

No. 613,815.

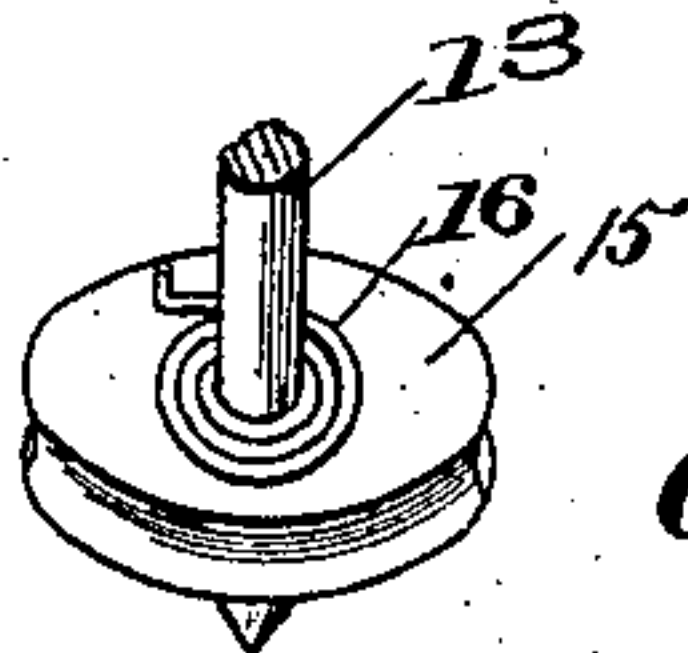
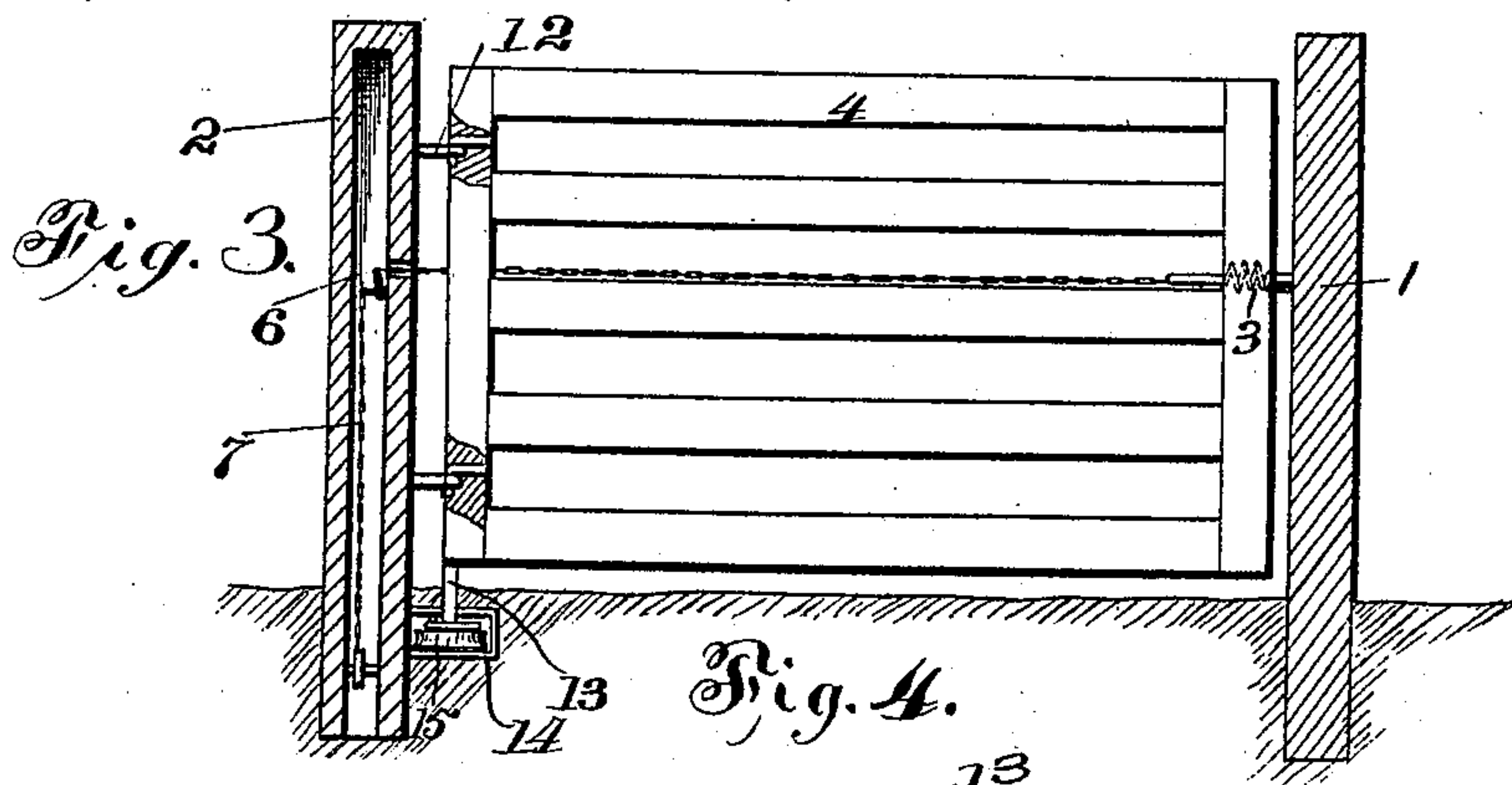
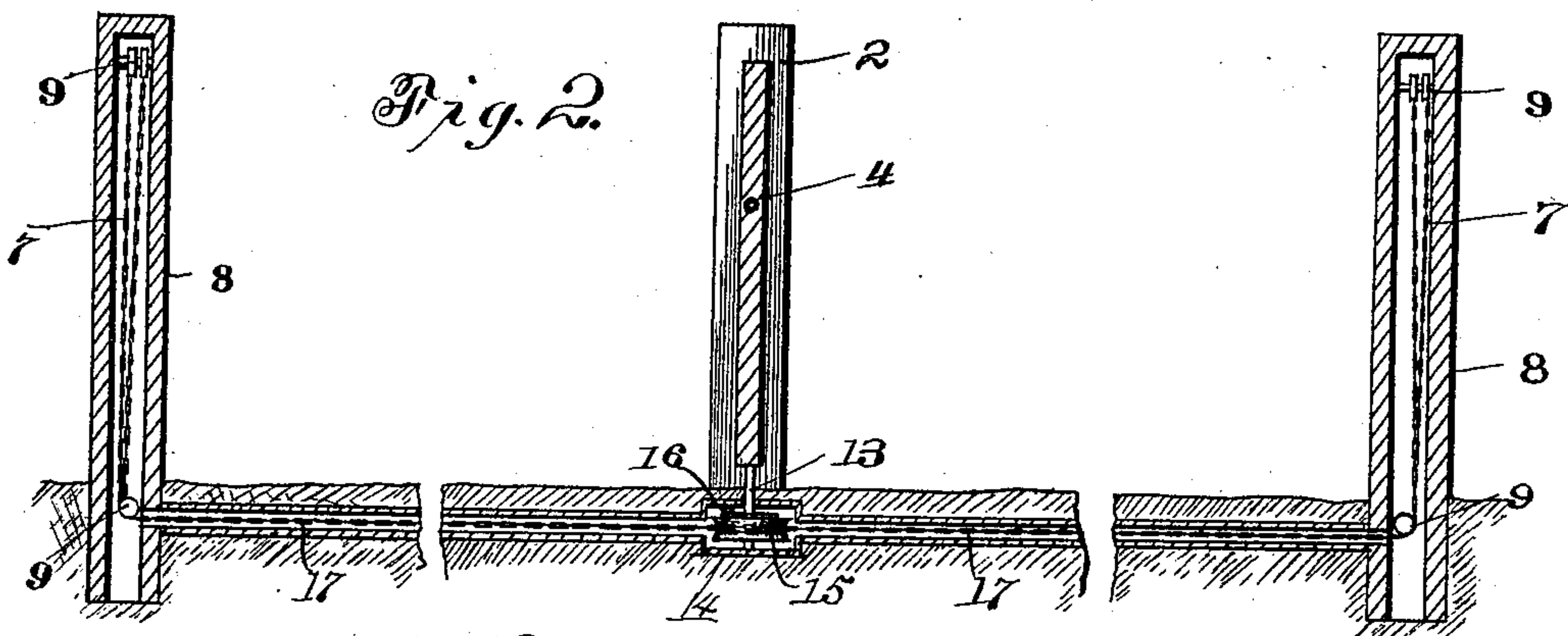
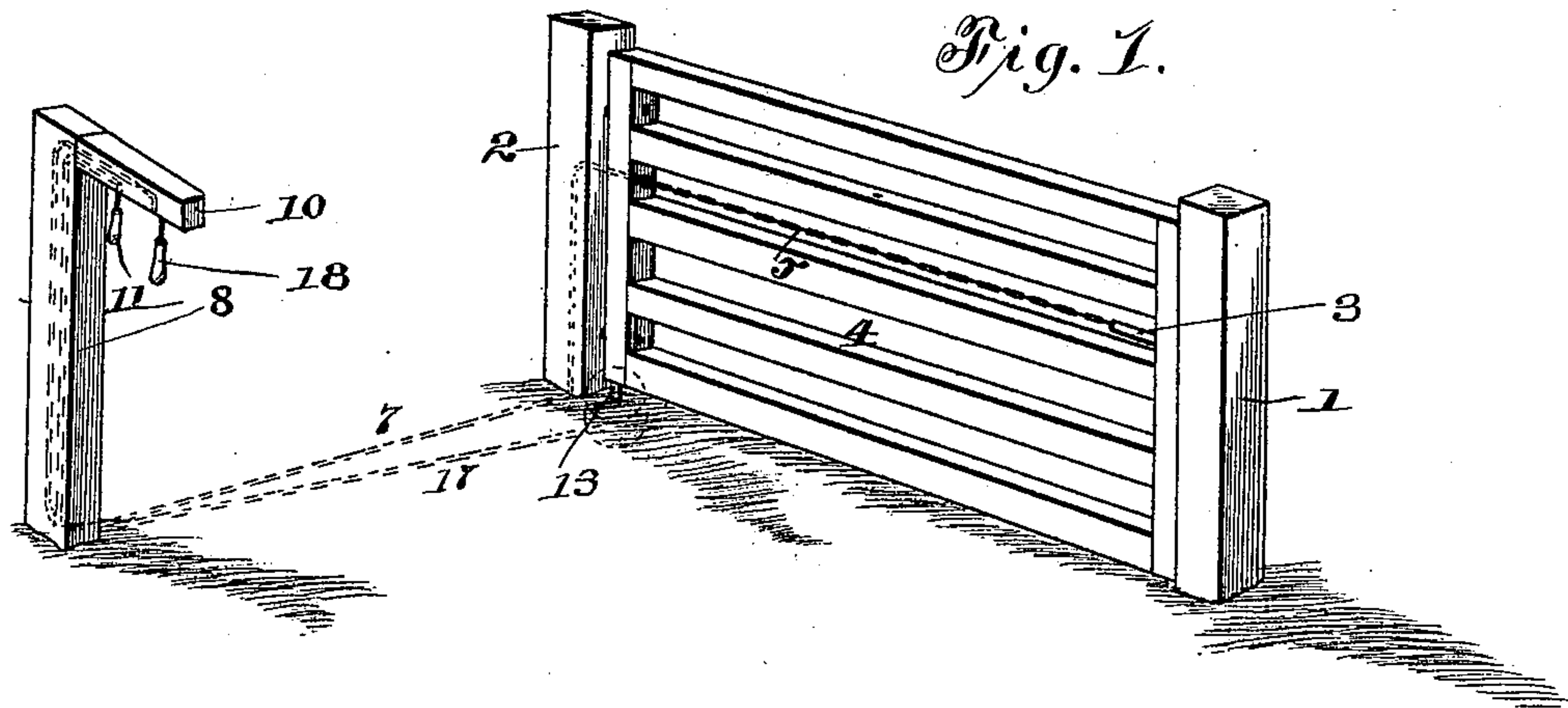
Patented Nov. 8, 1898.

C. A. ELIAS.

AUTOMATICALLY OPENING GATE OR DOOR.

(Application filed Aug. 20, 1897.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## AUTOMATICALLY-OPENING GATE OR DOOR.

SPECIFICATION forming part of Letters Patent No. 613,815, dated November 8, 1898.

Application filed August 20, 1897. Serial No. 648,972. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES ARTHUR ELIAS, a citizen of the United States of America, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Automatically-Opening Gates or Doors; 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.

This invention relates to automatically-opening gates or doors; and it consists in the construction, combination, and arrangement of parts, which will be hereinafter more fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a gate embodying the invention and showing the operating mechanism in dotted lines. Fig. 2 is a longitudinal section through the upright upon which the gate swings and the posts upon opposite sides of the gateway. Fig. 3 is a section at right angles thereto, the same being taken through the post upon which the gate is hinged and the latch-post, showing the gate in a closed position. Fig. 4 is a detail perspective view of the spring-actuated operating-wheel by which the gate is controlled.

Referring to the drawings, wherein similar numerals of reference are employed to indicate corresponding parts in the several views, the numerals 1 and 2 designate opposite gate-posts, the post 1 at a suitable elevation having mounted thereon a striker-plate of any preferred form of construction adapted to be engaged by a spring-latch 3, carried by the adjacent end of a gate 4. Secured to the rear of the said latch is a pull-chain or analogous device 5, running into the post 2, which is hollow. The rear end of the chain 5 is attached to one arm of the bell-crank lever 6, mounted in the said hollow post, and to the opposite arm of the said lever is attached the upper end of an operating-chain or analogous device 7, extending downwardly from it through the post and underground to a suitable distance from the gate, where it enters a hollow post 8 and, passing upwardly over sheaves or pulleys 9, extends outwardly from

the upper portion of the said post 8 through a support 10 and has a pull-knob or like device 11 on the free end thereof. The chain 7 is also adapted to have a second chain similar thereto connected therewith, which may be run to the opposite side of the gate, so that the latch may be operated from either side.

The gate 4 is connected to the post 2 by hinges 12, which are nicely fitted and accurately adjusted to each other, so that the gate will easily swing thereon. Depending from the rear part of the under portion of the said gate is a turn-pin 13, which extends downwardly below the surface of the ground and into a surrounding box or casing 14. The lower portion of the said turn-pin 13 engages an operating-wheel 15, which is grooved and has an actuating-spring 16. The said spring 16 is secured at one end to the box or casing and at the opposite end to the turn-pin 13, the latter extending through the said wheel, and attached to opposite sides of the wheel and working in the groove thereof are oppositely-extending chains or analogous devices 17, each of which enters one of the posts 8, one only being shown in Fig. 1 of the drawings, and extends over the pulleys 9 and outwardly through the support 10 and has a pull-cord or similar device applied thereto, as at 18. The said pull 18 is made different or distinguished by suitable means from the pull 11, so that the operator may easily understand which device to engage first in opening or closing the gate.

When the mechanism is applied in connection with the gate, the operation is as follows: The occupant of a vehicle approaching the gate through which it is desired to pass reaches out and grasps the pull 11 and disconnects the latch from the striker-plate on the post 1, and the moment the said latch is released the spring 16 operates the wheel 15 and through the turn-pin the gate is swung open. After passing through the gate a similar post is reached on the opposite side, and the operator grasps a pull similar to the pull 18 and draws the gate closed by unwinding the chain 17 from the wheel 15 against the tension of the spring 16, thereby closing the gate, which automatically latches, and at the



same time winding the said spring 16. The gate, as set forth, will open in one direction at all times, and the latch 3 is adapted to be released from either side. Should a person in a vehicle desire to come through the gate from the side thereof opposite to that just set forth, the gate will be opened in a similar manner, and after passing through the gate-opening the pull 18 would be engaged at the opposite side and similarly operate the wheel 15 against the action of the spring 16 to close the gate. The posts 8 will be situated at a suitable distance from opposite sides of the gate, and it will be understood that a gate of this character might be used in certain places where found applicable for the passage there-through of pedestrians, and the use of course of the device is not limited to farm or domestic purposes solely.

The same construction and arrangement of parts might be equally well applied to the doors of large mercantile houses and stores and be actuated from the inside and out of sight of the patrons by some person at a distance from the door. This would incite considerable perplexity and invigorate curiosity, as persons passing through a door thus operated and not seeing any one to operate it would be immediately attracted by such a condition of affairs, and this feature might with advantage be used as a very salient advertising means.

Many other uses of the devices set forth might be made, and it is obviously apparent that many minor changes in the details of construction and arrangement of the several parts might be made and substituted for those shown and described without in the least departing from the nature or spirit of the invention.

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

1. In a device of the character set forth, the combination of a swinging closure having a latch, a hollow support to which said closure is hinged, a chain or analogous device connected to the latch and extending through said hollow support and to a distance from the latter, a turn-pin depending from the swinging closure, a box or casing having a grooved spring-actuated wheel therein with which the said turn-pin engages, and chains or analogous devices attached to the opposite sides of said grooved wheel and extending away from opposite portions of the said closure, substantially as described.

2. In a device of the character set forth, the combination of a gate having a latch, a hollow post to which said gate is hinged, chains attached to said latch and extending through said hollow post and away from the gate, a turn-pin depending from the rear under portion of the gate and engaging a spring-actuated controlling device, chains or analogous devices connected to the opposite sides of said spring-actuated controlling device and extending away from the gate on opposite sides thereof, opposite posts distant from the said gate through which the said chains extend, and pulls on the exposed ends of said chains having a different appearance, substantially as described.

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

CHARLES ARTHUR ELIAS.

Witnesses:

JOHN W. ZIKA,  
JOSEF VANEK.