

May 25, 1937.

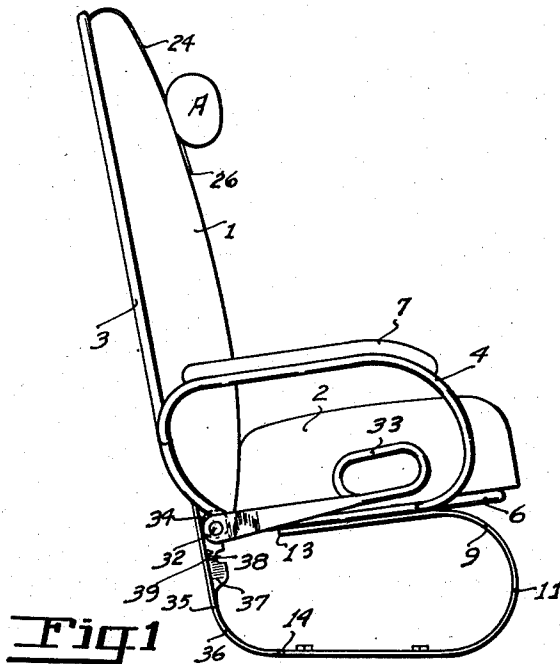
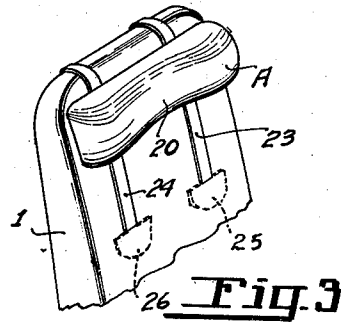
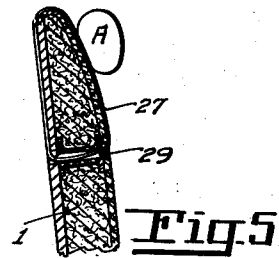
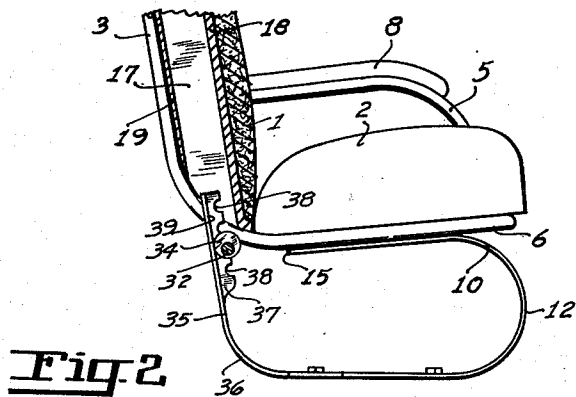
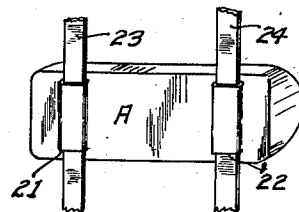
M. P. HOOVER

2,081,333

ADJUSTABLE CHAIR

Filed Sept. 23, 1935

2 Sheets-Sheet 1



INVENTOR.
MYRL P. HOOVER
BY *Samuel S. Jacobson*
ATTORNEYS.

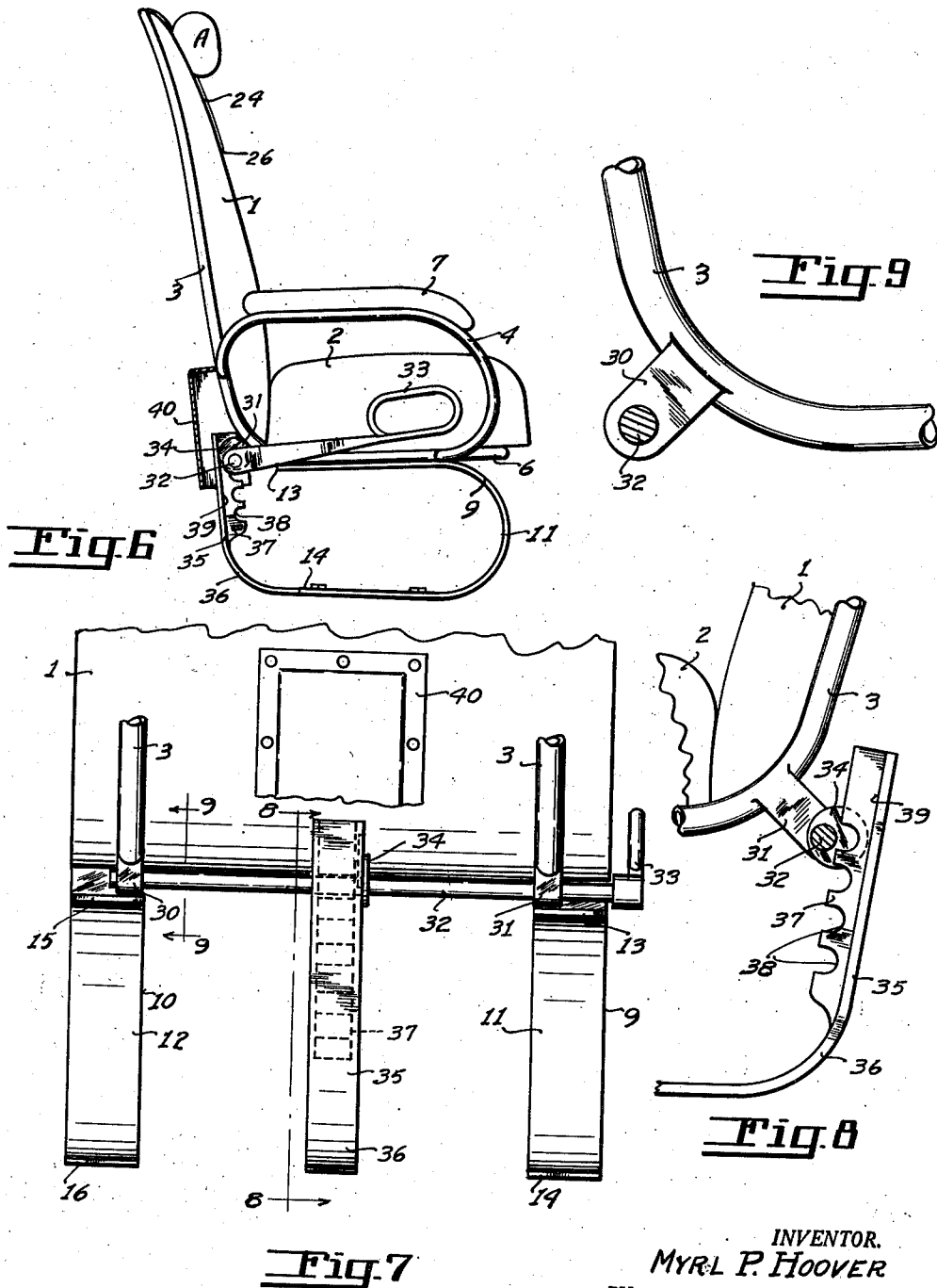
May 25, 1937.

M. P. HOOVER
ADJUSTABLE CHAIR

2,081,333

Filed Sept. 23, 1935

2 Sheets-Sheet 2



INVENTOR.
MYRL P. HOOVER
BY *Samuel J. Jacobson*
ATTORNEYS.

UNITED STATES PATENT OFFICE

2,081,333

ADJUSTABLE CHAIR

Myrl P. Hoover, Bend, Oreg.

Application September 23, 1935, Serial No. 41,696

5 Claims. (Cl. 155—9)

This invention relates to chairs and specifically to chairs for use in transporting passengers by common carriers, such as busses.

The quintessence of my invention is to provide a resiliently mounted chair adapted for incline adjustment and possessing a head rest that is movable with respect to the back thereof.

An equally important object of the invention is to provide manually operable means of simple construction for effecting the adjustment of the inclination of the back of the chair.

Another object of the invention is to provide cam operated locking means associated with the means for adjusting the inclination of the back of the chair.

Still another important object of the invention is to provide a head rest slidably positioned with respect to the back and retained thereagainst by flexible means.

A further object of the invention is to provide a chair, the design of which is ornamental, modernistic and distinctive.

Another object of my invention is to provide a chair, sturdy in construction, yet not bulky in appearance, providing extreme riding comfort and having means for absorbing, in some measure, the inherent vibrations of a bus.

Another object of the invention is to provide resilient means in association with the cam operated locking mechanism for effecting the rearward inclination of the chair.

Other objects and advantages will become apparent from the description to follow which must be read in connection with the accompanying drawings, showing a preferred and modified form of the chair embodying the principles of my invention, each of which is exemplary of the principles of my invention and in which:

Figure 1 is a side view of a chair embodying the principles of my invention.

Figure 2 is a fragmentary, side view, partially in section, of the chair shown in Figure 1, illustrating the position of the adjusting mechanism with respect to the back of said chair.

Figure 3 is a fragmentary, perspective, front view of a portion of the back of a chair, embodying the principles of my invention, graphically showing the relative position of the head rest with respect to the back.

Figure 4 is a perspective, rear view of a head rest, embodying the principles of my invention, illustrating the manner of mounting the head rest upon the straps on which it slides.

Figure 5 is a fragmentary, sectional, side view of the back of a chair, graphically illustrating

a modified method of slidably mounting a head rest, embodying the principles of my invention, with respect to the back.

Figure 6 is a side view of a chair, embodying the principles of my invention, slightly modified to illustrate the relative position of the chair adjusting mechanism with respect to the back thereof.

Figure 7 is a fragmentary, rear view of the chair in Figure 6 showing the position of the adjusting mechanism with respect to the remainder of the chair.

Figure 8 is a fragmentary, side view, partially in section, taken on line 8—8 of Figure 7 looking in the direction indicated, graphically showing the manner in which the locking notches are disengaged from the locking shaft.

Figure 9 is a fragmentary, side view, partially in section, taken on line 9—9 of Figure 7 looking in the direction indicated, illustrating the manner of attaching the locking shaft to the tubular frame work embodied in the chairs illustrated.

Like reference characters refer to like parts throughout the several views.

Figure 1 represents a chair possessing a back 1 constructed in any well known manner to impart resiliency or flexibility thereto. The seat 2 is constructed in the same or a similar manner. The frame work of the chair herein illustrated is composed of a tubular frame 3 upon which the back 1 rests and tubular side arms 4 and 5 are joined to the side 3 in any well known manner, but preferably welded thereto. The frame 3 merges into tubular seat support 6. Arm rests 7 and 8 of well known construction are secured to side arms 4 and 5 respectively.

The construction heretofore set out, while desirable to produce a comfortable chair, is not completely essential to the operation of my invention, the details of which will be related forthwith. Chairs possessing other constructional details and contours can be equally utilized with my invention.

A pair of resilient U-shaped supports 9 and 10 are secured in any well known manner to seat support 6 and to any chair supporting surface, such as the floor of a bus. Each support forms an open loop with the loop portion 11 and 12 respectively positioned to face the front of seat 2 and the ends 13 and 14 and 15 and 16 respectively extending rearwardly in parallel alignment with each other. The use of resilient supports for the super-structure of the chair herein illustrated has the desirable effect of absorbing and

dissipating the vibrations commonly received while traveling in a bus due to the unevenness of the road, to the operation of the motor and other causes. Furthermore, additional riding comfort is provided as well as presenting a neat and ornamental appearance.

The details of construction of the back are shown in Figure 2 wherein a well 17 is provided between the rear 18 of back 1 and the false back 19. The purpose of this construction will become apparent as the description unfolds itself.

Moveably supported upon back 1 is a head rest designated generally by reference character A. The head rest is formed of any suitable material which gives comfort to the occupant of the chair and is formed to suit the contour of a person's neck and head, as shown at 20. A pair of elongated slots 21 and 22 are formed through the back of the head rest and straps 23 and 24 respectively pass therethrough. The fit between the slots and straps is such that the head rest must be manually grasped before it may be moved with respect to the back of the chair.

Straps 23 and 24 have their ends 25 and 26 respectively securely fastened to the back 1 in any manner but preferably as shown in dotted line in Figure 3. The other ends (not shown) of straps 23 and 24 may be securely fastened to the back 1 or may be adjustably secured thereto in any desirable fashion.

Similar results may be obtained by securely fastening the head rest to endless straps 27 and 28 (not shown) as indicated in Figure 5 and passing said straps through slots 29 formed through the back 1.

The mechanism for inclining the chair is aptly illustrated in Figures 7 and 8. Shaft supports 30 and 31 extend from side 3 and shaft 32 is rotatably disposed therein. A handle 33 is secured to one end of the shaft and is positioned in such manner that it may be easily grasped by the occupant of the seat. A cam 34 is fastened to the shaft and has a twofold function, namely to keep the shaft from moving once it is in locked position and to disengage the shaft from locked position when desired.

A resilient member 35 is secured to any chair supporting surface, such as the floor of a bus, and is positioned midway between the supports 9 and 10; but this is merely preferred and is not to be considered a limiting factor since this member may be positioned in any other relation to the supports 9 and 10 without departing from the principles of the invention. Member 35 is L-shaped in contour with its curved portion 36 positioned to face the rear of the chair. Secured to or made integral with member 35 is a multi-notched member 37 whose notches 38 are positioned vertically. The curvature and area of the notches is such as to permit the shaft 32 to enter without effort and to fit snugly therein in order to avoid friction noises and vibrations. Cam 34 at all times rides upon surface 39 since member 35 is constructed and positioned to at all times thrust itself toward the shaft 32.

In Figure 2, member 35 partially passes into well 17, whereas, in Figures 6 and 7, member 35 is partially covered by casing 40 fastened to the rear of back 1.

Modus operandi

The head rest is moved vertically with respect to the back, the straps acting as tracks for it, so that persons of different heights may adjust the position of the head rest to suit their particular requirements for comfort.

The inclination of the chair is accomplished by inserting shaft 32 into any one of the notches 38. Figure 6 shows the chair in normal position with the shaft engaged within the uppermost notch in member 37. If it is desired to incline the chair rearwardly, say in position as shown in Figure 1, handle 33 is raised, thus forcing the cam 34 to push against surface 39 of member 35 against the normal forward thrust of said member and disengaging the shaft 32 from the uppermost notch. The occupant then leans backward until he reaches the desired inclination, in this case, the inclination as shown in Figure 1. He thereupon lowers the handle 33 until the shaft catches in the notch which coincides with the location of the shaft; and since member 35 is normally thrust toward the shaft 32, the two will lock and remain locked until disengaged by the cam action heretofore described.

It might well be noted at this time that, when the shaft 32 is interlocked with the member 35, the superstructure of the chair is given added stability, there being in reality three supporting surfaces for the superstructure, namely, the resilient U-shaped supports 9 and 10 and member 35.

Having thus described my invention, I claim:

1. In combination with a chair of the class described, a pair of spaced supports secured to said chair, each of said supports being open ended and opening to the rear portion of said chair in order to impart resiliency to said supports, a resilient member disposed at the rear end of said chair between the open ends of said resilient supports, said member having a plurality of notches formed therein and manually operable means journaled to said chair and adapted for cooperation with the notches in said member for locking said chair in the adjusted position desired.

2. Apparatus characterized as in claim 1 wherein the manually operable means consists of a shaft journaled to the rear end of the chair, said shaft being adapted to engage within the notches in said resilient member and having means positioned thereupon to ride upon the side of said resilient member, said means adapted to remove said shaft from said notches, and a handle secured to the shaft for effecting said engagement or removal.

3. Means for adjusting the inclination of any chair supported upon resilient members secured to the front of the chair comprising, a resilient member disposed at the rear of said chair and secured to the support upon which the chair rests, said member having a plurality of notches therein, a shaft journaled to the chair and normally positioned within one of the notches, means secured to the shaft and seated upon the resilient member adapted to move the shaft from the notches when desired, and to lock the shaft against movement once it is seated within one of the notches, and a handle for operating said shaft and said means.

4. In combination with a chair frame of the class described, a pair of resilient supports secured to the front of said chair frame, means for adjusting the inclination of the frame with respect to the supports, said means, when in locked position, being adapted to act as an additional support for the frame, said means includes: a resilient member positioned at the rear of said chair frame and between said supports, said member having a plurality of notches therein, a shaft journaled to the frame and adapted to engage within said notches, one at a time, means secured to the shaft and positioned upon said resilient

member adapted to effect the disengagement of said shaft from said notches and manually operable means for actuating said last mentioned means.

5 5. In combination with a chair frame of the class described, a pair of resilient supports secured to the front of said chair frame, means for adjusting the inclination of said frame with respect to said supports, said means includes: a
10 resilient member positioned at the rear of said

chair frame and between said supports, a shaft journaled to and movably disposed with respect to the frame and normally engaged by the resilient member, a cam secured to said shaft and adapted to at all times ride upon the surface of
5 said resilient member, and a handle for moving the cam to permit the disengagement of said shaft from said resilient member.

MYRL P. HOOVER. 10