

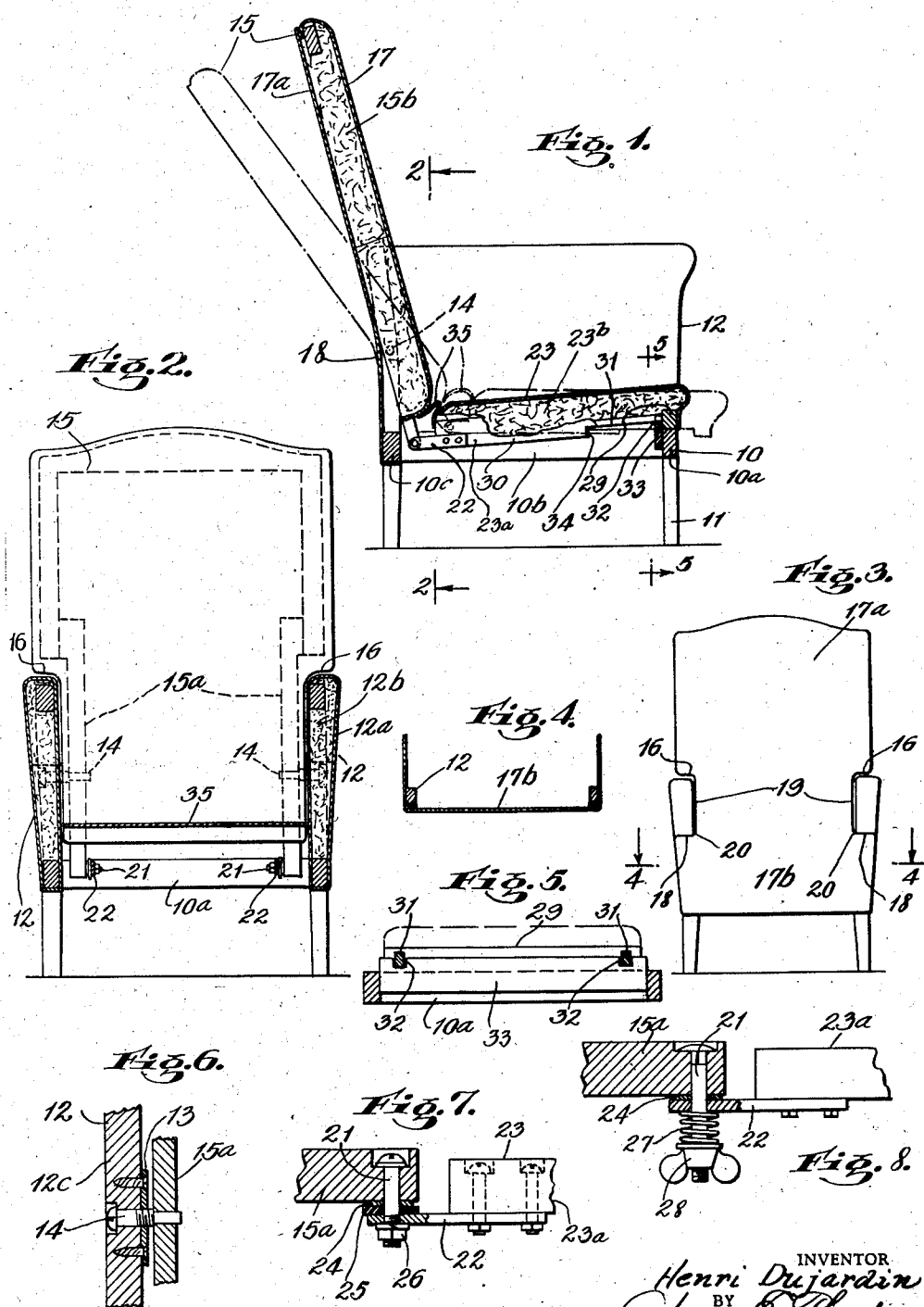
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CHAIR

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CHAIR

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This invention relates to chairs and particularly to what are known as automatic reclining chairs; and the object of the invention is to provide a chair of the class described, with means on one of its pivots for introducing friction to control the automatic operation of the back and seat members of the chair to suit the comforts and desires of its occupants in moving the back and seat into their several positions; a further object being to provide means for forming the finish of the upholstery and facing between the several cooperating chair parts so as to produce a neat and finished appearance; a further object being to provide means for guiding the seat member in its movement forwardly and backwardly with respect to the chair frame proper, especially in overstuffed chairs of the class under consideration; a further object being to provide the seat member of the chair with a comparatively thin forward upholstered end portion and a heavier upholstered rear end portion to compensate for the weight displacement of the body of a person in using the chair; and with these and other objects in view, the invention consists in a device of the class and for the purpose specified which is simple in construction, efficient in use, and which is constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:—

Fig. 1 is a transverse, sectional view through a chair made according to my invention and indicating a method of its use.

Fig. 2 is a section on the line 2—2 of Fig. 1.

Fig. 3 is a rear view of the chair.

Fig. 4 is a sectional, detail view of a part of the construction, the section being on the line 4—4 of Fig. 3.

Fig. 5 is a partial section on the line 5—5 of Fig. 1.

Fig. 6 is a sectional, detail view of the backrest pivot.

Fig. 7 is a sectional detail view of the piv-

otal coupling between the backrest and seat; and,

Fig. 8 is a view similar to Fig. 7 showing a modification.

In the accompanying drawing, I have shown an overstuffed chair or a chair of the upholstered type. In the drawing, 10 represents the main framework of the chair supported upon four legs 11 of any desired form or contour, the frame consisting of a front rail 10^a, side rails 10^b and a back rail 10^c. Upon this frame are upright side frame members forming the arm portions 12 of the chair, said arm frame being stuffed, padded or otherwise upholstered and including in the construction shown, suitable fabric facings 12^a, forming enclosures for the padding 12^b, note Fig. 2.

Mounted in connection with the rear upright members of the frame 12 are reinforcing plates 13 for reinforcing the support of pivot pins or screws 14 mounted in connection with said frame. The screws 14 are in threaded engagement with the plates and form pivots for the backrest 15 of the chair, the side frame members 15^a of the backrest being rotatable on the inner ends of said pivots. As noted in Figs. 2 and 3 of the drawing, the upper portion of the backrest is enlarged so as to overlie the rear end portions of the arm frames 12 as seen at 16, the lower portions of the backrest fitting within the arm frames 12 as clearly seen.

The backrest is upholstered in the same manner as the arm frames and includes a suitable padding 15^b contained within a fabric facing 17 of any suitable material. The part 17^a of the facing, which is arranged at the back or rear face of the backrest 15, extends onto and is attached to the rear rail 10^c of the frame, forming a cover 17^b for the back of the chair from the pivots 14 downwardly to conceal the lower portion of the backrest and yet not interfere with its reclining movements. This is accomplished by attaching the upper edge of the part 17^b to the arm frames 12 at a point in line with the pivots 14 as seen at 18, Figs. 1 and 3, so that the part of the sheet 17^a which covers the reduced portion of the backrest above the pivots 14 as indicated at

19, Fig. 3, is free to move backwardly without danger of tearing or rupturing the corner portions 20.

The side frame members 15^a of the backrest project at their lower ends beyond the upholstered portion thereof. Mounted in connection with said ends are pivot pins or screws 21 in connection with which bracket plates 22 secured to the seat member 23 or the side rails 23^a thereof are adapted to operate. Said bracket plates have apertures through which the pins 21 pass, and in practice, I arrange on said pins adjacent the frames 15^a, metallic washers 24 between which and the bracket plates 22 are other washers of yielding material 25, such for example as rubber, fibre or soft metal. Suitable nuts 26 in threaded engagement with the screws or pins 21, are employed to support the brackets 22 in position and to regulate the frictional engagement of the several washer surfaces with each other and the supports 15^a and 22 so as to control and regulate the chair operation.

In Fig. 8 of the drawing, I have shown a slight modification of the structure shown in Fig. 7 wherein a spring 27 is mounted upon the pin or screw 21 between the plate 22 and the nut 28, which in said figure is of the wing type. In this construction, the spring 27 takes the place of the washer 25 and by adjusting the tension of the spring, the frictional engagement of the respective parts 15^a and 22 may be regulated. At this time, it will be understood that any other form of frictional means may be employed between the pivotal connection of the parts 15^a and 22, and while this construction is shown arranged on the pivots 21, the same result may be accomplished by providing frictional means on the pivots 14 between the backrest and the arm frames 12.

The seat member 23 consists of a rectangular frame which includes bottom wall members 29 and 30, the wall member 29 being arranged at a higher plane than the wall member 30 to form a thinner front end portion in comparison with the rear end portion of the seat member so that the upholstery 23^b of the seat member becomes heavier at its inner end than at the forward end. On the lower surface of the bottom wall 29 and extending forwardly and backwardly are two guide rails 31 which guide the seat member in its forward and backward movement, said rails fitting in notches 32 formed in the front rail 10^a or a plate 33 secured thereto. It will also be noted that the front cross bar of the seat member 23 strikes upon the plate 33 to limit the inward or backward movement of the seat member. The offset or shoulder 34 is arranged intermediate the walls 29 and 30 and also engages the plate 33 to limit the forward or outward movement of the seat mem-

ber, the rails 31 being arranged forwardly of the shoulder 34.

It will be noted that the inner end of the seat member is also joined to the lower end of the backrest through a flexible strip or sheet 35 similar to the sheetings or facings employed in the upholstery to prevent articles from passing downwardly through the chair between said parts, and also to form a neat and finished appearance. However, my invention is not necessarily limited to the use of this strip.

One of the distinctive features of the invention resides in the provision of the tensional means for controlling the automatic reclining movement of the backrest so that the chair will maintain an automatically adjusted position by exerting backward pressure upon the backrest, sufficient to counteract said friction, permitting the occupant of the chair to move about freely without danger of displacing the adjusted position of the chair, but by exerting force or pressure, the chair may be adjusted to other positions to suit the comforts of the occupant, thus avoiding free automatic adjustment of the chair, involuntarily brought about by the movement of the occupant, which has been found to be objectionable and has introduced a certain amount of tension and care on the part of the occupant in the use of the chair, which is avoided by the frictional means employed.

It will also be understood that while I have shown certain details of construction for carrying my invention into effect, and have shown a chair of specific type, that my invention is not necessarily limited in these respects and various changes therein and modifications thereof may be made within the scope of the appended claims without departing from the spirit of my invention or sacrificing its advantages.

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

1. A reclining chair of the class described comprising a base frame including side members forming arm rests, a backrest pivotally supported within and between the arm rests at the rear end thereof, a seat member freely supported upon the base frame and pivotally supported in connection with the lower end of the backrest, means for producing friction on one set of pivots of said backrest to control the reclining movement of the chair, and the body portion of the backrest including a facing sheet extending beyond the lower end of the backrest onto the base frame and the arm rests thereof.

2. A reclining chair comprising a backrest and a seat member, means for pivotally coupling the rear end of the seat member with the lower end of the backrest, a frame for supporting the seat member to permit of its

forward and backward movement in a predetermined path with relation to said frame, said frame including upwardly extending side arm supporting portions, and means for pivoting the backrest to said arm supporting portions at a point midway of its height, the pivot being arranged on the backrest at a point substantially below one half of its length, forming a comparatively long upper end portion facilitating the automatic reclining action of the chair by the occupant thereof, adjustable means for introducing friction to control and regulate the easy automatic operation of the chair, said means comprising nuts mounted on one set of pivots on the backrest cooperating with friction elements on said pivots, and said backrest including a facing sheet extending onto the seat supporting frame and the arm rests thereof at the point where the pivot of the backrest in connection with the arm rests, is located.

3. In a reclining chair of the class described involving a freely movable pivoted backrest, a seat member pivotally coupled with the lower end of the backrest and a frame including arms in connection with which the backrest and seat member are supported, said backrest including a rear facing sheet which extends onto said frame and arm rests at a point in horizontal alinement with the first named pivot of the backrest.

4. A reclining chair of the class described comprising a base frame including side members forming arm rests, a backrest pivotally supported within and between the arm rests at the rear end thereof, a seat member freely supported upon the base frame and pivotally supported in connection with the lower end of the backrest, means for producing friction on one set of pivots of said backrest to control the reclining movement of the chair, the body portion of the backrest including a facing sheet extending beyond the lower end of the backrest onto the base frame and the arm rests thereof, and the attachment of said sheet to the arm rests starting at the pivot of the backrest in connection with said arm rests.

In testimony that I claim the foregoing as my invention I have signed my name this 12th day of January, 1929.

HENRI DUJARDIN.

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