

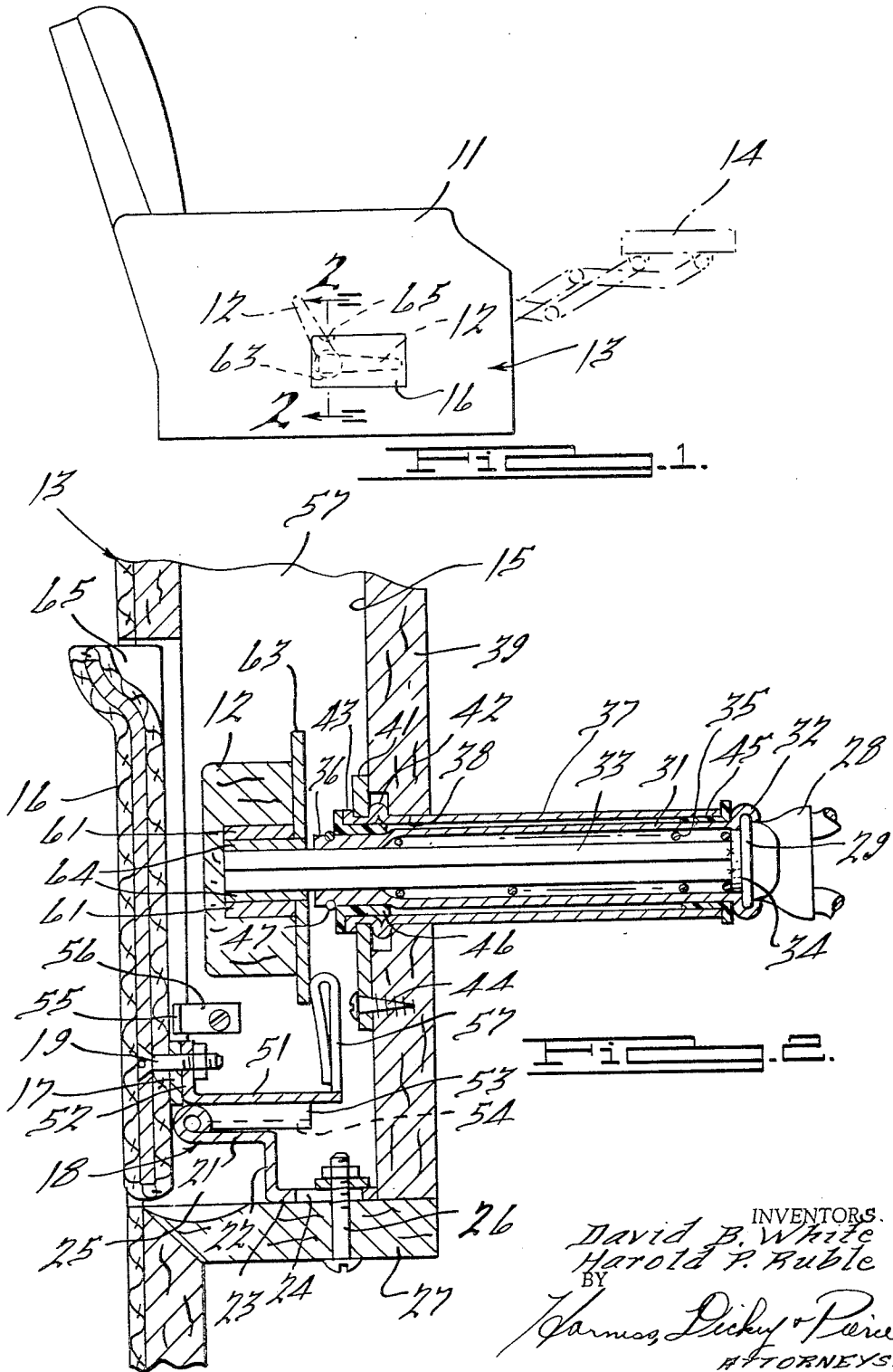
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RECESSED FURNITURE HANDLE

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2 Sheets-Sheet 1



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RECESSED FURNITURE HANDLE

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6 Claims

ABSTRACT OF THE DISCLOSURE

A recess in the side of a chair encloses an angularly adjustable handle for operating the chair footrest to extended and retracted positions. A hinged door encloses the recess and moves the handle outwardly against the bias of a spring to operable position.

BACKGROUND OF THE INVENTION

A chair having a handle at the side for manipulating a leg rest to extended position is shown in Patent No. 3,357,739 to E. M. Knabusch, issued Dec. 12, 1967, for "Lounge Chair." The present invention encloses the handle and hides it from view but makes it readily available when the footrest is to be manipulated.

CROSS REFERENCE TO A RELATED APPLICATION

A similar recessed handle is illustrated, described and claimed in the copending application to A. A. Biagi, Ser. No. 714,858, filed Mar. 21, 1968, for "Recessed Furniture Handle" which was assigned to the assignee of the present invention.

SUMMARY OF THE INVENTION

In the above mentioned application the actuatable shaft extends beyond the side of the chair to support the operating handle. In the present arrangement a length of square shaft is disposed within a sleeve and spring pressed within a recessed area at the side of the chair. A hinged door closes the recess having a deflected area at the top for the receipt of the finger of the operator to move the door outwardly. Engaging fingers on the door moves the handle outwardly against the tension of the spring in position to be grasped by the operator for turning the handle and moving the leg rest to extended position. The handle may be rotated back to its original position and upon the upper movement of the door toward closed position, the spring will move the handle into the recess and the door to closed position and retain it in the closed position. It is only when the leg rest is to be manipulated that the handle will appear at the side of the chair.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side view of a chair having a recess closed by a door of the present invention;

FIG. 2 is an enlarged broken sectional view of the chair illustrated in FIG. 1, with the door in closed position;

FIG. 3 is a view of the structure illustrated in FIG. 2, with the door shown in open position;

FIG. 4 is a reduced sectional view of the structure illustrated in FIG. 3, taken along the line 4—4 thereof, and

FIG. 5 is a broken sectional view of the structure illustrated in FIG. 4, taken on the line 5—5 thereof.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The chair 11, as illustrated in FIG. 1, is similar to that of the above mentioned patent, having a handle 12 at the

side 13 for manipulating a leg rest 14. The side 13 has a recess 15 for receiving the handle 12 and hiding it from view when a door 16 is in closed position. The door is secured to a wing 17 of a pair of spaced hinges 18 by bolts 19. The other wing 21 is extended downwardly at 22 and outwardly at 23 with the outwardly extending portion 23 having a pair of slots 24 therein. The wing 21 with its downward extension 22, provides a recess 25 for receiving the bottom edge of the door. Bolts 26 extend through the slots 24 and adjustably support the hinge on the bottom wall 27 of the recess.

An element 28 at the inner end of the operating structure to which the handle is secured, is similar to the drive portion 173, shown in FIG. 8 of the above patent, forming one-half of a universal joint. The drive portion and its connecting mechanism to the leg rest will not be described further as reference may be had thereto in said patent. The element 28 has an annular ridge 29 fixed to a tube 31 by the rolled-over end 32 thereof. A square shaft 33 is disposed within the tube having a washer 34 on the inner end engaged by a spring 35. The end of the tube 31 has a driving end 36 containing a square aperture which mates with the square section of the shaft 33.

The opposite end of the spring to that engaging the washer 34 abuts the inner portion of the driving end 36 for applying a bias to the shaft 33 inwardly of the tube 31. The tube 31 is supported in a fixed sleeve 37 which extends through an aperture 38 in the inner wall 39 of the recess 15. A supporting plate 41 is secured to the outer end of the tube between flanged sections 42 and 43 thereof. The plate 41 is secured to the inner face of the wall 39 by a plurality of screws 44. A bearing sleeve 45 is disposed between the tube 31 and sleeve 37 at the inner end and a bearing sleeve 46 is disposed between the outer end of said tube and sleeve retained in position by a spring ring 47.

A plate 51 extends between the hinges 18 having an upstanding flange 52 containing apertures through which the hinge bolts 19 extend for securing the plate in position. Each end of the plate is flanged downwardly at 53 and outwardly at 54 for engaging a finger 55 of stop elements 56 secured to the end walls 50 of the recess 15. The inner end of the plate 51 has a pair of spaced upstanding fingers 57 which are in a position to straddle the shaft 33.

The handle 12, as illustrated in FIGS. 2 and 5, is made of wood having an elongated slot 58 which is enlarged at 59 to receive clamping fingers 61 which are secured to the shaft 33 by a screw 62. A washer 63 has a square opening from which spaced angle elements 64 extend, being welded or otherwise secured thereto. The handle with the washer 63 disposed on the inner face receives the end of the shaft 33 to which it is secured when the screw 62 is tightened. In this position, as illustrated in FIGS. 2, 3 and 4, the spaced fingers 57 are in position to engage the inner face of the washer 63. As illustrated in FIG. 2, this engagement maintains the door 16 in closed position, with the trim material on the outer face thereof aligned with the trim material on the side 13 of the chair.

The door has an outwardly deflected portion 65 which is not noticeable but which aids in initiating the opening movement thereof. As the door is being opened the fingers 57, pressing against the washer 63, moves the shaft 33 and the handle 12 outwardly beyond the side of the chair, as illustrated in FIG. 3. In this position the fingers maintain the handle beyond the side of the chair in operable position. The inward pressure of the spring 35 acting through the shaft 33, the washer 63 and the fingers 57 is not effective to move the door to closed position. The handle will remain in this position until the door is raised to permit the spring to pull the handle into the recess and retain the door in closed position.

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We claim:

1. In a chair having a seating portion and opposite sides, a recess in one of said sides, a handle on a rotatable shaft for manipulating an element of the chair movable into and out of said recess, and a door hinged to the bottom of said recess and swingable outwardly and downwardly from a position closing said recess.

2. In a chair as recited in claim 1, wherein an element on the door engages the handle and moves it outwardly of the recess beyond the chair side when the door is open.

3. In a chair as recited in claim 2, wherein spring means urges the handle into the recess.

4. In a chair as recited in claim 3, wherein said handle engaging element retains the door in open position.

5. In a chair as recited in claim 3, wherein said element retains the door in closed position.

6. In a chair as recited in claim 2, wherein a leg rest is movable outwardly from the front of the seat, mech-

anism for moving said leg rest outwardly, and an axially movable shaft on said mechanism engaged by said handle permitting the handle to operate the mechanism, and spring means for retracting the shaft and handle.

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