

No. 705,401.

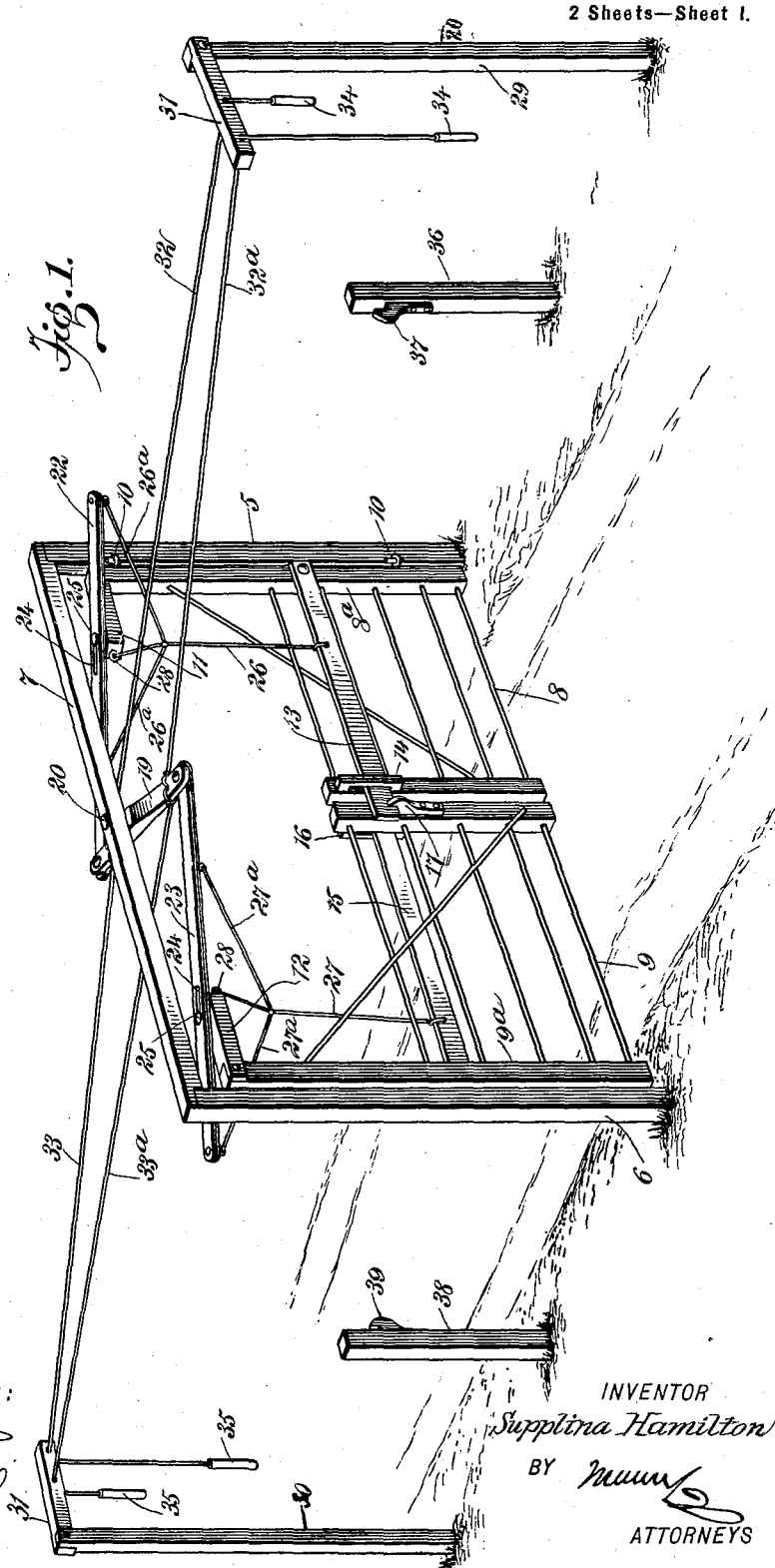
Patented July 22, 1902.

S. HAMILTON.  
SWINGING GATE.

(Application filed Apr. 18, 1902.)

(No Model.)

2 Sheets—Sheet I.



WITNESSES:  
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INVENTOR  
*Supplina Hamilton*  
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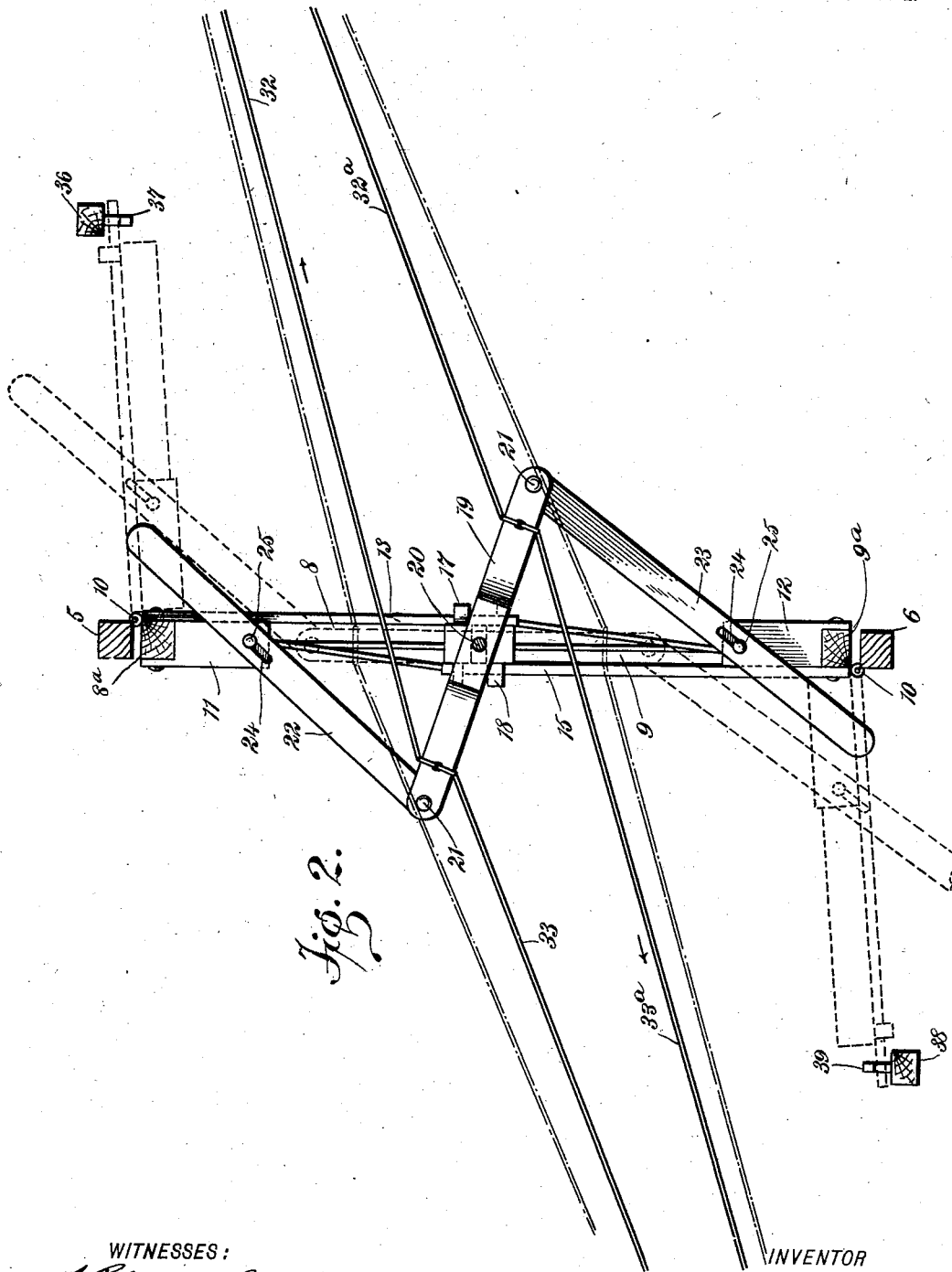


Fig. 2.

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# UNITED STATES PATENT OFFICE.

SUPLINA HAMILTON, OF ENDICOTT, WASHINGTON.

## SWINGING GATE.

SPECIFICATION forming part of Letters Patent No. 705,401, dated July 22, 1902.

Application filed April 18, 1902. Serial No. 103,509. (No model.)

*To all whom it may concern:*

Be it known that I, SUPPLINA HAMILTON, a citizen of the United States, and a resident of Endicott, in the county of Whitman and State of Washington, have invented certain new and useful Improvements in Swinging Gates, of which the following is a full, clear, and exact description.

My invention relates to improvements in swinging gates of that class in which two gates movable in opposite directions simultaneously are employed.

The objects that I have in view are the provision of an extremely simple and cheap construction which dispenses to a marked extent with metallic parts and is adapted to be made, erected, and repaired by an unskilled person, thus reducing the cost and placing the gate within reach of farmers of moderate means; to provide improved means for releasing the latches previous to starting the gates on their swinging movements, such latches being adapted to be lifted simultaneously by operating devices on opposite sides of the gate, and to combine the gate-swinging devices and the latch-lifting devices so as to secure conjoint operation of the parts by a single pull on the proper cable or wire of a series of pull-cables.

With these ends in view the invention consists in the combination, construction, and arrangement of parts, which will be herein-after fully described and claimed.

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 both figures.

Figure 1 is a perspective view of a swinging gate embodying my invention, and Fig. 2 is a horizontal sectional view taken through the hinge-posts on a plane below the top cross-bar and illustrating the gate and latch operating mechanisms in plan view.

In carrying my invention into practice I employ hinge-posts 5 6, which are erected on opposite sides of the roadway and are joined together at their upper ends by means of a horizontal cross-bar 7, which is fastened to said posts in any suitable way. The gate is divided into two members, (indicated at 8 9,) said members being arranged to meet each other at the middle of the roadway and to be

mutually interlocked by a peculiar form of latch mechanism. The members of the gate have their rear stiles 8<sup>a</sup> and 9<sup>a</sup>, respectively, hinged, as at 10, to the hinge-posts 5 6, and said rear stiles are provided at their upper ends with the inwardly-extending arms or heads 11 12, respectively, said arms or heads lying in the planes of the gate members, as shown more clearly by Fig. 2.

The member 8 of the gate is provided on one side thereof with a pivoted latch 13, which is arranged to play in a guide 14, which is provided on the same side of the gate member and at the free end thereof. The other member 9 of the gate is provided with a similar pivoted latch 15, similarly confined in a guide 16, said latch 15 and the guide 16 being arranged on the opposite side of the gate member 9 from the latch 13 and the guide 14 of the gate member 8. The latches 13 15 are arranged to project beyond the stiles at the free ends of the gate members, and said latches are arranged to engage with the keepers 17 18, the keeper 17 being secured on the gate member 9 for engagement by the latch 13 on the gate member 8, whereas the other keeper 18 is secured on the gate member 8 for engagement by the latch 15 on the gate member 9. The two members of the gate are arranged to swing in opposite directions simultaneously, and when they close across the roadway to the positions shown by the drawings the latches 13 15 are raised automatically by the keepers, and then said latches drop into the keepers, whereby the latches serve to limit the inward closing movement of the gate members and to fasten said gate members in their aligned positions.

19 is a double-armed lever which is arranged in a horizontal position on the under side of the cross-bar 7 and is fulcrumed at its middle to said cross-bar by a vertical bolt 20, thus arranging said lever 19 to swing in a horizontal plane. The arms of this lever are of equal length, and to the outer ends of the lever are pivoted, as at 21, the sliding bars or links 22 23. These bars or links extend in opposite directions from the lever, and they lie across the arms or heads 11 12 on the hinged stiles of the gate members. The arms are connected to the heads of the gate members so as to have a limited motion with respect to

said gate members before the arms will operate to impart the opening or closing movements to the members of the gate, and this independent limited movement of the arms serves to operate the latches 13 15 and to free them from the keepers 17 18 previous to turning the gates on their vertical axes. The sliding connection is obtained by the provision of slots 24 in the arms or links and by attaching screws or studs 25 to the heads 11 12 of the gate members. It will be seen that the lever 19 is adapted to impart sliding movement to the arms or links 22 23 and that the slots 24 in said arms or links will allow them to have a limited movement with relation to the studs 25 and the heads of the gate members, after which the end walls of the slots 24 will impinge upon the studs 25 and the sliding movement of the arms or links will be communicated to the members of the gate for the purpose of opening the latter.

The arms or links are operatively connected with the pivoted latches 13 15 by the wires or cables 26 27, the same having their lower ends fastened to the latches at points intermediate of the length thereof, while the upper ends of said wires or cables are attached, as at 28, to the heads 11 12. These wires or cables 26 27 are provided with branches 26<sup>a</sup> 27<sup>a</sup>, the same being fastened to the end portions of the slidable bars or links, whereby the movement of said bars or links will be communicated by the wires or cables to the latches in order to raise the latter.

29 30 designate posts which are set on opposite sides of the gate and disposed substantially in alinement with the respective hinge-posts 5 6, and these road-posts have inwardly-extending arms 31, provided with openings, through which are passed the two sets of operating cables or wires 32 32<sup>a</sup> and 33 33<sup>a</sup>, although the road-posts may be equipped with pulleys or sheaves in lieu of the perforated arms for the accommodation of the operating wires or cables. The cables 32 32<sup>a</sup> of one set are attached to opposite ends of the double-armed lever 19, and they have suitable weighted handles 34 at their free ends, said cables of the set extending to the road-post 29. The cables 33 33<sup>a</sup> of the other set are fastened to opposite end portions of the double-armed lever 19 and extend therefrom in a direction toward the other road-post 30, said cables having the weighted handles 35.

Between the road-post 29 and the hinge-post 5 is a latch-post 36, having a latch-keeper 37, which lies in the path of the latch 13 on the gate member 8. A similar latch-post 38 is provided between the hinge-post 6 and the road-post 30, and it is equipped with a latch-

keeper 39, adapted for engagement by the latch 15 on the gate member 8.

In operation the cable 32 is to be pulled in order to swing the lever 19 in one direction, thereby giving sliding movement to the links 22 23 for the purpose of operating the latches and of turning the gate members so that the latches will engage with the keepers 37 39, and the members of the gate will be held in their open positions in order that a team may drive through the gateway without requiring the driver to dismount from the vehicle. The pull-cable 33 may thereafter be operated in order to close the gates, and the latches will engage automatically with their keepers. If a team is driven in the opposite direction, the pull-cable 33<sup>a</sup> must be operated in order to open the gates, and then the cable 32<sup>a</sup> may be operated to swing the gates to their closed positions.

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

1. In a swinging gate, the combination with the gate members having latches and keepers, and provided at their upper ends with the inwardly-extending heads, of a centrally-fulcrumed lever having suitable means for operating the same, links pivoted to the lever and having sliding engagement with the heads of the gate members, and connections between the individual links and the latches on the separate gate members, whereby the sliding movement of the links will be first communicated to the latches in order to raise the latter, and the links will thereafter operate the members of the gate.

2. In a swinging gate, the combination with hinge-posts united by a cross-bar, and gate members hinged to said posts and provided with latches and keepers, of the arms or heads attached to the members of the gate, a double-armed lever pivoted centrally on said cross-bar of the hinge-posts, slotted links pivoted to the end portions of the lever and extending loosely across the heads of the gate members, studs fastened to the heads of the gate members and fitting loosely in the slots of the links, wires or cables attached to the latches and having branch connections with the links, and operating wires or cables attached to the double-armed lever.

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

SUPLINA HAMILTON.

Witnesses:

MYRON A. SHERMAN,  
GEORGE H. HUNTLEY.