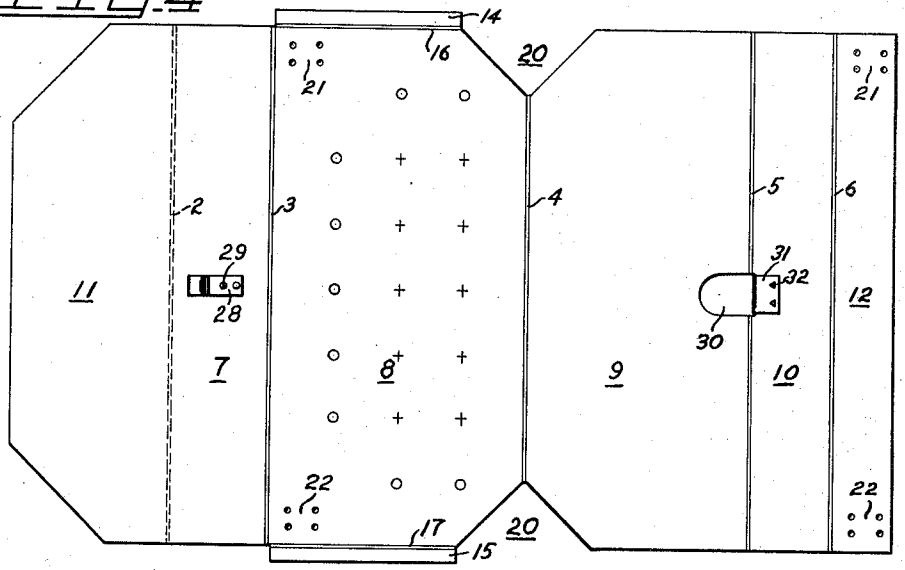
July 28, 1953 C. S. EVANS 2,646,578

BED CLOTHING SUPPORT

Filed Sept. 25, 1948

Fig. 4



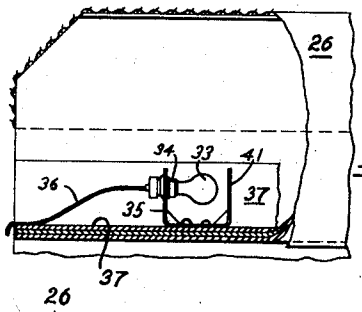


Fig. 3

Fig. 2

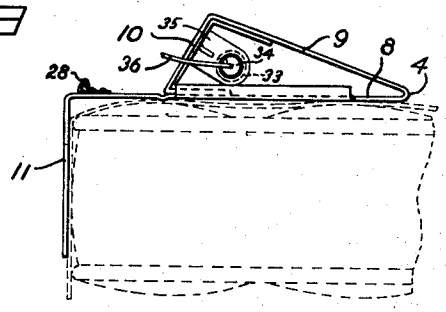
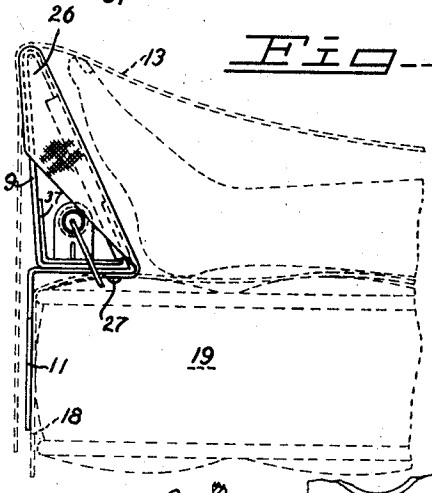


Fig. 1



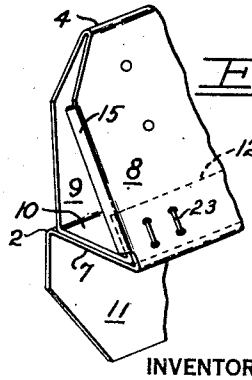


Fig. 5

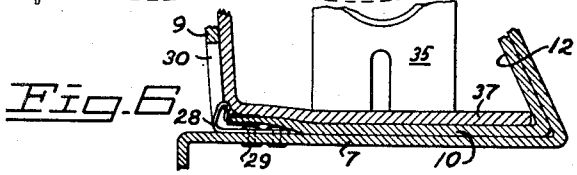


Fig. 6

INVENTOR

Charles S. Evans

Patented July 28, 1953

2,646,578

UNITED STATES PATENT OFFICE

2,646,578

BED CLOTHING SUPPORT

Charles S. Evans, Atherton, Calif.

Application September 25, 1948, Serial No. 51,195

6 Claims. (Cl. 5—319)

1

My invention relates to means for supporting bed clothing in raised position at the foot of a bed; and one of the objects of the invention is the provision of means to prevent direct pressure of the clothing on the feet of an occupant. Another object is the provision of a foot rest at the lower end of a bed. Still another object is the provision of a heated foot rest for winter or sick bed use.

My invention has other objects and features of advantage, some of which, with the foregoing, will be explained in the following description of that form of the invention which is illustrated in the drawings. It is to be understood, however, that the invention is not limited to this single embodiment, but may be included in a plurality of forms as set forth in the claims.

Referring to the drawings: Figure 1 is an end view of my bed clothing support in erected position of use. Bed clothing, mattress and foot of occupant are indicated in dash lines; and Figure 2 is a similar view, showing the device in down position of disuse. The fabric cover is omitted in Figure 2 to simplify the view.

Figure 3 is a front view of one end of the erected structure, a part of which is broken away to disclose the heating lamp.

Figure 4 is a plan view of the blank out of which the main body of my device is formed.

Figure 5 is a perspective view of one end of my device in upright position, but without the fabric cover or the insulating liner or lamp.

Figure 6 is a vertical sectional view of a fragment of my device, showing the spring latch. The scale is larger than that of Figure 1.

Nearly everyone lies on his back at least part of the night, and many habitually sleep in that position. After certain operations, the patient must spend long hours on his back. It is within the personal experience of many persons that the human foot has not kept pace in evolutionary development with the modern bed; and cannot be comfortable with the weight of even light bed covers pressing down upon the toes. Since the ankle and leg are quite limited in rotary motion about the long axis of the leg the entire body must be shifted to relieve the toes of a pressure which becomes intolerable if long continued especially to one who is sick or perhaps only restless. Light though persistant pressure on the toes causes restlessness and insomnia, usually with only a dim appreciation of the reason for the discomfort. By giving needed foot room without pressure, this invention brings comfort to tired feet, peace to tossing bodies, and induces sleep.

2

Besides pressure on the toes, chilly sheets and poor circulation in the extremities are a frequent cause of discomfort and sleeplessness. My invention contemplates means by which my device may be continuously heated, thus enhancing the purely creature comfort it bestows, as well as providing a therapeutic appliance of some slight value in the treatment of such disorders as the common cold, poor circulation in the extremities and insomnia.

Broadly considered my device comprises a hollow substantially prismatically-shaped body, preferably triangular in cross section, and hinged along one of its lateral edges to a flat base plate, which is anchored in position by a hinged tab extending downwardly at the end of the mattress. The triangular prismatically-shaped body has one short side and two unequal long sides. In use, the device rests on the short side, leaning backwardly toward the foot of the bed as shown in Figure 1. When not in use, the device may be turned forwardly as shown in Figure 2, so that the lump is less noticeable in the unoccupied bed. The main body of the device is made from a single sheet as shown in Figure 4, creased laterally and folded into the hollow prismatically-shaped body, base plate and anchor tab. The prismatically-shaped form is preferably held by a shoestring laced through registered holes; and a small electric globe is arranged within the body to provide a source of heat. A washable cloth slip or casing covers the front face of the rest, or it may be covered by an ordinary pillow case.

In greater detail my bed clothing support comprises a single sheet of hard fiber board preferably about ⅛" or a little less in thickness, and divided by transverse parallel creases **2**, **3**, **4**, **5** and **6** into panels **7**, **8**, **9** and **10**, and end tabs **11** and **12**. The first of these creases, **2**, is on one side of the sheet and all the others are on the opposite side. Dimensions may vary over a considerable range, but for a single or twin bed the sheet may be about 15" wide x 30" long. Satisfactory results will follow when the anchor tab **11** is 5" wide, and the panels **7**, **8**, **9** and **10** are 4¼", 8¾", 6½", and 4" wide respectively, and the fastening tab **12** is 2" wide. Of course material, shape and dimensions are subject to wide variation from the preferred or most practical.

These sizes produce a bed clothing support and foot rest large enough for an adult and one that tends to remain in erect position by the weight of the supported coverings **13** as shown in Figure 1. For double beds, the rest may be much longer,

but two smaller ones spaced apart 12" to 14" are preferred.

Preferably end tabs 14 and 15 are left on the end edges of the large panel 8, and are separated therefrom by creases 16 and 17 respectively. These tabs are folded back as shown in Figure 5 to provide a stiffening flange and a protective round edge at each end. The outer corners of the anchor tab 11 are clipped as shown in Figures 4 and 5, or rounded, to facilitate the entry of the tab between the tucked-in bed covers 13 and 18 at the foot of the mattress 19 as shown in Figure 1. Notches 20 are also preferably cut between the adjacent corners of the panels 8 and 9 as shown in Figures 4 and 5 to ease the break of the bed covering over the corners when the rest is erected. Groups of holes 21 and 22 are punched in the sheet, both in panel 8 and tab 12 near the long edges and in such position that the holes on each side will be in alignment when the sheet is folded up to form the hollow prismatically-shaped body required for use.

In folding up the sheet to form the hollow body, the creases 3, 4, 5 and 6 are left on the inside; and the underside of the tab 12 is laid flat against the panel 8 with the creases 6 and 3 together. One half of a shoelace 23 is then passed through the registered holes on each side and tied, preferably on the inside of the hollow body. The lace fastening is preferred where the device is sold flat, to be set up at home by the purchasers. For factory assembly, a heavy flat staple may be applied at each end of the juxtaposed panels 8 and 12.

It will be observed that the sizes mentioned give a cross section of a scalene triangle, which is preferred because the overall height is low when the prismatically-shaped body rests on its widest side, and high when it rests on its narrowest side, at which time the body is leaning back against the pull of the bed clothing.

As so far explained, the rest is without heating means, and may be used, especially during the summer months or in warm climates with no provision for heating.

To prepare the device for use, an ordinary pillow case, or specially shaped cover 26 is slipped over the prismatically-shaped body, and secured by snap fasteners 27, and the device placed in the bed between the sheets. Then with the tab 11 leading and the prismatically-shaped body resting on its long side as in Figure 2, it is pushed toward the foot, the tab being eased over the end of the mattress, so that the parts lie in the position shown in Figure 2. In this position of disuse, only a slight bump is noticeable in the dress of the bed—not enough to incur the displeasure of the most meticulous of housekeepers.

When the bed is occupied, the prismatically-shaped body is readily raised by the foot and pushed back into the position shown in Figure 1, where the weight and natural pull of the bed covers keep it in place. When desired however, latch means are provided to retain the prismatically-shaped body in erect position. Such means may comprise a flat spring 28, shaped as shown in Figure 6 and fixed on the panel 7 by one or more rivets 29. A hole 30 is punched in the panel 9 to leave a short straight edge in the crease 5 bordering the panel 10; and a shoe 31 is clamped around this edge and held by the integral points 32 which penetrate the panel. When the prismatically-shaped body is raised to erect position, the shoe engages the resilient free end of the latch, which tends to retain it as in Figure 6 but which releases it when sufficient pressure is applied.

Preferably the prismatically-shaped body is provided with heating means so that the surface against which the feet rest can be warmed. A simple and satisfactory heating unit for the purpose is a 25-watt electric bulb 33, screwed into a socket 34, mounted on the bracket 35, fixed on the inside of the prismatically-shaped body, preferably on the narrow side or base. The socket is furnished with a flexible cord 36 for connection with a current source in the usual way.

A sheet 37 of heat insulating and fire resistant material lines the inside of the prismatically-shaped body around the lamp, being preferably disposed along the rear and bottom surfaces as shown in Figure 1. This concentrates the heat on the front panel where it is needed. Preferably this panel is perforated as shown to facilitate the flow of heat through it.

It will be observed that when in erect position as shown in Figure 1, my device provides a surface sloping backwardly at an angle comfortable for the foot to lie against, and that the weight of the bed clothes tends to hold it in that position, while at the same time the clothes are supported out of annoying contact with the toes.

Since the substitution of a 100-watt lamp for the intended 15 or 25-watt lamp would create a fire hazard, means are preferably provided for limiting the size of lamp globe which can be screwed into the socket. An effective and cheap means to accomplish this is the guard ring 41, disposed as shown, on the same bracket 35 with the socket 34. The size of the hole in the ring is slightly larger than a low wattage lamp, but smaller than a 60-watt or higher wattage lamp. In addition, the spacing between ring and socket is sufficient to admit the low wattage lamps while excluding the longer higher wattage lamps, thus imposing a double limitation on the size of lamp used.

I claim:

1. A foot rest and bed clothing support comprising a base plate, a substantially prismatically-shaped body hinged along one of its long sides to one edge of the base plate, and an anchor tab hinged to the opposite edge of the base plate.

2. A foot rest and bed clothing support comprising a base plate, a hollow substantially prismatically-shaped body hinged along one of its long sides to one edge of the base plate, an anchor tab hinged to the opposite edge of the base plate, and means in the prismatic body for mounting a heating element.

3. A foot rest and bed clothing support comprising a base plate, a body having a scalene triangular cross section and hinged along an edge of its narrowest side to one edge of the base plate, and an anchor tab hinged to the opposite edge of the base plate.

4. A foot rest and bed clothing support comprising a body having a narrow face and a wide face, a base plate hinged to the body at the juncture of the two faces, and means disposed on the body for heating one of the faces.

5. A foot rest and bed clothing support comprising a hollow body of sheet material and having a scalene triangular cross section, a base plate to one edge of which the hollow body is hinged along an edge of the narrowest side, and means in the hollow body for mounting a heating element.

6. A foot rest and bed clothing support com-

prising a hollow body having rigid walls, a base plate on which the hollow body is mounted, a bracket fixed on the inside of the hollow body, a lamp socket at one end of the bracket, and means at the other end for limiting the size of the lamp insertable in said socket.

CHARLES S. EVANS.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
803,545	Boeck	Nov. 7, 1905
1,404,461	Mendenhall	Jan. 24, 1922
1,452,915	Kennedy	Apr. 24, 1923
1,619,685	Updegrove et al.	Mar. 1, 1927
2,160,443	Schadell	May 30, 1939
2,390,546	Mather	Dec. 11, 1945

FOREIGN PATENTS

Number	Country	Date
12,180	Great Britain	of 1915