

No. 684,403.

Patented Oct. 15, 1901.

A. C. BENEDICT.
RECLINING CHAIR.

(Application filed Mar. 13, 1900.)

(No Model.)

2 Sheets—Sheet 1.

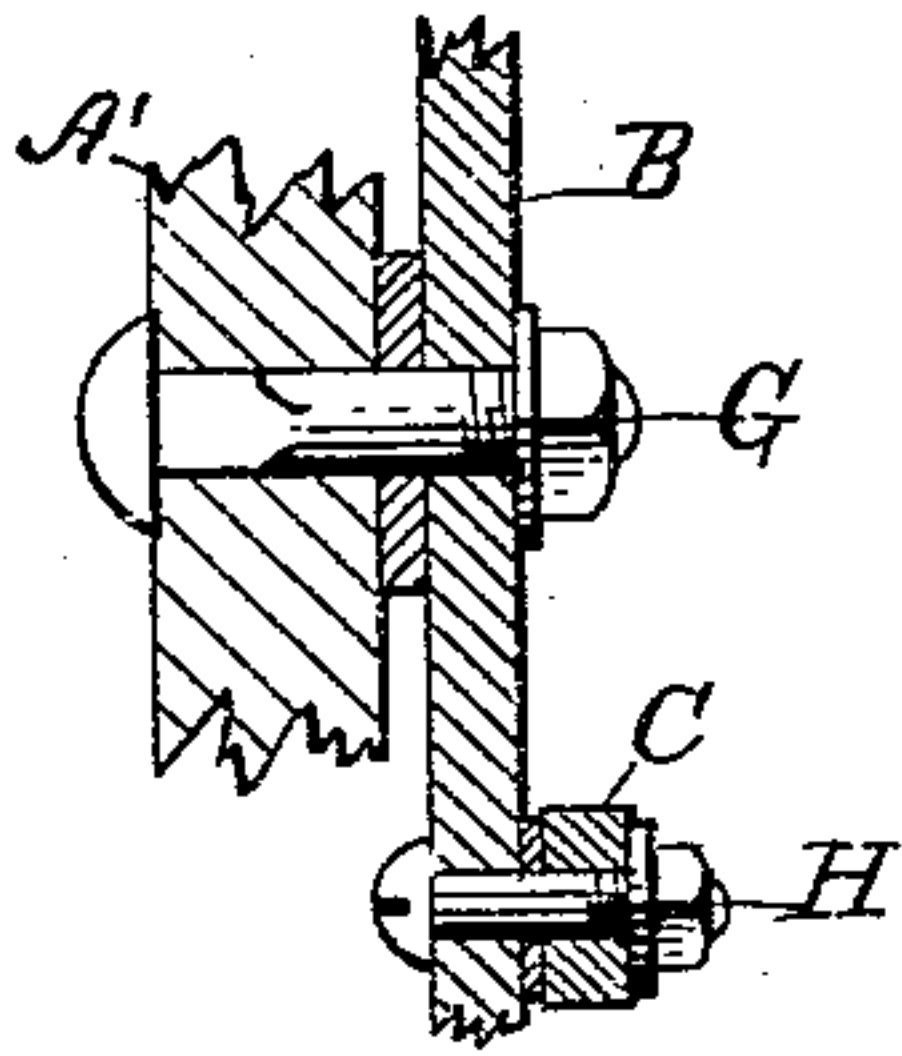


Fig. 5

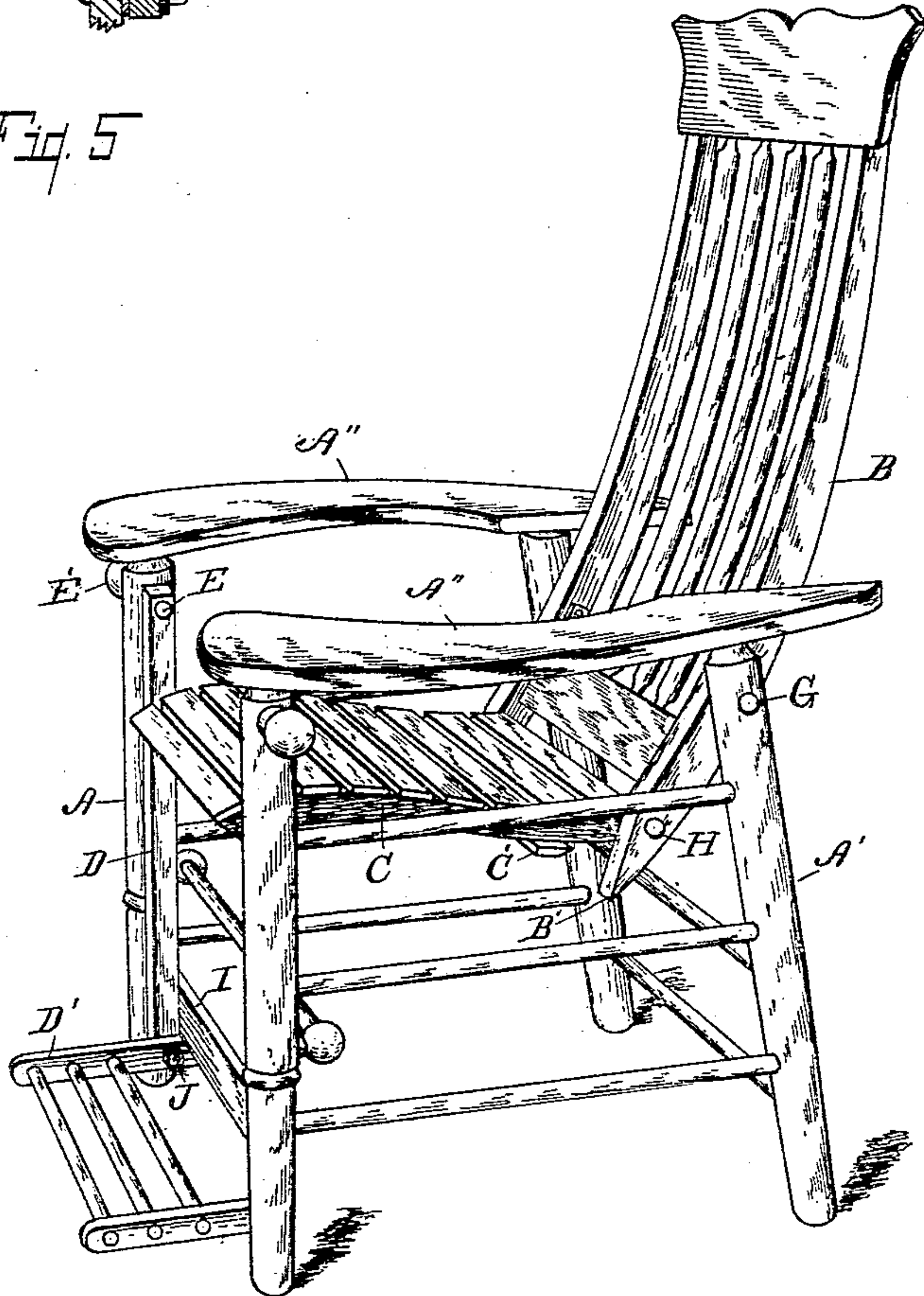


Fig. 1

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Inventor,

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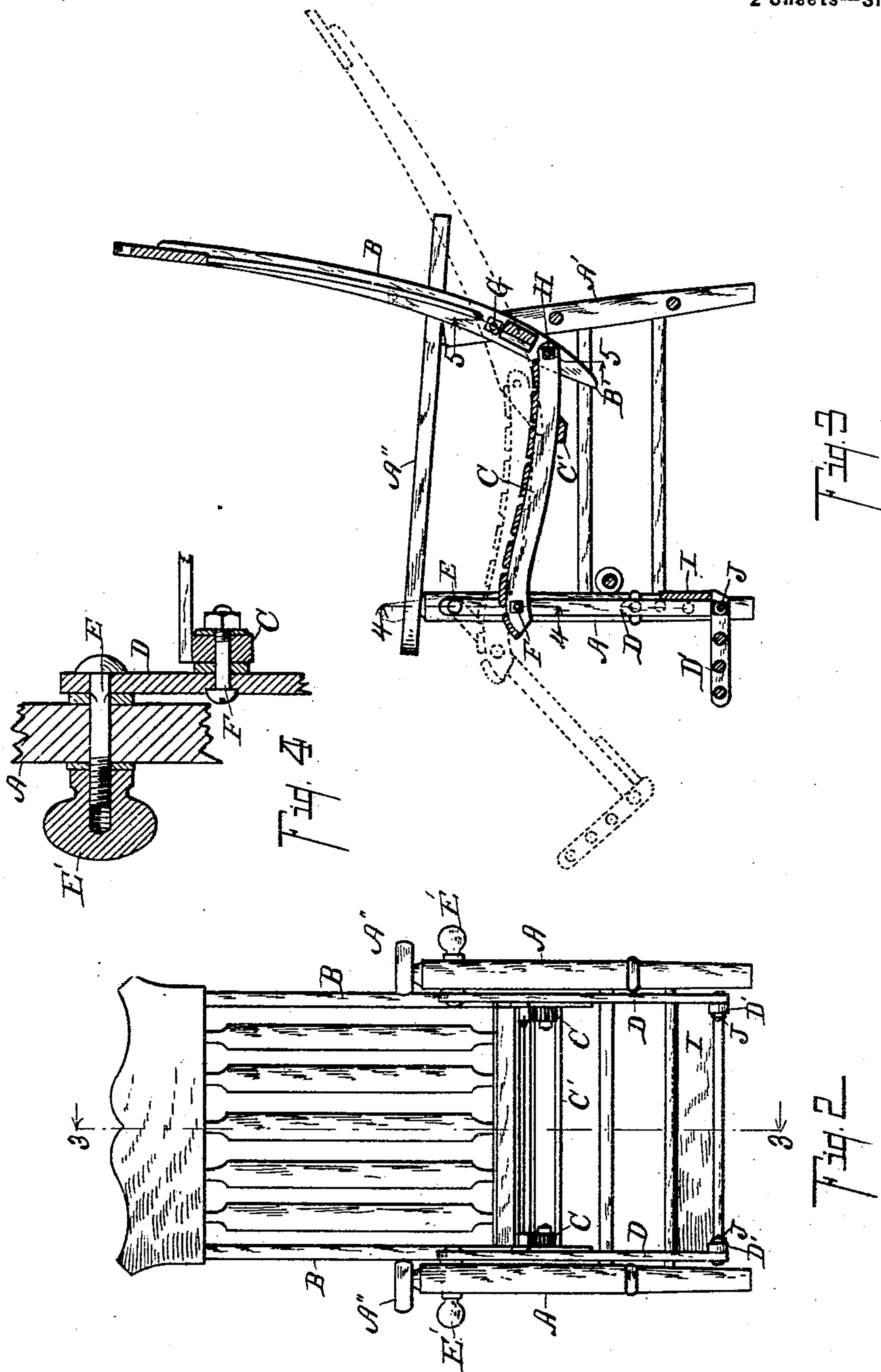
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UNITED STATES PATENT OFFICE.

AMOS C. BENEDICT, OF LAWRENCE, MICHIGAN, ASSIGNOR OF ONE-HALF
TO GEORGE W. FISHER, OF SAME PLACE.

RECLINING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 684,403, dated October 15, 1901.

Application filed March 13, 1900. Serial No. 8,557. (No model.)

To all whom it may concern:

Be it known that I, AMOS C. BENEDICT, a citizen of the United States, residing at the village of Lawrence, in the county of Van Buren and State of Michigan, have invented certain new and useful Improvements in Reclining-Chairs, of which the following is a specification.

This invention relates to improvements in reclining or easy chairs, particularly to what are known in the trade as the "Morris" type.

The objects of the invention are to provide a chair which is automatically adjustable to the positions of the body either in a sitting or reclining position, which is stable on its legs, and which shall be simple and easy to manufacture.

Further minor objects will definitely appear in the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in this specification.

The invention is clearly defined, and pointed out in the claims.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a chair embodying my invention. Fig. 2 is a front elevation of the same. Fig. 3 is a vertical sectional side elevation of the chair, taken on line corresponding to line 3 3 of Fig. 2, the chair being illustrated in its reclining position by dotted lines. Fig. 4 is an enlarged detail sectional view of the adjusting means and front connections, taken on a line corresponding line 4 4 of Fig. 3. Fig. 5 is an enlarged detail sectional elevation of the rear pivotal support of the chair, taken on a line corresponding to line 5 5 of Fig. 3.

In the drawings all of the sectional views are taken looking in the direction of the little arrows at the ends of the section-line, and similar letters of reference refer to similar parts throughout the several views.

Referring to the lettered parts of the drawings, A A are the front legs of the chair, and A' A' are the rear legs. These are connected together by suitable rounds at the sides and at the rear in the usual way. The legs, however, extend upward to a suitable height for

the attachment of the arms A''. Brackets are placed on the back side of the front legs, and a suitable round extends between these brackets to afford the connection between the front legs.

C is the seat of the chair, and B the back. The seat and back are connected together by pivot-bolts H at each side and fold to and from each other as if hinged.

A foot-rest D' is provided for the chair, which is pivotally connected to the downwardly-depending bars D by pivots J. A slat or strip I connects the lower ends of the bars D to also assist in the formation of the foot-rest and also to serve as a stop against which the foot-rest D' is folded when not in use. (See dotted lines, Fig. 3.) These bars D are secured to the front of the seat by pivot-bolts F. (See Figs. 3 and 4.) The bars extend upwardly beyond the seat, however, and are secured by the pivot-bolts E to the upper portion of the legs A above the chair-seat. Hand-nuts E' are on the outer ends of the bolts E to serve to put tension on the joint to prevent too free motion of the chair, and also to hold it in position when it is desired to lock the connections. Although this feature is not at all necessary with my improved chair, it is a matter of convenience in holding the chair in position.

The back B of the chair is secured to the back legs A' of the chair by pivot-bolts G, which are normally above the seat of the chair. The lower ends of the side bars of the back extend downwardly at B' below the seat C. A cross-piece C' is secured to the under side of the seat and serves as a stop for the back, limiting its motion when the chair is thrown backward into the reclining position. This stop can be positioned so that the chair can be made to drop back perfectly level, though I find in practice that the position indicated by dotted lines in Fig. 3 is as far back as will ordinarily be desired.

It will be observed from this description that the seat of my improved chair is held in position as though suspended by links, the upper portion of the bars D being the links at the front and the lower portion of the back B being the link to the rear. It will thus be observed that the weight of a person sitting

in a chair normally brings the back of the chair to a vertical position when the person is sitting upright, and yet when it is desired to recline by leaning back the body will have the long end of the lever—namely, the portion of the back of the chair—extending above the pivot G, which serves as a fulcrum, and the bottom of the chair will be slightly raised as the person leans back, yet the body will be properly supported by the back and the seat, as desired, when in such position. By moving the body back farther it will be found that the portion above the pivot G will substantially counterbalance the weight of the body in the seat, so that merely moving the body to a different position secures the adjustment of the chair to that position in a very satisfactory manner. This is very effective when the foot-rest D, and the cross-bar I on bars D are utilized, when the person reclining in the chair can bring it to the upright position with the greatest ease by simply sitting up in that position, the feet assisting to actuate the chair promptly through the bars D D.

It will be observed that the chair is always in position for occupancy, for a person rising throws it into position for sitting automatically. This is the effect where the size of chair is adapted to the particular size of person. Where the chair is not a perfect fit, it can be clamped in position by means of the hand-nuts E', although with a chair of the ordinary size this would be necessary only on rare occasions, because the chair is adapted to persons differing very considerably in size. It will be observed also that by connecting a chair as I have described when a person leans back the seat of the chair itself moves forward, which brings the center of gravity always within the base of the chair or its four legs, so that there is absolutely no danger of the chair tipping over backward, no matter how much its back may be inclined by the user. By this means it is consequently possible for the chair to lie back nearly to the horizontal position without providing any extra weight in the base or support. The arms A'' serve as guides to the chair-back and are extended to the rear of the rear legs A' to preserve their guiding effect and form an arm-chair even when the chair is tipped back to the limit.

Having thus described my improved chair, I desire to state that it can be considerably varied in its details without departing from my invention. It would be possible to omit the foot-rest feature and still have a very de-

sirable chair, although, of course, the advantage of the foot-rest would be wanting and the chair might not operate quite so promptly. While the hand-nuts E' are of advantage in putting a little friction on the bearings to prevent too light an action, they could be dispensed with and the joints all normally tightened, though the matter of adjusting the joints to secure the chair in any desired position is obviously of very great advantage. While the simple construction of stop by the slat C' and the projections B' is preferred by me on account of its positiveness and its strength, I am aware that stops I could be provided in other relations and still be very effective in controlling the backward motion of the chair.

It is almost needless to remark that any suitable cushions can be used with this chair both on its seat and on the back, though separate cushions should, preferably, be provided for each, so as not to interfere with the hinging.

I have shown the chair in its most approved form and believe that in all its details it is superior to any other and is entitled to patent protection both broadly and in detail.

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

1. In a chair, the combination of a suitable frame; a chair seat and back hinged together, the back having a projection below the hinges and the seat having a stop to engage the same; pivotal connection between the chair-back and frame at a point above said hinge; a link pivoted at its upper end to the forward portion of the frame, and a pivotal connection between said seat and link below said upper end.

2. In a chair, the combination of a suitable frame; a chair seat and back hinged together, the back having a projection below the hinges and the seat having a stop to engage the same; pivotal connection between the chair-back and the frame at a point above said hinge; a link pivoted at its upper end to the forward portion of the frame and a pivotal connection between said seat and link below said upper end, and a foot-rest on said link.

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

AMOS C. BENEDICT. [L. S.]

Witnesses:

CLARK L. PARKS,
A. H. WHITNEY.