

No. 661,057.

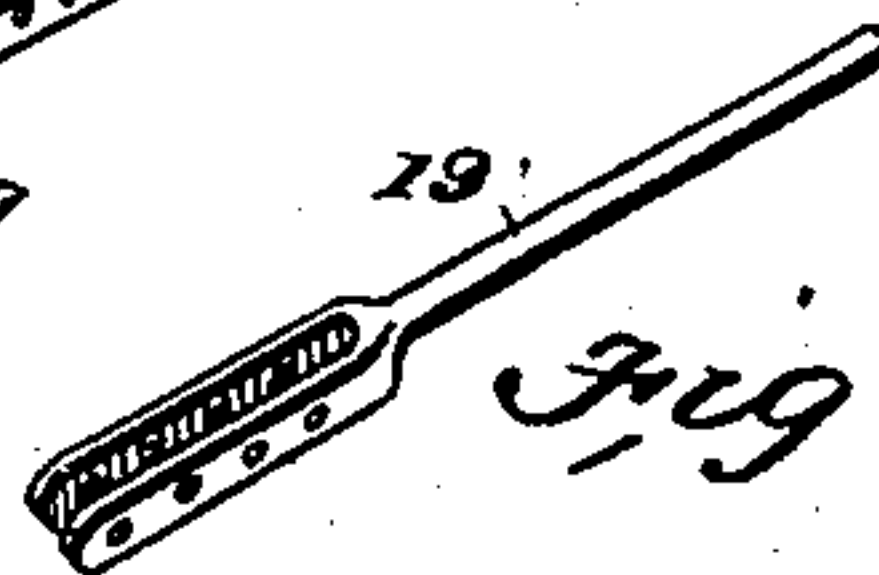
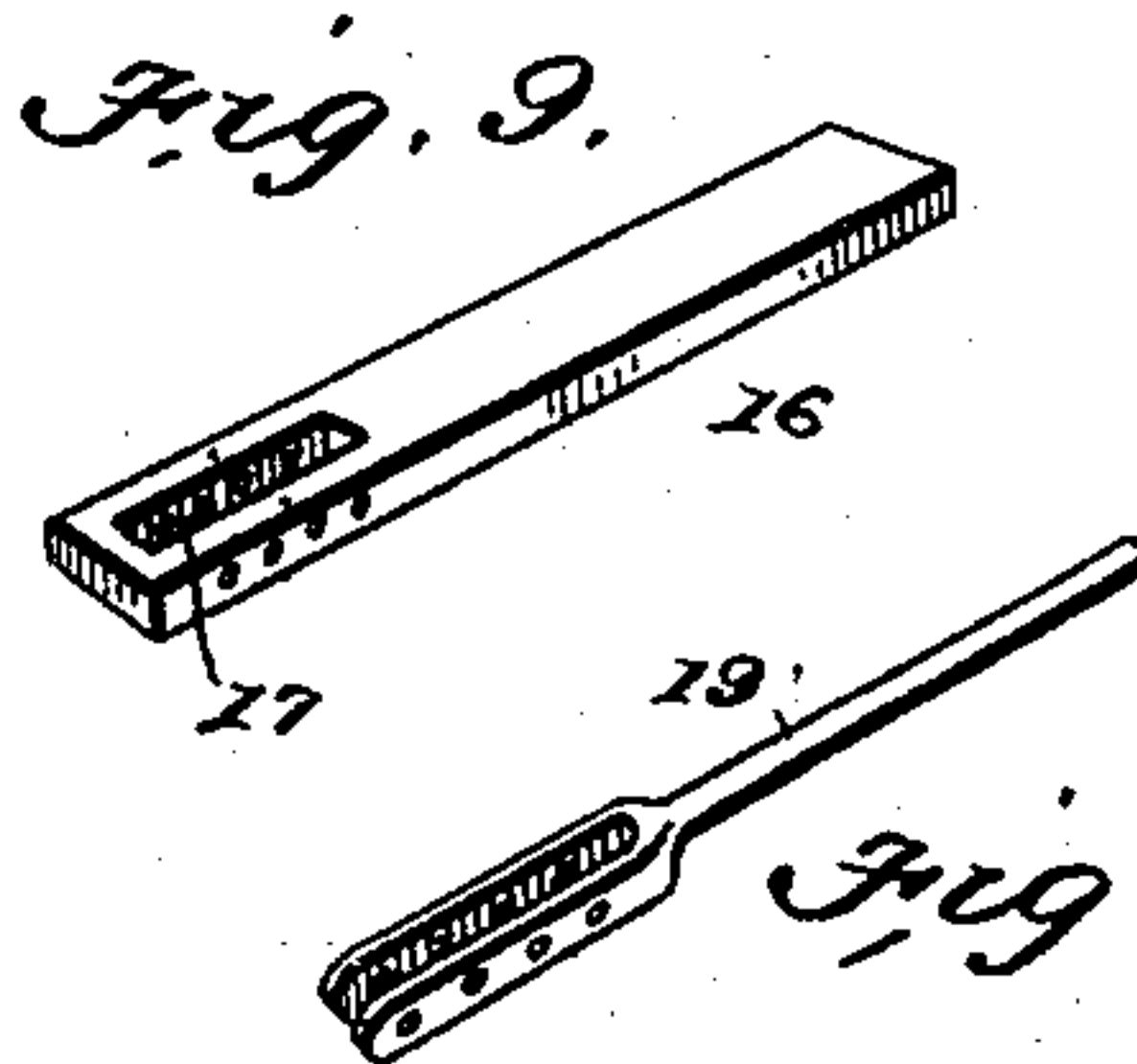
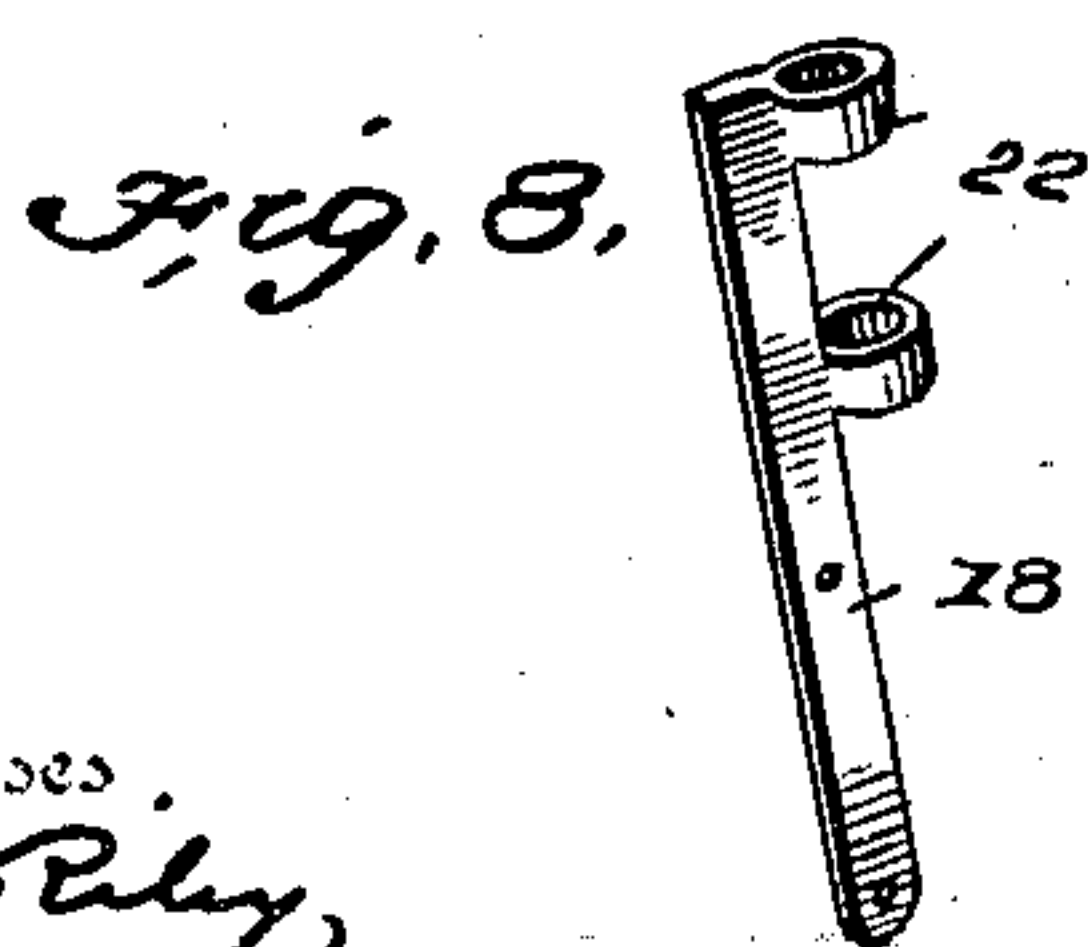
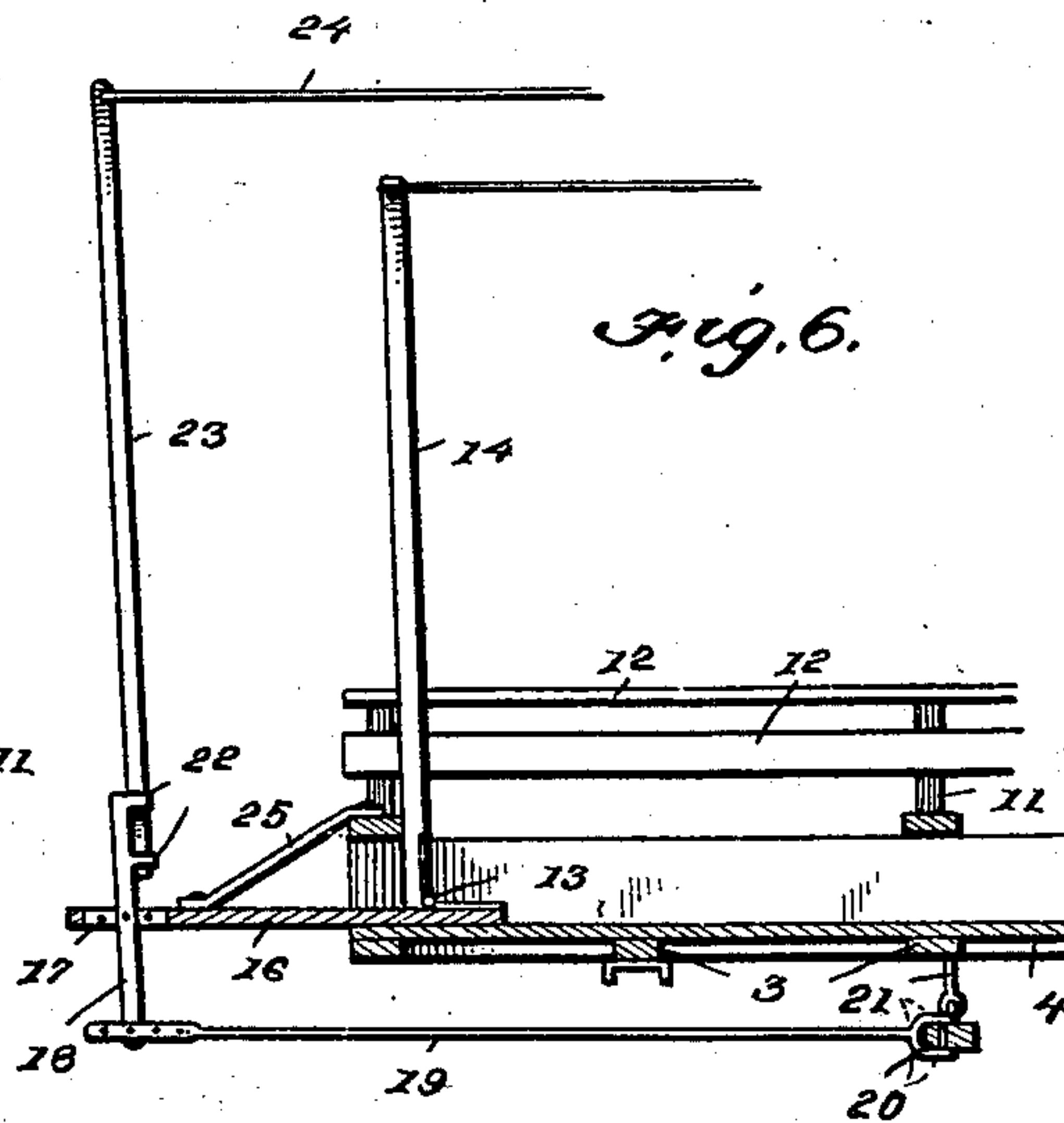
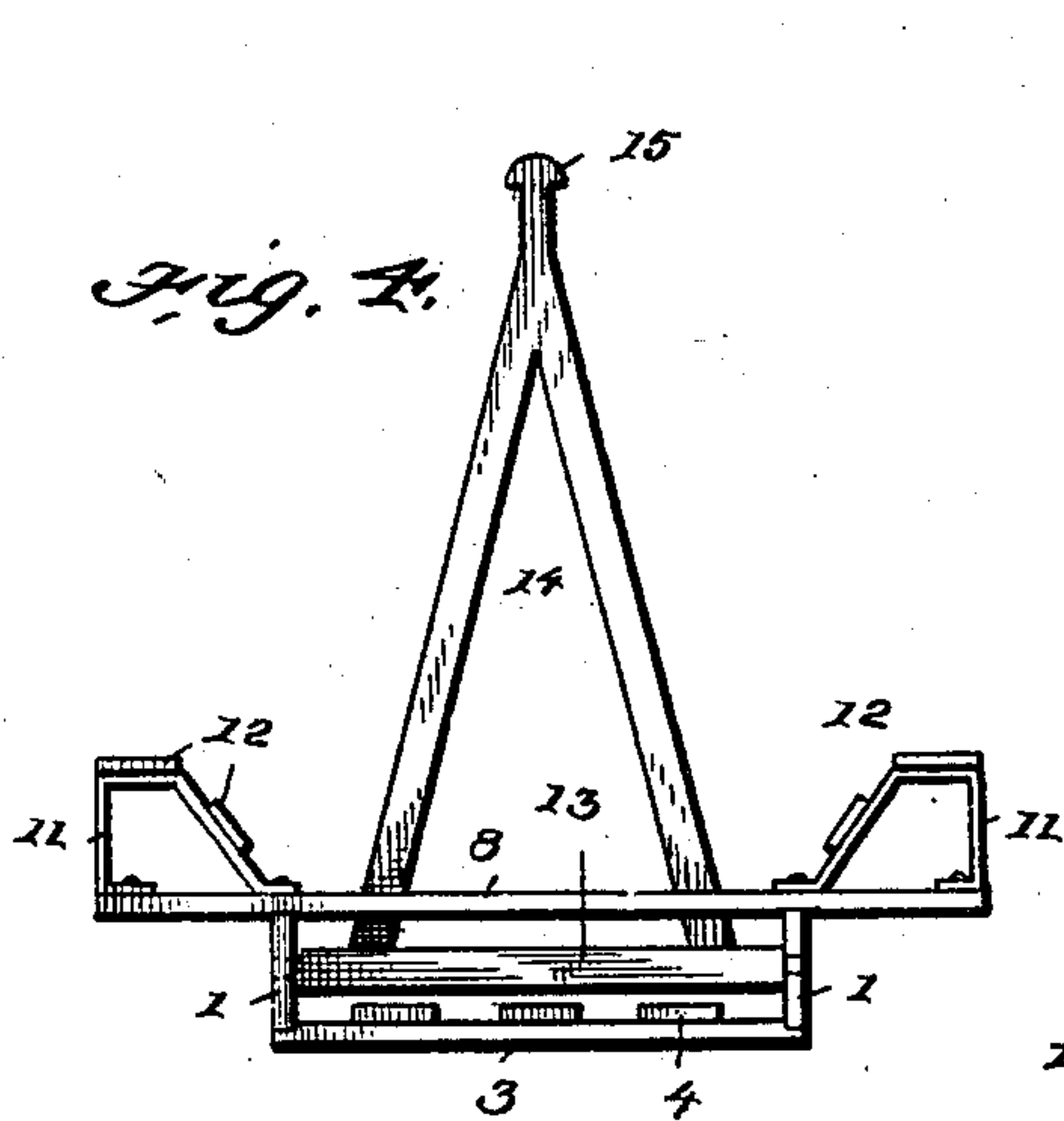
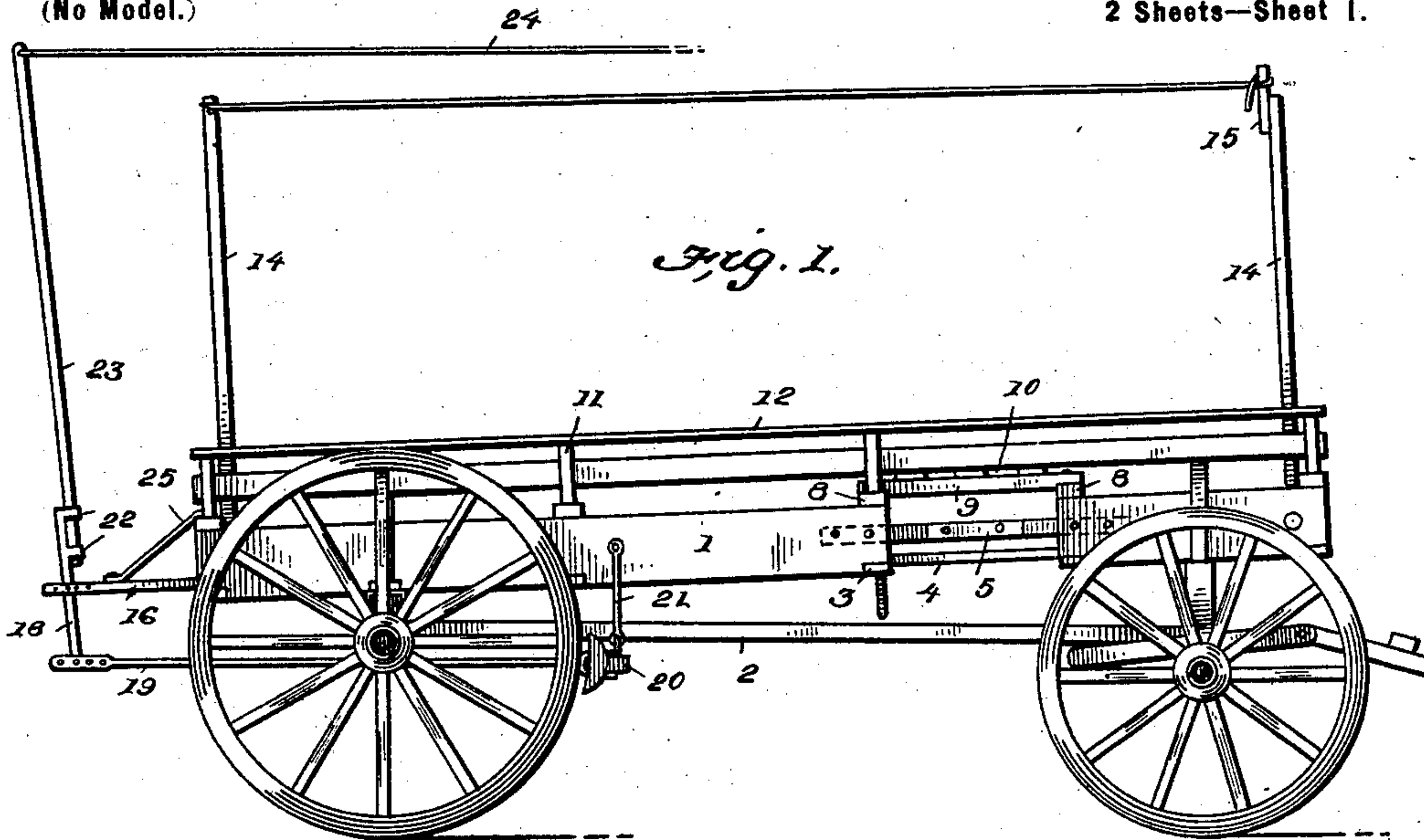
Patented Nov. 6, 1900.

J. F. KARRAKER.  
HAY RACK.

(Application filed Feb. 10, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses  
J. W. Riley,  
Chas. Brock

Inventor  
J. F. Karraker,  
by  
J. H. Harkness  
Attorneys

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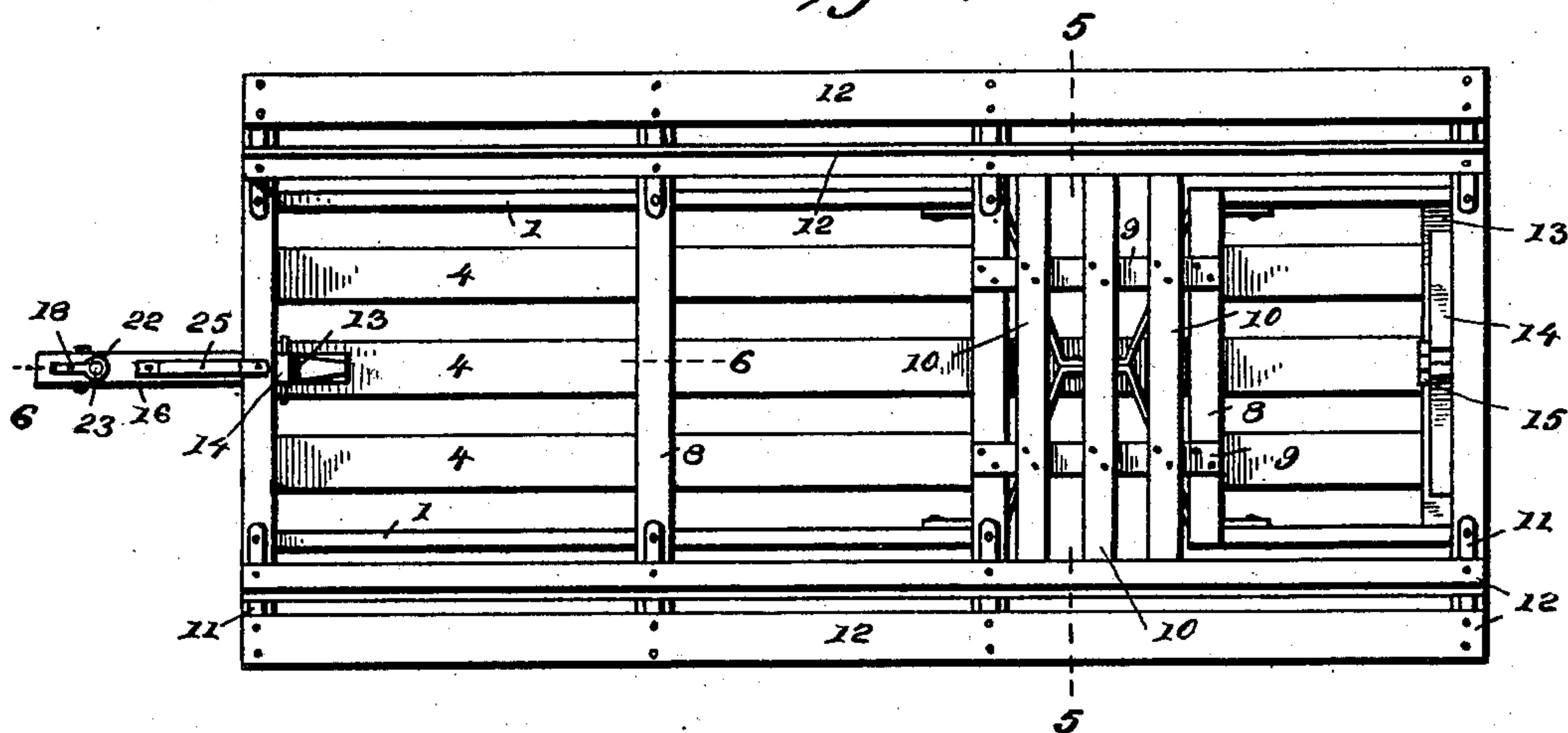
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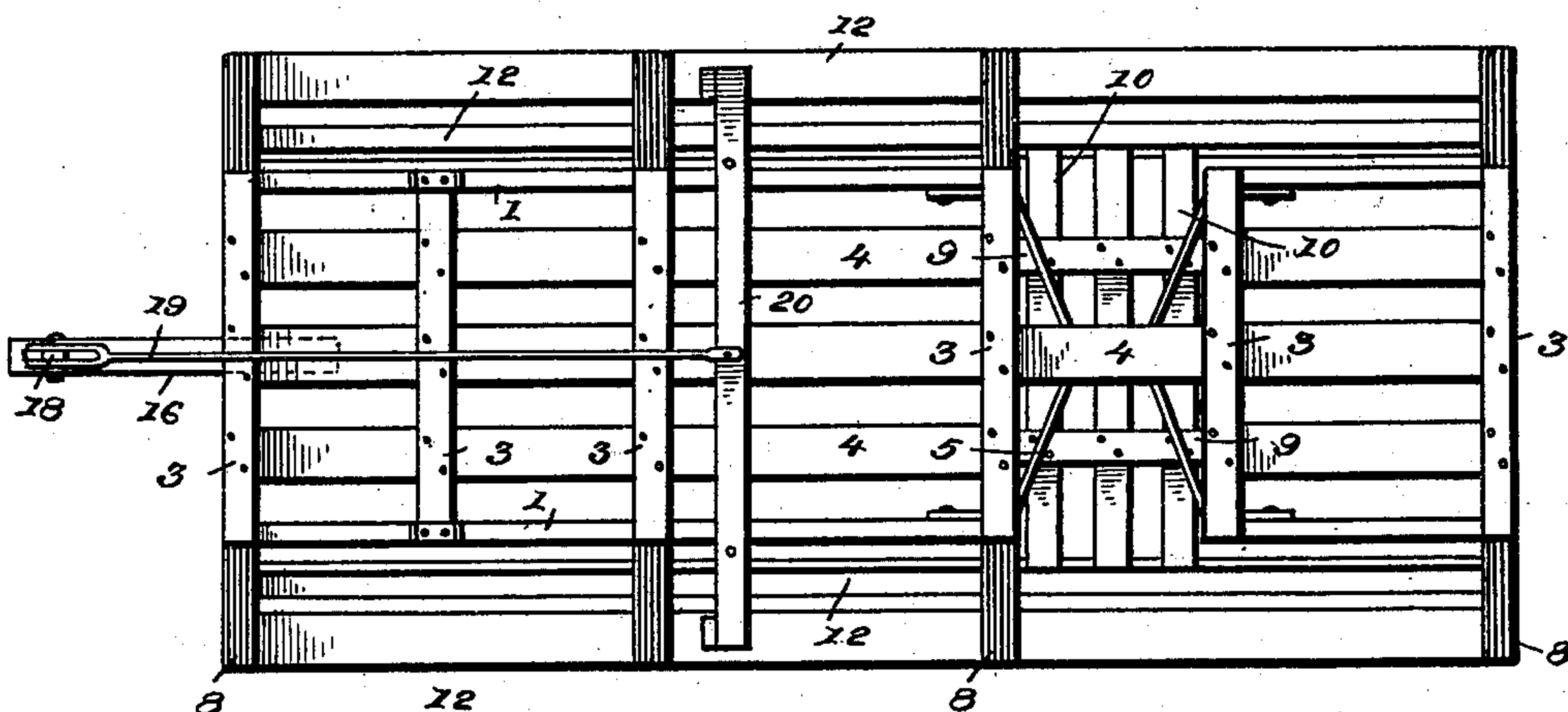
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2 Sheets—Sheet 2.

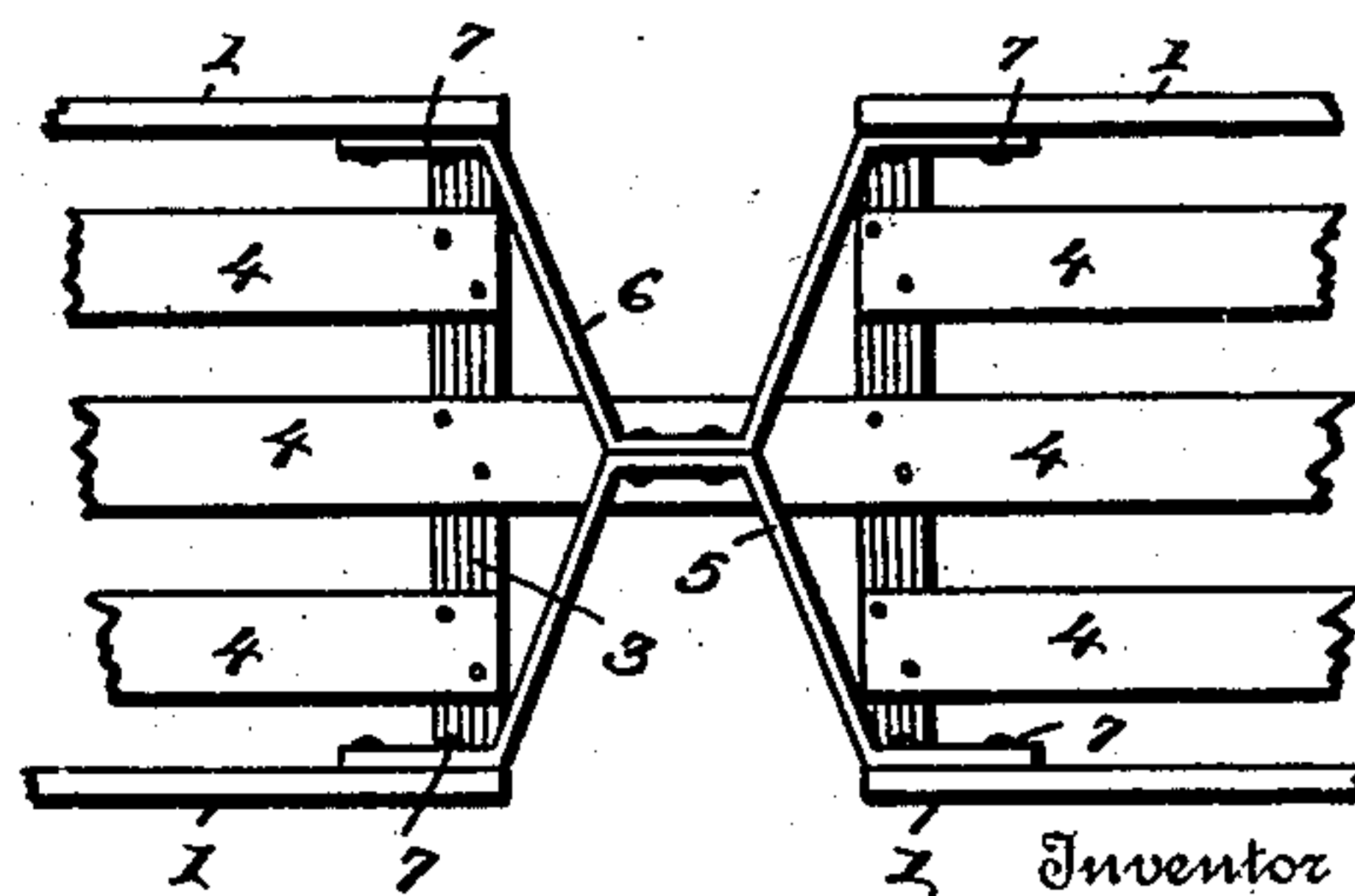
*Fig. 2.*



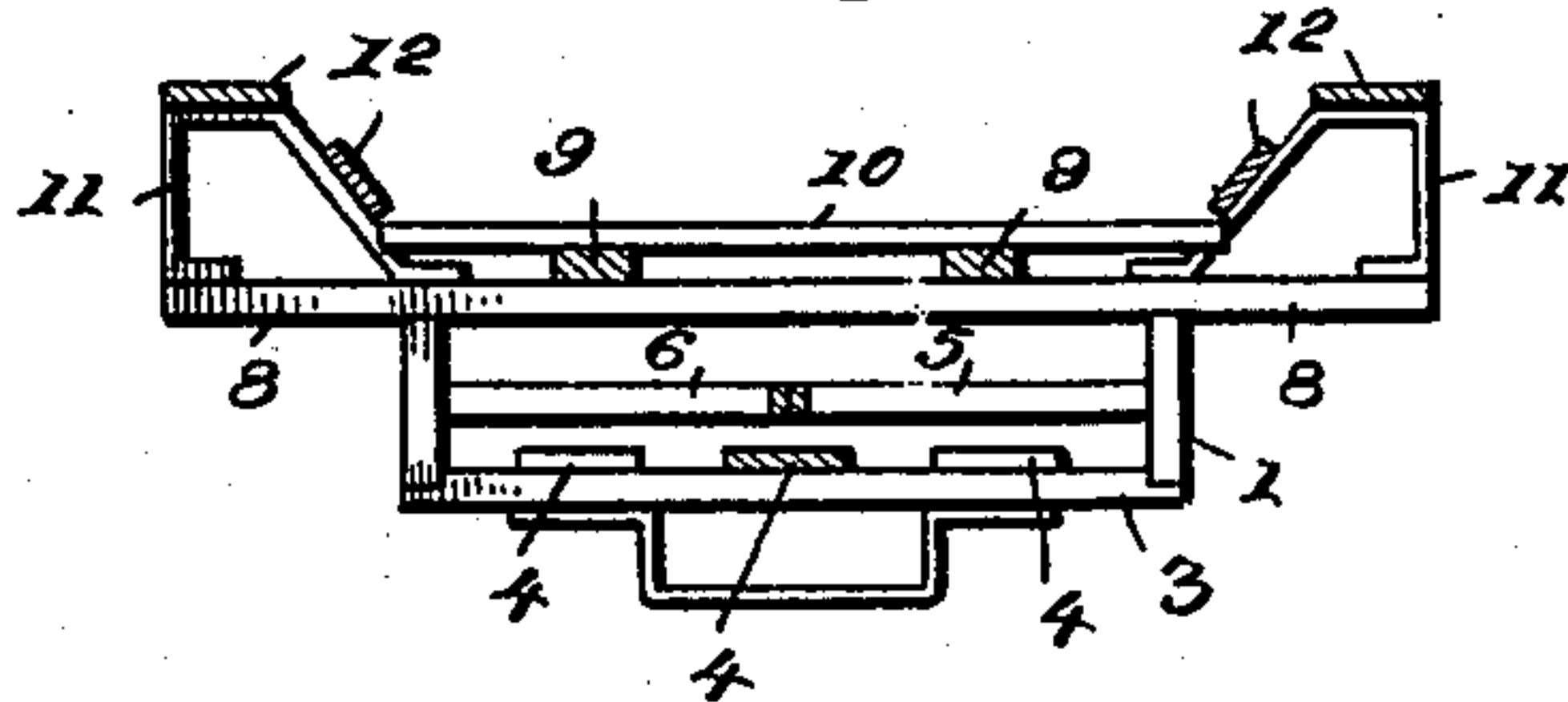
*Fig. 3.*



*Fig. 7.*



*Fig. 5.*



Witnesses

*J. W. Riley,*

*Chas. E. Brock*

*J. F. Karraker,*

*by O. M. Karraker,*

Attorneys



# UNITED STATES PATENT OFFICE.

JOSEPH F. KARRAKER, OF DONGOLA, ILLINOIS.

## HAY-RACK.

SPECIFICATION forming part of Letters Patent No. 661,057, dated November 6, 1900.

Application filed February 10, 1900. Serial No. 4,793. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH F. KARRAKER, a citizen of the United States, residing at Dongola, in the county of Union and State of Illinois, have invented a new and useful Hay Rack or Frame, of which the following is a specification.

My invention relates to hay-frames; and it has for one object to provide a frame in which the wheels are perfectly clear from the load and from the frame, in which the wagon can be turned as short when the frame is in position as it can be without the frame, and in which the brake can be applied when the wagon is loaded as easily as when the frame is empty.

Another object of my invention is to provide the frame with line and rear posts which may be folded upon the frame and permit of the wagon and frame being driven under low sheds when not in use; and it consists of the novel construction and combination of parts of the same, as will be hereinafter more fully set forth.

In the accompanying drawings, in which the same reference-numerals indicate corresponding parts in each of the views in which they occur, Figure 1 is an elevation of a wagon provided with my improved frame. Fig. 2 is a top plan view of the frame. Fig. 3 is a bottom plan view of the same. Fig. 4 is an end view. Fig. 5 is a transverse sectional view on the line 5 5 of Fig. 2. Fig. 6 is a broken longitudinal sectional view of the rear end of my improved frame, taken on the line 6 6 of Fig. 2, showing the brake and the means of its attachment. Fig. 7 is a top plan view with a portion of the parts removed, and Figs. 8, 9, and 10 are perspective detail views of my brake.

Referring more particularly to the drawings, 1 indicates the side pieces or sills of my improved frame, which may be of any suitable size and length to adapt the frame for use upon the wagon 2, upon which the frame is placed in the usual manner. Extending transversely of the frame at a suitable distance apart are the cross-pieces 3, which are bolted or otherwise secured to the under edges of the sills 1. Secured upon these cross-pieces are slats 4, which form the bottom of the frame and which may be of any suitable width. In-

stead of extending the sills continuously from end to end of the frame I prefer to form each of them in two pieces, the adjacent ends of which are separated a sufficient distance near the front end to permit of the passage of the front wheels of the wagon in turning. The outer slats are also preferably formed in two pieces to permit of the entrance of the wheel, but the central slat or slats extend from end to end. Cutting away the sills and side pieces in this manner would weaken the frame to such an extent as to destroy its usefulness unless means were taken to reinforce the frame at this point. The means that I have taken to form this reinforcement consists of two angular metallic pieces 5 and 6, the central portions of which are firmly riveted or otherwise secured together and extend part way of the cut-away portion of the frame and the divergent ends of each of which are secured to the inner side of its respective sill by suitable bolts 7. By arranging these pieces vertically and locating the central portion directly above the central slat of the bottom the greatest strength of the metal is secured to overcome the vertical strain upon the frame, and by having the ends diverge from the central portion, as shown more clearly in Fig. 7, the necessary strength is secured to overcome the lateral strain upon the frame. Secured to the top of the sills at the extreme ends thereof and also at the adjacent ends of the cut-away portions and intermediate the cut-away portion and the rear end are cross-pieces 8. Secured to the cross-pieces at the cut-away portion are longitudinal slats 9, upon which are located transverse slats 10, which form a bottom for the cut-away portion and prevent the material of the load from passing through and engaging with the front wheels of the wagon when a turn is being made.

Rigidly secured to the outer ends of the cross-pieces 8 are benches 11, which support longitudinal slats 12 to permit of the load being extended out beyond the wheels without coming in contact therewith. Journaled between the cross-pieces at the ends are two bars 13, each of which is provided with a post 14, the front post being preferably A-shaped and provided with a head 15 for holding the lines when the load is being put on the frame. These posts are so arranged that when they are



in their vertical position they will bear against the end cross-pieces at the top of the sills; but they may be folded down longitudinally of the frame when desired, so as to permit of the frame being driven under a low shed or other cover when not in use.

Rigidly secured to the rear portion of the frame is a suitable bracket 16, the rear end of which is preferably slotted and perforated, as shown at 17, within which slot a lever 18 is pivotally secured. The brake-rod 19 is pivotally secured to the lower end of the lever and is connected at its forward end to the brake-beam 20, which is suspended from the frame in position to engage with the rear wheels—as, for instance, by means of the links 21. The upper end of the lever 18 is provided with two loops 22 for the reception of the lower end of the brake-pole 23, which is removably secured therein. The rope 24 extends from the upper end of the brake-pole to the forward end of the frame in position to be grasped by the driver and the brake applied without requiring the driver to leave his position. The brace 25 extends from the bracket 16 to the rear cross-pieces of the frame to give the bracket sufficient rigidity to prevent its being drawn upward by the pull upon the rope in setting the brake.

As above described, it will be seen that my improved frame can be mounted upon the ordinary wagon and can be used for hauling hay, wheat, oats, cut corn, pea-hay, pumpkins, &c., and it will be exceedingly strong and durable and with proper care and attention can be made to last a lifetime and will

permit of the wagon being turned at as short an angle as though the frame were not present.

While I have shown what I consider the most convenient form for embodying my invention, I reserve to myself the right to make such changes and alterations therein as will come within the scope of my invention.

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

1. The combination, with a hay-frame, the sills and a portion of the longitudinal slats of which are cut away near the forward end, of a brace secured to the sills at said cut-away portions, the central portion of which is above the uncut longitudinal slats, cross-pieces secured to the tops of the sills at said cut-away portion, cross-pieces thereon, and transverse slats secured to said cross-pieces in position to form a cover over said cut-away portions, substantially as described.

2. The combination, with a hay-frame, of a bracket secured to the rear end thereof, a lever pivotally secured to said bracket, the upper end of which is provided with loops, a brake-lever pivotally secured to the lower end, a brake-beam suspended from the frame, and connected with the forward end of said rod, a brake-pole removably secured in said loops, and a rope extending from the upper end of said pole to the forward end of the frame, substantially as described.

JOSEPH F. KARRAKER.

Witnesses:

GEO. W. McCORKLE,  
FRANK A. FISHER.