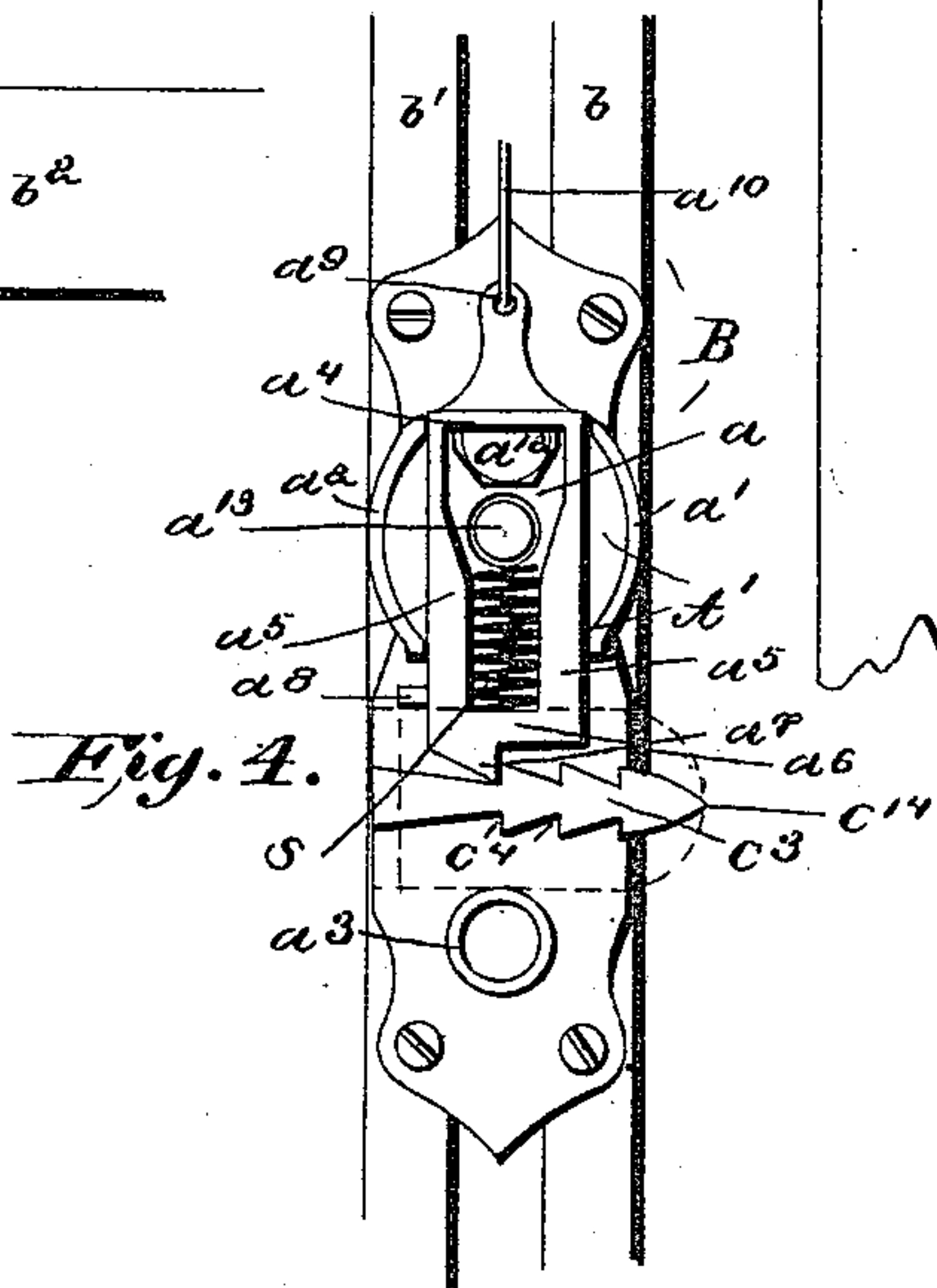


Fig. 4.

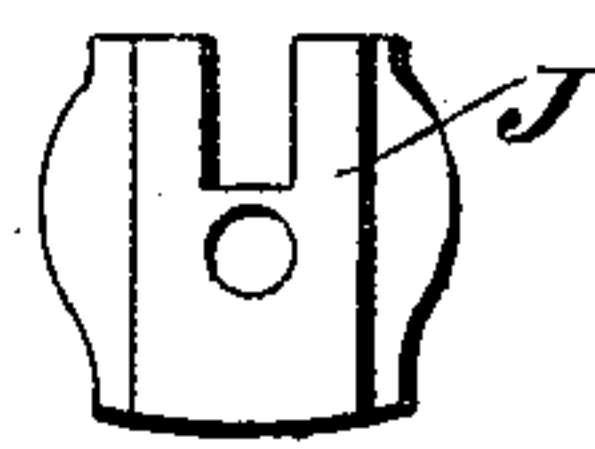


Fig. 5.

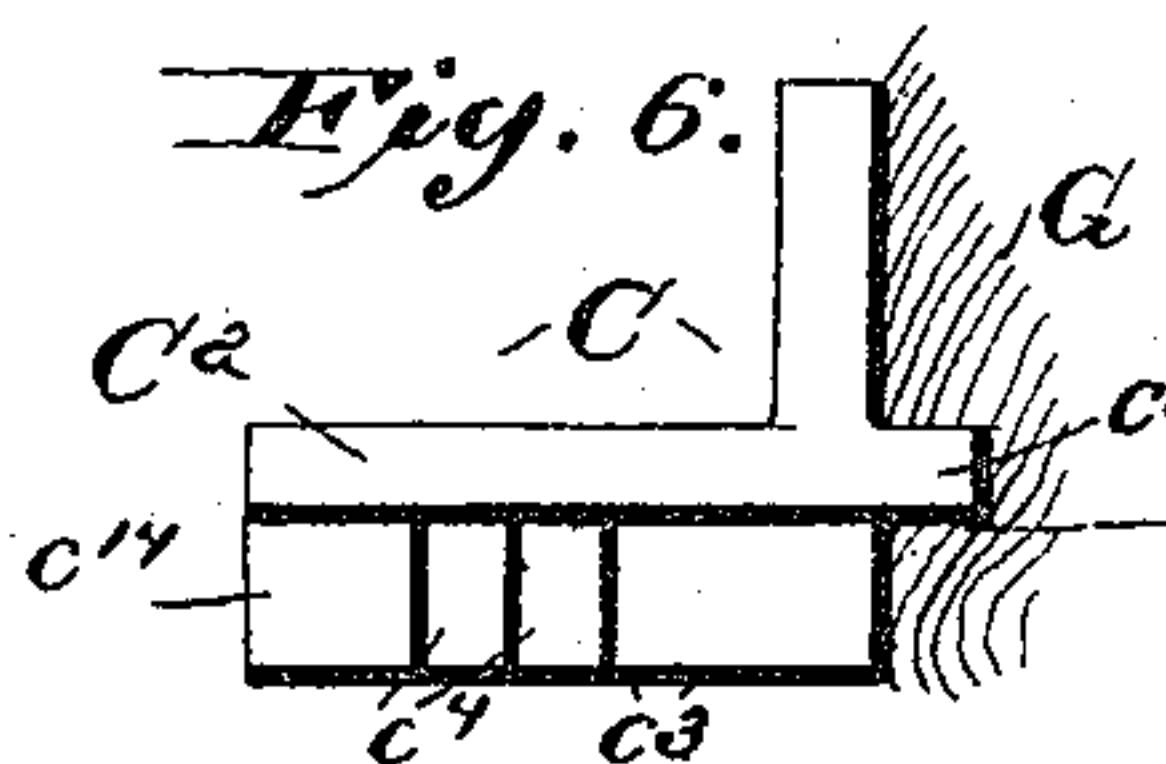


Fig. 6.

Witnesses

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UNITED STATES PATENT OFFICE.

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GATE-LATCH.

SPECIFICATION forming part of Letters Patent No. 440,919, dated November 18, 1890.

Application filed June 9, 1890. Serial No. 354,742. (No model.)

To all whom it may concern:

Be it known that I, ADAM C. HENDRICKS, a citizen of the United States, residing in Martinsburg, in the county of Berkeley, in the State of West Virginia, have invented new and useful Improvements in Gate-Latches, of which the following is a correct description.

The invention consists in certain novel parts or combinations of parts in or in connection with a gate and its fastenings, as will first be particularly described, and afterward specifically indicated in the concluding paragraphs of this specification.

In the accompanying drawings, which constitute a part of this description, Figure 1 represents a detail front elevation of a gate and its gate-head or catch-post to which my improvements are applied, showing an edge or side view of the latch-plate, its wheel, its stop, and its latch-lifting levers, and showing also a front view of the catch-plate. Fig. 2 is a detail end elevation of the gate—that is, a view at a right angle to that seen in Fig. 1. Fig. 3 is a side view of the catch-plate. Fig. 4 is a detail end elevation similar to the view seen in Fig. 2, the interior parts being exposed by the removal of the friction-wheel and its journal-plate. Fig. 5 represents the rear or inner face of the journal-plate. Fig. 6 is a top plan view of the catch detached.

The gate B is here shown as composed of front and rear vertical bars b and b' and intermediate horizontal rails b^2 ; but it may be constructed in any other convenient manner.

The main or base plate a of the latch A, which is secured to the free end of the gate, preferably at about its mid-height, has near its upper extremity projecting wings or guide-plates a' and a^2 , and near its lower extremity it has a fixed horizontally-arranged arm or stop a^3 . Within the space embraced between the guide-wings a^2 a^3 is loosely received the latch proper A' , which is frame-like, as shown, and consists of a top bar, cross-head, or lever-plate a^4 , side bars a^5 and a^5 , and base-bar a^6 , which is provided with a bottom engaging-lug a^7 and with a side stop a^8 . The upper extremity of the latch A' has a perforation a^9 , which receives a lifting-rod a^{10} , which at its opposite extremity is connected to an arm l of a pivoted lever L, which is mounted in any

suitable bearing l' upon the upper portion of the gate. Immediately below the cross-head a^4 is the segmental or D-shaped lever-head a^{12} , the shank of which extends horizontally rearward from the end of the gate and terminates in a suitable operating handle or lever a^{11} . Extending horizontally outward from the plate a immediately below the lever-head a^{12} is an arm or shaft a^{13} , which at its outer extremity is threaded, and which receives the journal-plate J, the projecting sleeve j of which in turn receives the anti-friction wheel W of the latch, which is retained by nut w upon the outer extremity of the shaft. A suitable spring s , seated upon the cross-bar or base-bar a^6 of the latch, bears by its opposite extremity against the shaft a^{13} .

The catch C has a base or securing lug c , which is provided with a vertical slot c' , by which and its securing-bolt C' the catch is made adjustable up or down, and it preferably has also a rearwardly-extending flange or rim c^2 , which enters a slot g in the catch-post or gate-head G to render the connection of the catch more firm. The outwardly-extending body C^2 of the catch has upon one of its vertical faces at about the mid-height thereof a horizontal supporting-way c^3 , which is provided above and below with one or more retaining lugs or catches c^4 to receive the lug a^7 of the latch A' , and it has also at its outer extremity a double incline c^{14} . The duplication of the engaging parts of the catch adapts it to be employed in connection with either right-hand or left-hand gates.

It will be observed that in the operation of the latch the force of the spring s acts to press the latch A' downward, so that in closing the gate engagement with the catch c^4 will be certain, and that in the upward movement of the latch the engagement of the stop a^8 upon the side of the latch with its coincident wing a' prevents the latch from moving too far in that direction. It will also be noted that through the provision of the wheel W the engagement with the upper surface of the catch is effected without appreciable friction, even when a very heavy gate is employed, the wheel moving to its seat in unison with the movement of the lug a^7 up the incline c^{14} and into its seat behind its catch c^4 . It will

further be observed that the space between the wheel W and the arm or stop a^3 is exactly equal to the vertical extent of the catch, so that the gate is held against upward movement and unlatching by the action of high winds or by restless and meddlesome animals.

If the latch be applied to an ordinary yard or garden gate, the pivoted lever L may be dispensed with; but ordinarily both this and the lower lever will be provided, the upper lever being readily operated by a horseman, thus obviating the necessity for dismounting when passing from field to field.

It will be perceived that except when the gate is open its latch end is by the wheel W wholly supported by the catch, so that any tendency to sag is wholly avoided.

The invention having been thus described, what is claimed is—

1. In a gate-latch, a catch, as C, having slotted base, and a double-inclined latchway provided with retaining lugs or notches above and below, whereby the catch is made re-

versible and adapted for use in connection with either right-hand or left-hand gates, substantially as shown and described.

2. The plate a , having guide-wings a^2 and a^3 , the latch A' within the guide-wings, and the partially-revoluble lever or handle a^{11} , having cam or segmental head a^{12} in engagement with the latch and operable to elevate the same, in combination, substantially as specified.

3. The vertically-movable latch A' , having lug a^7 and side stop a^8 , the shaft a^{13} , and the spring s , engaging the latch and bearing against the shaft, in combination.

4. The catch C, having lugs c^4 , and the latch A' , movable up or down upon the plate a and provided with top lifting-lever L and with partially-revoluble lever a^{11} , in combination, substantially as described and shown.

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