

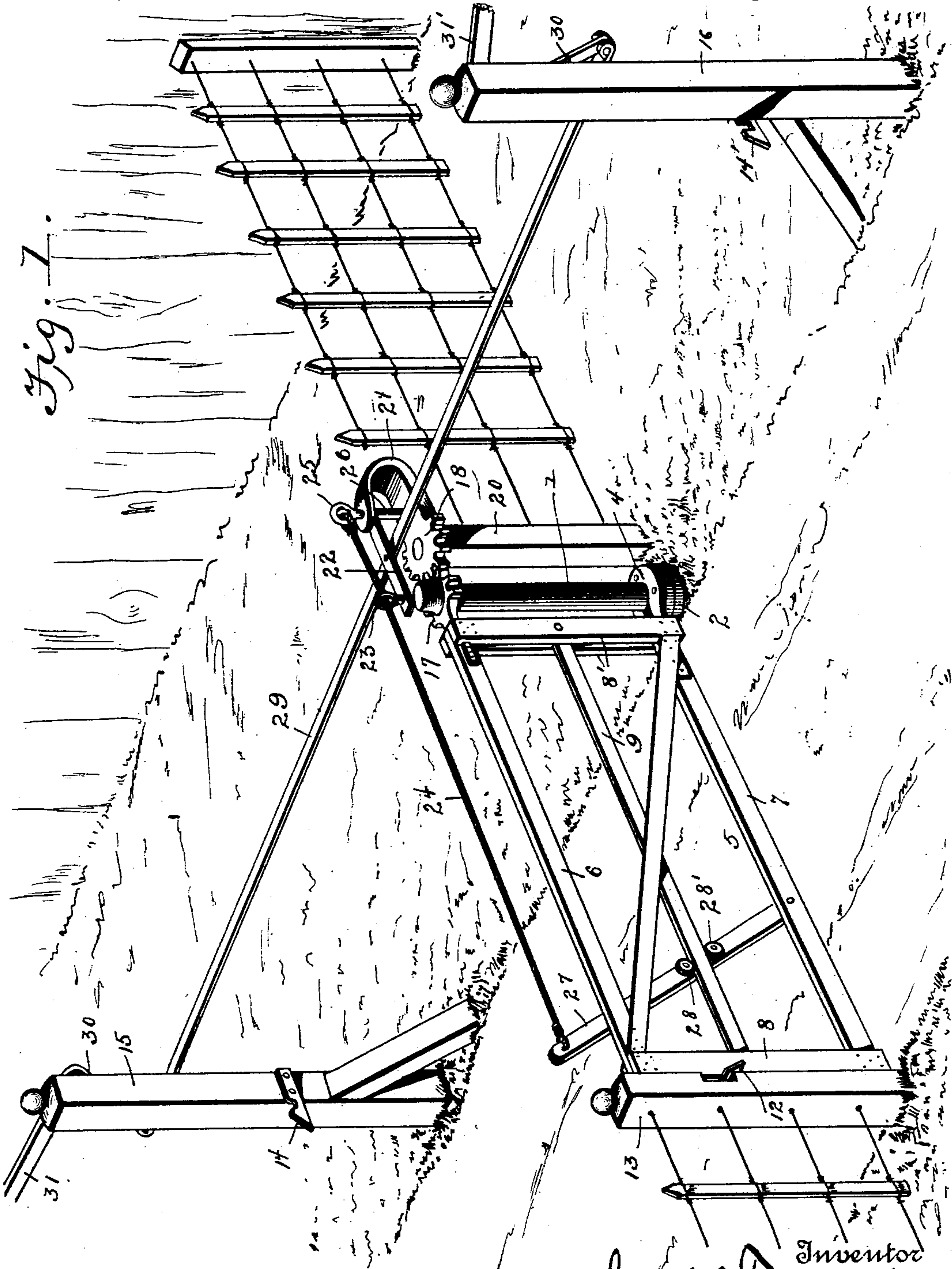
(No Model.)

3 Sheets—Sheet 1.

C. W. TERPENING.  
GATE.

No. 587,563.

Patented Aug. 3, 1897.



Witnesses

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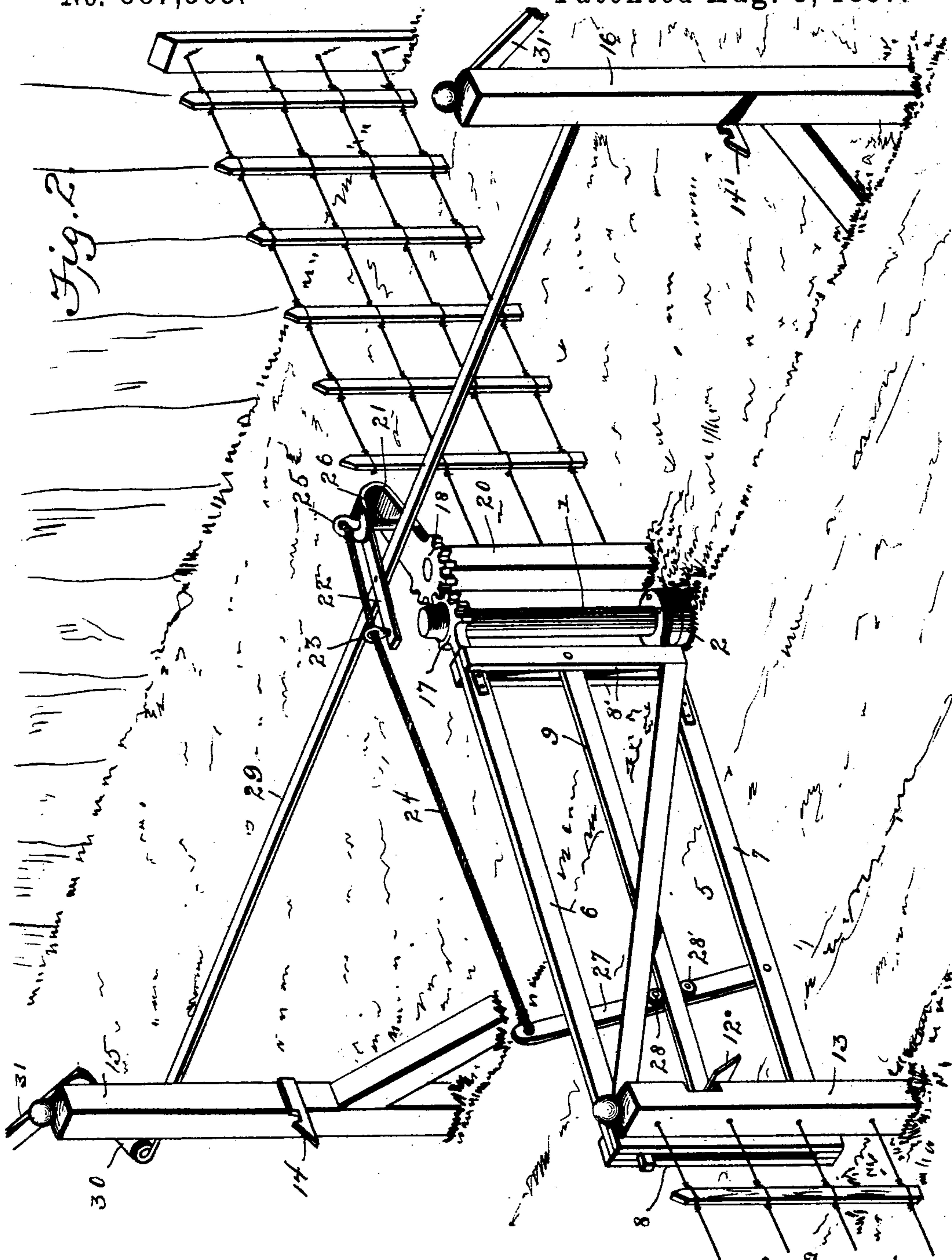
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3 Sheets—Sheet 2.

C. W. TERPENING.  
GATE.

No. 587,563.

Patented Aug. 3, 1897.



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(No Model.)

C. W. TERPENING.  
GATE.

3 Sheets—Sheet 3.

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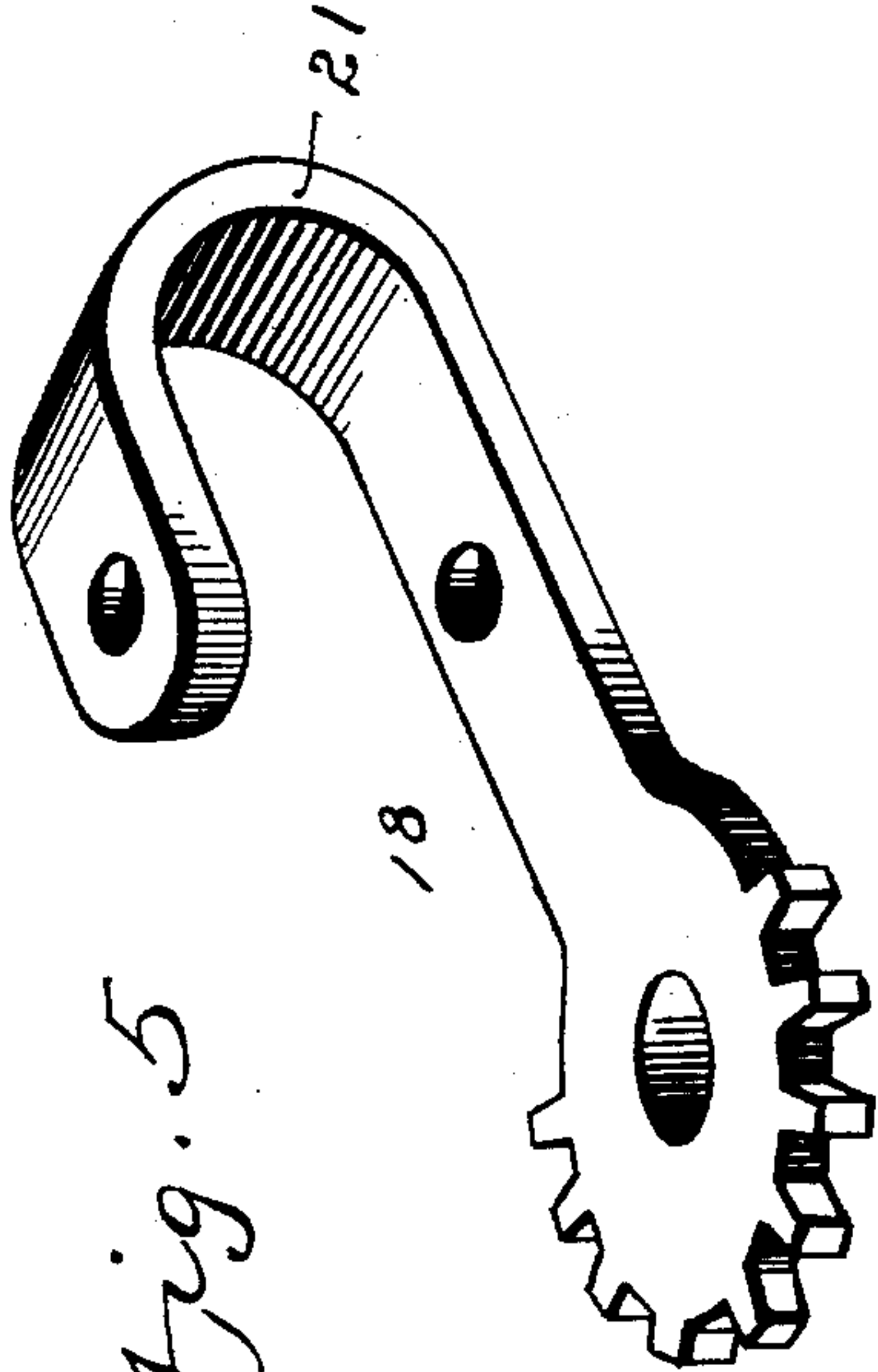


Fig. 5

Fig. 4.

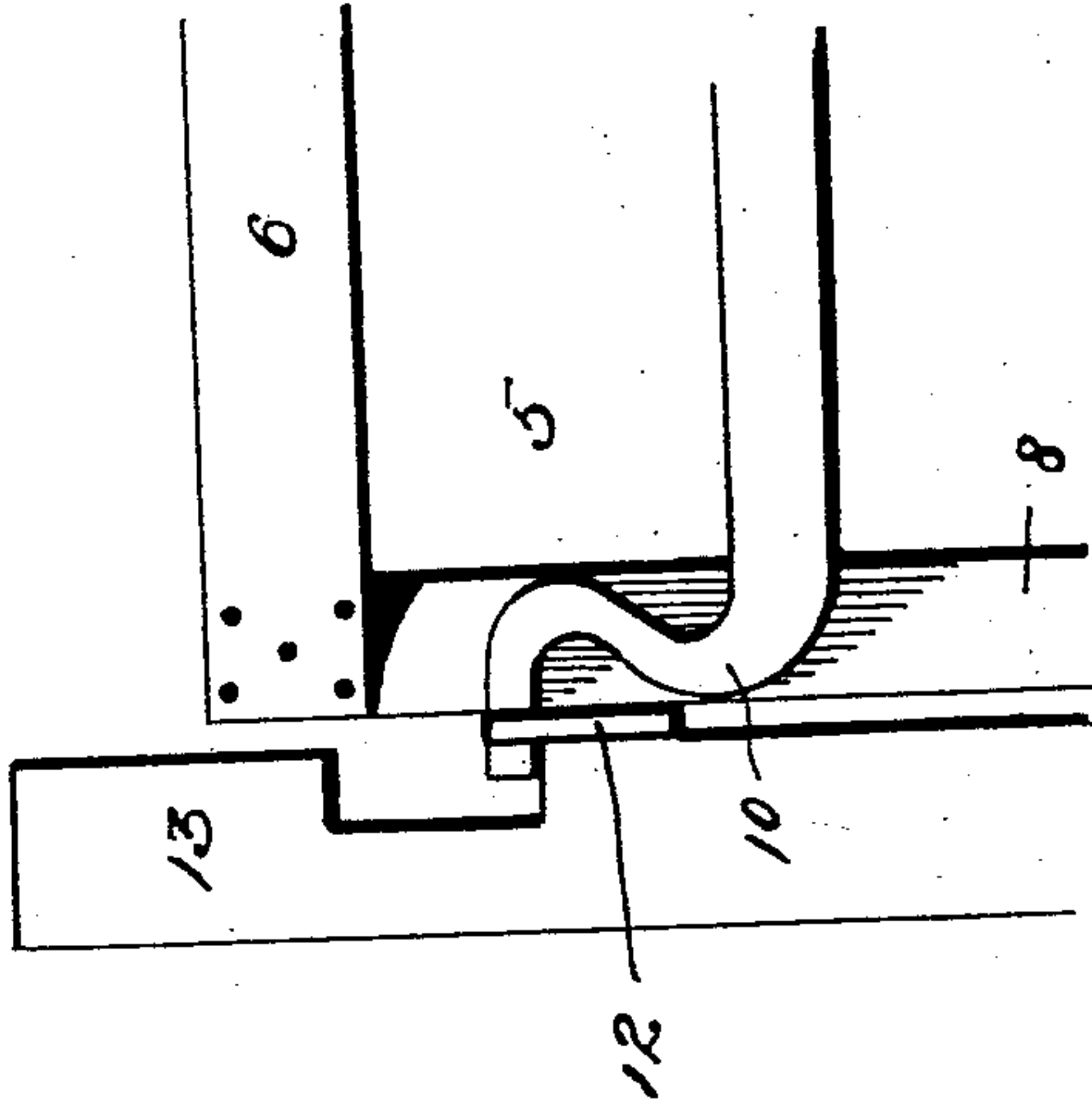


Fig. 6.

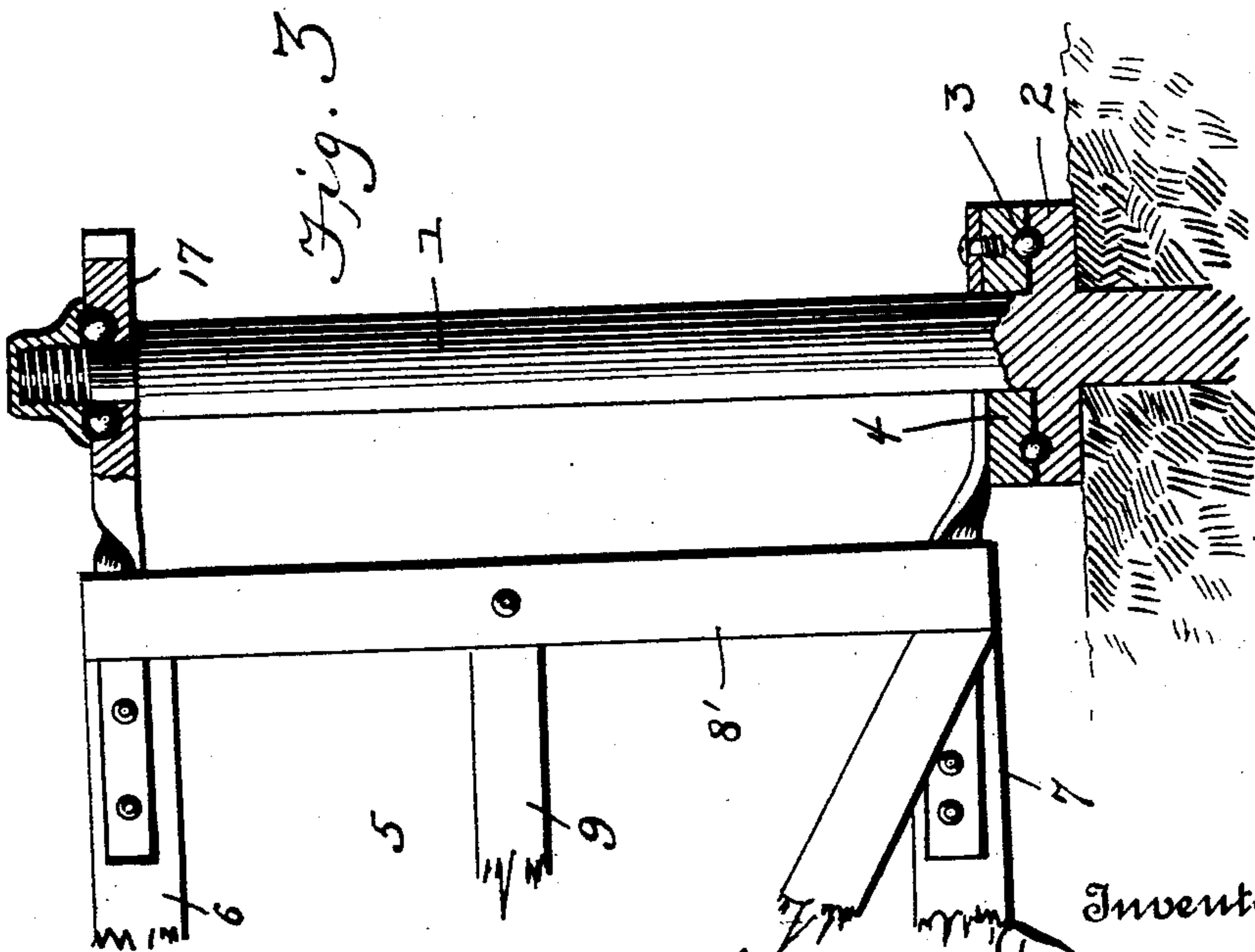
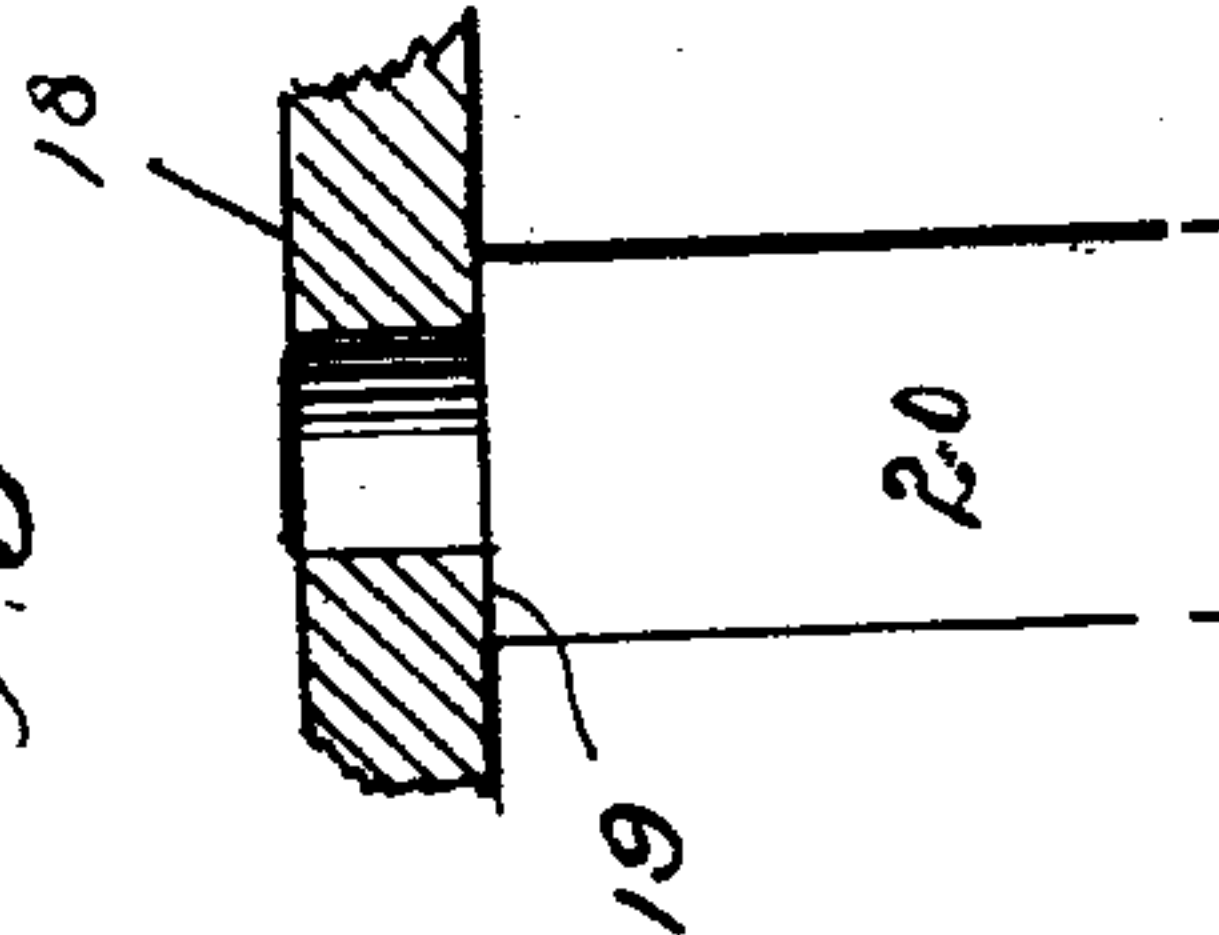


Fig. 3

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# UNITED STATES PATENT OFFICE.

CHARLES W. TERPENING, OF UTAH, ILLINOIS.

## GATE.

SPECIFICATION forming part of Letters Patent No. 587,563, dated August 3, 1897.

Application filed October 28, 1896. Serial No. 610,343. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES W. TERPENING, a citizen of the United States, residing at Utah, in the county of Warren 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.

My invention has relation to gates, and the object is to provide a gate that can be opened before reaching the gate proper and closed from a point some distance beyond after the team has passed through it; and to this end the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described, and particularly pointed out in the claims.

In the accompanying drawings the same figures of reference indicate the same parts of the invention.

Figure 1 is a perspective view of my improved gate as it appears when closed. Fig. 2 is a similar view of the gate partly open. Fig. 3 is a vertical section of the stationary gate-post. Fig. 4 is a similar view of the front end of the gate, showing the free end of the latch. Fig. 5 is a perspective view of the gear-wheel lever, and Fig. 6 is a vertical section of the upper end of the post 20.

1 is the main gate-post, and it is provided with a rigid collar 2, formed with an annular groove, in which is located a series of balls 3, upon which rests a similarly-grooved collar 4, rigidly attached to the gate 5 and forming the bottom bearing thereof. The gate proper 5 comprises the top rail 6, the bottom rail 7, and two pairs of standards 8 8 and 8' 8'. The middle rail forms the latch, its rear end 9 being pivoted between the standards 8' 8' and its forward end terminating in a latch-bolt 10, working vertically between the standards 8 8 and projecting a short distance beyond to engage the keeper 12 on the fence-post 13, and the keepers 14 and 14', located on the posts 16 and 16, respectively.

17 is a mutilated-gear wheel secured to the top rail 6 and encircling the stationary post 1, so as to turn freely thereon with the gate, and its teeth mesh with a similar mutilated-gear-wheel lever 18, resting upon a shoulder

19 on the post 20. The bearing in the gear 17, where it encircles the gate-post 1, is provided with a ball-bearing to counteract the tendency of the gate to sag and to keep the gate horizontal or level at all times.

21 is an arm on the gear-wheel lever 18, and in it is pivoted one end of a short lever 22, the outer or free end of which is provided with an eye 23, through which passes a flexible cord 24, one end of which is secured to an eye 25 on the rod 26, to which the lever 22 is pivoted in the arm 21 of the gear-wheel 18. The other end of this cord 24 is connected to the free end of a lever 27, pivoted to a bolt 28 in the lower rail 7 of the gate proper. This lever 27 is provided with two rollers 28 28', secured thereto above and below the pivoted latch-rail 9 10, so that as the cord 24 is drawn backward the end of the lever is raised. This movement raises the latch-bolt 10 and releases it from its keeper.

The short lever 22 is fulcrumed about midway of its length to a connecting-rod 29, the ends of which are connected to the shorter depending arms 30 of two bell-crank levers 31 31', one of which is located on each side of the gate and a sufficient distance therefrom to permit either of the levers 31 to be operated from the team to open or close the gate before the team reaches it or after it has passed through it.

This gate is operated as follows: It being closed, as shown in Fig. 1, and a team approaching from the right-hand side the driver presses down on the lever 31'. This throws the connecting-rod 29 and short lever 22 forward to draw the cord 24 inwardly to raise the latch-bolt 10 from its keeper 12. At the same time the short lever 22 forces the arm 21 rearward also. This partially rotates the gear-wheel lever 18, and its teeth engaging the gear 17 on the gate causes it to swing forward and around at a right angle to its former closed position until its latch-bolt 10 engages the keeper 14 on the post 15. This holds the gate open, as shown in Fig. 2, until the team has passed through and the driver is opposite the post 15. He then pulls down the lever 31, which releases the latch-bolt 10 from the keeper 14 and causes the gate to swing around to its normal closed position, when the latch 10 engages the keeper 12 on



the post 13 and locks the gate in that position.

Although I have specifically described the construction and relative arrangement of the several elements of my invention I do not desire to be confined to the same, as such changes or modifications may be made as clearly fall within the scope of my invention without departing from the spirit thereof—as, for instance, in some cases where it is necessary to set the post 1 close to a building then the horizontal arm 21 on the gear 18 would be in the way. Then I prefer to make the mutilated gear 17 in the form of a mutilated miter or bevel gear, and the same of the gear 18. This would throw its arm 21 vertically upward to operate the same as in the first instance.

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

1. The gate 5 pivoted to the post 1 and provided with the inclined lever 27, having guides 28 28' secured thereto above and below the pivoted latch-rail, and having the mutilated-gear wheel 17, in combination with the similar

gear-wheel 18, provided with the arm 21, the short lever 22, the flexible cord passing through the guide-eye 25 on the free end of said lever and connected to the arm 21 and the diagonal lever 27, the connecting-rod 29 centrally pivoted to said lever 22 and having its ends connected to the bell-crank levers 31 31', mounted on the posts 32 32', substantially as and for the purpose set forth. 30 35

2. The combination with the gate proper, constructed substantially as described, and provided with the gear 17 and latch-rail-operating lever 27, of the flexible cord connected to said lever 27, passing through a guide-eye 25 on the short lever 22 and connected to the arm 21, the gear-wheel 18 meshing with the gear 17 and having its arm 21 connected to the short lever 22, fulcrumed on the connecting-rod 29, the outer ends of which are pivoted to the bell-crank levers 31 31', substantially as and for the purpose set forth. 40 45

In testimony whereof I hereunto affix my signature in presence of two witnesses.

CHARLES W. TERPENING.

Witnesses:

JOHN RIDDELL,

H. P. TERPENING.