

P. H. WILSON.

GATE.

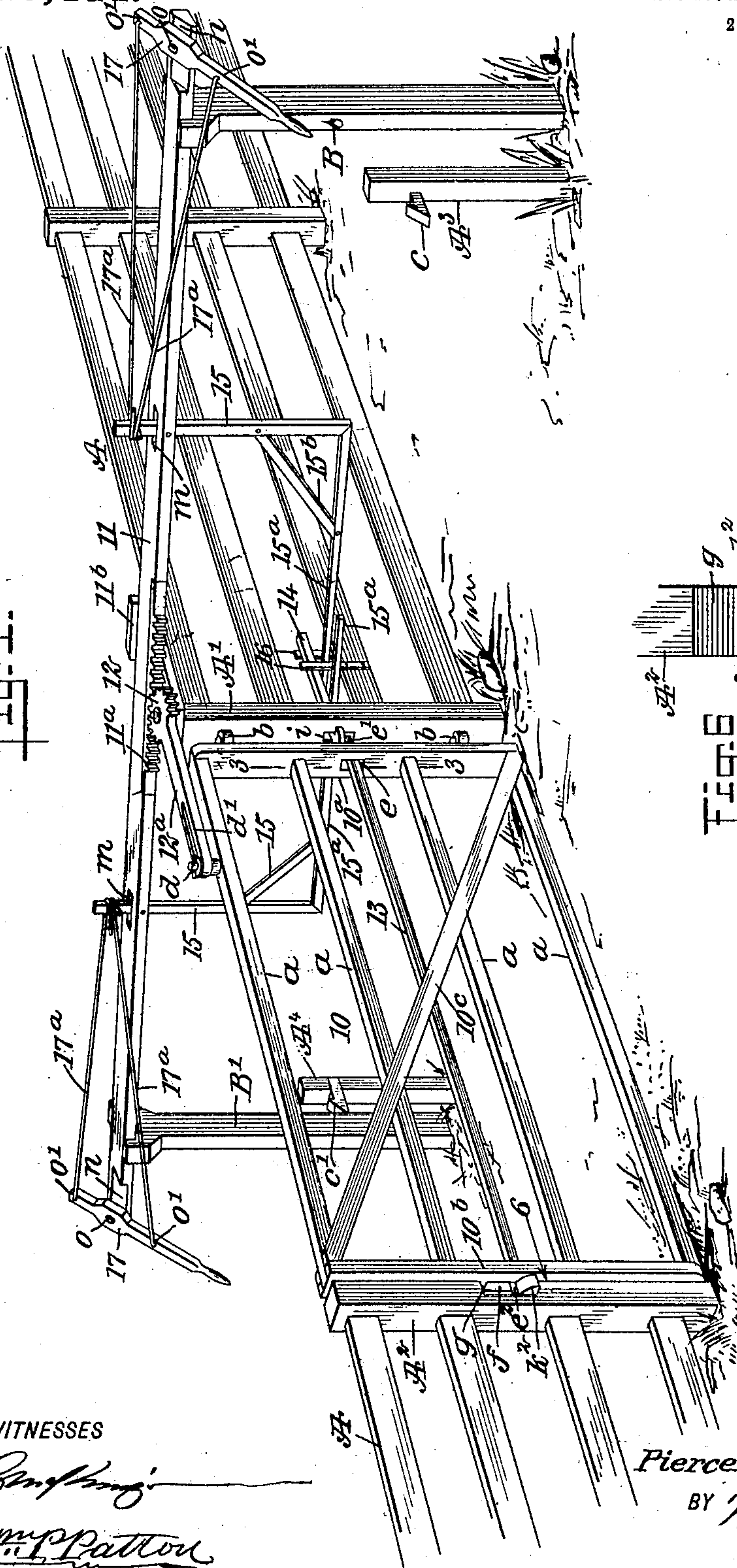
APPLICATION FILED JULY 8, 1908.

Patented Feb. 23, 1909.

2 SHEETS—SHEET 1.

913,444.

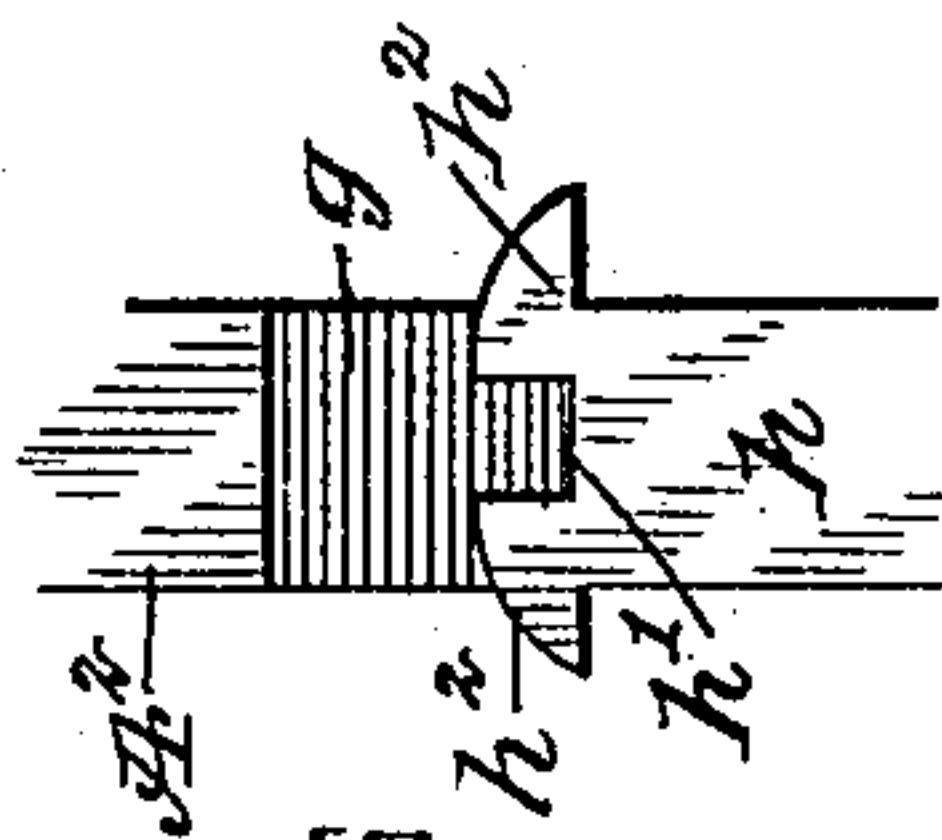
Fig. 1.



WITNESSES

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Fig. 2.



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Fig. 2.

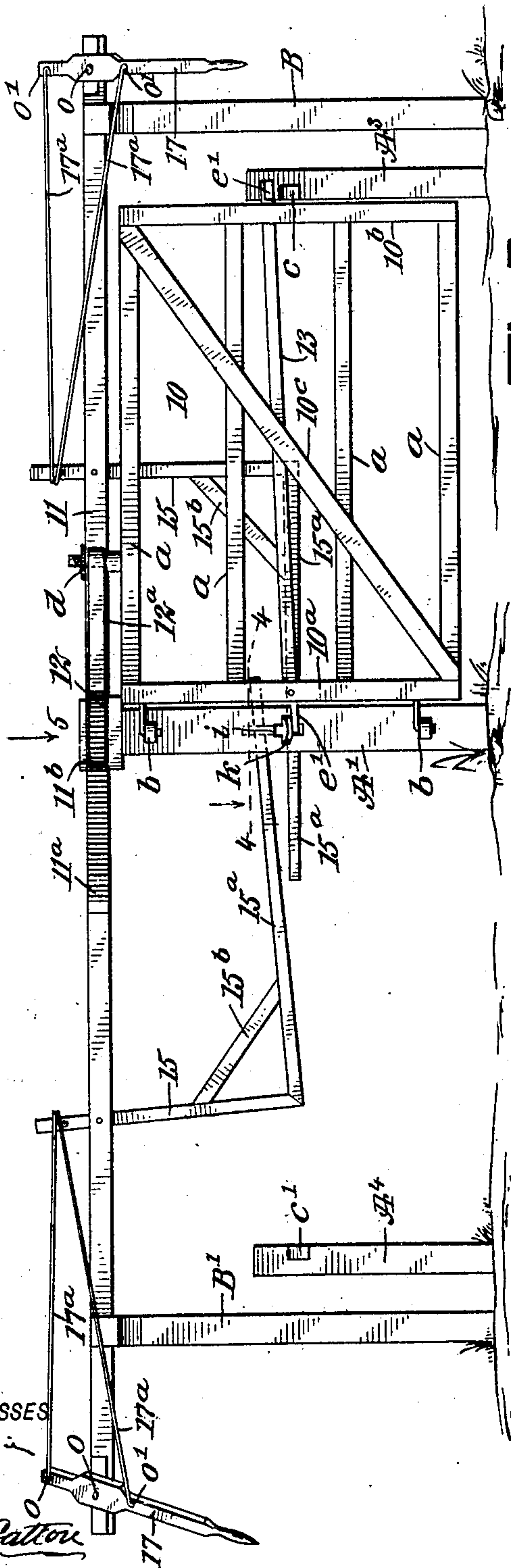


Fig. 3.

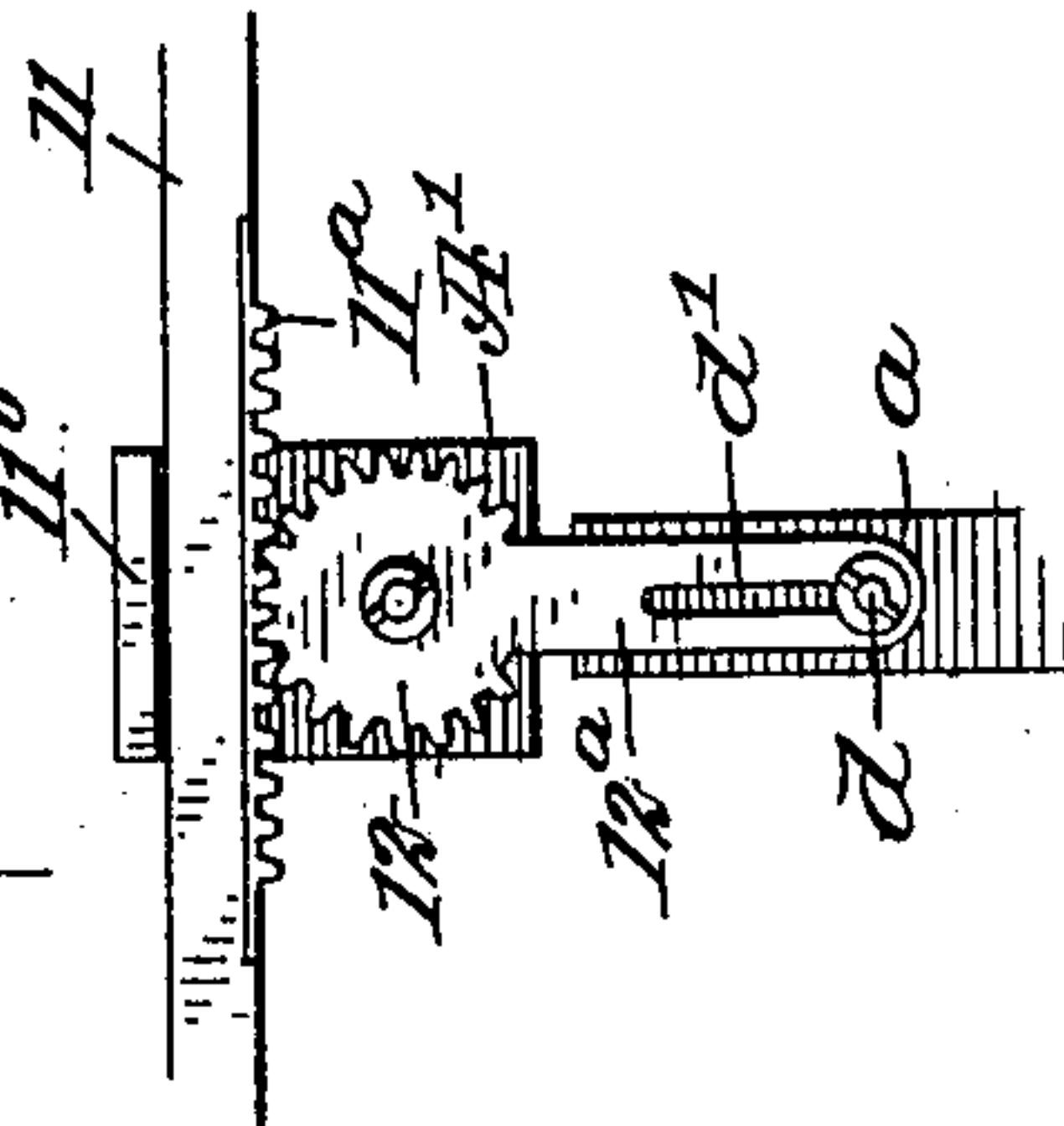


Fig. 4.

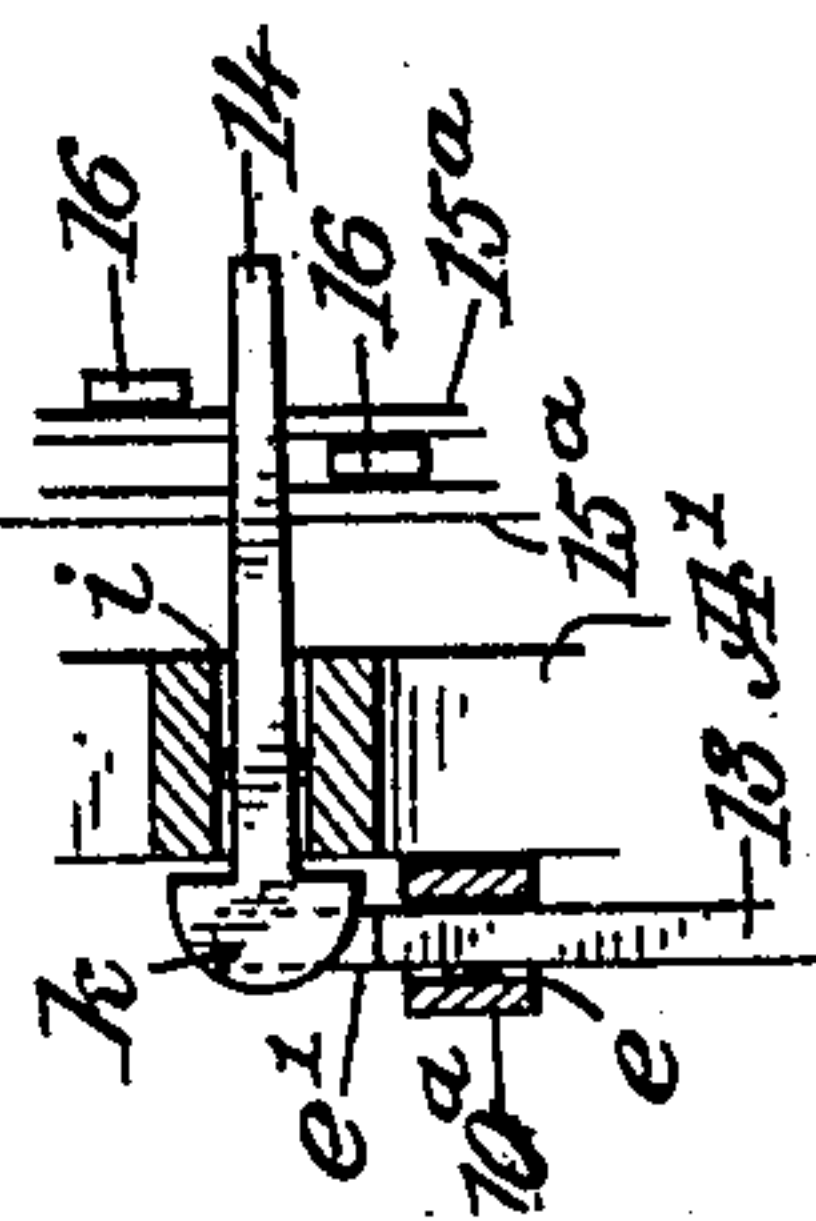
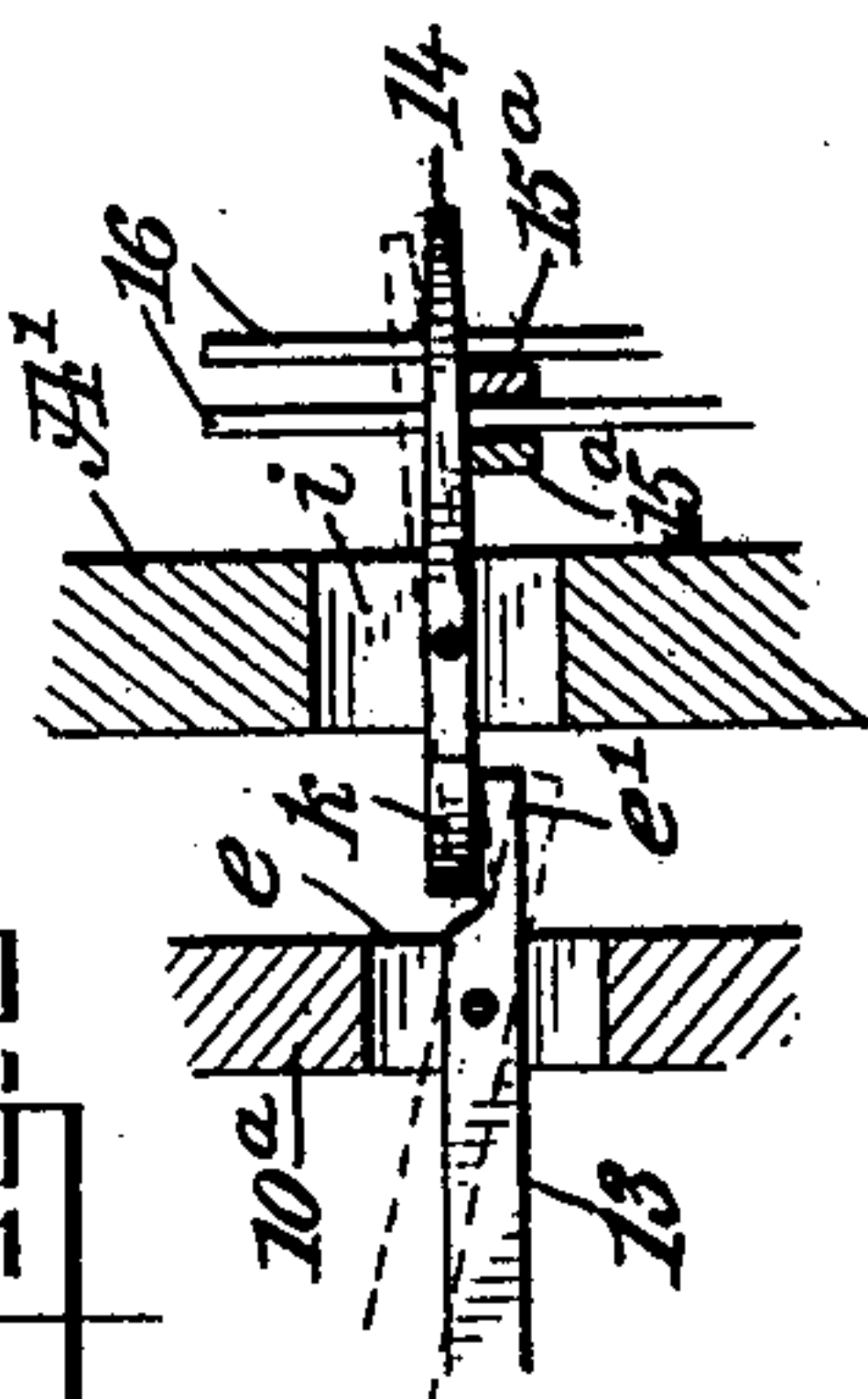


Fig. 5.



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# UNITED STATES PATENT OFFICE.

PIERCE HAN WILSON, OF TALENT, OREGON.

## GATE.

No. 913,444.

Specification of Letters Patent.

Patented Feb. 23, 1909.

Application filed July 8, 1908. Serial No. 442,449.

To all whom it may concern:

Be it known that I, PIERCE HAN WILSON, a citizen of the United States, and a resident of Talent, in the county of Jackson and State of Oregon, have invented a new and Improved Gate, of which the following is a full, clear, and exact description.

This invention relates to swinging gates, of a class employed for guarding openings into fields from a roadway, usually termed farm gates, and has for its object to provide novel details of construction for a swinging gate, which are simple, practical and inexpensive, and afford means for manually opening the gate in opposite directions.

The invention consists in the novel construction and combination of parts, as is hereinafter described, and defined in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the improved gate arranged for guarding an opening in a fence, and shown in closed adjustment; Fig. 2 is a front elevation of the gate shown in opened condition; Fig. 3 is a vertical transverse sectional view, substantially on the line 3—3 in Fig. 1; Fig. 4 is a sectional plan view, substantially on the line 4—4 in Fig. 2; Fig. 5 is an enlarged fragmentary plan view of details, seen in direction of the arrow 5, in Fig. 2, and Fig. 6 is an enlarged fragmentary side view of a latching post, seen in direction of the arrow 6, in Fig. 1.

In the drawings, 10 represents a gate of ordinary construction, consisting of an elongated rectangular structure made up of a plurality of horizontal parallel bars  $a$ , joined at their ends to vertical end bars  $10^a$ ,  $10^b$ , the bars  $a$  being reinforced by a diagonally-secured brace  $10^c$ . As shown in Fig. 1, the gate normally closes an opening in a fence-line A, defined at each side thereof by the upright posts A and A<sup>2</sup>. The gate is hinged at the end bar  $10^a$  on the post A' as indicated at  $b$ , and swings toward the post A<sup>2</sup>, whereon it is detachably secured by means that will be hereinafter described. At an equal distance from the post A' two similar latch posts A<sup>3</sup>, A<sup>4</sup> are erected in the same plane with said post A', and are so spaced therefrom that when the gate 10, is swung open toward either of said latch posts A<sup>3</sup>, A<sup>4</sup>, the

latching means carried by the gate will automatically lock fast to a latch hook  $c$  or  $c'$  that respectively project outward from like sides of the posts last mentioned.

Adjacent to each latch post A<sup>3</sup>, A<sup>4</sup>, and a short distance rearward therefrom, two similar stanchions B, B' are positioned at an equal distance from the post A', and in the upper ends of these stanchions that are of an equal height, a recess is formed in each, wherein a slide bar 11 is mounted near the ends thereof. Centrally upon the side of the slide bar that faces the post A' a toothed rack bar 11<sup>a</sup> is secured, and thus is adapted for extension an equal distance each side of said post toward the stanchions B, B'.

Upon the upper end of the post A' a sector is pivoted having the form of a toothed wheel 12, from which projects an arm 12<sup>a</sup> which near its free end is slidably pivoted upon the top gate bar  $a$ , as shown at  $d$  in Figs. 1 and 5.

On the side of the slide bar 11 that is opposite the rack bar 11<sup>a</sup>, an abutment block 11<sup>b</sup> has loose contact. Said block which is secured on the upper edge of the top bar of the fence A serves to support the slide bar and prevents the rack bar from becoming disengaged from the sector 12.

The pivot-stud  $d$  is fixed in the top rail  $a$  of the gate and loosely engages the arm 12<sup>a</sup> through a slot  $d'$  therein, which is formed longitudinally in said arm.

In the end bar  $10^a$  a longitudinal slot  $e$  is formed, as shown in Fig. 3, and in said slot one end of a latch-bar 13 is pivoted and projects outside of the end bar, terminating in a toe  $e'$ . In the gate-bar  $10^b$ , opposite the slot  $e$  in the end bar  $10^a$ , a corresponding slot  $f$  is formed, and opposite said slot a lateral recess  $g$  is formed in the latching post A<sup>2</sup>. As shown in Fig. 1, the latch-bar 13 is extended as a latch-bar nose  $e^2$ , from the end bar  $10^a$  through the slot  $f$ , and enters the recess  $g$  when the gate is closed. Below the recess  $g$  a latch-plate  $h$  is secured on the surface of the post A<sup>2</sup>, said latch plate having a central notch  $h'$  in its upper edge, and at each side of said notch the upper edge thereof is sloped, as shown at  $h^2$  in Fig. 6, thus adapting the latch-bar at its end to ride up either slope  $h^2$  and enter the notch  $h'$  when the gate is closed, thus securing the gate to the post A<sup>2</sup>.

In the post A' and extending therethrough from front to rear, a vertical slot  $i$  is formed,



said slot being disposed opposite the toe  $e'$  of the latch-bar 13. A trigger lever 14, is pivoted in the slot  $i$ , and at the forward end thereof is widened and reduced in thickness  
 5 so as to provide a spatulated finger  $k$ , that is disposed above and normally seats upon the toe  $e'$ , the body of the lever that extends rearward and nearly horizontal, receiving support from other parts that will be de-  
 10 scribed. Two similar tripping levers are employed for controlling the trigger lever 14, each consisting of a depending member 15, that is pivoted in a slot formed in the slide-bar 11, the slots  $m$ , which receive upper  
 15 end portions of the similar members 15, being positioned at an equal distance each side of the post  $A'$ .

Upon the lower ends of each of the pendent members 15, a horizontal member  $15^a$   
 20 is secured by one end, and thence projects toward the post  $A'$ . Said members that extend past each other are laterally supported by short guide fingers 16 that project upward from one of the line fence rails, as  
 25 shown in Fig. 1. A brace  $15^b$  extends diagonally between the parts 15 and  $15^a$ . The members  $15^a$  of the tripping levers afford support for the body of the trigger lever 14; and it will be obvious that if the slide bar 11  
 30 is slid endwise and toward either stanchion B, B' the trigger bar will be rocked upward at its rear end, and thus be caused to press down at the forward end thereof upon the toe  $e'$  of the latch bar 13, which will raise  
 35 the forward end or nose  $e^2$  of said latch bar, and release it from the post  $A^2$ , if the gate had previously been closed and latched fast upon said post.

It is to be understood that upon each latch  
 40 post  $A^3$ ,  $A^4$ , the latch hooks  $c$  and  $c'$  are so relatively positioned, that the nose  $e^2$  of the latch bar 13, will respectively engage therewith if the gate is swung open in either direction.

45 Upon each end of the slide bar 11, that projects outside of a respective stanchion B, B', a corner is removed so as to form an inclined side  $n$  thereon, and upon each of said inclined surfaces a rockable lever 17, is  
 50 pivoted as at  $o$  nearer one end thereof than the other, thus affording a short arm and a long arm on each lever. A preferably wire rod connection is securely mounted upon the end of each vertical member 15, of the pair  
 55 of tripping levers, said connection for each of the tripping levers having two similar strands  $17^a$ , that respectively extend therefrom toward a respective rockable lever 17 and are thereon secured at an equal distance  
 60 from the pivot  $o$ , as shown at  $o'$  in Figs. 1 and 2. The inclination given to the levers 17 disposes their free ends sufficiently near the ground to be convenient for grasping, and it will be seen that if the gate 10 is  
 65 latched upon the post  $A^2$  and thus disposed

across a roadway, a manipulation of the lever 17 nearest to the operator will first raise the latch bar 13, and then swing the gate into an open position so as to latch said  
 70 bar upon either latch hook  $c$  or  $c'$ , toward which the gate is swung. It will be noted that the longitudinal movement of the slide bar 11, effected by pulling the lever outward, that is at the right hand stanchion B, will, due to the geared connection of the  
 75 rack bar  $11^a$  with the sector 12, effect a positive swinging movement of the gate 10, after it has been released by the lifting movement of the nose of the latch from the latch plate  $k$ , and said movement will result in latch-  
 80 ing the latch bar upon the hook  $c'$  that is furthest from the stanchion B. Furthermore, if the rockable lever 17 on the end of the slide bar 11 nearest to the stanchion B', is rocked outward when the gate is latched  
 85 upon the post that is furthest from the stanchion B, this outward rocking movement will close the gate, due to the corresponding slidable movement of the rack bar  $11^a$  and swinging movement of the arm  $12^a$   
 90 of the toothed sector 12.

It will be seen that the positive action of the toothed rack bar  $11^a$  and sector 12, enables an easy opening or closing movement of the gate from either side thereof.  
 95

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

1. The combination with a fence having an opening therein defined by a hinging post  
 100 and a latching post, of a gate hung on the hinging post, a bar mounted to slide, connections between the slide bar and the gate for opening and closing the latter, a latch bar pivoted at one end to the gate and hav-  
 105 ing a nose at the other end, a latch plate secured to the latching post and adapted to be engaged by said nose, a trigger bar for lifting the latch bar, and means connected with the slide bar for operating the trigger bar.  
 110

2. The combination with a fence having an opening therein defined by a hinging post and a latching post, of a gate hinged on the hinging post, a supported slide bar for opening and closing the gate, levers for oper-  
 115 ating the slide bar, a pivoted latch bar adapted for latching in the latching post, a pivoted trigger bar engaging the latch bar, levers pivoted on the slide bar and engaging the trigger bar, and connections between  
 120 said last mentioned levers and the levers for operating the slide bar.

3. The combination with a gate, a hinging post and a latching post, of an elongated latch bar pivoted in one end bar of the gate  
 125 and having a nose extended through a slot in the other end bar thereof, a latch plate whereon said nose may latch, a slide bar for opening and closing the gate, a trigger bar for lifting the latch bar, and means carried  
 130



by the slide bar for operating the trigger bar.

4. The combination with a gate mounted to swing, of a longitudinally slidable bar, 5 rockable levers on the ends of said bar for sliding the same, a latch bar pivoted at one end to the gate and having a toe at its pivoted end, the other end of said bar being adapted for latching to a post, a pivoted 10 trigger bar having one end adapted for engagement with the toe of the latch bar, tripping levers for the trigger bar, the tripping levers being pivoted in slots formed in the slide bar, and connections between said trip- 15 ping levers and the said rockable levers.

5. In a gate of the character described, the combination with a gate supported for swinging adjustment, a supported slide bar for opening and closing the gate, and handle 20 levers rockably supported on the ends of the slide bar for operating the same, of a pivoted latch bar extended through slots in the gate and adapted for latching in a post, a pivoted trigger bar engaged at one end with an end 25 of the latch bar, angle levers pivoted on the slide bar and engaged with the trigger bar, and connections extended from the angle levers into engagement with the handle levers.

6. The combination with a gate, a hing- 30 ing post, and a latching post, of a pivoted

latch bar adapted for latching engagement with the latching post, a slide bar for opening and closing the gate, levers for operating the slide bar, and means for operating the latch bar, the said means including angle 35 levers pivoted on the slide bar, and connections between said angle levers, and the levers for operating the slide bar.

7. The combination with a gate mounted to swing, of a longitudinally slidable bar 40 for opening and closing the gate, the said bar being provided with slots, a pivoted latch bar for the gate adapted for latching to a post, angle levers each having a vertical and a horizontal member, the vertical 45 members being pivoted in the slots in the slidable bar, means controlled by the horizontal members of said angle levers for operating the latch bar, levers for moving the slidable bar, and connections between said 50 levers and the upper ends of the vertical members of said angle levers.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PIERCE HAN WILSON.

Witnesses:

FLETCHER F. DODGE,  
GEORGE M. WILSON.