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L. G. KOCH

2,492,430

FOLDING BACK AND ARM REST

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2 Sheets-Sheet 1

Fig. 1.

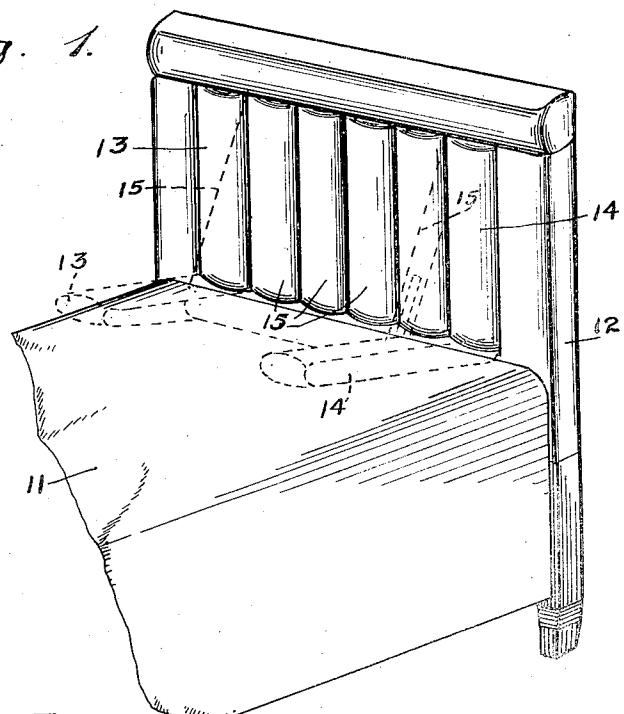


Fig. 4.

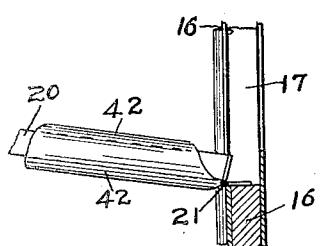


Fig. 2.

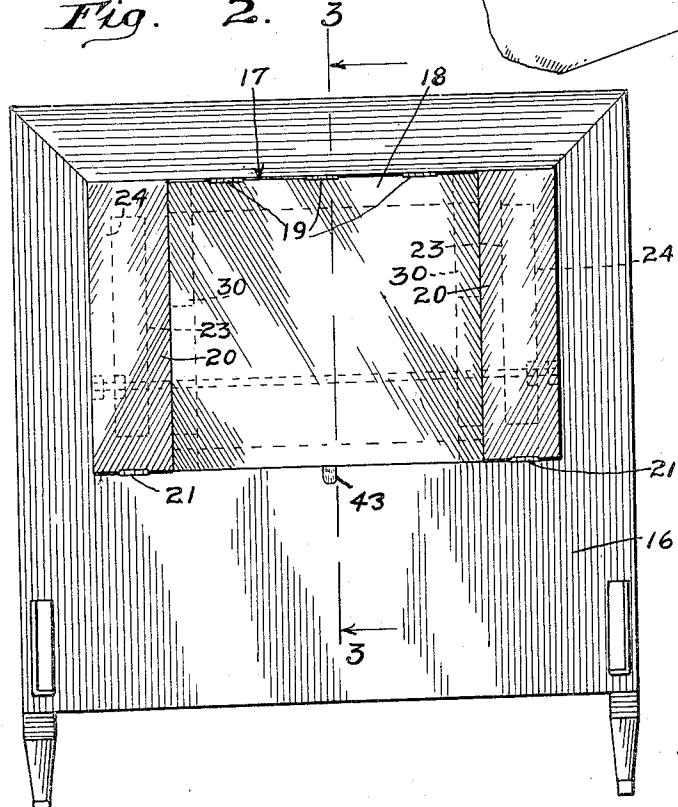
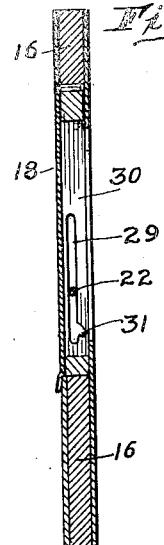


Fig. 3.



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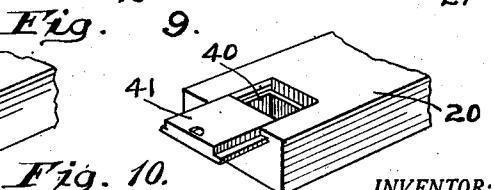
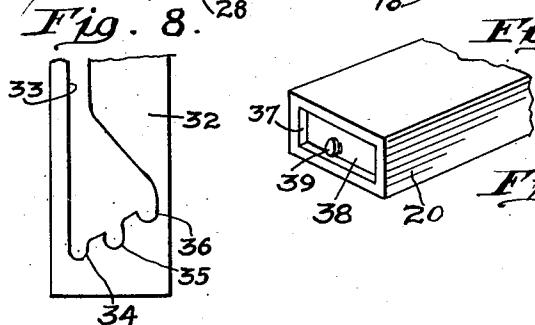
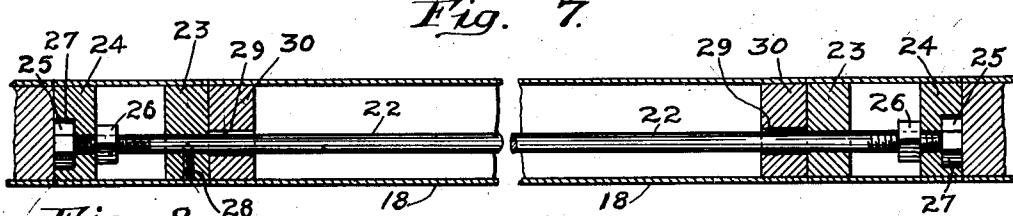
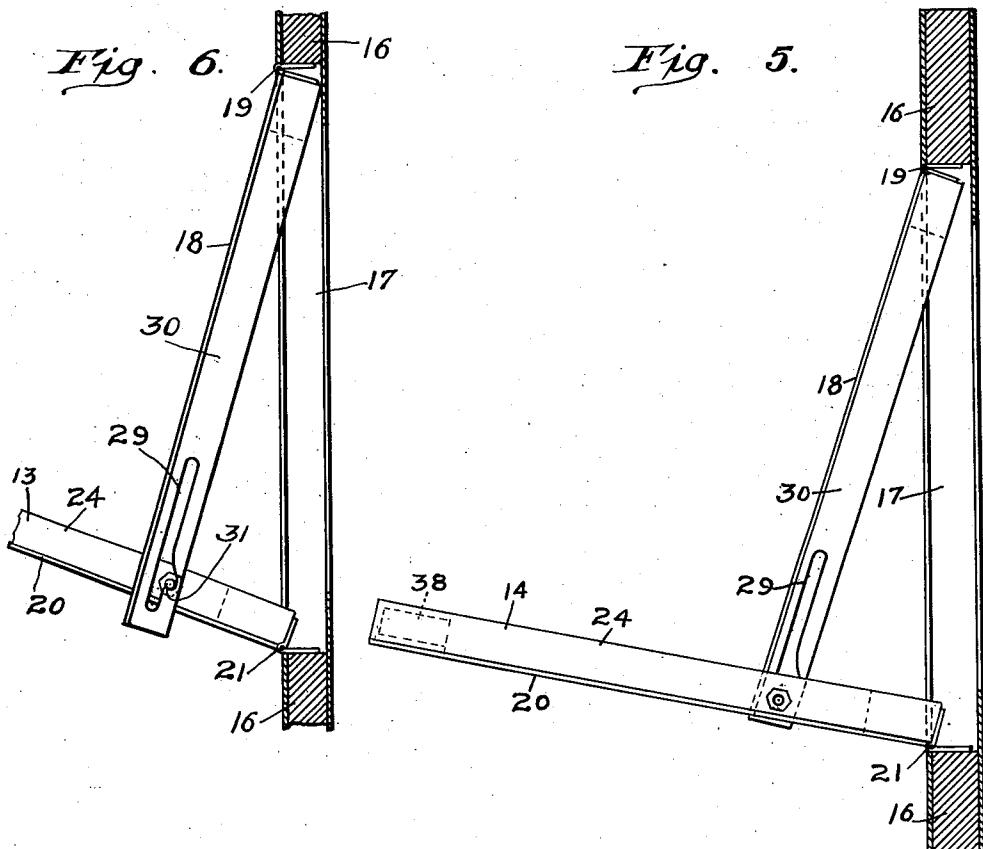
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2. Sheets-Sheet 2



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FOLDING BACK AND ARMREST

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Application October 24, 1944, Serial No. 560,131

6 Claims. (Cl. 5—72)

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This invention relates in general to a folding back and arm rest which may be supported in any suitable manner, but is more particularly described in connection with a vertical head board of an ordinary bed construction.

An important object of the invention is to provide a folding back and arm rest structure normally housed or contained in an upright support such as a head board, conforming to the style or decoration thereof so that when folded, it appears to be a part of the head board itself, but when unfolded, it presents side arms and a back structure inclined to the head board and projecting forwardly therefrom to provide an arm and back support for a person sitting in the bed.

A further object of the invention is to provide a folding back and arm structure in which the parts thereof may be inclined at various angles to each other and to the support.

A still further object of the invention is to connect the folding back and arm portions for movement together in accordance with the desired inclination thereof.

A still further object of the invention is to provide a folding arm structure of this kind having a recess at its outer end with a closure therefor in which very small articles may be conveniently disposed.

A further object of the invention is to provide a new and improved folding structure combined with the head board of a bed in which the bed or mattress will constitute a supporting seat, and the arms and a back rest will be supported by the head board.

Other and further objects of the invention will appear in the specification and will be apparent from the accompanying drawings in which

Fig. 1 is a perspective of the head end of a bed having an upright head board in which this invention is contained, the outer surface of the back and arm structure having a padded cover conforming somewhat to the decorative design of the head board;

Fig. 2 is a front elevation of a head board with a folding back and arm rests in accordance with this invention in closed or folded position but omitting an outer padded covering as shown in Fig. 1;

Fig. 3 is a section taken on the line 3—3 of Fig. 2;

Fig. 4 is a detail view showing the hinged end of a covered arm structure;

Fig. 5 is a sectional view showing a folding arm and back rest in accordance with this invention at one inclination;

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Fig. 6 is a view similar to Fig. 5 showing the back and arm rests at a different inclination;

Fig. 7 is a transverse sectional view showing the connection between the arms and the back rest;

Fig. 8 illustrates a portion of an arm supporting plate having three different rod engaging portions;

Fig. 9 illustrates an arm rest with a recess closure at the end; and

Fig. 10 illustrates the end of an arm rest having a recess with a top closure.

This invention is particularly designed and intended for application to any head board or bed structure so that it may be used as a back and arm support for those who wish to sit up or read in bed. It may also be used for invalids in connection with hospital and other beds, and it may have more general application in connection with an upright support adjacent to a seat in any desired connection or location.

In the present invention, the unfolding or swinging down of the arms also moves the back to an inclination, or to one of several different inclinations depending upon the engagement of the arm structure.

Referring now more particularly to the drawings, a bed 11 is shown in Fig. 1 having a head board with an outer decorative cover 12 in which may be incorporated a particular design comprising a number of vertical padded segments or flutes of which outer ones 13 and 14 are mounted to swing downwardly to form arms, and the intermediate ones 15 are connected to the arms to swing outwardly to provide a back rest.

This structure may thus form a part of the decorative design of the bedstead so that it is normally a part of the design and the folding character of the back and arm rests is not apparent when they are folded or in closed position, but the folding structure may be easily unfolded or brought into use or moved into position in front of the head rest whenever desired.

As shown in Fig. 2, a head board 16 shown without the cover 12 has a recess 17 in which a panel 18 forming a back rest is supported by hinges 19 at the top thereof and side panels 20 also mounted in the recess at the sides of the panel 18 provide arm rests each of which is connected at the lower edge of the recess by a hinge 21.

The two arms 20 at the sides of the back rest are connected for joint movement by a rod 22 extending through side pieces 23 and 24 of each arm. The ends of the rod are threaded to receive fastening nuts 25 and 26 engaging opposite sides

of the outer side piece 24, and the outer nut preferably being seated in a recess 27 which makes the outer face threaded at least flush with the outer face of the side 24. The rod itself is prevented from rotation in any suitable manner as by means of a set screw 28 inserted through a side piece 23 and engaging the rod.

The coordinating rod 22 also extends through slots 29 in side plates 30 at the edges of the back 18 so that the movement of the arms causes a corresponding movement of the back 18. If desired, the rod 22 may engage in the lower ends of the slots 29 to hold the arms in corresponding inclined positions at all times.

If preferred, the slots 29 may be formed with a lateral extension 31 for engaging the rod 22 and thereby holding the arms and also the back at different corresponding inclinations. As shown in Fig. 8, a side piece 32 may have a slot 33 with three recesses 34, 35, 36 at the lower end for engaging a rod 22 at any one of three different inclinations and thereby holding the arms and the back in three relatively different inclinations.

The extremity of each arm may be provided as shown in Fig. 9 with a recess 37 having a small removable drawer or a closure 38 opening at the end thereof with a knob 39 recessed within the ends so that it will close within the opening 17 as the arm is closed.

If desired, one of the arms may be provided with a recess 40 opening from the top adjacent the end thereof and having a sliding closure 41 movable outwardly from the end. To uncover the recess, the arm must be moved outwardly from the head board recess 17.

It is also contemplated that the arm structure as shown in Fig. 4 may be upholstered or provided with any suitable cover 42 corresponding to the decorative design and material of the bed itself. The entire arm may be covered or only the top surface thereof, if upholstered, and when the top surface only is covered with an upholstered pad, it will be disposed at the back of the head board when the arm structure is folded.

A tab 43 may be attached at the lower end of the back for pulling it and the arms outwardly and frictional fasteners or snaplocks (not shown) may be disposed to engage the upper ends of the arms or the lower end of the back with the edges of the opening if desired.

This construction may be applied to a single bed or two of them may be applied to a double bed, or the folding structure may be applied to an upright adjacent an ordinary wall seat for use as a chair when desired. This folding structure may even be incorporated in a wall, not visible when folded, but usable with a movable seat arranged below it by simply extending the arms and back when desired.

The arm structure may also be mounted in a head board or on an upright support such as a wall, at a spaced distance apart such that a bed mattress or a seat may be disposed beneath the arms in outwardly extending position so that they will provide the arm rests of a seat of which the intermediate portion of the support is the back. Pillows or other back supporting means may be placed at the back between the arms thus forming a suitable seat structure.

Various other constructions, combinations and arrangements of the folding arm and back structure may be adapted without departing from the spirit and scope of the invention.

I claim:

1. The combination with a bed having a head

board having a recess, of a back panel movably mounted in the recess of the head board to swing outwardly at the bottom above the surface of the bed, a pair of arms also movably mounted in the recess of the head board to swing downwardly at the sides of the back panel and above the surface of the bed, and means connecting the back panel and the arms for moving them together outwardly and downwardly respectively from the head board to form an inclined back and the side arm structure of a seat of which the bed forms the bottom of the supporting seat.

2. A folding back and arm rest structure, comprising an upright support having a recess therein, a back hinged at the upper edge of and normally seated in the recess, a pair of arms hinged at the bottom of the recess at the side of the back and normally seated in the recess, a transverse bar extending between the said arms, and a slotted connection carried by the back through which the bar extends for moving the back in accordance with the movement of the arms and for limiting the downward movement of the arms.

3. A folding back and arm rest structure, comprising an upright support having a recess therein, a back hinged in the upper edge of the recess, a pair of arms at the sides of the back hinged at the lower edge of the recess, a transverse bar connecting the arms for joint movement, and a slotted connector carried by the back through which the bar extends, the lower end of the connector having a plurality of recesses for engaging the bar at different elevations.

4. A folding back and arm rest structure, comprising an upright support, a back hinged at its upper end to the support, a pair of arms coextensive with the vertical dimensions of the back, disposed at the sides thereof and hinged to the support at the lower ends of the arms, a bar connecting the arms for joint movement, means for securing the ends of the bar to the arms, and a slotted support in connection with the back through which the bar extends for coordinating the movements of the arms and back.

5. A folding back and arm rest structure, comprising an upright support having a recess therein, a back adapted to be seated in the recess and pivoted at the upper edge of the recess, a pair of arms adapted to be seated in the recess to form 50 rests at the sides of the back and pivoted in the lower edge of the recess, coordinating means connecting the back and arms for joint folding and unfolding movement, and an opening at the outer end of the arm structure which is moved to a 55 covered position within the edge of the recess when the arm is folded in the recess and is accessible at the end of the arm when the structure is moved outwardly from within the recess.

6. The combination with a bed having a head board with a recess in that portion above the horizontal bed surface, of a back hinged at the upper edge of the recess, a pair of arms at the sides of the back hinged at the lower edge of the recess, the back and arms being coextensive 65 in height to fold within the recess and the outer surfaces thereof then conforming to the design of the head board outer surface so that they do not appear as a back or arms when folded, a bar extending transversely connecting the arms, 70 slotted members supported by the back through which the bar extends for moving the back in accordance with the movement of the arms and for limiting the downward movement of the arms to a position above the bed surface, thereby providing the seat formed by said bed surface with

an inclined back, and extending arms when the back and arms are unfolded from the head board.

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