

May 6, 1958

H. FIDEL

2,833,338

FOOT REST FOR EASY CHAIR

Filed Feb. 21, 1955

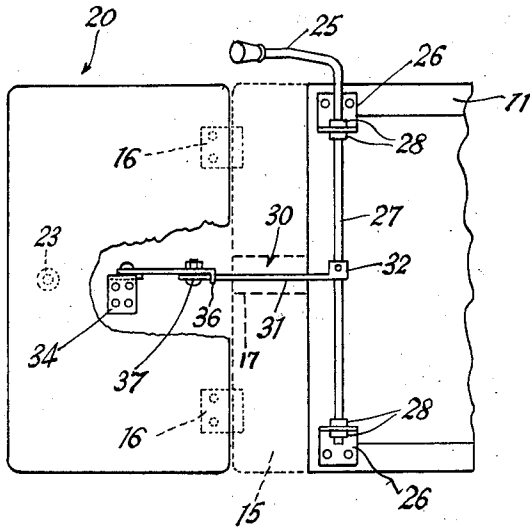


FIG. 2

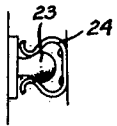


FIG. 4

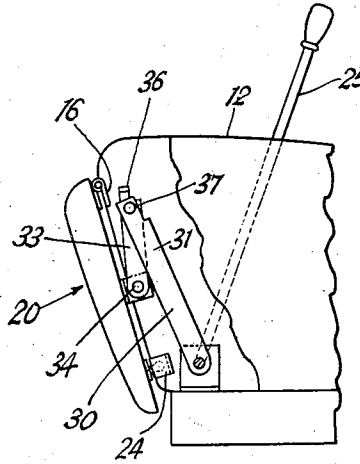


FIG. 3

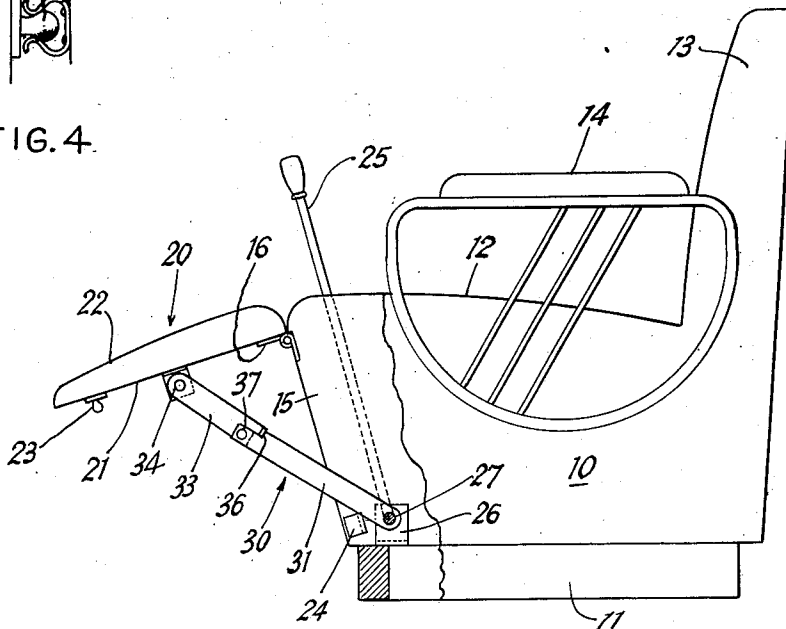


FIG. 1

INVENTOR
HYMAN FIDEL.

BY

Irving Seidman
ATTORNEY

1

2,833,338

FOOT REST FOR EASY CHAIR

Hyman Fidel, Brooklyn, N. Y., assignor to Modcraft Company, Inc., Brooklyn, N. Y., a corporation

Application February 21, 1955, Serial No. 489,414

1 Claim. (Cl. 155—171)

This invention relates to chairs having movable foot rests, such as the type of chairs used in beauty parlors and barber shops, and, more particularly, to a novel simplified operating means for extending and retracting a foot rest movably associated therewith.

The present invention is particularly adaptable to the type of foot rest which is hinged adjacent the front edge of the seat of a chair so as to be moved between a substantially vertical retracted position and a forwardly extended position in substantial alignment with the chair seat. The operating mechanisms hitherto provided for such foot rests have been unduly complicated and generally not operable by the occupant of the chair.

In accordance with the present invention, an operating means for a foot rest is provided comprising a toggle lever assembly including a pair of levers having adjacent ends thereof pivotally connected, one having its opposite end pivotally connected to the foot rest and the other having its opposite end secured to a rotatable shaft extending transversely of the chair near the forward edge of its base. This shaft projects beyond a side of the chair and has an operating handle secured thereto and extending upwardly for manipulation by the chair occupant.

In the retracted position of the toggle, the two levers extend in substantially the same general direction from their pivotal interconnection, at a very small acute angle to each other. By moving the operating handle, the shaft is rocked to swing the levers to an aligned position and slightly beyond a 180° relation, in which latter relation, means on the levers interengage to prevent further movement in the same direction, thus "locking" the toggle.

During this operation, the foot rest swings outwardly to its projected position, its furthest projection occurring in the 180° position of the toggle. As the levers move beyond this position to the toggle locking position, the foot rest is very slightly retracted.

To return the foot rest to the fully retracted position, the handle is moved in the reverse direction, moving the toggle through the 180° position and collapsing the toggle. The foot rest is first slightly extended and then swung down to its suspended position. Preferably, a spring type retaining catch, of the type used on cabinet doors, releasably holds the foot rest in the retracted position.

For an understanding of the invention principles, reference is made to the following description of a typical embodiment thereof as illustrated in the accompanying drawing. In the drawing:

Fig. 1 is a side elevation view of the chair, partly broken away, illustrating the foot rest extended;

Fig. 2 is a plan view of the base of a chair having a movable foot rest, the back and upper part of the chair being removed, and the foot rest partly broken away to illustrate the operating mechanism; and

Fig. 3 is a partial side elevation view of the chair, partly broken away, illustrating the foot rest retracted.

2

Fig. 4 is an enlarged top plan view of the means for yieldably retaining the foot rest in inoperative position.

Referring to the drawings, the invention is illustrated as applied to a chair 10, of the type used in beauty parlors, having a hingedly connected foot rest 20. Chair 10 is provided with a supporting base 11 serving as a support for the seat 12, back 13 and arms 14 of the chair. The forward edge of the chair is formed by a wall member 15 extending upwardly and outwardly from base 11.

Foot rest 20 is generally wedge shape in side elevation, including a base 21 and a cushioned upper surface 22. The rear edge of base 21 is hinged to the upper portion of wall 15 by hinges 16 which are preferably recessed in wall 15 and base 21 so that foot rest 20 may be substantially against wall 15 in its suspended retracted position shown in Fig. 3. Foot rest 20 is releasably retained in this position by a projecting button 23 on base 21 which snaps into spring 24 recessed in the lower portion of wall 15. Button 23 and spring 24 form a resilient and frictional retaining catch of the type used, for example, on the doors of kitchen cabinets.

Brackets 26 mounted on base 11 support a shaft 27 having its projecting outer end bent upwardly to form an operating handle 25. Collars 28 retain shaft 27 in position, and handle 25 is bowed outwardly to clear the adjacent chair arm 14.

Shaft 27 is connected to foot rest 20 by a toggle mechanism generally indicated at 30. Toggle 30 includes a relatively long lever 31 having a hub 32 secured to shaft 27 and extending through front wall 15 as, for example, through a slot 17 therein. The outer end of lever 31 is pivotally connected to one end of a shorter lever 33 having its outer end pivoted to a bracket 34 fixed to base 21 of foot rest 20.

The levers 31 and 33 are formed with means limiting their foot rest projecting movement to a position slightly more than 180°. In the embodiment illustrated, this means comprises a bent end 36 on lever 33 which engages the surface of a cut out portion 37 of lever 31.

To extend foot rest 20, handle 25 is moved forwardly rocking shaft 27. This swings lever 31 counterclockwise and foot rest 20 clockwise, the levers 31 and 33 moving toward a 180° or aligned relation. As forward movement of handle 25 is continued, the levers pass through the 180° position until bent end 36 engages surface 37. This "locks" the toggle with foot rest 20 extended, and any downward pressure on the foot rest increases the locking effect. To retract the foot rest, handle 25 is pulled backward, "breaking" the toggle, until button 23 slips into spring member 24. Foot rest 20 is now flush against front wall 15.

It should be noted that handle 25 may be mounted on either side of the chair by simply reversing shaft 26.

While a specific embodiment of the invention has been shown and described in detail to illustrate the application of the invention principles, it will be understood that the invention may be embodied otherwise without departing from such principles.

What is claimed is:

A chair comprising a body including a seat and a back wall, said seat having a front wall inclined downwardly and inwardly, a foot rest of rectangular form in plan and having one edge thereof pivoted to said seat adjacent the upper edge of said inclined front wall, means adjacent the opposite edge of said foot rest cooperating with spring means adjacent the lower edge of said front wall for normally retaining the foot rest in close parallel relation with said inclined front wall, a rock shaft extending transversely of and mounted on said chair adjacent the lower edge of said front wall, an operating

handle secured to one end of said rock shaft and projecting upwardly with the free end thereof accessible from said seat, a toggle lever assembly operatively connecting said rock shaft with said foot rest, comprising a bracket secured to the under side of said foot rest substantially centrally thereof, a relatively long lever having a hub on one end thereof secured to said rock shaft, a relatively short lever having one end thereof pivotally connected to said bracket, adjacent ends of said levers being pivotally connected, and means for locking said levers against pivotal movement in the operative elevated position of said foot rest comprising a transversely bent portion on said short lever extendable over and engaging the relatively long lever at a point intermediate said rock shaft and said pivotal connection of said levers and adjacent same.

5

10

15

References Cited in the file of this patent

UNITED STATES PATENTS

126,984	Rice	May 21, 1872
156,004	Wayland	Oct. 13, 1874
159,235	Whitney	Jan. 26, 1875
659,251	Nerad	Oct. 9, 1900
1,069,216	Woods	Aug. 5, 1913
1,262,006	Berry	Apr. 9, 1918
1,847,755	Fedor	Mar. 1, 1932
1,944,446	McGowen	Jan. 23, 1934
2,185,813	Johnson	Jan. 2, 1940
2,334,297	Talimer	Nov. 16, 1943
2,411,332	Orchard	Nov. 19, 1946
2,576,287	English	Nov. 27, 1951
2,746,519	Krikorian	May 22, 1956
2,777,506	Martin	Jan. 15, 1957