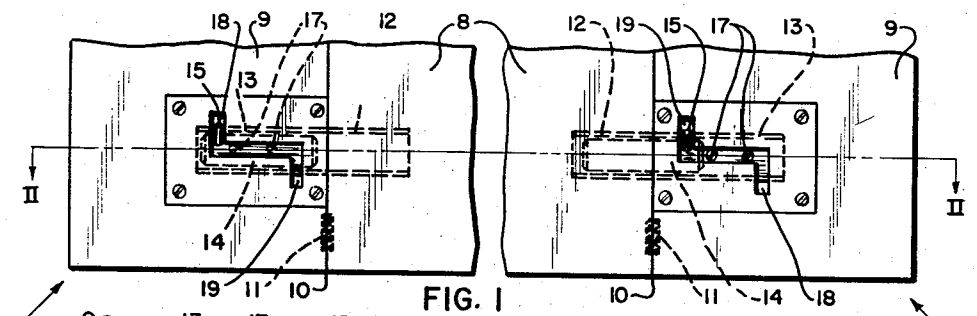
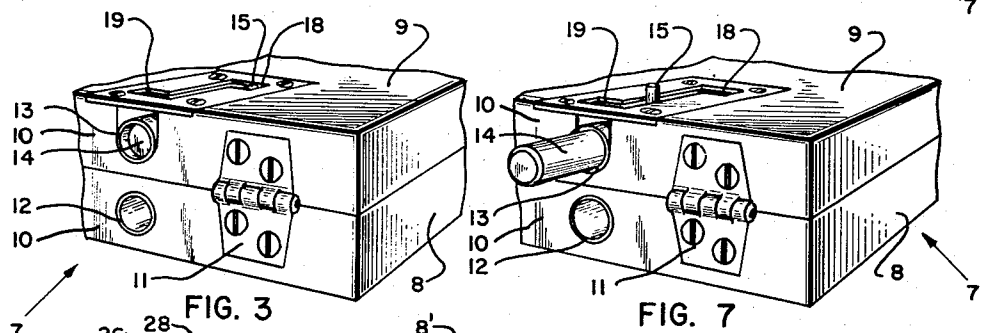
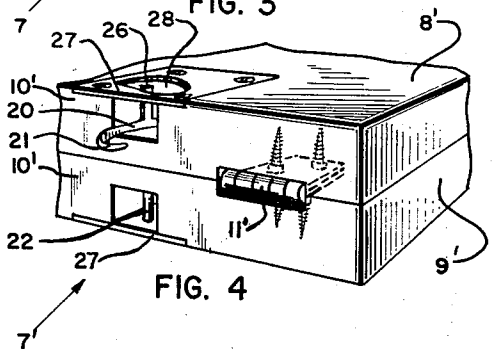
May 12, 1959 J. R. FEEZEL ET AL 2,885,695

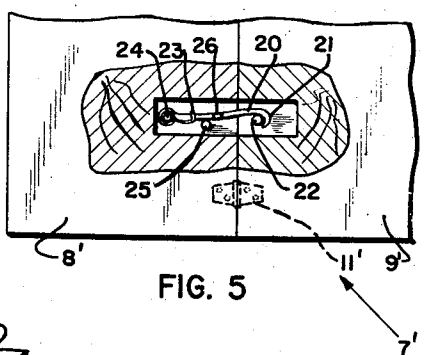
FOLDABLE PORTABLE BED BOARD

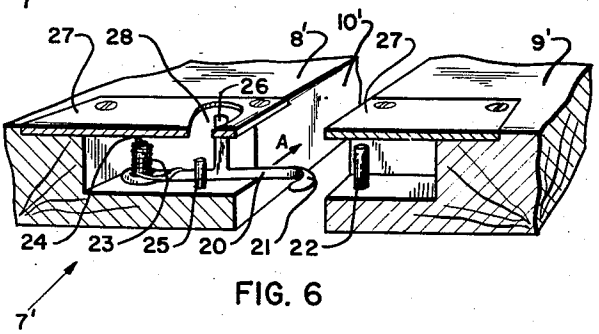
Filed May 13, 1957











INVENTOR.
JAMES R. FEEZEL
LIDA M. FEEZEL

BY R. W. Hodgson

United States Patent Office 2,885,695
Patented May 12, 1959

2,885,695

FOLDABLE PORTABLE BED BOARD

James R. Feezel and Lida M. Feezel, Canton, Ohio, assignors of one-tenth to Gadget-Of-The-Month Club, Inc., Los Angeles, Calif., a corporation of California

Application May 13, 1957, Serial No. 658,804

1 Claim. (Cl. 5—317)

Generally speaking, the present invention relates to the bed board art and, more specifically, relates to a foldable portable bed board cooperable for positioning in an extended stiff bed board and cooperable for positioning in a second folded position for non-use periods.

A great many people today find it both desirable and healthful to sleep on a stiff bed board and many physicians recommend this practice to their patients. There are also many people with back injuries, such as slipped disc injuries, who find it almost imperative to sleep on a bed board in order not to aggravate their back injury by twisting and turning on a mattress surface which has no firm support. At home a single piece of stiff lumber can be inserted beneath the mattress or the sheet so there is generally no problem at home if the bed board is going to be used continuously over a long period of time. However, if the bed board is going to be used intermittently, there is the knotty problem of storage since the prior art bed boards do not conveniently fold up for storage. This problem is greatly intensified when the user of a bed board goes on a trip away from home and naturally the user cannot take a bulky bed board with him even though it is absolutely vital for his health and well being. As a natural consequence of this, his back trouble may become greatly aggravated on his return home. Very few, if any, hotels or motels have bed boards available for the use of their customers. Even if the user wants to take his one-piece bed board with him, he would find it extremely difficult to transport it in a convenient manner.

The present invention was developed primarily to overcome the aforementioned problem and, generally speaking, can be said to be a foldable portable bed board which is cooperable for positioning in a first extended position defining a longitudinal stiff bed board for sleeping and cooperable for positioning in a second folded position for non-use periods. It comprises at least two, normally three, bed board sections of substantially flat configuration and having adjacent junction ends and with connection means controllably cooperable in a first manner with the adjacent junction ends to connect and relatively stiffen the bed board sections in end-to-end relationship and which defines a longitudinal bed board. The connection means are controllably cooperable in a second manner to provide freely a rotatable pivotal connection between adjacent bed board sections for rotation about hinge means substantially transverse to the longitudinal direction of the bed board sections thereby providing for pivotal folding movement of the bed board sections into overlying parallel compact relationship for convenient storage and portability during periods of non-use. The bed board is provided with stiffening means which are positioned across the adjacent junction ends of the bed board sections thereby stiffening the bed board sections into an extended stiffened longitudinal bed board. The stiffening means may be either telescopically reciprocal longitudinal guide members and slide rods or may comprise fastening means cooperable with portions of the adjacent junction ends to stiffen the adjacent bed board sections into an extended stiffened longitudinal bed board.

From the above description of basic and generic forms of the present invention, it will be apparent to those skilled in the art that virtually all of the hereinbefore mentioned prior art problems and/or disadvantages are substantially entirely eliminated, met and/or overcome in and through use of the present invention.

For example, it is obvious that the foldable portable bed board of the present invention may be rapidly and easily set up and collapsed, and that, when set up into a stiffened longitudinal bed board position, it is very firmly positioned in a manner which virtually completely precludes that the bed board sections will become accidentally disengaged from the stiffened longitudinal bed board position.

With the above points in mind, it is an object of the present invention to provide a bed board which is both rapidly and easily foldable and collapsible and which folds up during periods of non-use in such a manner which makes it easily transportable.

It is a further object of the present invention to provide a device of the character set forth in the preceding object, which is inexpensive, simple, easy to use and of virtually foolproof construction.

Other and allied objects will be apparent to those skilled in the art after a careful perusal, examination and study of the accompanying illustrations, the present specifications, and the appended claim.

To facilitate understanding, reference will be made to the hereinbelow described drawings, in which:

Fig. 1 is a fragmentary bottom plan view of one illustrative embodiment of the foldable portable bed board fully extended, with only one terminal bed board section being stiffened with respect to the intermediate bed board section and with the other terminal bed board section being unstiffened with respect to the intermediate bed board section;

Fig. 2 is a longitudinal fragmentary sectional view of the present invention taken along the lines II—II in Fig. 1;

Fig. 3 is a fragmentary perspective view of the bed board in a folded position, and showing one illustrative type of stiffening means, as show in Figs. 1 and 2;

Fig. 4 is a fragmentary perspective view of a modified version of the present invention in a folded position;

Fig. 5 is a fragmentary top plan view (partly broken away) of the bed board in an extended position, with part of the bed board broken away to reveal the tensile fastening means;

Fig. 6 is a partly exploded fragmentary perspective view of the tensile fastening means as shown in Fig. 5;

Fig. 7 is a fragmentary perspective view of embodiment shown in Fig. 3, with the longitudinal slide rod being partly extended.

Generally speaking, the foldable portable bed board, indicated generally at 7 in Figs. 1–3, is cooperable for positioning in a first extended position defining a longitudinal stiff bed board, as shown in Figs. 1 and 2, and cooperable for positioning in a second folded position for non-use periods, as shown in Figs. 3 and 7.

The portable bed board 7 comprises an intermediate bed board section 8 and two terminal bed sections 9 of substantially planar configuration and having adjacent junction ends 10.

Connection means, which in the particular example illustrated are the form of hinge means 11, are controllably cooperable in a first manner with the adjacent junction ends 10 to effectively connect the bed board sections 8 and 9 in substantial end-to-end relationship defining

a longitudinal bed board 7 having contiguous substantially co-planar upper surface means. The hinge means 11 are hinged at the top and are recessed into the bed board 7 to eliminate any projecting surfaces which may be disturbing to the user.

The hinge means 11 are controllably cooperable in a second manner to provide a freely rotatable pivotal connection between the bed board sections 8 and 9 for rotation about an axis transverse to the longitudinal direction of the bed board 7 and parallel to the planar surface thereof, thereby providing for pivotal folding movement of the terminal bed board sections 9 into overlying parallel compact relationship for ready storage and portability during non-use periods, as shown in Figs. 3 and 7.

The bed board 7 is provided with a first longitudinal guide member 12 carried by the junction end 10 of the intermediate section 8 and a second longitudinal guide member 13 carried by each of the junction ends 10 of the terminal sections 9 for alignment when the board sections 8 and 9 are in said end-to-end relationship and including longitudinal slide rod means 14 having tabs 15 and which are telescopically reciprocatable with respect to the guide members 12 and 13 for stiffening engagement therewith across adjacent junction ends 10, as shown in Figs. 1 and 2.

The guide members 13 are fixedly mounted within a recess portion in the boards 9 by means of screws 17, as shown in Figs. 1 and 2, and with the guide members 12 being press fitted into apertures in the intermediate board 8. The tabs 15 are positioned out of the way in the recess 18 when in an unstiffened position and upon subsequent actuation into the aforementioned stiffening positioning they are positioned in the recess 19, as best shown in Figs. 1–3, and 7.

Figs. 4, 5, and 6 illustrate a slight modification of the present invention, and corresponding parts will be indicated by similar reference numerals, primed, however, The operation of this modification of the invention is quite obvious upon consideration of its similarities and differences relative to the first form of the present invention shown in Figs. 1–3. In this connection, it should be noted that the hinge means 11′ are downwardly directed, as shown in Figs. 4 and 5, and that tensile fastening means are used to fasten the bed board sections 8′ and 9′ into an extended longitudinal bed board 7′. The fastening means consists of a catch 20 having a hooked portion 21 and a pin 22 which engages the catch 20 when the sections 8′ and 9′ are extended into end-to-end relationship. The catch 20 has spring biasing means 23 mounted around the shaft 24 which biases the catch 20 against the stop 25. Upon subsequent contact with the pin 22 the catch 20 is actuated in the direction indicated by the arrow A in Fig. 5 whereby the hook 21 may become lockingly engaged with the pin 22 by the biasing action of the spring 23 which snaps the catch 20 against the stop 25. The catch 20 is provided with a tab 26 to disengage the hook 21 from locked engagement with the pin 22. Both the pin 22 and the catch 20 are mounted in recesses in the board sections 8′ and 9′ and are provided with cover plates 27 to provide a flat continuous surface. The plate 27 covering the catch 20 has a partial opening 28 to permit the tab 26 to partly protrude therefrom.

Numerous modifications and variations of the present

invention will occur to those skilled in the art after a careful study hereof. All such properly within the basic spirit, scope and/or teachings of the present invention are intended to be included and comprehended herein as fully as if specifically described, illustrated and claimed.

For example, it is obvious that other fastening or stiffening means may be used other than as specifically described and illustrated herein.

The exact compositions, configurations, constructions, relative positionings, and cooperative relationships of the various component parts of the present invention are not critical, and can be modified substantially within the spirit of the present invention.

The embodiments of the present invention specifically described and illustrated herein are exemplary only, and are not intended to limit the scope of the present invention, which is to be interpreted in the light of the prior art and the appended claim only, with due consideration for the doctrine of equivalents.

We claim:

A foldable portable bed board cooperable for positioning in a first extended position defining a longitudinal stiff bed board and cooperable for positioning in a second folded position for non-use periods, comprising: an intermediate bed board section and two terminal bed board sections; connection means controllably cooperable in a first manner with said adjacent junction ends to effectively connect and relatively stiffen said bed board sections in substantial end-to-end relationship defining a longitudinal bed board having contiguous substantially continuous and co-planar upper surface means, said connection means being controllably cooperable in a second manner to provide freely rotatable pivotal connection between adjacent bed board sections for rotation about axis means substantially transverse to the longitudinal direction of the bed board means and substantially parallel to the planar surface thereof providing for pivotal folding movement of said bed board sections into substantially overlying parallel compact relationship for ready storage and portability during non-use periods, said connection means including hinge means connecting adjacent junction ends and said connection means including controllably operable stiffening means controllably positionable across adjacent junction ends, thereby temporarily rendering inoperative said hinge means and effectively stiffening adjacent bed board sections into an extended stiffened longitudinal bed board, said stiffening means comprising tensile fastening means effectively cooperable with portions of adjacent junction ends radially displaced from the axis of rotation of said hinge means and preventing the separation of said portions, thereby effectively stiffening adjacent bed board sections into an extended stiffened longitudinal bed board.

References Cited in the file of this patent

UNITED STATES PATENTS

130,574	Freeman	Aug. 20, 1872
186,753	Peck	Jan. 30, 1877
2,551,976	Smith	May 8, 1951

FOREIGN PATENTS

312,511	Great Britain	May 30, 1927
356,789	France	Oct. 17, 1905