

# PATENT SPECIFICATION

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## COMPLETE SPECIFICATION

### Improvements in and relating to Bed Rests

I, RICHARD COOKE, a British Subject of 244, Felixstowe Road, Ipswich, in the County of Suffolk do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to bed rests and more especially those suitable for use by invalids where a sitting or semi-recumbent position is necessary or desirable particularly for relief of distress in cases of myocardial degeneration, terminal and similar ailments.

It is an object of the present invention to provide a bed rest of robust construction yet light in weight, which shall at the same time be readily adjustable and easily transportable.

A bed rest according to this invention essentially comprises a member capable of angular adjustment constituting a back rest, with arm members pivoted thereto and a member or members providing support for the head and/or lumbar region associated with the said back rest, and slidably mounted thereon and adjusted by a roller or rollers in relation thereto.

Preferably angular adjustment of the back rest forming part of a bed rest according to the invention is effected by means of a folding frame hinged or pivoted to the lower end of the back rest cooperating with a rack device associated with the rear of the said back rest as described in the Specification of British Patent No. 480,616, and the supporting member or members is or are appropriately shaped and of suitable material to afford maximum comfort.

The bed rest is conveniently fully upholstered and capable of being folded or dismantled to facilitate transportation.

In a specific embodiment of bed rest constructed in accordance with this invention and described by way of example the back rest is made in the form of a hollow wooden frame the front face of which is suitably shaped and provided with lateral tension springs appropriately covered with latex foam or sponge

[Price 3s. 6d.]

rubber which is not only hygienic and self ventilating by movement of the patient but is light in weight and recovers its shape instantaneously even after prolonged pressure thus avoiding the necessity of constant shaking to preserve comfort.

The arm rests with which a bed rest constructed in accordance with this invention is provided are pivoted to and extend laterally forwardly of the back rest and are preferably of hollow box form made from light plywood.

The sides of the arms are suitably upholstered with low density latex foam or sponge rubber to enhance the comfort while the upper surfaces are provided with higher density latex foam or sponge rubber enabling a better grip or purchase to be obtained. This is particularly useful in cases where the bed rest is in use by patients when movement by their own efforts is desirable.

By arranging the arms to pivot upwardly they can be moved from a position in which they lie flat on the bed to a position parallel with the side walls of the back rest and this feature has been found particularly useful not only in facilitating packing and transport but also in providing ready clearance when medical, washing or other attendance on the patient is necessary.

The head support member as well as the supporting member for the lumbar region are vertically adjustable up and down the back rest by means associated with the supporting members themselves co-operating with ratchet operated rollers.

The invention will be further described with reference to the accompanying drawings which illustrate by way of example a preferred form of bed rest according to this invention.

In the drawings Fig. 1 is a perspective view shewing the bed-chair erected while Fig. 2 is a fragmentary sectional view illustrating the adjusting means for the supporting members associated with such bed-chair, Fig. 3 being a fragmentary side view of the adjusting means

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while Figs. 4 and 5 show one means by which the arms of the bed-chair are attached to the back rest.

Referring now to the drawing but first more particularly to Fig. 1 the bed rest comprises a back rest 1 to which arm rests indicated at 2 and 3 are detachably secured. Resilient supporting members are indicated at 4 and 5 the member 4 being the head rest while member 5 is a supporting member for the lumbar region.

As illustrated the supporting members 4 and 5 are adjustable by means of adjusting rollers 6 and 7 actuated by means of hand wheels 8 and 9 respectively.

An extension 10 or web of the material encasing the head rest 4 projects through a slot 11 in the back rest and takes around the roller 6; in similar manner an extension 12 of the material encasing the support 5 for the lumbar region extends through slot 13 in the back rest and takes around roller 7.

As illustrated in Fig. 2 the material 10 is secured to the roller 6 which extends through aperture 14 in the side wall of the back rest frame and terminates in the operating hand-wheel 8.

To adjust the position of the head rest 4 vertically in relation to the back rest the operating hand-wheel 8 is rotated and to fix the adjusted position of such head rest 4 the inner surface of the hand-wheel 8 is provided with pegs or dowels 15 constituting detents which co-operate with holes 16 in a plate 17 attached to the side of the back rest 1.

The supporting member 5 for the lumbar region is adjusted in a similar way by means of the hand-wheel 9 and dowels co-operating with a perforate plate.

The components as illustrated in Figs. 4 and 5 serve for detachably securing each arm rest 2 or 3 to the back rest 4 and comprise a screw threaded rod 20 bent through 90° and secured to the arm rests 2 and 3 with a vertical portion 21 arranged to slide into a slot 22 in a plate 23 provided on the lower end of the back rest.

It will be seen particularly by reference to Fig. 2 that the back rest member is a box like structure which can be suitably upholstered to augment the comfort of the bed-chair.

Reverting to Fig. 1 it will be appreciated that the back rest 1 may be furnished at each side with wings, one of which is shown dotted at 25, and they may be suitably upholstered to provide a side support for the user's head.

By providing separate adjusting means for the head support and the support for the lum-

bar region a wide range of adjustment is available rendering the bed rest suitable for both tall and short patients.

#### WHAT I CLAIM IS:—

1. A bed rest comprising a member capable of angular adjustment constituting a back rest with arm members pivoted thereto and a separate member or members providing support for the head and for the lumbar region associated with the said back rest and slidably mounted thereon and adjusted by a roller or rollers in relation thereto.

2. A bed rest according to the preceding claim wherein the back rest is in the form of a hollow frame the front face of which is suitably shaped and provided with lateral tension springs covered with latex foam or sponge rubber.

3. A bed chair according to claims 1 and 2 wherein the arm members are of hollow box form and the sides of the said arm members are upholstered with low density latex foam or sponge rubber and the upper surfaces are upholstered with higher density latex or sponge rubber for the purpose specified.

4. A bed rest according to claims 1 to 3 wherein the arms are removably mounted on the back rest.

5. A bed rest according to any of the preceding claims wherein the head support member and the supporting member for the lumbar region are vertically adjustable up and down the back rest by means of webs of flexible material associated with the supporting members themselves and co-operating with rollers provided with detents.

6. A bed rest according to any of the preceding claims wherein adjustment of the support members is effected by wrapping or encasing each of the said support members in a length of suitable material in such manner that an overlapping extending web portion of material is provided which is attached to a roller or rollers housed in or borne by the rear of the back rest, the said roller or rollers being provided with operating means associated with a detent so that the said overlapping extension portion may be wound up on or unwound from the roller or rollers to adjust the vertical positions of the support members.

7. A bed rest constructed and arranged for use substantially as described with reference to the accompanying drawings.

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#### PROVISIONAL SPECIFICATION

#### Improvements in and relating to Bed Rests

I, RICHARD COOKE, a British Subject, of 244, Felixstowe Road, Ipswich, in the County of Suffolk, do hereby declare this invention

to be described in the following statement:—

This invention relates to bed chairs and more especially those suitable for use by in-

valids where a sitting or semi-recumbent position is necessary or desirable particularly for relief of distress in cases of myocardial degeneration, terminal and similar ailments.

5 It is an object of the present invention to provide a bed chair of robust construction yet light in weight, which shall at the same time be readily adjustable and easily transportable.

10 A bed chair according to this invention essentially comprises a member capable of angular adjustment constituting a back rest with arm members pivoted thereto and a member or members providing support for the head and/or lumbar region associated with the said back rest.

15 Preferably in accordance with this invention angular adjustment of the back rest is effected by means of a folding frame hinged or pivoted to the lower end of the back rest cooperating with a rack device associated with the rear of the said back rest and the supporting member or members is or are readily adjustable along the back rest being slidably mounted but snugly fitting the said back rest and being appropriately shaped and of suitable material to afford maximum comfort.

20 The bed chair is conveniently fully upholstered and capable of being folded or dismantled to facilitate transportation.

25 In a specific embodiment of bed chair constructed in accordance with this invention and described by way of example the back rest is made in the form of a hollow wooden frame the front face of which is suitably shaped and provided with lateral tension springs extending from top to bottom appropriately covered with latex foam or sponge rubber which is not only hygienic and self ventilating by movement of the patient but is light in weight and recovers its shape instantaneously even after prolonged pressure thus avoiding the necessity of constant shaking to preserve comfort.

30 Hinged or pivoted to the lower rear side walls of the hollow frame constituting the back rest is a folding wooden frame consisting of two side members with front, rear and intermediate cross rails. Pivoted to the front cross rail is a second frame member also consisting of two side members and intermediate and front cross rails. These two frame members can be folded about their pivots to lie completely inside the hollow back rest but in their operative position the frame member pivoted to the back rest extends laterally rearwardly while the second frame member pivoted thereto is set at an angle to co-operate with a rack situated in and enclosed by the hollow back rest. It will readily be appreciated that by adjustment of the frame member along the rack the angular inclination of the back rest will also be adjusted.

65 It has been found convenient to provide eight teeth on the rack member enabling eight different angular positions of the back rest to be achieved.

70 The arm rests with which a bed chair constructed in accordance with this invention is provided are pivoted to and extend laterally forwardly of the back rest and are preferably of hollow box form made from light plywood.

75 The sides of the arms are suitably upholstered with low density latex foam or sponge rubber to enhance the comfort while the upper surfaces are provided with higher density latex foam or sponge rubber enabling a better grip or purchase to be obtained. This is particularly useful in cases where the bed rest is in use by patients when movement by their own efforts is desirable.

80 By arranging the arms to pivot upwardly they can be moved from a position in which they lie flat on the bed to a position parallel with the side walls of the back rest and this feature has been found particularly useful not only in facilitating packing and transport but also in providing ready clearance when medical, washing or other attendance on the patient is necessary.

85 The head support member as well as the supporting member for the lumbar region are vertically adjustable up and down the back rest by means associated with the supporting members themselves co-operating with ratchet operated rollers.

90 In a preferred method of adjusting the head supporting member, such member is wrapped or encased by a length of suitable material in such manner that an overlapping extension portion of material of convenient length is provided the extreme end of which is attached to a roller housed in or borne by the rear of the back rest such roller being provided with any appropriate operating means associated with a rack so that the said overlapping extension portion may be wound up on or unwound from the roller conveniently to adjust the vertical position of the head support in relation to the back rest. Suitable guide means may if desired be provided to facilitate the movement of the said head support.

95 Adjustment of the support for the lumbar region may be effected in the same manner, a second operating roller being appropriately located in or on the rear of the back rest.

100 By providing separate adjusting means for the head support and the support for the lumbar region a wide range of adjustment is available rendering the bed chair suitable for both tall and short patients.

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FIG. 1.

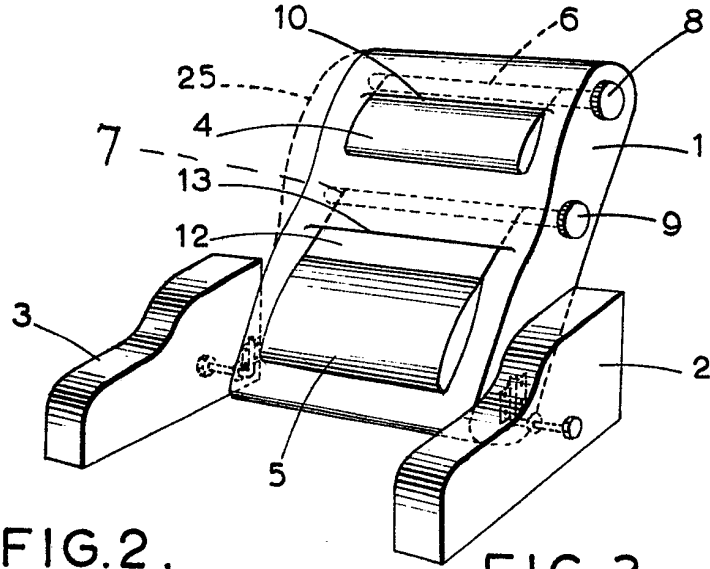


FIG. 2.

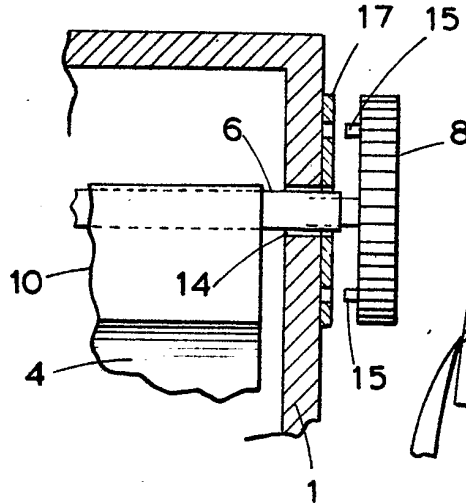


FIG. 3.

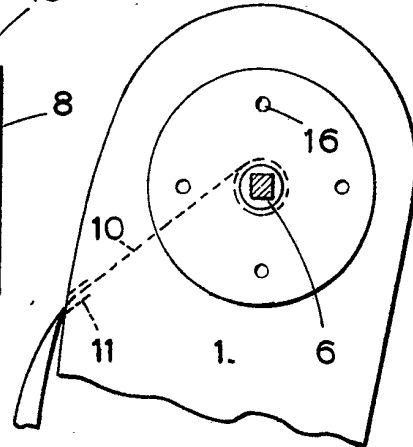


FIG. 4.

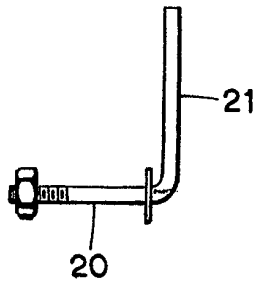


FIG. 5.

