

(No Model.)

S. O. CAMPBELL.
GATE LATCH.

No. 582,039.

Patented May 4, 1897.

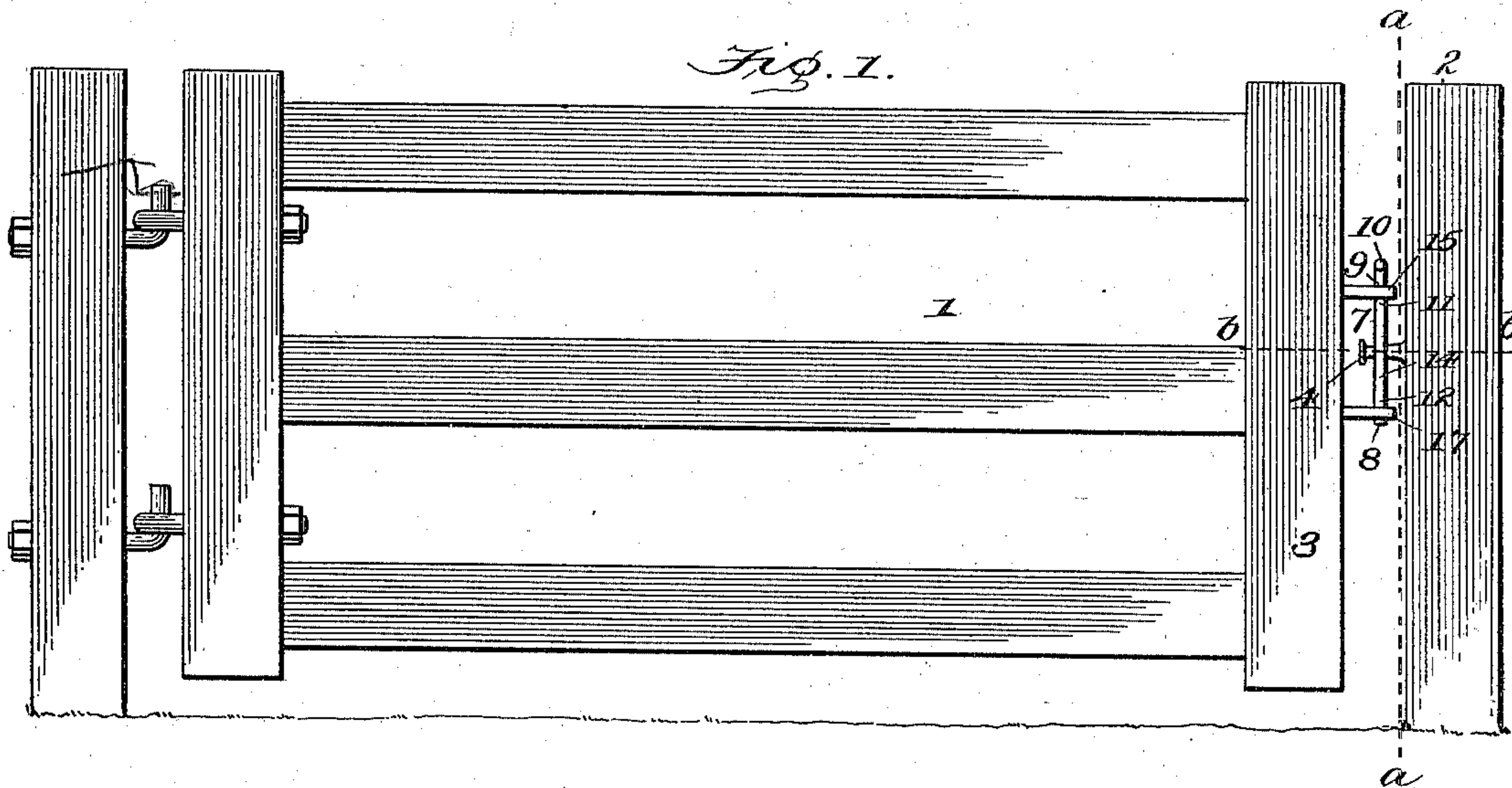


Fig. 2.

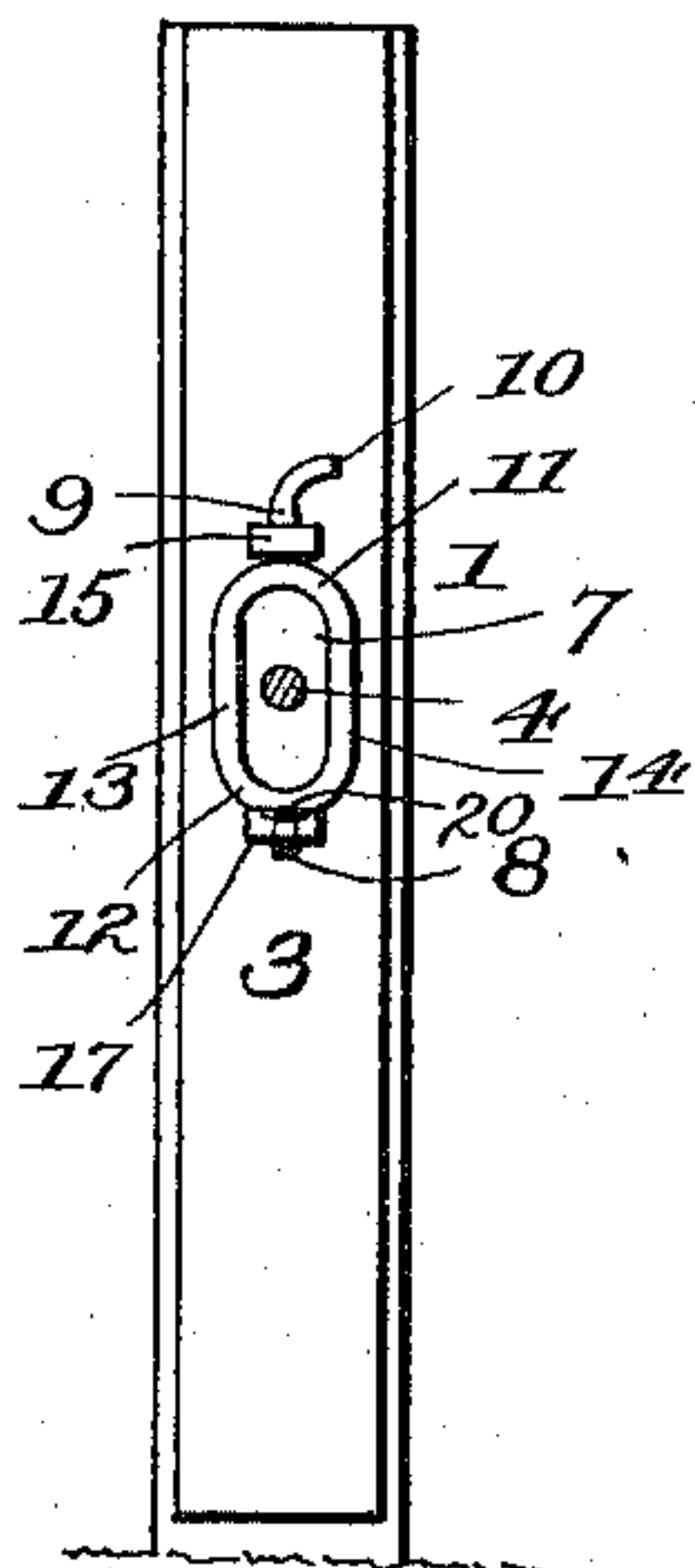


Fig. 4.

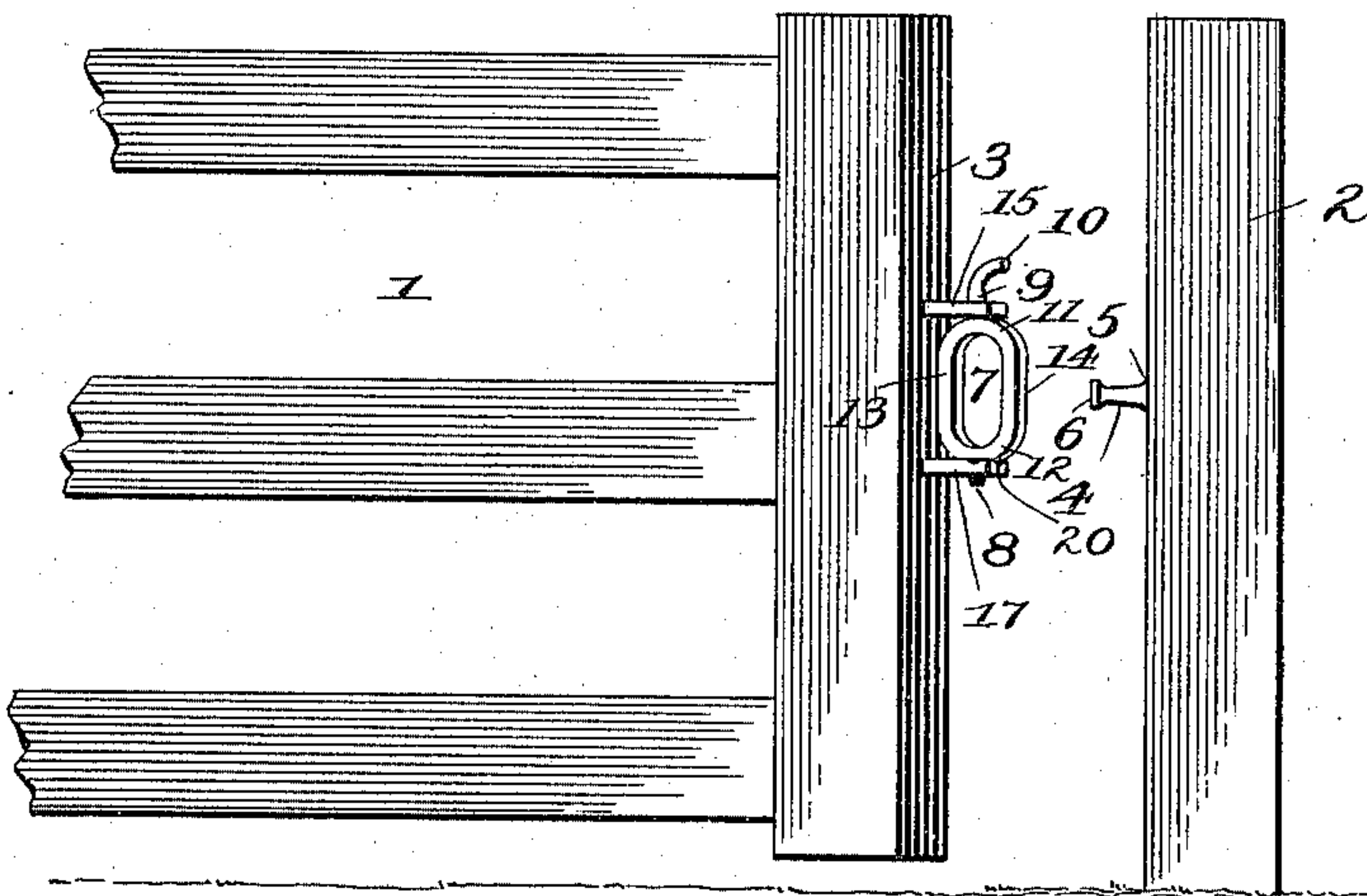
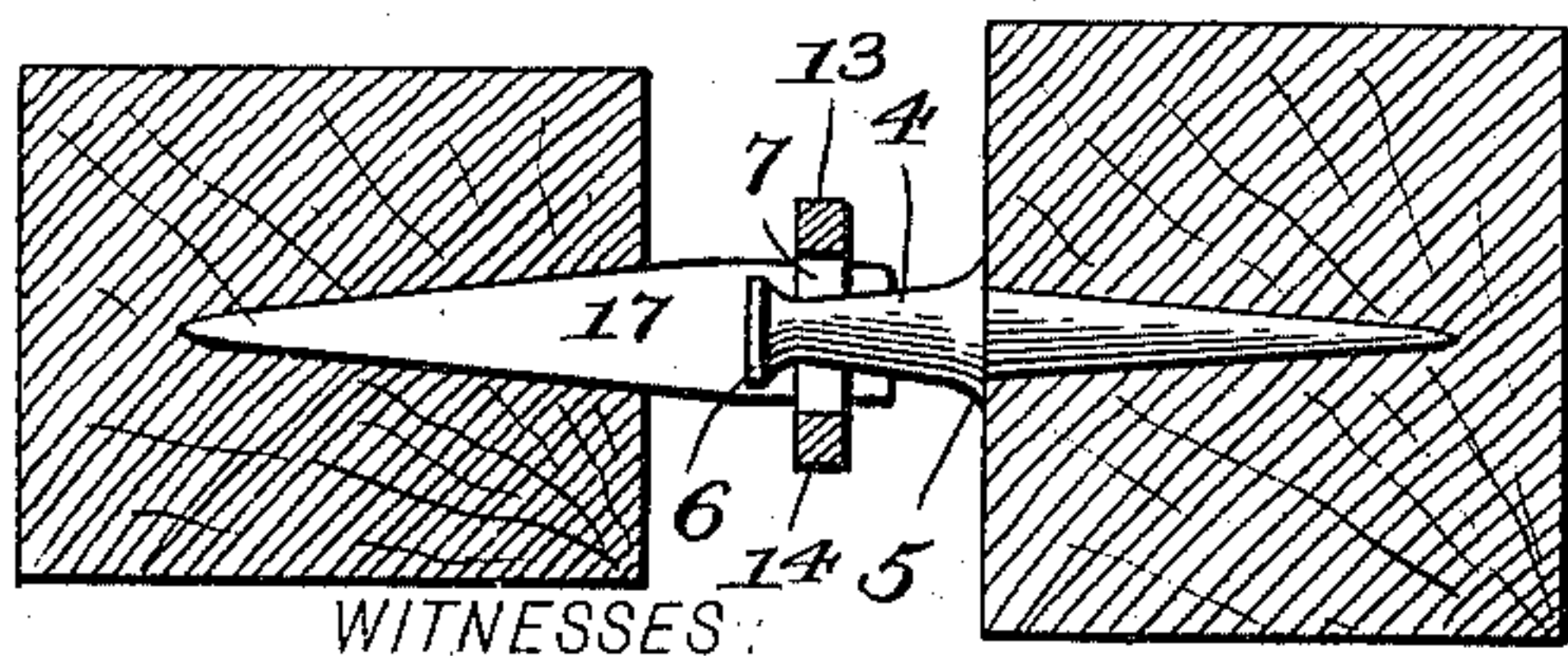


Fig. 3.



WITNESSES:

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Fig. 5.

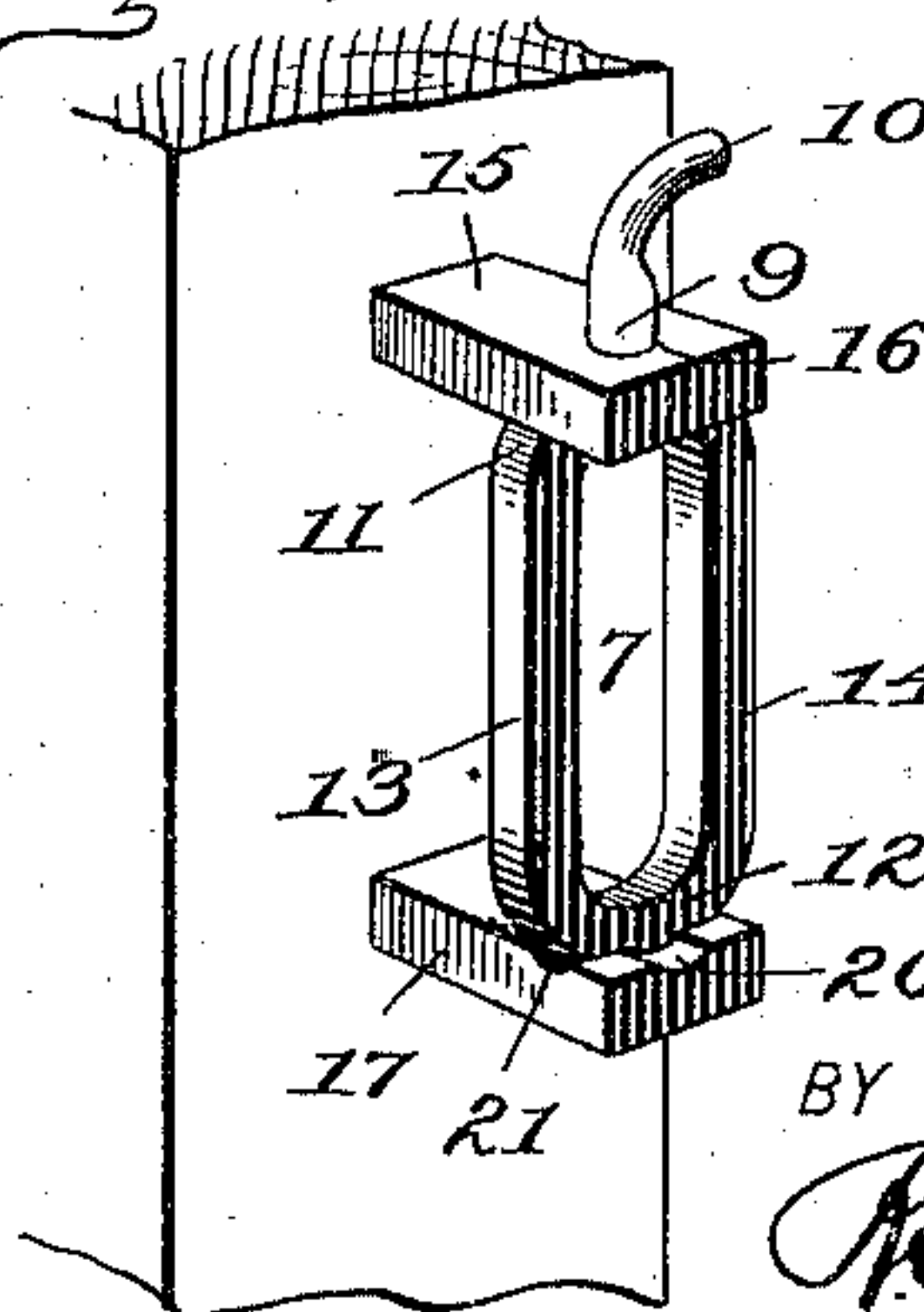
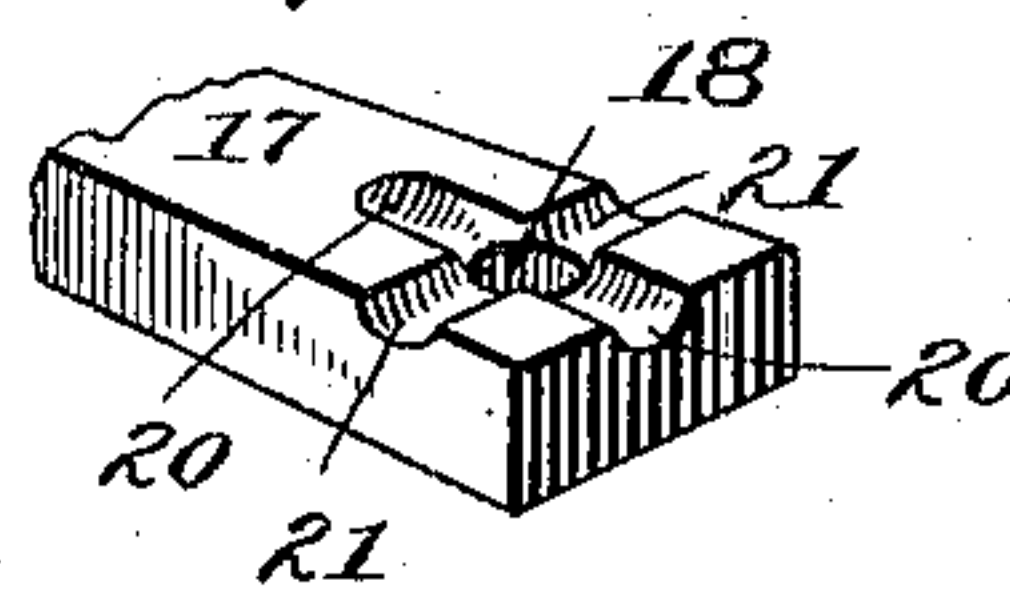


Fig. 6.



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GATE-LATCH.

SPECIFICATION forming part of Letters Patent No. 582,039, dated May 4, 1897.

Application filed January 13, 1897. Serial No. 619,115. (No model.)

To all whom it may concern:

Be it known that I, SOLON OWEN CAMPBELL, a citizen of the United States, residing at East Peru, in the county of Madison and State of Iowa, have invented certain new and useful Improvements in Gate-Latches; and I do hereby 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.

My invention has relation to gates, and more particularly to that class carrying a latch which will automatically engage the keeper on the contiguous stationary fence-post and secure the gate.

To this end the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described, and particularly pointed out in the claims.

In the accompanying drawings the same reference-numerals indicate the same parts of the invention.

Figure 1 is an elevation of a gate embodying my invention. Fig. 2 is a transverse vertical section on the broken line *a a* of Fig. 1. Fig. 3 is a horizontal section on the line *b b* of Fig. 1. Fig. 4 is a detail showing the gate partly open. Fig. 5 is an enlarged detail perspective view of the latch-link and its supporting-brackets, and Fig. 6 is an enlarged plan view of the latch-link and the lower bracket 17.

1 represents an ordinary horizontal swinging gate, and 2 represents the fixed fence-post contiguous to the upright 3, forming the free end of the gate.

4 represents a horizontal keeper rigidly secured in the fence-post 2, its projecting shank tapering or gradually converging from the shoulder 5 to the expanded head 6.

7 represents the latch-link, formed with an integral depending stud 8 and an integral vertical stud 9, terminating in an angular handle 10.

The latch-link 7 is preferably rectangular in form and in the present instance approximates an ellipse, with the exception that its semicircular ends 11 12 are connected by integral parallel side bars 13 14.

15 represents a horizontal bracket fixed in the upright 3, and its outer end is formed

with a vertical orifice 16, which encompasses and forms a bearing for the vertical stud 9 on the upper end of the link 7. 17 represents a similar bearing-bracket, also fixed in the upright 3 and in a vertical plane with the bracket 15, its outer end being formed with a vertical orifice 18, which receives the depending stud 8 on the lower end of the latch-link. The upper face of this bracket 17 is counter-sunk or cup-shaped immediately concentric with the orifice 18, and the inclined walls 19 of this annular depression are provided with a diametrical recess 20, extending longitudinally with the line of the gate, and a similar diametrical recess 21 is arranged at a right angle to the recess 20, or transversely to the line of the gate.

The longitudinal recess 20 is comparatively deeper than the transverse recess 21, the former serving to engage the lower semicircular end 12 of the latch-link 7 to hold it in a position longitudinal to the gate at all times when said latch-link is not in engagement with its keeper.

The transverse recess 21 in the upper face of the bracket 17 is just deep enough to steady the latch-link and prevent its accidental displacement by the vibration or oscillation of the gate due to the wind and like causes.

The manner of operating the gate is so simple as hardly to need describing, it only being necessary on approaching the gate from either side to turn the handle 10 in line with the gate, so that the near parallel side of the latch-link will clear the head 6 of the keeper 4. This operation naturally turns the lower end 12 of the link in line with the deeper recess 20 in the lower bracket 17, into which it settles, thereby holding the link parallel with the gate. After the gate has been swung open far enough to permit the passage of a person or team the gate is then swung to. The outer one of the side bars of the link strikes against the contiguous tapering shank of the keeper and automatically throws the pivoted latch-link around so that its opposite parallel side bar engages the opposite side of the keeper, and thus prevents the movement of the gate in either direction until the latch-link is again released from either side of the gate, as above described.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The gate provided with the brackets 15 17, the open latch-link 7 vertically swiveled
5 in the outer ends of said brackets, in combination with the stationary post 2 and the horizontal keeper 4 located in the path of said latch-link 7, substantially as and for the purpose set forth.

10 2. The gate 1, the bracket 15, provided with a vertical guide-orifice 16, the bracket 17, provided with a guide-orifice 18, located in the same vertical plane with the guide-orifice 16 in the bracket 15, and having a concentric
15 countersunk face formed with diametrical recesses 20 and 21, in combination with the open latch-link 7, the semicircular lower end 12 of which is provided with an integral de-

pending stud 8, engaging the guide-orifice 18 in the bracket 17, the said lower end 12 of the
20 latch-link arranged to alternately engage the diametrical recesses 20 21 in said countersunk face of the bracket 17, the upper end of said latch-link being formed with an integral
25 vertical stud 9 passing through the guide-orifice 16 in the bracket 15 and terminating in a laterally-curved handle 10, and the fixed keeper 4 located in the path of the latch-link 7, substantially as and for the purpose set forth. 30

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

SOLON OWEN CAMPBELL.

Witnesses:

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G. H. LILLEY.