C. C. CHITTIM.

PORTABLE SHELTER.

APPLICATION FILED OCT. 10, 1917.

1,259,080.

Patented Mar. 12, 1918.

4 SHEETS—SHEET 1.

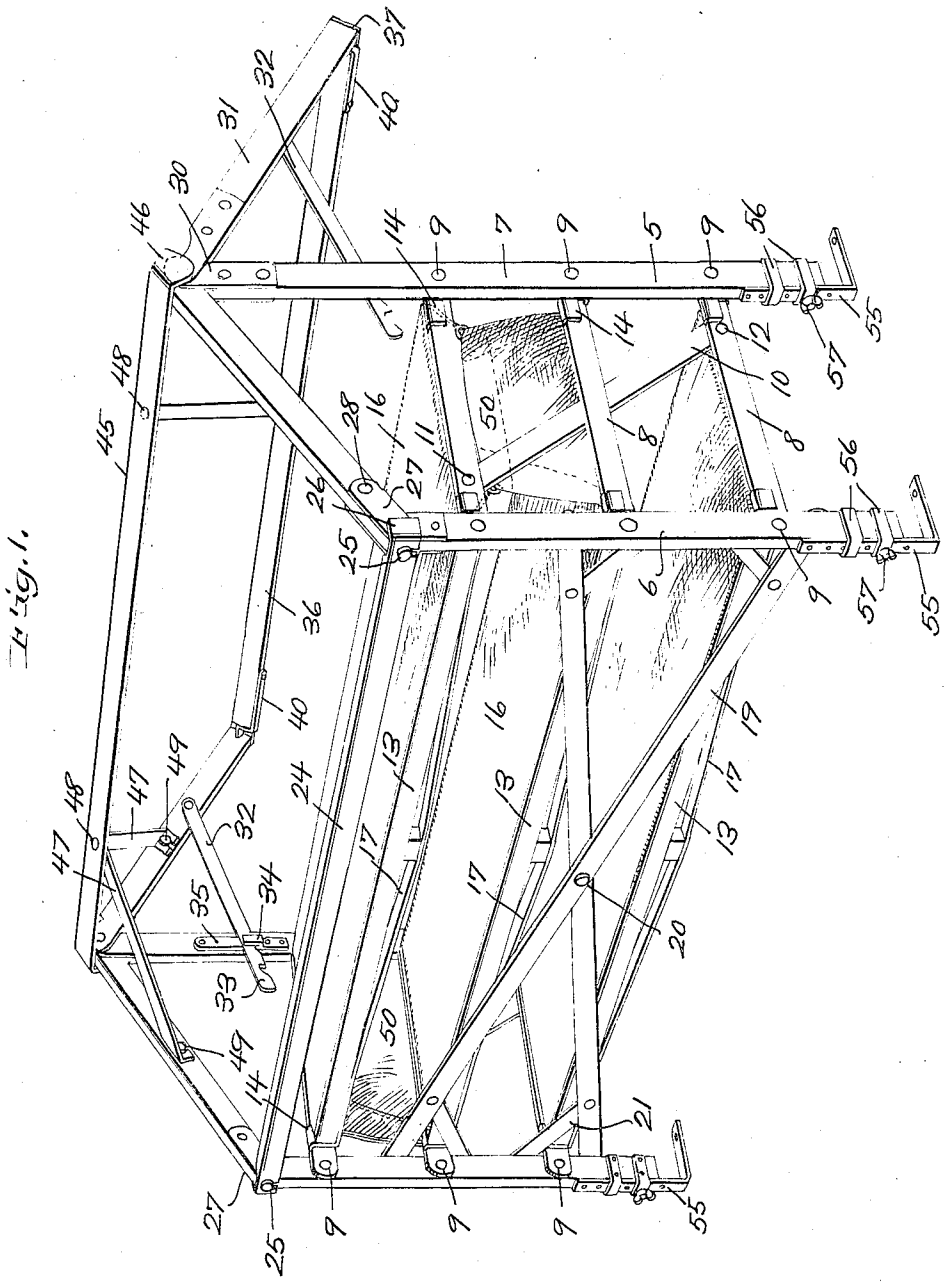


Fig. 1.

WITNESSES

G. Hennessy

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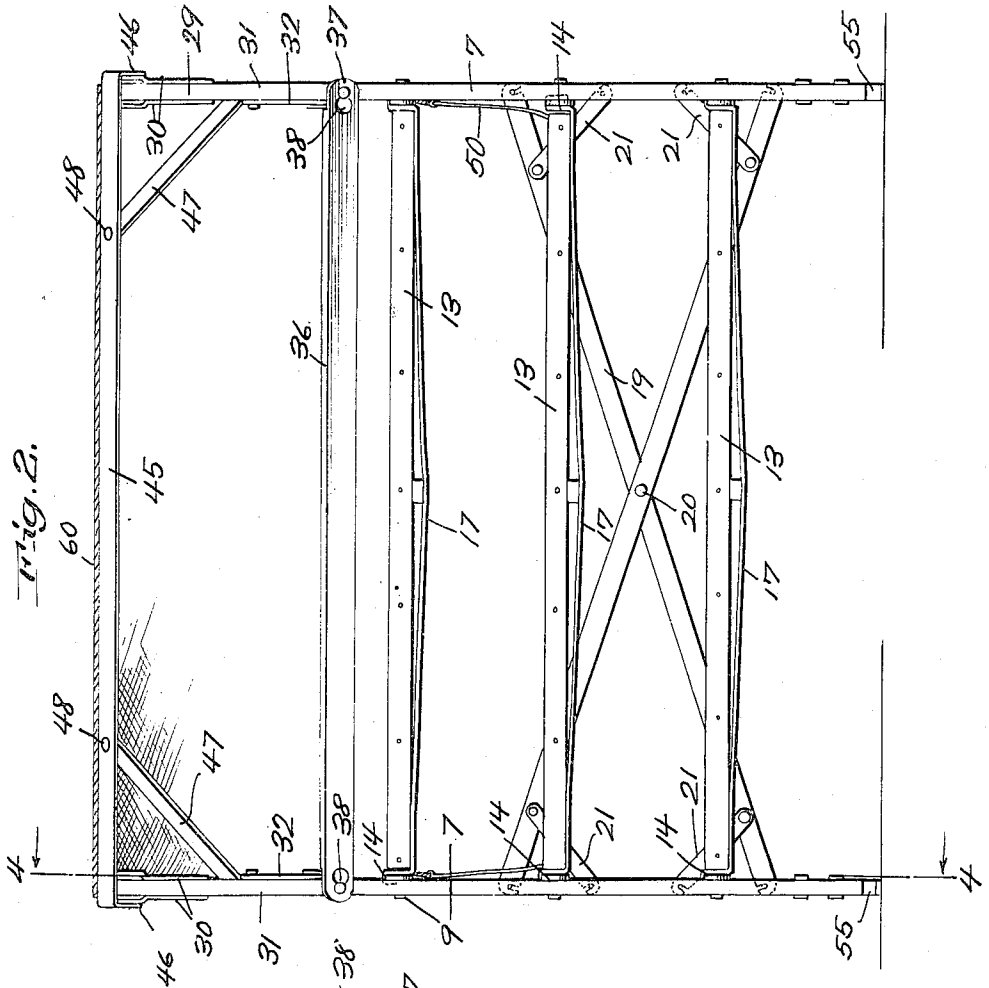


Fig. 2.

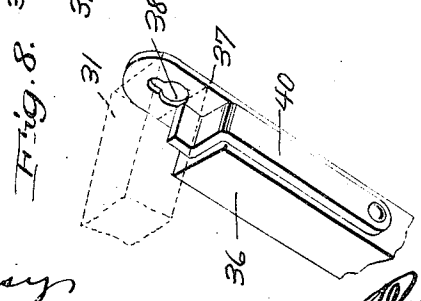


Fig. 8.

WITNESSES

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4 SHEETS—SHEET 3.

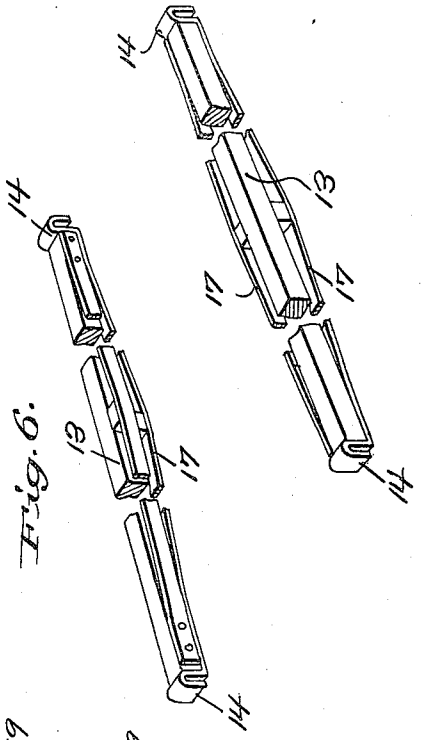


Fig. 6.

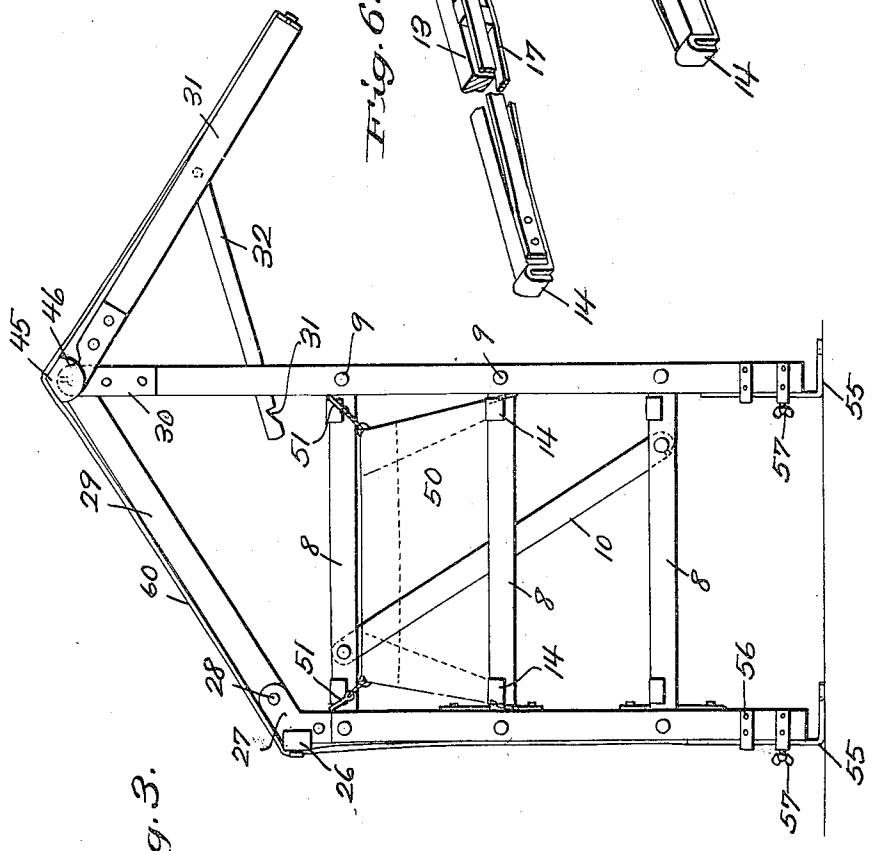


Fig. 3.

WITNESSES

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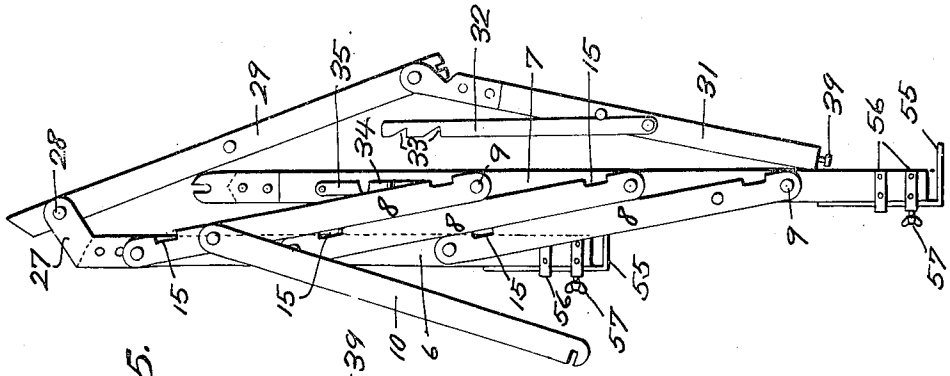


Fig. 5.

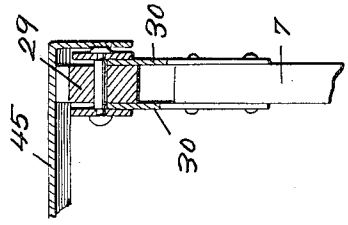


Fig. 7.

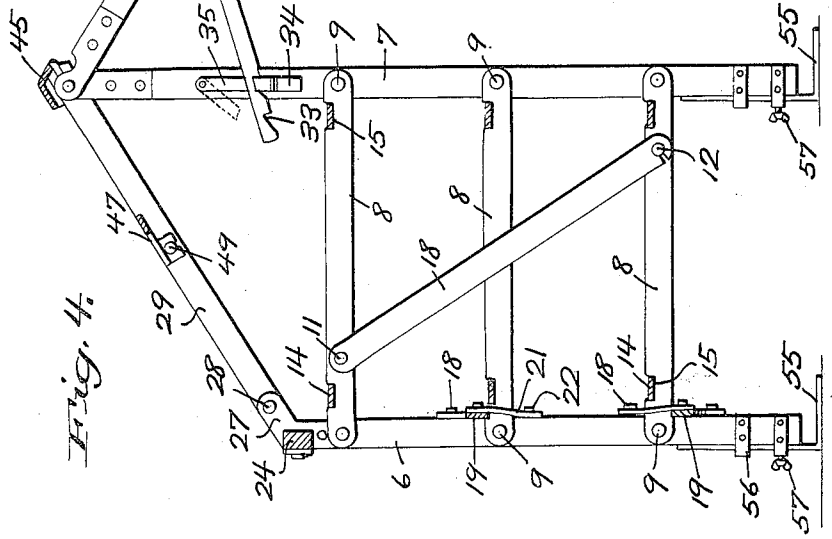


Fig. 4.

WITNESSES

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UNITED STATES PATENT OFFICE.

CARL C. CHITTIM, OF SPRINGFIELD, MISSOURI, ASSIGNOR TO ROY SULLENS, OF SPRINGFIELD, MISSOURI.

PORTABLE SHELTER.

1,259,080. Specification of Letters Patent. Patented Mar. 12, 1918.

Application filed October 10, 1917. Serial No. 195,771.

To all whom it may concern:

Be it known that I, CARL C. CHITTIM, a citizen of the United States, residing at Springfield, in the county of Greene and State of Missouri, have invented certain new and useful Improvements in Portable Shelters, of which the following is a specification.

This invention relates to portable shelters, having for its primary object to generally simplify and improve the construction of devices of this character, as well as to increase their efficiency.

A further object of the invention is to provide an improved portable shelter apparatus which has its supporting members so constructed and arranged as to be capable of being collapsed when not in use or when in transit, so as to occupy but a small amount of space.

A still further object of the invention resides in providing a collapsible framework for the support of cots which shall be of simple construction and light weight, and yet which shall possess sufficient strength to withstand the strains and pressures to which it will be subjected when in use, which may be readily transported without difficulty from place to place, and which may be set up or taken down at will without the aid of special tools or instruments, and without the exercise of special skill.

Still further objects reside in providing a portable shelter apparatus which will occupy but a small amount of space when set up, and yet which will provide sleeping and sheltering facilities for a relatively great number of people.

With these objects in view, together with others which will appear as the description proceeds, the invention resides in the novel formation, combination, and arrangement of parts, all as will be described more fully hereinafter, illustrated in the drawings, and particularly pointed out in the claims.

In the drawings:—

Figure 1 is a perspective view of a portable shelter apparatus constructed in accordance with the invention and being in set up position, the cover for the said apparatus being removed,

Fig. 2 is a rear elevation of the improved apparatus, the covering for the same being in section,

Fig. 3 is an end view of the shelter device,

Fig. 4 is a sectional view taken substantially upon the line 4—4 of Fig. 2,

Fig. 5 is an end view of the shelter framework in the process of being collapsed,

Fig. 6 is a fragmentary perspective view of the side rails for the improved cots,

Fig. 7 is a detail sectional view showing the manner in which the ridge member is supported upon the end sections,

Fig. 8 is an enlarged fragmentary perspective view, illustrating the manner in which the arms of the canopy frame are connected.

Referring now particularly to the drawings, 5 indicates generally the end members for the improved shelter apparatus; each of the end members including uprights 6 and 7, the latter being preferably of greater height than the former. These uprights are secured together by spaced laterally disposed supporting bars or rods 8, which are pivoted at their ends as at 9 to the said uprights, so as to permit of the end members being folded or collapsed. The transverse bars 8 are of a length substantially equal to or slightly greater than the width of a cot, and constitute rests or supports for the ends of the cots. In the present instance the end members 5 are shown as being equipped with three of the lateral bars 8, but it will be understood that a greater or less number of such bars may be employed if desired.

To assist in holding the collapsible end members 5 rigid when in set up position, each of the said members is provided with a locking bar 10, the same being pivoted as at 11 to the uppermost of the transverse members 8, and being adapted to catch at their opposite ends over a pin or stud 12 projecting outwardly from the lowermost of the transverse members 8. It will be observed that when the end members are in set up position, the transverse supporting bars 8 will be disposed horizontally, and the locking bar 10 will be disposed diagonally across the end of the supporting frame.

The cots of my invention each comprise

a pair of longitudinal side rails 13, of suitable length and thickness, and each of which has outwardly extending hook members 14 at its extremities adapted to engage over the transverse bars 8 of the end members 5. It will be observed, particularly with reference to Figs. 4 and 5 of the drawings, that the transverse bars 8 are provided in their upper edges and adjacent their opposite ends with notches 15 of a width substantially equal to the width of the hook members, and within which the latter are adapted to rest. When the hooks at the ends of the longitudinal bars are engaged within the notches, the fabric bottom 16 of the cot will be stretched tightly and properly to support a person, and by reason of these notches, the longitudinal bars will be held against lateral movement. Each of the longitudinal bars constituting the side rails of the cots are provided with reinforcing metallic straps 17, extending throughout substantially the entire length of the said rails.

The inner edges of the uprights 6 of the end members are provided with inwardly projecting studs or pins 18, over which the extremities of reinforcing bars or brackets 19 engage. These bars are pivoted together as at 20 intermediate their ends, and each is provided at its ends with a pivotally connected bracing arm 21, adapted to engage over a pin 22 on the upright 6. The reinforcing bracket of this construction holds the end members 5 in proper position, and obviates the possibility of collapsing of the shelter device. As the extremities of the arms and bars 21—19 are hooked, it is obvious that the reinforcing bracket may be readily applied to and removed from the end members 5 when desired.

The upper ends of the uprights 6 are connected by a rail or bar 24, the latter being adapted at its ends to engage over pins or studs 25 projecting outwardly from the said uprights. The extreme ends of this bar 24 are bent inwardly as at 26, and engage over the outer faces of the uprights 6, thus holding the latter against falling away from each other. It will be observed that the bar 24 may be readily applied to or removed from the upper extremities of the uprights 6, and forms a rigid support for the structure.

The uprights 6 are provided at their upper ends and upon their opposing faces with upwardly and inwardly inclined plates 27, between which are pivoted as at 28 one end of a roof beam 29. The beams 29 are adapted to rest between plates 30 projecting upwardly from the upper extremities of the uprights 7, so that the latter support the free ends of the said roof beams.

The free ends of the roof beams have pivotally secured thereto the inner extremities of canopy supporting arms 31. These arms have hingedly connected to their inner faces and intermediate their extremities the inner ends of supporting braces 32, the outer ends of which are notched or shouldered as at 33 to engage in clevises 34 secured to the uprights 7. A locking latch 35 is pivoted to each of the uprights 7, and is adapted to engage with the supporting members 32 to hold the latter firmly seated in their respective clevises. By providing the under edges of the members 32 with spaced notches, it is obvious that the angular position of the canopy support may be varied.

The outer extremities of the arms 31 are connected by a rail 36. This rail has plates 37 projecting from its extremities, and within which openings 38 are provided, the latter being adapted to receive studs or pins 39 projecting from the extremities of the arms 31. Each end of the bar 36 is also provided with a spring tension latch 40 for exerting pressure upon the arms 31 to hold the pins properly positioned within their respective openings.

A ridge pole 45 connects the end members 5 at the upper ends of the uprights 7. This ridge pole has its extremities provided with downwardly extending portions 46 adapted to engage over the pivotal connections of the roof beams 29 and their arms 31. The ridge pole has arranged thereon a plurality of bracing bars or arms 47, the latter being pivoted as at 48 to the said pole, and being adapted at their outer ends to engage over pins 49 in the roof beams 29 and arms 31. By providing the extremities of the ridge pole with downwardly extending portions 46, it is obvious that the roof beams 29, arms 31, as well as the upper extremities of the uprights 7 will be held firmly in properly assembled relation.

It will be observed, particularly with reference to Figs. 1 to 3 inclusive of the drawings, that the intermediate cot of the structure is provided with upwardly extending fabrics 50 at its ends. This fabric may be provided at its extreme upper ends with hooks 51, adapted to engage over the uppermost of the lateral bars 8 of the end members 5. By this arrangement, back rests for the cot are provided, and it will be understood that the upper and lowermost cots may be either removed from the supporting structure or moved to one side thereof when it is desired to use the middle cot as a seat or reclining couch.

In order that the height of the supporting structure may be increased or reduced, and to enable the end members to be firmly secured to the ground or to a floor, each of the uprights is provided at its lower end with an adjustable foot 55. To securely hold the feet 55 properly positioned upon the uprights, each of the latter is provided at its lower end with a pair of spaced loop mem-

bers 56 through which the vertical portions of the feet 55 slide. One of the loop members upon each of the uprights is provided with a set screw 57, adapted to bind with the foot 55 to hold the latter in proper adjusted position. If desired, the horizontal portions of the feet 55 may be provided with openings, for the reception of screws, bolts or the like to secure the said feet to a floor.

When it is desired to use the above described apparatus as a sleeping shelter, the end members 5 are extended and set in upright position and spaced apart a distance equal to the length of the cots. These members are then locked against collapsing by the bar 10. The reinforcing bracket 19 may then be adjusted to the end members to hold the latter the proper distance apart, and the roof beams 29 are then swung upwardly so as to rest at their free ends in the sockets formed between the plates 30 on the upper end of the uprights 7. The longitudinal reinforcing rail 24 may then be adjusted to the frame, and then the cots may be arranged in their proper positions. The swinging awning or canopy support may then be adjusted as desired, and a cover, such as that indicated at 60 in Fig. 3 of the drawings, may be draped over the structure. The occupants of the cots are protected from rain and from the wind, and are assured comfortable beds. By removing the uppermost cot, the middle cot may be used as a lounge or couch. When it is desired to take down the shelter, the cots may be detached and rolled up, whereupon the various parts separate from the main structure may be removed and stored. The end members may then be collapsed by folding the uprights over one upon the other, the pivots 9 for the lateral members permitting of this movement of the vertical members.

From the foregoing description it is obvious that I have provided a sleeping shelter which is extremely simple in construction and which may be manufactured at low cost. The simplicity of the structure permits of the same being readily assembled and collapsed when required, and when in the latter condition may be easily transported from place to place.

While the present is a disclosure of what is believed to be the preferred embodiment of the invention, it is to be understood that the invention is not limited thereto, as various changes in the minor details of construction, proportion, and arrangement of parts may be resorted to if desired without departing from the spirit of the invention as defined by the appended claims.

I claim:—

1. In a device of the class described, a pair of end members each comprising a pair of uprights, transverse rails pivotally connecting said uprights, a locking bar pivoted on one rail of said end members and being adapted at its free end to lock with another of said rails, and a ridge pole connecting said end members.

2. In a device of the class described, a pair of end members each comprising a pair of uprights, a roof beam pivoted at one end to one of said uprights and being adapted to rest upon the other upright, a ridge pole connecting said end members, and locking means for holding said ridge pole to said roof beams.

3. In a device of the class described, a pair of end members each comprising a pair of uprights, a roof beam pivoted at one end to one of said uprights and being adapted to rest upon the other upright, a ridge pole connecting said end members and resting upon said roof beams, and means for locking said ridge pole to said roof beams.

4. In a device of the class described, a pair of end members each comprising a pair of uprights, a sectional roof beam pivoted at one end to one of said uprights and being adapted to rest upon the other upright, means for holding said roof beams to their respective end members, and a ridge pole connecting the roof beams of each end member.

5. In a device of the class described, a pair of end members each comprising a pair of uprights, a ridge pole detachably connecting the said end members at one side thereof, and a longitudinal brace detachably connecting the said members at their opposite sides.

6. In a device of the class described, a pair of end members each comprising a pair of uprights, transverse bars connecting the uprights of each pair, a plurality of cots each having a pair of longitudinal rails, and hooks at the ends of said rails adapted to engage over the said transverse bars.

7. In a device of the class described, a pair of end members each comprising a pair of uprights, transverse bars connecting the uprights of each pair and each of said bars having notches in their upper edges and near the ends thereof, a plurality of cots each having a pair of longitudinal rails and hooks on the ends of said rails adapted to rest in said notches.

8. In a device of the class described, a supporting frame having spaced horizontally disposed rails each having notches in their upper edges and at the ends thereof, cots adapted to be supported at their ends upon said rails, each cot comprising a pair of longitudinal side bars, a hook on each end of said bar adapted to rest in said notches, and a fabric connecting the rails of each cot.

9. In a device of the class described, a supporting frame having spaced end members, a plurality of collapsible cots suspended between said members, a collapsible roof section removably secured over said frame, a

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cover on said roof section, one of said cots having end flaps adapted to be secured to said end members, and crossed braces connecting the said end members and being removably secured to the latter.

10. In a device of the class described, a pair of end members each comprising a pair of spaced uprights, transverse rails pivotally connecting said uprights and each having spaced notches in its upper edges, one of said uprights of each end member being longer than the other, a roof beam pivoted at one end to each of the shortest of said uprights, means for supporting the said roof beam upon the upper extremity of the longest of said uprights, a cover frame pivoted to the extremities of said roof beams, means for supporting said cover frame in adjusted position, connecting members for the said end members, and cots each having longitudinal side rails adapted to rest at their ends in the said notches.

In testimony whereof I affix my signature in presence of two witnesses.

CARL C. CHITTIM.

Witnesses:
E. T. O'NEAL,
C. A. TUPPER.

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