

Jan. 25, 1966

W. H. HALE  
BACK REST

3,230,557

Filed April 28, 1964

2 Sheets-Sheet 1

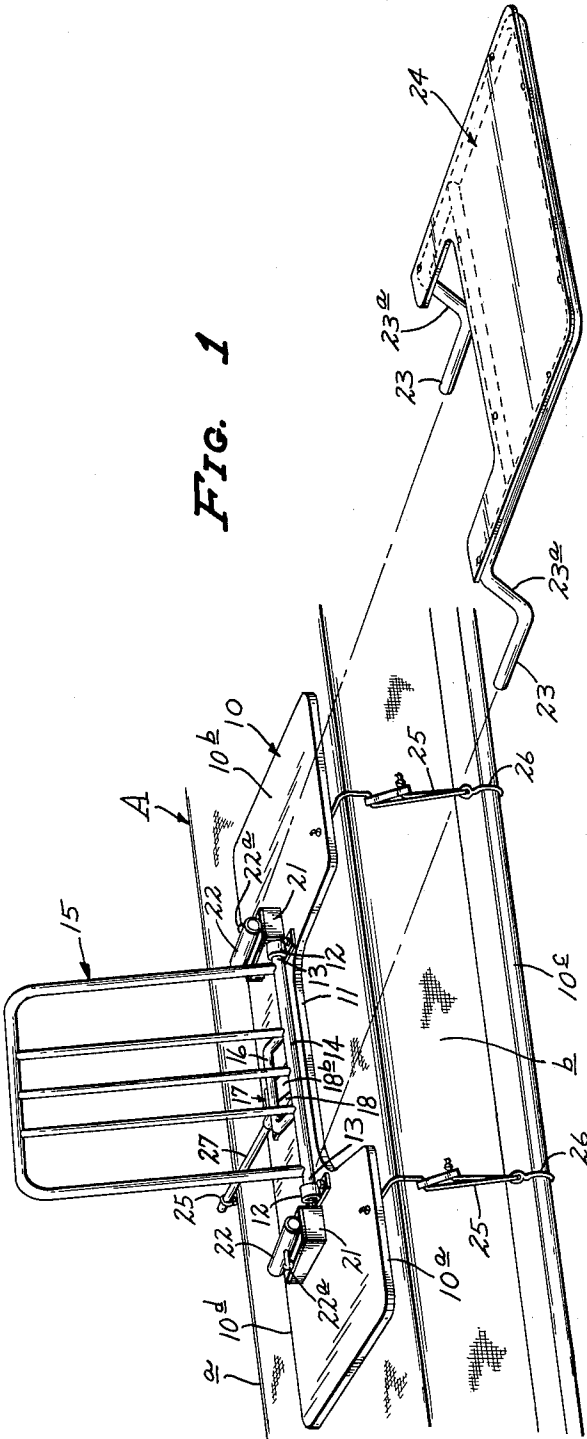


FIG. 1

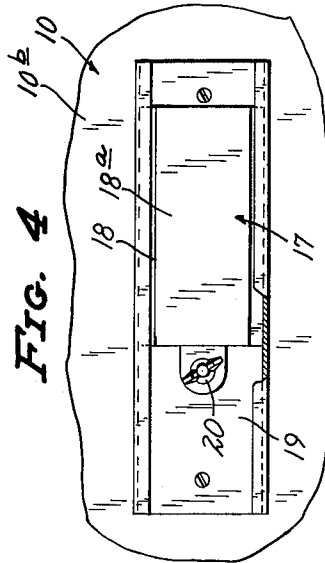


FIG. 4

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2 Sheets-Sheet 2

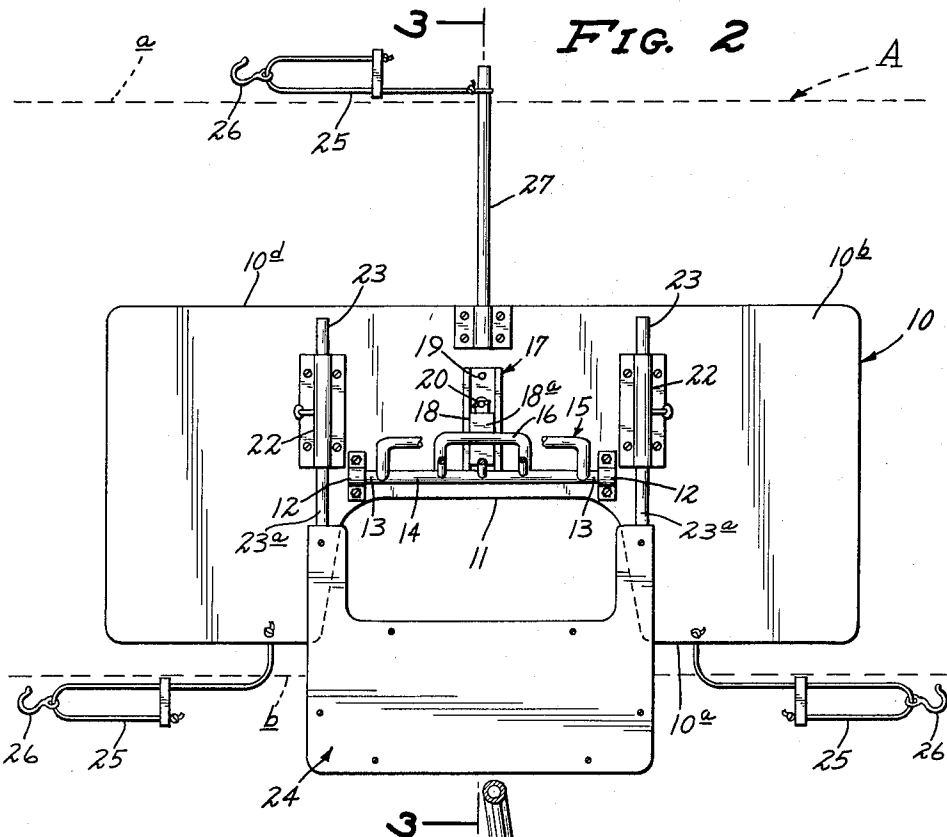
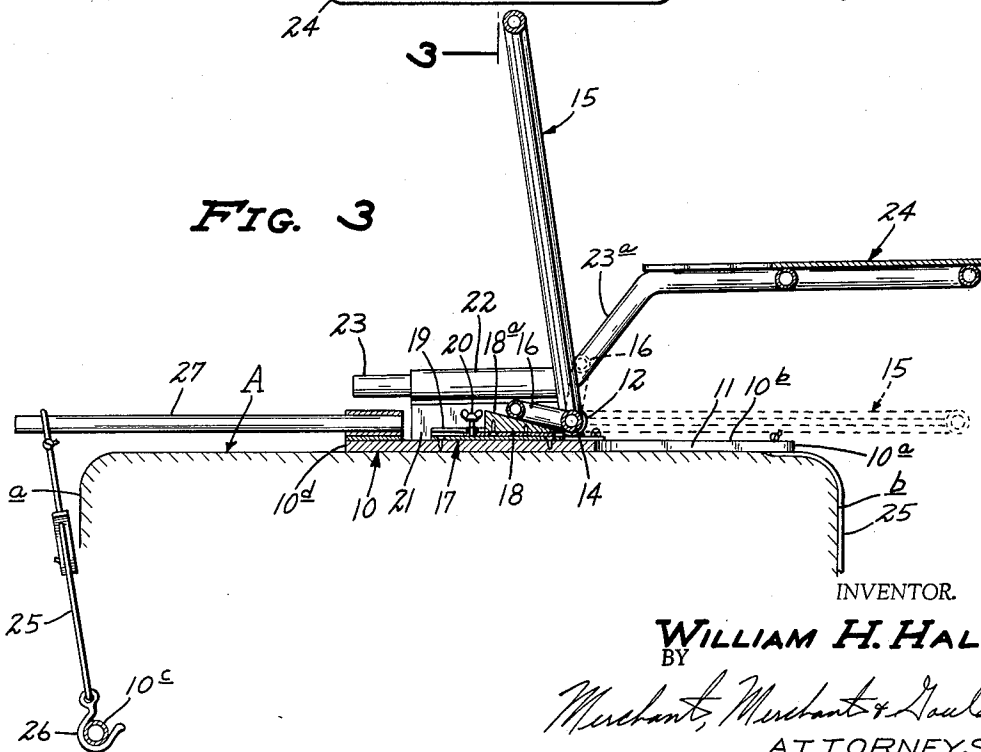


FIG. 3



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2 Claims. (Cl. 5—327)

My invention relates generally to supports for bed-ridden patients, and more particularly, to devices for maintaining such patients in an upright sitting position.

The primary object of my invention is the provision of a bed-supported back rest for patients which may be quickly secured to and removed from the bed of the patient and which, when attached, will support the patient in a comfortable and completely stable upright position for eating, writing, reading, and the like.

A further object of my invention is the provision of a device of the class above described which may be applied to a bed or like supporting structure without removing the patient from the bed, and which utilizes the bed to support the buttocks of the patient.

A further object of my invention is the provision of a device of the class above described which will support the patient with his legs dangling over the side of the bed and which may be attached to the bed after the patient has been so positioned, and without the necessity of lifting or otherwise elevating the patient.

A further object of my invention is the provision of novel means for varying the inclination of the back rest associated with my novel structure.

A still further object of my invention is the provision of a device of the class described which is relatively inexpensive to produce, and is rugged and durable in use.

The above and still further objects of my invention will become apparent from the following detailed specification, appended claims, and attached drawings.

Referring to the drawings wherein like characters indicate like parts throughout the several views:

FIG. 1 is a view in perspective;

FIG. 2 is a view in top plan;

FIG. 3 is a view in transverse section as seen from the line 3—3 of FIG. 2; and

FIG. 4 is a fragmentary view in top plan of the adjustable back rest support.

Referring with greater particularity to the drawings, the letter A identifies a conventional bed. Shown as being supported on the bed A is an elongated generally rectangular plate-like base member 10, formed from plywood or other rigid sheet material. Along its forward edge 10a the base member 10 is formed to define a generally U-shaped forwardly opening buttocks-receiving notch 11. For a purpose which will hereinafter be explained, the longitudinal and transverse dimensions of the base member 10 are approximately double the corresponding dimensions of the notch 11.

Rigidly secured to the upper surface 10b of the base member 10, one each on an opposite side of the notch 11, are a pair of aligned bearing mounts 12 in which are received for limited rotary movements about horizontal axes trunnions 13. Trunnions 13 are secured to and form a part of the lower edge 14 of a back rest member 15. As shown, the back rest member 15 may be formed from suitable rod stock, either tubular or solid, suitably fabricated by welding or the like. Back rest member 15 is thus mounted for limited swinging movements on the base member 10, from a generally upright back-supporting position, as shown by full lines in FIG. 3, to a collapsed inoperative position wherein it overlies the notch 11 and is substantially coplanar with the base member 10, as shown by dotted lines in FIG. 3.

Limiting rearward swinging movements of the back rest member 15 is a generally U-shaped stop element 16,

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which is rigidly secured to and projects rearwardly from the lower edge 14 thereof. Stop element 16 operatively engages the base member 10 through the medium of a transversely slidably adjustable abutment member 17. As shown, the abutment member 17 comprises a shoe 18 slidably received within a guide-plate 19. As shown, the shoe 18 has a forwardly inclined abutment surface 18a and a locking setscrew 20. In this manner, it should be clear that the pitch of the back rest member 15 may be varied to bring about the desired supporting position thereof.

Also secured to the upper surface 10b of the base member 10 are a pair of laterally spaced supporting blocks 21 upon which are mounted, one of each side of the back rest member 15, forwardly opening tubular mounting brackets 22 which are adapted to telescopically receive, one each, one of the rearwardly projecting arms 23 associated with the relatively flat supporting tray elements 24. For the purpose of securing the tray element 24 in operative position, wherein it generally overlies the lap of the patient, not shown by seated in the notch 11, the arms 23 are offset as at 23a. To securely lock the arms 23 in their respective sockets 22, I provide set-screws 22a.

For the purpose of securing the base member 10 and parts carried thereby to the underly bed A, I provide flexible draw cords 25, which preferably at their lower ends are provided with hooks 26, for engagement with bed-frame structure 10c. As shown, two of these flexible draw cords 25 are secured to the base member 10 adjacent the forward edge 10a, one on each side of the notch 11. However, to increase the effective width of the base member 10, a boom 27 is secured adjacent the rear edge 10d thereof. As shown, the boom 27 projects laterally outwardly upon the adjacent side a of the bed A, with the flexible draw cord 25 secured to the extended end thereof.

When it is desired to put my novel structure in use, it is but necessary to support the legs and head of the patient while he is pivoted about his buttocks to a sitting position. The patient's legs are then permitted to dangle over the side b of the bed A while base member 10 is placed in position with the patient's buttocks received within the notch 11. The base member 10 is then securely anchored in position through the medium of the flexible draw cords 25 and the tray element 24 is placed into operative position with the arms 23 thereof telescopically received and locked within the tubular mounting brackets 22. The width and length of the base member 10 with respect to the notch 11 gives great stability to a patient seated within the notch 11.

My invention has been thoroughly tested and found to be completely satisfactory for the accomplishment of the above objects; and while I have disclosed a preferred embodiment thereof, same may well be capable of modification without departure from the scope and spirit of the appended claims.

What is claimed is:

1. An invalid seat for use in connection with a bed comprising:
  - (a) a relatively flat elongated plate-like base member the forward edge of which is formed to define a central generally U-shaped buttocks-receiving notch,
  - (b) a back rest member pivotally secured to said base member immediately rearwardly of said notch for limited swinging movements about a horizontal axis from a generally upright back-supporting position to a forwardly disposed inoperative position substantially overlying said notch and in substantially coplanar relationship with said base,
  - (c) stop means limiting rearward swinging movements of said back rest member,
  - (d) a relatively flat supporting tray element,

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- (e) means for detachably anchoring said supporting tray element to said base member with the former in vertically spaced substantially parallel relationship to the latter and generally overlying said notch, and
- (f) flexible tie means carried by the front and rear edges respectively of said base member for securing same to an underlying bed structure,
- (g) the longitudinal and transverse dimensions of said plate-like base member being considerably greater than the corresponding dimensions of said notch.
2. The structure defined in claim 1 in which the longitudinal and transverse dimensions of said base member are approximately twice the corresponding dimensions of said notch.

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