April 20, 1954 H. H. EICHORST 2,675,862

ADJUSTABLE OTTOMAN

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Fig. 1

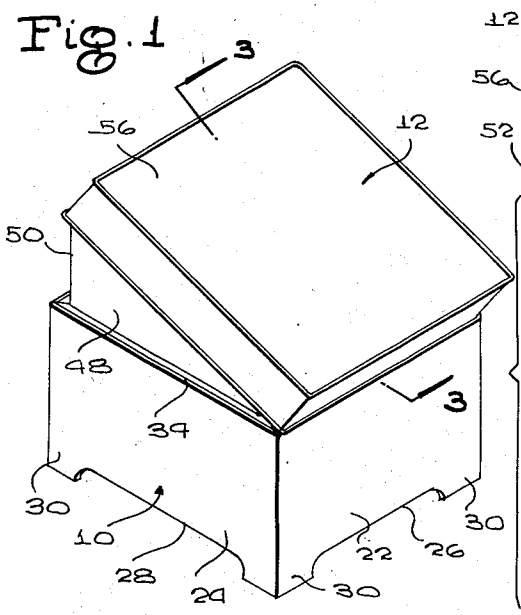


Fig. 2

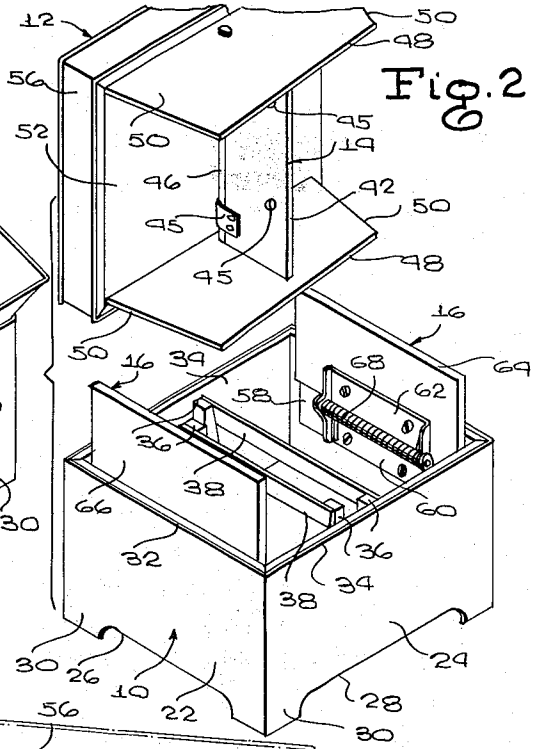
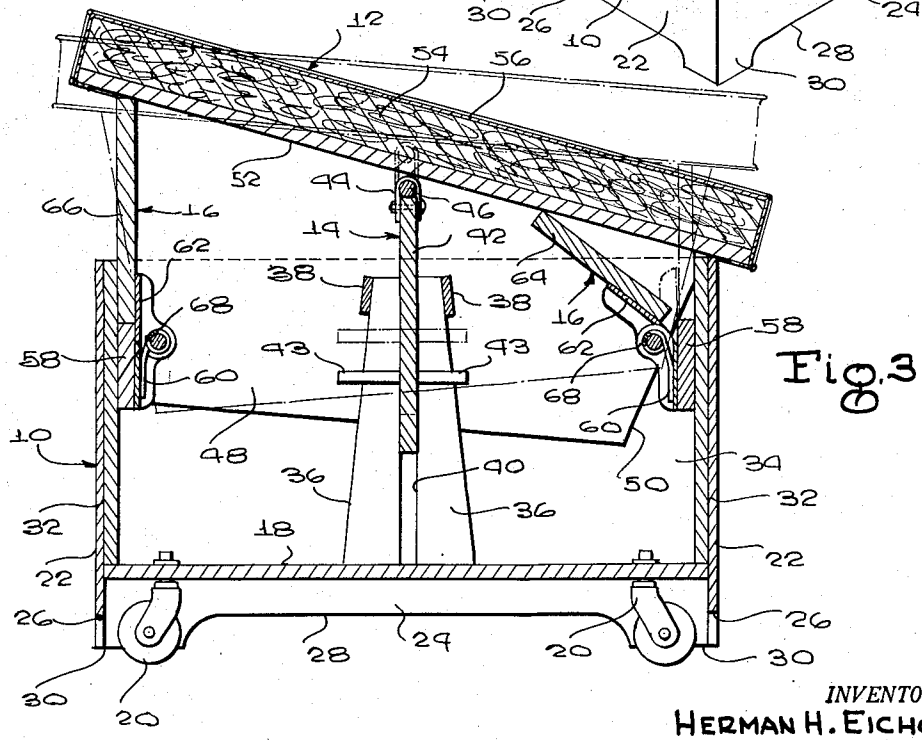


Fig. 3



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ADJUSTABLE OTTOMAN

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3 Claims. (Cl. 155—169)

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This invention relates to an adjustable ottoman, which is so designed as to permit the top or seat portion thereof to be adjusted to selected elevations relative to its associated base, with said seat portion being tiltable to selected positions of inclination, at each elevation.

An important object of the present invention is to provide an ottoman of the type stated which, though capable of manufacture at substantially the came cost as that involved in producing a conventional ottoman, will still have desirable features of adjustment not found in conventionally designed ottomans.

Another object of importance is to provide an ottoman as stated which, when adjusted in the manner described above, will still be attractive in appearance, the adjustment means being effectively concealed.

Yet another object is to provide an ottoman as described which will have a seat portion adjusting means which, though decidedly inexpensive and simple, will nevertheless permit the seat portion to be shifted to any one of a large number of positions of adjustment, according to the desires of the particular user.

Still another object is to provide an ottoman as described so designed as to permit the seat portion to be adjusted with a minimum amount of effort.

Still another object is to provide an ottoman in which the adjustment of the seat portion is such as to cause said ottoman to be usable, in cooperation with a conventional chair, in the formation of a "contour" chair or davenport.

Still another object is to provide an adjustable ottoman which will have an adjustment means so designed as to cause the seat portion to be effectively held in each position of adjustment thereof, said adjusting means being further characterized by its ruggedness and its trouble free operation.

Summarized briefly, the invention includes an adjustable ottoman provided with a rollable base. A guide plate is disposed transversely of the base, and is mounted on the base for vertical sliding movement. Hinged intermediate its ends to the upper edge of the guide plate, for tiltable adjustment about the axis of its hinged connection, is a seat portion overlying the base. End support plates are hingedly connected to the opposite ends of the base, and engage the opposite ends of the seat portion, to hold the seat portion in selected positions to which it is tiltably adjusted about the axis of its hinged connection to the guide plate. The end support plates are of different heights, so as to normally support

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the seat portion in a particularly desirable, inclined position. The end support plates, further, are associated with spring means that normally tend to urge the end support plates to vertical positions, said spring means being so designed as to cause the end support plates to exert pressure upwardly against the opposite ends of the seat portion, thereby to hold the seat portion in each position to which it is tiltably adjusted. The construction is further designed to permit the seat portion to be tiltably adjusted about the axis of its connection to the guide plate, at every elevation to which the guide plate and seat portion are bodily shifted relative to the base.

Other objects will appear from the following description, the claims appended thereto, and from the annexed drawing, in which like reference characters designate like parts throughout the several views, and wherein:

Figure 1 is a perspective view of an ottoman formed in accordance with the present invention, the seat portion being adjusted to one inclined position;

Figure 2 is a perspective view in which the seat portion has been removed from the base, a portion of the seat portion being broken away; and

Figure 3 is an enlarged longitudinal sectional view taken substantially on line 3—3 of Figure 1, the dotted lines indicating an alternative position of adjustment of the seat portion.

Referring to the drawings in detail, the reference numeral 10 has been applied generally to a base. The base 10, in the illustrated embodiment of the invention, is of rectangular, box-like formation, and is adapted to carry a seat portion designated generally at 12. The seat portion 12 is hingedly connected to an elevation adjustment means 14, the opposite ends of the seat portion being engaged by tiltable adjustment means 16. Each of these basic parts of the invention will be described in detail hereinafter.

Considering the construction of the base 10, said base includes a horizontal, rectangular bottom plate 18. Mounted upon the several corners of the bottom plate 18 are depending casters 20, which permit the ottoman to be rolled to any location at which it is to be used.

Fixedly connected in any suitable manner to opposite ends of the bottom plate 18 are outer end plates 22, which can be of any suitable material designed to provide an attractive exterior appearance for the base 10. The end plates 22 are fixedly connected, at their opposite side edges, to the ends of vertically disposed outer side plates 24.

The lower edges of the end plates 22 are recessed as at 26 (Figure 1), the outer side plates 24 being correspondingly recessed as at 28, thus to define, on the base 10, short, depending corner legs 30, that effectively conceal the casters 20, while still permitting the base to be rolled to selected locations at which it is to be used.

The outer end plates 22 are adhesively or otherwise fixedly secured to end walls 32 of the base, the outer side plates 24 being similarly secured to side walls 34.

It will be seen, from the construction which has so far been described, that the base 10 comprises a rectangular, box-like member formed open at its top, said base being rollably mounted and being exteriorly configured in any desired manner, so as to make the same attractive as an item of furniture.

Referring now to the means 14 for effecting vertical adjustment of the seat portion 12 to selected elevations relative to the base 10, said means includes upstanding pairs of guide bars 36 mounted within the base, medially between the opposite ends of the base. The respective pairs of guide bars are disposed adjacent the respective side walls 34, one guide bar of each pair being disposed in closely spaced relation to its adjacent side wall 34. The other guide bar of each pair is spaced outwardly from said adjacent side wall a slightly greater distance than the first guide bar of the pair (see Figure 2). A horizontally disposed tie bar 38 is secured at its opposite ends to those guide bars 36 that are spaced closely from the respective side walls 34, a second tie bar 38 being secured at its opposite ends to and being extended between the other guide bars. In this way, the several guide bars are mounted within the base 10 in such a manner as to provide a vertical guideway 40 disposed transversely of the base, in which guideway a vertically disposed guide plate 42 is slidably mounted.

Adjacent the opposite side edges of the guide plate 42, I provide lock pins 43, each lock pin 43 extending through an opening 45 (Figure 2) formed in the guide plate 42. The opposite ends of the respective lock pins 43 project outwardly substantial distances from their associated guide plate 42, and thus, if the guide plate 42 is shifted upwardly within the guideway 40 to a maximum extent, the ends of the lock pin 43 will engage the tie bars 38, thus to prevent the guide plate 42 from being pulled accidentally, together with its associated seat portion 12, from the base 10.

Secured to the top edge of the guide plate 42, at locations spaced transversely of the base 10, are bearing brackets 44 of inverted U shape, said bearing brackets receiving a pivot shaft 46. The pivot shaft 46 constitutes part of the seat portion 12, which seat portion will now be described in detail. The seat portion 12 includes, at opposite sides thereof, depending side shields 48, said shields 48 having the opposite ends of the pivot shaft 46 connected thereto. The shields 48 are progressively decreased in width from one end thereof to the other (see Figure 3), and have downwardly converging end edges 50, to provide clearance for the seat portion 12 when said seat portion is being tiltably adjusted.

The side shields 48 are fixedly connected along their top edges, to the opposite side edge portions of a flat, rectangular seat portion base plate 52, which base plate, in the preferred embodiment of the invention, is covered with a suitable thickness of padding 54, said padding in turn being covered by upholstering fabric 56.

As will be seen, the seat portion 12 can be considered as hingedly connected to the guide plate 42, for swinging movement relative to the guide plate about an axis extending transversely of the seat portion, medially between the opposite ends of the seat portion. Further, the seat portion and the guide plate 42 are adjustable bodily, upwardly or downwardly relative to the base 10, to selected elevations, with the seat portion being tiltably adjustable upon the guide plate 42 at each elevation to which said guide plate and seat portion are moved.

The means 16 for controlling the tiltable adjustment of the seat portion upon the guide plate 42 includes support blocks 58 fixedly connected to the inner surfaces of the respective end walls 32 of the base, in closely spaced relation to the top of the base. The support blocks 58 have secured thereto stationary hinge leaves 60, and pivotally connected to the stationary hinge leaves are movable hinge leaves 62 screwed or otherwise attached to swingable end support plates 64, 66 respectively. Referring to Figure 3, the end support plate 64 is formed to a lower height than the end support plate 66.

The end support plates are thus swingably mounted upon the opposite ends of the base 10, for adjustment to selected positions. In this connection, a spring 68 is coiled about the hinge pin associated with each end support plate, said spring being so tensioned as to normally urge its associated end support plate to a vertical position. However, against the restraining action of the springs 68, the end support plates can be forced inwardly to the position, for example, in which the end support plate 64 is disposed in Figure 3.

Considering now the operation of the device, the entire ottoman can, of course, be rolled to any location at which it is to be used. Thereafter, the seat cushion can be adjusted as desired, and in effecting the desired adjustment, the seat portion 12 is merely grasped and pulled upwardly relative to the base 10. When this is done, the guide plate 42 slides upwardly between the guide bars 36, thus to position the seat portion 12 at a selected elevation relative to the base.

At each elevation of the seat portion, said seat portion can be tilted about the axis defined by the pivot shaft 46, so as to be disposed either at a horizontal position or in selected positions of inclination. Thus, in Figure 3, the seat portion 12 is shown in full lines in one position to which it can be adjusted. In this position of the seat portion, the end support plate 66 is vertically disposed, and engages its associated end of the seat portion 12 in such a manner as to hold said associated end upwardly, at an elevation higher than the pivot shaft 46. This causes the other end of the seat portion to be correspondingly depressed, into engagement with the top edge of the base 10. The end support plate 64, to permit this adjustment, is swung inwardly to the position thereof shown in Figure 3.

If desired, the end support plate 64 might be swung upwardly, for example, to the dotted line position thereof shown in Figure 3, and this will cause the seat portion 12 to be still inclined, but at a more gradual angle.

Other adjustments might be made, and for example, the end support plate 66 can be swung inwardly to its maximum extent, while the end support plate 64 is vertically disposed. This will cause that end of the seat portion 12 shown at

the left in Figure 3 to be positioned against the top edge of the base **10**, with the other end of the seat portion being slightly elevated above the base **10**.

These adjustments can be effected in each position to which the seat portion **12** is elevated, as will be apparent.

The wide range of adjustments that are thus possible permit the ottoman to be used in association with a conventional chair, in such a manner as to cause said chair and ottoman to define, in effect, a "contour" chair, on which one may comfortably recline. In other words, the seat portion **12**, when disposed at a selected angle of inclination relative to the seat of said chair, will support the legs of the seated person at a comfortable height and angle of inclination.

Further reference is believed advisable, with respect to the functional characteristics of the ottoman. Ordinarily, the seat portion **12** would be freely swingable upon the pivot shaft **46**. However, the springs **68** cause the end support plate **64** to engage the opposite ends of the seat portion **12** in such a manner as to provide, in effect, a lock for the seat portion in each position to which the seat portion is swingably adjusted about its hinge axis. Even when the end support plates are swung inwardly, the springs **68** will cause said end support plates to exert an upward pressure against their associated ends of the seat portion **12**, and since this pressure is exerted against both ends of the seat portion, the seat portion will be held against free swinging movement about its hinge axis.

It is believed that the construction illustrated and described is possessed of certain important advantages, a main advantage residing in the wide range of adjustments possible. Another advantage may be readily noted by reference to Figure 1, in which it is seen that in each position to which the seat portion is adjusted, the adjusting means is wholly concealed, by the side shields **48** and end support plates **64**, **66**.

Still further, the construction illustrated and described is characterized by its relative simplicity, considering the benefits to be obtained therefrom, thus to permit the ottoman to be manufactured at a comparatively low cost.

It is believed apparent that the invention is not necessarily confined to the specific use or uses thereof described above, since it may be utilized for any purpose to which it may be suited. Nor is the invention to be necessarily limited to the specific construction illustrated and described, since such construction is only intended to be illustrative of the principles of operation and the means presently devised to carry out said principles, it being considered that the invention comprehends any minor change in construction that may be permitted within the scope of the appended claims.

What is claimed is:

1. An adjustable ottoman comprising a base; a vertically disposed guide plate extending transversely of the base intermediate the ends of the base, and mounted on the base for vertical sliding movement; a seat portion carried by said plate to be shifted vertically of the base therewith to selected elevations relative to the base, said seat portion being hinged intermediate its ends to the upper edge of the guide plate for swinging movement about an axis extending transversely of the seat portion; and a pair of end support plates for the seat portion respectively hinged to the ends of the base and engageable with the ends of the seat portion in selected positions to which the seat portion is tilted about the axis of its hinged connection to the guide plate, at each selected elevation of the seat portion.

2. An adjustable ottoman comprising a base; a vertically disposed guide plate extending transversely of the base intermediate the ends of the base, and mounted on the base for vertical sliding movement; a seat portion carried by said plate to be shifted vertically of the base therewith to selected elevations relative to the base, said seat portion being hinged intermediate its ends to the upper edge of the guide plate for swinging movement about an axis extending transversely of the seat portion; and a pair of end support plates for the seat portion respectively hinged to the ends of the base and engageable with the ends of the seat portion in selected positions to which the seat portion is tilted about the axis of its hinged connection to the guide plate, at each selected elevation of the seat portion, each of said end support plates having spring means associated therewith normally tending to urge the support plates to vertical positions, said end support plates being swingable out of said vertical positions against the action of the spring means associated therewith, for supporting the respective ends of the seat portion at selected heights while exerting upward pressure against said ends tending to hold the seat portion in each of its positions of tiltable adjustment.

3. An adjustable ottoman comprising a base; a vertically disposed guide plate extending transversely of the base intermediate the ends of the base, and mounted on the base for vertical sliding movement; a seat portion carried by said plate to be shifted vertically of the base therewith to selected elevations relative to the base, said seat portion being hinged intermediate its ends to the upper edge of the guide plate for swinging movement about an axis extending transversely of the seat portion; and a pair of end support plates for the seat portion respectively hinged to the ends of the base and engageable with the ends of the seat portion in selected positions to which the seat portion is tilted about the axis of its hinged connection to the guide plate, at each selected elevation of the seat portion, each of said end support plates having spring means associated therewith normally tending to urge the support plates to vertical positions, said end support plates being swingable out of said vertical positions against the action of the spring means associated therewith, for supporting the respective ends of the seat portion at selected heights while exerting upward pressure against said ends tending to hold the seat portion in each of its positions of tiltable adjustment, said end support plates being of different heights for supporting the seat portion in an inclined position in the vertical positions of the end support plates.

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