Dec. 8, 1964 M. LANGBAUM 3,160,381

LEG SUPPORTING CORNER PLATE

Original Filed March 22, 1962

FIG. 1

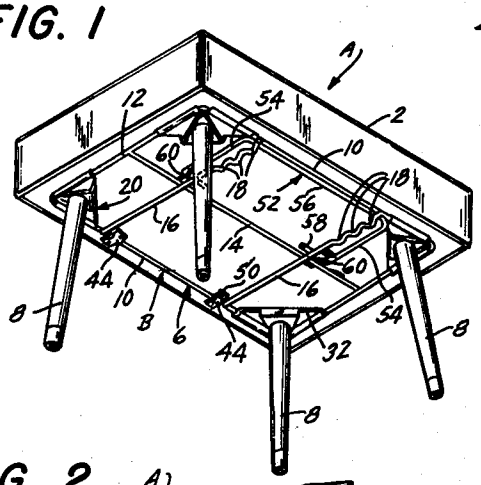


FIG. 4

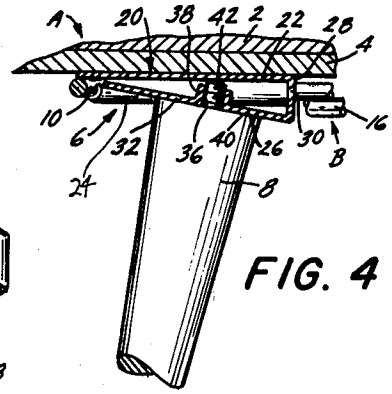


FIG. 2

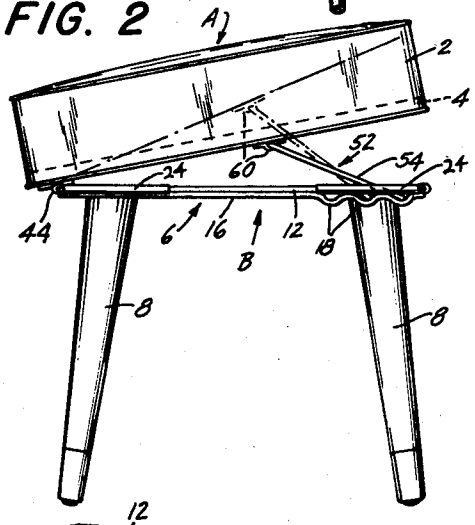


FIG. 5

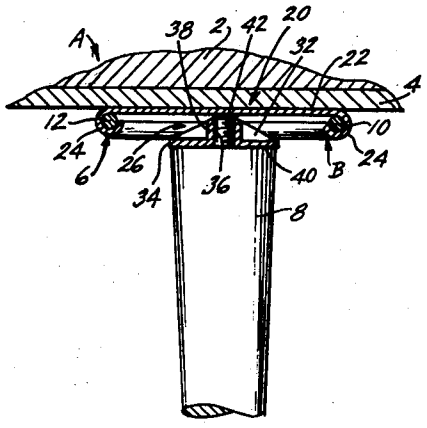
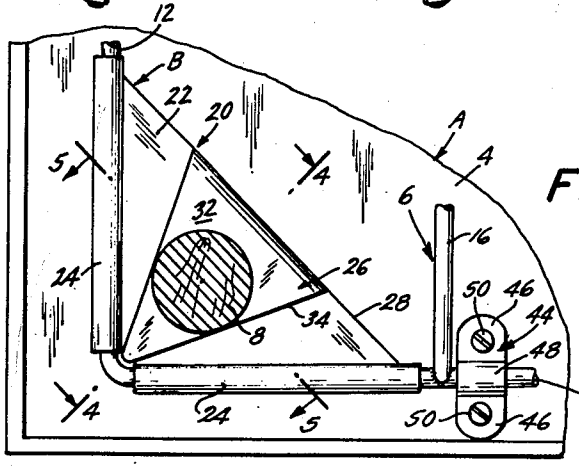


FIG. 3



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United States Patent Office 3,160,381
Patented Dec. 8, 1964

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3,160,381

LEG SUPPORTING CORNER PLATE

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Original application Mar. 22, 1962, Ser. No. 181,634, now Patent No. 3,143,375, dated Aug. 4, 1964. Divided and this application Dec. 13, 1963, Ser. No. 330,372
4 Claims. (Cl. 248—188)

This application is a division of my copending application Serial No. 181,634, filed March 22, 1962 and entitled "Adjustable Furniture Piece," now Patent No. 3,143,375.

The present invention relates to a leg-supporting corner plate particularly, but not exclusively, adapted for use in a furniture piece in the nature of an ottoman or footrest.

Footrests are a standard article of furniture. They are at present constructed and sold either as fixed footrests or as adjustable footrests. Fixed footrests comprise a self-supporting cushion assembly, usually rigidified by means of a frame, with legs attached to that frame for supporting the cushion assembly a desired distance above the floor and in a desired orientation relative to the floor. Adjustable footrests are similar, but have the frame so modified that the cushion assembly can be supported in different orientations relative to the floor, usually at different angles of inclination relative thereto. A person, whether the ultimate user or a middleman dealer, who purchases a fixed footrest and then decides that he prefers one with an adjustability feature must discard the fixed unit and purchase a new and adjustable unit. Often the cost involved in this is excessive, so that the person involved keeps the fixed unit even though he is dissatisfied therewith.

The prime object of the present invention is to produce a frame assembly which can be sold as such, and which can readily be attached, either in the home of the ultimate user or in a furniture showroom or the like, to a self-supporting cushion assembly which, together with its rigidifying frame, formerly constituted part of a fixed footrest, and convert that cushion assembly for adjustable positioning. In this way users of devices of this type who have fixed footrests and who want footrests with an adjustability feature can obtain that adjustability feature inexpensively, and without having to discard the major parts of the fixed footrests which they already have. Moreover, the construction in question is so designed as to be readily attachable to a preexisting rigidified cushion assembly in a simple manner such as may be carried out even by an unskilled individual, thus rendering the structure capable of use on a "do it yourself" basis.

In addition, the structure of the present invention is so designed as to take up but a minimal amount of space when in knocked-down condition, thereby being readily shippable and storable. When the structure is assembled and secured to a preexisting cushion assembly, however, it will reliably support that cushion and permit the position of the cushion to be varied in accordance with the desires of the user.

To the accomplishment of the above, and to such other objects as may hereinafter appear, the present invention relates to the structure of a leg-supporting corner plate, as defined in the appended claims and as described in this specification, taken together with the accompanying drawings, in which:

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FIG. 1 is a three-quarter perspective view of a cushion assembly with the supporting and adjusting structure of the present invention attached thereto, taken partially from beneath the assembly, the cushion being shown in its lowered position relative to the supporting frame;

FIG. 2 is a side elevational view of the assembly of FIG. 1, the cushion being shown in solid lines in an intermediate inclined position and being shown in phantom lines in a more steeply inclined position;

FIG. 3 is a fragmentary bottom plan view of one corner of the assembly of FIG. 1; and

FIGS. 4 and 5 are cross sectional views taken respectively along the lines 4—4 and 5—5 of FIG. 3.

In a preferred embodiment of the present invention which is specifically illustrated, the assembly comprises a cushion assembly generally designated A and a supporting subsassembly generally designated B. The cushion assembly A may take a wide variety of forms, but essentially comprises a cushion part 2 provided with a rigidifying part 4 so that the assembly A is a self-supporting, that rigidifying part 4 being here shown as a wooden or other structural base to which the cushion proper 2, including its covering sheets of fabric, leather, plastic or the like, is secured in any appropriate and conventional manner. The assembly A may have been a part of a non-adjustable footrest to which legs were attached but from which the legs have been removed. Indeed, as pointed out above, one of the prime objectives of the structure here disclosed and claimed is to convert such a cushion assembly A with fixed legs into a cushion assembly A which is supported on legs with respect to which its position may be adjusted.

The supporting subassembly B comprises a skeleton framework generally designated 6 independent of the cushion assembly A, to which legs 8 are adapted to be attached, preferably in a removable manner. It comprises connected narrow side and end members 10 and 12 respectively which may be formed of metallic rod material bent and/or secured to one another to define an outer periphery which is smaller in all lateral dimensions than the cushion assembly A. If desired, a longitudinally extending rigidifying rod 14 may be connected between the end members 12, as by being welded thereto. Extending between the side members 10, secured thereto in any appropriate manner, as by welding, and laterally spaced from one another, are an additional pair of structural members such as rods 16 which are provided, adjacent one of the side members 10, with a series of depressions 18, the portions of the rods 16 defining these depressions 18 constituting structural elements which are adapted to be engaged by a member subsequently to be described, for the purpose of permitting the orinetation of the cushion assembly A to be adjusted.

At the corners of the skeleton framework 6, and there secured to and extending between the side and end members 10 and 12, are corner plates generally designated 20 and formed of suitable sheet structural material, preferably metal. They comprise a body portion 22 triangularly shaped to fit into a corner of the frame and provided with side extensions 24 adapted to be secured to the side and end members 10 and 12 respectively, as by being bent therearound, the body portion 22 thus being located substantially in line with the upper surfaces of the members 10 and 12. A tongue generally designated 26 extends out from the hypotenuse edge 28 of the body portion 22 and is bent back over the body portion 22 in the

manner best shown in FIG. 4, a portion 30 extending down from the body 22 for an appreciable distance, and a portion 32 being bent back from the portion 30 over the body portion 22 and being inclined upwardly toward the body portion 22. The sides 34 of the portion 32 taper toward one another so that the portion 32 fits into the corner between the side and end members 10 and 12 and the plate portions 24 which extend around those members. The portion 32 is deformed upwardly adjacent its center to form an aperture 36 defined in part by flange 38, the axis of the aperture 36 being substantially perpendicular to the plane of the portion 32 and consequently being inclined upwardly and outwardly relative to the body portion 22.

The legs 8, of any desired size, shape and material, are provided at their upper ends 40 with an attaching means 42, here shown as a screw receivable in the opening 36 in the corner plate 20. The screw 42 can be secured in place in any appropriate manner; as here specifically disclosed a screw thread is formed on the inside of the aperture 36, so that each leg 8 can be screwed into place. When it is thus screwed or otherwise secured in place, its surface 40 rests against the lower surface of the tongue portion 32 and, because of the inclination of that portion 32, is retained in an outwardly inclined supporting position which adds stability to the overall assembly.

The skeleton framework 6, together with its legs 8, is adapted to be secured to the cushion assembly A by means of a pair of simple brackets generally designated 44 each having side parts 46 connected by a raised curved part 48. The side parts 46 are adapted to be secured to the underside of the cushion assembly A in any appropriate manner, as by means of screws 50 which enter the rigidifying part 4 of the cushion assembly A, while the central raised part 48 of the bracket 44 encompasses one of the side members 10 of the skeleton framework 6 and is rotatable thereover. In this way the cushion assembly A is secured to and mounted on the skeleton framework 6 so as to be pivotal about said side member 10. Said side member 10 thus encompassed by the brackets 44 is the one which is remote from the member-engageable structural elements 18 on the rods 16. In order to limit lateral movement of the cushion assembly A relative to the skeleton framework 6, the brackets 44 are positioned close to and on opposite sides of the rods 16 respectively.

The assembly is completed by an adjustment member generally designated 52, this member comprising a substantially U-shaped bracket formed of suitable structural material such as a metal rod and comprising arms 54 connected by cross-piece 56 at one end and having inwardly extending fingers 58 at the other end. The width of the bracket 52 (the length of its cross-piece 56) is somewhat greater than the distance between the rods 16 on the skeleton frame 6, and the cross-piece 56 is receivable in the depressions 18 formed in those rods 16. The adjustment member 52 is pivotally secured to the underside of the cushion assembly A by means of brackets 60 which are similar to the brackets 44, and which pivotally encompass the fingers 58 of the adjustment member 52.

The supporting assembly comprises the frame 6, the legs 8, the adjustment member 52, and the brackets 44 and 60. It may be manufactured independently of the cushion assembly A and, with the recited parts disassembled, may be packed in cartons taking up but a minimal amount of space, and may be thus shipped and stored ready for use. When the supporting assembly is to be used, as with a cushion assembly A which formerly comprised part of a fixed footrest and from which the previously existing legs or other supporting structure have been removed, the framework 6 is approximately positioned on the underside of the cushion assembly A and is then pivotally secured thereto by means of the brackets 44. This securement is easily accomplished merely by driving the screws 50 into the base or rigidifying part 4 of

the cushion assembly A. Either before or after this is done the adjustment member 52 is similarly secured to the underside of the cushion assembly A, again preferably by driving screws into the part 4 thereof so as to hold the brackets 60 in place. The legs 8 are screwed into the apertures 36, and the assembly is complete.

In this complete assembly the cushion assembly A is adjustably mounted on the skeleton framework 6. It may assume a position substantially parallel with the skeleton assembly 6, as shown in FIG. 1, in which position the adjustment member 52 lies flat against the underside of the cushion assembly A. If an elevated inclined position of the cushion assembly A is desired, it is pivoted about the side member 10 approximately to desired position, and the cross-piece 56 is inserted into the nearest pair of depressions 18 in the rods 16, the adjustment member 52 then retaining the cushion assembly A in adjusted position. The more remote the selected pair of depressions 18 may be from the side member 10, the more inclined will the cushion assembly be.

From the above it will be appreciated that all of the supporting parts for the cushion assembly A may be independently manufactured and assembled, that they may be attached to almost any pre-existing self-supporting cushion assembly A of an appropriate size, that such attachment is accomplished in an exceedingly simple yet effective manner, that the several parts of the supporting assembly provide both for support and adjustable positioning in an effective and reliable manner, and that the supporting assembly is therefore capable of being sold as a "do it yourself" kit of particular utility in converting a fixed footrest to an adjustable footrest with a minimum of trouble and expense.

While but a single embodiment of the present invention has been here specifically disclosed, it will be apparent that many variations may be made therein, all within the scope of the instant invention as defined in the following claims.

I claim:

1. A leg supporting corner plate adapted for use with a furniture frame to which said plate is to be attached comprising a body portion adapted to be secured to said furniture frame and a tongue integrally secured to said body portion and extending from an edge of said body portion downwardly and then reversely bent so that a part of said tongue overlies and is spaced downwardly from said body portion, an aperture being formed in said body-overlying tongue part which is adapted to receive a leg-attached securing element such as a bolt.

2. A leg-supporting corner plate adapted for use with a furniture frame to which said plate is too be attached comprising a body portion adapted to be secured to said furniture frame and a tongue integrally secured to said body portion and extending from an edge of said body portion downwardly and then reversely bent and upwardly so that a part of said tongue overlies and is spaced downwardly from said body portion, an aperture being formed in said body-overlying tongue part which is adapted to receive a leg-attached securing element such as a bolt.

3. A leg-supporting corner plate adapted for use with a furniture frame to which said plate is to be attached comprising a body portion substantially in the shape of a right triangle adapted to be secured to said furniture frame and a tongue integrally secured to said body portion and extending from the edge of said body portion corresponding to the hypotenuse of said right triangle downwardly and then reversely bent so that a part of said tongue overlies and is spaced downwardly from said body portion, an aperture being formed in said body-overlying tongue part which is adapted to receive a leg-attached securing element such as a bolt.

4. A leg-supporting corner plate adapted for use with a furnature frame to which said plate is to be attached comprising a body portion substantially in the shape of

a right triangle adapted to be secured to said furniture frame and a tongue integrally secured to said body portion and extending from the edge of said body portion corresponding to the hypotenuse of said right triangle downwardly and then reversely bent and upwardly so that a part of said tongue overlies and is spaced downwardly from said body portion, an aperture being formed in said body-overlying tongue part which is adapted to receive a leg-attached securing element such as a bolt.

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