March 22, 1938. N. SULLIVAN 2,112,122

APPLIANCE FOR BEDS

Filed June 16, 1937

Fig. 1.

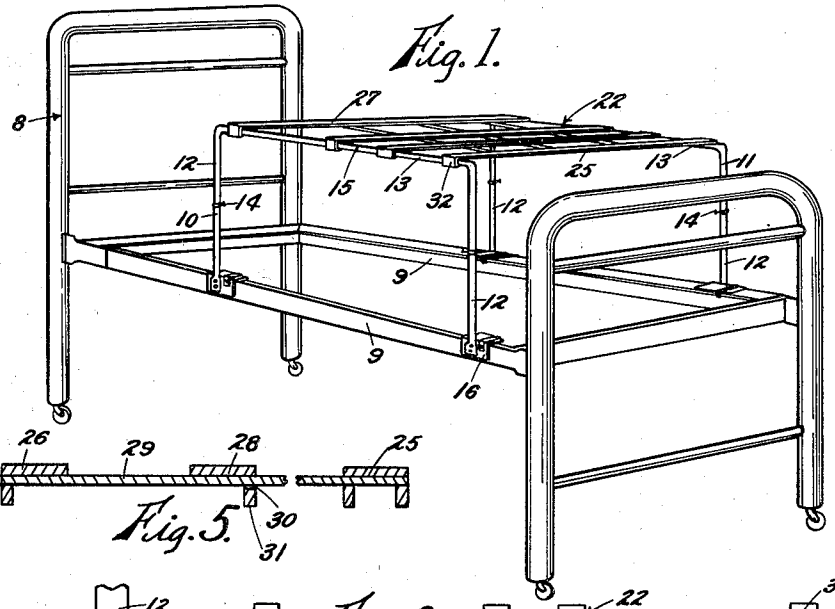


Fig. 5.

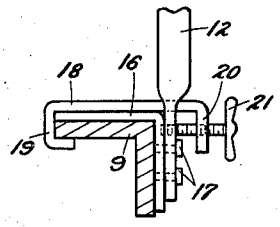
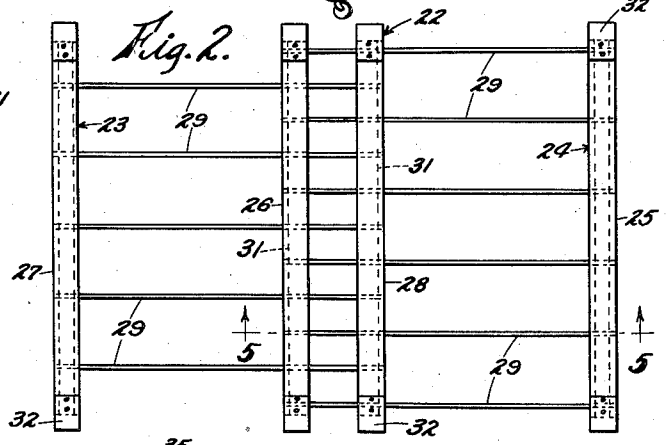


Fig. 3.

Fig. 2.



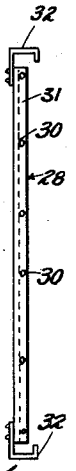
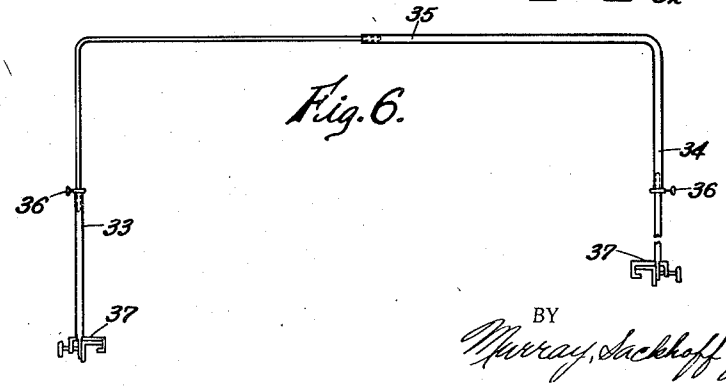


Fig. 4.

Fig. 6.



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APPLIANCE FOR BEDS

Nora Sullivan, Cincinnati, Ohio

Application June 16, 1937, Serial No. 148,532

3 Claims. (Cl. 5—319)

This invention relates to an adjustable support adapted particularly for use upon sick beds and in hospitals and designed for a variety of uses. Among these uses may be mentioned the utilization of the support as the body of an oxygen tent; as a cover support to prevent bed covers from touching severe wounds, fractures, burns, etc.; as a support for holding and suspending limbs; as a support for heat-lamps, irrigators, etc.; and for various other uses of similar nature.

An object of the invention is to provide a support of this kind which may be readily attached to and removed from a bed and which may be selectably adjusted to different lengths and heights in a minimum of time and without tools.

Another object of the invention is to provide a separate unit of manufacture consisting of a simplified form of support which is likewise readily attachable, detachable, and adjustable. These objects are attained by the means described herein and illustrated in the accompanying drawing, in which:

Fig. 1 is a perspective view of a bed having the adjustable support of this invention operatively attached thereto.

Fig. 2 is a top plan view of the top frame forming a part of the invention.

Fig. 3 is a side or edge view of a clamp which may be used for attaching the support to a bed, the upright of the support being shown broken away, and the clamp being shown associated with a side rail of a bed, which rail is shown in cross section.

Fig. 4 is a side view of one of the cross strips forming part of the top frame.

Fig. 5 is a cross sectional view on line 5—5 Fig. 2, parts being broken away.

Fig. 6 is a side elevational view of a separate support unit forming part of the present invention, parts being broken away.

With reference to the drawing: Fig. 1 shows a conventional type of bed 8 provided with the horizontal frame or body having side rails 9. The support of this invention is adapted to be mounted upon rails 9 and comprises a pair of side frames 10 and 11, each comprising a pair of uprights 12 connected by a top bar 13. The uprights 12 are constructed for adjustment as to their length, and accordingly may consist of telescoping members provided at their meeting points with suitable adjustable securing means such as the thumb screws 14, mounted preferably in the lowermost of the telescoping members and adapted to be tightened against the inside member for holding the side frames in adjusted position as to their height. The top bar 13 is likewise adjustable as to its length, being indicated at 15, as of telescopic construction.

The lower ends of the uprights of the side frames are adapted to be removably attached to the side rails of a bed and for this purpose are provided with suitable attachment or clamping means. As suggested in Figs. 1 and 3, the clamp for each upright may consist of an angle strip 16 adapted to lie against the side and upper faces of the bed rail and having fixed thereto, as at 17, the lower end of the associated upright 12. Associated with the angle strip 16 is a clamp member 18 passing across the upper face of said angle strip and provided at its inner end with a hook 19 adapted to embrace the bed rail. At its outer end, the clamp member 18 has a downward projection 20 through which a threaded adjustment bolt 21 passes, said bolt being adapted to be advanced into binding contact with the angle strip 16, for holding the upright 12 in operative position.

It is obvious, thus far, that the side frames, forming part of the present invention, may be readily attached to a bed and may be conveniently adjusted as to height by means of the thumb screws 14 and, as to length, by adjustment of one or other of the clamp members associated with the lower ends of the uprights 12.

The top frame 22, forming part of the support, may consist substantially of two frame units, telescopically connected so as to be adjustable in accordance with adjustment of the side frames above described. The units 23 and 24 forming the top frame may consist each of a pair of cross strips or members 25—26 and 27—28, respectively, which are preferably angle irons or strips. The cross strips of the units are connected by spaced rods 29 fixed at their ends to said strips.

It will be seen in Fig. 2 that the two units are connected in telescoping relationship. For this purpose, the rods 29 of unit 22 pass slidably (Fig. 5) through perforations 30 provided in a side flange 31 forming part of the cross strip 28 of the frame unit 23. Similarly, the rods 29 of the unit 23, which rods are disposed in staggered relationship with the rods of the frame unit 22, pass slidably through the side flange of the cross strip 26. It will be obvious that the length of the top frame may thus be adjusted at will.

The outer ends of the cross strips 25—26 and 27—28 may be provided with hooks 32, as seen in Fig. 4, the hooks being adapted to embrace

the top bars 13 of the side frames 10 and 11 for positioning the top frame operatively.

The top frame of the support may thus be increased or decreased in length in accordance with similar adjustments in the side frames 10 and 11.

Fig. 6 illustrates a separate support unit which is particularly useful where a smaller supporting medium is required. This unit, unlike the side frames of the support previously described, is adapted to extend transversely of the bed rather than along the side thereof. Thus it may be utilized for holding merely a small section of the covers free of contact with the patient's body and for a variety of uses which will readily suggest themselves. The structure of this separate unit may be substantially the same as the structure of the side frames 10 and 11 above described, that is, the unit may comprise telescoping uprights 33 and 34 and a telescopic top bar 35. Height adjustments of the uprights 33 and 34 may similarly be effected by means of suitable thumb screws 36. Suitable clamps 37 are attached to the lower ends of the uprights and may be of the same type as previously described. It may be remarked that the side frame 10 or 11 of the structure first described may be utilized as a separate unit by removing one of the clamps, loosening the thumb screw 14 of the positioned upright, and swinging the loosened portions of the frame to a transversely extending position relative to the bed, the clamp associated with the loosened upright being thereafter attached to the opposite side rail of the bed. It will be noted, due to the telescopic construction of the top bar, that the unit may be utilized on beds of different widths.

The means for the present invention are adapted for simple and efficient manufacture and facility of attachment, removal and adjustment. A few of the uses of the invention have been indicated above and many others will readily occur to those acquainted with hospital usage. It may further be pointed out that hooks may be attached to the top bars and cross strips of the supports for holding instruments, tubes, as well as for suspending limbs of the patient. The open sides of the support of Fig. 1 give access to the patient without removal either of the support itself or of covers or tent material that might be disposed upon the support.

Various modifications will suggest themselves upon disclosure of the means of the present invention, but such modifications are believed to be comprised within its scope.

What is claimed is:

1. A bed appliance comprising a pair of side frames each formed of a pair of uprights connected by a top bar, said frames being formed of telescoping members providing for adjustment of the frames to selected heights and lengths, means on the uprights for securing the members thereof in selected positions, means on the lower ends of said uprights for releasably attaching the uprights to the sides of a bed body for projection above the latter, a top frame, and means for releasably attaching the top frame to the top bars of the side frames for forming with the latter a raised support or housing on the bed, said top frame comprising a pair of telescoping units each comprising a pair of cross strips connected by spaced rods, an end of one unit being disposed in overlapping relation with an end of the other unit, the rods of the units being disposed in parallel staggered relation, and the rods of one unit passing slidably through the adjacent cross strip of the other unit whereby the top frame may be telescopically adjusted as to length in accordance with similar adjustments of said side frames.

2. A bed appliance comprising a pair of side frames each comprising uprights and a connecting bar at the top, means for adjusting the length of the top bars, means for attaching the side frames to the body of a bed, a top frame, and means for releasably attaching the top frame to the top bars of the side frames for forming with the latter a raised support or housing on the bed, said top frame comprising a pair of telescoping units each comprising a pair of cross strips connected by spaced rods, an end of one unit being disposed in overlapping relation with an end of the other unit, the rods of the units being disposed in parallel staggered relation, and the rods of one unit passing slidably through the adjacent cross strip of the other unit whereby the top frame may be telescopically adjusted as to length in accordance with similar adjustments of said side frames.

3. A bed appliance comprising a pair of side frames each comprising uprights and a connecting bar at the top, means for adjusting the length of the top bars, means for attaching the side frames to the body of a bed, a top frame, and means for releasably attaching the top frame to the top bars of the side side frames for forming with the latter a raised support or housing on the bed, said top frame comprising a pair of grill-like units slidably connected to provide for adjustments of the top frame in accordance with similar adjustments of the side frames, and said top frame units each comprising a plurality of adjacently disposed cross members to provide effective sag-precluding support for bed clothes and to provide for exact and selective positioning and support of limbs, instruments, etc., from and upon said frame units.

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