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P. M. WILLENS ET AL

2,542,744

FOLDING COT

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Fig. 1.

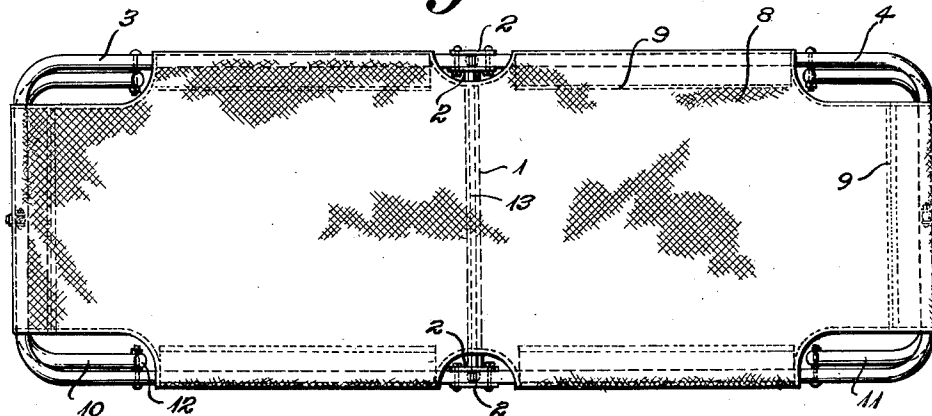


Fig. 2.

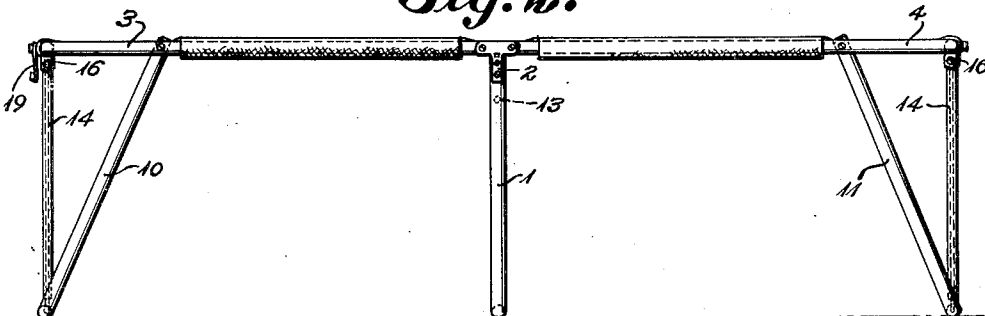


Fig. 3.

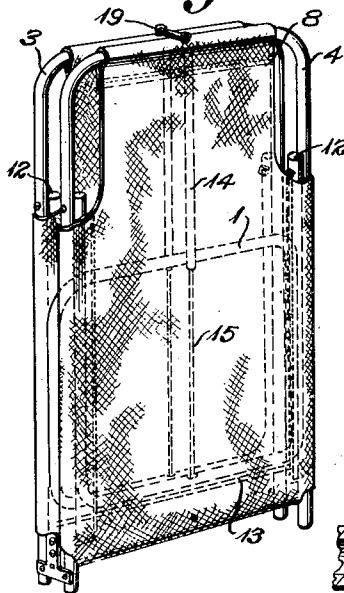


Fig. 4.

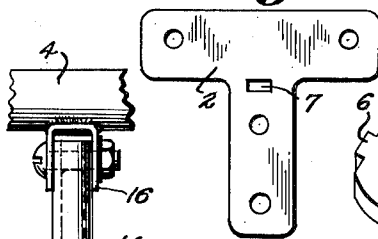


Fig. 5.

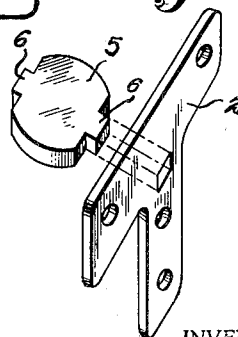
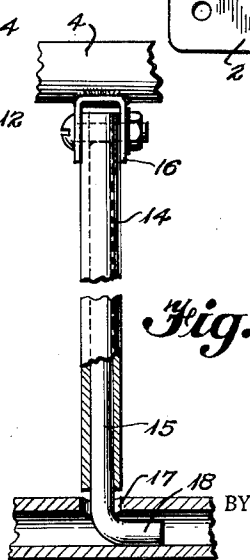


Fig. 6.



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FOLDING COT

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10 Claims. (Cl. 5—111)

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This invention relates to a folding cot and more particularly has reference to a cot which can be easily collapsed and folded into a relatively small unit.

It is an object of the invention to provide a folding cot having a minimum of parts and which can be quickly collapsed and opened with but little effort and which is sturdy in construction and neat in appearance.

Another object of the invention is to provide a cot which can be folded to occupy a relatively small storage space and which is light in weight and small in size, whereby the folded cot is easily moved about from place to place.

Still another object of the invention is to provide a device of the character indicated which is simple and inexpensive in construction and which can be easily folded for convenient storage and opened up for its intended use.

Other objects and advantages of our invention will appear from the more detailed description thereof in connection with the accompanying drawing, wherein:

Figure 1 is a plan view of the cot in open position for use;

Figure 2 is a side view of the cot in open position;

Figure 3 is a perspective view of the cot in folded or collapsed position;

Figure 4 is a side view of one of the brackets for pivotally securing together the main frame sections of the cot;

Figure 5 is a perspective view of the bracket of Figure 4 together with its associated supporting plate for the inner ends of the frame sections; and

Figure 6 is an elevational view, partly in section, of one of the telescopic braces for bracing the pivotal legs of the cot when the latter is in open position.

Referring more particularly to the drawings, there is provided at the central portion of the cot a U-shaped support 1 to the upper ends of which are secured T-brackets 2. As best shown in Fig. 1, the brackets are provided in pairs, one pair for each leg of the central support. The vertical portions of the T-brackets are firmly attached to the ends of the leg portions of support 1 by means of suitable bolts and nuts. The framework of the cot is made up of the U-shaped symmetrical frame sections 3 and 4 having their inner ends pivotally attached, by means of bolts and nuts, to the horizontal portions of the T-brackets 2 as shown in Figs. 1, 2 and 3. By reason of this pivotal or hinged connection, the frame sections are free to fold over upon the

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central support 1. In the open position of the cot, the ends of the leg portions of the frame sections rest upon and supported by the plates 5 having lugs or projections 6 which fit into corresponding openings 7 in the brackets 2, there being a supporting plate 5 within each pair of brackets. The resting surface 8 of the cot may be made of any suitable fabric such as canvas, sailcloth or synthetic plastic material and, as shown in Figs. 1 and 3, it is wrapped around the frame sections and sewed together by suitably strong stitching 9.

The end supports 10 and 11, like the central support 1, are also U-shaped. They are pivotally secured, by means of bolts and nuts as shown, to the inner side of the leg portions of the frame sections 3 and 4 a short distance from the transverse end portions of the frame members. Supporting legs 10 and 11 are of such length as to terminate short of support 1 when folded upon the frame sections. The frame sections 3 and 4 and the supporting legs 1, 10 and 11 are preferably constructed of aluminum tubing in order to provide a cot which is light in weight. The open ends of the tubing are closed by tightly fitting cap members 12. In the case of central support 1, the ends thereof are closed by the plates 5 which also serve as supporting means for the inner ends of the frame sections when the cot is in open position with the frame sections in end-to-end relationship. The central support 1 may be provided with a transverse tube or rod 13 for added strength.

An important feature of the invention is the means for bracing the pivoted legs 10 and 11 when the cot is in open position and permitting these supports to fold over on the frame sections when the cot is collapsed. The braces are of telescopic construction, each comprising a tubular member or sleeve 14 and a shaft, rod or tube 15 slidably mounted therein. The tubular members 14 are pivotally secured, by means of brackets 16, to the transverse outer end portions of the frame sections 3 and 4. As shown in Fig. 2, they are of such length as to extend vertically from the transverse portions of the frame sections to the transverse portions of U-legs 10 and 11 when the cot is in open position and thus serve as braces for the end supports of the cot. Each of the shafts 15 extends through an opening 17 in the transverse portion of its associated leg, as shown in Fig. 6, and the lower end thereof is provided with a horizontal extension 18 or other suitable means for holding the end of the shaft in the transverse bottom portion of the U-shaped support. The members 14 and 15

are thus free to slide with respect to each other as the legs 10 and 11 pivot on the frame sections when the cot is collapsed for storage and opened up for use. In assembling the braces into the device, the horizontal extensions 18 are first inserted in openings 17, rods 15 are then inserted into sleeves 14 and the latter then pivotally attached to brackets 16. A snap fastening device 19 or the like is preferably provided at the outer ends of the frame sections to hold the cot in folded or collapsed position. In this position, the cot will stand without support on the ends of the leg portions of frame sections 3 and 4, as shown in Fig. 3.

The use of the device is obvious from the foregoing description. To open the cot, the fastening device 19 is unlocked and the frame sections 3 and 4 are spread apart until the ends of the leg portions thereof rest upon the plates 5. The supports 10 and 11 are then rotated away from the frame sections until they are braced by the tubular members 14 as shown in Fig. 2. In this position of the device, there is provided a sturdy and strongly supported cot of simple and pleasing appearance. To collapse the cot for storage, supports 10 and 11 are folded back upon the frame sections, such movement being made possible by the telescopic or sliding arrangement of members 14 and 15, as well as the pivotal attachment of the supports to the frame sections. Frame sections 3 and 4 are then folded over upon central support 1 and the ends thereof secured together by means of fastening device 19. In this position, the cot occupies but little space and can easily be moved about by reason of its compactness and light weight.

While we have illustrated and described but one embodiment of the device, it is obvious that modifications may be made therein without departing from the spirit and scope of the invention. For example, in the case of the telescopic braces for supports 10 and 11, the members thereof may be reversed, with the lower end of tubular sleeve 14 pivotally attached to the bottom transverse portion of the support and the upper end of the shaft 15 securely held in an opening in the transverse end portion of the frame section.

Having described our invention, we claim:

1. A folding cot comprising a pair of symmetrical frame sections pivotally secured together at their inner ends, each of said frame sections having an outer transverse portion, a U-shaped supporting leg pivotally attached to each of said frame sections near the outer end thereof, a tubular member pivotally attached to the outer transverse portion of each of said frame sections, and a shaft slidably mounted in each of said tubular members and pivoted about the longitudinal axis of the transverse portion of one of said supporting legs.

2. A folding cot comprising a central supporting member, a pair of symmetrical frame sections pivotally secured to said member at their inner ends, each of said frame sections having an outer transverse portion, a U-shaped supporting leg pivotally attached to each of said frame sections near the outer end thereof, a tubular member pivotally attached to the outer transverse portion of each of said frame sections, and a shaft slidably mounted in each of said tubular members and pivoted about the longitudinal axis of the transverse portion of one of said supporting legs.

3. A folding cot comprising a central supporting member, a pair of T-brackets having their

vertical portions fixedly attached to said member, a pair of symmetrical frame sections pivotally attached at their inner ends to the horizontal portions of said brackets, and stop means comprising a supporting plate mounted between said brackets for limiting the movement of said sections to an aligned relationship when the cot is opened.

4. A folding cot comprising a central supporting member, a T-bracket having its vertical portion fixedly attached to said member, a pair of symmetrical frame sections pivotally attached at their inner ends to the horizontal portion of said bracket, means for holding said sections in end-to-end relationship, a U-shaped supporting leg pivoted to the inside of each of said frame sections intermediate the ends of the latter, a tubular member pivoted to the outer end portion of each of said frame sections, and a shaft slidably mounted in each of said tubular members and pivoted about the longitudinal axis of the transverse portion of one of said supporting legs.

5. A folding cot comprising a central support and a pair of cot members pivotally attached to said support, each of said members comprising a U-shaped frame section, a U-shaped supporting leg pivoted at its ends to the leg portions of each frame section, a tubular sleeve pivotally attached to the transverse portion of the U-shaped frame section, and a shaft slidably mounted in said sleeve and pivoted about the longitudinal axis of the transverse portion of said U-shaped leg.

6. A folding cot comprising a central support having a pair of legs, a pair of T-brackets at the end of each leg of the support, the vertical portions of said brackets being securely attached to said legs, a supporting plate mounted between the brackets of each of said pairs of brackets, and a pair of cot members associated with said support and brackets, each of said members comprising a U-shaped frame section having the end of each of its leg portions pivotally attached to the horizontal portions of the brackets of one of said pair of brackets, a U-shaped leg pivoted at its ends to the leg portions of said frame section, a tubular sleeve pivotally attached to the transverse portion of the frame section, and a shaft slidably mounted in said sleeve and pivotally secured to the transverse portion of said U-shaped leg, the ends of the leg portions of said frame sections resting on said supporting plates when the frame sections are extended in end-to-end relationship.

7. A folding cot comprising a pair of symmetrical frame sections pivotally secured together at their inner ends, each of said frame sections having an outer transverse portion, a U-shaped supporting leg pivotally attached to each of said frame sections near the outer end thereof, and means for bracing each of the supporting legs comprising a tubular member and a shaft member slidably mounted in the tubular member, one of said members being pivotally attached to the outer transverse portion of the frame section and the other of said members being pivoted about the longitudinal axis of the transverse portion of the U-shaped leg.

8. In a folding cot comprising a U-shaped frame section and a U-shaped supporting leg of metal tubing pivotally attached to said frame section, a tubular sleeve pivotally attached to the transverse portion of said frame section, and a shaft slidably mounted in said sleeve and extending through an enlarged opening in the transverse portion of said leg, said shaft having

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an angularly projecting end portion disposed within the transverse portion of the leg for retaining the end of the shaft in the tubing of the supporting leg.

9. A folding cot comprising a central support having a pair of legs, a pair of T-brackets at the end of each leg of the support, the vertical portions of said brackets being securely attached to said legs, a supporting plate mounted between the brackets of each of said pairs of brackets, and a pair of cot members associated with said support and brackets, each of said members comprising a U-shaped frame section having the end of each of its leg portions pivotally attached to the horizontal portions of the brackets of one of said pairs of brackets, the ends of the leg portions of said frame sections resting on said supporting plates when the frame sections are extended in end-to-end relationship.

10. In a folding cot comprising a U-shaped frame member of metal tubing, a U-shaped supporting member of metal tubing pivotally attached to the frame member, a tubular sleeve pivotally attached to the transverse portion of one of said U-shaped members, and a shaft slid-

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ably mounted in said sleeve and extending through an enlarged opening in the transverse portion of the other of said U-shaped members, said shaft having an angularly projecting end portion disposed within the last-mentioned transverse portion for retaining the end of the shaft in the tubing of said other U-shaped member.

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