M. E. GIFFORD.

GATE.

APPLICATION FILED MAR. 15, 1910.

967,754.

Patented Aug. 16, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

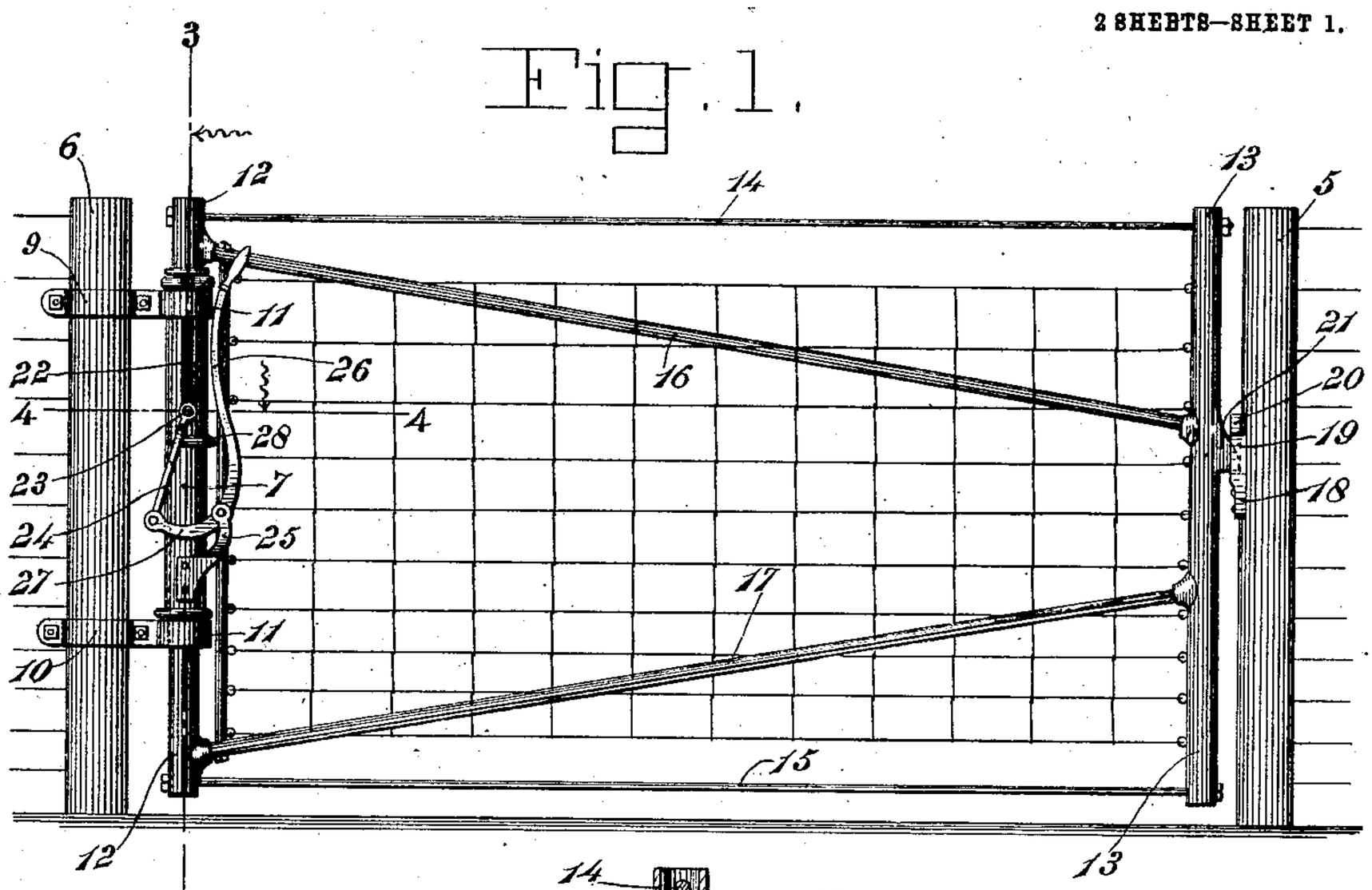
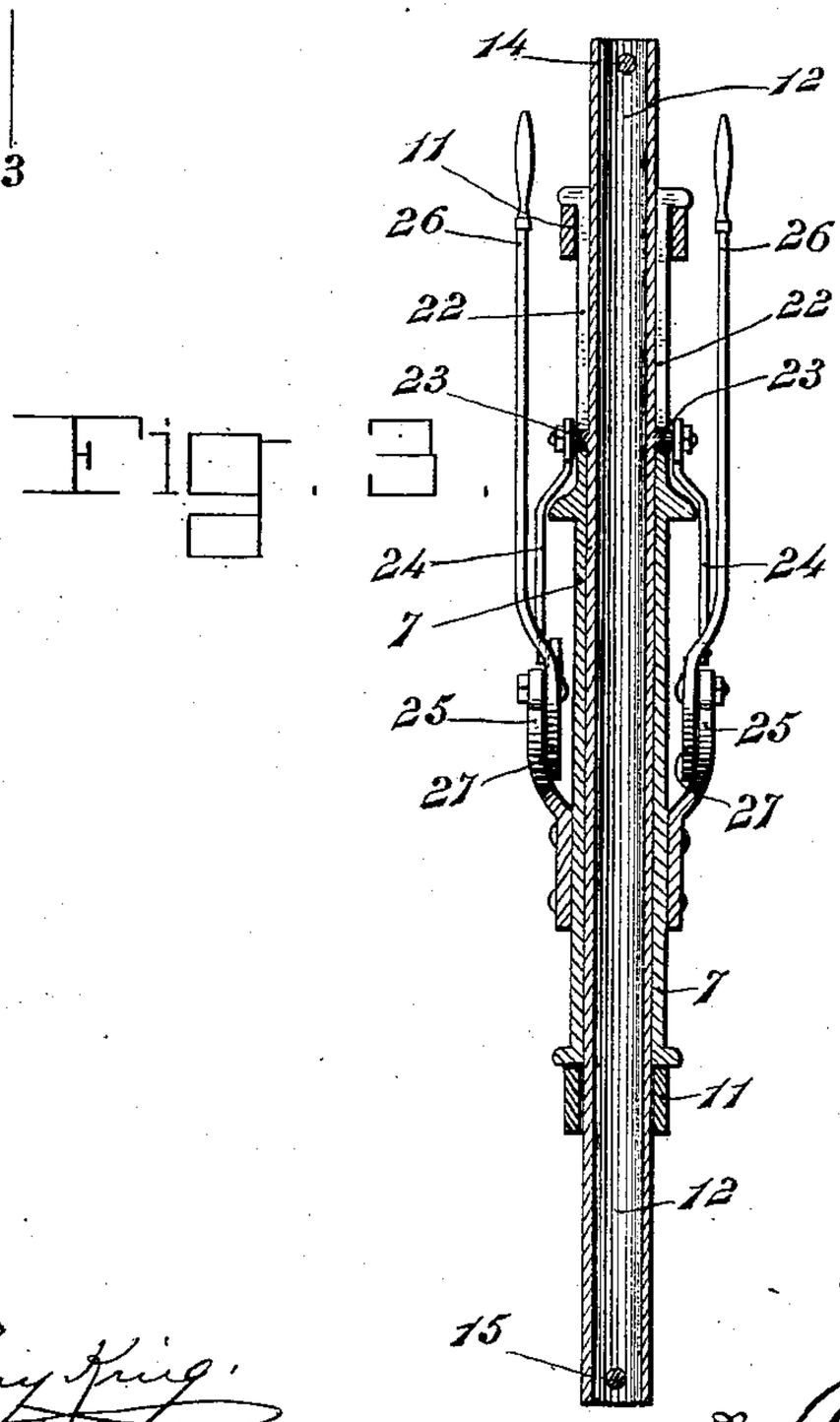


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 2.

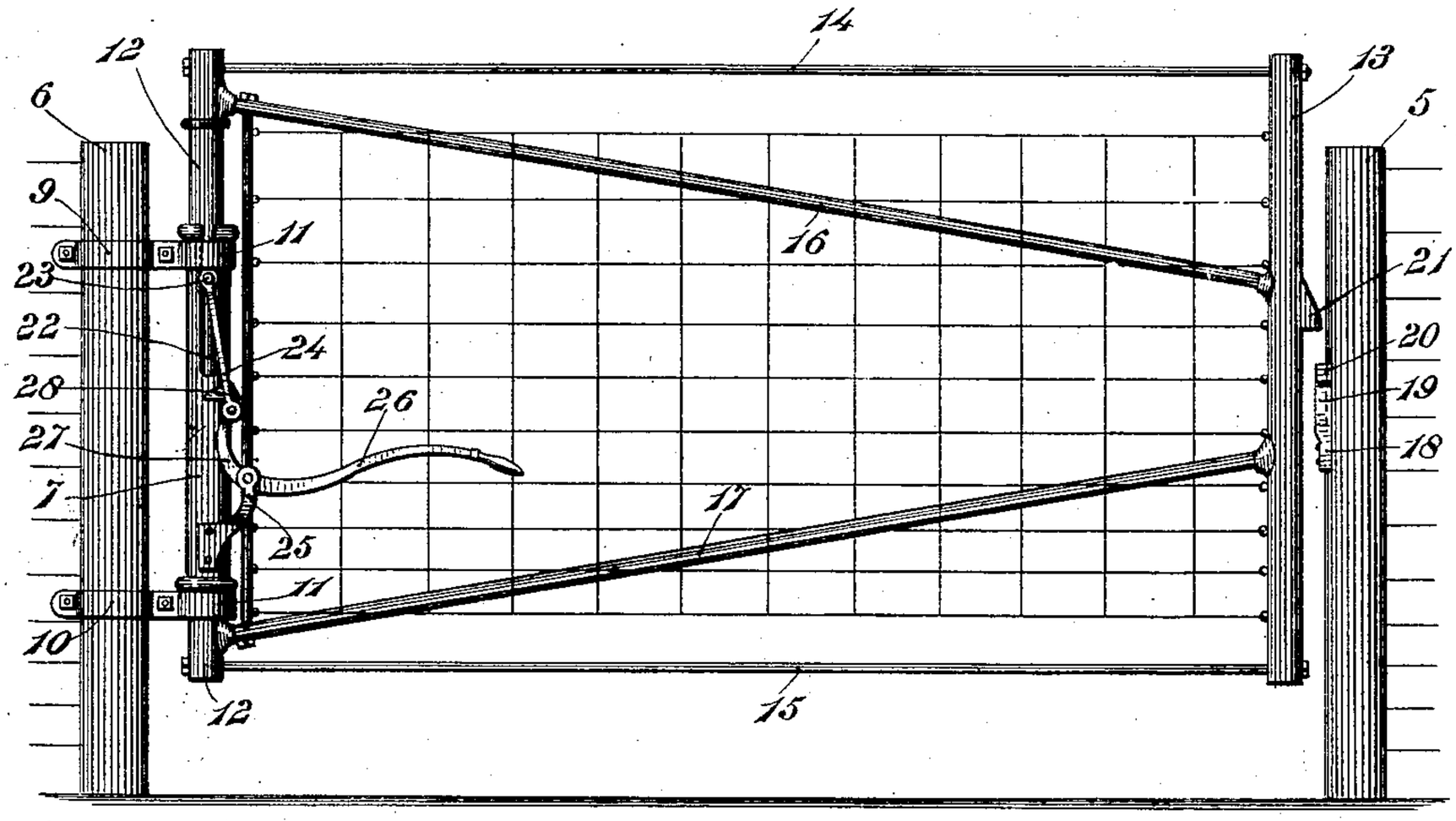
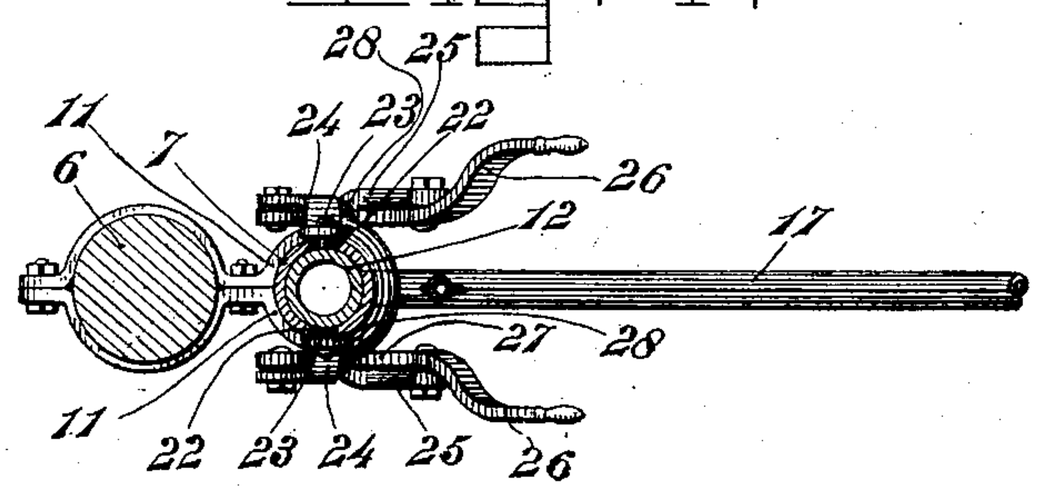


Fig. 4.



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GATE.

967,754. Specification of Letters Patent. **Patented Aug. 16, 1910.**

Application filed March 15, 1910. Serial No. 549,450.

To all whom it may concern:

Be it known that I, MARK E. GIFFORD, a citizen of the United States, residing at Wessington, in the county of Beadle and State of South Dakota, have invented new and useful Improvements in Gates, of which the following is a specification.

This invention relates to an improvement in gates and particularly to a construction whereby the gate to which it is applied is moved in a vertical plane to disengage it from a suitable fastener in order that it may be swung open.

One object in the invention is the provision of a device which may be applied to most forms of gates now in use without the necessity of any expensive alterations.

Another object is the provision of a construction whereby the operator may open the gate from the inner or heel end of the latter thus obviating the usual necessity of following the outer or toe end of the gate when the latter is being opened and closed.

With these and other objects in view, which will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings and more particularly pointed out in the appended claims; it being understood that various changes in the form, proportion, size, and minor details of the device may be made, within the scope of the appended claims, without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings forming a part of the specification: Figure 1 is a side elevation of the device in closed position. Fig. 2 is a similar view with the gate raised and in position to be swung open. Fig. 3 is a sectional end elevation on the line 3—3 of Fig. 1 and looking in the directions of the arrows. Fig. 4 is a sectional plan view on the line 4—4 of Fig. 1.

Similar numerals of reference are employed to designate corresponding parts throughout.

The oppositely positioned gate posts are designated by the numerals 5 and 6 and may be of any well known construction.

What will subsequently be termed an auxiliary support is designated by the numeral 7. This member is preferably formed of a single length of metal tubing and is somewhat less in length than the inner post 6 and is secured to the latter by means of a pair of clamping straps 9 and 10 arranged adjacent to its opposite ends. The clamping straps 9 and 10 each comprise a pair of sections 11, the outer end portions of which are curved in opposite directions so that when the straps are brought together a substantially circular opening will be presented to receive the auxiliary support 7. The inner portions of the straps are offset and straddle the post 6. It will be seen that by reference to Fig. 3 that the extremities of the straps 9 and 10 are arranged on opposite sides of the auxiliary support 7.

The gate herein shown comprises an inner or heel post designated by the numeral 12, the post 12 being of a diameter to slidingly fit within the auxiliary support 7 and being somewhat greater in length than the said support. The outer or toe post is designated by the numeral 13 and connection between the posts 12 and 13 is established by means of rods 14 and 15 secured in any suitable manner to the upper and lower portions of the posts 12 and 13. Suitable braces 16 and 17 are arranged oblique to the horizontal plane of the frame thus formed and have their ends secured to the posts 12 and 13. Arranged on the inner surfaces of the posts 5 remote from the hinged post 6 is a socket 18, preferably formed of a single piece of metal bent at its intermediate portion whereby sides 19 and 20 are provided and formed on the outer face of the toe post 13 is a nose 21 to pass between the sides 19 and 20 of the socket, and when so positioned it will be evident that swinging movement of the gate will be positively prevented.

In order that the gate may be swung in either direction and the nose disengaged from the socket the following construction is employed:—

By reference now to the drawings it will be seen that formed at diametrically opposite points on the auxiliary support 7 and extending from the upper end of the latter to a point adjacent the middle thereof are longitudinal slots 22. Extending radially from diametrically opposite points on the heel post 12 are pins 23 which are received by the slots 22. The pins 23 project beyond the surface of the auxiliary support 7 and receive the upper ends of a pair of links 24.

Fixedly secured to the auxiliary support 7 and arranged at diametrically opposite

points on the outer surface thereof and extending upwardly and outwardly are a pair of supports 25, the upper ends of which extend to points approximately in a plane with the lower ends of the links 24, when the gate is in its lowered position. A pair of levers are designated by the numeral 26 and are curved at one end as shown at 27 and at a point adjacent to the extremity of their curved ends are fulcrumed on the upper ends of the supports 25. The levers are so positioned that their free ends will extend upwardly and the extremities of their curved ends are pivoted to the lower ends of the links 24.

With this construction it will be manifest when either lever is depressed, it being understood that the pins are at the lower ends of the slots 22, that upward movement of the lower ends of the levers will impart, through the links 24, a lifting movement to the gate, whereupon the nose 21 will be lifted from engagement with the member thus permitting the gate to be swung open.

In order that the gate may be held in its raised position and after the lever has been swung downwardly to its full extent stops 28 are employed. These members project laterally from the auxiliary support 7, and are so positioned that after the levers and links move beyond their centers, during the downward movement of the levers, the pivotal points of the links and levers will abut against these stops, whereby further movement of the parts will be prevented and the gate maintained in raised position, until the levers are moved in the opposite direction.

From the foregoing it will be seen that I have provided a device which is comparatively simple in structure and inexpensive in manufacture, embodying few parts and these so arranged that the danger of derangement will be reduced to a minimum.

Having thus described the invention, what is claimed as new is:—

1. In a gate, the combination with a tubular support, and a gate body having its heel end slidingly fitted in said tubular support; of an oscillating lever pivoted to the tubular support, a link having its opposite ends connected to the lever and heel end of the gate serving to bodily move the gate in a vertical plane upon each oscillation of the lever, a stop located on the support to one side of the pivotal connection between the link and heel end of the gate and in the path of movement of the link, for the purposes described.

2. In a gate, the combination with a tubular support and a gate body having its heel end slidingly fitted in said tubular support, the said heel end being provided with lateral pins extending through longitudinal slots formed in the tubular support; of an oscillating lever pivoted to the tubular support, and a link connection between the lever and pins serving to bodily move the gate in a vertical plane upon each oscillation of the lever.

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

MARK E. GIFFORD.

Witnesses:
JAMES HENDERSON,
FRANK T. BROOKS.