

(No Model.)

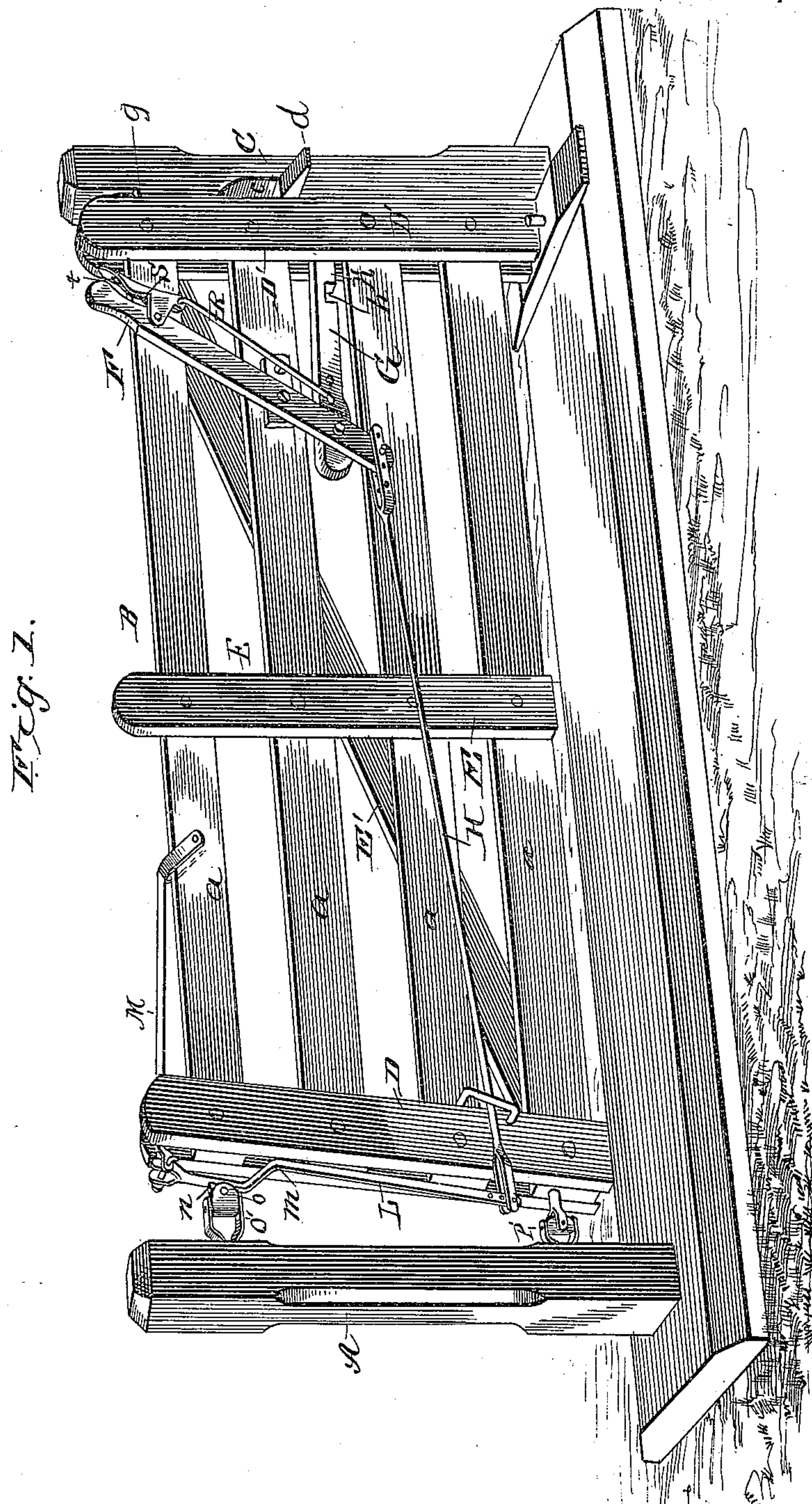
3 Sheets—Sheet 1.

G. W. TILLSON.

SWINGING GATE.

No. 355,847.

Patented Jan. 11, 1887.



WITNESSES

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(No Model.)

3 Sheets—Sheet 2.

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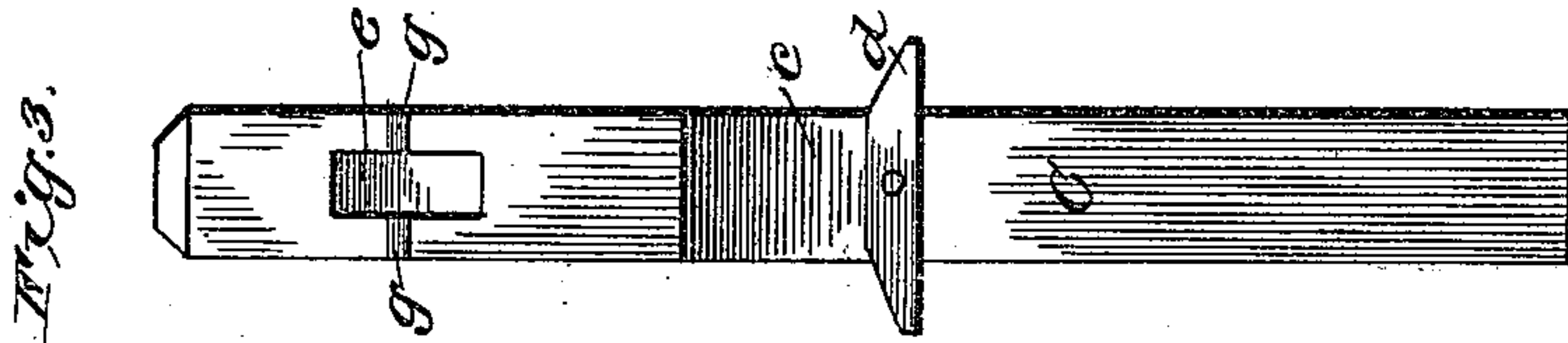


Fig. 2.

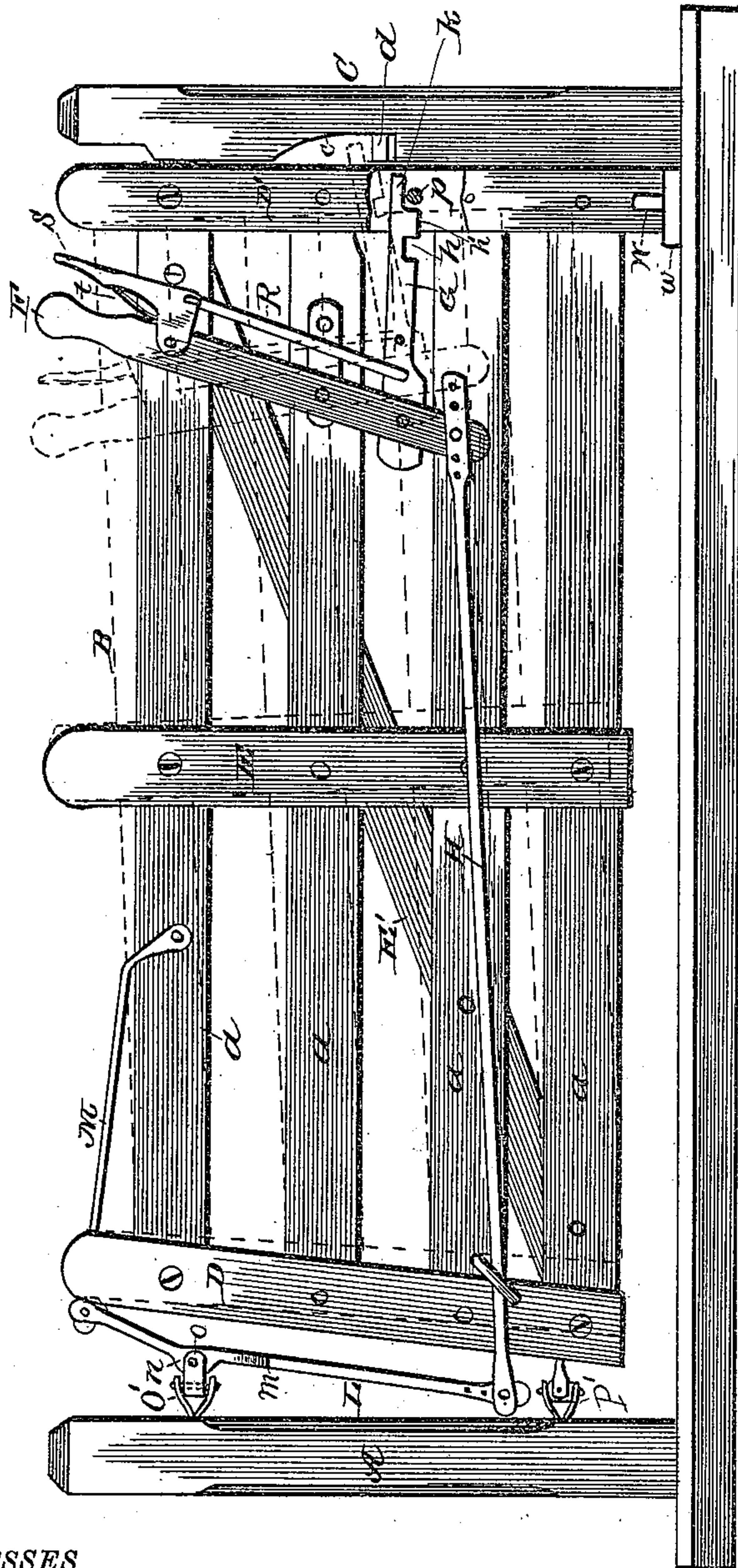


Fig. 5.

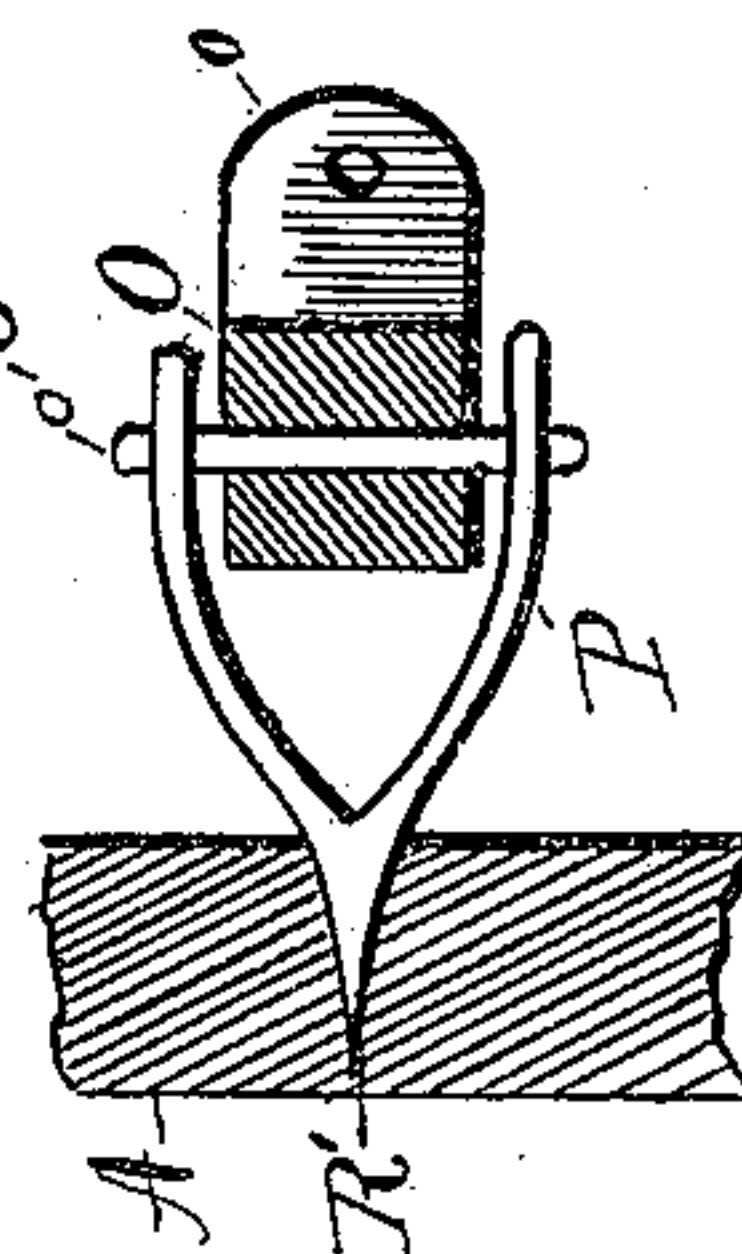
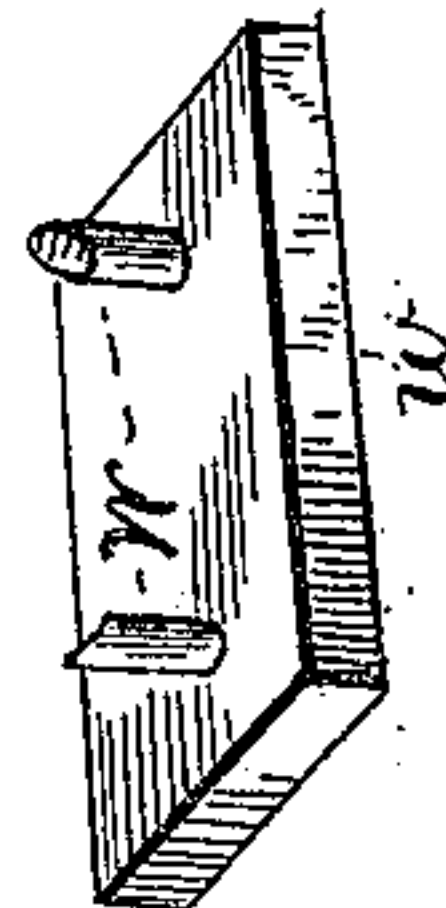


Fig. 6.



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(No Model.)

3 Sheets—Sheet 3.

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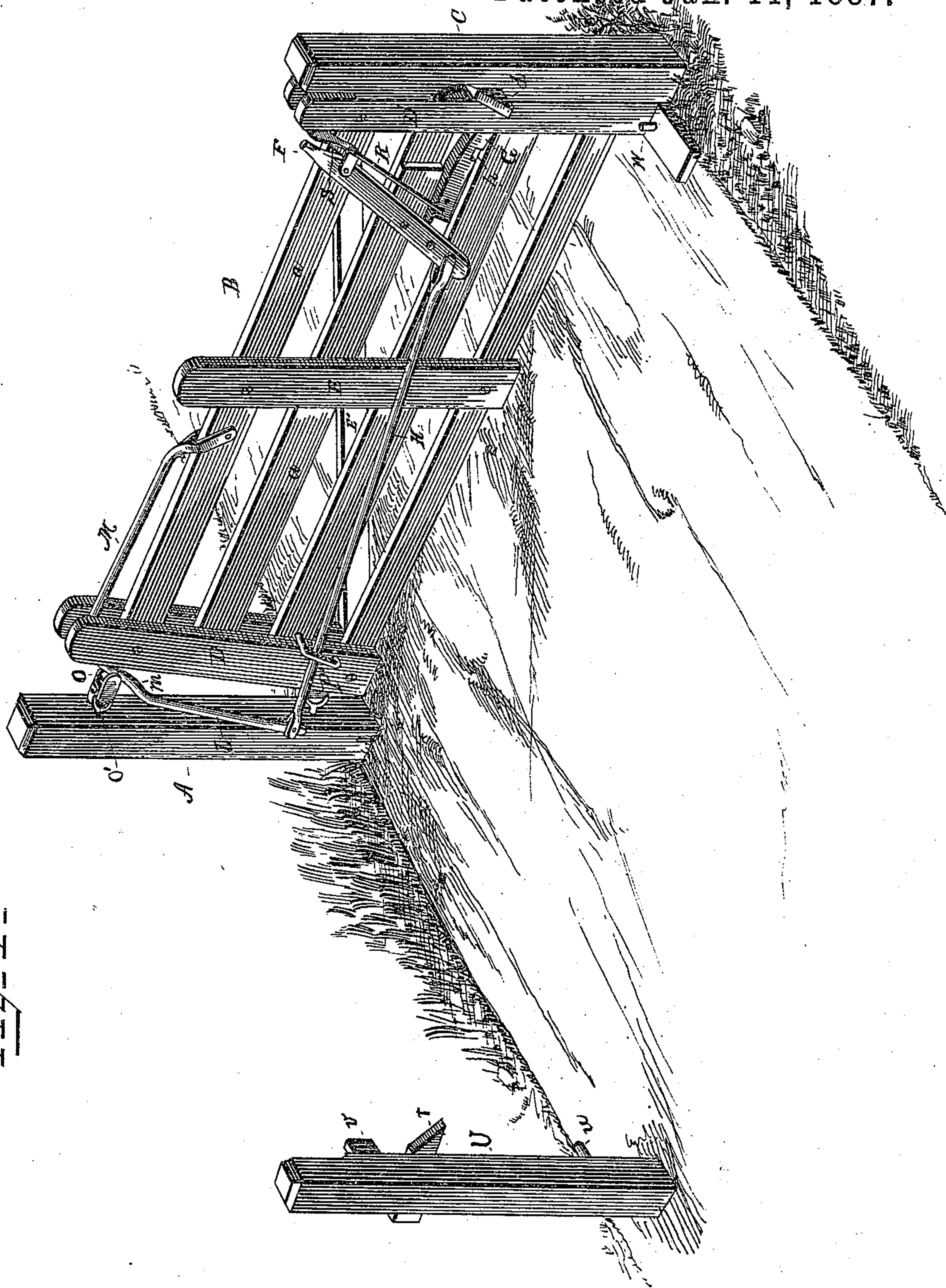


Fig. 4--

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UNITED STATES PATENT OFFICE.

GEORGE WARNER TILLSON, OF GARNETT, KANSAS.

SWINGING GATE.

SPECIFICATION forming part of Letters Patent No. 355,847, dated January 11, 1887.

Application filed August 9, 1886. Serial No. 210,431. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WARNER TILLSON, a citizen of the United States, residing at Garnett, in the county of Anderson and State of Kansas, have invented certain new and useful Improvements in Swinging Gates; and I do hereby 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.

This invention relates to that class of swinging gates in which the gate is raised vertically at one end by means of levers to release it from its fastening to the post; and it has for its object to produce a simple, durable, and efficient self closing and fastening gate, which will relieve the posts of all strain both when the gate is open and shut, and which cannot be opened either by stock or the wind; and it consists of the parts and combinations of parts hereinafter described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of my improved gate; Fig. 2, a side elevation, partly broken away; Fig. 3, a view of the front post. Fig. 4 is a perspective view of the gate and its retaining-post; Fig. 5, a detail view of the double-jointed or universal hinge, and Fig. 6 a detail view.

A represents the post, to which the gate B is hung, and C the front post. A notch or recess, *c*, is formed in one of the sides of the post C, at or near its center, and a catch, *d*, having a double incline, is secured at the bottom thereof, so that the latch G, hereinafter described, may slide freely over or on the same to raise it, and thus release it from the pin *p*. A recess, *e*, is also formed in the post, on the same side as recess *c*, but near the top of the post. This recess *e* is provided at each side with flanges *g*, the upper surfaces of which are beveled or inclined, so that the beveled projecting end of the top rail of the gate may slide easily over the flanges *g* and drop into the recess *e* between them. The gate B in this instance consists of the rails *a*, fitted at their ends between the uprights D D', and braced at their center by the additional upright E, and further braced by the inclined bar E', extending in a diagonal direction from end to end of the gate. As will be noticed, the rear

uprights, D, are set at an incline from their bottoms to their tops, this being done to permit of the front end of the gate being raised, as indicated in dotted lines in Fig. 2.

F is a hand-lever, which is pivoted to one of the rails of the gate or a block secured thereto, so as to turn easily. Near the lower end of this lever the rear end of a latch, G, is pivoted, said latch being notched at *h* and its end *k* reduced to the same depth as the notch, so as to leave a projection, *h'*, between the end of the latch and the notch, which, when the gate is closed, rests against the pin *p*, which extends through the uprights D. A rod, R, is attached to the latch G, and extends up to and is connected with an elbow-lever, S, forming the hand part, which is pivotally attached to the hand-lever F, a flat or other spring, *t*, being secured between the elbow-lever and hand-lever to retain the former in position.

To the end of lever F a longitudinal lever, H, is pivotally and adjustably secured, and leads back to a vertical lever, L, to the lower end of which it is also pivotally and adjustably connected. The lever L is bent at right angles near its upper end, at *m*, and then again bent upward, and its end connected to the rear end of a short longitudinal lever, M, which extends along the gate a short distance and is secured to the upper rail thereof. A lug, *n*, is formed on lever L, near its upper end, which fits between the straps *o* of the knuckle O of the hinge O', and is there secured by a pin, which passes through said straps and lug. A pin, *o'*, passes through the arms P of the screw-bolt or spike R', which is driven into post A and through the knuckle O, so that the same may turn readily and easily thereon. The lower hinge, P', is constructed the same as hinge O', with the exception that an additional screw-bolt or spike having arms similar to arms P is used instead of lug *n*, and driven into the end of one of the rails of the gate.

W represents two pins, which are beveled at their tops and driven into the block *w* or into the base-timber N, for the purpose of receiving between them the front uprights, D', when the gate is closed and preventing the same from being moved laterally.

U represents the retaining-post. This post is driven into the ground at a point about the same distance from post A as is post C and in

line with said post A and at right angles to the gate, one being placed on each side, if desired. The post U has a pin, *u*, driven into it a short distance above the ground, and is provided with a stop, *v*, and inclined block *r*, near its top, and is reduced at its end to permit the passage of the projecting end of the upper rail of the gate. When it is desired to open the gate, the hand-lever F and elbow-lever S are grasped by the hand and forced or thrown back, while the elbow-lever at the same time is pressed inwardly against the hand-lever, which raises the latch G through the medium of lever or rod R, and disengages the projection *h'* from pin *p*, and throws the latch forward so that the notch *h* will be over the pin *p*, when the release of the elbow-lever will permit the latch to drop on pin *p*, to hold the latch and hand-lever in position, while the act of throwing back lever F brings forward the lever H and the lower end of lever L, which in turn draws the lever M backward and downward and raises the front end of the gate from between the pins W and the projecting end of the top rail out of the recess *e*, and the gate can then be pushed back to the additional or retaining post U, where the latch G may engage with the catch *r* and be disengaged from the pin *p*, and thus permit the gate to drop down on and its lower end engage or straddle pin *u*. Pin *u* will hold it against movement until the hand-lever and elbow-lever are again grasped and the gate raised to permit its swinging back to the front post, where the latch will engage the catch *d* and raise the same from the pin *p*, and thus release the hand-lever so that the gate may drop down between the pins W and the projecting end of the upper rail fall into recess *e*, thus forming a very secure fastening, which stock or the wind cannot undo, and as the front end of the gate rests on the ground or base timber, relieves the post from the strain of the weight of the gate.

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

1. The combination, with a swinging gate, of the hand-lever F, pivoted to one of the bars of

said gate and having the latch G pivoted near its lower end, the elbow-lever S, pivotally connected to said lever F, the rod R, connected thereto and with said latch, the horizontal lever H, adjustably connected to lever F, the vertical lever L, pivotally connected with the upper hinge, short lever M, (the latter being secured to one of the bars of the gate,) and suitable hinges, whereby the oscillation of lever F will raise or lower the front end of the gate, as described.

2. The combination, with a swinging gate, of the pivoted hand-lever F, the horizontal lever H, pivoted to said lever F, the vertical lever L, pivotally secured to said horizontal lever and having the lug *n* pivotally secured to the upper hinge, the lever M, secured to the upper end of lever L and upper bar of gate, and the double-jointed or universal hinges O' P', whereby the gate may be raised at one end and swung around, as described.

3. The combination, with a swinging gate, of the hand-lever F, the elbow-lever S, pivoted to said hand-lever, the spring *t*, interposed between the upper ends of the same, the rod R, pivotally or loosely connected to the elbow-lever, the pivoted latch G, having the notch *h* and projection *h'*, the uprights D', and the pin *p*, the latter being secured in said uprights, so that the notch *h* may catch over or the projection *h'* rest against said pin, substantially as described.

4. The combination of the posts A C, the latter having the notch *c*, catch *d*, and recess *e*, the gate B, having the inclined uprights D, the hand-lever F, the elbow-lever S, spring *t*, rod R, latch G, having notch *h*, and projection *h'*, pin *p*, horizontal lever H, vertical lever L, having lug *n*, lever M, secured at one end to the upper rail of the gate and connected by its other end to said vertical lever L, the double-jointed hinges, and the pins W, all as and for the purpose set forth.

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

GEORGE WARNER TILLSON.

Witnesses:

D. A. TILLSON,
WALTER DAVIS.