CONVERTIBLE LOUNGE AND BED AND THE LIKE

Fig. 1.

Fig. 2.

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Fig. 3.

Fig. 4.

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The present invention relates to convertible furniture and, more particularly, to convertible lounges and beds and the like. Many proposals have been offered throughout the years for rendering articles of furniture adaptable to serve multiple functions. One of the oldest and most useful proposals of this character has been the adaptation of a lounge or couch to serve, also, as a bed; and vice versa. While many such devices have been used over the years, they have invariably been subject to certain disadvantages which, indeed, have heretofore been considered inherent in articles of this character. Among those disadvantages is the fact that the lounge or couch must usually be removed from the wall of the room along which it is placed in order to effect the conversion from the lounge or couch to a bed; or, to reconvert the bed into a lounge or couch. Other disadvantages include the lack of easily accessible space in such an article of furniture of storing bed linens, pillows or any other items that it may be desirable to store. Many of the prior-art proposals, moreover, while providing a satisfactory lounge or couch, have not provided a flat comfortable bedding surface because of the nature of the conversion construction inherent in those devices.

An object of the present invention, accordingly, is to provide a new and improved convertible article of furniture that shall not be subject to the above-described difficulties, but that, to the contrary, provides for easy conversion without moving the furniture, provides easily accessible storage space, and provides equally comfortable lounging and sleeping facilities.

A further object is to provide a new and improved convertible lounge and bed and the like.

Other and further objects will be explained hereinafter and will be more particularly pointed out in the appended claims.

In summary, the invention resides, from one aspect, in a convertible lounge and bed provided with a substantially horizontal supporting surface serving as the seating surface of the lounge. A lounge back-support surface is provided, movably connected to the seating surface, and comprising movably connected lower and upper portions. There is also provided means for rigidly maintaining the back-support surface at an incline to provide a lounging area between the seating and back-support surfaces, and means comprising the upper portion of the back surface when moved with respect to the lower portion thereof for supporting the lower portion of the back-supporting surface in a substantially horizontal position substantially co-planar with the seating surface, thereby providing a co-planar bedding surface.

The invention will now be described in connection with the accompanying drawings,

Fig. 1 of which is a perspective view illustrating the invention in its form as a lounge;

Fig. 2 is a similar view illustrating the conversion into a bed;

Fig. 3 is a transverse section taken upon the line 3—3 of Fig. 1, looking in the direction of the arrows;

Fig. 4 is a similar view taken upon the line 4—4 of Fig. 2, looking in the direction of the arrows;

Fig. 5 is a view similar to Fig. 1 but taken from the rear, with the parts shown open to illustrate details of construction;

and

Fig. 6 is a fragmentary section, upon an enlarged scale, taken upon the line 6—6 of Fig. 2 looking in the direction of the arrows.

While the invention will hereinafter be described in connection with its preferred application to a convertible lounge and bed, it will be evident that the features of novelty may also be applied to other types of similar furniture. The convertible lounge and bed is shown embodying a frame, preferably of substantially rectangular contour, having a front wall 1, side walls 3 and a rear wall 5. The frame may be of wooden construction provided with a plastic veneer, such as that sold under the trademark "Formica" and the like, for purposes of decoration and wear. Other materials may, of course, also be used. Disposed within the forward portion of the frame, near the upper edge thereof, as more particularly shown in Fig. 3, is a substantially planar supporting surface 7 serving as the seating surface. The seating surface 7 may constitute merely a slab of plywood or the like supported along its forward edge within a groove 9 in the upper inner marginal region of the front wall 1 of the frame. Along its inner edge, the seating surface 7 may be supported upon a vertical wooden wall panel 11 intermediate the frame. The seating surface 7 is thus rigidly fixed in place.

A back-support surface for the lounge is provided by a preferably two-partion supporting upper and lower portions 15 and 13, respectively. The lower edge of the front surface of the lower portion 15 is hinged at 17 to the inner edge of the seating surface 7, and the upper and lower portions 15 and 13 are themselves hinged along their rear surfaces at 19. While hinged constructions are preferred, it is to be understood that other types of connections which permit of relative movement of the parts may also be employed. The upper portion 15 is preferably of substantially L-shape, being provided with a rearwardly extending top-surface leg 23 which is rigidly secured thereto by means of the bracket support 21. In order to support the members 13 and 15 comprising the back-support surface in the inclined position illustrated in Fig. 1, providing the preferred obtuse-angle lounging area between the seating support 7 and the back-support surfaces 13, 15, side supports 25 are provided that are pivotable between the intermediate wall 11, as at 27, and the rear frame wall 5, as at 29. The side supports 25 may assume either the vertical or upright supporting position illustrated in Figs. 1 and 5, or the substantially horizontal position inward of the rear portion of the frame, as shown in Fig. 4 and to the right in Fig. 5. At their upper ends, the side supports 25 are shown provided with recessed flanges 37 which may receive the transverse edges of the top-surface leg 23 of the upper back-support surface portion 15, thus rigidly to maintain the back support in the lounging position illustrated in Figs. 1 and 3. The side supports 25 are preferably provided with thicker upper portions so as to maintain a flush surface with the frame side wall 3, as is more particularly illustrated to the left in Fig. 5.

When it is desired to convert the lounge into a bed, the side supports 25 may be pivoted downward to assume the before-mentioned substantially horizontal position illustrated in Fig. 4 and to the right in Fig. 5. In view of the before-mentioned thicker dimensions of the upper portions of the side supports 25, the back
wall 5 of the frame is preferably provided with recessed members 31 for receiving and limiting the position of downward movement of the side supports 25 in order to provide a level substantially horizontal position of storage for the side supports. When, accordingly, the upper back-support portion 15 is moved rearwardly about the hinge 19, the top-surface leg 23 of the upper portion 15 may be moved downward to rest upon the substantially horizontally positioned side supports 25 within the rear portion of the frame. The leg 23 will then be maintained substantially parallel to the then horizontal rear surface of the lower portion 13 of the back support near the free end or edge of the top-surface leg 23 being limited by stops 55 provided upon the top-surface of the intermediate wall 11 of the frame. The upper portion 15, 23 will thus serve as a rigid supporting surface for maintaining the lower portion 13 of the back support in the substantially horizontal position, with the hinge 17 fully open, Fig. 4, thus to provide a substantially co-planar smooth sleeping surface comprising the members 7 and 13.

By placing appropriate two-piece cushions 7 and 13 upon the members 7 and 13, comfortable beddine surfaces are provided. The cushions may, for example, be of foam rubber, as shown in Fig. 6, or, they may be of mattress or other desired material. In all cases, however, they will rest upon a rigid substantially co-planar bedding surface 7, 13, providing the comfort of a flat continuous sleeping surface having no discontinuities. The two-piece cushions 7, 13 are provided with a hinge 17, shown in Fig. 3 as disposed at substantially the location of the hinge between the surfaces 7 and 13. The cushion hinge 17 is preferably of the construction illustrated in Fig. 6 embodying a tape or tapes 17 connected between the upper edge of the cushion part 13 and the lower edge of the adjacent cushion part 7. This type of hinge connection provides a highly efficient universal hinged cushion, particularly adapted for the purposes of the present invention. It will, of course, be clear that the width of the cushion 13, Fig. 4, is sufficient to extend together with the cushion 7 over the complete bedding surface 7, 13. When hinged or moved to the lower position of Fig. 3, however, a space is automatically left between the cushions 7 and 13 at the hinge region 17 that permits the cushion 13 to extend upward and cover also the upper portion 15 of the back support surface 13, 15.

In accordance with the present invention, apertures 35 providing handle devices 35 are provided in the lower portion 13 of the back-support surface. By merely removing or moving forward the cushion 13 of Fig. 3, one can thus obtain direct access to the aperture 35 from the front of the furniture. By drawing the member 13 forward, as shown in Fig. 5, gravity will effect the downward-hinged movement of the upper portion 15, 23 of the back-support surface. Upon pushing the side members 25 inward and releasing the support 13, the conversion to a bed is effected, as illustrated in Figs. 2 and 4. By similar token, reconversion to the lounge position may easily be effected merely by elevating the cushion part 13 from the front, grasping the apertures 35 in the supporting surface 13, and elevating it to the position shown in Fig. 5. By then elevating the side supports 25, the lounge of Fig. 1 is re-assembled. All of these operations, moreover, may be performed from the front or side of the article of furniture and without the necessity for moving the furniture, as is customary with the present-day articles of this class.

In accordance with the present invention provides the further advantageous feature that its construction permits of utilization of the space below the surface 7 between the front wall 1 and the intermediate wall 11 for drawers 39 which may store any desired articles. The drawer 39 may, if desired, be covered by a hinged cover 41 for the purposes of protecting the contents thereof, as more particularly illustrated in Fig. 5.

Further modifications will occur to those skilled in the art, and all such are considered to fall within the spirit and scope of the invention, as described in the appended claims.

What is claimed is:

1. A lounge convertible into a bed having, in combination, a substantially horizontal supporting surface serving as the seating surface of the lounge, a lounge back-support surface movable connected near its lower edge to the inner edge of the seating surface, the back-support surface comprising movably connected lower and upper portions the latter of which terminates in a rearwardly extending top surface, side supports disposed near the back of and connected with the lounge and adapted to assume an upright position rearward of the back-support surface or a substantially horizontal position inward of the rear portion of the lounge, the side supports being provided with means for engaging the said top surface when in their said upright position in order rigidly to maintain the back-support surface at an incline to provide a lounging area between the seating and back-support surfaces, the upper portion of the back-support surface being movable rearwardly to a position where the top surface thereof extends substantially parallel to the rear surface of the lower portion of the back-support surface in order that, when the said side supports are in their said substantially horizontal position, the said top surface may rest thereupon, thereby to support the lower portion of the back-supporting surface in a substantially horizontal position substantially co-planar with the seating surface providing a co-planar bedding surface.

2. A lounge convertible into a bed having, in combination, a substantially horizontal supporting surface serving as the seating surface of the lounge, a lounge back-support surface hingedly connected near its lower edge to the inner edge of the seating surface, the back-support surface comprising hingedly connected lower and upper portions the latter of which is of substantially L-shape with a leg of the L extending rearwardly, side supports disposed near the back of and connected with the lounge and adapted to assume an upright position rearward of the back-support surface or a substantially horizontal position inward of the rear portion of the lounge, the side supports being provided with means for engaging the said leg of the L when in their said upright position in order rigidly to maintain the back-support surface at an incline to provide a lounging area between the seating and back-support surfaces, the upper portion of the back-support surface being hingedly movable rearwardly to a position where the said leg of the L thereof extends substantially parallel to the rear surface of the lower portion of the back-support surface in order that, when the said side supports are in their said substantially horizontal position, the said leg of the L may rest thereupon, thereby to support the lower portion of the back-supporting surface in a substantially horizontal position substantially co-planar with the seating surface, providing a co-planar bedding surface.

3. A lounge convertible into a bed having, in combination, a frame, a substantially horizontal supporting surface serving as the seating surface of the lounge, and disposed in the front portion of the frame, a lounge back-support surface hingedly connected near its lower edge to the inner edge of the seating surface, the back-support surface comprising hingedly connected lower and upper portions the latter of which terminates in a rearwardly extending top surface, pivotal side supports disposed near the back portion of and connected with the frame and adapted to assume an upright position rearward of the back-support surface or a substantially horizontal position inward of the rear portion of the lounge.
and limited by the rear wall of the frame, the side supports being provided with flanges for engaging the said top surface when in their said upright position in order rigidly to maintain the back-support surface at an incline to provide an obtuse angular lounging area between the seating and back-support surfaces, the upper portion of the back-support surface being hingedly movable rearwardly to a position where the top surface thereof extends substantially parallel to the rear surface of the lower portion of the back-support surface in order that, when the said side supports are in their said substantially horizontal position, the said top surface may rest thereupon, thereby to support the lower portion of the back-supporting surface in a substantially horizontal position substantially co-planar with the seating surface, providing a co-planar bedding surface.

4. A lounge convertible into a bed having, in combination, a frame, a substantially horizontal supporting surface serving as the seating surface of the lounge and disposed in the front portion of the frame, a lounge back-support surface hingedly connected near its lower edge to the inner edge of the seating surface, the back-support surface comprising hingedly connected lower and upper portions the latter of which terminates in a rearwardly extending top surface, pivotal side supports disposed near the back portion of and connected with the frame and adapted to assume an upright position rearward of the back-support surface or a substantially horizontal position inward of the rear portion of the lounge, the side supports being provided with means for engaging the said top surface when in their said upright position in order rigidly to maintain the back-support surface at an incline to provide an obtuse angular lounging area between the seating and back-support surfaces, the upper portion of the back-support surface being hingedly movable rearwardly to a position where the top surface thereof extends substantially parallel to the rear surface of the lower portion of the back-support surface in order that, when the said side supports are in their said substantially horizontal position, the said top surface may rest thereupon, thereby to support the lower portion of the back-supporting surface in a substantially horizontal position substantially co-planar with the seating surface, providing a co-planar bedding surface, an intermediate wall within the frame supporting the hinged region between the seating and back-support surfaces, and drawer space provided from the front of the frame below the seating surface within the space forward of the said intermediate wall.

5. A lounge convertible into a bed as claimed in claim 4 and in which limiting means is provided upon the rear surface of the said intermediate wall to limit the forward position of the free end of the said top surface resting upon the said horizontally positioned side supports.

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