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1,602,115

J. MALIS

FOLDING COT

Filed Nov. 24, 1925

Fig. 1.

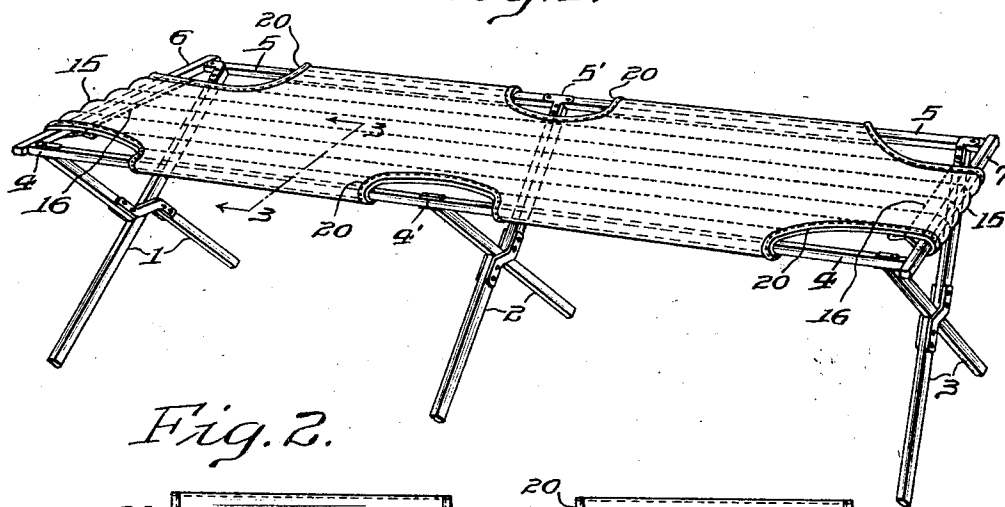


Fig. 2.

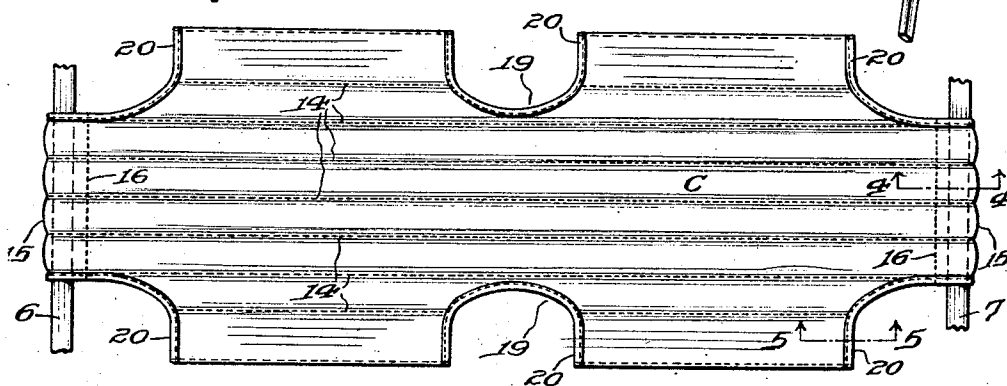
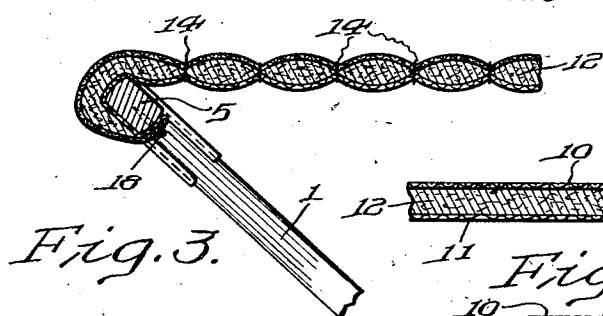


Fig. 4.

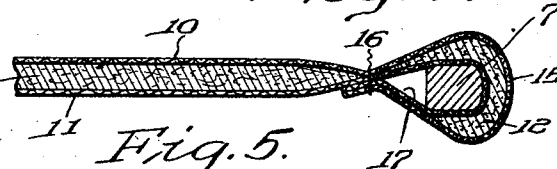
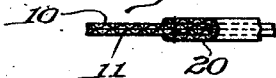


Fig. 5.



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UNITED STATES PATENT OFFICE.

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FOLDING COT.

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Folding cots comprising a wooden or metallic foldable frame and a piece of canvas or webbing, which may be conveniently termed the cover, arranged to be tightly extended across the frame when the cot is unfolded and set up are in common use and my invention relates to cots of this general character, a principal object thereof being to materially enhance the comfort of the cot without making it materially more bulky when folded or greatly adding to the cost of manufacture.

A further object of the invention is to provide for foldable cots a cover of novel character which may be employed with equal facility on cots having either a wooden or a metallic frame and which, when so used, makes the cot very much more comfortable to a person lying thereon or sitting thereon in which latter position the side or end rails of the cot rest beneath the knees of the occupant.

My invention further includes other various objects and novel features of design, construction and arrangement hereinafter more definitely specified and described or which will be apparent from the accompanying drawing in which I have illustrated a cot embodying my invention.

In said drawing, in which the same numerals are used to designate like parts throughout, Fig. 1 is a perspective view of the cot unfolded and set up for use; Fig. 2 is a top plan view of the cover with its side edges extended into the plane of its central portion and also fragmentarily showing the end rails of the cot; Fig. 3 is an enlarged fragmentary section on line 3—3 in Fig. 1; Fig. 4 a similar section on line 4—4 in Fig. 2 and Fig. 5 a fragmentary section on line 5—5 in said figure.

As shown, the cot comprises three pairs of legs 1, 2 and 3, each pair being hinged together approximately at their centers by suitable hinges so that they may be folded into substantially parallel relation or extended to a relatively angular position as shown in Fig. 1. Secured to the upper extremities of the legs are longitudinally extending spaced rails 4, 5 each rail being divided and hinged near its center as at 4', 5' so that the two parts may be folded up on each other, the ends of the rails being connected, when the cot is unfolded, by removable cross rails 6 and 7, a function of which is to spread the side rails apart and hold them firmly in position. As cot frames of the general character referred to are in common use and of well known construction and as the precise details thereof form no part of the present invention, further description of the frame would be superfluous.

It has hitherto been customary to associate with the frame a cover of canvas, webbing or other single ply material in such manner that when the frame is extended the cover will be stretched tightly between the side and end rails in both directions so as to provide a more or less resilient or yielding support for a person lying on the cot, the attachment of the cover to the frame being usually effected, when the frame is of wood, by permanently tacking the lateral edges of the cover to the side rails and providing the ends of the cover with loops through which the end rails are slipped when the cot is being set up. In case the side rails are of metal, however, so as to prevent the edges of the cover from being conveniently tacked to them, the cover is frequently provided with loops on the sides through which the side rails are extended in a manner substantially similar to the arrangement at the ends.

I have found that the comfort of the cot may be greatly enhanced if, instead of utilizing as a cover a sheet of single ply material such as canvas or the like, a composite cover be employed, said cover being composed of two plies of canvas, drilling or similar material with an interlining of felt, wool, cotton or similar soft and more or less resilient and yielding material in association with means, such as stitching, operative to prevent the fulling up or bunching of the interlining which, in the absence of such means, would be likely to arise from the movements of the person occupying the cot, said means, however, being so disposed as to permit the cover to yield more or less laterally, that is, in a direction at right angles to the side rails, so as to enable the cover to conform to some extent to the body of the person lying upon it.

More specifically, I prefer to provide a cover, generally designated as C, comprising an upper ply 10 and a lower ply 11 of thin canvas, drill or the like between which is disposed a relatively thin interlining or filling 12 consisting of one or more layers or sheets of cotton, wool or other similar resilient and yielding material. In order to

hold the filling in proper position within the covering plies and to prevent it from bunching up or sliding about relative thereto, I provide the cover with a plurality of rows of laterally spaced stitching 14 which extend from one end of the cover to the other, the rows being disposed at any suitable distance apart, for example, about three inches.

It is to be noted, however, that the lining or filling of the cover is relatively thin so that when the cot is folded the bulk thereof is not materially increased over the bulk, when folded, of a cot of the usual construction and the cover of which is formed of a single ply of material. I have found from practical trials of a cot that the desired degree of comfort can be secured by the employment of such a relatively thin lining and that a very marked improvement is thereby effected over the comfort of the ordinary form of cot, and I therefore desire it to be understood that my invention does not contemplate the use of a relatively thick lining such as is employed in an ordinary bed mattress. I attribute the material enhancement of the comfort of the cot when a cover constructed in accordance with my invention is employed to the fact that in the ordinary cot the single ply cover is stretched very tightly over the frame and does not therefore conform particularly well to the body of the occupant, while my improved cover, although stretched similarly over the frame as hereinafter described, can, owing to its composite construction, conform a little more readily to the body while the relatively thin lining serves to cushion the body somewhat from the slightly stretched covering plies. Thus the effect is not the same and the comfort of the cot is much greater than in the case where an ordinary thick bed mattress is merely removably laid upon the single ply cover of an ordinary cot, for under these conditions the very thickness of the mattress itself prevents the cover from conforming to the body of the occupant so that the resiliency of the mattress stuffing must be relied on almost entirely to give the cushioning effect necessary for comfort.

In its preferred embodiment, the cover is devoid of stitching extending transversely across it, save near its ends, as such stitching tends to prevent lateral sagging or stretching of the cover under the weight of the occupant's body, which is desirable in assisting the cover to conform thereto and the absence of which, or material diminution thereof, is inimical to the securing of the maximum amount of comfort.

The precise shape of the cover and the particular provisions made to facilitate its attachment to the frame of the cot will of course vary in accordance with the requirements of the latter and its particular design but, as shown in the drawings, in any case

I prefer to arrange the cover so that it will extend over the side and end rails of the cot when the latter is unfolded and thus form at these points a cushion between the rails and the legs of the occupant when sitting on the cot with his feet on the floor. To effect these results and as shown, I may double the cover back on itself at each end 15 (see Fig. 4) and secure the end beneath the body of the cover by a line of transversely extending stitches 16, thus forming a loop 17 through which the end rail of the cot may be slipped. The side edges of the cover may be either similarly provided with loops for the passage of the side rails or else simply turned over the side rails and tacked in place with tacks 18 as best shown in Fig. 3. Ordinarily the corners of the cover will be cut away as best shown in Fig. 2 and the cover also cut away on each side about at its center, as at 19, to facilitate the folding operation and, preferably, the cover at these cut away portions may be bound with a suitable binding as best shown in Fig. 5 so as to make a neat finish at these points.

It will thus be observed that my improved cover is attached to and foldable with the frame of the cot in exactly the same way as the single ply covers hitherto in use and that owing to its relative thinness it does not materially add to the bulk of the folded cot while, when the cot is extended, it serves, as hitherto stated, to materially enhance the comfort of the cot to a person lying thereon and also operates to cushion the legs of the person seated on the cot at the point where the legs pass over the rails, this latter feature, though perhaps a subordinate one, being a great improvement on the ordinary form of cot which is extremely uncomfortable when used as a seat as the side or end rails, as the case may be, press deeply into the occupant's thighs just above the knee and quickly render a change of position necessary.

While I have herein described and illustrated with considerable particularity a preferred embodiment of my invention I do not thereby desire or intend to limit myself to the precise details of construction and arrangement to which I have referred as the same may be modified in various particulars and the shape of the cover altered to adapt the cover to different styles and sizes of cots without departing from the spirit and scope of the invention as defined by the appended claims.

Having thus described my invention, I claim and desire to protect by Letters Patent of the United States:

1. A cot comprising a foldable frame having side and end rails and a cover comprising upper and lower plies of flexible material and a relatively thin filling of resilient material disposed therebetween, said cover

being operatively attached to said rails and having laterally spaced rows of stitching extending longitudinally of the cot from one end of the cover to the other through the said plies and filling, and permitting a lateral yielding of the cover transversely of the cot to permit the cover to conform to the occupant.

2. A cot comprising a foldable frame having side and end rails and a cover comprising upper and lower plies of flexible material and a relatively thin filling of resilient material disposed therebetween, said cover

being operatively attached to said rails and having laterally spaced rows of stitching extending longitudinally of the cot from one end of the cover to the other through the said plies and filling, and permitting a lateral yielding of the cover transversely of the cot, the marginal portions of the cover passing around the rails of the frame and cushioning the said rails to protect the legs of a person sitting upon the cot.

In witness whereof, I have hereunto set my hand this 21st day of November, 1925.

JACK MALIS.