J. W. INGERSOLL, Jr.

GATE.

APPLICATION FILED NOV. 28, 1911.

1,023,153.

Patented Apr. 16, 1912.

2 SHEETS—SHEET 1.

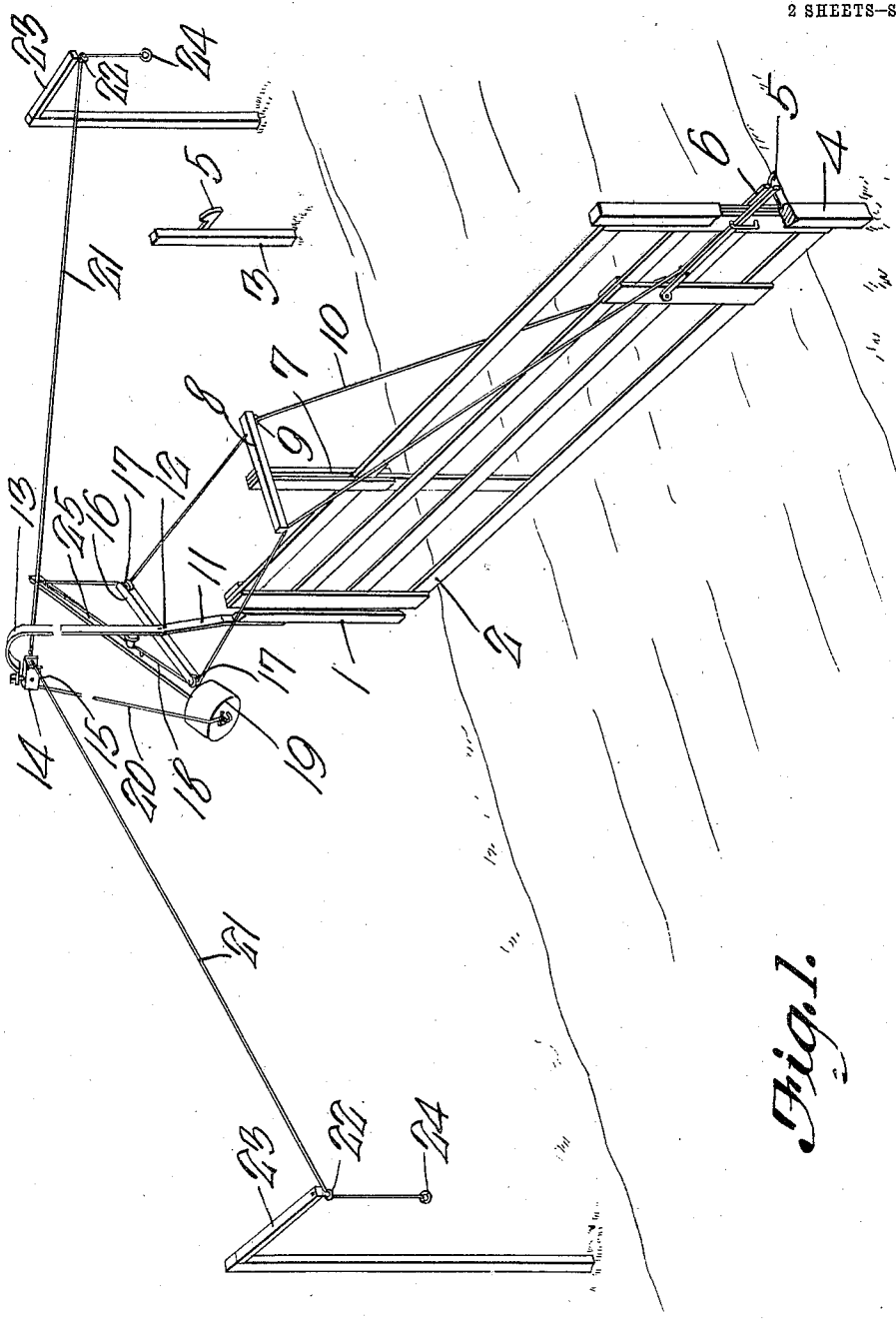

Fig. 1.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

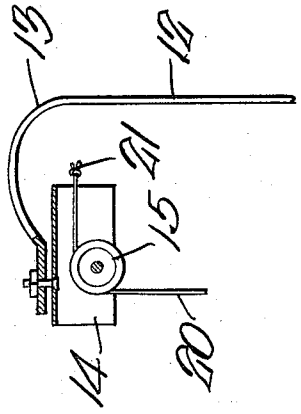

Fig. 2.

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GATE.

1,023,153. Specification of Letters Patent. Patented Apr. 16, 1912.

Application filed November 28, 1911. Serial No. 662,893.

To all whom it may concern:

Be it known that I, JOHN W. INGERSOLL, Jr., a citizen of the United States, residing at Belmont, in the county of Lafayette and State of Wisconsin, have invented a new and useful Gate, of which the following is a specification.

This invention relates to gates and more particularly to means whereby the same can be opened or closed by a person located at a point removed from either side of the gate, the means for actuating the gate including a weight which, when shifted to a predetermined position, operates to swing the gate in the desired direction.

A further object is to provide a latch adapted to be shifted by the gate operating means so as to release the gate immediately prior to the swinging movement thereof.

A further object is to provide gate operating mechanism which is simple in construction and which can be readily applied to ordinary gates.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

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

In said drawings:—Figure 1 is a perspective view of the gate. Fig. 2 is an elevation thereof, one of the operating cables being shown in section. Fig. 3 is a view partly in elevation and partly in section of the sheave and the upper portion of its supporting standard.

Referring to the figures by characters of reference 1 designates a gate post having the usual or any preferred form of hinges connected thereto and to a swinging gate 2, the post being preferably arranged at an angle to the gate when in either of its limits of movement, as clearly shown in Fig. 2. Latch posts 3 and 4 are arranged close to the path of the free end portion of the gate and carry keepers 5 adapted to be engaged by latches 6 arranged on the gate, one of these latches being pivotally mounted upon each side of the gate.

An arm 7 extends upwardly from the gate 2 at a point between the ends thereof and has a cross strip 8 at its upper end provided with guides 9 through which extend cables or wires 10, or other flexible elements, said elements being crossed and connected to the respective latches 6, as shown particularly in Fig. 1.

A standard 11 is secured to the post 1 and extends upwardly therefrom, said standard being offset, as at 12 and terminating, at its upper end, in an arcuate extension 13. A channeled member 14 is swiveled to and extends downwardly from the free end of the extension 13, said member being inverted and having a guide sheave 15 journaled in it.

A cross arm 16 is secured at its center to the standard 11 close to the upper end of the offset portion 12, this cross arm being disposed at right angles to a line extending from the hinges to a point midway of the posts 3 and 4. Guide wheels 17 are journaled in the end portions of the cross arm and the cords 10 or other flexible devices employed are mounted on these guide wheels and are secured, at one end, to one end of a lever 18 fulcrumed, between its ends, upon the standard 11 above the cross arm 16. A weight 19 is connected to the other end of lever 18 and a cord, wire or other flexible element 20 is secured to the weighted end of the lever and extends upwardly over the guide sheave 15 where it is attached to oppositely extending operating cables 21 or the like extending beyond opposite sides of the post. These operating elements 21 are mounted on guide sheaves 22 in turn supported by posts 23 and the free ends of the operating elements may be provided with rings 24 or the like whereby they can be easily grasped and actuated.

The various parts are so positioned and proportioned that, when the gate 2 is in closed position, as shown in Fig. 1, it can be easily opened by pulling on either of the operating elements 21. When either of these elements is thus shifted, it will pull on the cord 20 and swing lever 18 on its fulcrum until weight 19 is brought upwardly past the center of gravity. During this movement one of the cords 10 is pulled longitudinally so as to lift the latch 6 out of engagement with its keeper. As soon as the latch has been lifted as far as it is possible to move it, the weight 19 will pass its center of gravity and will then swing downwardly,

thus pulling on the opposed cord 10 and causing the gate to swing against the post 3 whereupon the other latch will engage the keeper on said post. The gate will thus be held in open position. To close the gate the foregoing operation is repeated whereupon the movement of lever 18 will be reversed and the weight 19 will operate to swing the gate back to the position shown in Fig. 1.

Lever 18 can be adjusted longitudinally by providing a series of openings 25 either one of which is adapted to receive the pivot pin on which the lever is journaled.

What is claimed is:—

1. The combination with a swinging gate, separately movable latches thereon, and a cross arm mounted on and movable with the gate, of an attachment including a standard adapted to be secured to and to extend upwardly from the gate post, a guide sheave suspended from and swiveled on the standard, a weighted lever fulcrumed on the standard below the sheave, a flexible operating element connected to the weighted end of the lever and extending over the sheave, said element projecting beyond opposite sides of the gate post, flexible connections between one end of the lever and the latches, said connections engaging the cross arm on the gate, and guides upon the standard and engaging said connections.

2. The combination with a gate post, and a gate mounted to swing relative thereto, said gate including separately movable latches, and a cross member on the gate, of a standard extending upwardly from the post, a lever fulcrumed on the standard, a weight at one end of the lever, flexible connections between the other end of the lever and the latches, said connections slidably engaging the cross member, guides engaging the connections and connected to the standard, a guide sheave supported by the standard and swiveled thereon, and flexible actuating means mounted on the sheave and connected to the weighted end of the lever.

3. The combination with a post, a hinged gate connected thereto, a cross member on the gate, and separately movable latches carried by the gate, of a standard extending upwardly from the post, a guide sheave swiveled on and depending from the upper end portion of the standard, a cross arm secured to the standard below the sheave and disposed at an acute angle to the gate when the gate is at either limit of its movement, a lever pivotally and adjustably connected to the standard, a weight at one end of the lever, flexible connections between the other end of the lever and the latches, said connections being mounted upon the cross member on the gate, guide sheaves upon the cross arm and engaging the respective connections, and flexible actuating devices extending in opposite directions from the gate and mounted on the guide sheave on the standard, said connections being secured to the weighted end of the lever.

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

JOHN W. INGERSOLL, JR.

Witnesses:
HAL MURLEY,
W. P. HUGHES