N. KAPLAN.

COT BED.

APPLICATION FILED NOV. 8, 1917.

1,280,042.

Patented Sept. 24, 1918.

3 SHEETS—SHEET 1.

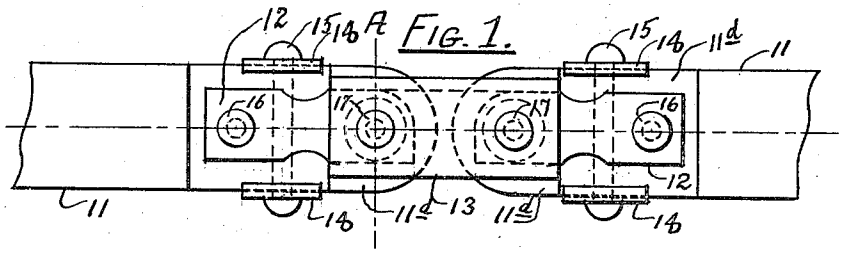


FIG. 1.

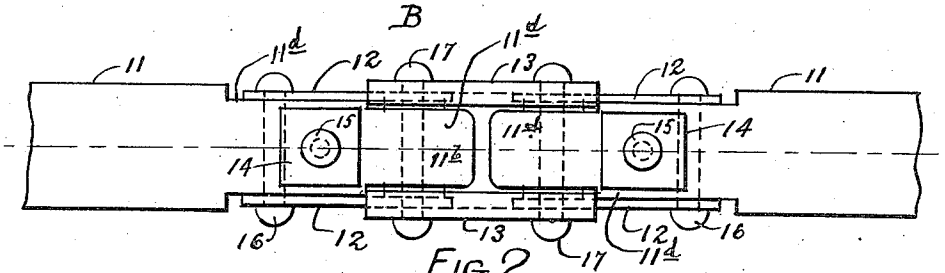


FIG. 2.

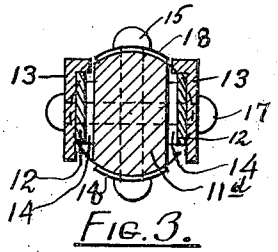


FIG. 3.

FIG. 4.

FIG. 5.

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3 SHEETS—SHEET 2.

FIG. 6.

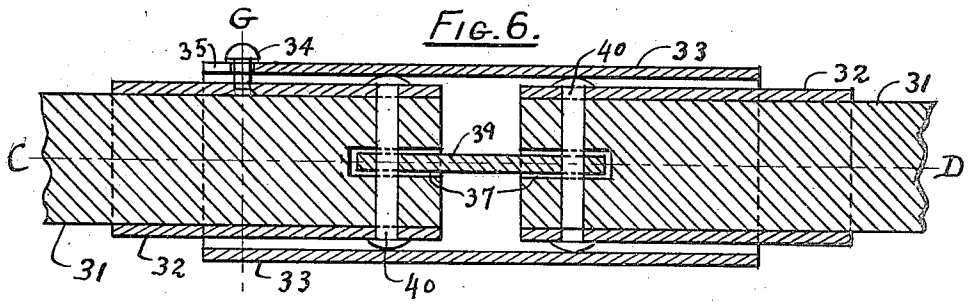
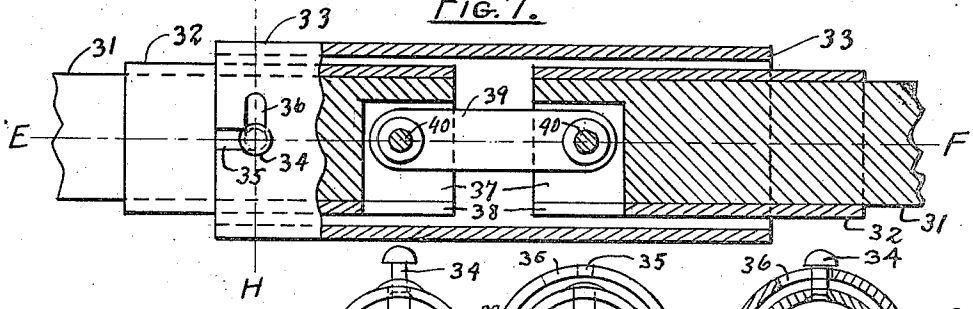


FIG. 7.



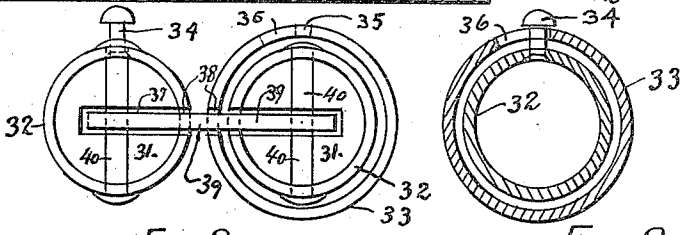


FIG. 8.

FIG. 9.

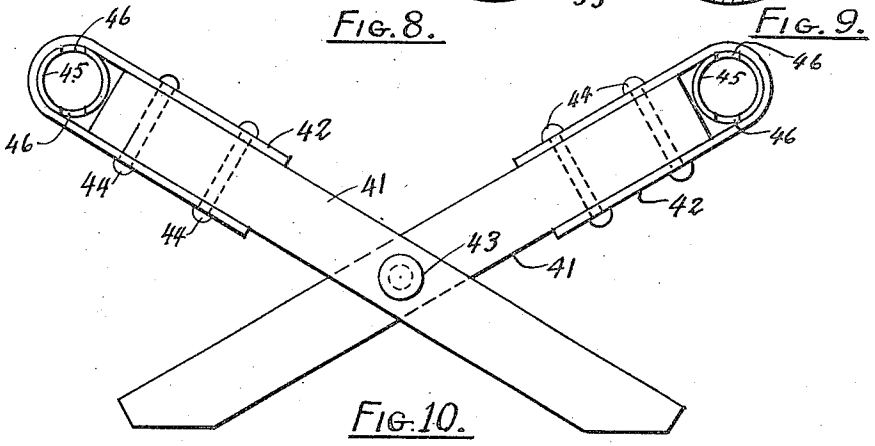


FIG. 10.

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3 SHEETS—SHEET 3.

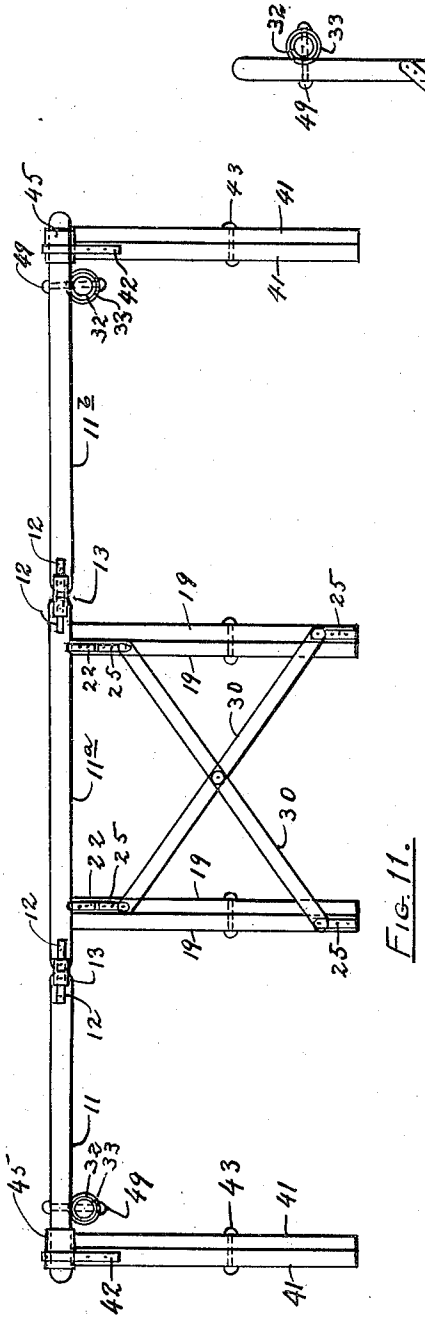


FIG. 11.

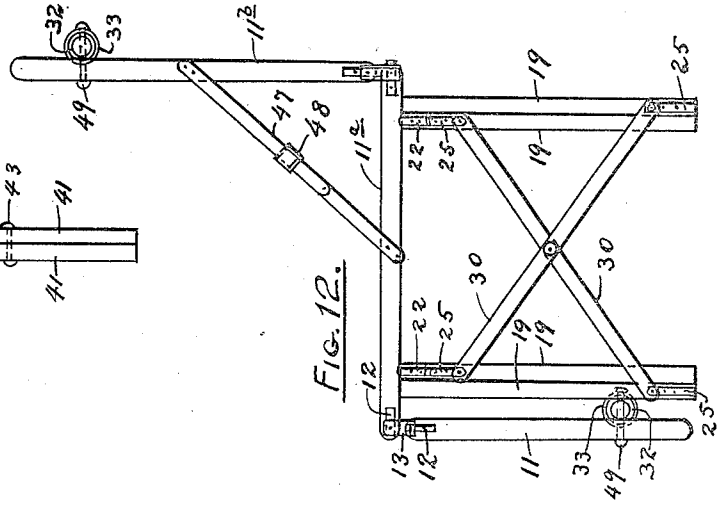


FIG. 12.

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UNITED STATES PATENT OFFICE.

NATHAN KAPLAN, OF NEW YORK, N. Y.

COT-BED.

1,280,042. Specification of Letters Patent. Patented Sept. 24, 1918.

Application filed November 8, 1917. Serial No. 200,932.

To all whom it may concern:

Be it known that I, NATHAN KAPLAN, a citizen of the United States, residing at 359 Madison street, in the city, county, and State of New York, have invented a new and useful Cot-Bed, of which the following is a specification.

My invention relates to improvements in collapsible cot beds, and it consists in the novel features hereinafter described.

The objects of my improvement are:

First. To provide a cot bed with a minimum number of parts, which cot bed can be readily taken apart and the parts folded to occupy little space.

Second. To have the joints of said cot bed and sundry details thereof of a novel and very efficient construction.

Third. To have said cot bed convertible into a chair by folding sundry parts thereof, and

Fourth. To have said cot-bed and chair combined simple, durable and inexpensive.

I attain these objects by the device illustrated in the accompanying drawings or by any mechanical equivalent or obvious modification of the same.

In the drawings Figure 1 is an elevation of one of the joints of the bearer bars 11, 11^a and 11^b, Fig. 2 is a plan of the same, and Fig. 3 is a section on the line A—B of Fig. 1.

Fig. 4 is a part elevation and part section of the upper end of one of the cross legs; Fig. 5 is an inverted plan view of the bracket 25 of said cross-legs.

Fig. 6 is a section on the line E—F of Fig. 7, which is a part elevation and part section, on the line C—D of Fig. 6, of the joint of the cross-bars 31, hereinafter more fully described.

Fig. 8 is an end view of the joint of said cross-bar when folded; Fig. 9 is a cross section on the line G—H of Figs. 6 and 7.

Fig. 10 is an end view of the removable cross-legs 41, situated at the ends of the cot bed.

Fig. 11 is a side elevation of the cot-bed and chair combined when assembled as a bed; Fig. 12 is a side elevation of the cot bed and chair combined when assembled as a chair.

The canvas covering is omitted from the drawings.

Similar numerals and letters refer to similar parts throughout the several views.

11, 11^a and 11^b designate the sections of the bearer bars of my cot bed, which sections are round in cross-section throughout the greater part of their length, as shown in Fig. 4, except at the ends near the joints, where the section is reduced, as shown in Fig. 3.

11^d are the reduced ends of two contiguous sections, such as 11 and 11^a or 11^a and 11^b.

12 are side plates, shown in Figs. 1 and 2 as connected to said reduced ends 11^d by means of the rivets or bolts 16.

13 are center plates shown in Figs. 1, 2 and 3 as pivotally connected to said side plates 12 and reduced ends of the bars 11^d by means of the pins 17.

14 are washers for filling up the space between the inner ends of the side plates 12 and the reduced ends of the sections of the bearer bars.

The center plates 13 are shown in Fig. 3 as having horizontal flanges at their upper edges, and said side plates 12 are shown in Fig. 1 as terminating at their inner ends in abutments adapted to fit the underside of said flanges of the center plates 13 and to permit the folding of said sections by rotating each section around each of the pins 17 as an axis through an angle of 90 degrees in one direction only.

18, 18 are reinforcing plates located on the top and bottom of the inner ends of said sections and connected thereto by means of the pins or rivets 15 for the purpose of protecting the inner ends of said sections from wear and tear.

The joint of the sections 11^a and 11^b is similar to the joint shown in Figs. 1 and 2; only it is inverted in position, so as to permit the section 11^b to be raised instead of being lowered, as the section 11 is when forming the cot bed into a chair, also when collapsibly folding up the cot bed for removal. It is evident from the drawings that when only one of two contiguous sections is rotated through an angle of 90 degrees, the sections will thereby become perpendicular to each other, as shown in Fig. 12; but when both contiguous sections are rotated, each through an angle of 90 degrees, the sections will close up, and the effect will be the same as if one of the sections was rotated through an angle of 180 degrees while the other remained stationary.

The details of connecting said section 11^a of the bearer bars to the cross legs, and the latter to the pantograph strips 30, is illus-

trated in Figs. 4 and 5, in which 19 designates one of a pair of cross-legs, to the upper end of which is secured the bracket 22 by means of the wood screws 24; said bracket 22 terminates at its upper end in the hook 23, which passes through the loop of the V-shaped bolt 21, which is secured to each of the pair of sections 11^a, thereby detachably connecting each of said cross legs to said bearer bar section.

The pantograph strips 30 are pivotally connected at each end to a stud 29, which is secured to the cylindrical core 28, which has its axis at right angles to the axis of said stud 29; said core 28 is adapted to rotate inside the space provided by the bracket 25 having the lower end 26 bent inwardly, as shown, thereby forming a bearing for said core 28.

Said bracket 25—26 is shown as secured to said cross leg 19 by means of suitable wood-screws 24, and the bearing at the lower end of said brackets has a slot 27 in its cylindrical surface, to allow said stud 29 to rotate with said core 2, thereby affording a universal motion to the end of said strip 30.

The outer ends of said sections 11 and 11^b are supported each by a pair of removable cross legs 41, pivotally connected to each other by means of a pin or rivet 43.

Each of said cross legs 41 carries at its upper end a tubular member 45 secured in position by means of the straps 42, which are shown in Fig. 10 as secured to said cross legs 41 by means of the rivets 44.

Each of said tubular members 45 has a pair of round openings 46 at the top and bottom thereof to allow the insertion or passage of a rod for supporting any suitable objects, such as mosquito screens.

The outer ends of said pairs of sections 11 and 11^b are also connected, each pair, by means of the folding cross bars 31, of which the folding joint is shown in detail in Figs. 6, 7, 8 and 9.

32 is a tubular member inclosing the inner end of each half of said cross bar 31, which has a recess 37 formed therein in line with the slot 38 in each of said tubular members 32; said recess 37 and slot 38 are adapted to permit the link 39 to move therethrough, and allow the folding of said cross bar 31 in one direction only.

Said link 39 is pivotally connected to the inner ends of said cross bar 31 and said tubular members 32 by means of the pins 40.

To keep said folding cross bar 31—31 in line when open I provide the sleeve 33, which is slidable lengthwise of said cross bar, and which is locked in position by means of the pin 34, which is secured to one of said tubular members 32, and the slots 35 and 36 situated at right angles to each other at one end of said sleeve 33; the slot 35 is first made to engage the pin 34 while moving said sleeve 33 toward the left in Figs. 6 and 7 until said pin reaches the position opposite the slot 36, when said sleeve 33 is given a twist, thereby causing said slot 36 to engage said pin 34, and thereby locking said sleeve 33 in position.

Said cross bars 31 are secured at their ends to said sections of the bearer bars 11 and 11^b near each end of the cot bed and inside of the removable cross legs 41.

Said cross-legs 41 are connected to the ends of the bearer bars when the cot bed is put up by slipping the tubular members 45 on to the outer ends of the sections 11 and 11^b of the cot bed, in which position they are kept by friction. Said cross legs are removed from the ends of said sections 11 and 11^b by slipping them off by hand, when the cot bed is to be turned into a chair or folded up.

To turn said cot bed into a chair the sections 11 are turned downwardly into a vertical position, as shown in Fig. 12, and said sections 11^b are turned upwardly into a vertical position and secured in such position by the pair of straps 47 and buckle 48, one of which straps and buckle is shown in Fig. 12.

Many changes could be made in the details of my cot bed within the scope of my invention. I do not, therefore, restrict myself to the details as shown; but I intend to include also all mechanical equivalents and obvious modifications of the same.

What I claim as my invention and desire to secure by Letters Patent is:

1. In a collapsible cot bed a pair of bearer bars consisting each of three sections foldably connected to each other by suitable joints, each of said joints comprising a pair of side plates, secured to the contiguous ends of each section, and a pair of center plates, pivotally connected to each of said side plates and situated on the outside thereof remote from said ends, said center plates being angular in cross-section and consisting each of a main web, which is normally vertical, and a flange, which is normally horizontal, the flanges of one joint being on the underside thereof and the flanges of the other joint being on the upper side thereof, and said side plates terminating at their inner ends in cam shaped abutments in contact with said flanges and adapted to abut against said flanges when said bearer bars are folded.

2. In a collapsible cot bed a pair of bearer bars consisting each of sections foldably connected to each other by suitable joints, cross-legs arranged in pairs transversely to said cot bed, pantographs collapsibly connecting said pairs of cross legs, said pantographs being placed lengthwise to said cot bed, each of said pantographs consisting of a pair of strips and a means for universally

connecting each of said strips to said cross legs, said means comprising a bracket secured to each of said cross-legs, said bracket having a suitable bearing, a pin in said bearing, a slot in said bracket, a stud passing through said slot and secured at its inner end to said pin substantially at right angles thereto, said stud being pivotally connected to said strip and said stud being adapted to rotate with said pin within the limits of said slot, thereby allowing a universal motion to said strip.

3. In a collapsible cot-bed and chair combined, consisting of three sections, foldably connected to each other, and each section containing a pair of bearer bar sections, means for supporting the same in position, and foldable cross rods for keeping the ends of said bearer bars a given distance apart, each of said cross bars consisting of two sections, a tubular member inclosing the inner end of each section, a recess in the inner end of each of said sections and said tubular members, a link, pivotally connecting the inner ends of said sections, located in said recess, said recess extending through said section and member to one side of said link, thereby permitting said sections to be folded on said link in one direction, and said recess terminating inside of said section on the other side of said link, thereby preventing said sections from folding in the opposite direction, combined with a removable sleeve, adapted to inclose the inner ends of said tubular members and of said sections, thereby keeping said cross-bar straight.

NATHAN KAPLAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents Washington, D. C."