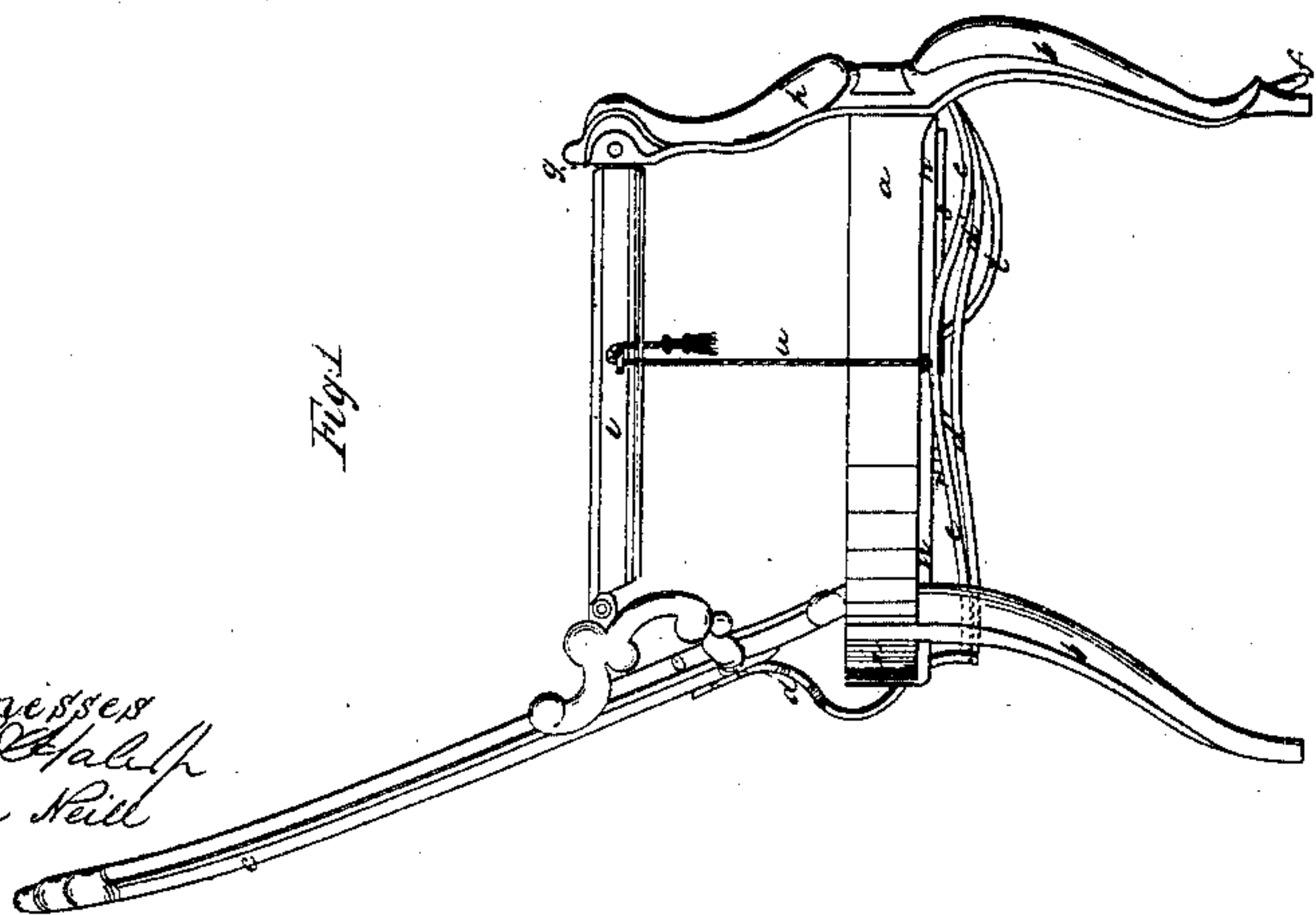
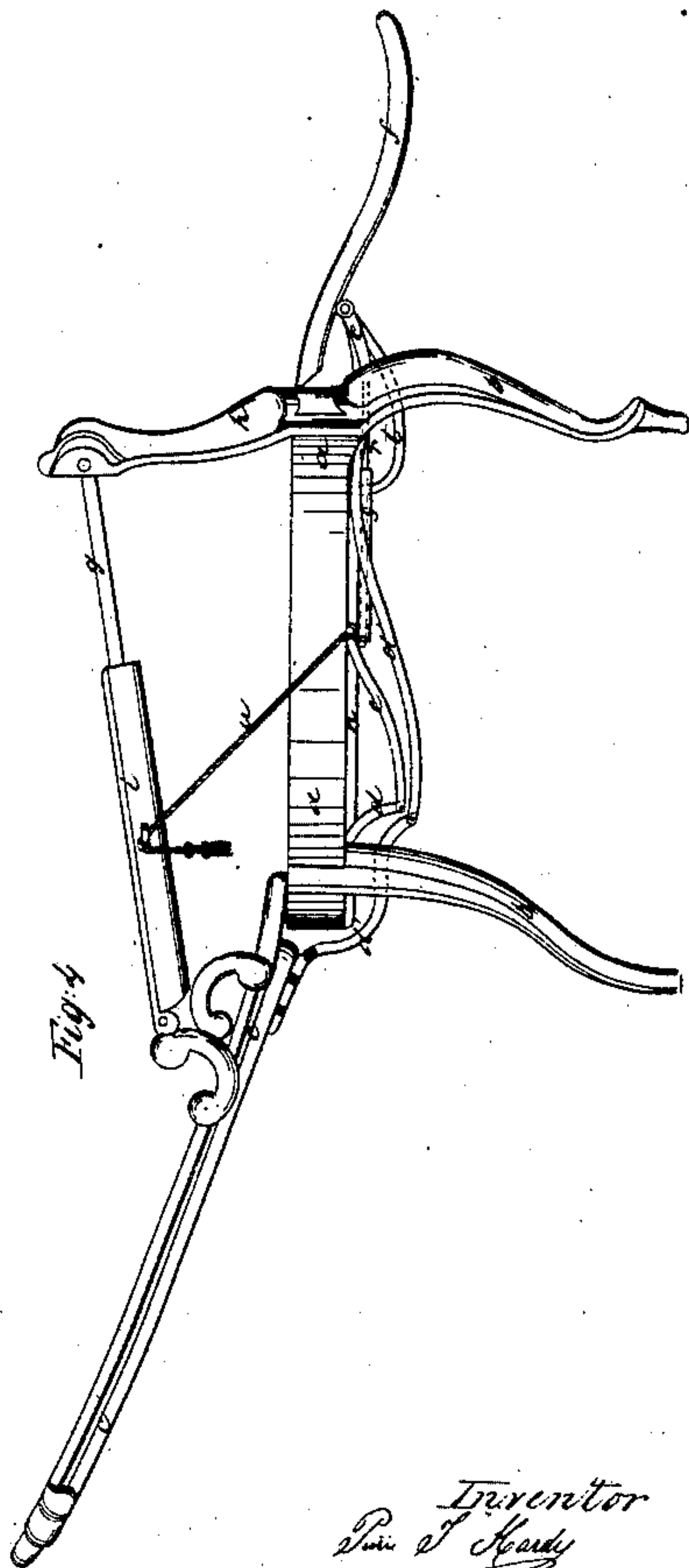
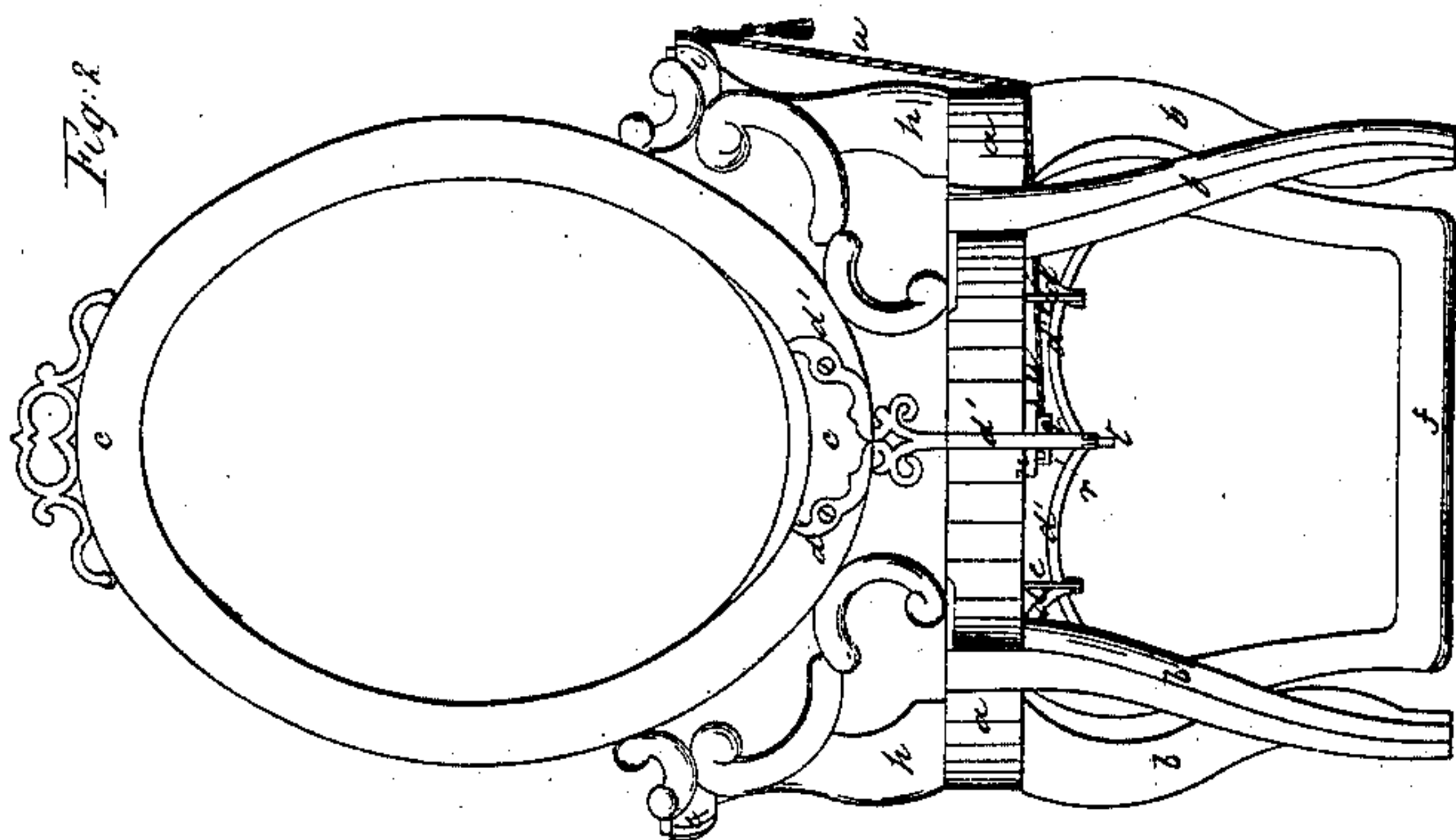
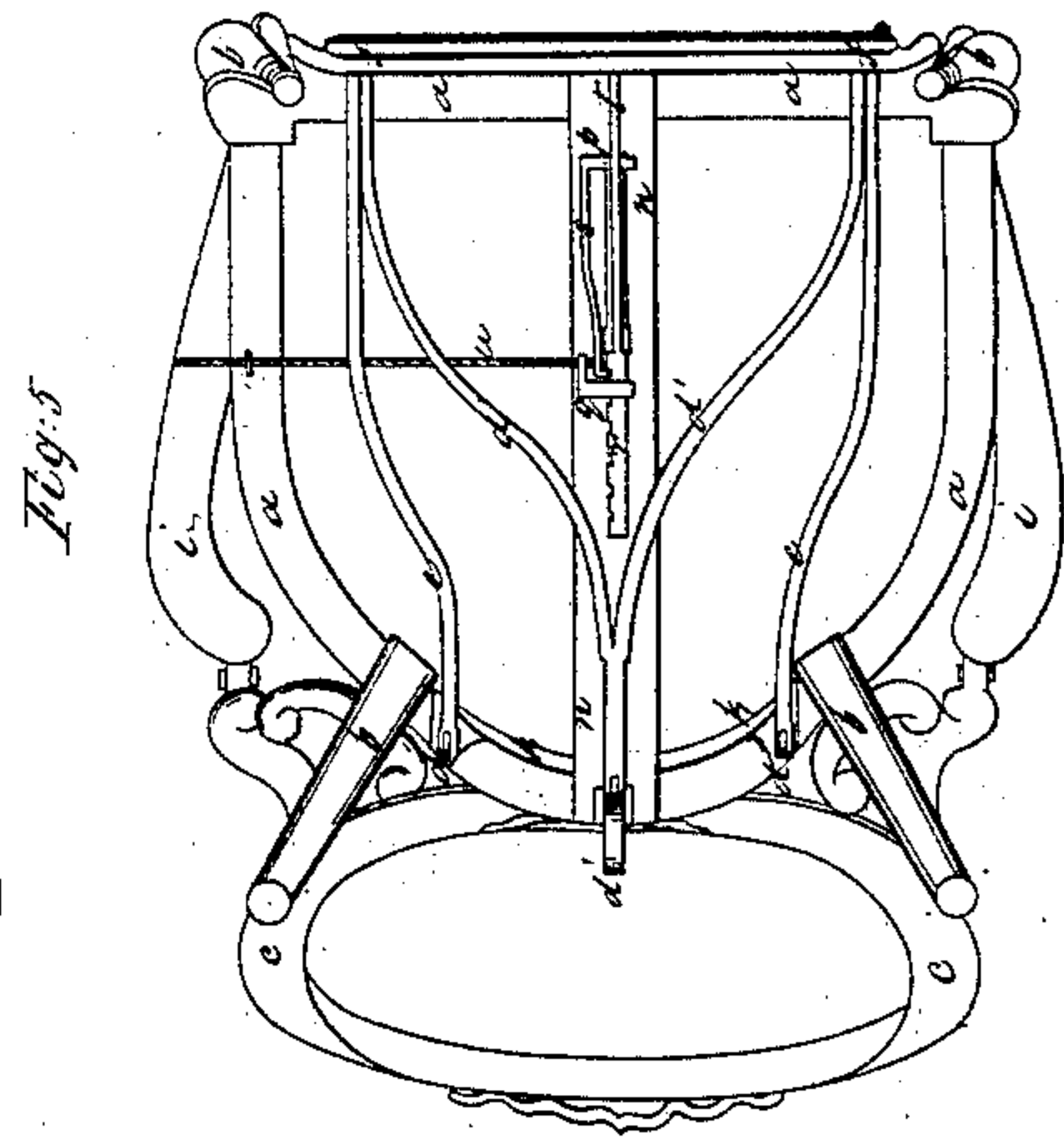
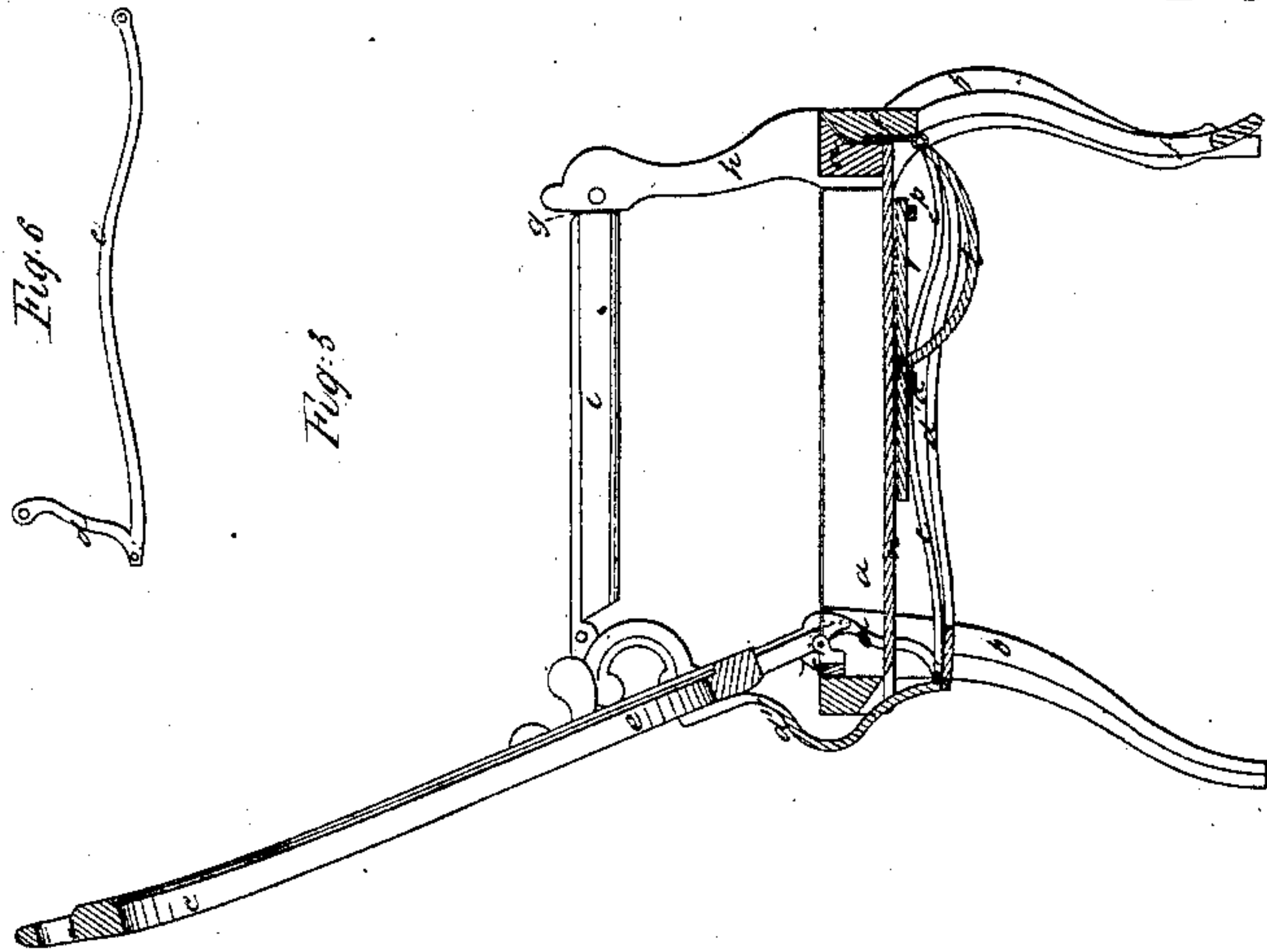


P. J. Hardy,
Invalid Chair,

N^o 24,935.

Patented Aug. 2, 1859.



Witnesses
A. H. Hall
Arthur Hall

Inventor
P. J. Hardy

UNITED STATES PATENT OFFICE.

PIERRE JEAN HARDY, OF BOSTON, MASSACHUSETTS.

RECUMBENT CHAIR.

Specification of Letters Patent No. 24,935, dated August 2, 1859.

To all whom it may concern:

Be it known that I, PIERRE JEAN HARDY, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Recumbent Chair; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1 denotes a side elevation of such chair; Fig. 2, a rear elevation; Fig. 3, a longitudinal and vertical section; Fig. 4, a side elevation of it as it appears with its back and leg rest brought into a position to constitute a couch. Fig. 5 is a bottom view of the chair.

The nature of my invention consists, first, in the peculiar construction and arrangement of mechanism for actuating the back and leg rest of a recumbent chair whereby a person sitting in such chair, can by pressing on the back cause the back and leg rest to assume a horizontal or nearly horizontal position so as to constitute a couch; or cause the back and leg rest to stand at any inclination to the seat that may be desired, such mechanism consisting of two sets of levers connected with each other and with the back and leg rest respectively in manner as hereinafter set forth; second, in combining with the said arrangement of mechanism for actuating the back and leg rest, a novel arrangement of a locking contrivance so constructed and applied as to enable the back and leg rest when placed in any desired positions to be firmly secured in such positions.

In the drawings *a, a*, denotes the seat frame as supported upon four legs *b, b, b, b*; *c, c*, is the back which is jointed or firmly secured at its lower part to the bent levers *d, d*, the said levers being hinged to the levers *e, e*, which extend horizontally underneath the seat of the chair and are hinged respectively at or near the upper part of the leg rest frame *f*. The said leg rest frame is hinged to the front bar of the seat frame *a, a*, and in such manner as to be capable of being freely moved in vertical directions; *g, g*, are what may be termed guiding rails and are so jointed to the standards *h, h*, as to allow their outer ends to be slightly elevated or depressed in accordance with the elevation or depression of the back. On these rails slide the tubular or hollow arms, *i, i*, which are so hinged or jointed to the back as to admit it (the said back) to be readily moved either

upward or downward within its limits of motion.

To the back part of the seat frame *a, a, a*, metallic bar, *k*, is affixed, such bar having journals upon its outer ends and respectively passing through holes formed in projections in the upper part of the bent levers, *d, d*, a side view of one of such levers being given in Fig. 6. The said journals and bearings are so arranged as to allow the back to be turned vertically as occasion may require.

By pressing on the back *c, c*, in a manner to cause it to turn rearward on its journals the two levers, *d, d*, will be made to move forward and of course will communicate a like motion to the levers *e, e*, which being hinged to the leg rest frame as described will cause the said leg rest to be turned outward or to approach more or less (as the sitter may elect) to a horizontal position, the peculiar construction of the said levers and their arrangement with respect to the back and leg rest not only enabling a person, while sitting in such chair to balance himself but to easily maintain himself in any desirable position.

In Figs. 2 and 5, I have represented (by red lines) a modification of the devices used for connecting the back and leg rest which modification is intended to be employed in small sized chairs. In this latter case it will be seen that I make use of but two forked levers *d', d'*, to connect the said back and leg rest, the same being connected together and to the back and leg as seen in said Figs. 2 and 5.

To the underside of the seat frame, *a, a*, and longitudinally thereof, a flat bar, *n* extends, the same being firmly affixed thereto in any suitable manner. On the lower side of the said bar and through guides *p, q*, extending therefrom a notched or rack bar *r*, freely slides in horizontal directions such bar operating in connection with a spring pawl, *s*, attached to the projection or guide, *p*, as seen in the drawings. To the middle or other proper part of the said slide bar, *r*, one end of a bent lever, *t*, is jointed said lever at its other end being jointed or hinged to the back part of the leg rest or leg rest frame *f* such lever bar so connected for the purpose of causing the slide bar to move in conformity with the movement of the said leg rest frame. To a suitable part of the pawl *s*, one end of a cord *u*, is attached, the

other end being led up over one arm of the chair so as to be in a convenient position for the person occupying the chair to throw the pawl out of engagement with the rack whenever he might desire to change the inclination of the chair.

From the above it will be seen that a person sitting in a chair so constructed can easily operate the back and leg rest so as to bring them into any desirable inclination or into horizontal or nearly horizontal positions so as to constitute a couch, the same being effected by a slight pressure against the back of the chair; and also should he be reclining at a greater or less inclination and desire to be brought into a less inclined position he simply has to press with his leg against the leg rest and throw his body slightly forward and he is at once brought into the position desired. It will also be seen that with a locking contrivance arranged and applied in the above described manner and in connection with the devices for actuating the back and leg rest they can be firmly sustained at any elevation that the sitter may desire.

In the construction of my improved chair I have obviated one very serious objection which exists to most if not all other chairs of a like kind heretofore made. They have been constructed so large and cumbersome that they have failed to find favor with a large majority of persons. By the peculiar construction and arrangement of parts composing my chair, I have produced an article which has the dimensions of any ordinary arm chair. Another great advantage which it possesses over many other recumbent chairs is to be found in the ease in which it can be operated, thus rendering it very useful to invalids. Another advantage is to be found in its simplicity of construction and the little liability there is of its parts getting deranged.

Having thus described my invention, I

would remark that I am aware that it is not new to make a recumbent chair in such manner that the back when moved rearward shall throw up an apron or leg rest such being found in the patent granted to J. G. Holmes on the 24th of September 1841. My chair or the mechanism for operating it differs very essentially in construction, arrangement and application from that of the said Holmes.

I do not claim the broad ground of causing the legs or foot rest of a chair to be moved by raising or depressing the back, or a combination of devices for effecting such result, but

What I do claim is—

1. The peculiar construction and arrangement of mechanism herein described for actuating the back and leg rest whereby they can not only be brought from vertical into horizontal or nearly horizontal positions so as to constitute a couch but be maintained in such or any intermediate positions that may be desirable, such mechanism consisting of the levers *c*, *c*, and *d*, *d*, connected with each other, the back and leg rest or leg rest frame *f* respectively, in manner as set forth.

2. And in combination with the said construction and arrangement of mechanism for actuating the said back and leg rest, I claim the arrangement of the locking contrivance (constructed and applied as described) whereby the back and leg rest when placed in any desirable positions may be firmly secured in such positions or be released therefrom as circumstances may require.

In testimony whereof I have hereunto set my signature this 6th day of July A. D. 1859.

PIERRE J. HARDY.

Witnesses:

F. P. HALE, Jr.,
ARTHUR NEILL.