F. BERMAN.

ATTACHMENT FOR HOSPITAL BEDS.

APPLICATION FILED JAN. 28, 1921.

1,389,480.

Patented Aug. 30, 1921.

2 SHEETS—SHEET 1.

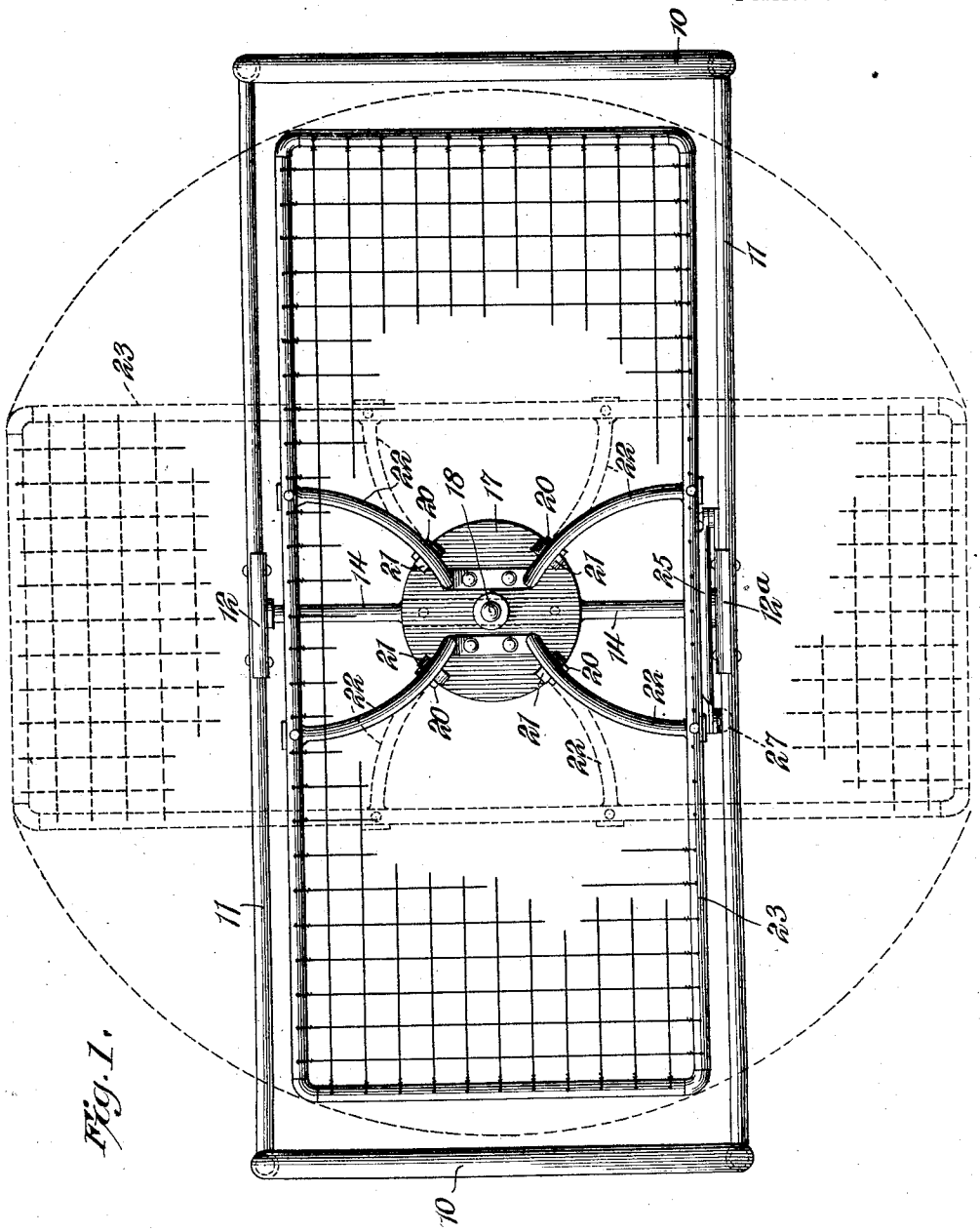


Fig. 1.

Frank Berman, INVENTOR

WITNESSES

Howard D. Orr.

Philip E. Siggers

BY E. E. Siggers

ATTORNEY

F. BERMAN.

ATTACHMENT FOR HOSPITAL BEDS.

APPLICATION FILED JAN. 28, 1921.

1,389,480.

Patented Aug. 30, 1921.

2 SHEETS—SHEET 2.

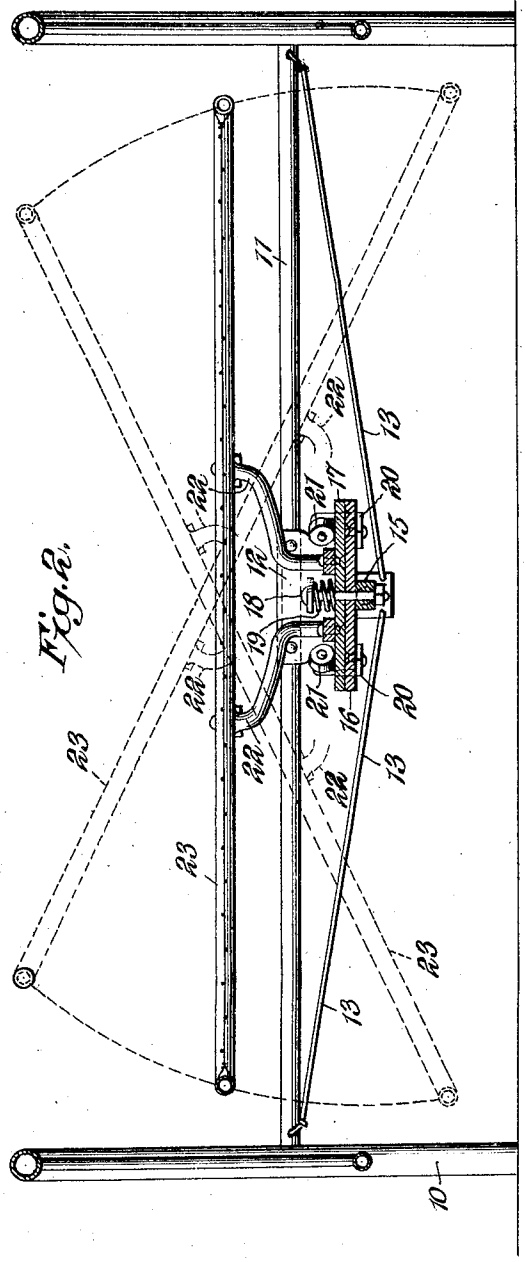


Fig. 2.

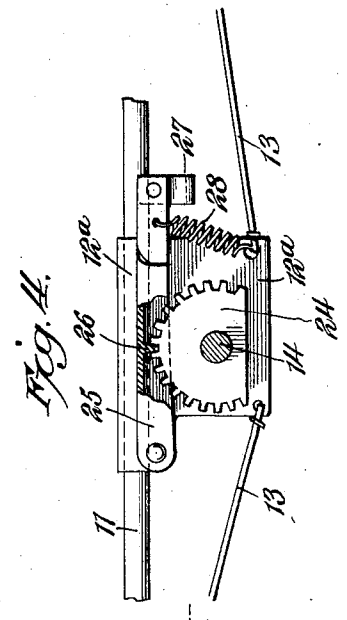


Fig. 4.

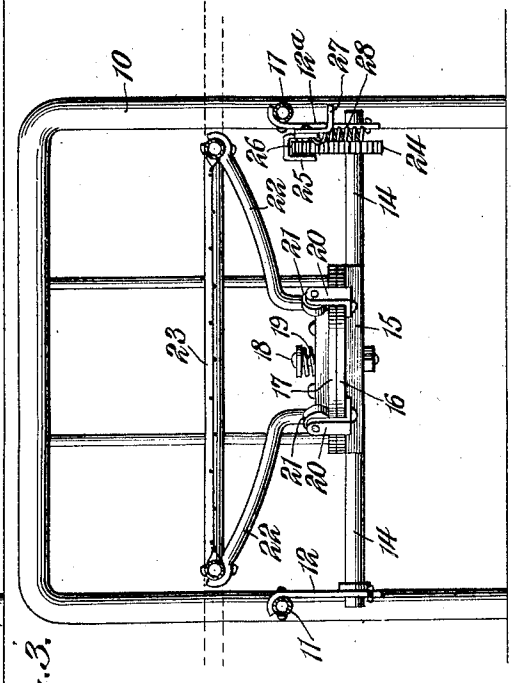


Fig. 3.

WITNESSES

Howard D. Orr.

Philip E. Siggers

Frank Berman, INVENTOR,

BY E. G. Siggers.

ATTORNEY

UNITED STATES PATENT OFFICE.

FRANK BERMAN, OF OREGON, WISCONSIN.

ATTACHMENT FOR HOSPITAL-BEDS.

1,389,480. Specification of Letters Patent. Patented Aug. 30, 1921.

Application filed January 28, 1921. Serial No. 440,683.

To all whom it may concern:

Be it known that I, FRANK BERMAN, a citizen of the United States, residing at Oregon, in the county of Dane and State of Wisconsin, have invented a new and useful Attachment for Hospital-Beds, of which the following is a specification.

This invention relates to beds for invalids or hospital use.

An object of the invention is to provide a mounting for the bed spring which is in the form of an attachment to a bed and which may be applied to ordinary hospital beds without changing the construction of the latter.

Another object is to provide a bed spring mounting which allows tilting of the spring about a horizontal axis longitudinally of the bed and also free rotation of said spring about a vertical axis.

A still further object is to provide a bed spring support wherein the spring may be tilted to a desired extent and maintained indefinitely in that position.

Another object is to provide a bed attachment in which bed clothing will not catch so as to be torn.

Other general objects are to provide an improved invalid bed which is sanitary, which permits the use of the bed for operations if desired, which is easily manipulated by the nurse or other attendant, and which makes the patient more at ease and more comfortable than most hospital beds.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawing forming part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing in the drawing, but may be changed and modified so long as such changes and modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawing:

Figure 1 is a plan view of the improved bed, showing in dotted lines an alternate position of the bed spring.

Fig. 2 is a vertical longitudinal section of the same.

Fig. 3 is a vertical cross section of the same.

Fig. 4 is a detail view of the means for effecting adjustment of the tilt of the bed springs.

The numeral 10 designates the end frames of a bed, and 11 indicates the side rails thereof. The bedstead proper being of ordinary construction needs no description. Secured at opposite points on the side rails are two brackets 12 and 12ª, any convenient means being employed to hold them to the side rails. The two brackets depend vertically from the rails 11. At the lowermost points of the brackets braces 13 are connected which are also secured to the rails 11 near the extremities thereof.

The brackets provide supports for a cross rod 14, said cross rod passing through perforations in the two brackets and being rotatable in said perforations. Means such as collars or cotter pins are employed to prevent longitudinal movement of the rod 14. For an intermediate portion of its length the rod 14 is flattened out or squared as indicated at 15. To this portion of the rod is secured the lower plate 16 of a turntable. The plate 16 is circular and has a series of arms 20 secured to the under side thereof and projecting above its upper surface. An upper circular plate 17 is rotatable about a bolt 18 joining the plates 16 and 17 to the rod section 15. Rollers 21 are carried by the upstanding arms 20 and the upper plate 17 rides under the rollers 21. A coil spring 19 is interposed between the upper end of the bolt 18 and the upper plate 17 whereby the two plates are pressed together.

A plurality of bars 22 is secured to the upper plate 17. These bars, as the drawing shows, spread outwardly as well as upwardly and together provide a support for the bed spring 23. The upper ends of the arms 22 are suitably shaped to receive and seat the frame of the bed spring whereby the latter may be secured to the arms 22.

By means of the described construction, it will be clear that the bed spring 23 may be tilted about a horizontal axis, *i. e.*, the axis of the rod 14, and it may also be rotated about the bolt 18 as a pivotal axis. Means for maintaining the bed spring in any desired tilted position is associated with the bracket 12ª as will now be described. The rod 14 near the end which passes through bracket 12ª carries a notched arcuate rack 24. A pawl 25 is pivotally mounted on the bracket 12ª at one end and has a sufficient

length to extend beyond the other end of said bracket. This pawl is L-shaped in cross section so that one flange thereof may depend vertically to partly house the rack 24. Thus the bed clothing is protected from the teeth of the rack. The pawl 25 has a tooth 26 for engagement with one of the rack teeth. Obviously, when the pawl is in engagement with the rack teeth, tilting of the bed springs may not be effected. When the pawl is lifted out of engagement, free tilting of the bed springs is allowed. However, the swinging of the bed spring to a position crosswise of the bed, as shown in Fig. 1, may be done at any time without manipulating the pawl. The spring 28 holds the pawl normally in engaging position while a handle 27 is provided at the end of the pawl projecting somewhat outwardly so that the attendant may lift the pawl easily and adjust the bed spring as desired.

What is claimed is:—

1. In a bed, the combination of brackets secured to and depending from the side rails of the bedstead, a transverse rod journaled in said brackets, a turntable mounted upon the rod and supported below said side rails, a bed-spring mounted on the turntable and rotatable therewith, said bed-spring being supported above said side rails and thereby adapted to be tilted between and rotated above the side rails.

2. In a bed, the combination of brackets secured to the side rails of the bedstead, a transverse rod journaled in said brackets, a bed spring mounted on said rod so as to be tilted when said rod is turned on its axis, and a turntable comprising a part of the bed spring mounting whereby the spring may be rotated and placed transversely of the bed, either side edge of the spring being adapted to be supported on the rails of the bed when the spring is tilted in transverse position.

3. In a bed, the combination of brackets secured to and depending from the side rails of the bedstead, a transverse rod journaled in said brackets, a plate rigidly secured to said rod, a second plate held above the rigid plate and rotatable relative thereto, bars connected to the upper plate and rising upwardly and outwardly, and a bed spring supported upon the extremities of said bars above the side rails, said plates and transverse rod being supported below the horizontal level of the side rails.

4. In a bed, the combination of brackets secured to the side rails of the bedstead, a transverse rod journaled in said brackets, a plate rigidly secured to said rod, a second plate supported upon the rigid plate and connected thereto so as to be rotatable thereon, means compressing the central portions of the upper and lower plates against each other, a plurality of arms secured to the lower plate and rising above the upper plate, rollers carried upon said arms and bearing against the upper face of the upper plate, bars connected to the upper plate and rising upwardly and outwardly, and a bed spring supported upon the extremities of said bars.

5. In a bed, the combination of brackets secured to the side rails of the bedstead, a transverse rod journaled in said brackets, an arcuate rack fast to the rod, a pawl pivoted on one of the brackets and engageable with the teeth of the rack, and a handle projecting outwardly for lifting the pawl, said pawl forming a housing for the rack.

6. In a bed, the combination of brackets secured to the side rails of the bedstead, a transverse rod journaled in said brackets, an arcuate rack fast to the rod, a pawl pivoted on one of the brackets and engageable with the teeth of the rack, said pawl being angular in cross section so as to house the upper portion of the rack and in conjunction with the bracket to protect the bed clothing from the teeth of the rack.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

FRANK BERMAN.