May 11, 1926. 1,584,387

C. P. LITTLEJOHN

MEANS FOR RETAINING BEDCLOTHES

Filed Oct. 31, 1925 2 Sheets-Sheet 1

Fig. 1.

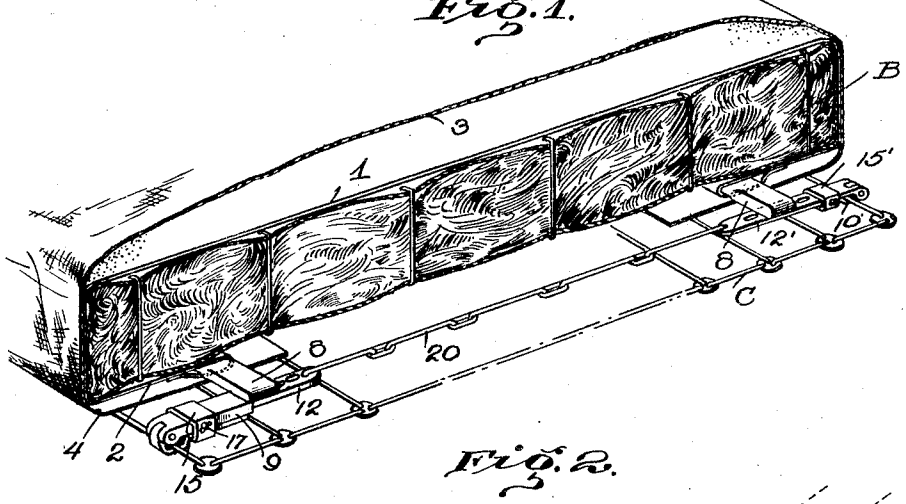


Fig. 2.

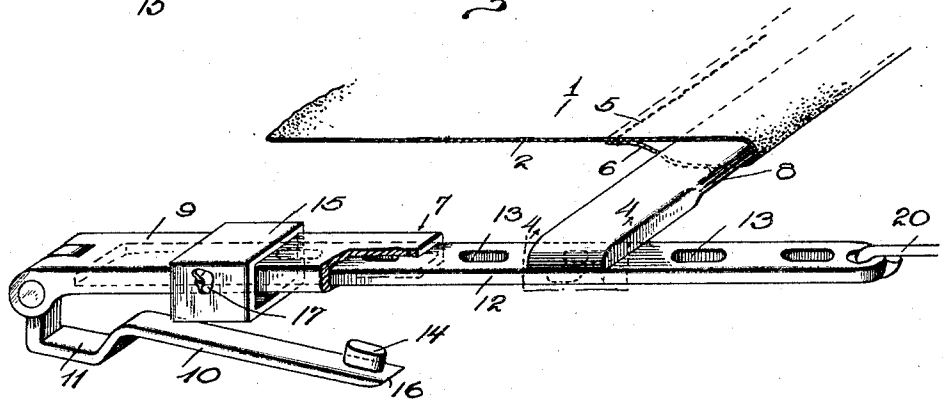


Fig. 3.

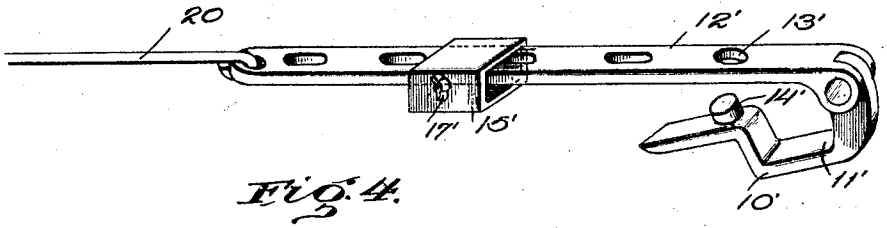
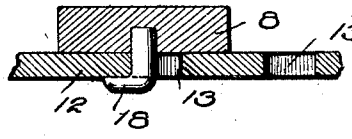


Fig. 4.



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Fig. 5.

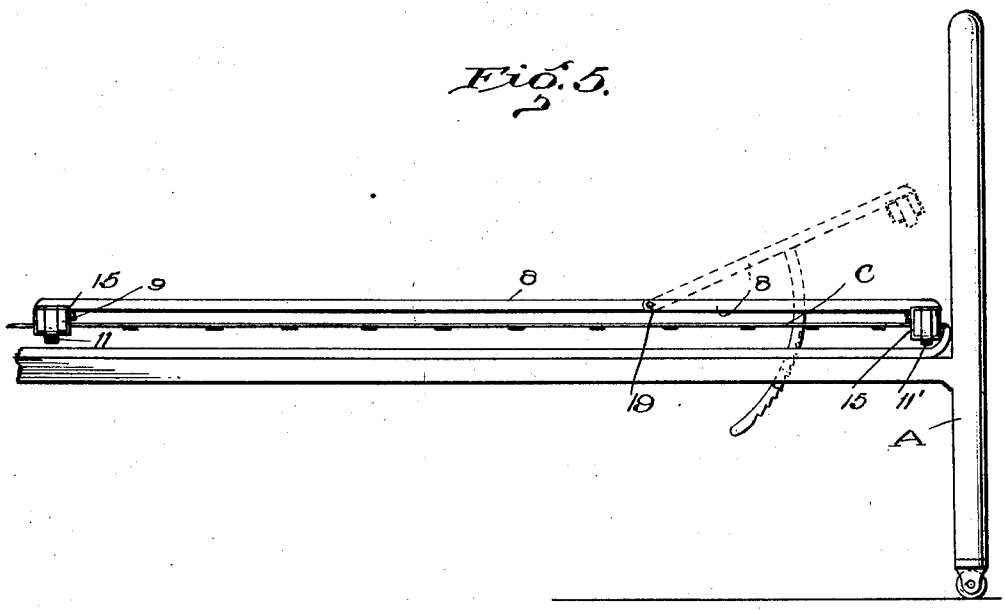
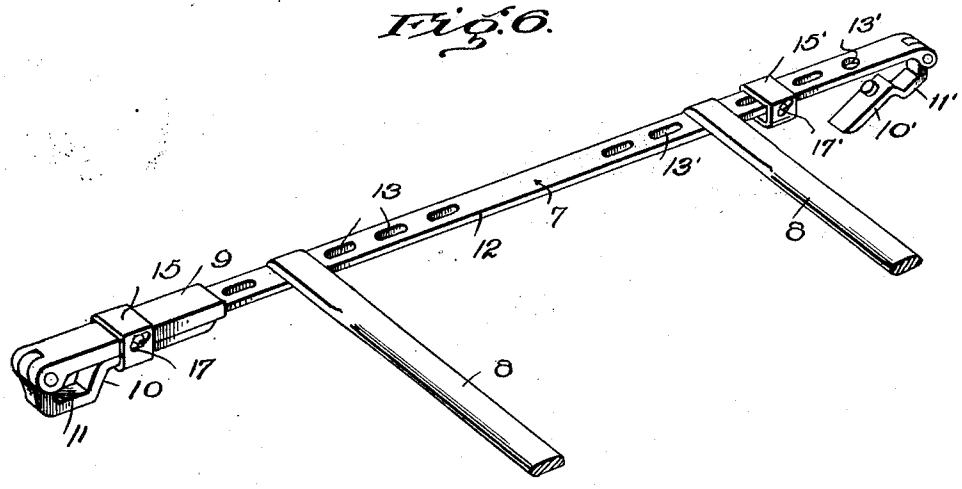


Fig. 6.



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UNITED STATES PATENT OFFICE.

CYNTHIA P. LITTLEJOHN, OF NEW ORLEANS, LOUISIANA.

MEANS FOR RETAINING BEDCLOTHES.

Application filed October 31, 1925. Serial No. 65,955.

This invention relates to devices for retaining bed clothes in proper position, and especially to devices adapted to prevent the formation of wrinkles in the lower coverings of the bed, which wrinkles are usually caused by the movement of the occupant of the bed.

The invention is intended for utilization in preventing the formation and retention of wrinkles in the rubber sheetings customarily used in hospital beds. Such rubber sheetings are needed to protect the mattress, and, in the absence of any preventative device, the movements of the patient not only causes the formation of wrinkles in the rubber sheeting, to the discomfort of the patient, but also often uncovers the mattress and leaves it unprotected.

The object of the invention is the provision of a device of the character described, which will not only prevent the formation and retention of wrinkles in the rubber sheeting, or other mattress covering, while the bed is in use, but which will also at all times retain the covering in protective position over the mattress.

A further object of the invention is the provision of a device for the purpose set forth, which is adjustable to any bed spring, and which is easily installed in operative position, and is absolutely efficient in operation.

Other objects of the invention will be made apparent in the accompanying specification, when taken in connection with the drawing forming a part thereof.

In said drawing:

Fig. 1 is a fragmentary perspective view, partly in section, showing my device.

Fig. 2 is an enlarged perspective view, partly in section, showing certain of the operative elements of my device.

Fig. 3 is a perspective view of an end of a locking bar constituting one of the elements of my device.

Fig. 4 is a section on the line 4—4 of Fig. 2.

Fig. 5 is a side elevation showing my device in operative position, and

Fig. 6 is a perspective view showing the assembled elements of my device.

Now referring specifically to the drawings, in which similar reference characters indicate like parts throughout the several views, A indicates a bed-stead carrying the usual mattress B, resting on springs C. Upon hospital beds it is the usual practice to utilize protective sheets 1, of rubber, or water-proof material, said sheets being generally laid directly upon the mattress, the depending sides 2 of the sheet being extended under the mattress, as clearly illustrated in Fig. 1, and the customary bed sheet 3 being laid over the rubber sheet 1, as shown, the side edges 4 of said sheet 3 being also extended under the mattress. In the practice of my invention, each edge of the depending sides 2 of the rubber sheet 1, is turned backwardly upon itself and stitched at 5, to provide an open hem 6, as more clearly shown in Fig. 2.

The instrumentalities for retaining the lower sides 2 of the rubber sheet in proper position under the mattress, include a member 7, extending transversely across the springs C at each end, and a pair of rods 8, 8, extending longitudinally of and upon the springs C, and adapted at each end for detachable connection to the members 7.

The members 7 are provided at each end with means adapted for detachable connection to the wires of the spring C. The member 7 terminates in a sleeve 9 at one end, here shown at the left end, and a detent 10 is pivoted to the extreme end of the sleeve, and extends backwardly under the latter, a depression 11 being formed in said detent to provide a socket adapted for the reception of one of the wires of the spring C. The sleeve 9 is adapted to telescopically receive a flat bar 12, provided with longitudinally spaced perforations 13, each of which is adapted to receive a lug 14 formed on the upper surface of the detent 10, adjacent the end thereof, the lower surface of said sleeve being also provided with a perforation which registers with said lug 14, when the detent 10 is swung upwardly to the limit of its movement. A collar 15, having an integral depth slightly greater than the combined width of the sleeve 9 and the detent 10, is slidably mounted on said sleeve.

When it is desired to position the members 7 in operative position, they are laid across the wires of the spring C, the detents 10 being swung to the left as far as necessary, with one of the wires near the side rail of the bed positioned in the socket 11. The collar 15 is then moved to the right, to a point beyond the end of the detent 10, and the latter is then swung upwardly so that the lug 14 enters the aperture in the sleeve

9, which aperture is aligned with one of the apertures 13 in the bar 12. The lug passes into both said apertures and the collar 15 is then moved to the left, over the beveled lower surface 16 of the extreme end of the detent 10, firmly locking the device in its assembled position. If deemed desirable a set screw 17 may extend through the collar 15 and bear upon the sleeve 9, whereby to detachably retain the collar in its proper position.

A similar locking means is provided at the other end of each of the members 7, except that the sleeve 9 is not necessary. In this structure, as shown in Fig. 3, the lug 14′ is provided on the detent 10′, at a point remote from the end of the latter, and is so positioned that, when the detent 10′ is swung upwardly, the lug 14′ will enter the aperture 13′ in the bar 12′, and the collar 15′ may then be positioned over the end of the detent to lock the detent in operative position around the spring wire, the set screw 17′ being utilized if necessary.

The rods 8, 8, are extended longitudinally through the open hem 6, formed at each edge of the side of the rubber sheet 1, and each rod is preferably of oval cross-sectional area in its body portion, the lower surface being flattened at each end, adapting said ends to rest flat upon the top of the bars 12 and 12′. It is to be noted that the apertures 13 and 13′, in the bars 12 and 12′, respectively, are elongated, and that, as shown in Figs. 2 and 4, a hook 18 is carried by the lower surface of the end of each rod 8, the hooks 18 being of such length as to neatly pass through said apertures 13 and 13′. After the rods 8 are inserted through the hem 6, the hooks 18, at each end of each bar, are passed through certain apertures 13, 13′, of the bars 12 and 12′, the apertures selected being dependent upon the width of the rubber sheet 1, it being obvious that the latter may be stretched more or less, if desired, to insure that the upper portion thereof will lay smoothly upon the top of the mattress. It is also to be noted that the hooks 18 are turned at a right angle to the body of the rods, and are directed towards the nearest rail of the bed. By this construction it will be clear that the inherent tendency of the stretched sheet 1, or the formation of any wrinkles therein, caused by the movement of the occupant of the bed, will draw the hook 18 all the more closely towards the nearest bed rail, the hook extending under the body of the bars 12 and 12′, and effectually preventing movement of the rods to a position whereby the hooks 18 may pass upwardly through the perforations.

In all hospital beds provision is made for tilting the head section of the springs A and mattress B, so that the patient may be raised slightly from head to waist. The rods 8, 8, are therefore made up of two sections, pivoted at 19, each to each, as shown in Fig. 5.

In view of the foregoing it is obvious that I have provided a device which is not only adapted to immediately and automatically remove any wrinkles formed in the rubber sheet 1, by the movement of the patient, but which is adjustable to fit springs of different widths and lengths, the members 7 being adjustable as desired, and equally adapted to fit springs having longitudinally extending wires, or springs formed of wire mesh. It is also clear that the members 7 permit of the adjustment of the rods 8, 8, so that they may be applied to sheets 1 of varying widths.

The bars 12 and 12′ may be connected by a series of links 20, as shown in Figs. 1, 2 and 3, or the bar 12 may be of the integral type shown in Fig. 6.

In detaching the rods 8, 8, to change the rubber sheet 1, each rod is drawn away from the adjacent bed rail, stretching the rubber sheet 1 slightly, until the hook 18 may pass upwardly through its associated aperture. The rod 8 is then withdrawn from the hem 6, and inserted in the hem of the clean sheet to be applied to the bed.

Modifications of the structure herein depicted may be suggested to those skilled in the art, but my invention covers all embodiments falling fairly within the scope of the appended claims.

What I claim is:

1. Means for holding a bed cover in position, comprising a member carried by each side edge of the cover, a lug on each end of said members, bars mounted on a bed spring and extending transversely beneath said members, and a plurality of apertures extending through each said bars, each said apertures being adapted to receive a lug on one of said members, whereby to detachably connect the bars and members each to each, substantially as described.

2. Means for holding a bed cover in position comprising a member extending longitudinally of and carried by each side of the bed cover and provided with projecting ends each equipped with a lug, bars mounted on a bed spring and extending transversely beneath said members, a plurality of apertures in said bars each aperture being adapted to receive a lug on an end of a member, means for adjustably varying the length of said bars, and means for detachably securing said bars to said spring.

3. Means for holding a bed cover in position comprising a member extending longitudinally of and carried by each side of the bed cover and provided with projecting ends each equipped with a lug, bars mounted on a bed spring and extending trans-

versely beneath said members, a plurality of apertures in said bars each aperture being adapted to receive a lug on an end of a member, means for adjustably varying the length of said bars, and means for detachably securing said bars to said spring, said means comprising a detent pivoted to each end of said bars and provided with a socket adapted to embrace a portion of said spring, and means for holding said detent in locking position.

4. Means for holding a bed cover in position comprising a rod carried by each side edge of the cover and projecting beyond the cover at each end, a pair of bars, having telescoping portions, detachably secured beneath said rods and provided with a plurality of apertures, a locking lug carried by the bottom surface of each end of said rods, and adapted to operatively enter one of said apertures and lock the said rod against movement longitudinally of said bars.

5. Means for holding a bed cover in position comprising a member extending transversely across the bed adjacent each end thereof, a detent pivotally carried by each end of said member and adapted for operation to detachably secure said member in fixed position, a rod connected to and extending longitudinally adjacent each side edge of the cover, and connecting means carried by each rod and each member, said means being adapted for co-operation to adjustably and detachably secure said rods to said members, substantially as described.

In testimony whereof I affix my signature.

CYNTHIA P. LITTLEJOHN.