Jan. 8, 1946. M. NAGELE 2,392,688

BED DAVENPORT

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FIG. 1

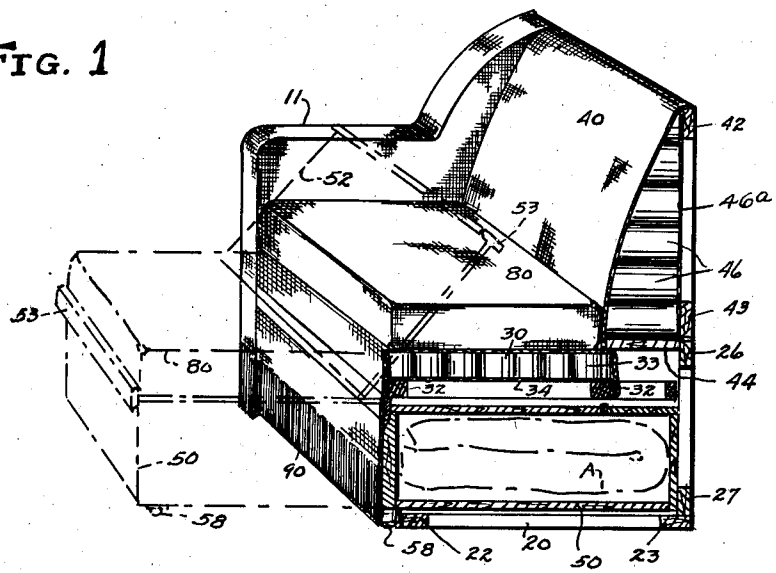
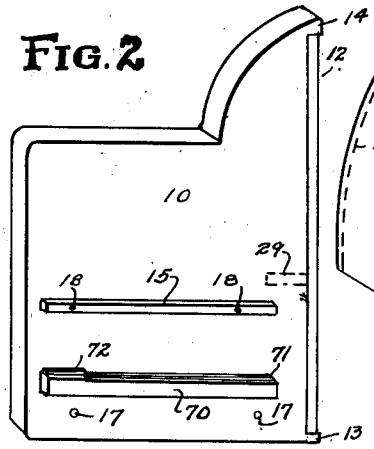


FIG. 2



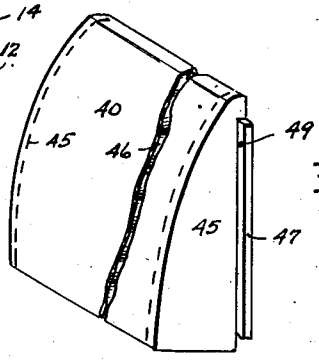
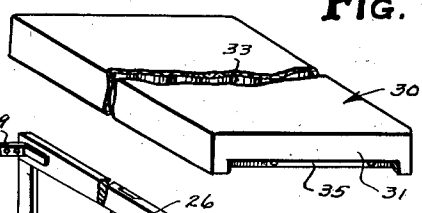


FIG. 3

FIG. 4



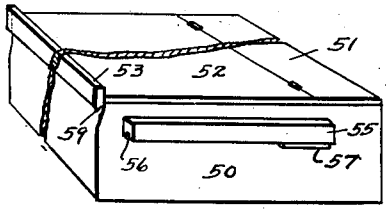
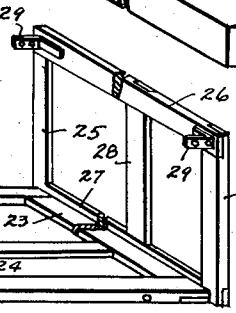


FIG. 5



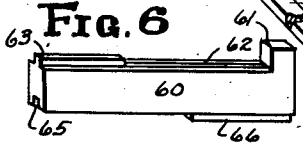


FIG. 6



FIG. 7

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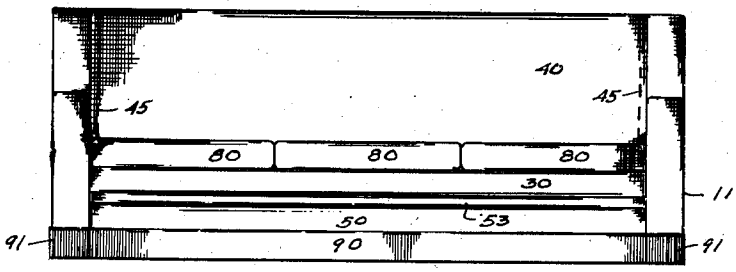


FIG. 8

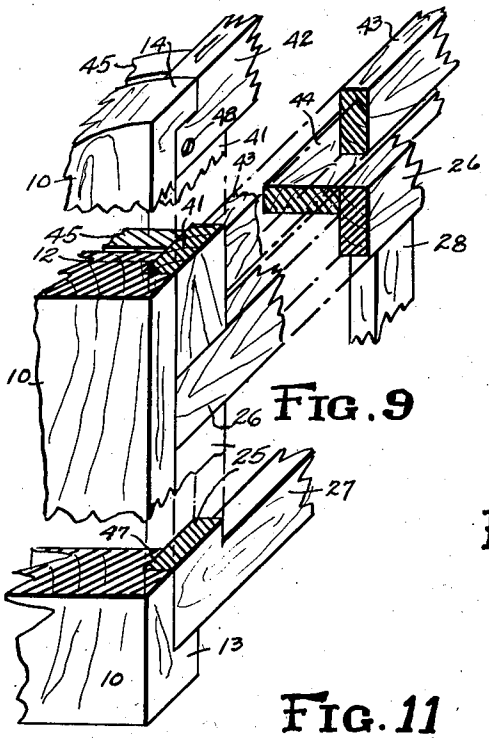


FIG. 9

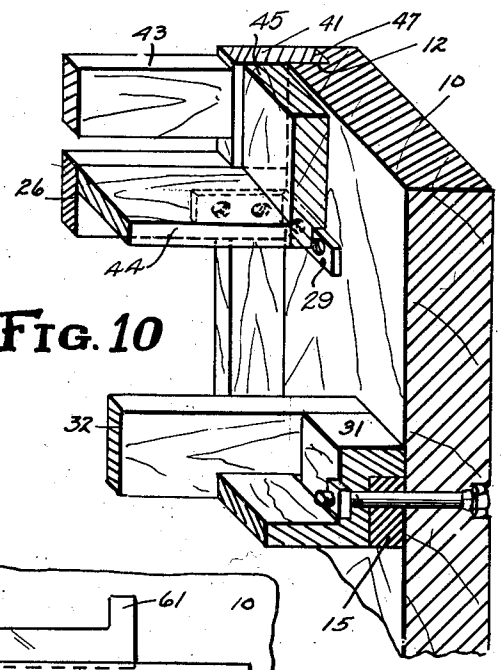


FIG. 10

FIG. 11

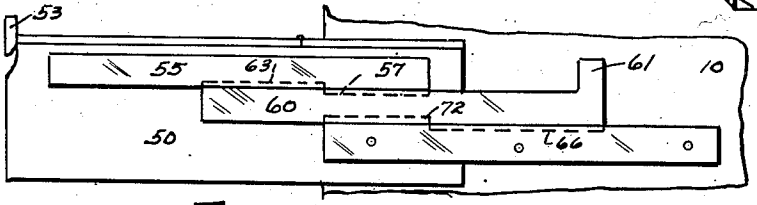
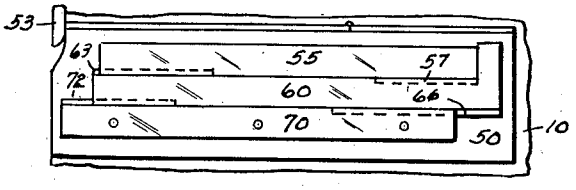


FIG. 12



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Application August 19, 1943, Serial No. 499,209

5 Claims. (Cl. 5—51)

This invention relates to a davenport which may be readily converted into a full-sized bed. This piece of furniture is of the type having a seat composed of a fixed lower portion and a movable surmounting portion and a drawer beneath the fixed portion which is adapted to be drawn out to the front and in this position may support the movable upper seat with its top substantially in horizontal registration with the top of the lower seat and thus adapted to constitute a full-sized bed or support a full-sized mattress.

Among the objects of the invention are the provision of a davenport of very attractive appearance for daytime use but adapted to be very easily converted into a full-sized bed.

Another object is a provide such construction in the form which while comparatively light in weight shall be very sturdy and may be readily moved from place to place and whenever desired converted from daytime to nighttime use with a minimum of labor.

Another object is to provide such a convertible davenport in which the parts are so designed and secured together that the whole piece of furniture may be readily shipped in a knocked-down form and easily assembled for use.

The invention comprises the combination of interfitting parts peculiarly arranged to accomplish the above-mentioned objects, as will be apparent from the following description of a preferred embodiment illustrated in the drawings.

In the drawings, Fig. 1 is a sectional perspective of my convertible davenport, the full lines showing the daytime condition, while the broken lines indicate the action in converting the davenport into a bed; Fig. 2 is a perspective of one of the end frame members of the davenport, looking at the inner face thereof; Fig. 3 is a perspective of the back of the davenport intermediately broken away; Fig. 4 is a perspective intermediately broken away of the support for the seats; Fig. 5 is a perspective intermediately broken away of the drawer; Fig. 6 is a perspective of one of the extension bars controlling the sliding of the drawer; Fig. 7 is a perspective partly broken away of a combined bottom-and-rear brace; Fig. 8 is a front elevation on a smaller scale of the complete davenport closed for daytime use; Fig. 9 is a fragmentary perspective view partly sectional of the frame work of the davenport looking from the outside toward one of the rear corners; Fig. 10 is a fragmentary perspective looking at the inner side of the same corner; Figs. 11 and 12 are diagrammatic views in elevation illustrating the drawer slide in extended and collapsed condition, respectively.

It is characteristic of my davenport that the entire weight of the structure when closed is carried by two vertical end frame members of sturdy but light construction, which rest on the floor (either directly or through intermediate casters) and support the seat and back and the drawer except when the latter is fully extended for nighttime use. In the latter case, the front edge of the drawer maintains its own support on the floor through suitable casters. The end frame members, designated **10**, are of the form indicated in Fig. 2, which shows the member at the left hand end as one faces the davenport. This member comprises a primarily flat vertical wooden plate-like member made of boards suitably secured together into a solid unit, which is of sufficient stiffness and strength so that two end members can carry the entire load. When the upholstery is applied to the end member, suitable filling strips are applied to the exterior, to form a support for the upholstery, and thus presenting comparatively wide end arms for the davenport without interfering with the lightness thereof.

Suitable upholstery covers the outer face, the top and front edges, and the upper portion of the inner face. Fig. 8 indicates at **10** the upright board structure constituting the frame, while the full width of the upholstered end is indicated at **11** in that figure and also in Fig. 1.

The end frame member **10** is formed with a vertical rabbet **12** along its rear edge leading from a short distance above the bottom to a short distance below the top, as shown in Fig. 2. On the inner vertical face of this frame member is a horizontal cleat **15** for carrying the seat support and another horizontal cleat **70** of special formation to form a portion of the drawer supporting slide as hereinafter explained. Below the drawer cleat **70** are provided a pair of bolt holes **17** for use in carrying the bottom and rear brace about to be described.

Referring now to Fig. 7, I have there shown an L-shaped brace **20** comprising a horizontal frame member and a vertical frame member **25** secured to each other at their rear and bottom edges respectively. Each frame member is composed of four boundary strips with intermediate slats. Thus, there are end strips **21**, front and rear strips **22** and **23**, and intermediate slats **24** for the horizontal portion, and end strips **25**, top and bottom strips **26**, **27**, and cross slats **28** for the vertical portion. Secured to the inner face of the topmost cross member **26** are a pair of angle brackets **29**, while extending through the end

members 21 on the horizontal panel are bolt openings 21a.

In assembling the construction, the bottom and rear brace 20 is placed between the two upright end members 10 and bolts are passed through the registering openings 17 and 21a of the end members and brace and nuts are tightened on these bolts, or the bolts may be screwed into fixed nuts. When thus positioned, the endmost portions of the upright member 25 and the bottom rail 27 of the brace 20, which project beyond the bottom panel, extend into the lower portion of the rabbet 12 in the end members and rest on the portion 13 of the end members below the rabbet. The forwardly projecting arms of the angle brackets 29 lie along the inner face of the end members, as indicated by the broken lines designated 29, in Fig. 2, and are secured thereto by wood screws.

Fig. 4 shows the seat support 30. This is a rectangular structure preferably carrying springs and covered by suitable upholstery. This structure has a pair of end members 31 and side strips 32 and these carry internally the springs 33 supported by canvass 34. Each end member 31 of the support is formed with a rabbet 35 in its lower edge which terminates short of the front and rear end of the frame, and is of a length only slightly greater than that of the cleat 15 on the end member 10.

Accordingly, when the end members are secured by the L-shaped brace of Fig. 7, the seat support may be put in place on the cleats 15 and will be held thereby against shifting back and forth as the cleats will seat within the rabbet. The seat support, however, preferably is bolted in place by bolts extending through openings 18 in the end portion of the cleats 15 and through the end members 31 of the frame back of the rabbets 35.

The back member of the davenport is shown at 40 in Figs. 1, 3, and 8, and portions thereof appear also in Figs. 9 and 10.

This back member comprises an open frame of end uprights 41 and top and bottom horizontals 42 and 43, suitable intermediate slats not shown, and a bottom board 44 projecting forwardly from the lower rail 43. This frame carries forwardly projecting end plates 45, Fig. 3 to which the bottom board 44 is secured, and suitable internal springs 46 between the rear canvass 46a and the front cover. A peculiarity of the frame is that the end members 41 extend slightly beyond the end walls 45 of the back to provide the ledge shown at 47 in Fig. 3. This ledge terminates a short distance below the top of the upholstered back and above the bottom thereof.

In mounting the back, it is put in place from the rear, the lower end portion being first placed between the end uprights with the bottom board of such lower end extending down in front of the top rail 26 of the back brace. Then the upper end of the back is swung forwardly until the ledge 47 is seated within the rabbet 12 of the end members. The top rail 42 of the back is notched at its ends flush with the end members 45, so that space is provided to receive the unrabbeted portion 14 of the end member at the very top. An opening is made through the ledge 47 and a wood screw 48 (Fig. 9) passes through such opening into the end member 10.

It will be seen from the description given that the brace at the bottom and rear, together with the horizontal seat support, effectively binds together the two uprights and that the rear portion of the back member rests on the upper rail of the rear brace and the back member extends downwardly in front of that rail so that it only needs the two wood screws 48 to hold the back securely in place. Thus, the entire frame construction of the davenport is assembled by inserting and tightening the bolts to hold the brace and the seat support and the screws to attach the angle brackets and upper portion of the back.

The drawer designated 50, is shown in perspective in Fig. 5 and in closed position in the davenport in Fig. 1, while the open position is indicated in broken lines in Fig. 1. This drawer is a horizontal box having front and rear walls and end members and a narrow permanent top portion 51 to the forward edge of which is hinged a lid 52. A rail 53 is secured to the forward edge of this lid and extends slightly above it and below it for a purpose explained later.

On the ends of the drawer, I provide cleats 55 formed with grooves 56 in their lower edges, which extend for most of the distance but terminate by downwardly extending tongues 57. When the drawer is mounted the cleat 55 rests on an intermediate rail 60 in front of a lug 61 thereon, with the tongue 57 occupying a groove 62 in an intermediate slide 60. Figs. 6, 11 and 12. The tongue 57 stands behind a tongue 63 of the slide 60, the latter tongue extending upwardly into the groove 56 of the cleat 55. Similarly, the intermediate slide 60 is formed with a groove 65 on its lower face terminated by a downwardly extending tongue 66. This tongue occupies a groove 71 (Fig. 2) in the cleat 70 secured to the inner face of the upright 10, this groove being terminated by an upwardly extending tongue 72 entering the groove 65.

When the drawer 50 is in place, as indicated in Fig. 12, the slide 60 is well over the stationary cleat 70, while the cleat 55 on the drawer is entirely over the slide 60. Now when the drawer is pulled out the cleat 55 slides on the slide 60 until the tongue 57 comes into engagement with the tongue 63, after which the cleat 55 and slide 60 move outwardly as a unit until the tongue 66 abuts the tongue 72 which limits the outward movement, leaving the drawer fully withdrawn, as indicated in Fig. 11. In this position, the weight of the outer edge of the drawer may be supported by casters 58, Fig. 1, resting on the floor.

The front rail 53 of the drawer top heretofore mentioned extends downwardly beneath the top and is beveled on its underside upwardly from the front edge, as shown at 59, Fig. 5, and the front of the drawer is recessed below the bevel so that a convenient finger hold is provided to enable one to readily pull the drawer outwardly in its extended position. The rail thus acts as a convenient drawer pull.

The rail 53 also extends upwardly above the top plane of the lid 52, as shown in Fig. 5, and this furnishes a ledge to retain the upper cushions in position on the lid when the drawer is drawn out to convert the davenport into a bed.

In its normal use as a davenport, the lower seat 30 is surmounted by an upper seat which may readily comprise three independent cushions 80, shown in Fig. 8. When the drawer has been drawn out these cushions are simply transferred from their normal position to the lid of the drawer, where they are held behind the upwardly projecting portion of the drawer rail 53 with their top surfaces substantially in alignment with the top of the lower seat 30. This

makes a full-sized bed, and may, if desired, form a support for a continuous mattress to cover the cushions and lower seat.

The drawer furnishes convenient space for carrying a full-sized mattress doubled on itself, as indicated in A in Fig. 1. When the drawer is drawn out to convert the davenport, the hinges between the lid **52** and the permanent top **51** come a short distance in front of the lower seat frame, so that the lid may be tipped up beyond the vertical against the top cushions (as indicated by broken lines **52**, **53** in Fig. 1). The drawer thus naturally remains open and allows the ready removal of the mattress A. Then the lid is turned down into horizontal position and the upper cushions **80** brought down onto the top of the lid into position shown at **80** in broken lines in Fig. 1, where they are retained by the upwardly extending ledge provided by the rail **53**.

It will be understood that the exterior of the end frames at their front and top edges, and the inner face down at least to the lower seat, are suitably upholstered; the front face of the back is likewise upholstered down to the lower seat; the front of the lower seat is upholstered, and also the front of the drawer is provided with suitable upholstering matching with the rest of the davenport. In Fig. 3, I have indicated, for instance, vertical fringing **90** on the front of the drawer matching with vertical fringing **91** on the lower portions of the end members, and such fringing may well be continued across the lower portion of the end faces. The exact form of upholstery, however, is optional. Preferably, it is of such form that when the drawer is in place, a fully upholstered davenport is provided.

In shipping the davenport in knocked-down form, the various units indicated by Figs. 2 to 7 may be piled quickly on top of one another. For instance, the two end members may be placed on top of the drawer, which may be mounted on the horizontal portion of the brace, and the seat frame and back put on top of these members to build up a convenient shaped assemblage for crating with the mattress and cushions suitably placed. When the device is uncrated, it is a simple matter to assemble the parts to produce the furnished davenport.

When assembled, one has a completely upholstered davenport of pleasing appearance, ready for almost instant conversion into a bed, by the mere act of drawing out the drawer, removing the mattress, transferring the upper cushions to the drawer top and putting the mattress on the bed thus provided.

I claim:

1. The combination with vertical end members of a bottom-and-rear brace, L-shaped in vertical section so as to have a horizontal portion and a vertical portion, each portion comprising an open frame with end bars, bolts securing the end bars of the horizontal portion to the end members, angle brackets for securing the upper end of said vertical portion to the end members.

2. In a davenport, the combination of vertical end frame members having horizontal cleats on their inner faces, a unitary bottom-and-rear L-shaped in vertical section, the bottom portion of the brace extending horizontally and being bolted to the end members, the rear portion of the brace extending vertically, means for securing the upper end of such rear portion to the end members, a seat frame resting on said cleats, and a back secured to the end members and mounted between them and extending downwardly to a position in front of the rear brace.

3. In a davenport, the combination of a pair of vertical end frame members having inwardly facing vertical rabbets at their rear edges and having horizontal cleats on their end faces, a bottom-and-rear brace L-shaped in cross section having a horizontal portion bolted at its ends to the vertical end members and having a vertical portion seating in said rabbets, means for securing the upper ends of the vertical portion of said brace to the end members, a seat frame rested on said cleats and a back having extensions occupying said rabbets and secured therein and having a portion extending forwardly between the end members to substantially overlie the rear end of the seat frame, the end portions of said back also extending downwardly in front of the rear brace.

4. In a convertible davenport, the combination of a pair of vertical end members having inwardly facing rabbets at their rear edges, a brace having a vertical portion extending from end member to end member and seating in said rabbets, means for securing the brace to the end members, a seat frame supported by the end members, a back extending between the end members and having longitudinal extensions occupying said rabbets, and means securing the back to the end members.

5. In a convertible davenport, the combination of a pair of vertical end members having inwardly facing rabbets at their rear edges, a brace having a vertical portion extending from end member to end member and seating in said rabbets, means for securing the brace to the end members, a seat frame supported by the end members and a back extending between the end members and having longitudinal extensions occupying said rabbets, the lower end of the back having portions depending in front of the rear brace, and means securing the back to the end members.

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