

No. 629,075.

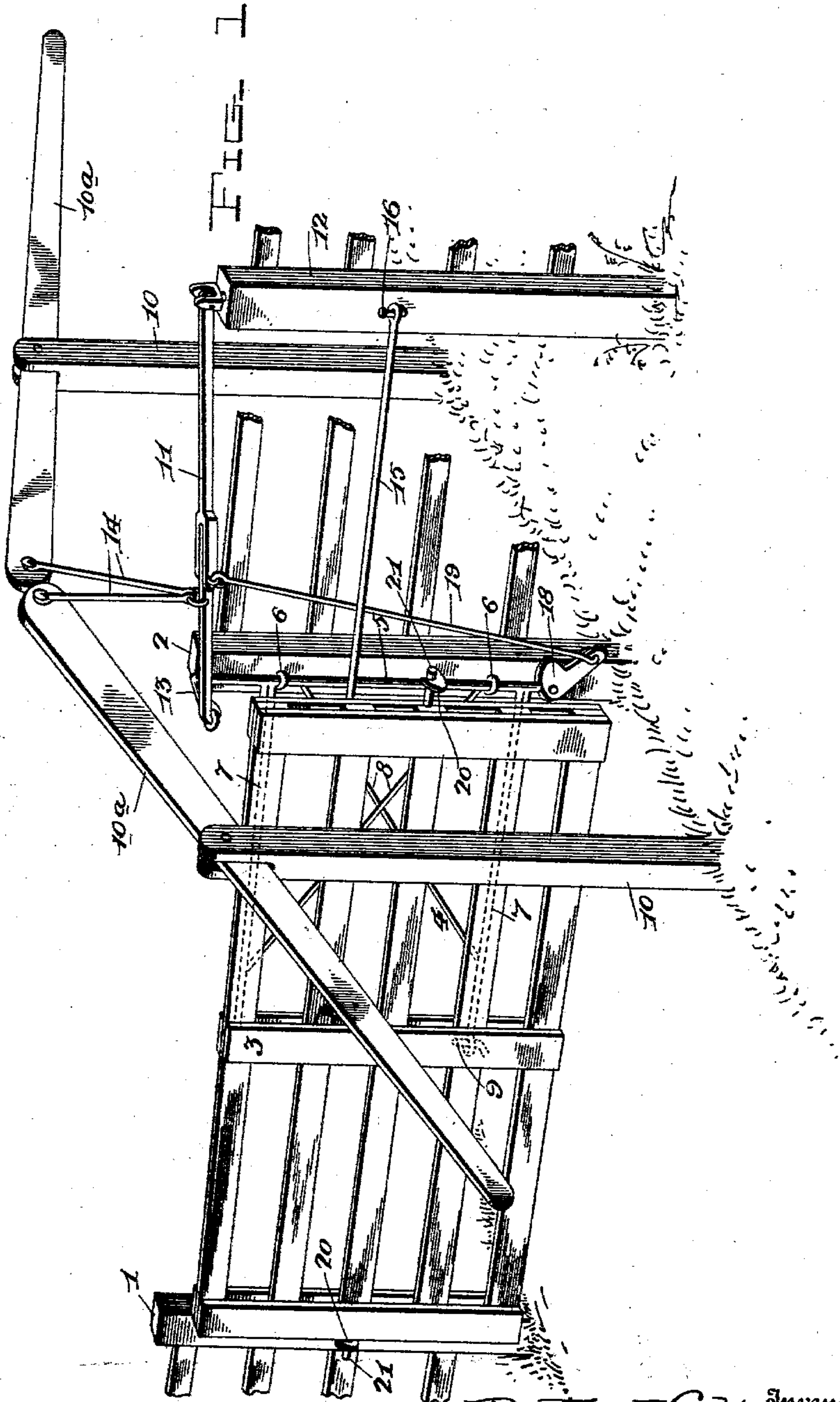
D. E. HELTON.
GATE.

Patented July 18, 1899.

(Application filed Feb. 21, 1899.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses

Witnesses:
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John W. Adams

D. E. Helton, ^{Inventor}
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 Attorneys

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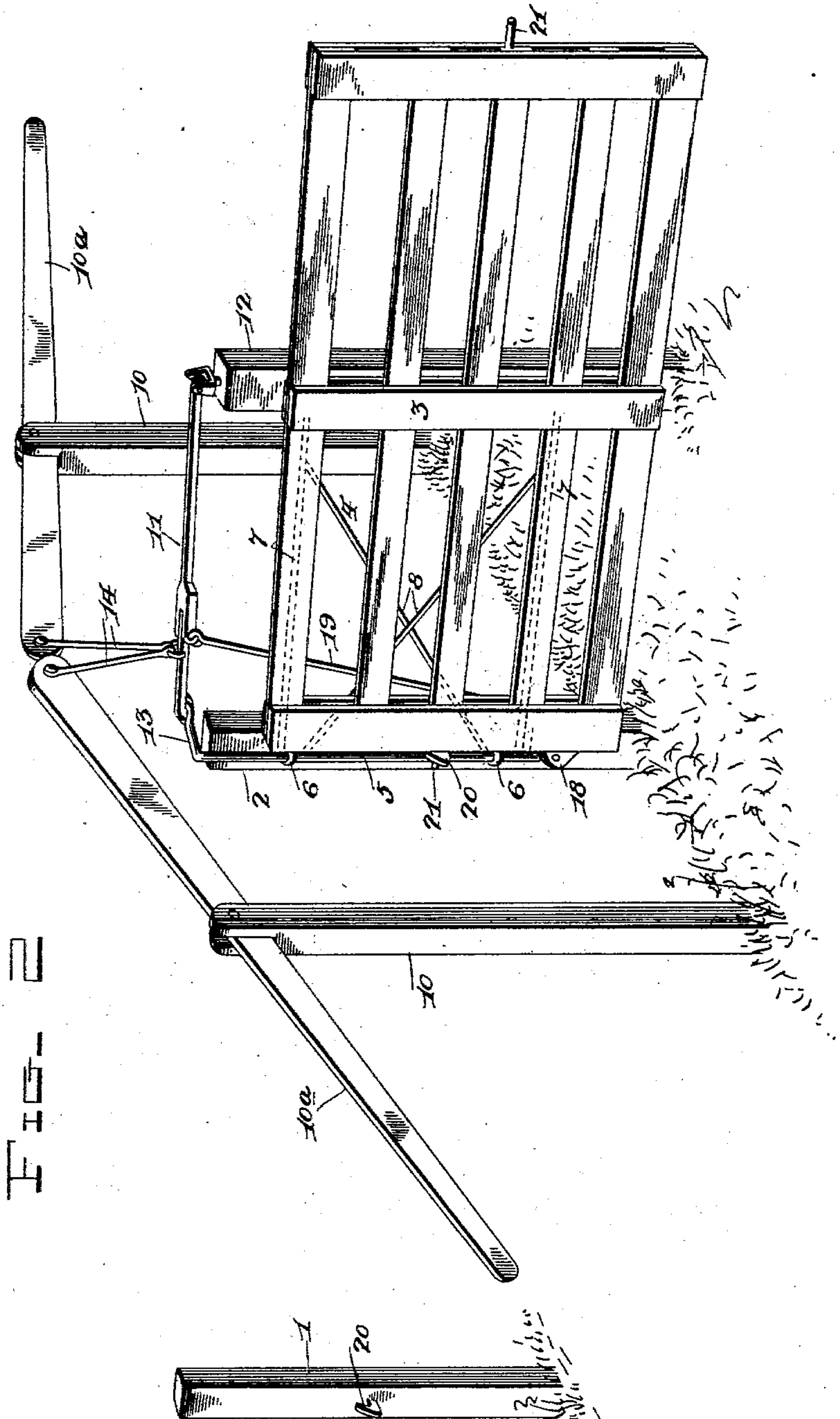
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3 Sheets—Sheet 2.



Witnesses

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3 Sheets—Sheet 3.

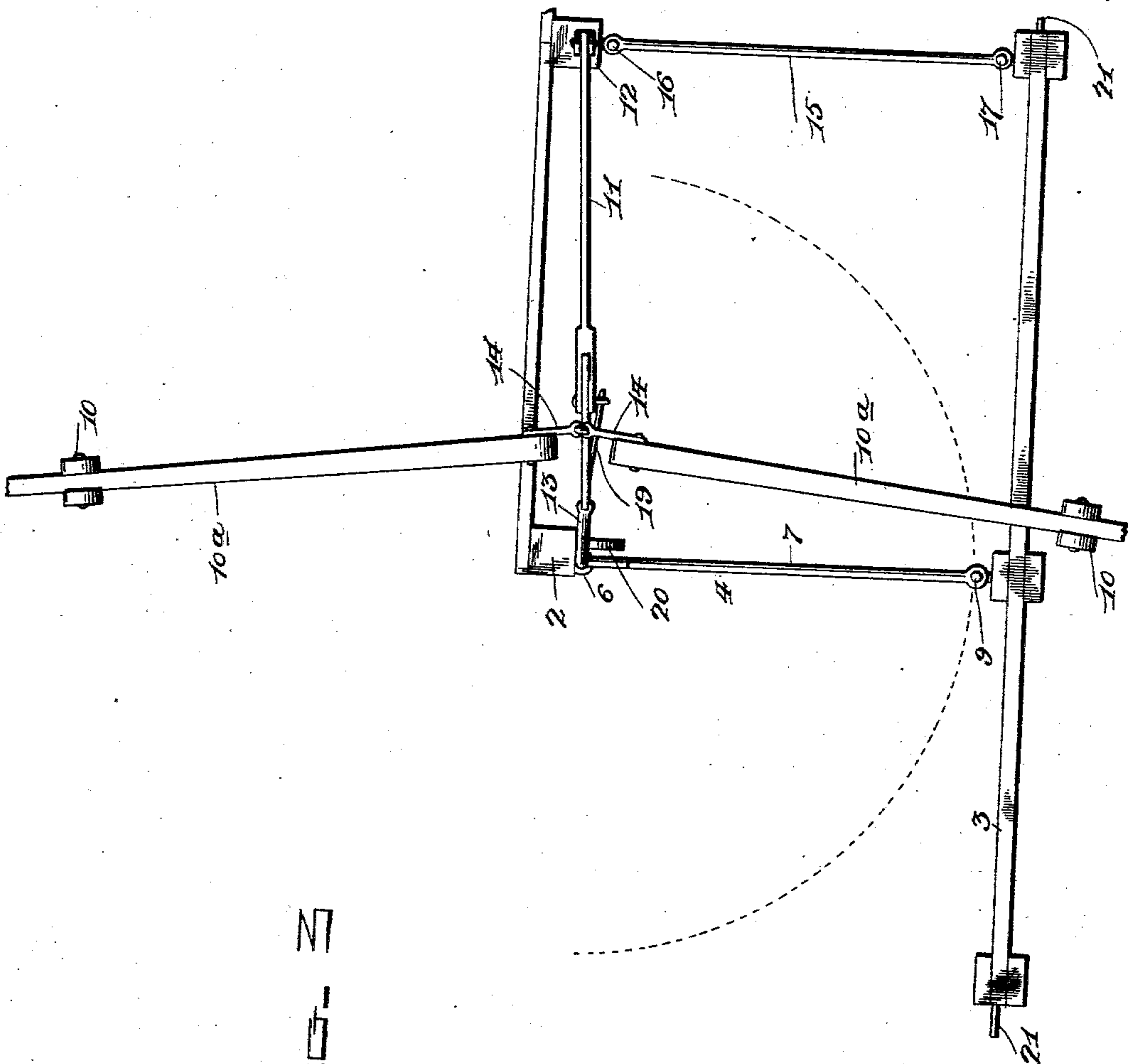


FIG. 2

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UNITED STATES PATENT OFFICE.

DOUGLAS E. HELTON, OF OGDEN, ILLINOIS.

GATE.

SPECIFICATION forming part of Letters Patent No. 629,075, dated July 18, 1899.

Application filed February 21, 1899. Serial No. 706,394. (No model.)

To all whom it may concern:

Be it known that I, DOUGLAS E. HELTON, a citizen of the United States, residing at Ogden, in the county of Champaign and State of Illinois, have invented certain new and useful Improvements in Gates; and I do 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.

The invention relates to gates, and more particularly to means for opening and closing the gate.

The object of the invention is to provide a gate which will be simple of construction, durable in use, and comparatively inexpensive of production and means by which in the opening action it may be elevated to free it from snow and then swung around close up against the side of the fence.

With this object in view the invention consists in certain features of construction and combination of parts, which will be hereinafter fully described and claimed.

In the drawings, Figure 1 is a perspective view of the gate closed. Fig. 2 is a similar view of the gate open. Fig. 3 is a top plan view illustrating the position of parts as the gate is being either opened or closed.

In the drawings, 1 denotes the latch-post, 2 the gate-post, and 3 the gate.

4 denotes the hinge-frame, consisting of a pintle 5, pivoted in staples 6, secured to the post 2, and laterally-extending arms 7, braced by struts 8. The free ends of these arms 7 are hinged to vertical pintles 9, secured to the gate intermediate its ends, whereby the gate is permitted to swing with the hinge-frame 4 and independently of the hinge-frame.

10 denotes lever-posts, and 10^a denotes operating-levers pivoted to said posts.

11 denotes a jointed rod, one end of which is pivoted to one of the fence-posts and the other end to a crank-arm 13, projecting laterally from the upper end of the pintle 5.

14 denotes links, the inner ends of which are pivoted to the jointed rod near its joint and the outer ends of which are pivoted to the operating-levers.

15 denotes a connecting-rod, one end of which is pivoted to a vertical stud 16, secured to the post 12, the other end being formed

with a crank-arm and pivoted to a stud 17, secured to the rear end of the gate.

18 denotes a cam-lever pivoted to the gate-post and supporting the lower end of the pintle 5. The arm of this cam-lever is connected to the jointed brace by a link 19.

20 denotes catches secured to the posts 1 and 2, and 21 denotes catch-studs carried by the ends of the gate and adapted to engage the catches.

In operation when the free end of one of the operating-levers is depressed the jointed rod yields at this point and the arm of the cam-lever is elevated, which elevates the gate and frees it from any obstacles which may be in its path—such, for instance, as snow or rocks. In the depression of the free end of the operating-lever and in the breaking of the jointed rod the crank carried by the upper end of the pintle is drawn around to the position shown in Fig. 2, thus drawing the gate outward and parallel with the fence. The inertia or momentum imparted to the gate now causes it to swing inward and up against the side of the fence, as shown in Fig. 2, in which position it is firmly locked by reason of the two parts of the jointed rod being at a dead-center.

The swinging movement of the gate is controlled by the connecting-rod 15, which through every movement of the gate holds the same parallel to the fence.

It will of course be understood that various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. The combination with the gate, a hinge-frame pivoted to the gate intermediate its ends, and means for simultaneously elevating the hinge-frame and swinging the same from one position to another, substantially as and for the purpose set forth.

2. The combination with the gate-post, a frame hinged thereto, a gate hinged to the free end of the frame, a cam-lever supporting the pintle of the hinge-frame, a crank-arm carried by the hinge-frame, and means for si-

multaneously elevating the hinge-frame and turning the crank-arm, substantially as and for the purpose set forth.

3. The combination with the gate-post, a
5 hinge-frame hinged thereto and provided with a crank-arm, a gate hinged to the free end of said hinge-frame, a cam for elevating the hinge-frame, and means connected to the cam and the crank for elevating the gate and
10 swinging it open, substantially as and for the purpose set forth.

4. The combination with the gate-post, the hinge-frame, the gate hinged to said frame, a crank-arm secured to said hinge-frame, a

jointed rod one end of which is pivoted to the 15 fence and the other end to the crank-arm, and a connecting-arm one end of which is pivoted to the fence and the other end to the rear end of the gate, and means connected with the jointed arm for operating the gate, 20 substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

DOUGLAS E. HELTON.

Witnesses:

L. A. SOMERS,

WM. MCKINLEY.