

No. 632,853.

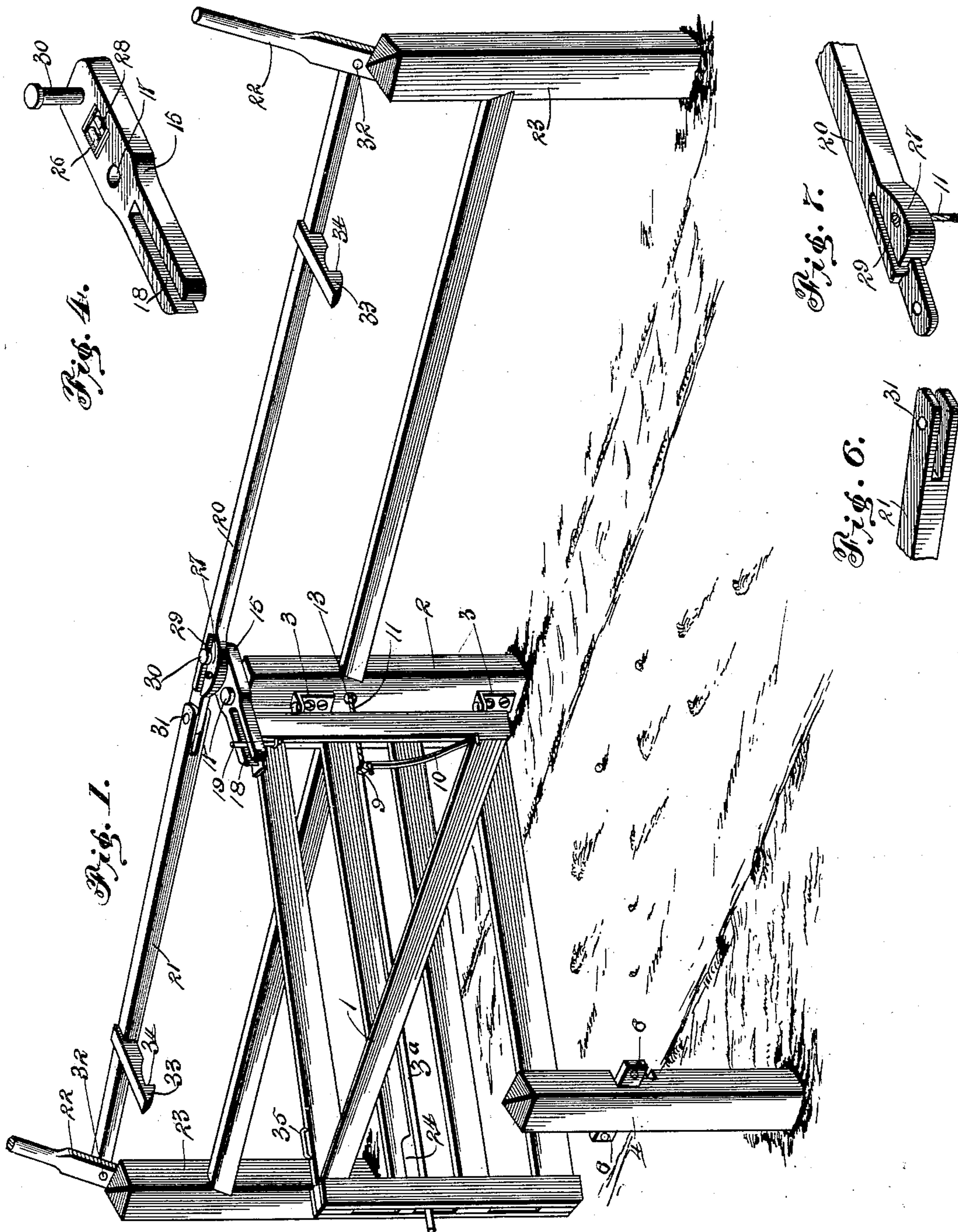
Patented Sept. 12, 1899.

G. SOMMER.  
GATE.

(Application filed Mar. 17, 1899.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

Clarence Walker, By his Attorneys,

J. F. Riley

George Sommer Inventor

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2 Sheets—Sheet 2.

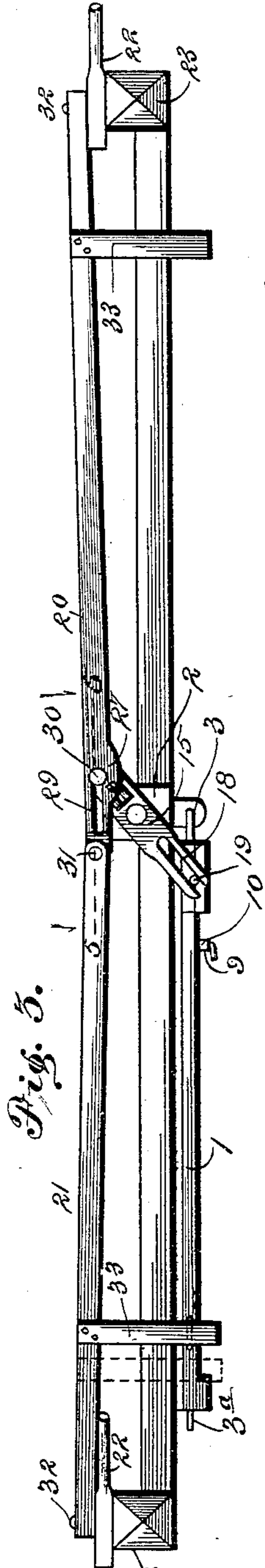


Fig. 5.

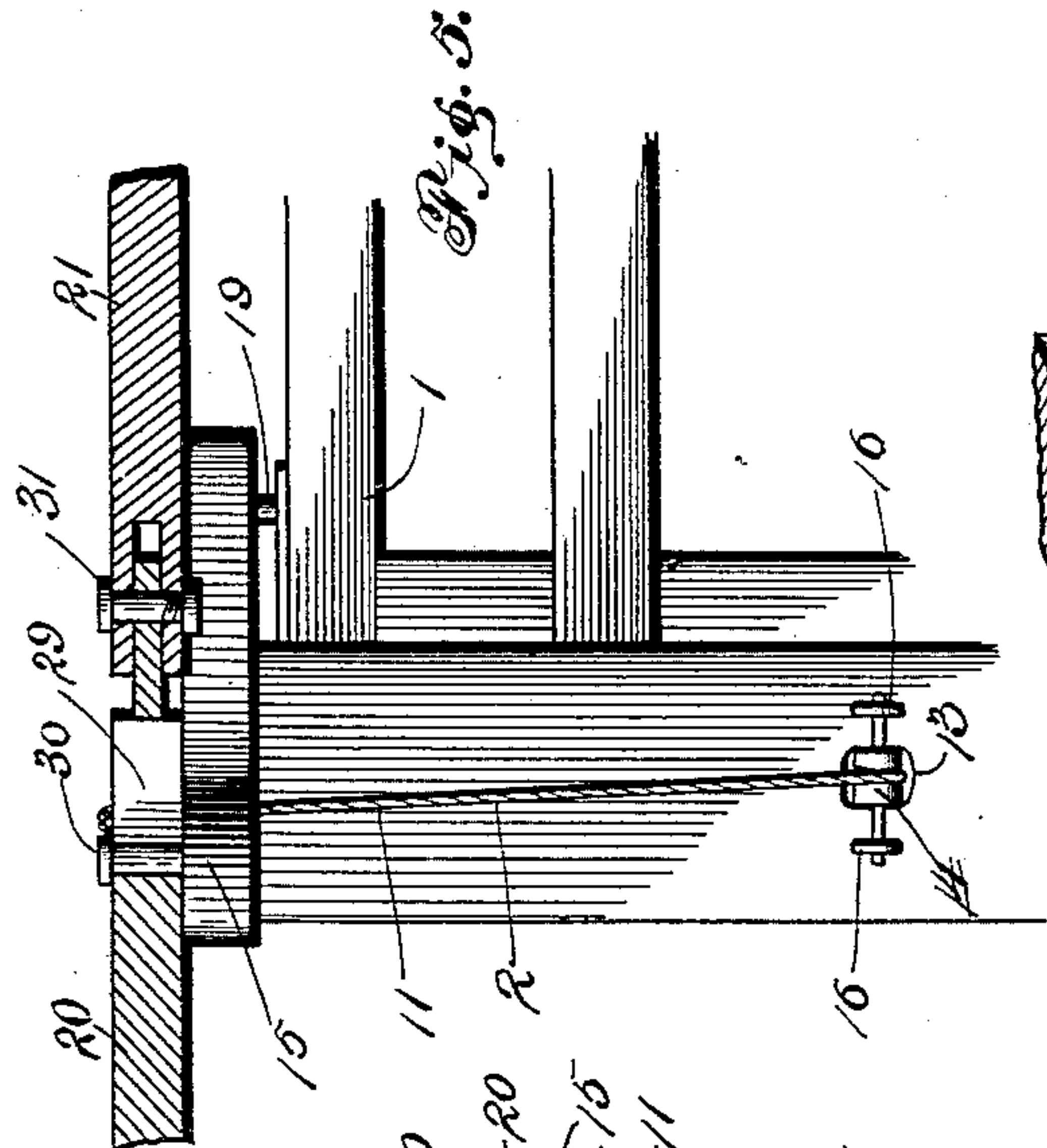


Fig. 6.

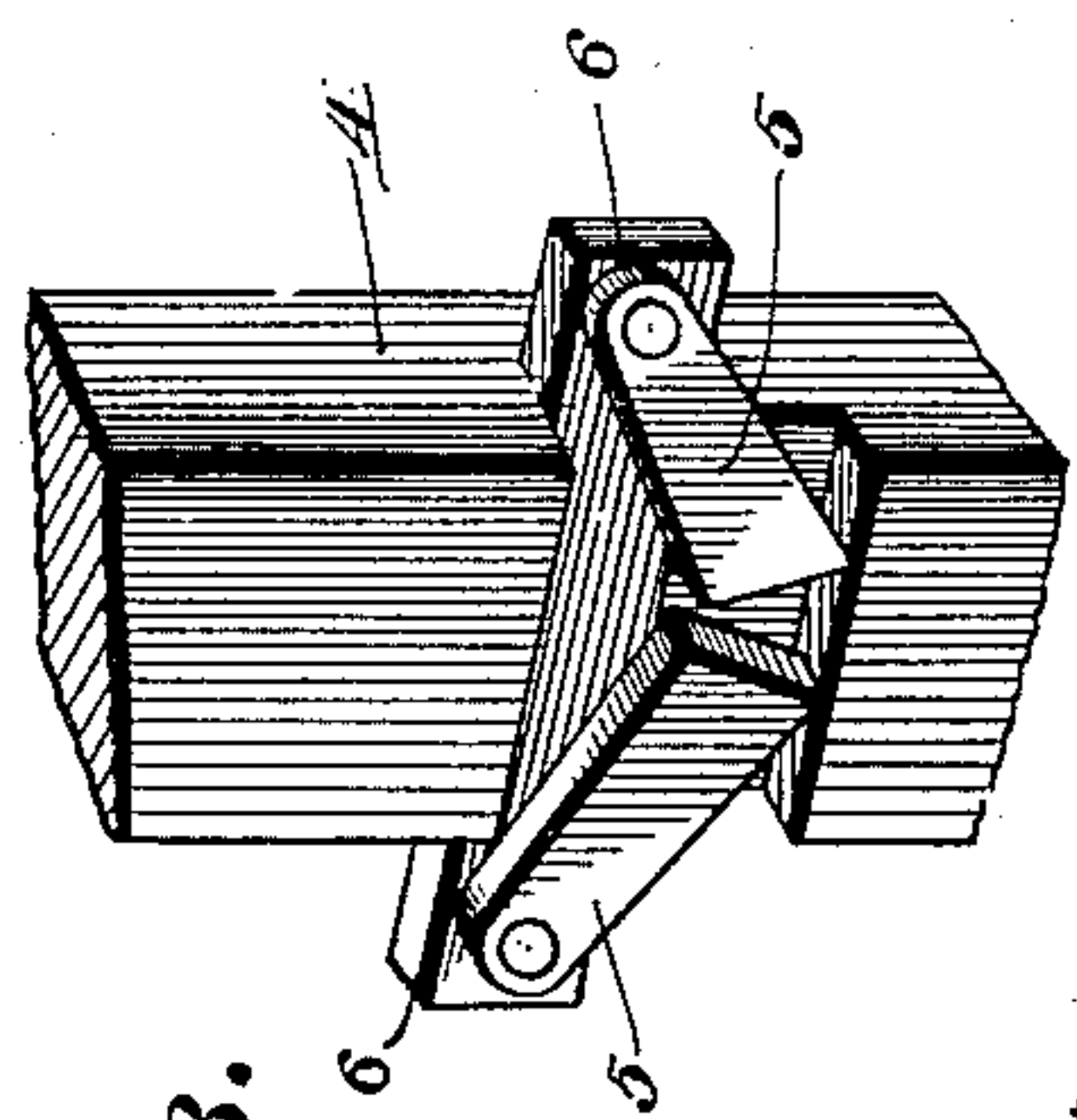


Fig. 7.

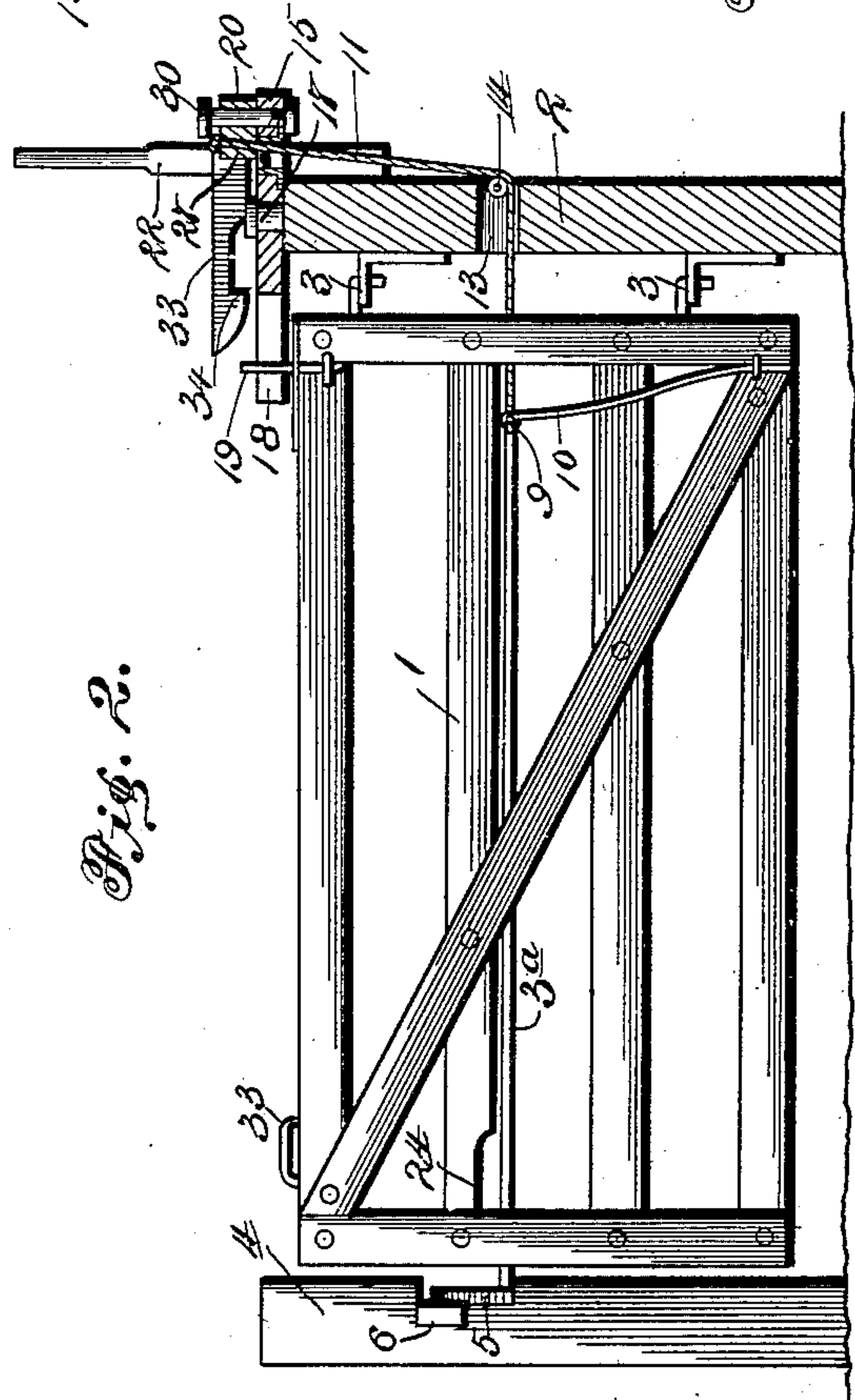


Fig. 8.

Witnesses  
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# UNITED STATES PATENT OFFICE.

GEORGE SOMMER, OF FAIRLAND, ILLINOIS, ASSIGNOR OF ONE-THIRD TO  
JOHN F. SELTZER, OF SAME PLACE.

## GATE.

SPECIFICATION forming part of Letters Patent No. 632,853, dated September 12, 1899.

Application filed March 17, 1899. Serial No. 709,504. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE SOMMER, a citizen of the United States, residing at Fairland, in the county of Douglas and State of Illinois, have invented a new and useful Gate, of which the following is a specification.

The invention relates to improvements in gates.

The object of the present invention is to improve the construction of gates, more especially the operating mechanism for opening and closing the same, and to provide a simple, inexpensive, and efficient device adapted to enable a swinging gate to be readily opened at a distance from it and away from the operator without necessitating his dismounting from a horse or leaving a vehicle, and capable of positively holding the gate in its open position and of permitting the same to be readily closed after a person has passed through it.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a gate constructed in accordance with this invention and shown partly open. Fig. 2 is a vertical sectional view taken longitudinally of the gate, the latter being closed. Fig. 3 is a plan view, the gate being open and the supplemental latch or catch being shown in engagement with the keeper of the gate in full lines and out of engagement in dotted lines. Fig. 4 is a detail perspective view of the horizontal gate-actuating lever. Fig. 5 is a detail sectional view on line 5 5 of Fig. 3. Figs. 6 and 7 are detail perspective views of the inner ends of the connecting-bars. Fig. 8 is a detail view illustrating the construction of the main latch.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a swinging gate hinged to a post or support 2 by suitable hinges 3 and provided with a reciprocating spring-actuated latch rod or bar 3<sup>a</sup>, disposed horizontally and extending longitudinally of the gate from one end of the same to the other end thereof and

having its front end projecting beyond the gate and adapted to be engaged by the main latch of a latch-post 4. The latch-post 4 is provided with a recess in which are arranged a pair of oppositely-disposed latch members 5, pivoted at their outer ends to arms 6, formed by a horizontal bar or piece secured within the upper portion of the recess and extending beyond the side faces of the latch-post. The latch members, which are disposed at an inclination, present outer inclined edges to the latch bar or rod and have their inner ends resting upon the bottom wall of the recess of the latch-post and spaced apart to receive the end of the latch bar or rod between them, and the said latch bar or rod is adapted to engage the inclined edges of a latch member and lift the same as the gate closes. After the latch-bar has passed beneath one of the latch members it will engage the other, which forms a stop to prevent the gate from swinging past the latch-post.

The inner or rear end of the latch-rod is provided with a laterally-disposed arm 9, which is attached to the upper end of a spring 10, and the latter, which is disposed substantially in a vertical plane, has its lower end fixed to the gate, its upper end being attached to the arm 9 and adapted to move the latch bar or rod outward or forward. The arm 9 is also connected to one end of a wire or cord 11, which extends rearward through a perforation 13 of the hinge-post or support to a pulley 14 and passes upward over the same to a horizontally-disposed gate-actuating lever 15; but instead of employing a wire or cord a rope, chain, or any other suitable flexible connection may be used. The pulley 14, which guides the rope or cord, has a groove for the reception of the same and is provided with journals arranged in suitable bearings 16 at opposite sides of the opening 13.

The horizontally-disposed gate-actuating lever 15, which is fulcrumed between its ends at 17 on the top of the hinge post or support, has its front end bifurcated or slotted at 18 to receive a pin or projection 19, which extends upward from the top of the gate and which is located in advance of the pintles of the hinges 3, whereby when the horizontal



lever is oscillated the gate will be swung on its hinges. The rear end of the lever 15 is connected by a pair of rods or bars 20 and 21 with operating-levers 22, fulcrumed between their ends on suitable uprights or posts 23, located at opposite sides of the gate and situated a sufficient distance therefrom to enable them to be grasped by a person within a vehicle or on horseback before the head of the animal comes in contact with the gate. The upper ends of the operating-levers are shaped into handles and are disposed vertically when the gate is closed in order that they may be readily grasped to open and close the gate, and the end of the horizontal bar or rail of the gate is provided above the latch bar or rod with an opening 24 to enable the said bar or rod to be readily grasped and operated by a person on foot.

The upper end of the flexible connection 11 extends through an opening 26 of the rear end of the horizontal lever and is attached to an enlargement 27 of the inner end of the connecting-bar 20, and when the said bar 20 is reciprocated in either direction the connection is drawn over one of a pair of pulleys 28 to withdraw the latch bar or rod from engagement with the main latch to permit the gate to open. The inner end of the connecting-bar 20 is provided with a longitudinal slot 29, receiving a pivot 30 of the horizontal lever and permitting the connecting-bars to have a limited longitudinal movement independent of the horizontal lever to unlatch the gate preparatory to opening or closing the same. The adjacent ends of the connecting-bars are pivoted together by a bolt or other suitable fastening device 31, and one of the connecting-bars is bifurcated to receive the inner end of the other, which is reduced to form a tongue to fit in the said bifurcation.

The outer ends of the connecting-bars are pivoted at 32 at points above the fulcrums of the operating-levers to the latter and each operating-bar is provided adjacent to its operating-lever with an outwardly-extending laterally-disposed supplemental latch or catch 33, arranged at right angles to the operating-bar and having a beveled tooth or projection 34, shouldered at the inner side and adapted to engage a keeper 35, mounted on the top of the gate near the free end thereof. The connecting-bars have a sufficient rocking movement to permit the keeper 35 to pass under the supplemental latches or catches; but the enlargement of the inner end of the bar 20 by being connected with the spring of the latch bar or rod holds the connecting-bars with their upper and lower faces in a horizontal plane and prevents the supplemental latches or catches from swinging upward accidentally. The longitudinal movement of the connecting-bars incident to the oscillation of the operating-levers to effect a closing of the gate is sufficient to carry the supplemental latches or catches 33 out of engagement with the

keeper of the gate before the latter begins to close, the slotted connection between the bars and the lever 15 permitting such operation. 70

The invention has the following advantages: The operating mechanism, which is simple and comparatively inexpensive in construction, is adapted to be applied to any ordinary swinging gate or door. It is capable of enabling a gate to be opened in either direction and away from the operator, and it is locked in both its open and closed position. The limited movement of the connecting-bars independent of the horizontal lever enables the operating mechanism to reciprocate the latch bar or rod and also to slide the supplemental latches or catches from over the keeper of the gate, so that the latter will be free to swing. 85

Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention. 90

What is claimed is—

1. In a device of the class described, the combination with a swinging gate, and an oscillating lever connected with the same, of operating devices located at opposite sides of the gate, a reciprocating connection extending from the oscillating lever to the operating devices and having a limited movement independent of the former, supplemental latches or catches mounted on the reciprocating connection, adapted to engage the gate and arranged to be carried out of such engagement by the movement of the said connection, and a latch mounted on the gate and also operated by the reciprocating connection, substantially as described. 105

2. In a device of the class described, the combination with a swinging gate, and an oscillating lever connected with the same, of operating devices located at opposite sides of the gate, a reciprocating connection extending from the lever to the operating devices, and the auxiliary latches or catches mounted on the reciprocating connection and arranged to engage and positively lock the gate in its open position, said auxiliary latches or catches being carried out of engagement with the gate by the movement of the reciprocating connection, substantially as described. 115

3. In a device of the class described, the combination of a swinging gate, a reciprocating bar, an operating-lever arranged at the outer end of the bar, connections between the gate and the bar, a keeper mounted on the gate, and an auxiliary catch carried by the said bar and having a shouldered lug or projection arranged to engage the keeper of the gate to lock the latter positively in its open position, said auxiliary catch being carried out of engagement by the longitudinal movement of the bar, substantially as described. 125

4. In a device of the class described, the combination of a swinging gate, an oscillating lever connected with the same, operating-



levers located at opposite sides of the gate, connecting-bars extending from the operating-levers to the oscillating lever, and having a limited movement independent of the latter, catches mounted on the bars and arranged to lock the gate in its open position, and a latch mounted on the gate and connected with the said bars, substantially as described.

10 5. In a device of the class described, the combination of a swinging gate, an oscillating lever connected with the gate, a reciprocating bar having a sliding connection with the lever, an operating-lever connected with  
15 the bar, a catch mounted on the bar and arranged to lock the gate in its open position, said catch being carried out of such engagement by the reciprocation of the said bar, and a latch mounted on the gate and connected  
20 with the bar, substantially as described.

6. In a device of the class described, the combination of a swinging gate, a horizontal oscillating lever fulcrumed between its ends, a latch-bar mounted on the gate, a spring connected with and actuating the latch-bar, operating-levers located at opposite sides of the  
25 gate, connecting-bars extending from the op-

erating-levers to the oscillating lever and having a slotted connection with the latter, a flexible connection extending from the latch 30 of the gate to the connecting-bars, and catches mounted on the latter and arranged to lock the gate in its open position, substantially as described.

7. In a device of the class described, the combination of a hinge post or support, a swinging gate mounted thereon, a horizontal oscillating lever fulcrumed between its ends on the post or support and connected at its front end to the gate, the rear end of the oscillating lever being provided with an opening, an oscillating bar having a limited movement independent of the lever, a spring-actuated latch mounted on the gate, and a flexible connection extending from the latch 45 through the opening of the lever to the said bar, substantially as described.

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

GEORGE SOMMER.

Witnesses:

BRUCE H. FARRABEE,  
WM. QUINN.