



No. 693,898.

Patented Feb. 25, 1902.

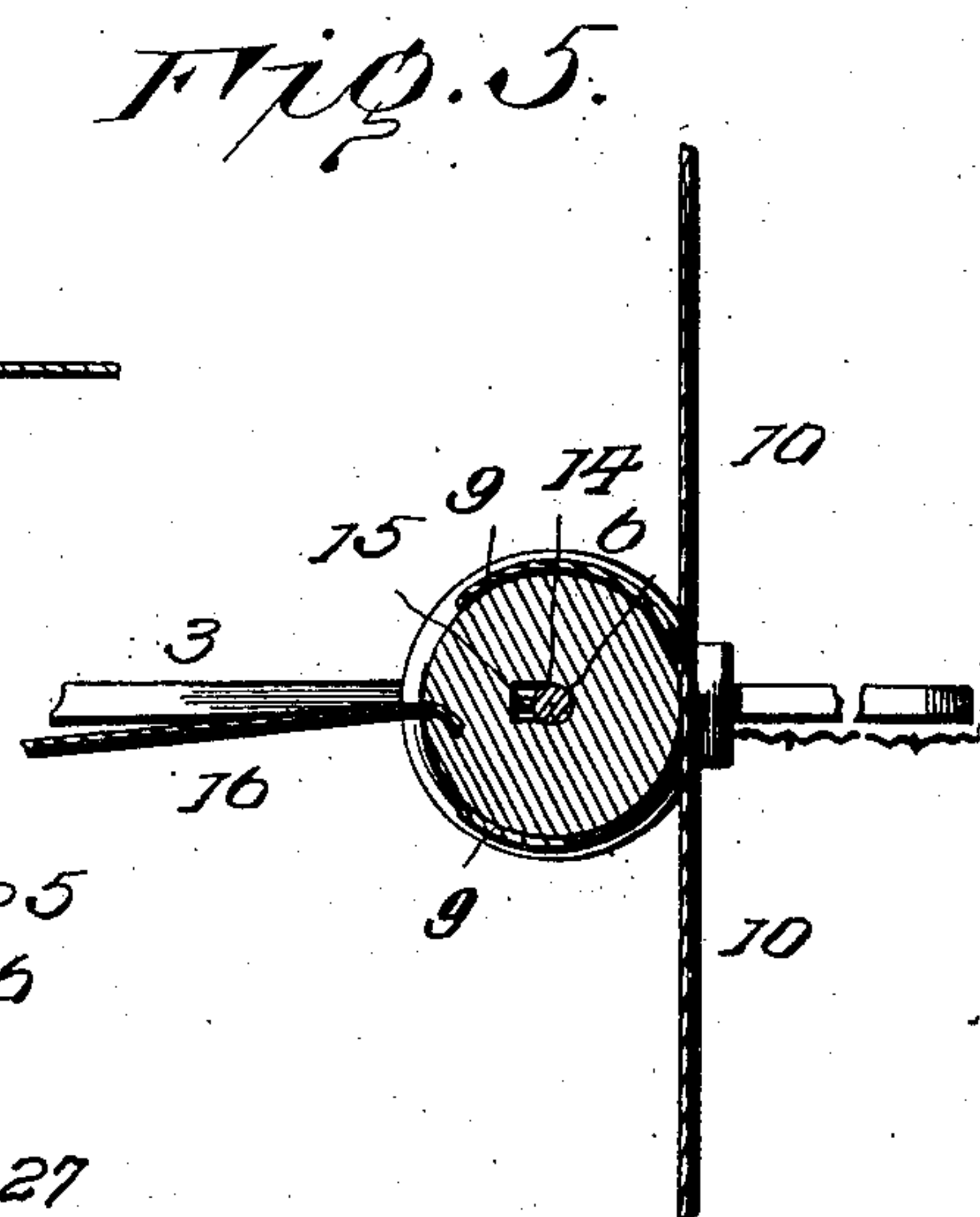
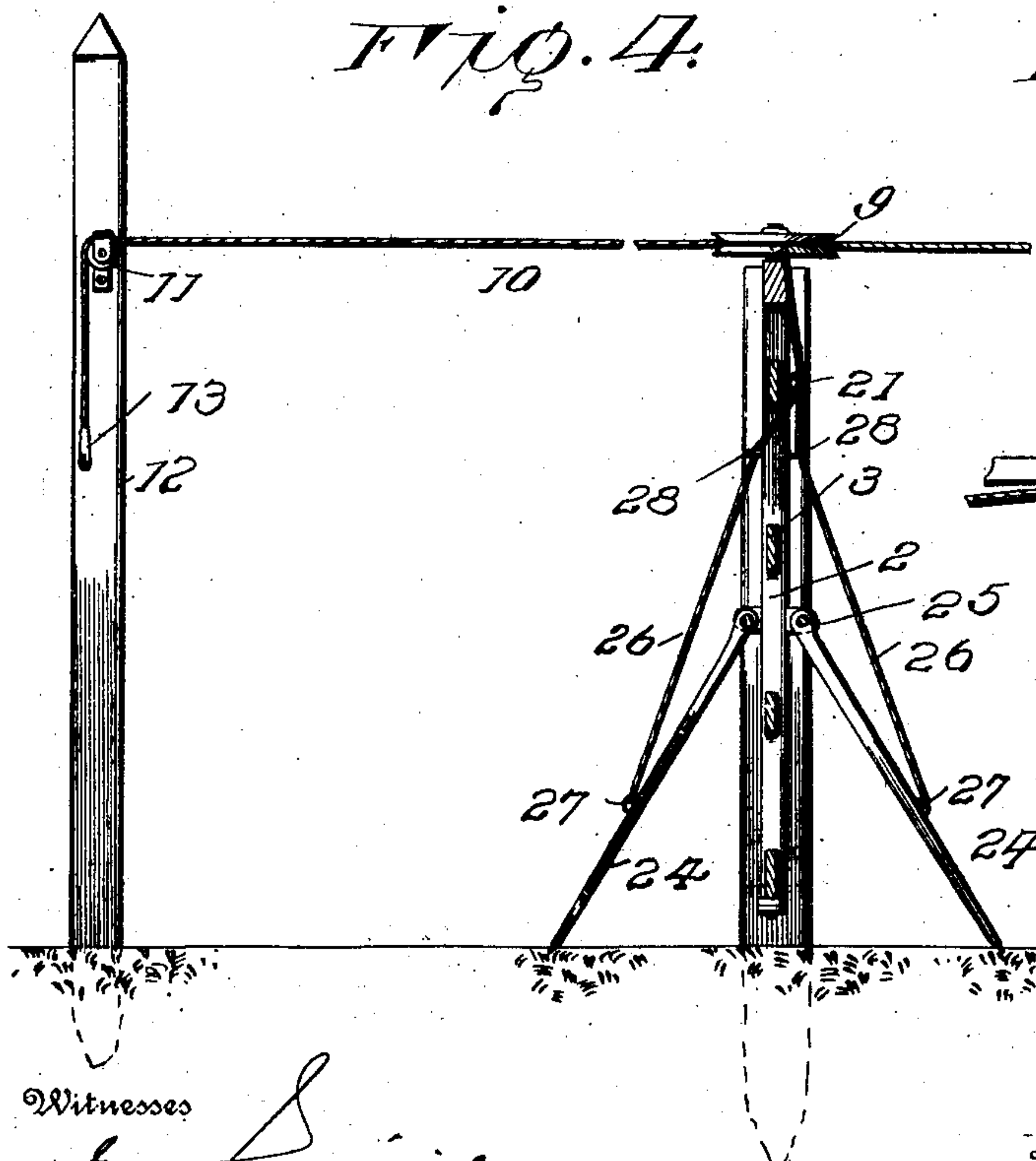
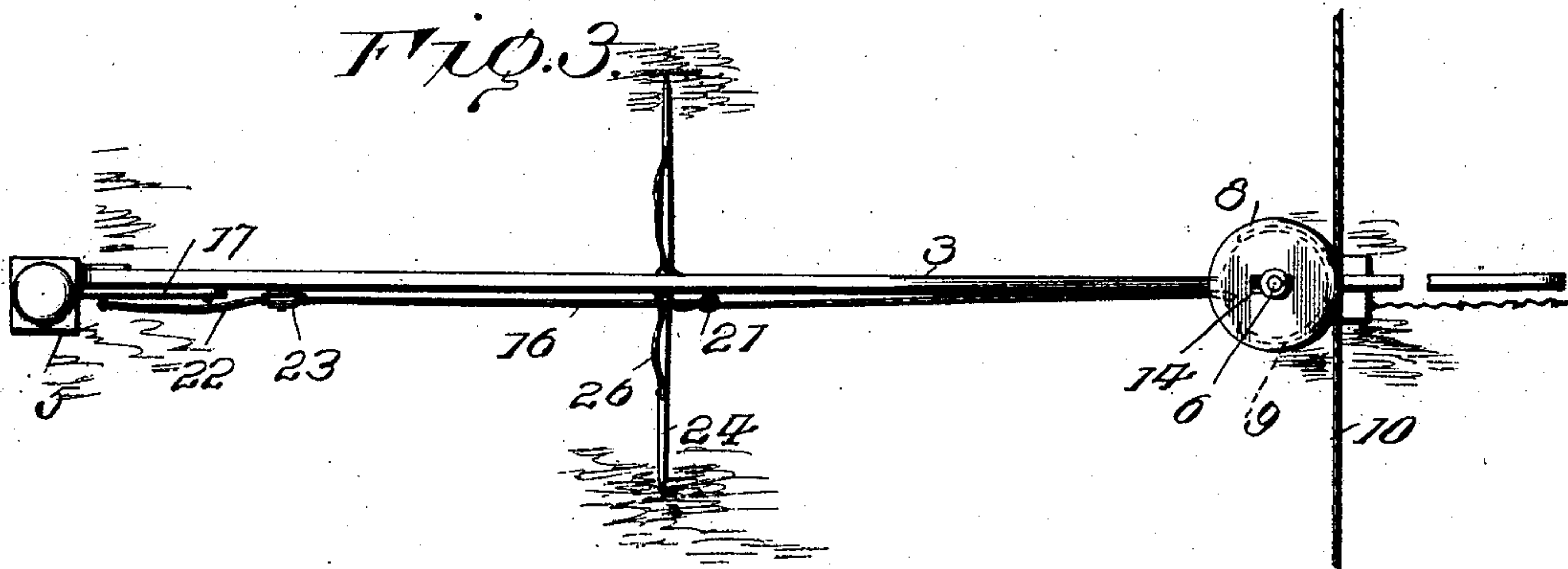
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GATE.

(Application filed June 17, 1901.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses

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# UNITED STATES PATENT OFFICE.

THEODORE L. PATRICK AND LOWREN SPRAGUE, OF SHABBONA, ILLINOIS.

## GATE.

SPECIFICATION forming part of Letters Patent No. 693,898, dated February 25, 1902.

Application filed June 17, 1901. Serial No. 64,908. (No model.)

*To all whom it may concern:*

Be it known that we, THEODORE L. PATRICK and LOWREN SPRAGUE, citizens of the United States, residing at Shabbona, in the county of Dekalb and State of Illinois, have invented certain new and useful Improvements in Gates; and we 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.

This invention relates to gates especially adapted for farm purposes, and relates particularly to that class of gates in connection with which means are employed for enabling a person riding in a carriage or on horseback to open and close the gate without the necessity of dismounting.

One of the main objects of the present invention is to provide in connection with a hinged and horizontally-swinging gate a latch for holding the gate closed, in addition to one or more drag-latches for holding the gate open when swung in either direction, and means operable at a suitable distance from the gate for disengaging the latches or throwing the same out of operation and subsequently swinging the gate upon its hinged connection, the operative connections for swinging the gate and working the latches being adapted to be actuated by either of a pair of operating devices arranged at a distance from the gate and at opposite sides thereof, whereby the rider is enabled to open the gate from either side and after passing through the gateway close and latch the gate.

With the above and other objects in view, which will more fully appear as the description proceeds, the invention consists in the novel construction, combination, and arrangement of parts hereinafter fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a gate, showing the gate-swinging and latch-operating mechanism. Fig. 2 is a side elevation of the same. Fig. 3 is a plan view thereof. Fig. 4 is a cross-section taken adjacent to the center of the gate. Fig. 5 is an enlarged detail horizontal section showing the relation between the gate-operating wheel and shaft, whereby the op-

erating-wheel has a limited amount of movement independently of the gate and its shaft.

Similar numerals of reference designate corresponding parts in all figures of the drawings.

In the drawings we have shown an ordinary swinging gate comprising the end bars 1, center bar 2, and horizontal rails 3, the said gate being mounted at one end on a hinge-post 4 and provided at its opposite end with means for latching the gate to a similar post 5.

The gate is mounted to swing upon a vertical shaft 6, the said shaft being preferably connected with and carried by the gate and having a fixed connection with the gate, while it is journaled to turn in bearing-brackets 7, mounted on the post 4. Mounted upon the upper end of the shaft 6 is a gate-operating wheel 8, the periphery of which is grooved to receive the extremities 9 of the sections 10 of an operating-cable, the ends 9 being securely fastened in the groove of the operating-wheel and the cable-sections extending from thence in opposite directions, where they pass around guide-pulleys 11, mounted on posts 12, arranged at a suitable distance from the gate and on opposite sides thereof, as shown in Fig. 1. Hand-grips 13 are attached to the pendent ends of the gate-operating cable-sections, as shown, for facilitating the operation of opening and closing the gate. The cable-sections 10 are wound upon the operating-wheel 8 in different directions, as clearly shown in Fig. 5, so that by pulling on one of the cable-sections the wheel is turned in one direction and by pulling on the other cable-section the wheel is turned in the reverse direction.

In order to operate the latches hereinafter described before swinging the gate, the operating-wheel 8 is provided with a slot or recess 14, in which works a projection 15 on the shaft 6, the slot or recess 14 being sufficiently larger than the projection 15 to permit the operating-wheel 8 to be turned in either direction far enough to exert a pull on the latch-operating connection 16 and disengage the latch or latches preparatory to swinging the gate. At the free end of the gate there is mounted a gate-latch 17 of ordinary construction, the same being pivotally connected at 18 to the frame of the gate and adapted to



engage at its free end with a keeper 19 on the adjacent gate-post, the latch being normally pressed into engagement with the keeper by means of a spring 20, arranged above or behind the latch and connected with the gate, as shown. That portion of the flexible operating connection 16 which connects with the operating-wheel 8 is provided at its end with a ring or eye 21, to which is connected a cord or rope 22, which passes over a guide-pulley 23 and thence downward, where it connects with the gate-latch 17, as shown, so that by drawing on the flexible connection the gate-latch is lifted out of engagement with its keeper. Drag-latches 24 are also provided for holding the gate open. These latches are best represented in Figs. 1 and 4, where they are shown as pivotally connected at one end, as at 25, to opposite sides of the gate, while they are of sufficient length to extend downward at an angle to the gate for the purpose of engaging the ground and forming an effective bar to the closing of the gate when they are released and allowed to drop down. The drag-latches 24 are raised by means of cords or ropes 26, which at their lower ends are connected in any convenient manner, as at 27, to the drag-latches and from said points extend upward, where they pass through guides 28, preferably in the form of staples or eyes, mounted on the frame of the gate, and thence connect with the ring or eye 21, hereinabove referred to. It will thus be seen that by drawing on the connection 16 the gate-latch and the drag-latches are simultaneously lifted for releasing the gate whether the same is locked in its closed position or held open.

It will be understood from the foregoing description [that by operating either one of the hand-grips 13 a sufficient amount of rotation is imparted to the operating-wheel 8 independently of the gate-shaft for primarily lifting the latches before swinging the gate upon its hinged connection. In the further rotative movement of the operating-wheel the said wheel operates through the medium of the projection 15 on the gate-shaft to turn said shaft and therewith the gate. After the gate has been swung all the way open on releasing the hand-grip the latches being relieved fall to their normal positions, and it will be apparent that one or the other of the drag-latches will become operative for the

purpose of holding the gate open and preventing it from accidentally closing. When the rider has passed through the gateway and desires to close the gate, he operates the other hand-grip, which has the effect of first elevating the drag-latches. This enables the gate to swing shut.

In order to cause the gate to swing easily upon its hinged connection, we provide a counterbalance-lever 29, which is rigidly connected to the gate and preferably extended along the top thereof, as shown in Figs. 1 and 2, while the opposite end is extended in rear of the shaft 6 and made of sufficient length or weight to serve as a counterbalance for the gate, thus preventing the sagging of the gate at its outer or free end in a manner that will be readily understood without further description.

We do not desire to be limited to the specific construction hereinabove set forth, and accordingly reserve the right to change, modify, or vary the construction within the scope of the appended claims.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. The combination with a hinged gate, and a drag-latch pivotally connected thereto and adapted to operate upon the ground, of an operating-wheel mounted at the hinged end of the gate, a flexible connection extending from said wheel to the drag-latch, and a gate-operating cable connected with said wheel, substantially as described.

2. The combination with a hinged gate, a gate-latch carried thereby, and drag-latches pivotally connected to opposite sides of the gate for engagement with the ground, of a gate-operating wheel mounted adjacent to the hinged end of the gate, a gate-operating cable connected with said wheel, and flexible latch-operating connections extending from said wheel to the gate-latch and drag-latches respectively, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

THEODORE L. PATRICK. [L. S.]  
LOWREN SPRAGUE. [L. S.]

Witnesses:

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