No. 735,053. PATENTED AUG. 4, 1903.

G. M. BATES.

GATE.

APPLICATION FILED JAN. 2, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

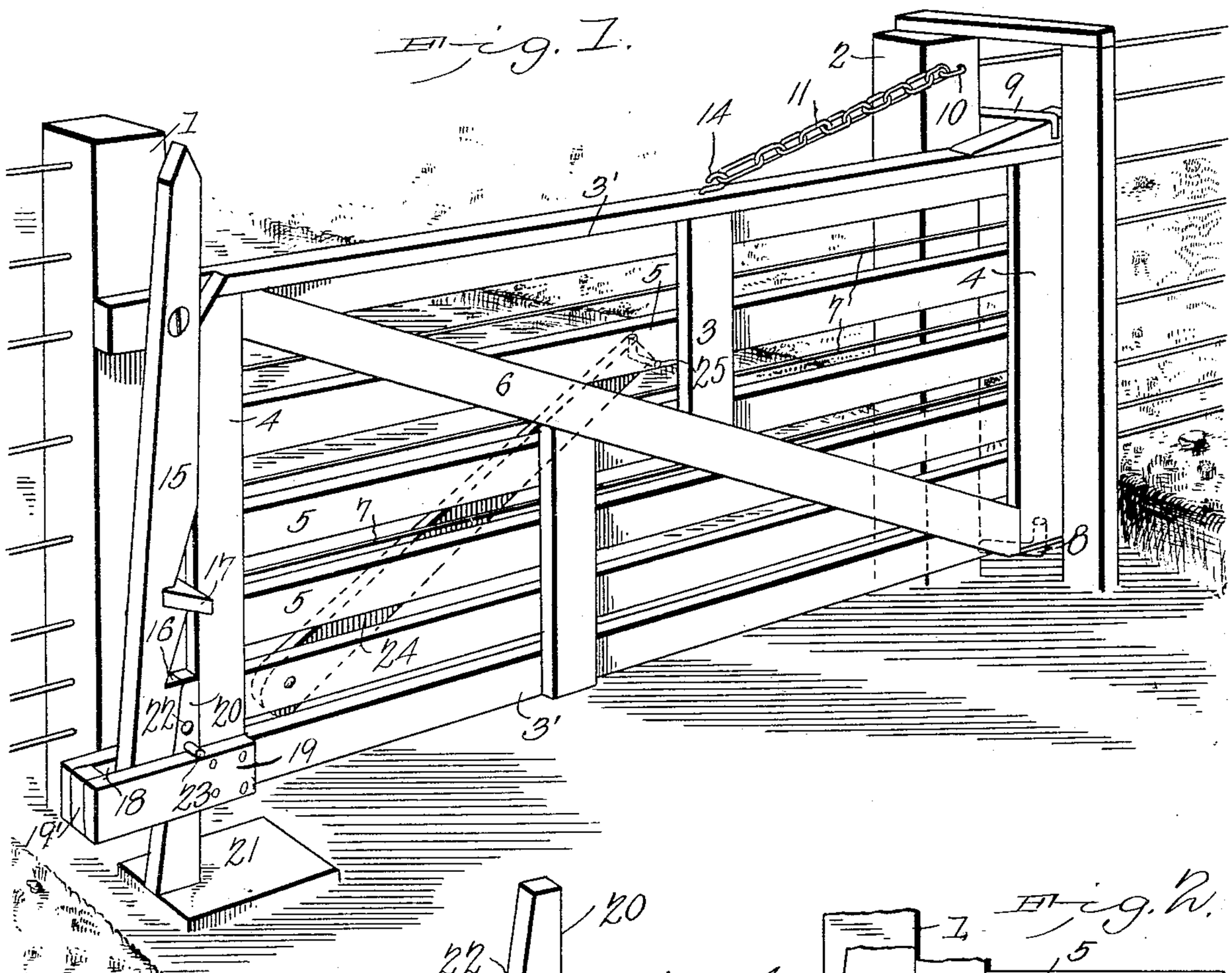


Fig. 4.

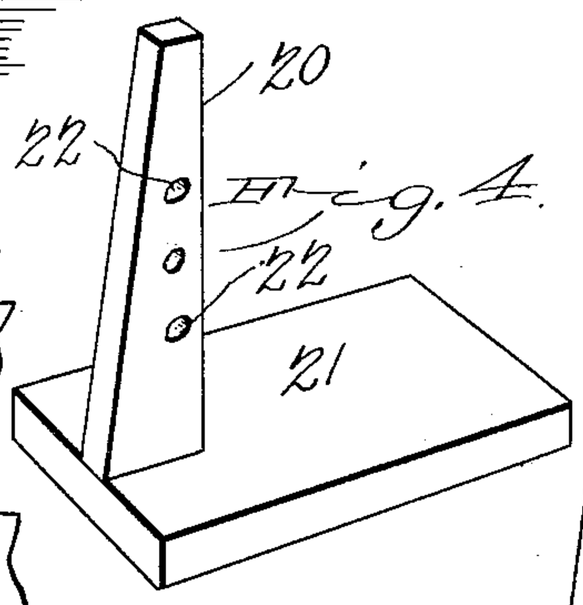


Fig. 2.

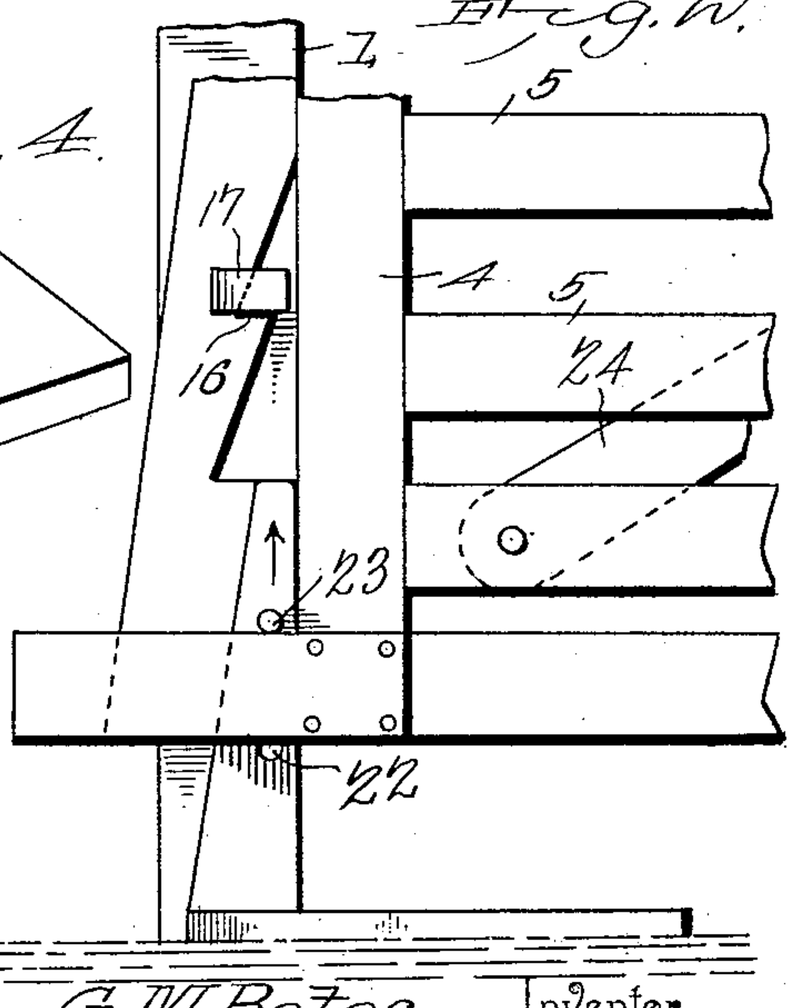
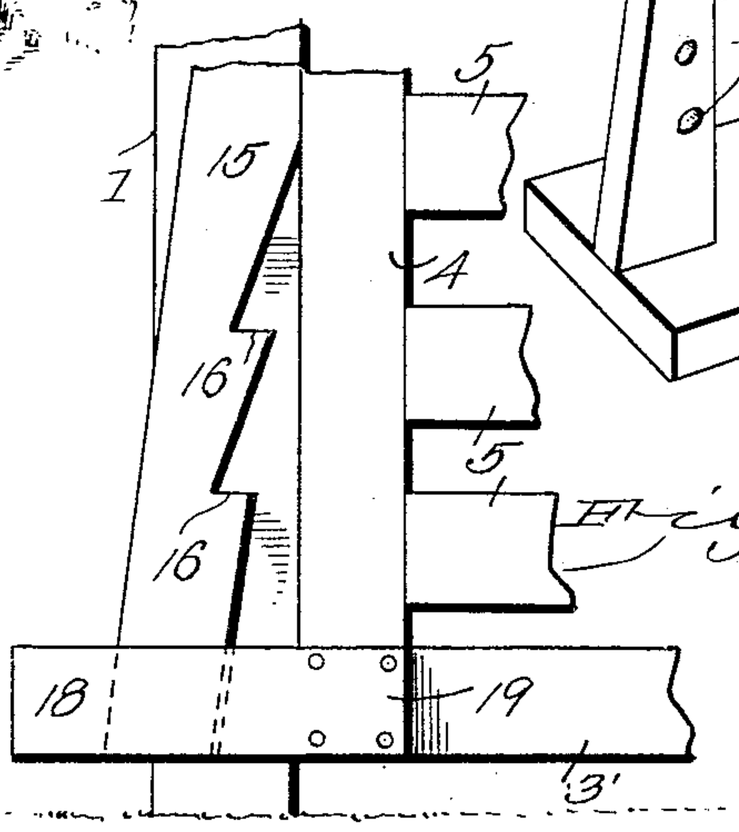


Fig. 3.



Witnesses

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L. M. Acker

by

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Attorneys

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NO MODEL. 2 SHEETS—SHEET 2.

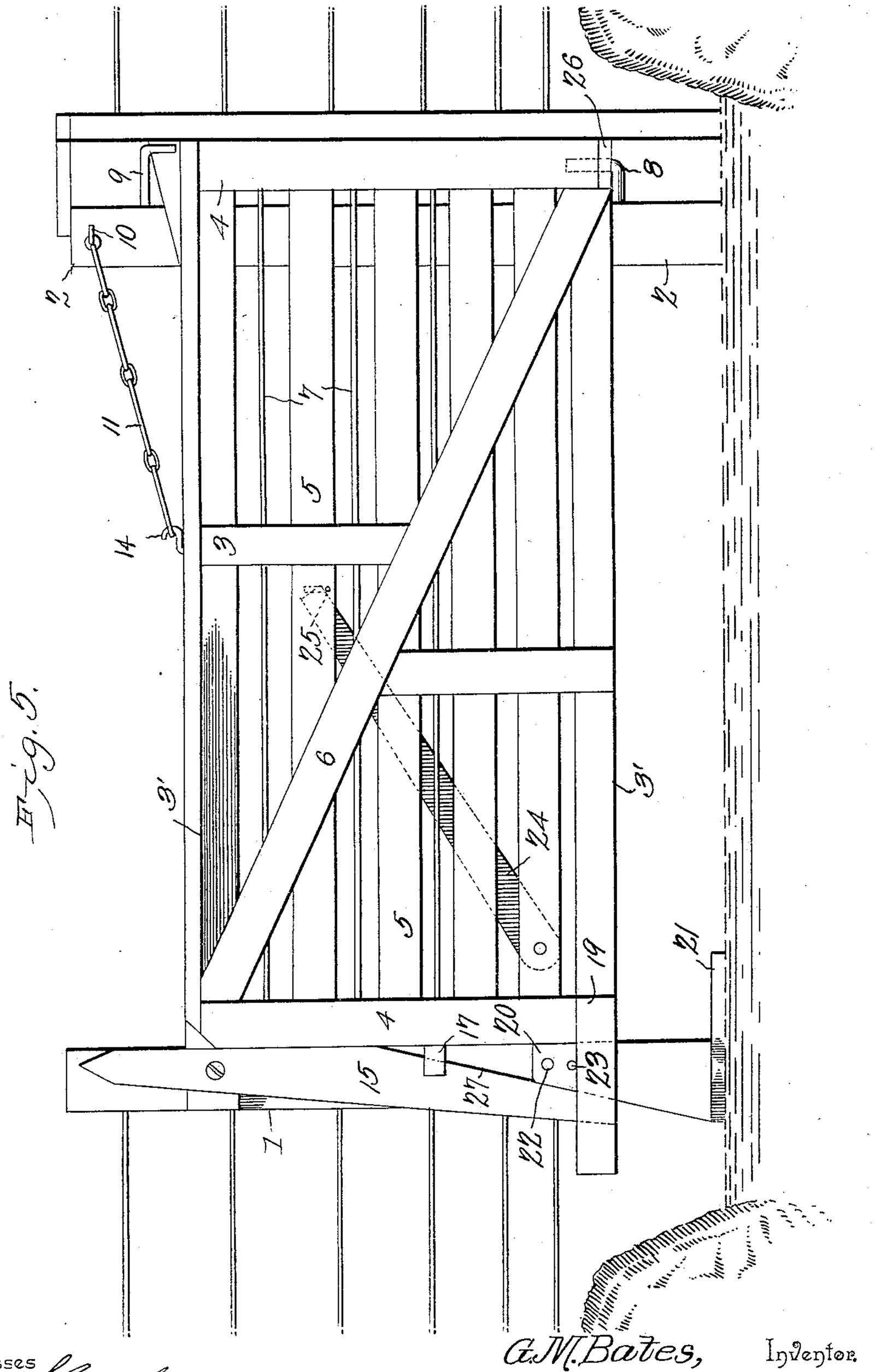

Fig. 5.

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No. 735,053. Patented August 4, 1903.

UNITED STATES PATENT OFFICE.

GEORGE M. BATES, OF FAIRPLAY, MISSOURI.

GATE.

SPECIFICATION forming part of Letters Patent No. 735,053, dated August 4, 1903.

Application filed January 2, 1903. Serial No. 137,499. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. BATES, a citizen of the United States, residing at Fairplay, in the county of Polk and State of Missouri, have invented a new and useful Gate, of which the following is a specification.

My invention relates to certain improvements in the construction of gates, and has for its principal object to provide an automatically-closing gate which may be employed either as a farm-gate or as a float-gate in a line of fence crossing a stream of water.

A further object of the invention is to so construct the gate-latching means as to provide for the automatic unlocking of the gate when the water rises beyond a predetermined level in order to permit driftwood or debris to open the gate and pass down the stream, the gate automatically returning to its closed position and being locked when the water recedes.

With these and other objects in view the invention consists in the novel construction and arrangement of parts hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a perspective view of a gate constructed in accordance with my invention, illustrating its use in the line of fencing crossing a stream. Fig. 2 is a side elevation of one end of the gate, illustrating the portion of the latching means. Fig. 3 is a similar view showing the latched releasing-float removed so that the gate may be used as an ordinary farm-gate. Fig. 4 is a detail perspective view of the latch-releasing float detached; and Fig. 5 is a side elevation of a portion of a gate, showing a modified form of latch.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

1 and 2 indicate two posts driven or otherwise set in the bed or on the banks of a stream, and 3 the gate, which consists of the top and bottom bars 3′ and side bars 4, connected by intermediate spaced bars 5 and a diagonal brace 6. In order to give additional strength to the gate, I provide longitudinal brace-wires 7 between each of the stringers 5. On the post 2 is a supporting-hook 8, to which the rear end of the gate is pivoted, and near the top of the post I fix a hook 9, which catches over the top of the gate, as shown. The hooks project at an angle from the post and are so arranged as to hold the gate when closed against the front face of the post 2 and when open to hold it close to the rear side thereof. To the front face of the post 2 and near the end thereof I fix a staple 10, to which is attached a chain 11, which may be composed of a series of links, as shown, or a section of chain and a section of rod, or, if desired, a single rod may be employed, and the opposite end of this chain passes over a hook 14, fastened in the top of the gate, as clearly shown in Fig. 1 of the drawings. The purpose of this arrangement is to cause the front end of the gate to be lifted when it is swung open and permit it to automatically close when released. The top and bottom bars 3 of the gate project past the post 1, and to the end of the top bar I pivot a latch 15, which is provided with one or more notches or teeth 16 on its edge adapted to engage a catch 17 on the post 1. The free end of the pivoted latch 15 is guided and held in its proper place by a guide 18. One side of the guide 18 is formed by the projecting end of the bottom bar 3′ and the others by a side piece 19, secured to the side bar 4, the two pieces being held the proper distance apart by a spacing-block 19′. The guide is sufficiently large to accommodate the vertically-sliding stem 20 of a float 21, which may be secured to said stem in any suitable manner. The stem 20 is preferably wedge-shaped and provided with a series of transversely-disposed holes 22, adapted to receive a pin 23, by means of which the float may be adjusted to the varying height of the water.

The operation of my device is as follows: The gate is placed in the bed of a stream, with the pivoted latch engaging its guide and the float resting on or arranged slightly above the surface of the water. Should the water rise, the float will rise, causing the side of the stem to engage the inclined faces of the

latch, forcing the latter out of engagement with its catch and allowing the gate to swing open, permitting the driftwood and other debris to pass downstream without injury to the gate. When the water recedes, the gate will automatically close by its own weight.

When the device is used as a farm-gate, the float is removed or fastened in elevated position within its guide by any suitable means, so as to hold it out of contact with the ground. When used in this capacity, I also provide a prop 24, pivoted to one of the stringers 5 at a point adjacent its end and adapted to be swung down in contact with the ground when the gate is open, holding the same and preventing accidental closing. The prop movably rests in a keeper 25, secured to one of the stringers 5.

The front end of the gate may be raised and held to any suitable height by shortening the chain 11 on the hook 14, so as to permit small stock to pass under it, while larger animals are prevented from going through the gateway.

A band of metal or other suitable material 26 may be employed to reinforce the lower rear end of the gate and give additional strength for the supporting-hook. The latch 15 may also be provided with a smooth front edge for engagement with the catch 17, as shown at 27 in Fig. 5 of the drawings, instead of the notches or teeth, and various other changes may be resorted to within the scope of the appended claims.

Having thus described my invention, what I claim is—

1. A gate, a guide in the lower end of the gate, a latch pivoted to the gate and working within the guide, and a vertically-movable float slidable within the guide for engaging the latch and automatically opening the gate.

2. A gate, a guide on the lower end of the gate, a latch provided with a series of notches pivoted to the gate and working within the guide, and a float having a stem provided with inclined side faces slidable within the guide for engaging the inclined faces of the notches on the pivoted latch and automatically opening the gate.

3. A gate having its top and bottom side bars projecting beyond the end bar, a latch pivoted to the projecting end of the top bar, a guide for the latch secured to the projecting end of the bottom bar, a vertically-adjustable float slidable within the guide for engaging the pivoted latch and opening the gate on the rise of the water and means for automatically closing the gate when the water recedes.

4. The combination with a gate, of a catch, a vertically-disposed latch pivoted to and movable in the plane of the gate, a free and vertically-slidable float for moving the latch to releasing position and means carried by the gate for guiding said float.

5. The combination with a gate, of a catch, a vertically-disposed latch pivoted to and movable in the plane of the gate and a free and vertically-slidable latch-releasing float depending from the gate.

6. The combination with a gate, of a catch, a vertically-disposed latch pivoted to and movable in the plane of the gate, a float-guide, and a free and vertically-slidable float movable within the guide for engaging the latch to move the same to releasing position when elevated by the water.

7. In a device of the class specified, a gate, a vertically-disposed pivoted latch member, a guide carried by the gate and embracing the lower end of said latch member, and a vertically-movable latch-releasing float extending through the guide.

8. The combination with a gate, of a vertically-disposed pivoted latch member having an inclined inner face, a guide carried by the lower portion of the gate and embracing said latch member, and a float having its upper portion disposed within said guide, the base portion of the float being laterally extended at a point below the gate to form an extensive area for contact with the water.

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

GEORGE M. BATES.

Witnesses:
G. W. ELROD,
PAUL WILLENBERG.