No. 784,404. PATENTED MAR. 7, 1905.

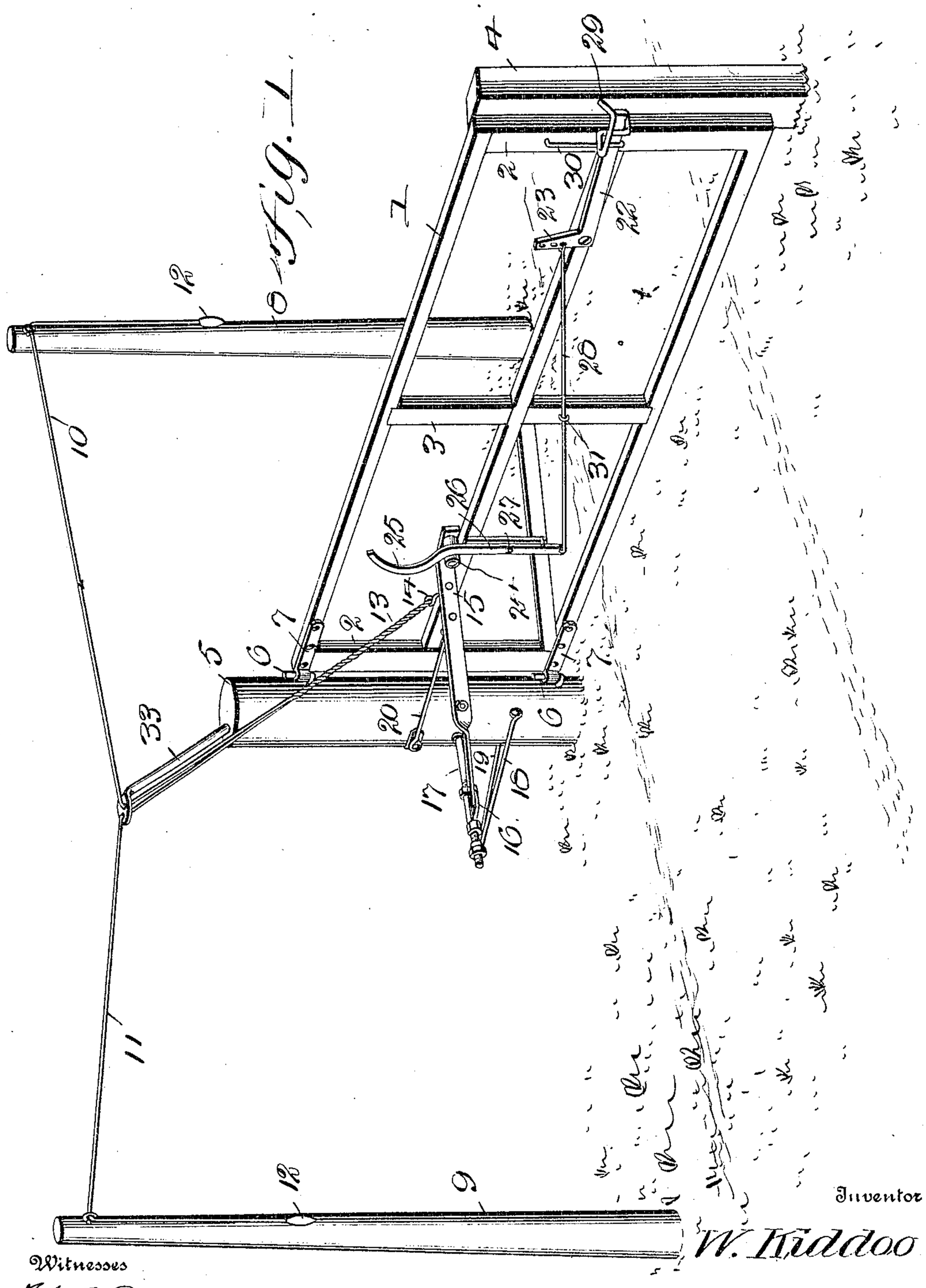
W. KIDDOO.

GATE.

APPLICATION FILED DEC. 17, 1904.

3 SHEETS—SHEET 1.

Fig. 1.



Witnesses

F. C. Barry.

S. W. Fitzgerald

Inventor

W. Kiddoo

By

Attorneys

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3 SHEETS—SHEET 2.

Fig. 5.

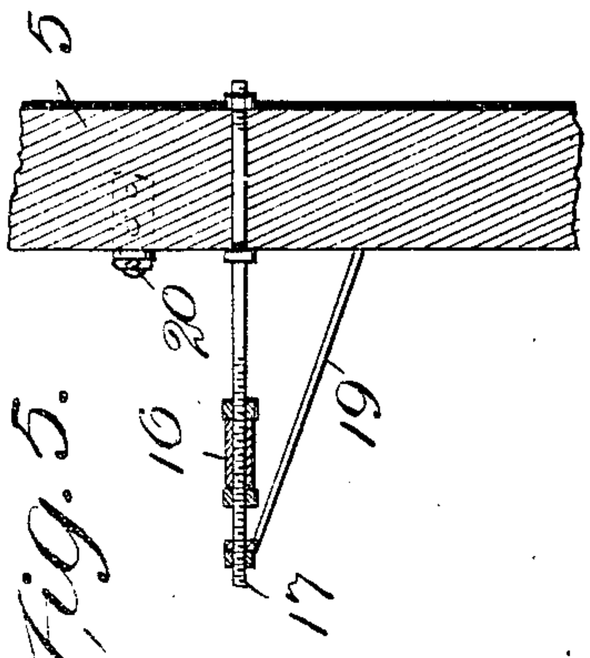

Fig. 2.

Witnesses.
H. C. Bailey.
S. W. FitzGerald.

Inventor
W. Kiddoo.
By W. S. FitzGerald & Co
Attorneys

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3 SHEETS—SHEET 3.

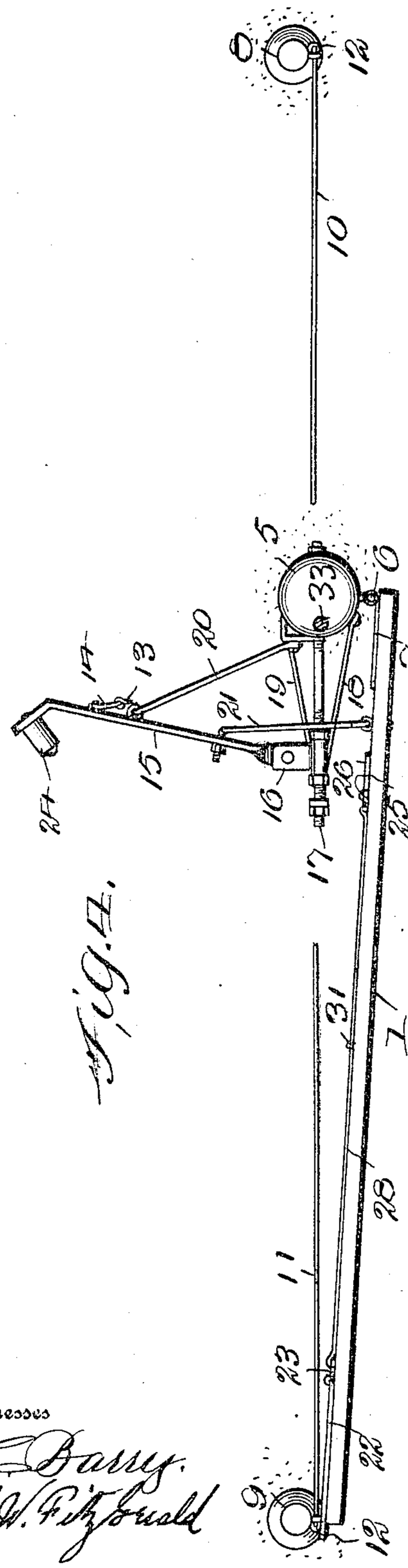

Fig. 4.

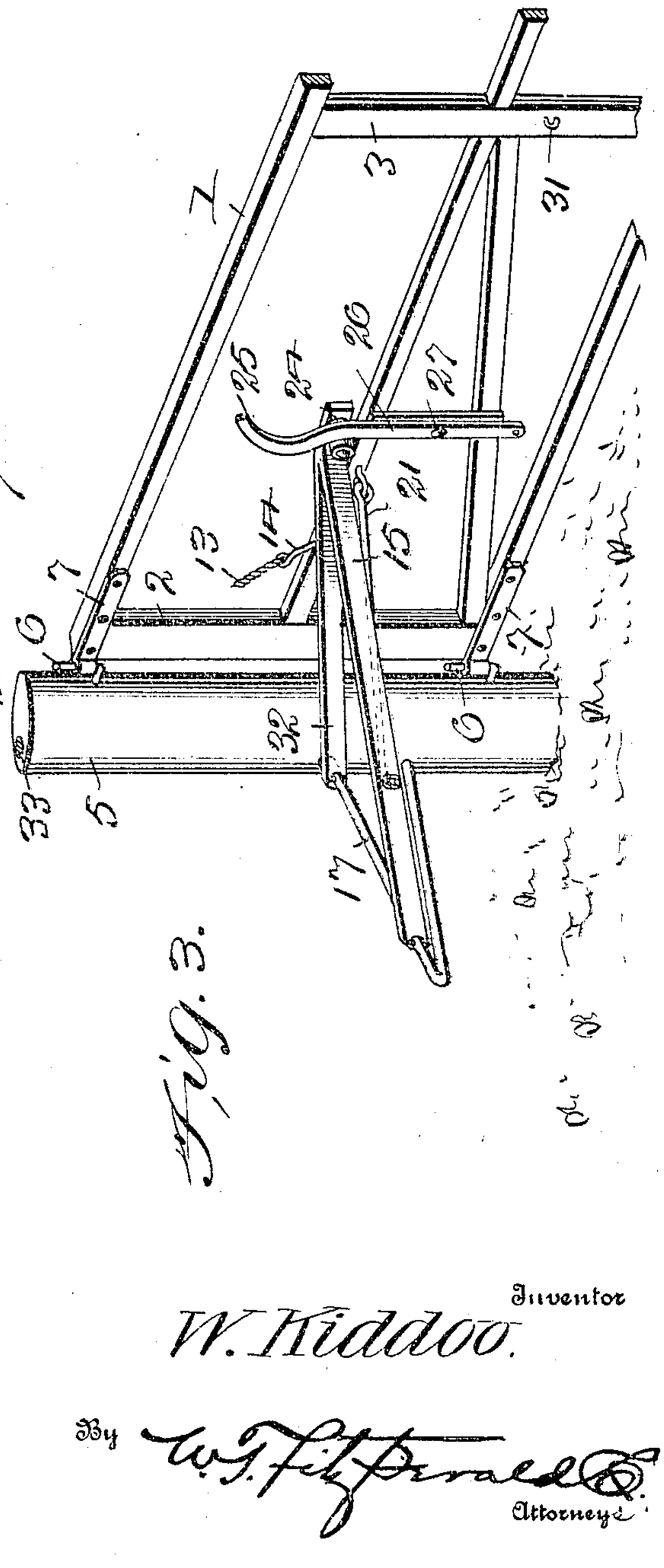

Fig. 3.

Witnesses

F. C. Barry.

S. W. Fitzgerald

Inventor

W. Kiddoo.

By W. J. Fitzgerald & Co.

Attorneys

No. 784,404. Patented March 7, 1905.

UNITED STATES PATENT OFFICE

WILLIAM KIDDOO, OF LAPLATA, MISSOURI.

GATE.

SPECIFICATION forming part of Letters Patent No. 784,404, dated March 7, 1905.

Application filed December 17, 1904. Serial No. 237,278.

To all whom it may concern:

Be it known that I, WILLIAM KIDDOO, a citizen of the United States, residing at Laplata, in the county of Macon and State of Missouri, 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 gate construction, and more particularly to that variety thereof which is designed to be opened from either side without the necessity of alighting; and my invention consists of certain novel features of combination and construction of parts, the preferred form whereof will be hereinafter clearly set forth, and pointed out in the claim.

The prime object of my invention is to provide a gate of the character specified which consists of the fewest number of operating parts and which, therefore, may be very cheaply manufactured, it being understood that the simplicity involved in no wise interferes with the efficiency of my gate.

A further object, among others, is to provide an automatically-controlled latch or keeper, whereby the gate will be locked in a closed position and prevented from being casually opened, as by stock rubbing against the same.

Other objects and advantages will be hereinafter made clearly apparent, reference being had to the accompanying drawings, which are considered a part of this application, and in which—

Figure 1 shows a perspective view of my improved gate complete ready for use. Fig. 2 shows a side elevation thereof, the controlling mechanism being set so that the latch will be released and the gate swung open. Fig. 3 is a perspective detail view showing a slightly-modified construction of the controlling devices employed by me in opening and closing my improved gate. Fig. 4 is a top plan view of the gate and controlling devices therefor. Fig. 5 is a sectional view as seen from the dotted line 5 5 in Fig. 2.

Referring to the numerals on the drawings, 1 designates the horizontal bars of the gate, which may be of any preferred size and number, while 2 designates the end sections, and 3 a middle upright, said parts, in connection with the bars 1, forming the framework of the gate, it being understood that my controlling devices, hereinafter described in detail, may be applied to a gate of the usual or any special construction, as will be hereinafter made obvious. I also provide for coöperation with my gate the keeper-post 4 and the supporting or hinge post 5, both of which are of any desired form or variety and are properly anchored in the ground, as is usual, the hinge-post being provided with any suitable form of hinge members 6, designed to cooperate with the hinge members 7 upon the gate, whereby the gate may be readily swung into an open position. I also prefer to provide the posts 8 and 9, located on a line with each other and with the hinge-post 5, said posts 8 and 9 being designed to support the controlling-cables 10 and 11, having at their free ends suitable terminals or handles 12, as clearly shown. The inner ends of the cables 10 and 11 are twisted together, as indicated by the numeral 13, and connected to an eyebolt 14, which latter is pivotally secured to the inner end of the controlling-lever 15. The outer end of the lever 15 is pivotally connected to the arm 16, said arm being in turn pivotally mounted upon the bracket 17, the inner end of which is anchored in a contiguous part of the hinge-post 5, while to the outer end thereof is secured one end of the supporting-braces 18 and 19, the opposite ends of said braces being secured to a contiguous part of the post 5, whereby said bracket will be held in a horizontal position and sustained in a very rigid manner, so as to perform its office of supporting the controlling-lever 15. I also provide for cooperation with the controlling-lever 15 the supporting-arm 20, and I connect the controlling-lever 15 with one of the gate-bars by the link member 21, so mounted that when the controlling-lever 15 is lowered its fullest extent the pivoted point between the link 21 and the lever 15 will be at such a point as to prevent the lever from rising upward, and thereby lock the gate in a closed position.

By means of the cables 10 and 11 I am, however, enabled to lift the free end of the controlling-lever 15 and incidentally pull upon the link 21, thereby insuring that the gate will be opened, and in order to automatically release the latch 22, which I accomplish by means of its angular extension 23, I place upon the end of the controlling-lever 15 an antifriction-roller 24, designed to act upon the curved end 25 of the latch-controlling lever 26, as clearly shown in Fig. 1 and other views of the drawings.

The lever 26 is pivotally connected to a convenient point of the gate, as by the rivet or bolt 27, while the lower end of the lever is attached to the angular extension 23 of the latch by means of the link or rod 28, and it is therefore obvious that by reason of the curved extension or terminal 25 of the lever 26 the antifriction-roller will so act upon said curved extension when the roller is moved upward as to produce a pull upon the link 28, thereby raising the latch 22 out of engagement with the keeper 29, located at a proper point to cooperate therewith. I confine the movement of the latch 22 by any suitable means, as the elongated staple 30, secured to the keeper-post, and I support the rod or link 28 at a convenient point, as by extending said rod loosely through an eyebolt or staple 31.

In some instances I desire to dispense with the reinforcing-rod 20, and to accomplish this result the outer end of the lever 15 is bifurcated, producing an integral extension or member 32, which is extended into engagement with the rod or bracket 17, as best shown in Fig. 3 of the drawings, thus dispensing with the special brace or reinforcing rod 20, as shown in the other views.

By reason of the construction described in the foregoing specification it is obvious that by a simple pull upon one of the cables 10 or 11, according to the direction from which the gate is approached, the same may be readily opened and caused to swing to one side, it being understood that the posts 9 shall be so located as to permit the free end of the gate to bear against the same when in an open position.

The various parts of my invention may be very cheaply and expeditiously manufactured of any suitable material and any desired size, and while I have described the preferred combination and construction of parts I desire to comprehend in this application all substantial substitutes and equivalents.

Having thus fully described the construction of my improved gate, it is thought the operation thereof will be made clearly apparent, though it may be stated that when the gate is swung into a closed position the controlling-lever incidentally moves downward, so as to bring the antifriction-roller 24 against the curved extension 25 of the lever 26 in time to raise the latch 22, and therefore prevent it from striking the keeper 29. When, however, the gate has been closed, the antifriction-roller will have passed down below the curved extension 25, thus permitting the latch 22 to drop in place, and the position and weight of the rod or link 21 is such as to prevent the gate from being manually opened without pulling upon one of the cables 10 or 11. It will be found, however, a very easy matter to open the gate, as only a slight pull is necessary upon one of the handles 12, causing the cable to play loosely through the aperture provided therefor in the supporting-arm 33, preferably located upon the hinge-post 5. After the person shall have passed through the open gate it may be easily closed behind him by a sharp pull upon the next handle, which causes the controlling-lever 15 to rise up from an outwardly-inclined position and move past a vertical position and thence downward into its normal inwardly-directed or closed position.

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

The herein-described gate, comprising the combination with the gate proper, of suitable supporting hinges and posts therefor; a bracket 17 properly braced and supported in its operative position upon the hinge-post; a controlling-lever 15 having an antifriction-roller upon its inner end; controlling-cables for said lever operatively connected thereto and disposed in position to be conveniently grasped by the operator; a latch having an angular extension 23 pivoted to the free end of the gate; a keeper designed to coöperate with said latch; a latch-controlling lever pivoted to the gate and having a curved upper end, said curved end being designed to coöperate with said antifriction-roller; suitable means to connect said lever with said latch whereby when the antifriction-roller upon the controlling-lever 15 is moved upward said roller will engage said curved extension and raise the latch out of engagement with its keeper, substantially as specified and for the purpose set forth.

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

WILLIAM KIDDOO.

Witnesses:
J. M. EMERT,
W. W. HENDERSON.