No. 877,920. PATENTED FEB. 4, 1908.

W. S. FLICK.

GATE.

APPLICATION FILED MAY 16, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

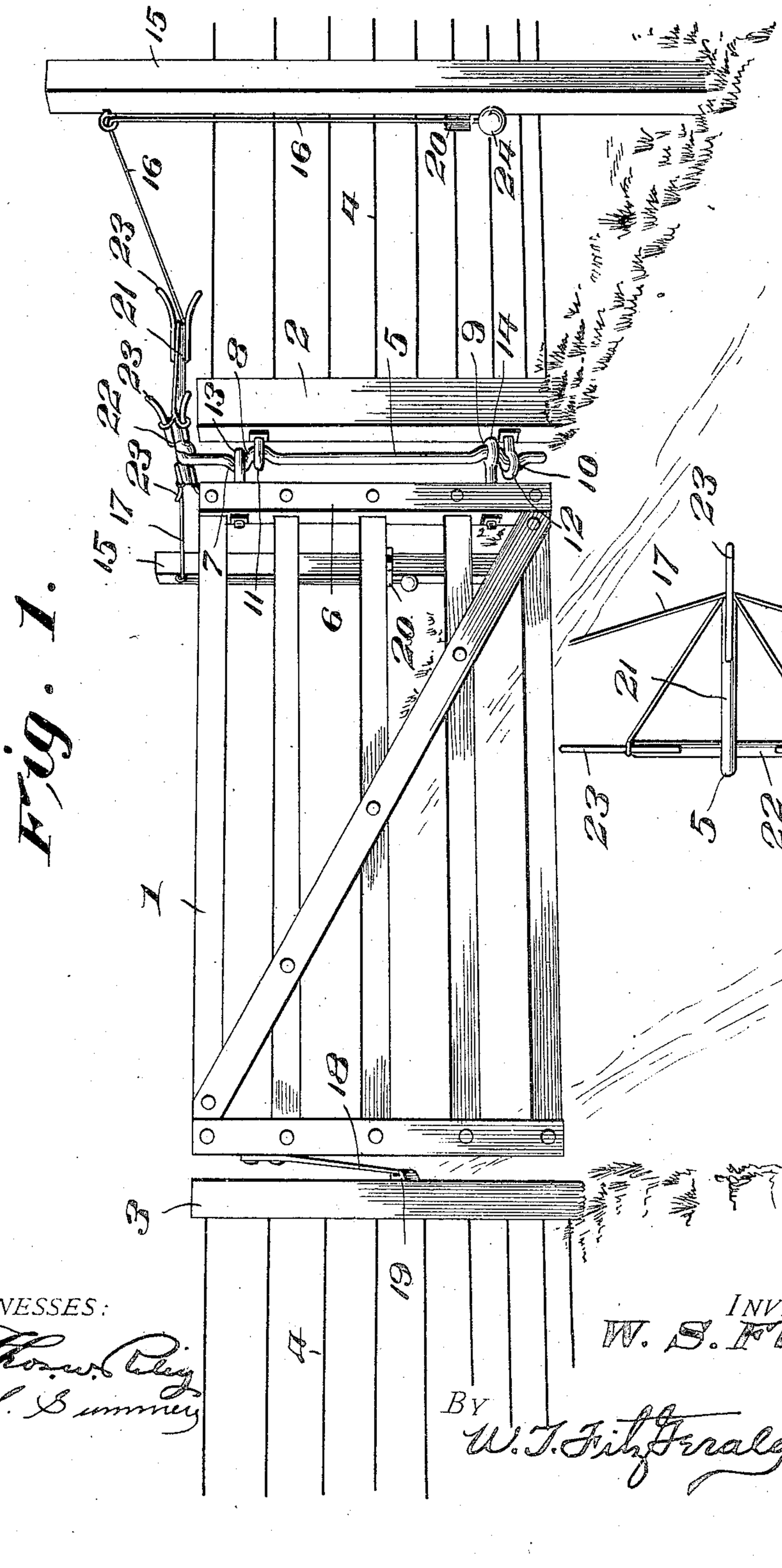


Fig. 4.

WITNESSES:

Thos. W. Riley

G. S. Sumney

INVENTOR

W. S. Flick

BY

W. T. Fitzgerald & Co.

Attorneys

No. 877,920. PATENTED FEB. 4, 1908.

W. S. FLICK.

GATE.

APPLICATION FILED MAY 16, 1907.

2 SHEETS—SHEET 2.

Fig. 2.

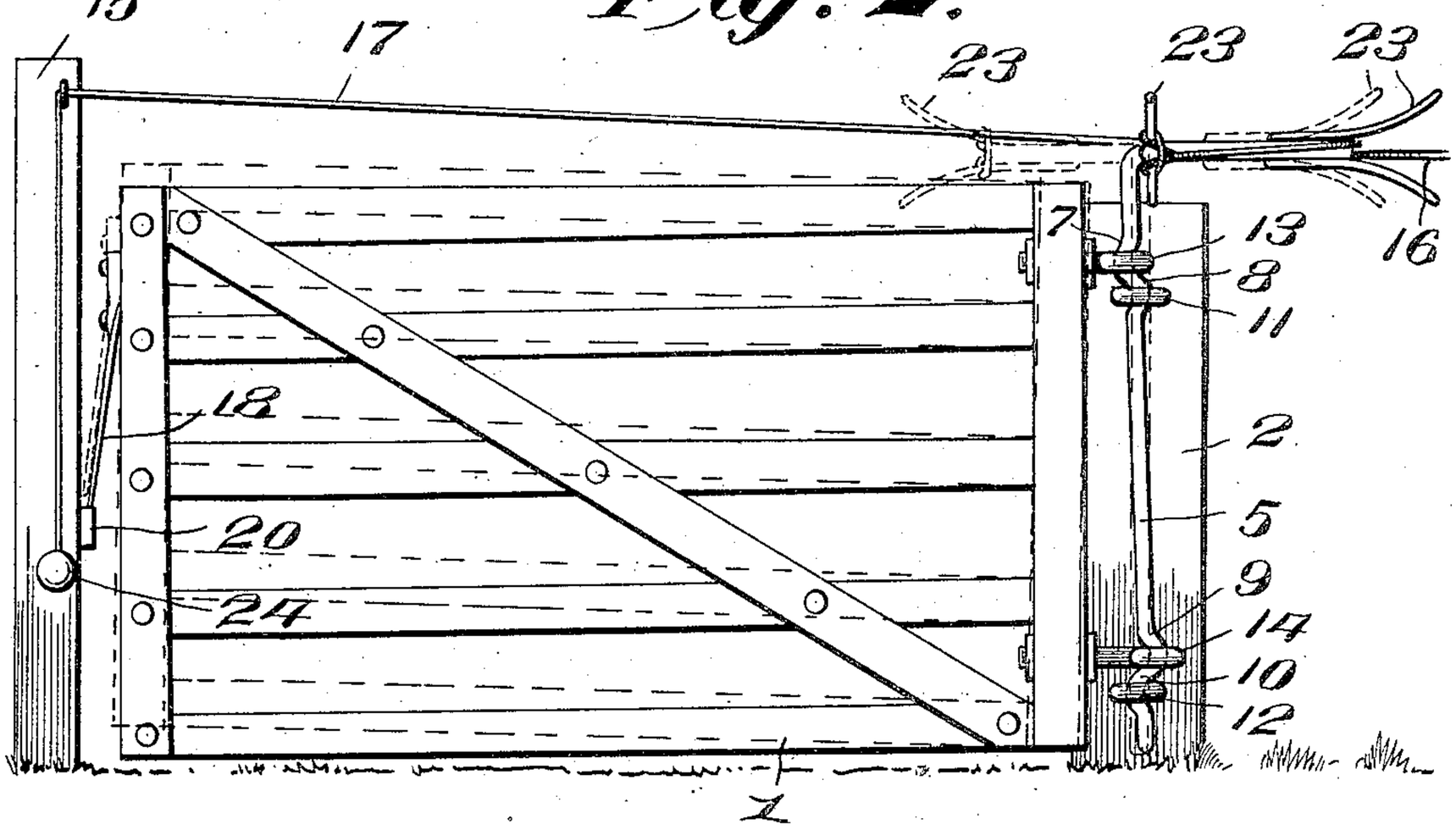
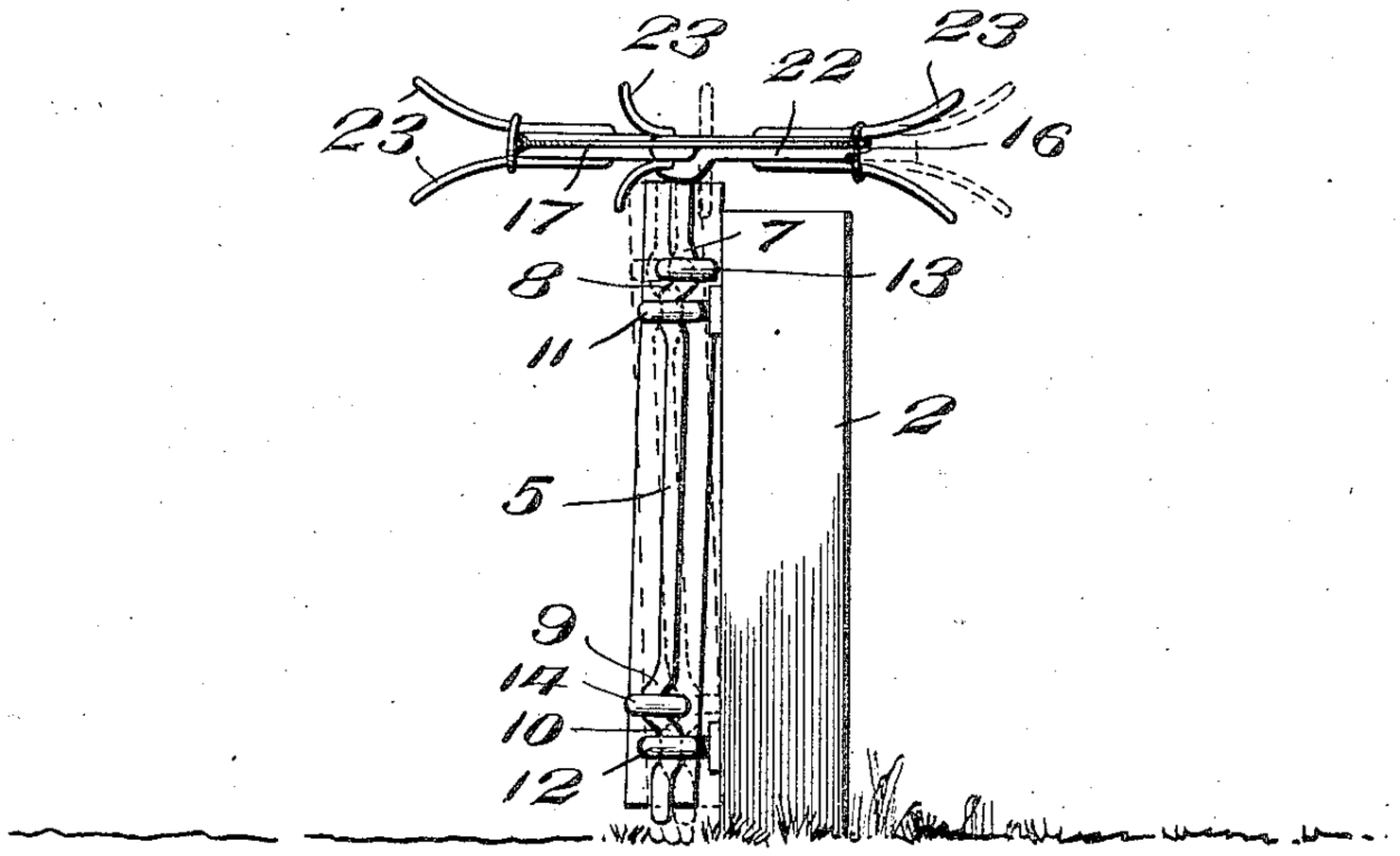


Fig. 3.



WITNESSES:

Thos. W. Riley

C. S. Sumner

INVENTOR

W. S. Flick

BY

W. J. FitzGerald & Co.

Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM S. FLICK, OF LA FAYETTE, INDIANA.

GATE.

No. 877,920. Specification of Letters Patent. Patented Feb. 4, 1908.

Application filed May 16, 1907. Serial No. 373,893.

To all whom it may concern:

Be it known that I, WILLIAM S. FLICK, a citizen of the United States, residing at La Fayette, Indiana, in the county of Tippecanoe and State of Indiana, have invented certain new and useful Improvements in Gates; 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.

My invention relates to new and useful improvements in gate construction, and my object is to provide means for opening or closing the gate with the least exertion by the operator and while seated in a vehicle or from any other position.

A further object is to provide means for normally holding the gate in its open or closed position.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawing which are made a part of this application Figure 1 is a perspective view of a gate showing my improved means for opening the same secured thereto. Fig. 2 is an elevation showing the gate in its open position. Fig. 3 is an end view of the gate when in its open position, the position when ready to close being shown in dotted lines and, Fig. 4 is a detail top plan view of a portion of a gate and operating mechanism secured thereto.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views 1 indicates a gate which may be of the usual or any preferred form of construction, said gate being operatively mounted between posts 2 and 3, said posts having the usual form of fence wires 4 secured thereto.

The gate 1 is adapted to be swung from the post 2 and in arranging means for readily opening the gate I provide a shaft 5, which is disposed vertically between post 2, and end 6 of the gate, and is provided adjacent its upper and lower ends with oppositely extending cranked portions 7 and 8 and 9 and 10 respectively, the cranked portions 7 and 10 extending towards the end 6 of the gate, and the cranked portions 8 and 9 towards the post 2 when the gate is in its closed position.

The post 2 is provided with eyebolts 11 and 12 which engage the cranked portions 8 and 10 respectively, while the end 6 of the gate is provided with eyebolts 13 and 14 which engage the cranked portions 7 and 9 respectively, and it will be seen that by rotating the shaft 5 from the position shown in the Fig. 1, the free end of the gate will be elevated and the lower edge of the gate moved laterally, which will result in causing the gate to swing open or until it engages one of the cable posts 15 located at a distance from post 2 and along one side of the driveway, the direction in which the gate will swing depending upon which of the cables 16 or 17 is pulled. The free end of the gate is adapted to swing past the post 3 in either direction and in order to hold the gate in its closed position or across the driveway, I secure to the free end of the gate a spring arm 18, the lower end of which is adapted to engage a keeper 19 on one face of the post 3.

The outer edges of the keeper are tapered so that the spring arm will move inwardly when brought against the keeper and immediately engage the cavity in the keeper as soon as the gate is swung into position between the two posts, the spring arm being of such length that when the shaft 5 is rotated to open the gate the free end of the gate will be elevated sufficiently to free the end of the spring arm from its keeper, thereby allowing the gate to swing open and engage similar keepers 20 on the cable posts 15.

The upper end of the shaft 5 is bent at right angles to the longitudinal plane of the shaft to form an arm 21 and a cross arm 22 is secured to the arm 21 at its juncture with the shaft 5, said arms forming a triangular frame which is employed for rotating the shaft 5 to open and close the gate.

The free ends of the cross arm 22 and the free ends of the arm 21 are provided with upwardly and downwardly curved fingers 23, one above and one below the arms which are adapted to form guides for the cables 16 and 17, and when the gate is closed the arm 21 is immediately over the post 2 while the cross arms extend at right angles thereto, and in securing the cables to the frame said cables are first placed between the fingers at the end of the arm 21, and their free ends then secured to opposite ends of the cross arm 22, and to that end of the cross arm farthest from the cable post to which said cables are secured so that when a downward pull is given to either of the cables the shaft 5 will

be rotated and it will be seen that as the cross arms are swinging around the fingers on the ends thereof will engage and support the cables.

In Fig. 2 of the drawing I have shown a side elevation of the gate in its open position, and have shown in dotted lines the position of the gate and operating parts therefor when a pull has been given on the cable 17 to close the gate.

In Fig. 3 I have shown an end elevation of the gate showing by dotted lines how the gate is tilted out of the vertical after the pull has been made to close the gate. As the gate is normally opened or closed by gravity, a strong wind would prevent the gate from swinging properly, and in order to cause the gate to open with certainty, the lower finger at each end of the cross arm 22 is extended in such position as to engage the top bar of the gate so that should the movement of the gate be slow the finger upon that end of the cross arm moving towards the gate will engage the upper bar thereof and positively move the gate in the direction desired, but the gate is so hung as to operate by gravity under normal conditions.

The free ends of the cables 16 and 17 are provided with weighted knobs or rings 24 so that the cables will be held taut at all times, and thus holding them in alinement to be engaged by the fingers on the respective arms.

It will now be seen that I have provided a very cheap and economical means for readily opening and closing a gate, and one that can be readily installed and used in connection with any form of gate. It will also be seen that it will require but a very small amount of energy to place the gate in position to open or close by gravity, and it will further be seen that the gate can readily be opened without operating the tilting mechanism if so desired.

What I claim is:

1. In a gate opener of the class described, the combination with a gate and supporting post therefor, of a shaft having oppositely disposed cranked portions thereon, eye-bolts secured to said gate and posts adapted to engage said cranked portions, and arm at the upper end of said shaft having radiating fingers thereon, cross arm secured to said arm, fingers at each end of said arms, and means engaging said arms to rotate the shaft, whereby the gate will be opened or closed.

2. The combination with a gate and supporting post therefor, of means to open or close said gate comprising a shaft having oppositely disposed cranked portions adjacent its upper and lower end, eye-bolts carried by said gate and post adapted to engage said cranked portions, and arm at the upper end of said shaft and at right angles thereto, a cross arm secured at its central portion to the first mentioned arm and shaft, a pair of oppositely curved fingers at the ends of said arms, and means engaging said cross arm adapted to rest between said fingers to rotate said shaft and open or close the gate.

3. The combination with a gate and a supporting post therefor of means to automatically open or close said gate comprising a shaft having cranked portions adjacent its upper and lower ends, eye-bolts secured to said post and gate and engaging said cranked portions, and arm at right angles to said shaft, a cross arm secured to and extending an equal distance at each side of said first mentioned arm, a pair of fingers secured to the ends of said arm and cross arm, said fingers being oppositely curved, cables secured to opposite ends of said cross arm and between the fingers at the end of the first mentioned arm, and supports for the free ends of said cables, said cables being adapted to be pulled to rotate the shaft and thereby open or close the gate.

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

WILLIAM S. FLICK.

Witnesses:
J. A. HARRIS,
MATTHEW BALL.