April 13, 1954 D. H. MOORE 2,674,750

BED ATTACHMENT

Filed July 10, 1950

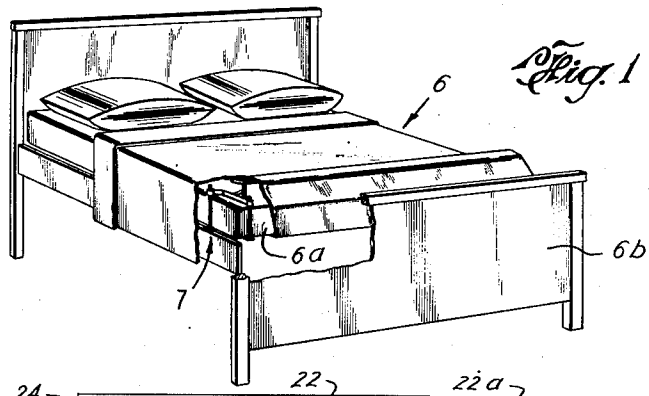


Fig. 1

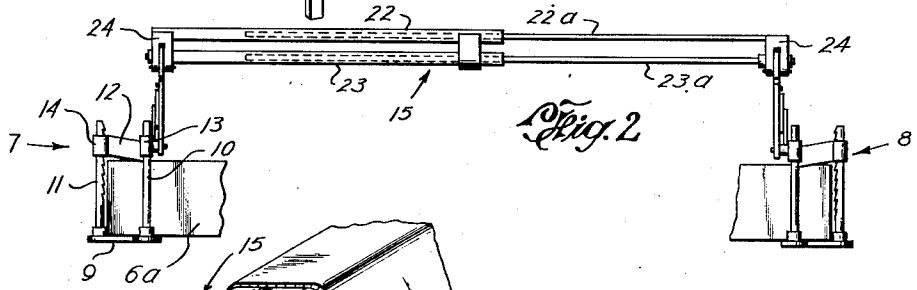


Fig. 2

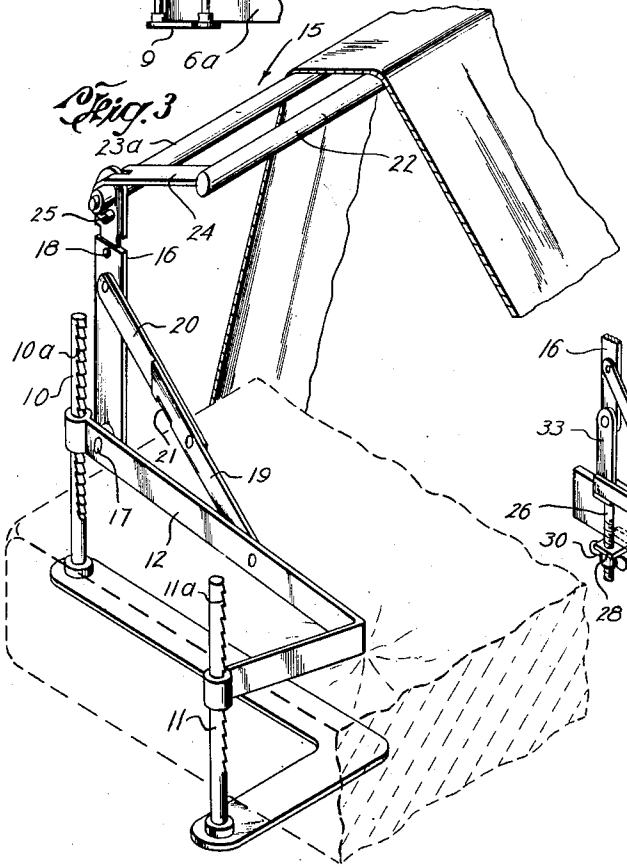


Fig. 3

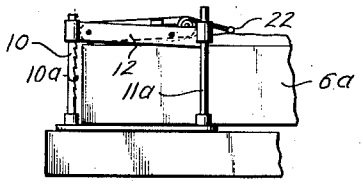


Fig. 4

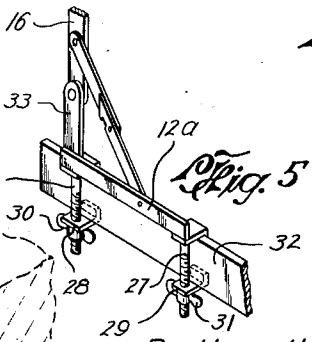


Fig. 5

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BED ATTACHMENT

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3 Claims. (Cl. 5—319)

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This invention relates to a bed attachment for selectively raising bed covers above the foot of a bed and has for its general purpose the provision of a rack which may be selectively raised to maintain bed covers above the feet of a sleeping or bedridden person, and may be lowered to a rest position on the bed mattress so as not to interfere with the appearance of the bed when made up.

Heretofore those persons whose feet were innately sensitive, or who were confined to a bed for an extensive length of time have had no way to shield their feet from the weight of the bed covers. This weight has been the source of much discomfort and annoyance, and has prevented some people from obtaining completely restful sleep.

It is an object of this invention to provide a bed attachment which will support the bed covering adjacent the foot of a bed.

Another object is to provide a bed attachment having a cover support which may be selectively raised above the bed and lowered to be flat upon the bed.

A further object is to provide a bed attachment which is extensible to fit beds of various widths.

A still further object is to provide a bed attachment which may be readily installed on a bed.

Another object is to provide a cover support which may be selectively positioned at various heights above a bed mattress.

Yet another object is to provide a bed attachment of the class described wherein the cover support has a part which is pivoted so as to extend substantially horizontally above the bed when the support is in elevated position and which will rest upon the bed mattress when the support is lowered so as not to materially interfere with the appearance of the bed.

Other and further objects of the invention will appear as the description proceeds.

In the accompanying drawings forming a part of the instant specification and wherein like reference numerals are used in the various views to indicate like parts:

Fig. 1 is a diagrammatic view of a bed with a section broken away showing the preferred embodiment of this invention;

Fig. 2 is an elevational view on an enlarged scale of the device of Fig. 1 when viewed from the foot end of the bed in Fig. 1, with the bed covers removed;

Fig. 3 is a fragmentary view, upon an even

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larger scale, illustrating some of the details of the bed attachment;

Fig. 4 is an elevational view of the device in lowered position when viewed from one side of the bed in Fig. 1; and

Fig. 5 is a view upon an enlarged scale, of a modified form of clamp for this invention.

Referring to the drawings, there is shown in Fig. 1 a bed indicated generally at 6 equipped with a bed attachment embodying this invention. The attachment may be considered generally as comprising bed clamps adapted to secure the attachment to a bed, with an elongate cover support pivotally secured to the clamps and adapted to be raised to an elevated position extending transversely of the bed mattress adjacent its foot. Means are provided for holding the cover support in elevated position, the means being releasable to provide for movement of the support to a position of rest on top of the mattress. The cover support preferably is arranged to provide a width dimension of several inches which will extend substantially horizontally over the top of the bed mattress when the cover support is in elevated position but which will rest substantially flatly upon the top of the mattress when the cover support is lowered.

Referring in detail to the drawings, the preferred form of bed clamps are shown generally at 7 and 8 secured to the mattress 6a of the bed. The clamps are secured to the mattress adjacent the foot 6b of the bed. The clamps comprise a lower support member 9 which may be angular in shape so as to provide a portion resting underneath the corner of the mattress. The support member 9 carries upright fastening elements or studs 10 and 11 arranged to extend upwardly at the end and side of the bed mattress, respectively. An upper clamp member 12 has sleeves 13 and 14 at its ends, respectively, adapted to fit over the upright elements 10 and 11, respectively. These sleeves have sufficient length and sufficient close fit over the upright elements to provide for a binding of the sleeves upon the elements when the longitudinal axes through the sleeves and the fastener elements are biased or not parallel. On the other hand, when the clamp member 12 is positioned to maintain the axes parallel, then the clamp member may be freely raised and lowered upon the fastener elements. With this arrangement, the clamp member 12 is pressed downwardly upon the top of the mattress to compress the mattress and the compression of the mattress operating against the clamp member 12 will be effective to bias the

sleeves relative to their respective fastener elements and thereby bind the clamp member in place upon the mattress. On the other hand, these clamps are readily releasable by an operator placing pressure upon the clamp members 12 in such fashion as to realign the sleeves relative to their respective fastening elements. With this realignment, the clamp members readily slip from the fastening elements. To insure more positive clamping, one face of the fastener elements may be serrated or preferably toothed with downwardly facing teeth 10*a* and 11*a*, respectively.

The elongate cover support, shown generally at 15, is secured to the clamps in such manner as to permit its elevation to the position shown in Figs. 1, 2 and 3 relative to the clamp and the bed mattress, and to permit it to be lowered to a position of rest upon the mattress, as indicated in Fig. 4. This may be accomplished by providing the cover support with links 16 extending from the support and having their free end secured to clamp member 12 by a pivot pin 17. Preferably, the links 16 are made up in two parts which are extensible to permit adjustment as to length. The parts may be telescoping with a set screw 18 securing them in adjusted lengths.

Means preferably are provided for holding the support in an upright position, and these means may be the usual folding links 19 and 20 common to bridge tables for holding bridge table legs in table supporting position. Links 19 and 20 are pivotally secured to member 12 and link 16, respectively, and have a releasable catch 21 for securing the links in an extended position providing a diagonal brace for holding the link 16 in an upright position.

The elongate cover support preferably is extensible to selected position so that the same attachment may be secured to single, three-quarter, and full size double beds. This may be accomplished by forming the cover support from telescoping rods 22—22*a* and 23—23*a*.

The rods 23—23*a* are secured between the links 16 and provide a first part of the cover support. The rods 22—22*a* and brackets 24 provide a second part of the cover support which is pivotally mounted with respect to the first part and links 16 so as to swing into relative position as the cover support is raised and lowered so that in elevated position, the second part of the cover support will extend substantially horizontally above the bed mattress and in lower position, will rest substantially over the top of a bed mattress extending horizontally and substantially in line with links 16. Thus, when the cover support is in its lowered position, neither parts of the cover support will materially interfere with the appearance of a made up bed. This part 22—22*a* provides the cover support with a width dimension so as to provide a canopy of the bed cover above the feet of the occupant of the bed. Yet sufficient space is provided within the canopy for allowing considerable movement of the bed occupant's feet without contact with the bed covers.

The rods 22—22*a* are secured between brackets 24, being connected to the ends of the brackets. The other ends of the brackets 24 are slotted, as shown in Fig. 3. The slotted ends of brackets 24 are pivotally secured to links 16 as by the hinge pin 25, shown in Fig. 3. The slotted ends of the brackets 24 straddle the upper part of links 16 and are curved to fit over the rods 23—23*a*. In this manner, in the substantially horizontal position of the second part of the cover support, as shown in Fig. 3, the curved slotted ends of the brackets and the rods 23—23*a* abut against one another and the rods 23—23*a* thus provide stop means to secure the second part of the cover support in said substantially horizontal position. Preferably, the stop means are such as to hold the part 22—22*a* at a slight angle extending upwardly from the part 23—23*a* so that when the cover support is moved pivotally to lowered position, the rod 22—22*a* will engage the top of the mattress at an angle so as to be forced to raised position or rest position upon the mattress.

In operation, when a bed is being made up with the attachment secured thereto, the clamps will be secured to the bed and in the preferred embodiment of the clamp, to the mattress adjacent its foot. The cover support will be placed at a position of rest upon the bed mattress and the bed covers arranged over the bed clamp and the cover support with the exception of the bottom sheet of the bed. With the cover support arranged in a position of rest on the bed mattress, the bed attachment does not deleteriously affect the appearance of a made up bed. When the bed is to be occupied, the occupant may readily raise the cover support by manipulation with the occupant's feet moving the support about its pivot to its elevated position. The links 19 and 20 will become extended and hold the support in elevated position. In this position, the bed covers are held above the foot of the bed but are permitted to decline rapidly to cover the occupant. However, a canopy is provided of the bed covers providing sufficient room for the occupant's feet so as to shield the occupant's feet from the weight of the bed covering. The extensible links 16 may be adjusted dependent upon the size of the feet of the bed occupant. The bed may be readily made up by collapsing the links 19 and 20, thus pivotally moving the cover support to a position of rest upon the bed mattress and then arranging the upper covers over the mattress.

A modified type of bed clamp is shown in Fig. 5, and it is to be understood that the bed clamp may be secured either to the mattress or to the bed. The Fig. 5 modification is the type of clamp that is secured to the bed and includes a modified type of clamp member shown at 12*a* to which are secured depending studs 26 and 27. These studs are threaded and receive clamp elements 28 and 29 which may be secured to the studs by wing nuts 30 and 31. The clamp elements 28 and 29 have flanged portions for fitting over a bed rail 32 and the member 12 has depending flange portions for fitting over the upper edge of the bed rail. The member 12*a* has an upright portion 33 to which the link 16 is pivoted. The rest of the bed attachment may be just the same as described in connection with the other figures of the drawings.

From the foregoing, it will be seen that this invention is one well adapted to attain all of the ends and and objects hereinabove set forth together with other advantages which are obvious and which are inherent to the structure.

It will be understood that certain features and subcombinations are of utility and may be employed without reference to other features and subcombinations. This is contemplated by and is within the scope of the claims.

As many possible embodiments may be made

of the invention without departing from the scope thereof, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

The invention having been described, what is claimed is:

1. A mattress attachment for selectively elevating and lowering bed covers at the foot of a bed comprising, a plurality of adjustable mattress clamps, an elongate cover support, means movably connecting the cover support to the clamps adapted to provide for selective movement of the cover support between elevated and lowered operational positions and for releasably positioning the cover support in elevated position.

2. A bed attachment for selectively elevating and lowering bed covers at the foot of a bed comprising, a plurality of bed clamps, a first elongate cover support part, means movably connecting the cover support part to the clamps adapted to provide for selective swinging movement of the cover support part between elevated and lowered operational positions, means releasably maintaining the cover support part in elevated position, a second cover support part, and means mounting the second cover support part

upon the end of the first mentioned part remote from the bed clamps for swinging movement relative to the first part between a position extending substantially horizontally with the two cover support parts elevated and a position substantially horizontal when the two cover support parts are lowered, whereby the cover support parts may be readily raised and lowered when mounted upon a bed, the second cover support part providing a width dimension in elevated position and swinging relative to the first part to rest horizontally upon the bed but beneath the covers when the support parts are moved to lowered position.

3. The device of claim 2 wherein the bed clamps comprise clamp parts adjustably secured together and adapted to be secured upon a mattress.

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