

GATE.

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Inventor

Chas. H. Co.

Attorneys

Witnesses.

W. P. Tomlin
Robert D. Lawton

UNITED STATES PATENT OFFICE.

CARL AUGUST SANDBORG, OF BLOOMINGTON, ILLINOIS.

GATE.

989,878.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CARL AUGUST SANDBORG, a citizen of the United States, residing at Bloomington, in the county of McLean and State of Illinois, have invented a new and useful Gate, of which the following is a specification.

This invention relates to swinging gates and more particularly to means whereby the same can be readily opened and closed by a person standing at a distance therefrom.

One of its objects is to provide gate operating mechanism which is easy to operate and which is simple and durable in construction.

A further object is to provide gate operating mechanism utilizing force of gravity to facilitate the actuation of the gate.

A further object is to provide mechanism which serves to swing the gate away from the person operating the same.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a front elevation of a gate having the present improvements combined therewith. Fig. 2 is a section on line A—B Fig. 1.

Referring to the figures by characters of reference 1 designates a latch post having a plate 2 secured thereon, the said plate carrying a latch 3 adapted to be engaged by a tongue 6 extending from the gate 7.

The gate post 9 has a hinge member 10 extending from the lower portion thereof and a plate 11 is secured to the upper portion of said post and has another hinge member 12 extending from it. A vertically extending guide rod 13 is connected to the lower portion of the gate 7 and is slidably mounted in the hinge member 10, and another vertically disposed guide rod 14 is slidably mounted within the upper hinge member 12, this guide rod 14 being connected to a bracket 15 which is riveted or otherwise secured to the upper corner of the gate 7 as shown in Fig. 1. Arms 16 extend upwardly from the bracket 16 and a roller 17 is supported there-between.

A ring like actuating plate 18 is mounted on the plate 11 and is provided with oppositely disposed arcuate slots 19 into each of

which projects a guide pin 20 which extends from the plate 11. A U-shaped supporting rail 21 extends across this plate 18 and is disposed substantially perpendicular thereto, this rail extending between the arms 16 and supporting the roller 17. An actuating lever 21' is fulcrumed upon the upper portion of the post 9 and has its lower end forked as shown at 22, this forked portion engaging a pin 23 outstanding from the upper portion of the plate 18. Cables 24 may be attached to the upper end of lever 21' and extended any distance desired, these cables constituting means whereby the lever 21' may be actuated by a person located at a distance from the gate. It is to be understood that under normal conditions the lever 21' is vertical and the rail 21 is in a substantially horizontal plane. The tongue 6 engages the latch under normal conditions.

When a person approaching the gate wishes to open the same, it is merely necessary to pull upon the adjoining rope 24 so as to swing the lever 21' toward the operator. The lower forked end 22 of the lever will swing the pin 23 and the plate 18 with the pins 20 constituting the guides therefor and the rail 21 will thus be tilted. During the first portion of this tilting movement of the rail, the roller 17 will be slightly elevated, this elevation being sufficient to lift the tongue 6 from the latch. The tilting rail 21 will then tend to press the roller 17 to one side and at the same time the said roller will travel downwardly upon the rail, thus causing the gate 7 to swing to its open position.

The gate can, obviously, be returned to its closed position by reversing the foregoing operations.

Various changes can of course be made in the construction and arrangement of the parts without departing from the spirit or sacrificing any of the advantages of the invention as defined in the appended claim.

What is claimed is:—

The combination with a post, and a hinge member extending therefrom, of a plate secured to the post, a hinge member extending from the plate, a swinging gate slidably engaging said hinge members and adapted to move vertically, a ring-like actuating plate having opposed arcuate slots, said plate extending around the hinge member on the plate on the post, guide pins extending from the post plate and through the arcuate slots, means upon the post and movably engaging

the actuating plate for shifting the plate,
either of said pins constituting the fulcrum
of the plate, and a U shaped supporting rail
extending across the actuating plate and dis-
posed substantially perpendicularly to said
5 plate, and means upon the upper portion of
the gate and bearing downwardly upon the
rail to support the gate.

In testimony that I claim the foregoing as
my own, I have hereto affixed my signature 10
in the presence of two witnesses.

CARL AUGUST SANDBORG.

Witnesses:

J. C. TAYLOR,

R. H. KREPLIEN.

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