Sept. 15, 1931. C. W. WANTZ 1,823,013

BED OR COT

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Fig. 1.

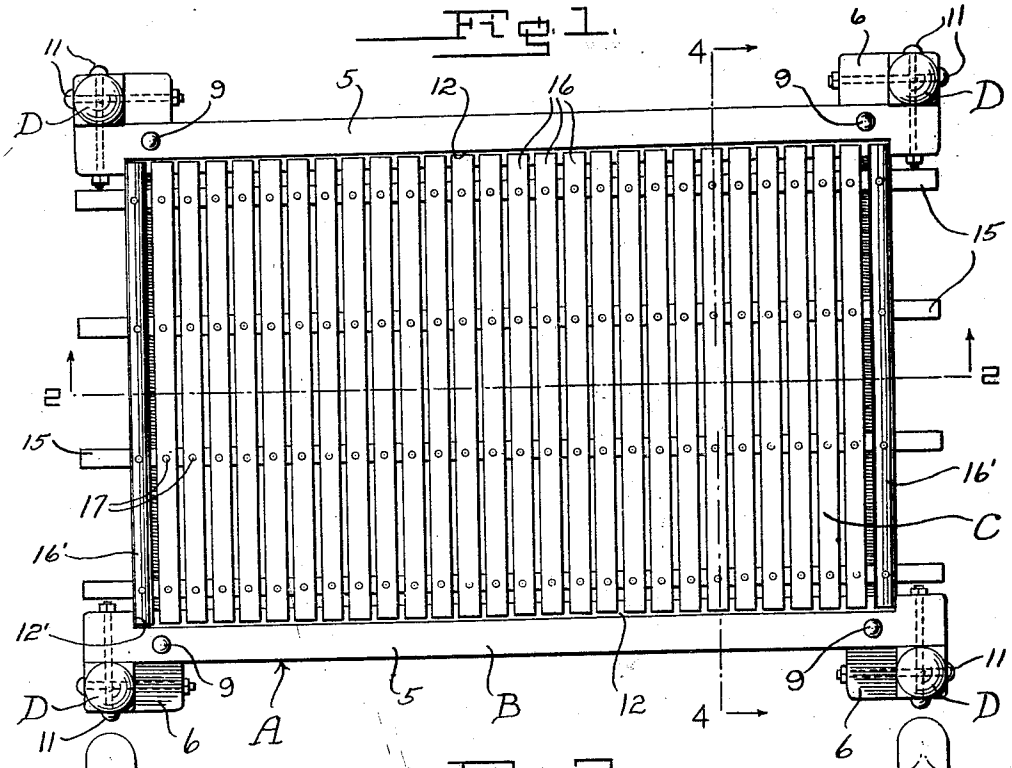


Fig. 2.

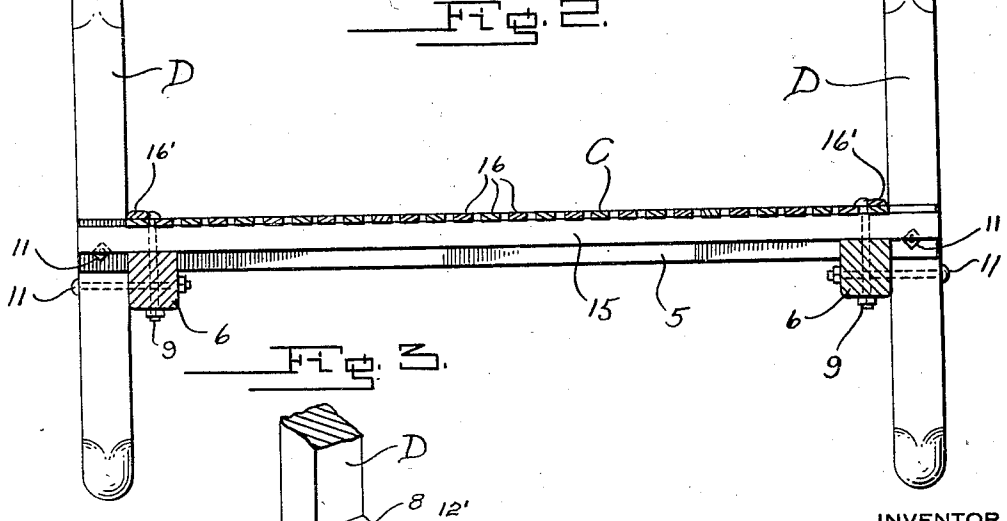
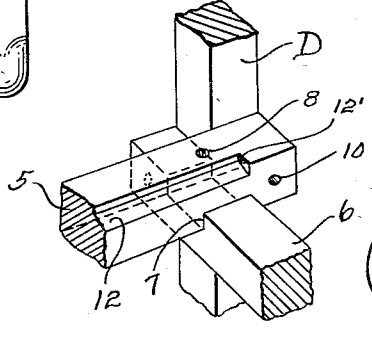


Fig. 3.



INVENTOR.
Carl W. Wantz

BY Lancaster and Allwine
ATTORNEYS.

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Fig. 4.

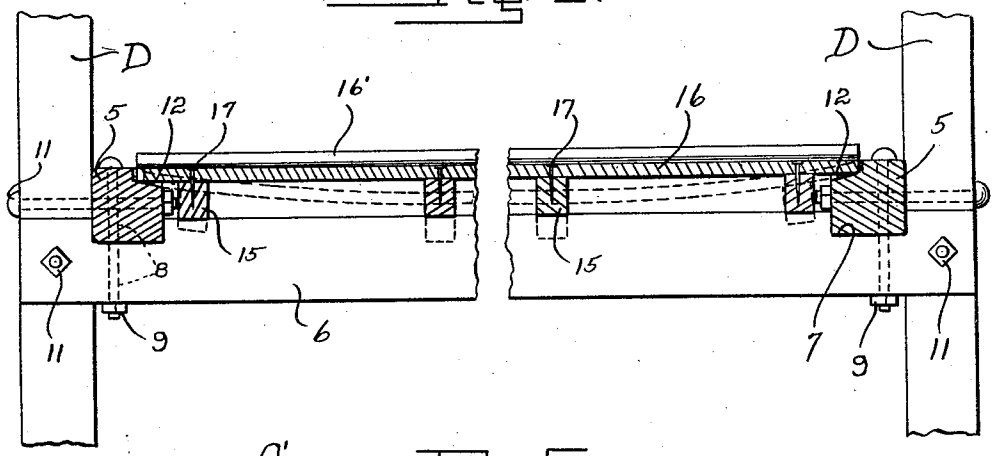


Fig. 5.

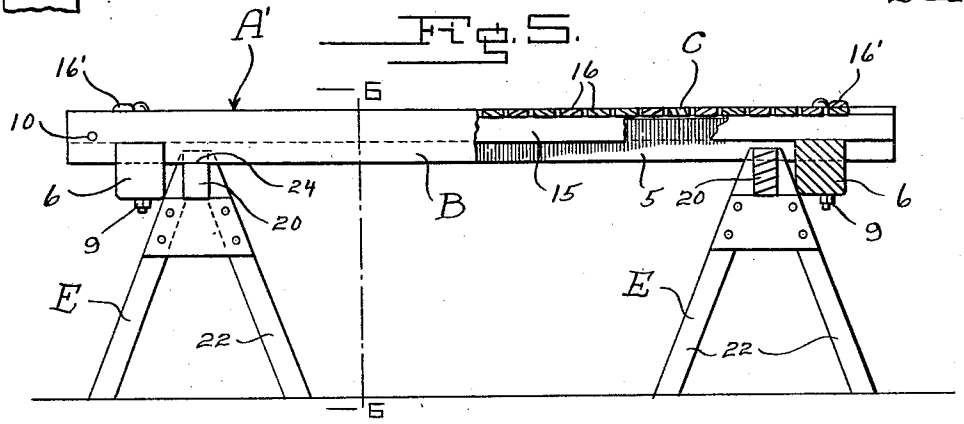
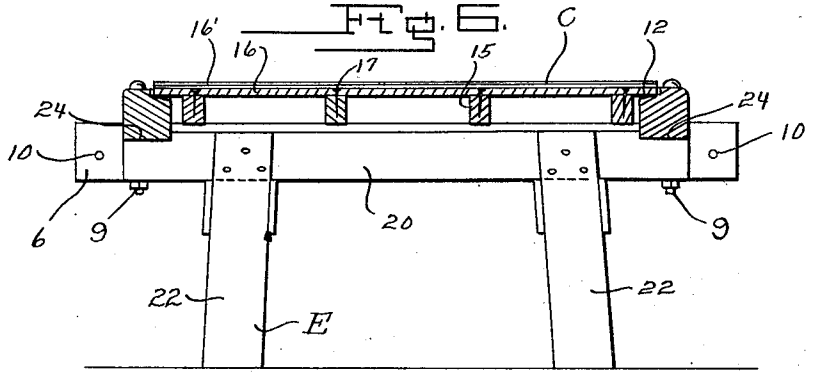


Fig. 6.



INVENTOR.
Carl W. Wantz

BY Lancaster & Allwine

ATTORNEYS.

Patented Sept. 15, 1931

1,823,013

UNITED STATES PATENT OFFICE

CARL W. WANTZ, OF LOS ANGELES, CALIFORNIA

BED OR COT

Application filed November 11, 1929. Serial No. 406,451.

The present invention relates to improvements in beds, cots and the like and the primary object of the invention is to provide a bed or cot of knock down construction permitting the device to be collapsed into a compact form for storage or transportation purposes.

A further object of the invention resides in the novel construction of the bed bottom and the manner of mounting the same in the supporting frame.

A further object of the invention is to provide a bed bottom which is devoid of the usual helical springs so as to materially reduce the thickness thereof, and one which may be readily used upon various types of bed frames.

A still further object of the invention is to provide an improved bed bottom and supporting frame therefor of such construction as to permit mounting of the frame upon various types of supports.

Other objects and advantages of the invention will be apparent during the course of the following detailed description, taken in connection with the accompanying drawings forming a part of this specification and in which drawings:

Figure 1 is a top plan view of the improved bed or cot.

Figure 2 is a longitudinal section on line 2—2 of Figure 1.

Figure 3 is an enlarged fragmentary perspective view showing the manner of connecting the end and side rails of the supporting frame, and the rails to the corner posts.

Figure 4 is an enlarged fragmentary section on line 4—4 of Figure 1.

Figure 5 is a view part in side elevation and part in section showing the mattress support mounted upon two ordinary saw horses of the trestle type.

Figure 6 is a transverse section on line 6—6 of Figure 5.

Referring to the drawings in detail, and wherein similar reference characters designate corresponding parts thruout the several views, the letter A may generally designate a bed or cot constructed in accordance with this invention and embodying a mattress support including a supporting frame B and a bed bottom or rest C, said frame in the form illustrated in Figures 1 to 4 inclusive being supported by upright corner posts D.

Referring first to the specific construction of the frame B the same is of substantially rectangular shape including parallel side rails 5 and end rails 6. The rails 5 and 6 may either be formed of wood or metal and in the example shown are formed of wood and substantially square shape in cross section. The end rails 6 adjacent each end and at their upper sides are notched or recessed as at 7, the notches being of a length longitudinally of the rails equal to the width of the side rails 5. These notches 7 are intended to receive the ends of the side rails 5 therein as clearly shown in Figure 3 with the ends of the side rails projecting beyond the end rails for a distance equal to the thickness of the corner posts D. The ends of the end rails 6 beyond the outer ends of the notches 7 are also of a length equal to the thickness of the corner posts D. The rails 5 and 6 at their overlying ends are provided with aligning drill holes 8 for removably receiving a bolt 9 whereby the rails 5 and 6 are rigidly joined in an open rectangular shaped frame.

The projecting ends of the rails 5 and 6 form right angular shaped pockets at each corner of the frame for receiving the central portions of the posts D. The posts D preferably have rounded upper and lower ends and are square shaped at their intermediate portions for snugly fitting in the corner pockets of the frame. The projecting ends of each of the rails 5 and 6 are provided with horizontal bores 10 for receiving attaching bolts 11 whereby the corner posts D are rigidly bolted to the corner portions of the supporting frame B.

Formed along the inner upper edge of each side rail 5 is a rabbet 12 the lower surfaces of which are inclined inwardly and downwardly as clearly shown in Figures 3 and 4. The ends of these rabbets 12 terminate inwardly of the ends of the side rails and preferably on a line with the outer edges of the end rails 6. As will be observed

in Figure 4, the lower edges of the inclined bottoms of the rabbets 12 are spaced above the upper surfaces of the end rails 6.

The bottom or rest C is preferably of wooden construction and embodies a series of longitudinal supporting strips 15 connected in parallel relation by a series of thin wooden cross slats 16 secured to the upper edges of the strips 15 as by nails or other suitable fastening elements 17. The ends of the slats 16 project slightly beyond the outermost strips 15 and these projecting ends of the slats are intended to rest upon the inclined bearing surfaces of the rabbets 12 provided in the side rails 5. The longitudinal supporting strips 15 are preferably of a length equal to that of the side rails 5 and are intended to rest freely upon the upper edges of the end rails 6. Each end slat 16 is reinforced by an overlying slat 16′ preferably having a transversely rounded upper surface. These reinforced end slats are intended to have abutting engagement at their ends with the square ends 12′ of the rabbets 12 for preventing shifting movement of the rests longitudinally of the supporting frame B.

The inner or shallow portions of the rabbets 12 are of a depth equal to the thickness of the slats 16 so that the upper surfaces of the slats will align with the upper surfaces of the side rails 5. Recessing the side rails 5 into the end rails 6 not only gives rigidity to the assembled frame but also permits use of thinner supporting strips 15 to allow sufficient yielding of the rest. The ends of the longitudinal supporting strips 15 thru having bearing engagement upon the upper surfaces of the end rails 6 will prevent downward yielding of the end portions of the rest. With the ends of the slats 16 resting in the rabbets 12 it will be seen that the frame B is held against shifting movement both longitudinally and transversely of the supporting frame.

By observing Figure 4 it will be seen that when the weight is placed upon the rest C, the strips 15 and slats 16 will be flexed downwardly and that the ends of the slats will have a substantial bearing contact with the inclined bottoms of the rabbets 12 and not just line contact therewith as would be the case were the bottoms of the rabbets not inclined.

With the form of bed or cot A′ illustrated in Figures 5 and 6, saw horses E of the trestle type have been shown in place of the corner posts D for supporting the frame B.

The saw horses E include the usual head or cross piece 20 supported by the diverging leg pieces 22. The head piece 20 is preferably of a length equal to the width between the outer edges of the side rail 5 and each end of the head pieces at their upper sides are notched out as at 24 providing seats for the side rails 5 to engage upon for preventing shifting of the supporting frame longitudinally of the head piece. The saw horses E are preferably arranged inwardly of the end rails 6 and thus the frame B is prevented from longitudinal movement by engagement of the end rails with the saw horses. The heads 20 are notched at 24 for a depth sufficient to prevent shifting of the supporting frame and yet retain the longitudinal supporting strips 15 out of contact with the upper edges of the heads. Owing to the spreading of the legs 22 it will not be necessary to secure the supporting frame to the saw horses to prevent collapsing of the bed or cot when erected for use.

By having the longitudinal supporting strips 15 substantially stouter than the cross pieces or slats 16, the rest will have greater flexibility on an arc transversely of the rest than longitudinally thereof and which will be desirable for rendering the rest more comfortable. The ends of the strips 15 projecting beyond the terminal slats 16 aside from forming good bearings for the ends of the strips, also provide hand grips permitting ready and easy raising of the rest out of position in the supporting frame.

From the foregoing description it will be apparent that a novel and improved construction for beds and cots has been disclosed embodying a rest of such construction as to eliminate the necessity of employing coil springs, woven springs and the like for obtaining the desired flexibility. It will also be apparent that an improved mattress support has been disclosed embodying a novel type of collapsible supporting frame which may be mounted upon various types of supports and thus rendering the mattress support especially well adapted for use by campers and the like or in places where it is desired to store the bed or cot out of the way when not being used. It will further be apparent that an improved bed bottom or rest has been disclosed which may be very economically constructed and which may be used upon various types and styles of beds and cots.

Changes in detail may be made to the forms of invention herein shown and described, without departing from the spirit of the invention or the scope of the following claims.

I claim:

1. A mattress support comprising an open frame including end and side rails, said side rails at their upper inner edges each being provided with a rabbet terminating inwardly of the ends of the rails and providing a shoulder adjacent each end of each rail, and a rest including longitudinal supporting strips resting upon said end rails, a plurality of cross slats fixed to the upper sides of the strips with their end portions resting in the rabbets of the side rails and with the terminally disposed slats in engagement with

said shoulders, and a stiffening strip secured to the upper side of each of the terminally disposed slats.

2. A bed bottom comprising a series of stout longitudinal supporting rails, a series of thin, readily flexible slats secured to the upper sides of the rails with the ends of the slats projecting beyond the outermost rails, and a stiffening strip secured to the upper side of each of the terminally disposed slats.

CARL W. WANTZ.