

Dec. 29, 1959

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2,918,682

FOOT AND BACK REST

Filed Sept. 19, 1958

3 Sheets-Sheet 1

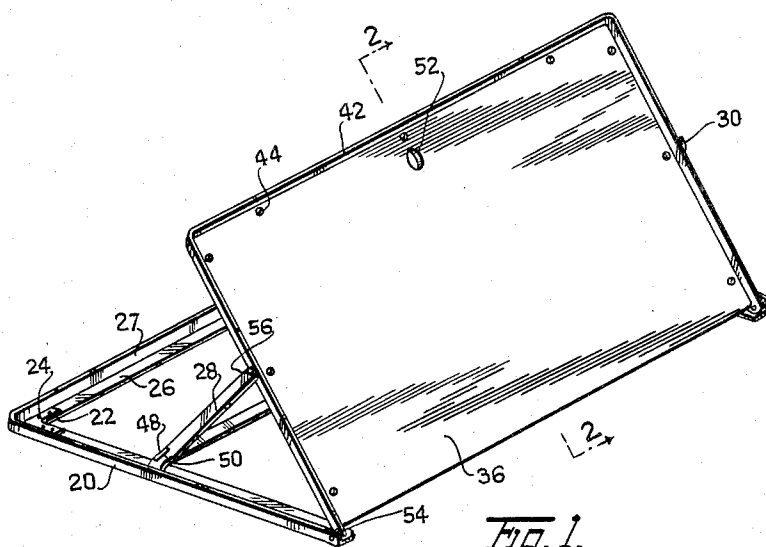


Fig. 1.

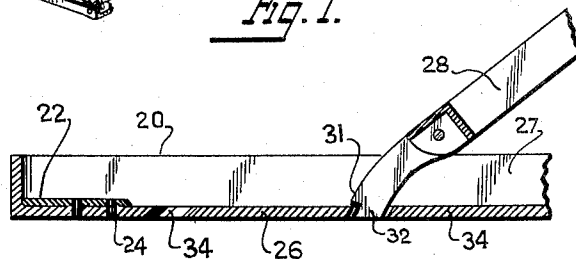


Fig. 3.

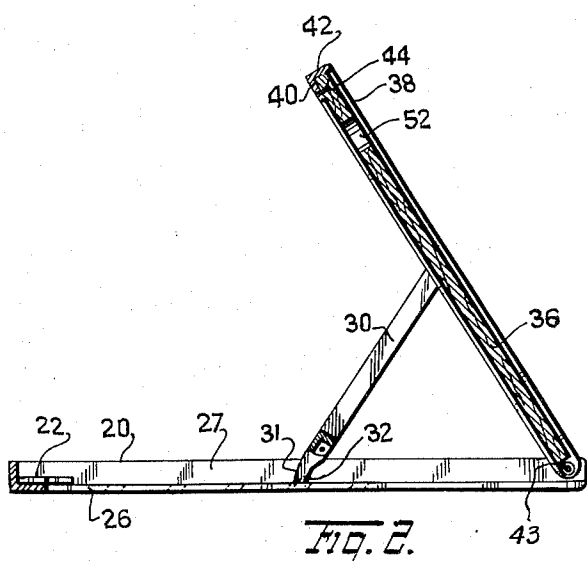


Fig. 2.

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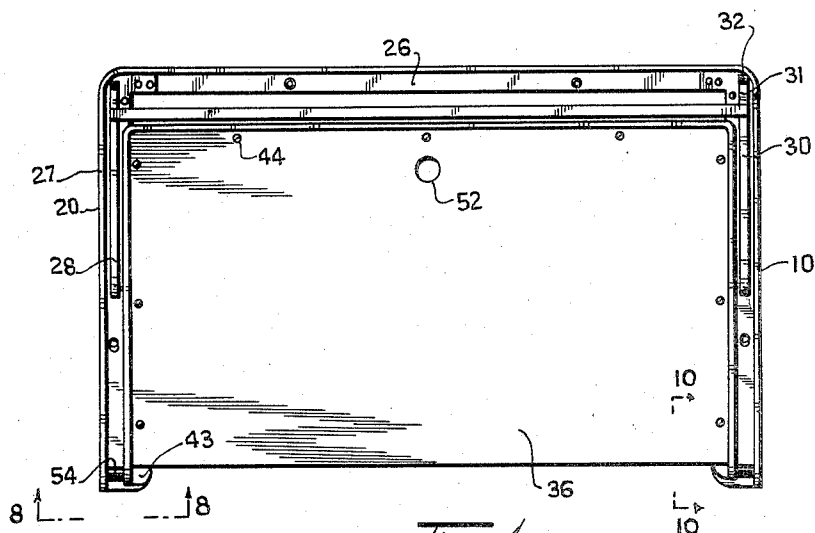


Fig. 4.

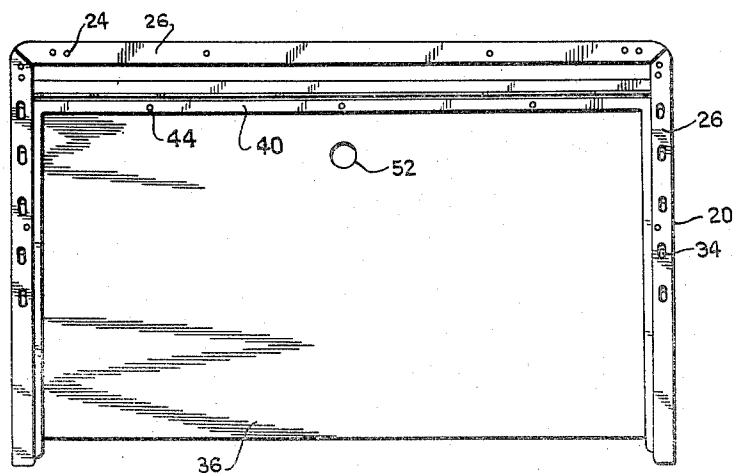


Fig. 5.

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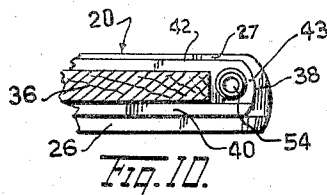
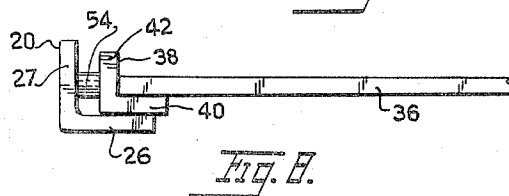
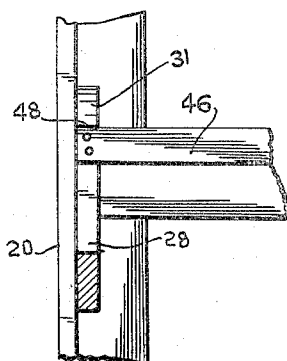
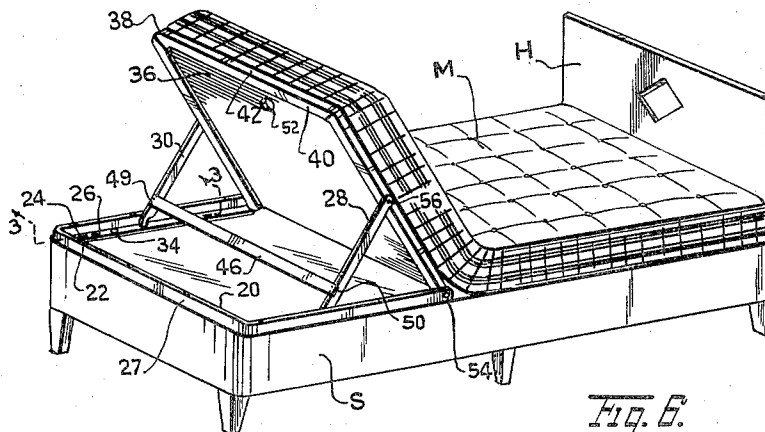
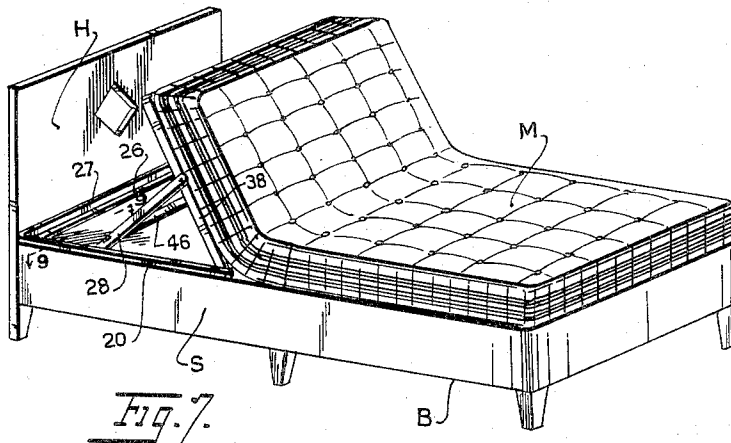
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3 Sheets-Sheet 3



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2,918,682

FOOT AND BACK REST

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1 Claim. (Cl. 5—327)

The present invention concerns a support for mattresses which enables a person to recline with either his back or his feet in an elevated position.

The support may be used for the beds of invalids as well as persons in good health when they want to recline in a particular comfortable position. A principal object of the invention is, therefore, to provide a device adapted to be placed under a mattress upon an underlying spring or platform in such manner that the end of the mattress may be raised to a greater or lesser degree in accordance with the requirements of the user.

A further object is to provide a device which may be used in any type of bed without requiring the complicated mechanisms commonly associated with articulated hospital beds or the like.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a perspective view of a device embodying the invention, in open position.

Fig. 2 is a sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is a fragmentary sectional view on an enlarged scale showing details of the structure of the device, taken on line 3—3 of Fig. 6.

Fig. 4 is a front elevational view of the device in a closed position.

Fig. 5 is a rear elevational view of the device in a closed position.

Fig. 6 is a perspective view of the device as installed at the foot of a bed as a leg or footrest.

Fig. 7 is a perspective view of the device as installed at the head of a bed as a backrest.

Fig. 8 is an end view of a portion of the device taken on line 8—8 of Fig. 4.

Fig. 9 is a sectional view on an enlarged scale of a portion of a brace assembly, taken on line 9—9 of Fig. 7.

Fig. 10 is a sectional view on an enlarged scale of a corner portion of the device, taken on line 10—10 of Fig. 4.

Referring to the drawings, there is shown a first generally rectangular U-shaped frame member 20 which provides a base for the device. This base is formed of an angle bar which is L-shaped in cross section, as clearly shown in Figs. 1 and 2. L-shaped cleats 22 secured by rivets 24 or screws, may be secured at the right corners of member 20 on ledge or wall 26 to reinforce the structure of the member.

The arms of member 20 are adapted to support a pair of brace bars 28 and 30. Each of these bars has a curved end 31 terminated in a finger element 32 arranged to project into and engage in any one of a plurality of

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longitudinally spaced apertures 34 formed in the ledge portions 26 of the arms of the frame member 20, as best shown in Fig. 3. Each of apertures 34 is axially inclined to the plane of ledges 26 and frame member 20.

The frame member 20 has an upstanding wall 27 adapted to receive pivotal portions of the device in a closed position. As shown in Figs. 1, 2, 4 and 5, the device includes a rigid rectangular board 36 made of wood, plastic or other suitable sheet material. This board is supported in another generally rectangular U-shaped frame member 38 also made of a bar which is L-shaped in cross section. Bar 38 has a base ledge 40 and an upstanding wall 42. The board 36 is received snugly within the frame member 38 and is secured to ledge 40 by screws or rivets 44.

A crossbar 46 extends across the device between brace bars 28 and 30 and has terminal finger elements 48, best shown in Fig. 9, secured by pins 49 in recesses 50 at intermediate points between the ends of the brace bars. This crossbar is formed of an L-shaped angle bar as clearly shown in Fig. 2.

A centrally located hole 52 is provided in board 36 near the bight of member 38 for convenience in handling the device. The free ends of frame member 38 extend beyond board 36 as clearly shown in Fig. 4. These free ends have end portions 43 of wall 42 engaged on a pair of cylindrical spacer members 54 whose outer ends are engaged at free ends of wall 27. The ends of members 54 are peened flush with the inner side of wall 42 and outer side of wall 27, as clearly shown in Figs. 4, 8 and 10. The free ends of frame members 20 and 38 are thus pivotally attached together so that the board 36 can be positioned angularly to the plane of member 20. The inner ends of brace bars 28 and 30 are pivotally attached by pins 56 to outer sides of wall 42 at intermediate points on the arms of member 38.

In Fig. 6, the device is shown used at the foot of a bed B. The device is inserted under the foot end of the mattress M with frame member 20 disposed on spring or platform S. Brace bars 28 and 30 are adjustably disposed angularly to members 20 and 38 with board 36 abutting the underside of the mattress. The ends 31 of the brace bars are engaged in a pair of oppositely disposed apertures 34 in member 20.

In Fig. 7, the device is shown used at the head H of the bed with frame member 38 and board 36 held at an angular position with respect to frame member 20 by brace bars 28 and 30. The device is disposed between the mattress M and spring S, but with member 20 turned 180° from its position in Fig. 6.

The several frame members are preferably made of a light metal such as aluminum. The device is so constructed that it can readily be removed from the bed when desired. Since the device folds compactly it can be left between the mattress and spring in a collapsed condition when so desired.

While we have illustrated and described the preferred embodiment of our invention, it is to be understood that we do not limit ourselves to the precise construction herein disclosed and that various changes and modifications may be made within the scope of the invention as defined in the appended claim.

Having thus described our invention, what we claim as new, and desire to secure by United States Letters Patent is:

A footrest and backrest for a bed, comprising a first generally rectangular U-shaped frame member, a second generally rectangular U-shaped frame member, first means pivotally joining said members together at the free ends thereof, one of said members being smaller than the other, a flat board secured within the outline of the smaller of said members, and second means adjustably

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disposing and supporting said smaller member and board at selected angular positions with respect to the other and larger of said members, the first-named means being a pair of cylindrical spacers each having opposite ends engaged by the free ends of said frame members with said opposite ends peened flush with an outer side of the larger frame member and with an inner side of the smaller frame member, each of said frame members being formed from an angle bar of L-shaped cross section providing bottom and upstanding walls, said frame members being made of metal, said board being made of a thin, light, rigid sheet material, a bottom wall of the larger frame member having spaced holes therein, said second means comprising a pair of brace bars pivotally connected to sides of the smaller frame member, each of the brace bars having a curved free end with a finger element projecting therefrom to fit into one of the holes in said larger frame member, a crossbar secured to said brace bars intermediate their ends providing said second means with a generally H-shaped rigid structure,

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said brace bars having recesses, said crossbar being an angle bar having terminal finger elements secured in the recesses in the brace bars at said intermediate points, each of said holes having an axis disposed at an angle to the plane of said larger frame member, said board having a hole located near the bight of the smaller frame member, said board being secured to a bottom wall of the smaller frame member and being collapsible substantially flush with the outer side upstanding walls of the larger frame member, said first-named means and said second-named means being disposed within the confines of the first and second U-shaped frame members when the members are in closed collapsed condition.

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