

UNITED STATES PATENT OFFICE.

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FOLDING COT.

SPECIFICATION forming part of Letters Patent No. 522,183, dated June 26, 1894.

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To all whom it may concern:

Be it known that I, THOMAS SANDS, of Nashua, in the county of Hillsborough and State of New Hampshire, have invented certain new and useful Improvements in Folding Cots, of which the following is a specification.

The present improvements are illustrated in the accompanying drawings, wherein—

Figure 1, is a perspective view of the cot when in position for use. Fig. 2, is a bottom view of the cot when folded up. Fig. 3, is a side view of the cot when folded up. Fig. 4, is a vertical section of one end of the cot when in position for use. Fig. 5, is a detail view illustrating the tightening union between the cot frame and the folding head and foot sections. Fig. 6, is a perspective view of one corner of the cot-frame.

The improved folding cot comprises the cot frame, a folding head section, a folding foot section, and the means for uniting the head and foot sections to the cot bottom.

The cot frame is a rectangular frame consisting of end rails A, and B, and side rails C, C, which are rigidly united together at the four corners of the cot. Preferably the cot is provided with a bottom of woven wire stretched between the end rails A, B, but any other material may be employed. Woven wire, however, is preferred, and is indicated in Fig. 4, by the letter D. In case woven wire is employed, the end margins of the woven wire where united to the end rails are confined and concealed by a covering strip E. The end rails A, B, are each rabbeted to receive the covering strip E, as shown in Fig. 4. The end margins of the woven wire are secured to the upper faces of the end rails by tacks or otherwise, and the covering strips E, are then placed over them and secured in place by screws or otherwise. The raw cut edges of the woven fabric are thus concealed and covered, which might otherwise tear and cut bed or other clothing or fabrics. Since the woven wire fabric involves interstices between the wires of which it is composed, and as these interstices between the end rails and the covering strips afford convenient harbors for bed-bugs and other vermin, which harbors are not readily accessible, provision is made for closing these interstices and there-

by keeping out the bed-bugs or other vermin. This means consists of strips F of felt, soft paper, or other yielding and compressible material, which are placed between the end rails and covering strips, above or below (or both above and below) the end margins of the woven wire. When the covering strips E are then secured in place, the strips F are forced into and completely fill the aforesaid interstices. These strips F may be supplied with a poisonous or bug-repellent ingredient. The end rails A, B, are formed on their under sides, near their rear edges, with longitudinally-extending grooves G, g, respectively, the purpose of which will hereinafter appear. The end rails are also provided on their under sides with swinging fastening buttons H, h, respectively, the purpose of which will hereinafter appear.

The cot-frame is provided at its four corners with notches I, i, having walls c, e, the purpose of which will hereinafter appear.

The head-section comprises two vertical posts J, J, which serve as legs and as supports for the ornamental head portion. These legs are connected together by three cross-rods or bars K, L, M, which have other functions than merely of ornamentation or of joining the parts together, and in addition, in the construction illustrated, there is a fourth cross-bar N which in connection with the upper bar K affords support for the ornamental spindles O. The head section is connected with the cot frame by links P, P, each of which is pivoted at one end to one of the side rails C, and inside of the same, and at its other end it is pivotally connected with the head section by being journaled upon the lower cross bar M, just inside of one of the posts J. Preferably where pivoted to the bar M the pivotal connection is made by a round hole in the link through which the bar M extends. The links P, P, also serve as braces for the head section.

When the cot is in its position of use shown in Fig. 1, the posts J, J, occupy the notches I, at the head corners of the cot-frame seating against the walls c, e thereof, so that the outer sides of the posts J are substantially flush with the outer sides of the side rails C, and the rear faces of the posts are or may be substantially flush with the rear face of the end rail A. Also when the cot is in position for

use the middle locking cross-bar L of the head-section enters and fits in the longitudinal groove G on the under side of the end rail A, and the button H being turned to the position shown in Fig. 4, its rear locking end *a* extends across the groove G and retains the bar L therein. When the cot is thus in position for use, it is firmly braced and rigid, and does not give either laterally or longitudinally. The location of the posts on the notches I, I, and their close fit therein due to the posts being squared to fit the notches, keeps the cot-frame rigid, and at the same time prevents any lateral movement to the head section. The location of the locking bar L in the groove G, causes the posts to bind tightly against the walls *ce* of the notches I, whereby rigidity is secured and the head section is prevented from rocking or tilting. To assist in causing the posts to be tightly wedged or bound in place, and to cause occupancy of the bed to render the cot more rigid, a special construction of the groove G relatively to the locking bar L, is adopted. The rear wall *b* of the groove is inclined from the vertical inwardly so that at its upper portion it is nearer the middle of the cot than at its lower edge. The relative position of the locking bar is such, that while it freely enters the mouth of the groove G, its rear portion comes in contact with the inwardly-inclined rear wall *b* of groove G, when the posts J, J, come in contact with the walls *c* of the notches I, and before the bar L, reaches the top of the groove. It is evident then that any additional pressure upon the cot-frame will tend to force the posts J, J, more closely against the walls *c* of the notches I, and thereby increase the rigidity of the cot. In case the cot is lifted and moved about when in position for use, the fastening button H prevents the accidental dislocation of the head section. Since the groove G extends, as shown, entirely across the cot, it conceals the locking bar L, thereby adding to the appearance of the cot. To fold up the cot, the button H is swung at right-angles to its locking position, and the head section is then folded downwardly and inwardly to the position shown in Figs. 2 and 3. When in the folded position, the posts J, J, extend parallel with the side rails C, C, and immediately beneath them. The length of the links P, proportionately to that of the posts J, is such that when the cot is folded no portion of the posts extends beyond the ends of the side rails, and the upper cross-bar K, is brought in such position as to cooperate with the inner locking end *d* of the fastening button, which passes underneath said bar K, thereby retaining the head section in place when the cot is folded. The position of the bar K, when the cot is folded, is indicated in dotted lines in Fig. 4. The fastening button hence has two functions, one when the cot is in position for use and one when it is folded. The cot is very compact when folded.

The construction and operation of the foot section is identical with that of the head section, except that, since the foot section is lower, the pivotal connections between the links *p* and the side rails are correspondingly nearer the ends of the side rails. The several parts of the foot section are lettered with small letters of the alphabet corresponding to the large letters of the alphabet which indicate the corresponding parts of the head section, so that the description which has been given of the head section will apply to the foot section as well.

Many modifications are permissible without departing from the principles of the invention. For example, the grooves G need not extend entirely across the cot, and the locking bars L may be replaced by simple pintles or pegs one on each post.

I claim as my invention—

1. The cot frame having a locking groove the rear wall of which is inclined inwardly, said groove being entirely open on its under side, in combination with a folding section having posts which come in contact with stops on said cot frame when in position for use, and a locking bar which enters the open mouth of said groove when said section is swung into its position for use and comes in contact with said inclined wall whereby said posts are wedged tightly against said stops, and links pivotally connected with the side rails of the cot frame and with the posts of the folding section below the said locking bar thereof, substantially as set forth.

2. The cot frame having side rails and end rails, each end rail being provided with notches at its outer corners, and said cot frame having locking grooves at its ends each locking groove having its rear wall inclined inwardly and each groove being entirely open on its under side, in combination with folding head and foot sections, each having posts connected by cross-bars and each being pivotally connected with the cot-frame by means of links, each link being pivoted at its upper inner end to one of the side rails on the inner side thereof and at its lower outer end to the lower cross bar of one of the folding sections inside of one of the posts, each of the posts of said sections occupying one of said notches when the cot is in position for use, and one of the middle cross bars of each folding section being a locking bar which enters the open mouth of one of said locking grooves when the section is swung into position for use and comes in contact with the inclined wall of said groove whereby the posts of said section are wedged tightly against the end walls of said corner notches, substantially as set forth.

3. The cot frame having an end rail with a locking groove on the under side thereof extending entirely across the cot, in combination with a folding section having a cross locking bar which enters and is concealed within said groove, substantially as set forth.

4. The cot frame having side rails and end

rails, each end rail being provided with a cross locking groove on its under side, and with notches at its outer corners, in combination with folding head and foot sections, each having posts connected by cross bars, and each being pivotally connected with the cot frame by means of links, each link being pivoted at its upper inner end to one of the side rails on the inner side thereof, and at its outer lower end to the lower cross bar of one of the folding sections inside of one of the posts, and one of the middle cross bars of each folding section being a locking bar which enters one of said locking grooves, substantially as set forth.

5. A folding cot, having a cot-frame with side rails and a locking groove, a folding section having a locking bar co-operating with

said groove and an upper cross-bar, and links pivotally connected at opposite ends to said side rails and the lower portion of the folding section, in combination with a fastening turn button carried by the cot-frame, one end of which retains said locking bar in said locking groove when the cot is in position for use, and the other end of which engages said upper cross-bar when the cot is folded, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

THOMAS SANDS.

Witnesses:

J. L. CLOUGH,
E. H. FULLER.