

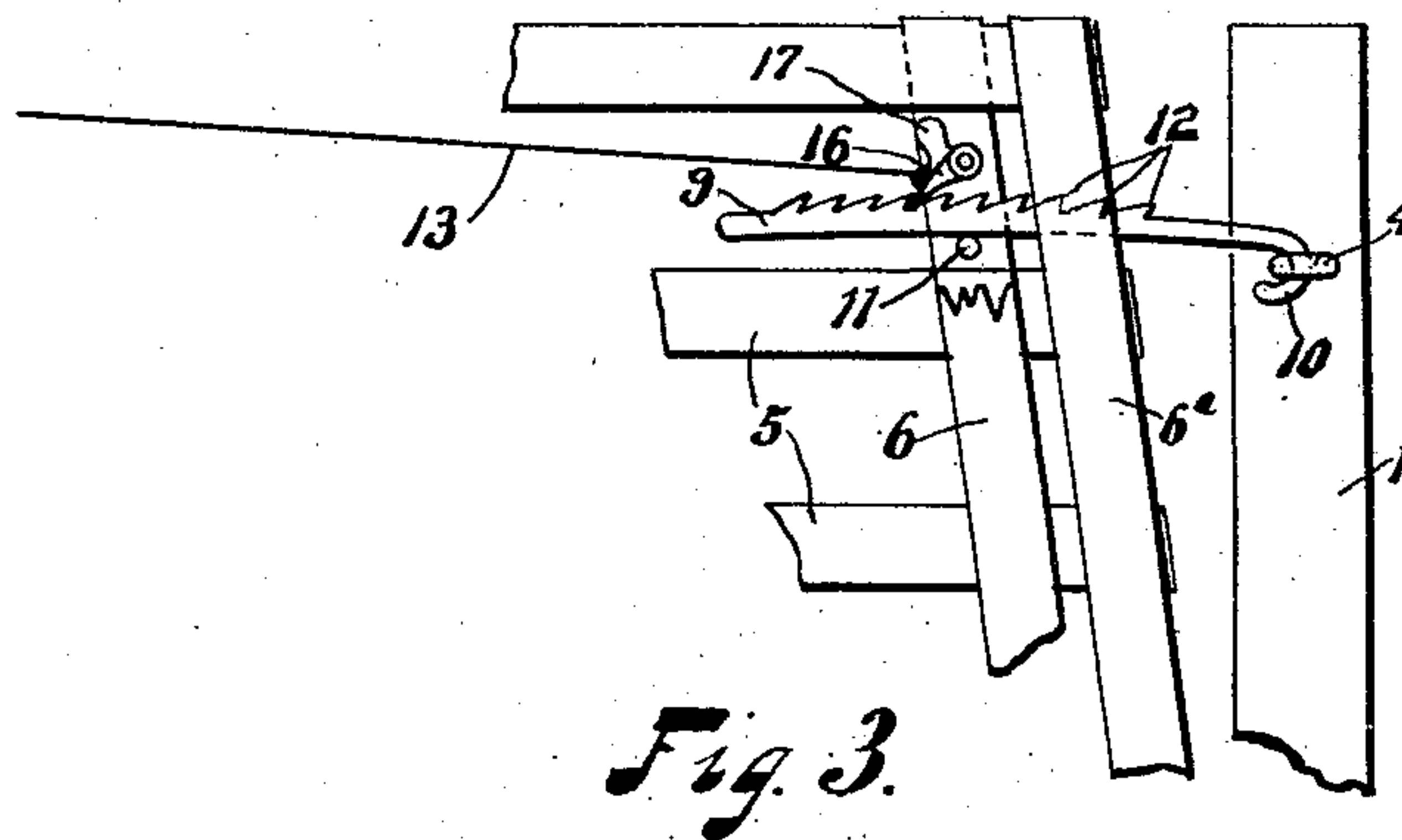
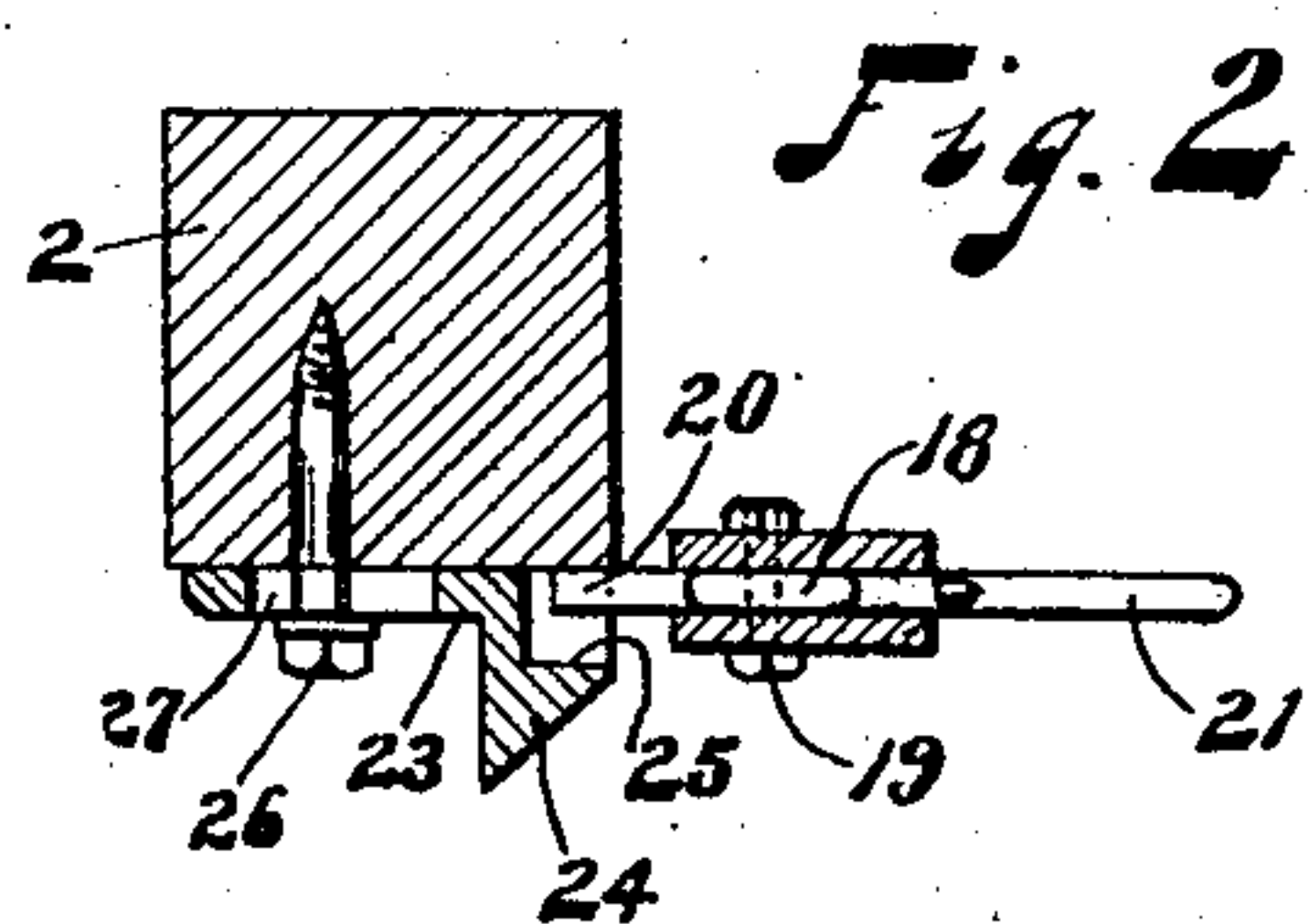
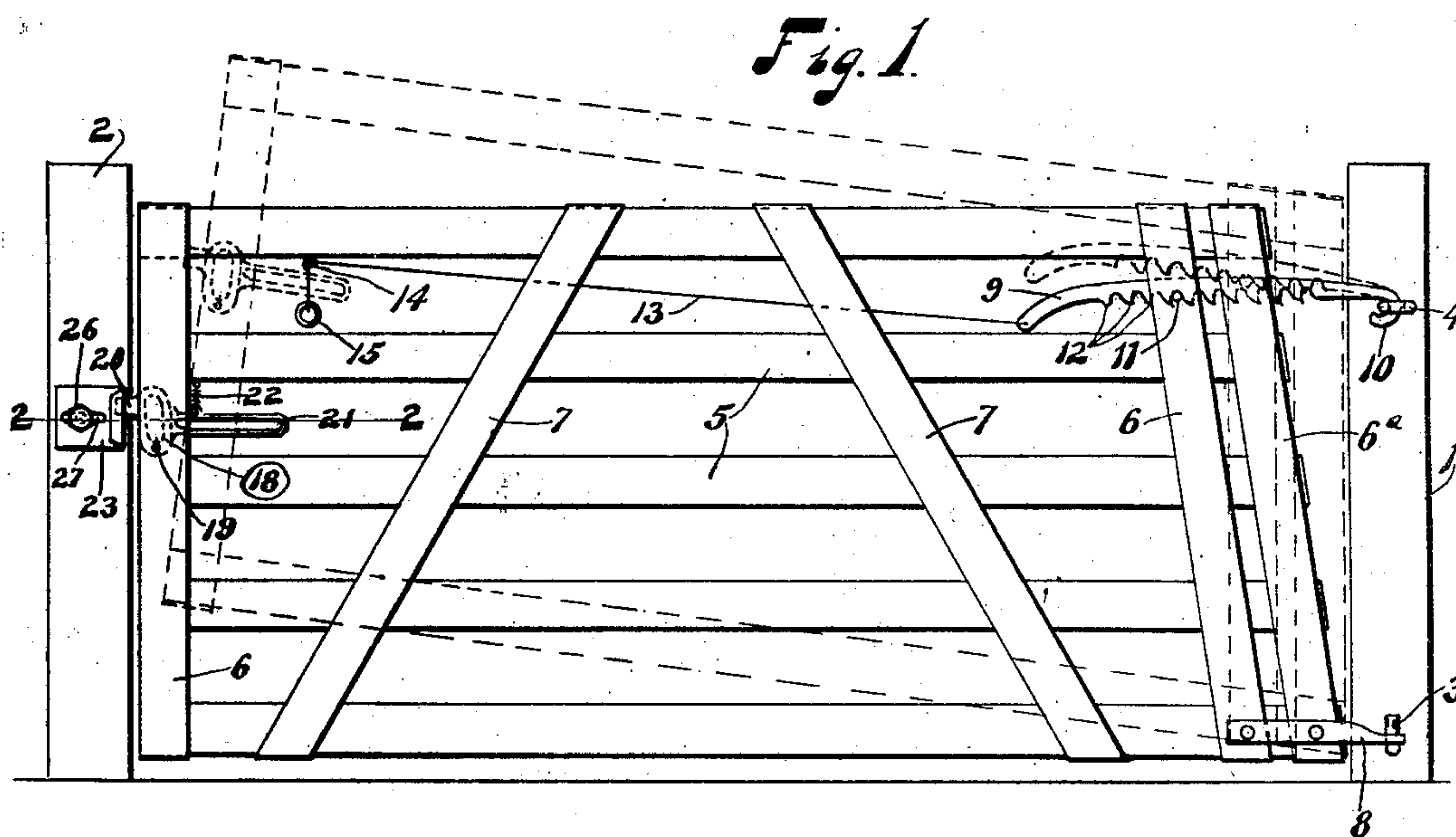
No. 845,419.

PATENTED FEB. 26, 1907.

J. S. JOHNSON.

GATE.

APPLICATION FILED SEPT. 5, 1906.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOSEPH S. JOHNSON, OF LODI, OHIO.

GATE.

No. 845,419.

Specification of Letters Patent.

Patented Feb. 26, 1907.

Application filed September 5, 1906. Serial No. 333,306.

To all whom it may concern:

Be it known that I, JOSEPH S. JOHNSON, a citizen of the United States, residing at Lodi, in the county of Medina and State of Ohio, have invented certain new and useful Improvements in Gates, of which the following is a specification.

The invention relates to improvements in farm-gates, and particularly to that class of gates which are adapted to have their outer or free ends raised or elevated to any desired position and automatically locked and sustained in that position for the passage of small stock thereunder and for permitting the gate when opened to pass over obstructions, such as uneven ground, stones, snow-banks, &c.

The invention relates more particularly to an improved latch or locking mechanism adapted to automatically lock the gate when moved to its closed or initial position and to an improved hinge-rack or ratchet bar and pawl adapted to automatically lock and sustain the gate in any desired elevated position to which the free end of the gate may be adjusted and adapted to be applied to any ordinary hinged gate.

The paramount object of the invention is to provide a generally-improved gate of this class which will be exceedingly simple in construction, cheap of manufacture, efficient in use, and much better adapted to its intended purposes than any other device of the same class with which I am acquainted.

With these ends in view the invention consists in the novel construction, arrangement, and combination of parts hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims.

Referring to the accompanying drawings, forming a part of this specification, Figure 1 is a side elevation of my improved gate in its closed position; Fig. 2, an enlarged sectional view taken through line 2 2 of Fig. 1, giving a more detailed view of the latch or locking mechanism; Fig. 3, a modified form of adjustable hinge-rack mechanism.

Similar characters of reference designate like parts throughout all the figures of the drawings.

Referring now to the drawings, it will be seen that the gate in the present instance is mounted and interposed between the usual

posts 1 and 2, erected at any desired point, the post 1 being provided with the usual hinge-hook 3 at the base and a screw-eye 4 near the top.

Referring now to the gate proper, it will be seen that it consists of the usual horizontal bars 5, secured at their ends by means of the usual end or vertical members 6, and all the horizontal bars 5 are further braced and secured by means of the usual bracing or sustaining members 7. The gate is hingedly mounted and secured to the post 1 by means of a hinge-strap 8, which takes over the hinge-hook 3, and a horizontally-arranged hinge-rack or ratchet-bar 9, having a hooked end 10, which takes into the screw-eye 4, as shown. In order to provide means for raising and lowering the free end of the gate and automatically locking and securing the same in any desired position to which it may be adjusted, the hinge end of the gate has its usual hinge upright members or bars 6 set in and inclined from the post 1 and is provided with a bolt or pin 11, adapted to be engaged by the ratchet-teeth 12 of the hinge rack or bar 9, as shown in Fig. 1, or when used in connection with the modified form of hinge-rack (shown in Fig. 3) adapted to act as a guide pin or member over which the hinge-rack slides when the free end of the gate is raised or lowered, as hereinafter more fully described.

The hinge-rack 9 is interposed between the hinge-upright members or bars 6, as shown, and a second set of upright members 6^a are preferably mounted at the rear and are adapted to further support and brace this portion of the gate as well as serve as lateral guides for the hinge-rack 9 to prevent any lateral motion of the gate at the upper rear end thereof.

When it is desired to raise or elevate the free end of the gate and lock the same in an elevated position for the passage of small stock thereunder or for permitting the gate when opened to pass over obstructions, the free end is elevated to the position desired and the depending rearwardly-inclined ratchet-teeth 12 will pass freely over the body or pin 11, and when raised to the position desired the teeth 12 will automatically engage therewith to prevent the gate from being lowered and securely holding the same in the position to which it has been adjusted.

When it is desired to lower the gate, the gate is elevated slightly and the hinge-rack 9 is elevated by means of a wire 13, attached to the free end of said hinge-rack and extending forwardly and passing through a staple or small screw-eye 14, secured to the lower edge of one of the horizontal bars 5 and having its depending end provided with a small weight 15. It will thus be seen that as the hinge-rack 9 is elevated the ratchet-teeth 12 will be raised out of engagement with the bolt or pin 11, and the free end of the gate may be lowered to the position desired and the teeth of the hinge-rack lowered through the medium of the wire 13 to again engage the bolt or pin 11.

In the modified form of the hinge-rack (shown in Fig. 3) the ratchet-teeth 12 are formed on the upper portion of the bar and are automatically engaged by means of a pivotally-mounted pawl 16, connected to the wire 13, by means of which it is elevated out of engagement with the teeth 12 when it is desired to lower the gate. The pawl 16 is preferably provided with a counterweight 17 to insure at all times its automatic engagement with the teeth 12.

The gate is automatically locked or secured in its closed or initial position by means of a latch-and-lever member consisting of a main O-shaped main body portion 18, pivotally mounted and interposed between the front end vertical members 6 by means of a pivot-pin 19, provided at its front with an integral latch portion 20 and at its rear with an integral horizontally-extending operating-handle 21. The latch-and-lever member is held in its normal engaging position by means of a coil-spring 22, preferably secured at one end to the upper base portion of the handle 21 and secured at the other to a staple or screw-eye in the lower edge of the horizontal bar 5 above. The latch portion 20 is adapted to automatically engage an adjustably-mounted keeper-plate 23, provided with a beveled striker-plate 24, having a recess 25 for the latch. The keeper-plate 23 is adjustably secured to the post 2 by

means of a screw-bolt 26, passing through a horizontal slot 27, so as to permit the keeper-plate to be moved to and from the free end of the gate, as required by the relative position of the post 2.

From the foregoing description, taken in connection with the accompanying drawings, the operation and advantages of my invention will be readily understood.

Having thus described my invention, without having attempted to set forth all the forms in which it may be made or all the modes of its use, I declare that what I claim, and desire to secure by Letters Patent, is—

1. A gate, consisting of a series of longitudinal bars suitably braced and provided with a front and rear set of hinge members set in and inclined from the hinge-post, a horizontally-arranged hinge-rack interposed between said hinge members and provided with a pintle-hook and a downwardly-inclined free end, a screw-eye taking over said hook, a pin interposed between said front set of inclined hinge members and adapted to be engaged by said hinge-rack, and a cord secured to the free end of said hinge-rack to elevate and release the same from said pin.

2. In a gate, provided with a front and rear set of hinge members set in and inclined from the hinge-post, a hinge connection consisting of a hinge-rack interposed between said hinge members and provided with a pintle-hook, a screw-eye mounted in said hinge-post and engaged by said hook, a pin suitably secured to said front set of hinge members and adapted to be engaged by said hinge-rack, and means secured to the free end of said hinge-rack and adapted to raise said hinge-rack to release the same from said pin.

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

JOSEPH S. JOHNSON.

Witnesses:

O. G. WHITE,
R. K. GAMBLE.