

March 10, 1942.

S. S. MARCHBANKS

2,275,973

HOSPITAL BED

Filed May 31, 1938

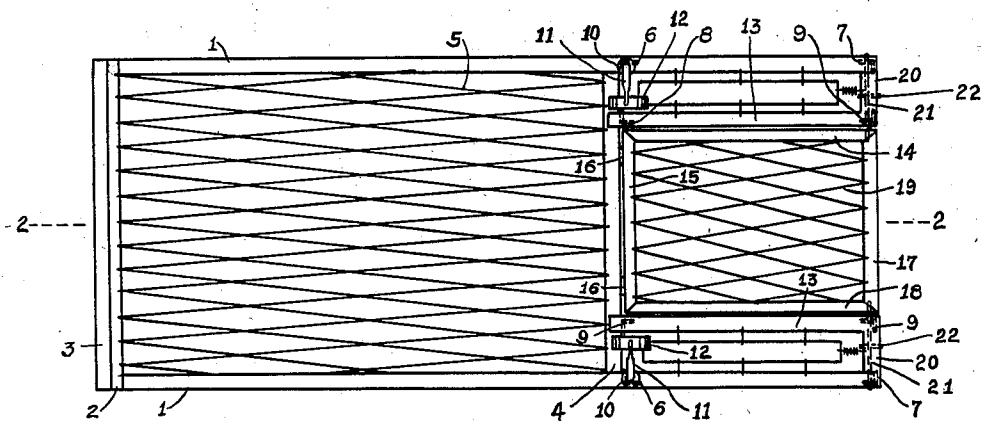


FIG. 1.

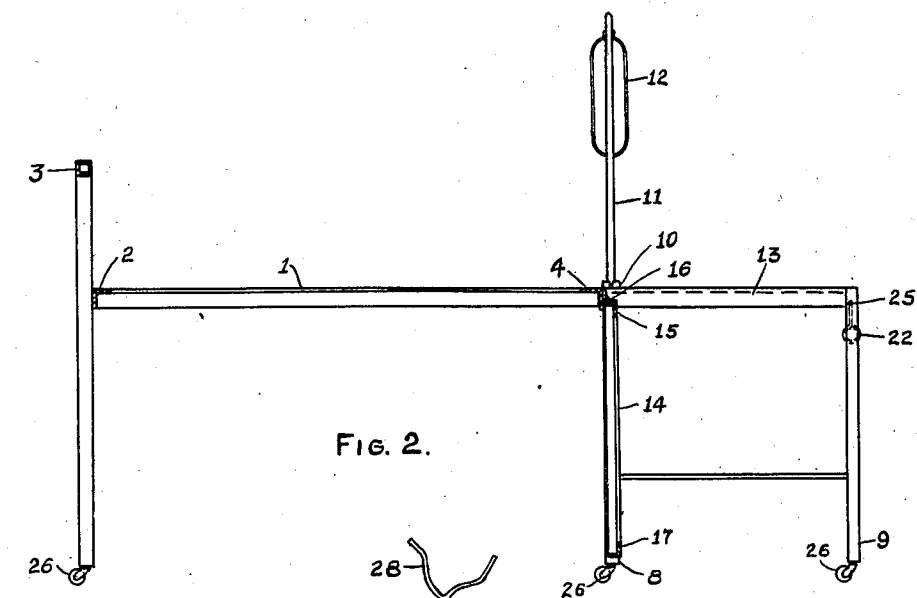


FIG. 2.

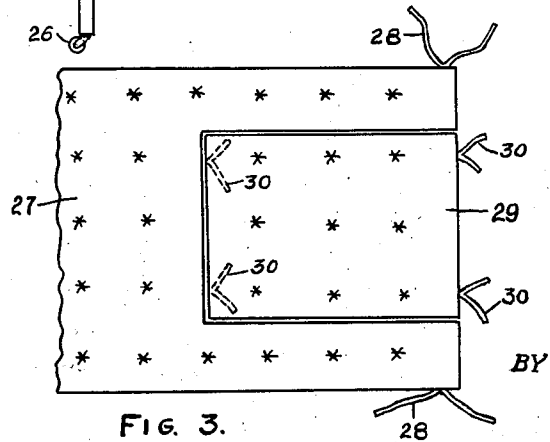


FIG. 3.

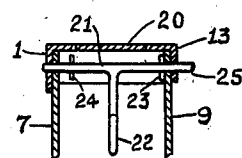


FIG. 4.

INVENTOR
Stanton S. Marchbanks

BY *Carmack Waterhouse*
ATTORNEY

UNITED STATES PATENT OFFICE

2,275,973

HOSPITAL BED

Stanton S. Marchbanks, Chattanooga, Tenn.

Application May 31, 1938, Serial No. 210,838

3 Claims. (Cl. 5-66)

My invention relates to beds and more particularly to beds for hospitals and the like, which will provide access to the lower portions of the patient's body for examination and/or treatment.

In the prior art, various types of beds and operating tables have been employed in examining and treating patients. One such type is a table made in a plurality of parts. One section is provided for the back, another for the pelvis, and still others for the legs and feet. The space between the leg sections in this type is too small to provide room for the ordinary operations, and the cross-bars provided to support the leg sections prevent the ready access to the pelvic portions of the body. Another type is a bed whose lower end is pivoted to swing downwardly. When using this type, the patient is moved toward the foot of the bed for examination and/or operation. Moving of the patient to and from the examination position places a great strain upon the doctor and nurse, and movement often subjects the patient to severe pain.

Applicant with a knowledge of all of the defects in and objections to the prior art has for an object of his invention the provision of a combination bed, examination and operating or treating table, which provides all of the comforts of the ordinary bed, but which may be easily and quickly converted into an examination or operating table, thereby conserving space.

Applicant has as another object of his invention the provision of a bed, which may be easily and quickly converted into an operating or examination table for use as such without moving the patient from the position she or he has occupied when using same as a bed. Applicant accomplishes this result by forming a door centrally of the lower end of the bed, leaving longitudinally extending portions on each side of said door, which act as foot rests when the door is lowered and provide ready access for purposes of examination, treatment or operation of the pelvic regions or similarly positioned portions of the body.

Applicant has as a still further object of his invention, the provision of a bed having a door formed centrally of the lower end thereof for raising and lowering to change it from a bed to an operating or treating table by the use of movable pins for engagement with the door in raised position to normally support it, and disengageable therefrom to permit lowering. Applicant has as a still further object of his invention the provision of standards or posts carrying straps, which posts are mounted in sockets on each side

of the bed adjacent the legs of the patient, in order that the legs may be strapped thereto during the operation, examination or treatment of portions of the body in the region of the pelvis, as by treating with radium.

Applicant has as a still further object of his invention, the provision of a combination bed and operating or treating table, which is particularly adapted to the use in offices where the conservation of space is necessary.

Other objects and advantages of my invention will become more apparent in the following specification and accompanying drawing and the novel features of my invention will be particularly pointed out in the annexed claims. In the drawing, Figure 1 is a plan view of my improved bed. Figure 2 is a cross-section view of the same bed taken along the line 2-2 of Figure 1 with the door in dropped position. Figure 3 is a fragmental plan view of a portion of the mattress used on my improved bed. Figure 4 is a sectional view of a detail of the improved pin connection for supporting the door of my bed.

Referring to the drawing in detail 3 designates the head board of a bed which head board carries end 2 of L shape cross-section. Secured to end 2 are rails 1 of angle configuration.

Bridging the lower portion of rails 1, 1 is a bar 4 of angular configuration. Hingedly secured to an edge of angle iron or rod 4 and centrally thereof, is the door defined by frame 14, 15, 17, 18. Hinges 16 connect the door to the cross bar 4 of the bed frame. Secured to the bar 4 and projecting longitudinally along the door frame are members 13, 13 having ends 20 that join them to the rails 1, 1.

Projecting downwardly from the cross-bar on each side are legs 8 for supporting said bed and projecting downwardly from the extensions and adjacent the ends 20 are legs 7, 9. Threading the ends, rails, door and extensions in criss-cross relation are strands of wire 5, 19 for forming a bottom or mattress supporting means of the usual form.

Mounted in the ends of the extensions and bridging the legs 7, 9 and ends 20, 20 are freely slidable pins 21, 21 having extensions 25 adapted to seat in recesses or beneath frame members 14, 17, 18 to maintain the head in horizontal position. Centrally of said pins 21 are downwardly projecting handles 22, and mounted adjacent the ends of pins 21 are collars 23, 24, which are adapted to engage legs 7, 9 respectively, for limiting the movement of the pins.

Seated in sockets 10 of rails 1, 1, adjacent

cross-bar 4 are standards or posts 11, which project upwardly and carry on their curved extensions straps 12, which are adapted to encircle the legs of the patient to maintain them in outstretched position during treatments in the pelvic regions.

The mattress 27 is adapted to cover the bed with the detached central insert or piece 29 coinciding with the door. The strands 30 of the central piece are wrapped and tied securely to the frame of the door while such strands as 28 of the mattress body are secured to the bed proper to maintain the main body of the mattress and the insert in their relative positions during the movement of the door.

During normal use, the door is in horizontal position by reason of engagement with the ends 25 of the pins 21. In this position the structure takes the form of an ordinary bed upon which the patient may lie in any desired position with comfort. When it is desired to examine, operate or treat the patient in the pelvic region the handles 22 are moved apart and their ends 25 are disengaged from the door permitting such door to swing downwardly. If done simply for the purpose of examination, the feet or even the legs may rest upon the extensions on either side of the door. This gives ample room for examination.

If radium is being administered, the legs are placed in the straps or stirrups 12 and the feet are permitted to rest upon the extensions on either side of the door. During the examination or operation, the patient need not be moved from the original position. After this is completed, the door and mattress section are again raised and held in position by the projection 25 of the pins 21, which are moved toward each other by the handles 22, thereby returning the structure to normal.

To facilitate movement of the bed bodily, rollers 26 are provided for each of the legs.

Having thus described my invention, I claim:

1. A bed of the character described comprising a frame, mattress supporting means carried by the frame, a central section extending to the lower end of the frame hingedly secured to an intermediate portion of said frame for movement to permit access to the lower part of the body of occupant, stationary sections bridged at their lower ends only by said central section for supporting the feet and legs, and legs for supporting the frame of sufficient length to allow said central section to drop down free of the floor.

2. A bed of the character described comprising an elongated frame, a head board at the upper end of said frame, and the lower end of said frame being open and including fixed laterally extending sections, a coextensive central section disposed between said first sections and hinged at one end to an intermediate portion of said frame, and means carried by said first named sections for supporting said central section in horizontal position, whereby to permit it to swing downwardly to provide ready passage between said first sections and give access to the lower portions of the body of a patient between the first named sections for treatment.

3. A bed of the character described comprising a frame having lower lateral sections, a substantially coextensive central section positioned between said lateral sections and hinged to an intermediate portion of said frame, the lower end of said frame being open, legs for supporting said frame and of sufficient height to permit said central section to swing downwardly to provide ready passage between said lateral sections to the lower body portions of the occupant for treatment, and means for supporting said central section in upright position.

STANTON S. MARCHBANKS.