A. P. PASCALE & R. DAAE.

COT.

APPLICATION FILED MAY 23, 1912.

1,080,577.

Patented Dec. 9, 1913.

2 SHEETS—SHEET 1.

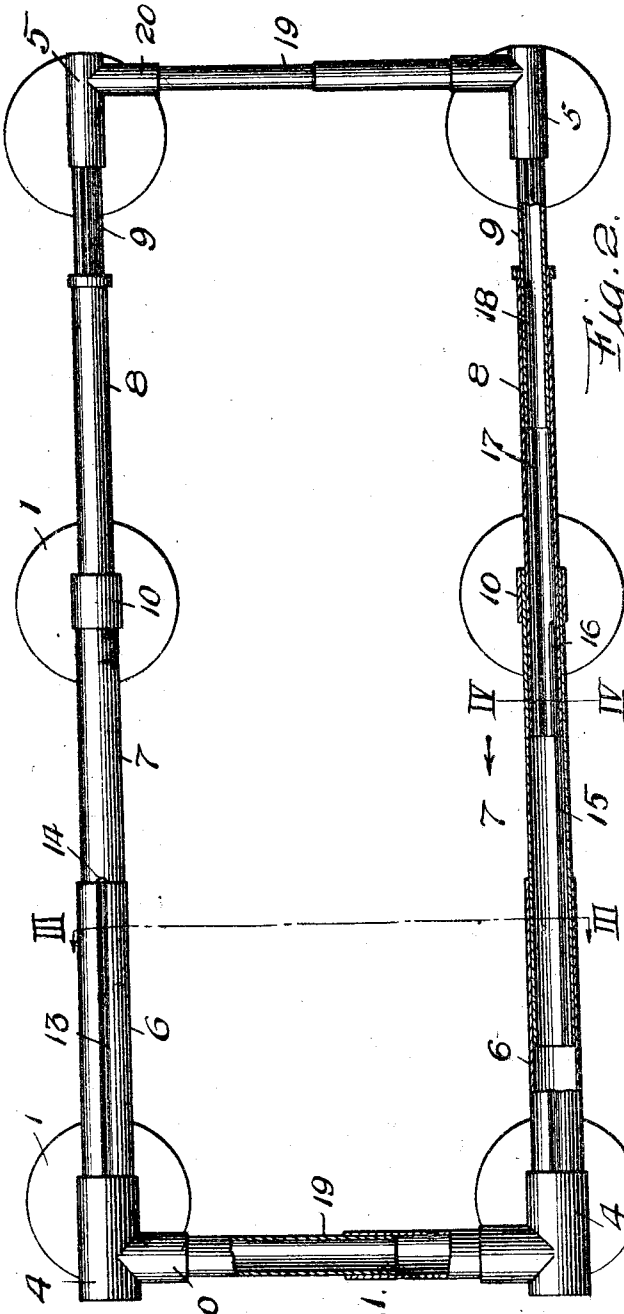


Fig. 1.

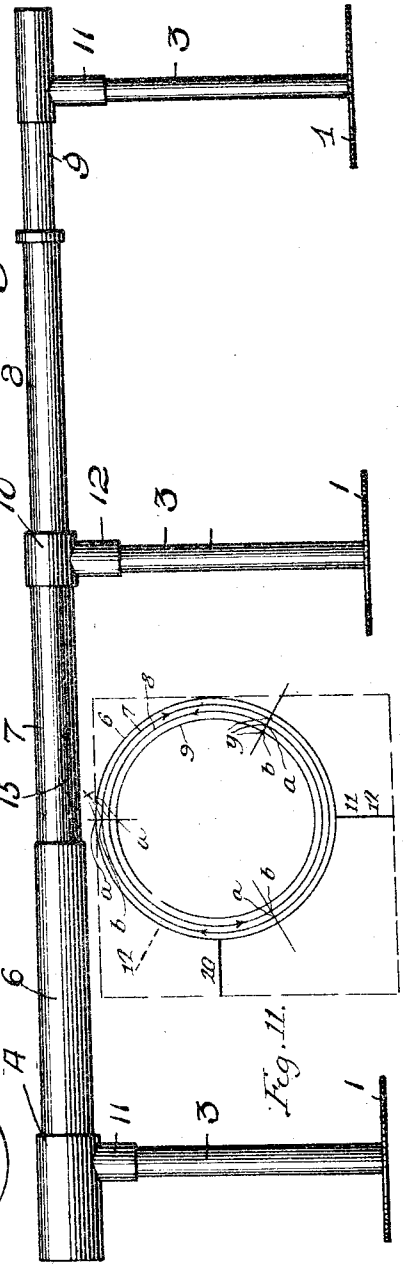


Fig. 2.

Fig. 11.

WITNESSES

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2 SHEETS—SHEET 2.

Fig. 6.

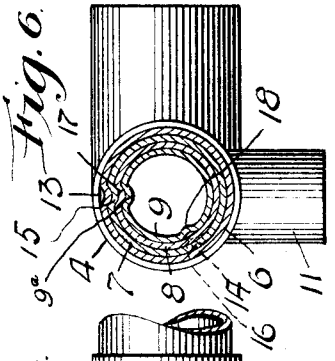


Fig. 7.

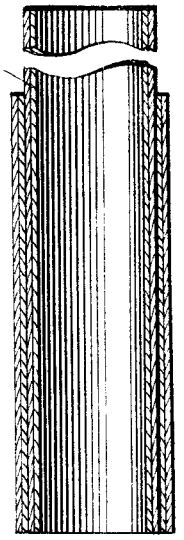


Fig. 9.

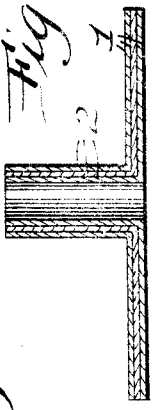


Fig. 4.

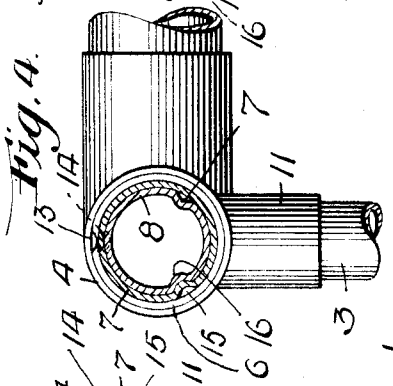


Fig. 8.

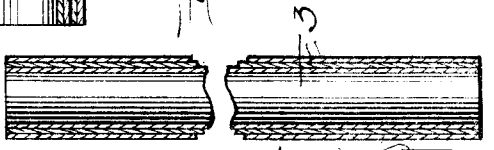


Fig. 5.

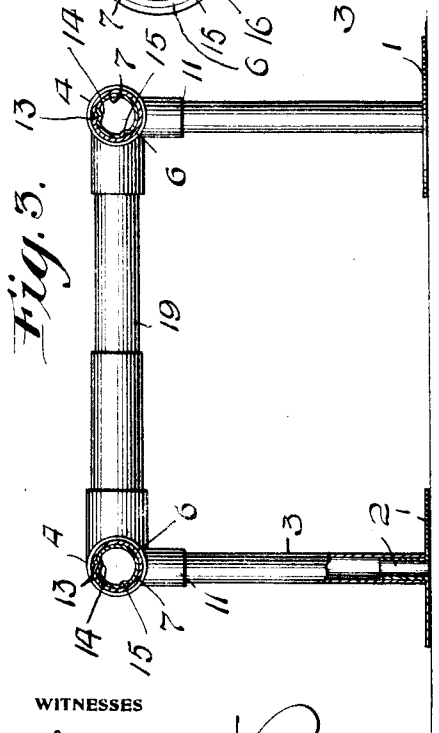
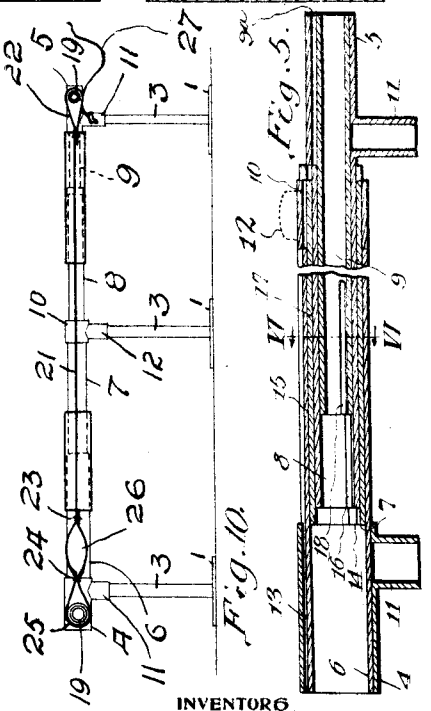


Fig. 10.



WITNESSES

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UNITED STATES PATENT OFFICE.

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COT.

1,080,577. Specification of Letters Patent. Patented Dec. 9, 1913.

Application filed May 23, 1912. Serial No. 698,108.

To all whom it may concern:

Be it known that we, ANTHONY PAUL PASCALE and REINHARDT DAAE, citizens of the United States of America, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Cots, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to cots, beds and other supports generally used temporarily.

The primary object of our invention is to provide a metallic telescopic and knock-down cot capable of being adjusted in its longitudinal and transverse dimensions.

Another object of this invention is to provide a knock-down cot that will form seven compact bundles that can be easily handled or stored away in a comparatively small space.

A further object of this invention is to accomplish the above results by a mechanical construction that is durable, inexpensive to manufacture, not liable to injury by ordinary use, and highly efficient for the purposes for which it is intended.

With the above and other objects in view the invention resides in the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawings, wherein like numerals denote corresponding parts throughout the several views, in which:—

Figure 1 is a plan of the cot, partly broken away and partly in section, Fig. 2 is a side elevation of the same, Fig. 3 is a cross sectional view taken on the line III—III of Fig. 1, Fig. 4 is an enlarged cross sectional view taken on the line IV—IV of Fig. 1, Fig. 5 is a longitudinal sectional view of one of the side frames of the cot in a collapsed position, Fig. 6 is an enlarged cross sectional view taken on the line VI—VI of Fig. 5, Fig. 7 is an enlarged longitudinal sectional view of collapsed end frames, Fig. 8 is a similar view of collapsed uprights, Fig. 9 is a similar view of collapsed feet, and Fig. 10 is a diagrammatic view of the cot illustrating the canvas supported thereby, and Fig. 11 is a diagrammatic view showing the manner in which the sections of the side frames are manipulated in shifting from the extended to the nested positions of the sections.

In describing our invention by aid of the drawings above referred to we desire to point out that we intend said views as merely illustrative of an example whereby our invention may be applied in practice, and we do not limit our claims to the precise arrangements and construction of the parts indicated. The following description is therefore to be construed broadly, as including substitute arrangements and constructions which are the obvious equivalents of those shown.

The drawings show a telescopic rectangular frame that has a plurality of uprights provided with feet. The manner of arranging the parts of the cot permit of the same being easily and quickly knocked down and the parts thereof assembled into two bundles of feet, two bundles of uprights, two bundles of side frames and one bundle of end frames.

The feet of the cot are best shown in Figs. 3 and 9 and each foot comprises a circular base 1 having a central tubular hollow post 2. The bases of the feet are all of the same diameter, but the posts 2 vary in diameter and height, whereby the feet can be assembled in two bundles one of which is shown in Fig. 9 where it will be observed that the posts nest or fit one within the other and permit of the feet being compactly bundled.

The uprights are designated 3 and these uprights are pairs of hollow tubes the tubes of different pairs being of different diameter to enable them to be assembled or nested in two bundles, one of which representing the uprights of one side of the cot, is shown in Fig. 8, where it will be observed that the uprights fit one within the other. The uprights are of the same length and they fit over the posts 2 of the feet.

The side frames of the cot comprise tubular hollow sections, 6, 7, 8 and 9 having diameters whereby they will telescope or nest, the end sections 6 and 9 having three-way connecting members 4 and 5, respectively, brazed or otherwise secured thereto, while the section 7 is provided with a T connection 10. The connections 4 and 5 each have depending coupling sleeves 11 to receive the

end uprights 3, while the T connection is provided with a depending sleeve 12 to receive the intermediate upright.

The sections 6, 7, 8 and 9 each have longitudinal depressions extending substantially throughout their length to form inwardly projecting ribs indicated at 13, 15, 17 and 9^a, respectively. The sections 7, 8 and 9 are also provided with longitudinal grooves extending inwardly from one end for a short distance, these grooves being indicated at 14, 16 and 18, respectively, and each being positioned 120 degrees from the ribs 15, 17 and 9^a

The end frames comprise telescopic tubes 19 that are detachably mounted in coupling sleeve 20 forming part of the three-way angle connections 4 and 5. The telescopic tubes 19 can be assembled into a single bundle, as shown in Fig. 7, these tubes being of different diameters. This relative arrangement of ribs and grooves is provided for the purpose of retaining the sections against rotative movement when assembled, to permit telescoping or nesting, to prevent telescoping action when in service, and to provide a telescopic structure which will be compact. To produce these results, the ribs and grooves are so formed that the long ribs will enter the depressions of the section of smaller diameter, while the short grooves will receive the rib formed by the groove of the section of larger diameter, this arrangement permitting the sections to be nested.

To assemble the sections for use, they are withdrawn from their nested position and when removed are moved relatively to each other in a rotary direction so that the rib of one section will enter the short groove of the succeeding smaller section until the end of the rib abuts against the inner end of the groove, the latter preventing a further telescopic action. When the frame is to be telescoped or nested, the sections are withdrawn and again moved in the rotary direction to bring the ribs together which necessarily places the grooves together and permits the nesting operation.

In order that the end sections 6 and 9 will remain in the same position in nested as in assembled relation, to prevent the sleeve 11 and 20 from changing positions, we arrange the ribs and grooves in a manner so that the intermediate sections 7 and 8 will be given a rotary movement, and in order that the same may be readily understood, attention is called to Fig. 11 showing the several grooves and ribs in the positions occupied by them both in nested and in assembled position. For the purpose of explaining this diagrammatic view, we have indicated the position of the ribs in assembled relation at a and in nested relation at x, while the corresponding positions of the grooves are indicated respectively at b and y.

As will be seen, the ribs of the succeeding sections, in position a, are located 120 degrees apart successively counter-clockwise, bringing the rib 9^a in radial alinement with rib 13; correspondingly the grooves of the sections 7, 8 and 9 in position b, are similarly arranged, this having the effect of placing the ribs 13, 15 and 17 in the grooves 14, 16 and 18 (the rib 9^a performing no function excepting to allow its depression to receive the rib 17 in nested position).

When it is desired to nest the sections, they are separated and section 7 rotated clockwise 120 degrees, bringing the depression forming its rib 15 in position to receive the rib 13 of section 6, whereupon the section 7 may be telescoped in section 6, its rib and groove occupying the positions x and y respectively. Section 8 is then rotated 120 degrees counter-clockwise, placing the depression forming its ribs 17 in position to receive the rib 15 of section 7, whereupon section 8 is telescoped, the grooves of the two sections nesting where the grooves are in overlapping relation. As the position of the ribs and grooves of these nested sections correspond with the position of these parts in section 9, it will be readily understood that the latter section may then be telescoped without rotating.

A. An alternate way of manipulating for nesting would be to nest the sections successively beginning with section 9, which would be withdrawn and turned 120 degrees clockwise permitting it to pass into section 8, then withdrawing and turning section 8 (with section 9 therein) 120 degrees clockwise and inserting in section 7, repeating the action with section 7 (with sections 8 and 9 therein), nesting all within section 6, this form of manipulation causing all movements to be clockwise. Since the sleeves 11 and 20 remain in their normal planes, they will project from the nested sections to require a case larger in size than the diameter of the sections, and while the position of the sleeve 12 is changed by the rotation of section 7, this change will not affect the size of the case or carrier, as will be readily understood by reference to Fig. 11 in which the outer dotted line will indicate the case or carrier.

B. The relative positions shown in Fig. 11 are those of the side frame shown at the top of Fig. 1, the turning movement of section 7 being clockwise to bring the sleeve 12 on the same side as sleeve 20. The opposite side frame will have its ribs and grooves arranged opposite so as to cause section 7 to be moved counter-clockwise in order to provide the same relative positions of sleeves 12 and 20 when the sections are nested.

Before further describing our invention, it will be observed by reference to Figs. 5 to 9 inclusive that the side frames, end frames, uprights and feet are compactly assembled and in this form can be easily crated.

Reference will now be had to Fig. 10 wherein there is illustrated diagrammatically a piece of canvas or other flexible supporting material that is placed in the rectangular frame of a cot. The piece of canvas is designated 21 and corresponds in width to the frame. One end of the piece of canvas has a case 22 to receive one of the end frames and the opposite end of the piece of canvas is doubled upon itself and stitched, as at 23 and 24 to provide a case 25 for the other end frame and a case 26 that can be filled or stuffed with suitable material to improvise a pillow or head rest. The sides of the piece of canvas 21 can be provided with cases to receive the side frames or with any suitable fastening means for attaching the same to the side frames. Connected to the case 22 is a strap 27 and when the canvas is removed it can be rolled and maintained in a rolled form by the strap 27.

From the foregoing it will be observed that we have devised a novel knock-down metallic cot that can be safely used with the same degree of comfort as an ordinary cot or bed, and we reserve the right to embody the principle of our invention in other furniture and supports than that herein illustrated.

What we claim is:—

1. In a knock-down metallic support, a side frame comprising tubular sections each of a size to permit nesting of all the sections, said sections having complemental ribs and grooves adapted to co-act to limit the movements of the sections endwise when the frame is in extended or operative position and to permit free endwise movements thereof when being moved to and in the nested position, the ribs differing in length from the grooves.

2. In a knock-down metallic support, a side frame comprising tubular sections each of a size to permit nesting of all the sections, said sections having complemental ribs and grooves adapted to co-act to limit the movements of the sections endwise when the frame is in extended or operative position and to permit free endwise movements thereof when being moved to and in the nested position, the ribs being of greater length than the grooves.

3. In a knock-down metallic support, a side frame comprising tubular sections each of a size to permit nesting of all the sections, said sections having complemental ribs and grooves adapted to co-act to limit the movements of the sections endwise when the frame is in extended or operative position and to permit free endwise movements thereof when being moved to and in the nested position, the ribs being of greater length than the grooves, the grooves being located at the ends of sections.

4 In a knock-down metallic support, a side frame comprising tubular sections each of a size to permit nesting of all the sections, said sections having complemental ribs and grooves adapted to co-act to limit the movements of the sections endwise when the frame is in extended or operative position and to permit free endwise movements thereof when being moved to and in the nested position, the end sections having corner connections to receive end frame members and supporting members, the intermediate sections having the ribs and grooves arranged to permit nesting with the connections retaining the common plane arrangement therebetween of the frame when in position for use.

5. In a bed or cot, a rectangular frame having groups of separable telescopic sections, successive sections of the same group being provided with interfitting ribs, extending longitudinally of the sections, one member of each two successive sections having a short rib with a stop at its inner end, and having also a longer rib and the other member having a long rib registering with the said short rib and engaging the said stop when the sections are assembled for use, and the two long ribs capable of registering to permit one section to telescope the other farther than the short rib would permit.

6. In a bed or cot, a rectangular frame having groups of separable telescopic sections, successive sections of the same group being provided with interfitting ribs extending longitudinally of the sections, one member of each two successive sections having a short rib with a stop at its inner end, and having also a longer rib, and the other member having a long rib registering with the said short rib and engaging the said stop when the sections are assembled for use, and the two long ribs capable of registering to permit one section to telescope the other farther than the short rib would permit, the ribs all reaching the ends of the interfitting sections.

In testimony whereof we affix our signatures in the presence of two witnesses.

ANTHONY PAUL PASCALE.
REINHARDT DAAE.

Witnesses:
MAX H. SROLOVITZ,
KATHERINE ERRETT.