

No. 698,940.

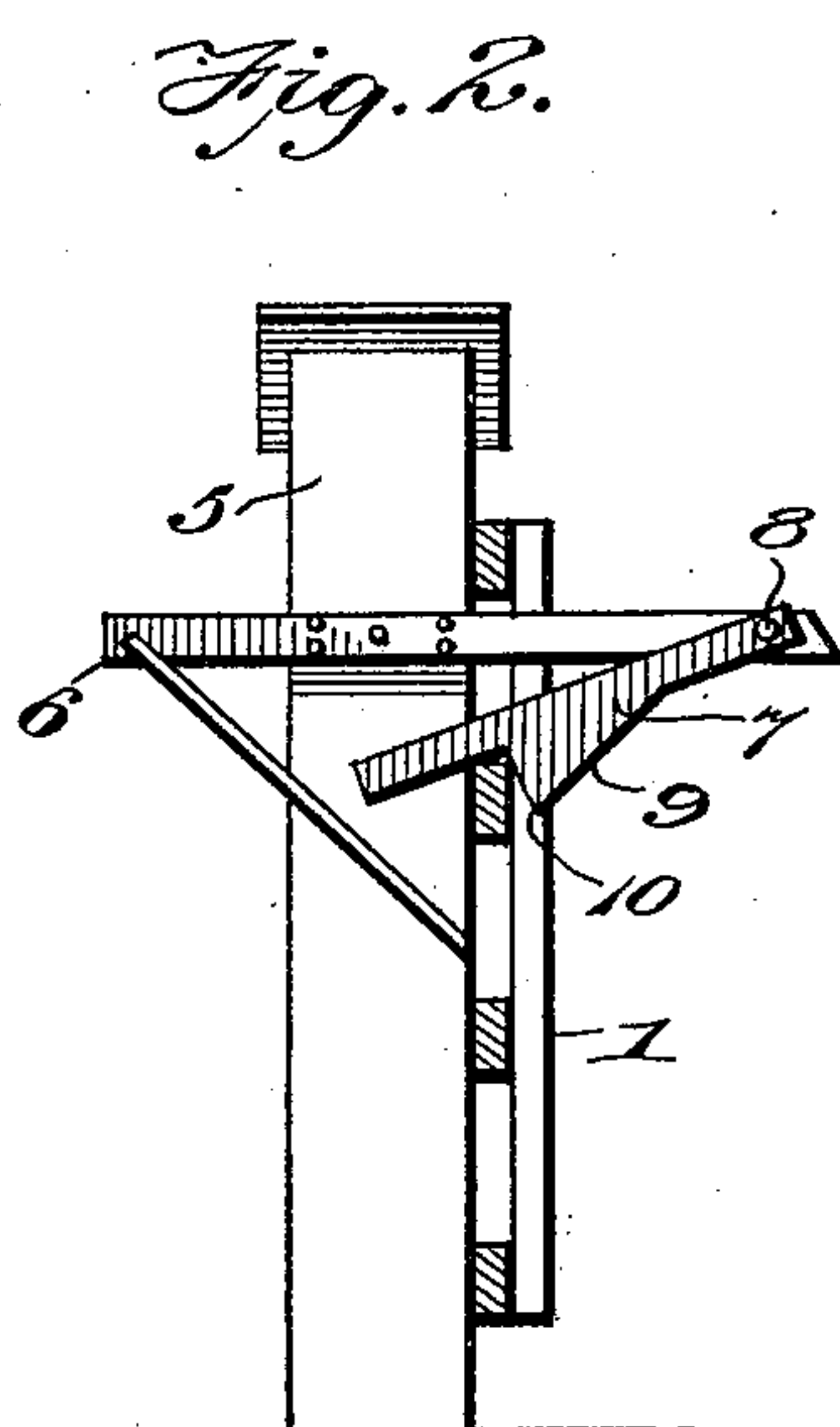
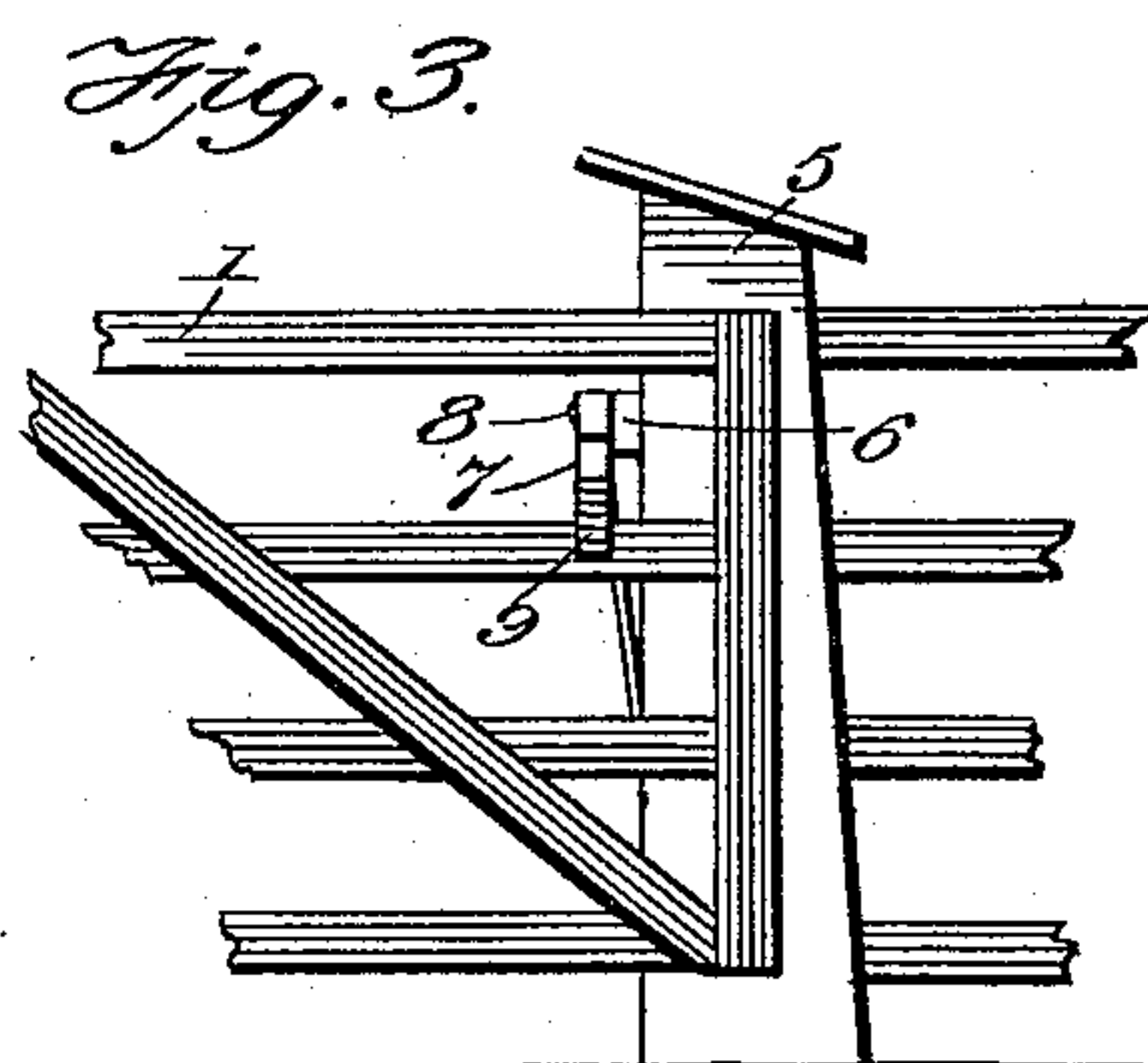
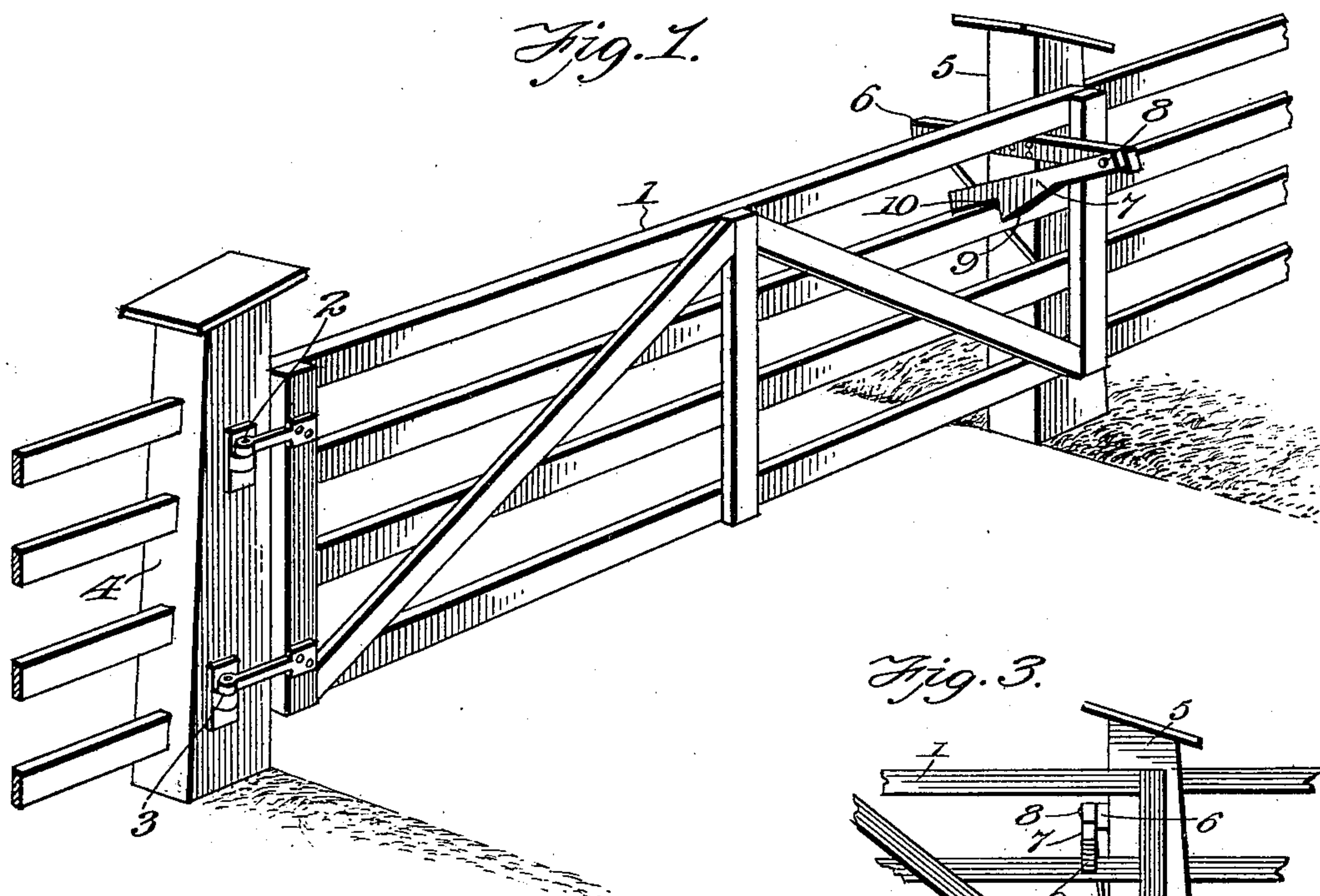
Patented Apr. 29, 1902.

T. C. HAMILTON.

LATCH.

(Application filed June 29, 1901.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS C. HAMILTON, OF BOKES CREEK, OHIO.

LATCH.

SPECIFICATION forming part of Letters Patent No. 698,940, dated April 29, 1902.

Application filed June 29, 1901. Serial No. 66,577. (No model.)

To all whom it may concern:

Be it known that I, THOMAS C. HAMILTON, a citizen of the United States, residing at Bokes Creek, in the county of Union and State of Ohio, have invented new and useful Improvements in Latches, of which the following is a specification.

This invention relates to certain new and useful improvements in latches for swinging gates; and it has for its object, among others, to provide a simple, cheap, and durable latch which shall be automatic in its action, being moved by the closing of the gate and automatically falling into position to lock the latch. I so hang the gate that as it swings open the outer or free end will rise from the ground about two feet, more or less, so that when open for vehicles to pass through it will not sag, and rising, as it does, it will readily pass over snow-drifts or other obstructions without injury to the gate, and when the gate is closed it automatically swings into its horizontal position, and an extended bar or other projection thereon engages the latch to lift it, and the latch then automatically falls into position to lock the gate against opening. The latch I preferably construct of wood, and but a single bolt is required, which is employed for pivoting the latch to the latch-board, which is affixed to latch-post. It is positive in its action, automatically assumes a position to be engaged by the projection on the gate, and is not liable to injury by passing vehicles. The gate is so disposed with relation to the latch and the latch-post that the gate will clear the latch-board as the former is swung on its hinges.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the numerals marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view of a gate equipped with my improved latch, the gate being shown in its closed position. Fig. 2 is an elevation of the latch and latch-post, with the cooperating projection on the gate shown in vertical section; Fig. 3, a view in side elevation showing the latch end of the gate.

Like numerals of reference indicate like parts in the different views.

In the drawings, 1 designates a gate of any well-known or approved form of construction, except as hereinafter specified.

In hanging the gate I place the pintle 2 of the upper hinge and the pintle 3 of the lower hinge out of vertical plane, that of the upper hinge being placed, say, an inch and three-quarters, more or less, to one side of the vertical line and the pintle of the lower hinge about the same distance upon the other side of said line, as seen in Fig. 1. It is to be understood that the pintle of the upper hinge is arranged toward the side of the post 4 nearest the latch-post, so that as the gate begins to swing open its free end will rise from the ground, so that the gate never sags, and facilitates the passing of the gate over snow-drifts or other obstructions. On the other hand, when the gate is swung to it automatically assumes its level position in a manner which is well understood in this art.

5 is a latch-post, and 6 is a latch-board secured in substantially horizontal position to the inner face of the same and adapted to project through rails of the gate adjacent the end batten, as seen clearly in the figures of the drawings.

7 is a latch, which I preferably construct of a single piece of suitable wood, and this is pivoted by suitable pivot 8 to the extended end of the latch-board. This latch is provided with an inclined under face 9, as seen more clearly in Fig. 2, and a substantially straight face 10, extending practically at right angles to the upper face of the latch, as is also seen clearly in Fig. 2. By reason of this extension I am enabled to somewhat lessen the length of the gate, so that it will readily swing past the latch-post, and is not in danger of engagement with the same or with the latch-board in the movement of the gate.

The operation will be apparent. In the positions of the latch shown in Figs. 1 and 2 the gate is locked and held against all tendency to open until the latch is raised. The latch being raised, the gate may be opened, and as it begins to swing open its free end is raised from the ground, it being my intention to so dispose the hinges in the manner above described that when the gate is open its free

end will be about two feet from the ground. As the gate is swung to after passing a predetermined point it will automatically close, and as one of the rails 11 comes in contact with
5 the under side of the latch it will move the same upward upon its pivot, riding upon the inclined face 9 of said latch until the rail passes the end of the same, when the latch automatically falls and said rail is engaged in
10 the notch or angle, as indicated, and the straight face 10 of the latch prevents movement of the gate in the opposite direction and the gate is securely fastened.

The advantages of the invention will be readily appreciated and the cheapness and efficiency of the latch will recommend its adoption by the farmers throughout the country, as well as others, and in all positions where a self-closing and self-locking gate is
20 desired.

The latch-board 6 is provided with a beveled forward end, and the opposite end is connected to the post 5 by means of a brace, as shown. When the gate is closed, one of its
25 bars swings over the board 6 and the same serves to support the gate and in a measure relieve the hinges. This construction is especially advantageous where the gate is of considerable length.

30 As shown in the drawings, the latch is pro-

vided with an arm which is adapted to extend through the closed gate and retard the downward movement of the latch. This arm serves as a convenient means for raising the latch from the inner side of the gate.

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

The combination with a hinged gate having horizontal rails, of a post, a horizontal
40 strip secured thereto, and extending from opposite sides thereof, a beveled end to the strip, a brace connecting the opposite end to the post, said strip being adapted to project through the closed gate at a point between
45 its ends and partly support the same, a latch pivotally mounted upon the strip adjacent to the beveled end thereof, an inclined face thereto, an end to the latch adapted to automatically engage one of the rails of the gate
50 when closed, and a handle extending longitudinally from the end of the latch and adapted to project through the gate and limit the downward movement of the latch.

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

THOMAS C. HAMILTON.

Witnesses:

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