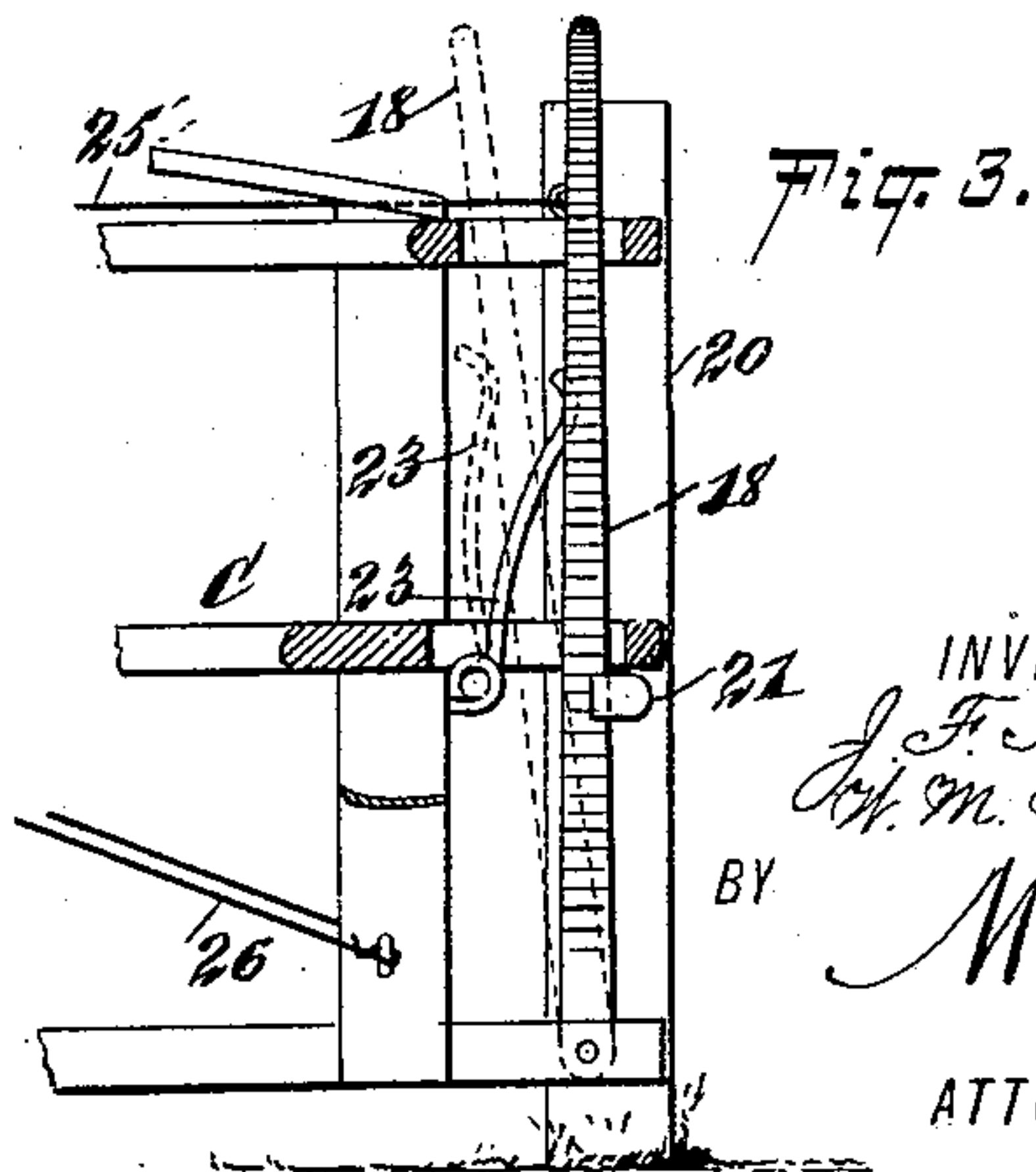
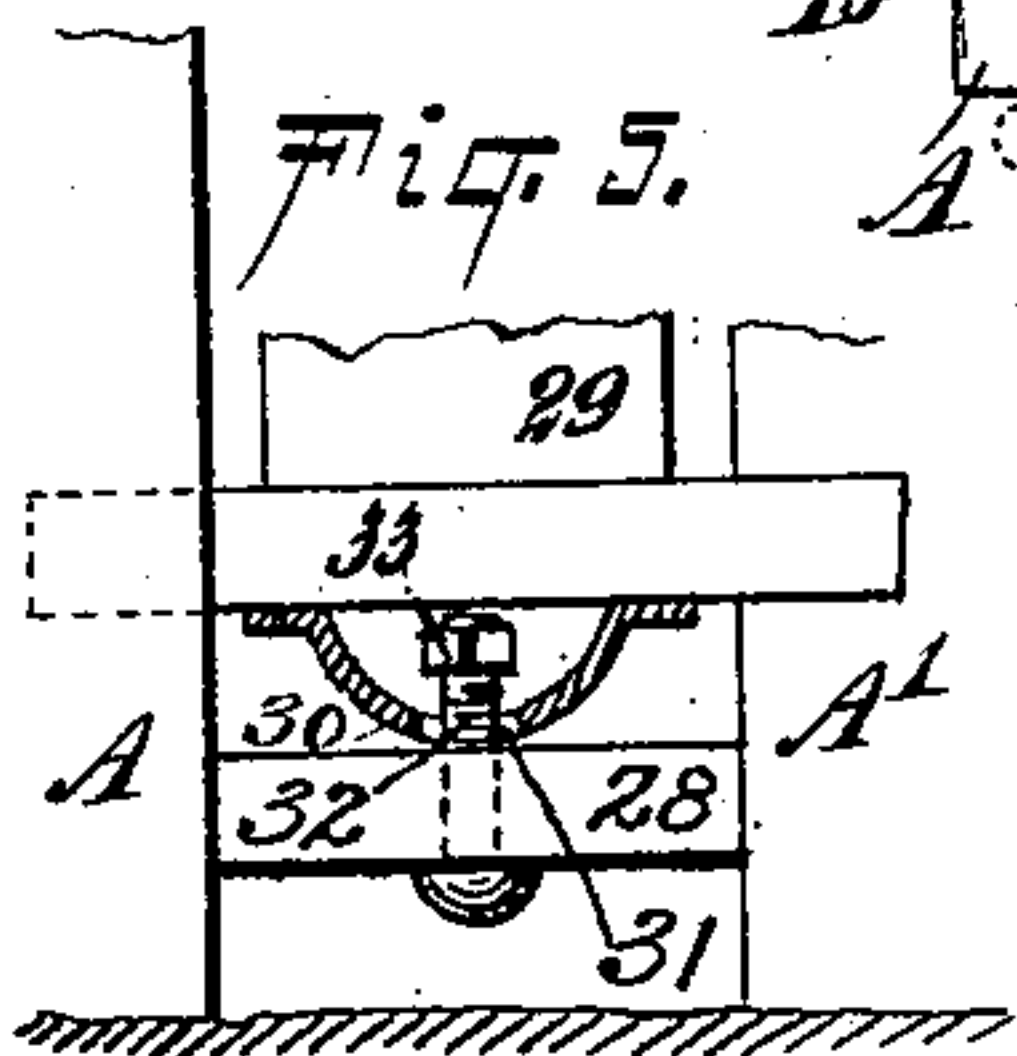
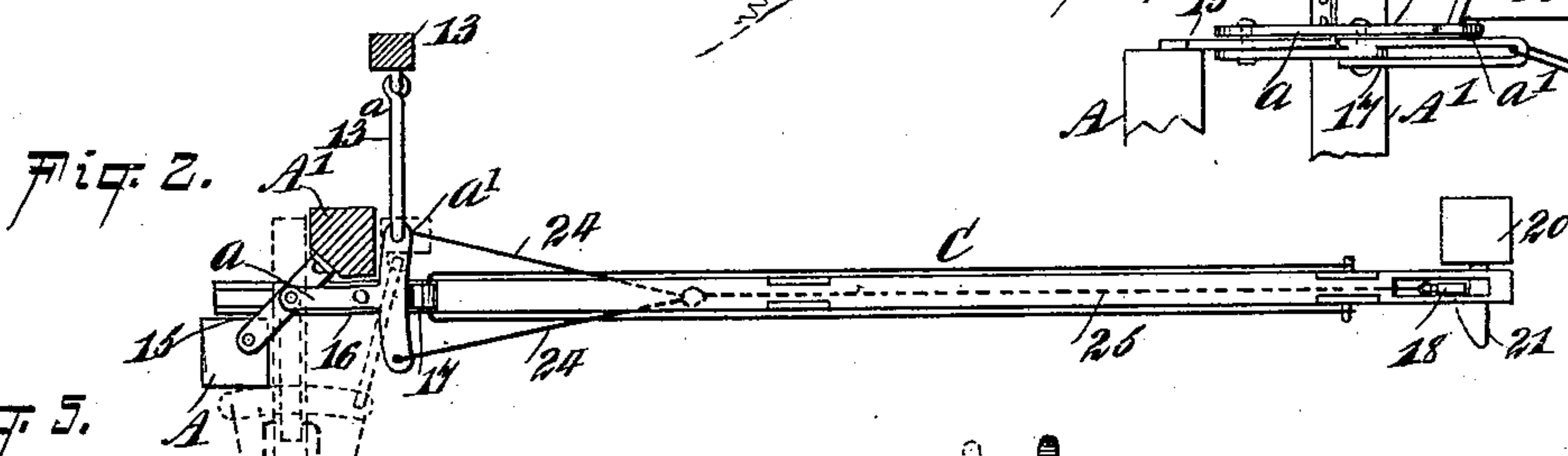
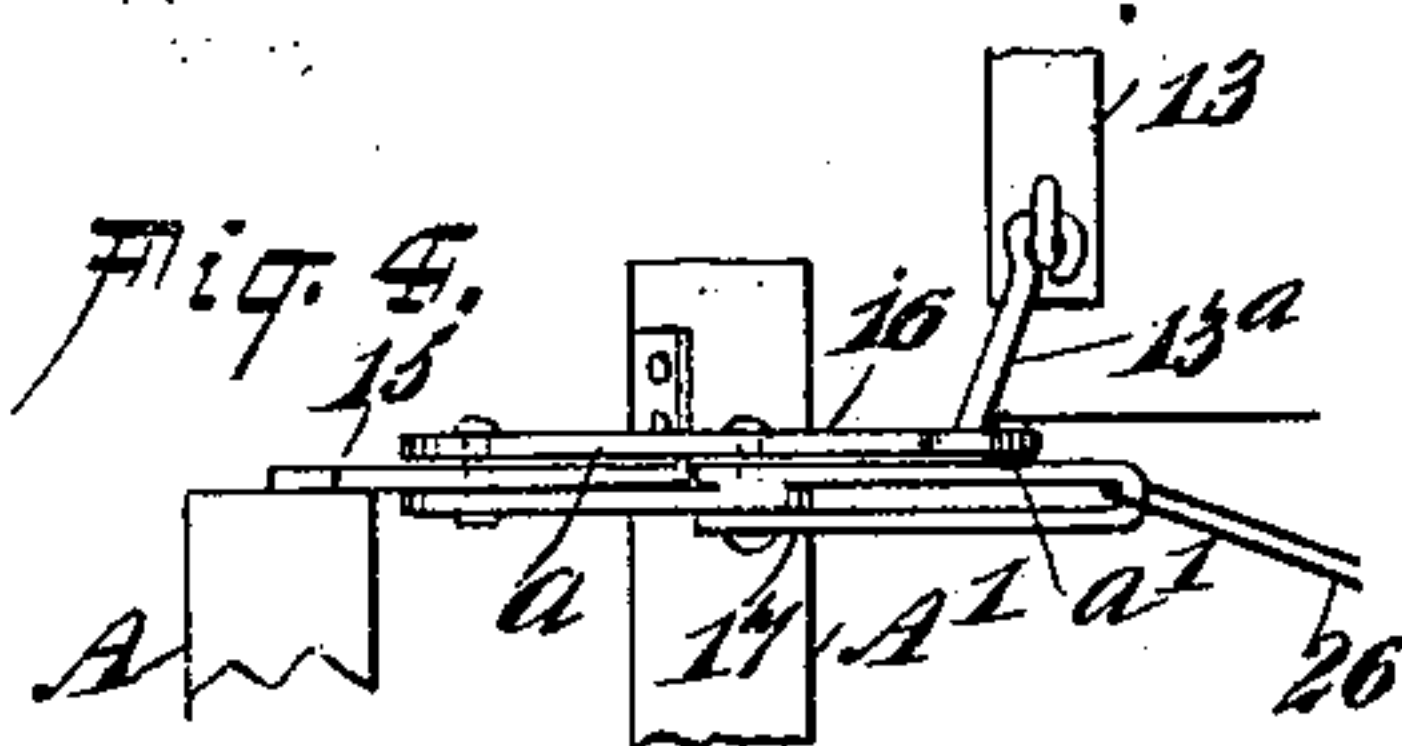
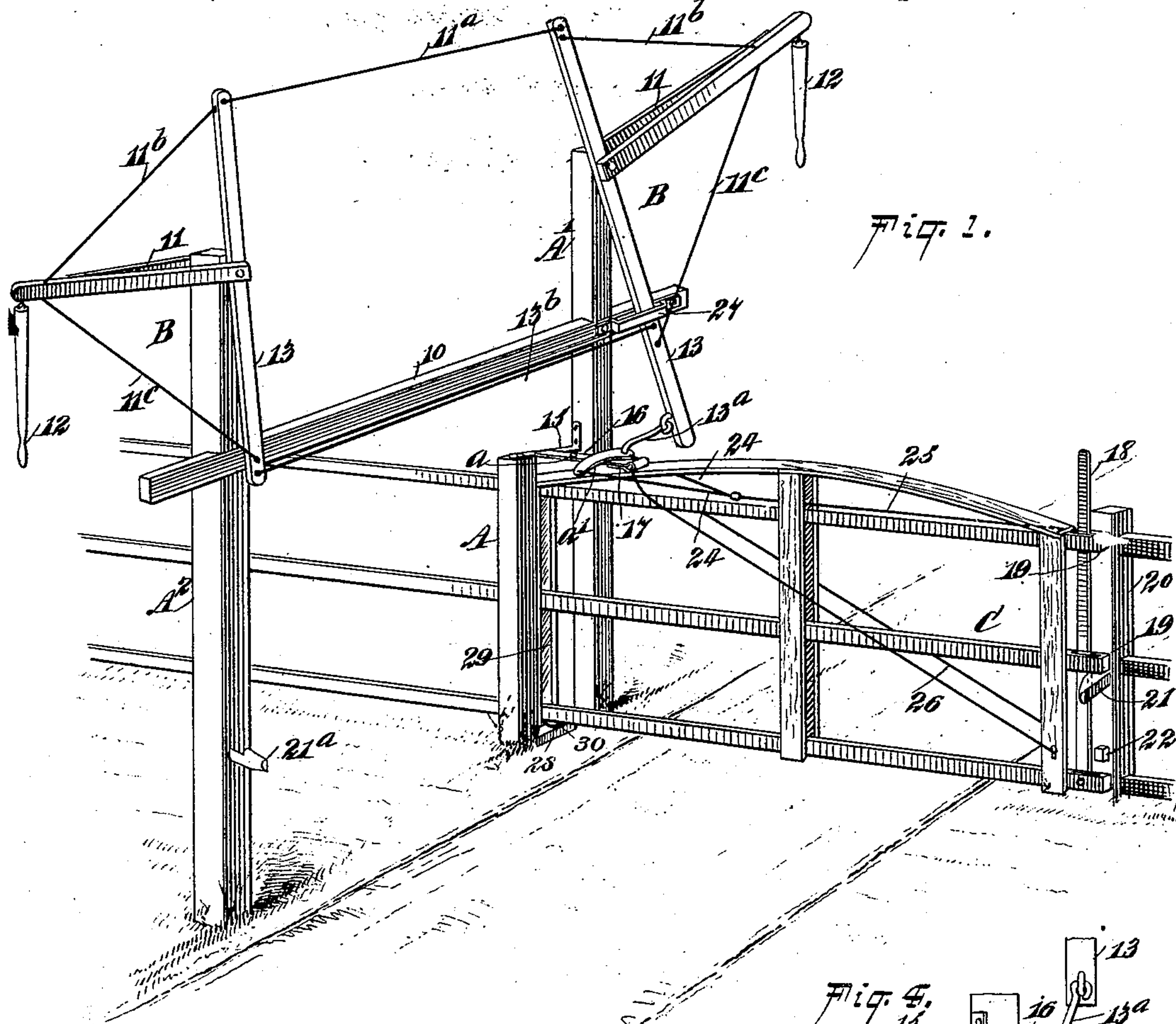


(No Model.)

J. F. FERRIS & W. M. THOMAS.
GATE.

No. 567,086.

Patented Sept. 1, 1896.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN F. FERRIS AND WARREN M. THOMAS, OF NORTH ENGLISH, IOWA.

GATE.

SPECIFICATION forming part of Letters Patent No. 567,086, dated September 1, 1896.

Application filed October 11, 1895. Serial No. 565,355. (No model.)

To all whom it may concern:

Be it known that we, JOHN F. FERRIS and WARREN M. THOMAS, of North English, in the county of Iowa, State of Iowa, have invented a new and useful Improvement in Gates, of which the following is a full, clear, and exact description.

Our invention relates to an improvement in gates, and especially to an improvement in farm-gates, or gates adapted to be located across a road, and the object of the invention is to provide an improvement over the construction of gate shown and described in the patent issued to ourselves July 17, 1894, No. 523,202; and the invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the 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 figures.

Figure 1 is a perspective view of the improved gate, illustrating it in a closed position. Fig. 2 is a plan view of the gate and a horizontal section through one of the posts adapted to carry the opening-lever of the gate, and likewise a horizontal section through the lower portion of the said lever, the said view also illustrating the open position of the gate in dotted lines. Fig. 3 is a partial side elevation and partial sectional view of that section of the gate adapted for engagement with the keeper-post. Fig. 4 is a detail edge view of the device connected primarily with the latch of the gate and adapted to disconnect the same from its keeper; and Fig. 5 is a detail view of the pivot-support of the gate.

In carrying out the invention the main gate-post A is of less height than the adjoining post A', and adjacent to the shorter gate-post A and in alinement with the higher post A' a second high post A² is erected, the high posts A' and A² being adapted to carry the opening mechanism for the gate.

The gate C may be of any desired construction, and its pivoted end is located between the shorter post A and the longer post A' adjacent thereto. The two larger posts A' and

A² are preferably connected by a cross-bar 10, and the opening mechanism for the gate is duplicated upon each of the longer posts A' and A², and the said mechanism for each post consists, as herein shown, of an angular or T-shaped lever comprising a horizontal member 11, which is bifurcated, so as to span the post to which it is to be pivotally attached, and at its outer end is provided with a pendant hand-bar or handle 12 or its equivalent, and a vertical member 13, attached to one of the forks of the said horizontal member, being pivoted to the post by the same pivot-pin employed for the aforesaid horizontal member.

The upper portions of the vertical members of the gate-opening devices are connected together by a wire 11^a or its equivalent, and wires 11^b likewise connect the upper portion of the aforesaid vertical members of the gate-opening devices with their horizontal members 11, while other wires 11^c connect the horizontal members of the gate-opening devices with the lower portions of their vertical members, the aforesaid vertical members being connected together at their lower portions by a wire or cable 13^b. The vertical member of the gate-opening device nearest the gate, or that carried by the post A', is longer than the corresponding member of the opposing gate-opening device and depends below the wire 11^c. The shorter swing-post A is connected with the opposing longer post A' by a diagonal cross-bar 15, and preferably the longer post A' is in advance of or out of the plane of the smaller swing-post A.

The gate is pivoted at its lower end only, its upper end being free, and preferably the pivoting of the gate is effected as shown in Fig. 5. The two posts A and A' are connected near their lower ends by a cross-bar 28, over which the lower end of the swing-post 29 of the gate is located. A strap 30 is secured to the bottom of the gate, and the central portion of this strap is downwardly arched and provided with an opening 31. A bolt 32 of less diameter than the opening 31 is passed through the cross-bar 28 and up through said opening 31 into the space between the strap

and gate-post, being provided within said space with a nut 33. The bolt acts as the pivot of the gate, and the bolt is of such a length that the gate may move up and down on said bolt, but cannot be lifted from it owing to the said nut.

An angular or T-shaped lever 16 is pivoted to the cross-bar 15 at or near its center and works in a horizontal plane, and the said T-lever comprises a body *a* and a head *a'*, the latter being preferably curved, its concave face facing the free end of the gate, and one end of the head of said lever 16 is connected with the depending lower end of the vertical member 13 of the gate-opening device adjacent to the gate by means of a link 13^a or its equivalent.

An arm 17 is pivoted to the lower portion of the shank of the lever 16, being preferably carried beyond the outer end of the head member *a'*, and at the free end of the gate a vertical latch 18 is located, being pivoted to the bottom of the gate and made to pass up through slots 19 in its upper portions.

That portion of the gate through which the latch 18 passes is adapted for engagement with a keeper-post 20, and the said post is provided with a keeper 21, adapted to receive the aforesaid latch 18, a corresponding keeper 21^a being secured to the post A².

In order that the gate shall not be carried upward by animals, such as hogs, dogs, &c., so as to release the latch from the keeper, a stop 22 is secured upon or made integral with the keeper-post, which will be engaged by the lower portion of the free end of the gate when an attempt is made to elevate the gate from the bottom.

The latch 18 is held normally in a position to engage either the keeper 21 or the keeper 21^a by means of a spring 23, preferably secured on the gate and having a bearing at its free end against the said latch, as shown in Fig. 3.

Wires 24 are attached to the end portions of the head member *a'* of the lever 16, and these wires are made to converge at their forward ends and are practically connected at said ends, and likewise connected with a wire 25, which is led directly and secured to the upper portion of the latch 18, and wires or cables 26 are passed through the arm 17 at its forward or outer end, and are carried one strand at each side of the gate downward to a connection with the outer or forward free end of the gate at or near the bottom, so as to brace the gate against lateral or vertical strain.

As seen in Fig. 1, the vertical members 13 of the gate-opening levers are arranged at angles to each other, whereby one of the handles 12 will be in a raised position, as seen at the right-hand side of the drawings, while the other handle 12 will be in a lowered position, as seen at the left hand in said drawings, and when it is desired to open the gate

the operator may grasp either one of the handles 12, whereby the gate may be opened from either side, it being only necessary to draw down on the handle 12, which is in a raised position, or to push upward on the handle 12, which is in a lowered position, either of these actions serving to throw the lever 16 at an angle to the gate, so as to withdraw the latch 18 from its keeper 21 and to swing the gate upon its pivot to an open position, whereupon the latch 18 will be forced into engagement by its spring 23 with the keeper 21^a on the post A².

When the gate is open, it may be closed in a similar manner by drawing down on the handle 12, which is then in a raised position, or pressing upward on the handle 12, which is in a lowered position, either of these actions serving to swing the lever 16 upon its pivot so as to disengage the latch 18 from its keeper 21^a and also to swing the gate upon its pivot to its closed position, as seen in Fig. 1.

From the above description it will be seen that the device is of an extremely simple and inexpensive construction and is not liable to become deranged or broken while in use, and the construction is such that it may be easily repaired, the various parts being readily accessible.

It will also be obvious that the device is susceptible of considerable modification without material departure from its principles and spirit, and for this reason we do not wish to be understood as limiting ourselves to the exact construction herein set forth.

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

1. The combination of a gate, a strap secured at the rear lower corner of the gate and having a downwardly-arched section provided with an opening, a support, a bolt carried by the support and passing loosely through the opening in the strap, and a retaining device on the bolt above the strap, substantially as set forth.

2. The combination of posts spaced apart, a gate pivoted at its lower end between the posts, a connection between the posts, a latch carried by the gate, a keeper to be engaged by the latch, a lever pivoted at its rear end to the connection between the posts and having its front end extending over the gate and connected to the latch, an arm pivoted at its rear end to the central part of said lever and having its front end connected to the free end of the gate, and means for swinging said lever pivotally, substantially as set forth.

3. The combination of posts spaced apart, a gate pivoted at its lower end between the posts, a latch carried by the gate, a keeper to be engaged by the latch, a connection between the posts, a T-shaped lever pivoted at its rear end to the connection between the posts and

having its front end extending over the gate and the opposite ends of its head extending beyond opposite sides of the gate, a connection between the latch and the ends of the
5 head of the T-shaped lever, an arm pivoted at its rear end to the central part of said lever and having its front end connected to the free end of the gate, and means for swinging

said T-shaped lever pivotally, substantially as set forth.

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Witnesses:

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