

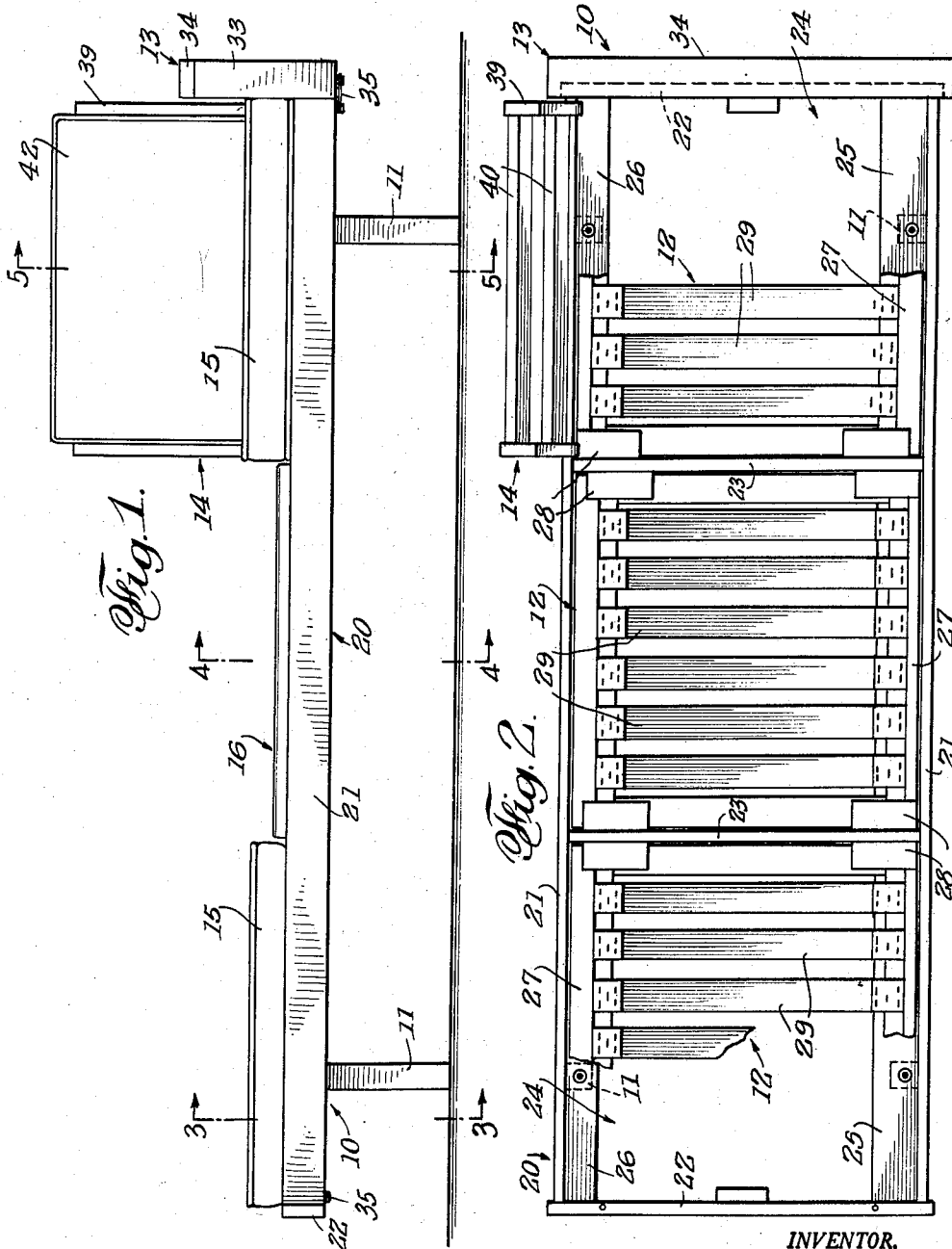
July 29, 1958

M. BORENSTEIN
CONVERTIBLE FURNITURE

2,845,112

Filed Jan. 10, 1957

3 Sheets-Sheet 1



INVENTOR.
MARTIN BORENSTEIN
BY C. H. Stratton

ATTORNEY

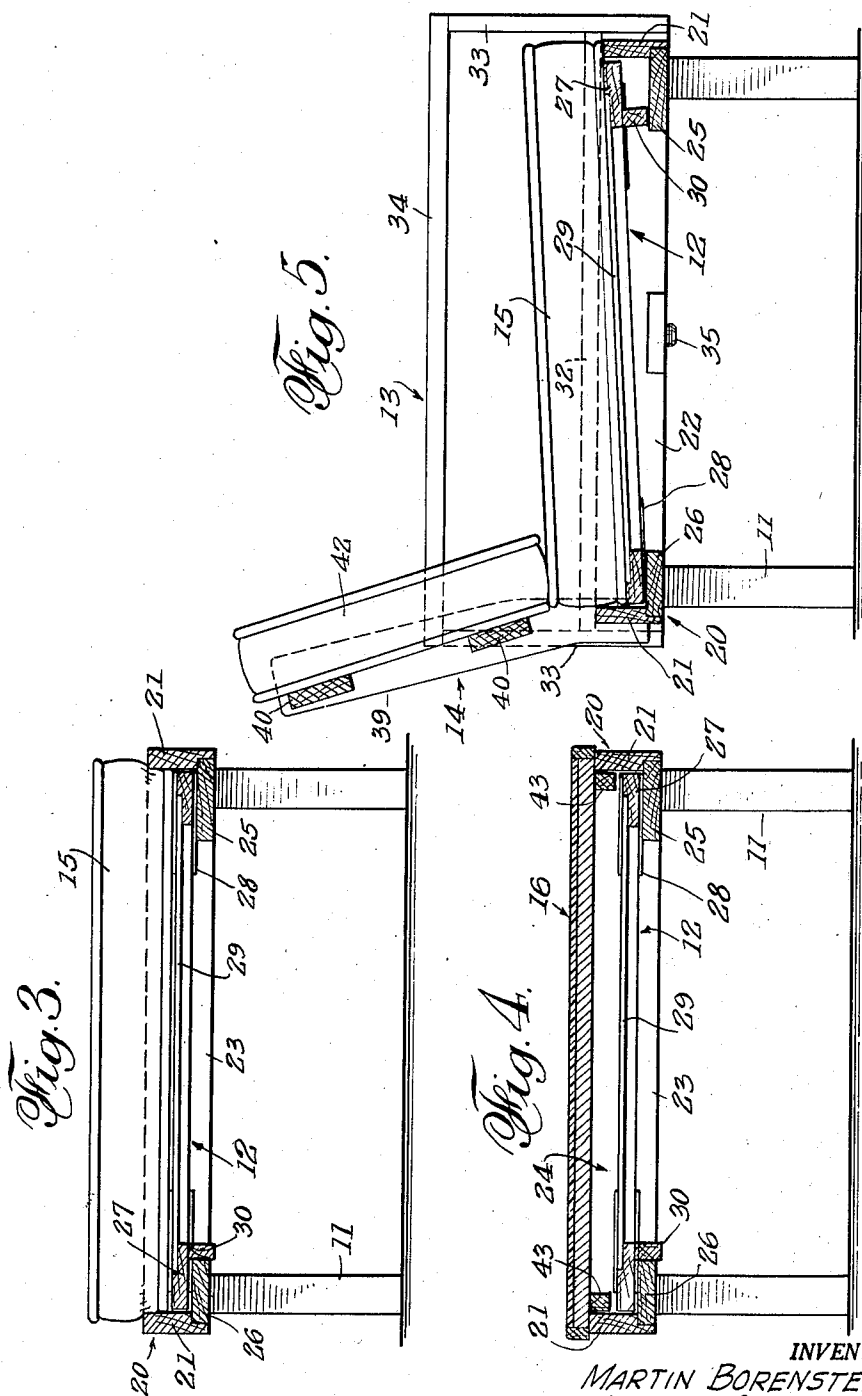
July 29, 1958

M. BORENSTEIN
CONVERTIBLE FURNITURE

2,845,112

Filed Jan. 10, 1957

3 Sheets-Sheet 2



INVENTOR.
MARTIN BORENSTEIN
BY *C. F. Stratton*
ATTORNEY

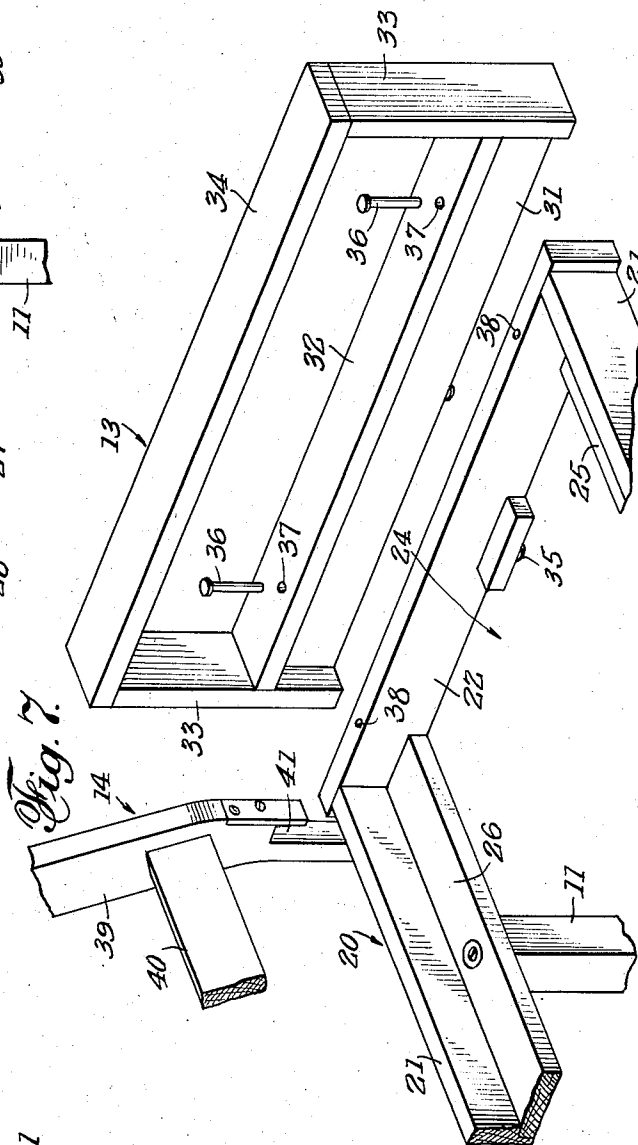
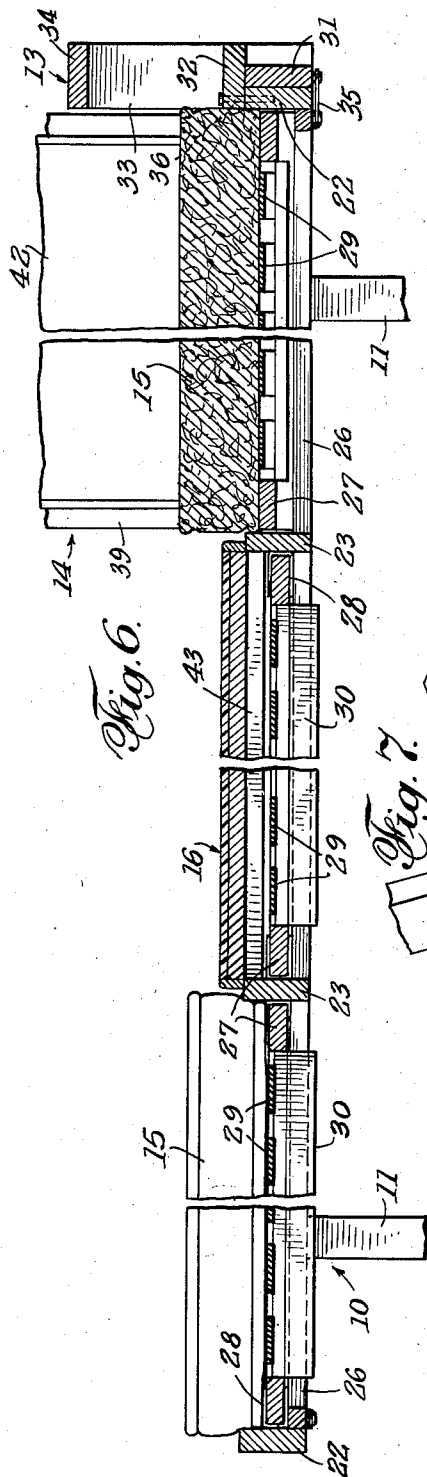
July 29, 1958

M. BORENSTEIN
CONVERTIBLE FURNITURE

2,845,112

Filed Jan. 10, 1957

3 Sheets-Sheet 3



INVENTOR.
MARTIN BORENSTEIN
BY *C. G. Stratton*
ATTORNEY

1

2,845,112

CONVERTIBLE FURNITURE

Martin Borenstein, Berkeley, Calif.

Application January 10, 1957, Serial No. 633,440

3 Claims. (Cl. 155—112)

This invention relates to convertible furniture, and has for an object to provide a basic unit that is adapted to separably and interchangeably interconnect with a complement of elements whereby, without even the simplest of tools, the same may be converted from one type of furniture to another.

Another object of the invention is to provide furniture, as above contemplated, that has a basic unit of multiple design to impart great flexibility in the selectiveness of the different types of furniture to which converted. Thus, although the present furniture structure may be set up as a multiple club chair, settee or love seat; as an elongated coffee or cocktail table, or as an elongated bench, the same may selectively be arranged to include two or more of such furniture items and substantially any desired arrangement, all without the aid of any tools whatever.

A more particular object of the invention is to provide a basic furniture unit and a complement of interchangeable backs, arms, seats, table tops, etc., said elements being adapted for mounting on said unit without the aid of tools.

The invention also has for its objects to provide such means that are positive in operation, convenient in use, easily installed in a working position and easily disconnected therefrom, economical of manufacture, relatively simple, and of general superiority and serviceability.

The invention also comprises novel details of construction and novel combinations and arrangements of parts, which will more fully appear in the course of the following description. However, the drawings merely show and the following description merely describes, one embodiment of the present invention, which is given by way of illustration or example only.

In the drawings, like reference characters designate similar parts in the several views.

Fig. 1 is a front elevational view of a convertible furniture structure according to the present invention and showing one manner of assembly of the various components thereof.

Fig. 2 is a partly broken plan view thereof with some of the components removed to show inner construction.

Figs. 3, 4 and 5 are enlarged cross-sectional views as taken on the respective lines 3—3, 4—4 and 5—5 of Fig. 1.

Fig. 6 is a broken longitudinal sectional view of said structure.

Fig. 7 is a broken and exploded perspective view showing details of construction.

The furniture structure of the present invention comprises, generally, a basic unit 10 that constitutes a base and is preferably spaced above the floor by suitable legs or the like 11, a set of similar support elements 12 provided in or on said unit 10, edge- or margin-engaging members or elements 13 and 14 separably mounted on said unit and adapted to have more than one selected position thereon, seat cushions 15 replaceably mounted

2

on said support elements 12 and confined, in part, by elements of the basic unit 10 and one or more of the members 13 and 14, and one or more table tops 16 replaceably fitted to the basic unit 10.

The basic unit 10 comprises a preferably rectangular frame 20 that is formed of similar front and back longitudinal board members 21, shorter end board members 22, and one or more intermediate or partition board members 23. In this manner, frame 20 is divided into substantially similar framed openings 24. By using two board members 24, three framed openings are provided, as shown; use of one member will provide two framed openings; and use of three members 24 will provide four such openings. Thus, the frame 20 is a multiple one, having two, three, four or even more framed openings, as desired.

In each opening 24 and along the inside of the front board member 21, there is provided a ledge member 25, the same, as shown in Figs. 3, 4 and 5, being half-lapped with the lower edge of member 21. A similar but narrower ledge member 26 is provided on the inside of the back board member. The legs 11 may, as shown, be affixed to members 25 and 26, two at the front and two at the back, for frames having three or fewer openings 24, and three each at the front and back for frames having four or more openings.

The support elements 12 each comprise a flat frame 27 of such rectangular size as to loosely fit into an opening 24, said frame being reinforced by metal channels 28 because the same are under stress. The stress is produced by a set of elastic webs 29 that span between the front and back parts of each frame, the same being under considerable stretch and, therefore, constituting resilient support means spanning each said opening. The mentioned frame 27, along one end, is provided with a cleat 30 or the like, the same being so positioned as to reside inward of ledge member 26 when an element 12 is placed in an opening 24 with said cleat at the back, and to rest upon ledge member 25 when such element is reversed front to back. In the first position, the support element 12 has a flat low position, as shown best in Figs. 3 and 4 and, therefore, the frame members surrounding the same define a rectangular seat thereabove. In the second position, the support element 12 has a tilted position sloping downwardly toward the back, as shown best in Fig. 5, and on the rear part of the basic unit forms a seat above said element 12.

It will be understood that the element 12, in any of the frame openings 24, may be placed in the flat or rearwardly sloped position above described.

The margin-engaging member 13 is shown as an arm rest and the same may be separably mounted on one or the other or both end board members 22. As seen best in Figs. 5, 6 and 7, the element 13 is formed with a side board 31 that has endwise engagement against the outer face of a board member 22, with an upper board 32 that rests upon the top edge of board member 22, and such additional frame members 33 as may be needed to connect boards 31 and 32 to an arm rest board 34. Since the boards 31 and 32 cooperate to form a nest or seat in which board 22 is received, said member 13 constitutes a side arm rest extension on the frame 10 when the same is fastened in place.

The fastening means here provided comprises a swing latch or hook 35 that separably connects the lower edges of members 22 and 31, and a pair of headed pins 36 that pass through holes 37 in board member 32 and into seats 38 in the top edge of board 22. With the latch released, the arm rest member 13 may be lifted from the frame 20. If desired, the pins 36 may be removed from their holes 37 and placed in seats 38, the heads thereof constituting decorations.

3

The margin-engaging member 14 is shown as a back rest and the same may be separably mounted on the back board member 21 between partition members 23 or between one said member and the adjacent end member 22, as shown in Fig. 2. Said back rest element is shown as comprising a pair of upright members 39 connected by transverse boards 40, the lower ends of the member being provided with hooks 41 adapted for hooking engagement over said back board member 21. Said back board may be simply lifted for removal from the basic unit and, when connected in place, will amply support rearward pressure or the reclining weight of the back of a person.

The present structure includes one, two, or more seat cushions 15 that are of rectangular shape and of a size to snugly fit a frame opening 14, as shown in Figs. 3 and 6. With support frame 12 in its low, flat position, the entire lower portion of a cushion 15 may be squeezed, as shown, into a frame opening to form a padded bench which is itself compressible and partakes also of the resiliency of the support element 12 therebeneath. Thus, all four board members surrounding an opening 24 hold a cushion 15 against accidental displacement, yet said cushion may be easily lifted from the seat opening and, if desired, placed in another seat opening of unit 10.

With support element 12 in sloping position, the rear portion of the cushion prevents such displacement by being confined by the back and rear portions of end or partition boards.

The back cushions 42 may be provided to pad the back rest 14. The same may be designed to fit between the upright members 39 of said back rest and against the transverse boards 40. One back cushion may be provided for each back board 14.

It will be seen from the foregoing that either or both margin-engaging members 13 and 14 are subject to the resilient pressure thereagainst by portions of cushion 15, thereby minimizing play between the basic unit and said members 13 and 14. Such interengagement can be seen at the right end of Fig. 6 and at the left portion of Fig. 5.

The table top 16 is shown as rectangular to span across an opening 24, as may be seen in Figs. 4 and 6. Front to back, the same may be wider than the front-to-back dimension of the frame, as in Fig. 4, and, as shown in Fig. 6, the top may have a length equal to the length of an opening 24 plus the thickness of a board 22 or 23. Cleats 43 are provided on the under side of said table top, the same centering the top above opening 24. Thus, the end board members 22 or the partition board members 23, as the case may be, are but half-lapped by the table top, thereby enabling placing in the frame 20 of two or three such tops, the continuity of which is broken only by a seam or seams where they meet.

From the foregoing, it will be seen that a frame 20 with two or more openings 24 may be fitted with margin-engaging members and/or opening-spanning members in a great many different ways to produce an article of furniture that has many variable convertible forms. Thus,

4

in a quick and easy operation, without tools, the basic unit may interchangeably receive such converting members.

While the foregoing has illustrated and described what is now contemplated to be the best mode of carrying out my invention, the construction is, of course, subject to modification without departing from the spirit and scope of the invention. It is, therefore, not desired to restrict the invention to the particular form of construction illustrated and described, but to cover all modifications that may fall within the scope of the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. Convertible furniture comprising a rectangular frame having supporting legs thereon and formed with side, front and back members, an arm rest on a side member, said arm rest having depending portions nesting with complementary portions on the side member with means for securing the arm rest and the side member releasably together, the front and back members each having an upper edge and an inwardly extending ledge thereon, a removable support element resting within the frame and upon the ledges, one of the ledges being wider than the other, the support element having a depending cleat adjacent but spaced from one edge, the cleat being adapted to seat on the wider ledge, and the other side of the support element being adapted to seat on the narrow ledge when the support element is in one position to support the element in an inclined position, but when the support element is reversed the edges of the support element having its edges resting on the ledges to support the support element in a flat position.

2. The invention as defined in claim 1 in which a table forming plate is removably positioned with its edges resting on the tops of the front, side and back members.

3. Convertible furniture comprising a rectangular frame having supporting legs and front, back and side members, an arm rest on a side member, said arm rest having depending portions nesting with complementary portions on the side member with means for releasably securing the arm rest and the side member together, the said front, back and side members having upstanding edges, a removable back rest having side posts recessed at their lower ends to form notches to fit over the edge of the back member, the lower end of each post having a thin metallic strip secured thereon and extending so as to form one side of the notches for removably securing the back rest, the posts being inclined backward to provide an inclined back rest.

References Cited in the file of this patent

UNITED STATES PATENTS

816,084	Flindall	Mar. 27, 1906
2,050,675	Tanner	Aug. 11, 1936
2,716,775	Kenimer	Sept. 6, 1955

FOREIGN PATENTS

159,370	Switzerland	Mar. 16, 1933
---------	-------------	---------------