W. W. VINCENT.

KNOCKDOWN COT.

APPLICATION FILED JUNE 1, 1914.

1,177,836.

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Fig. 1.

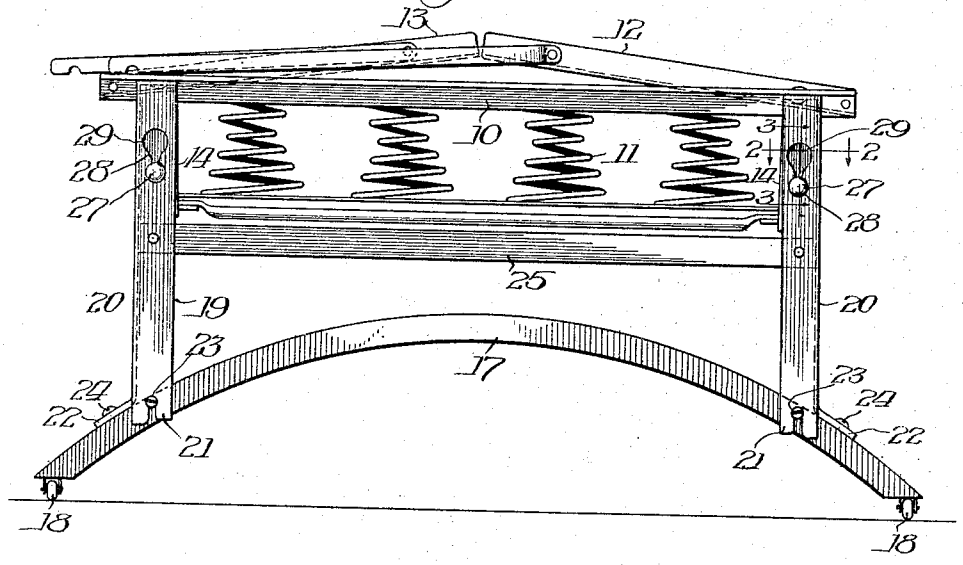


Fig. 3.

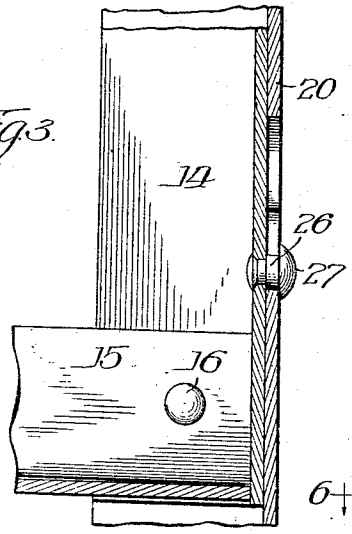


Fig. 2.

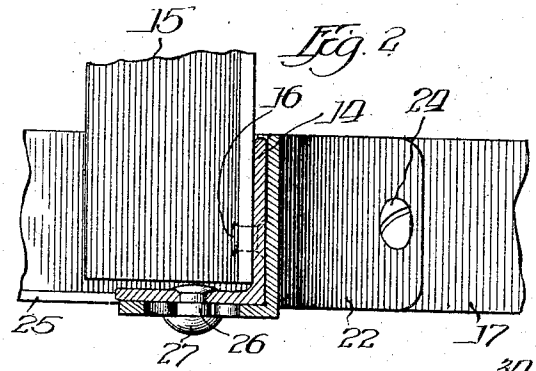


Fig. 4.

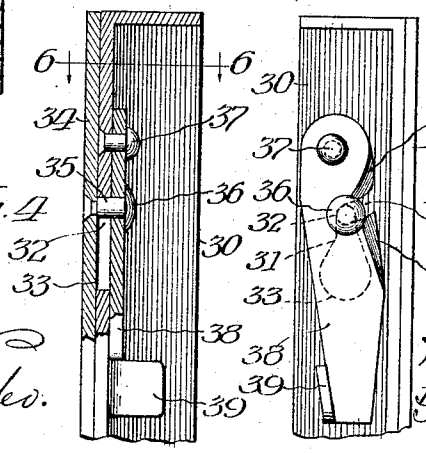


Fig. 5.

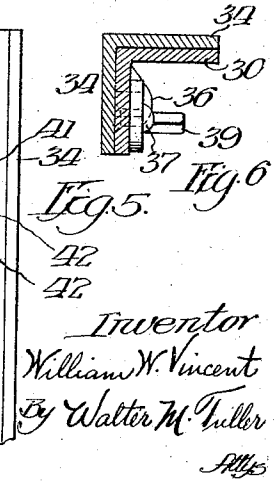


Fig. 6

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KNOCKDOWN COT.

1,177,836. Specification of Letters Patent. Patented Apr. 4, 1916.

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To all whom it may concern:

Be it known that I, WILLIAM W. VINCENT, a citizen of the United States, residing at Kenosha, in the county of Kenosha and State of Wisconsin, have invented certain new and useful Improvements in Knockdown Cots, of which the following is a specification.

The leading aim of the present invention is the production of a knock-down or collapsible bed, cot, or couch construction which will occupy but small space during shipment, the parts of which may be readily assembled and secured together, and which will not become accidentally detached when the structure has once been set up for use.

A further feature of a structure embodying the invention in its preferred form resides in the absence of any separate small parts likely to become lost or misplaced.

Simplicity of construction, economy in manufacture, pleasing appearance, rigidity and strength when set up for use, and the capability of rapid and easy disassociation of its structural elements or parts are, of course, additional features of advantage and importance.

In the accompanying drawing I have illustrated a preferred and desirable embodiment of the invention.

In this drawing: Figure 1 is an end view of a cot incorporating the features of my invention: Fig. 2 is an enlarged horizontal section on line 2—2 of Fig. 1. Fig. 3 is an enlarged vertical section on line 3—3 of Fig. 1, the parts being viewed in the direction indicated by the arrows; Fig. 4 is a fragmentary view of a modified construction employing a hook or catch in association with the pin and slot attaching-means; Fig. 5 is a fragmentary face view of the structure shown in Fig. 4, and Fig. 6 is a horizontal section on line 6—6 of Fig 4.

This cot, which comprises a main body or frame 10 supplied with a suitable bed-bottom fabric, (not illustrated), and supporting helical springs 11, has hinged to its sides the two leaves or extensions 12 and 13 which are illustrated in Fig. 1 in their folded condition. As is well understood these leaves or extensions are used as occasion arises to enlarge the size of the cot or bed, by being brought into the same horizontal plane as that of the bed bottom fabric. At each corner the frame 10 is supplied with an upright or vertical angle-post 14 secured at its lower end to an angle 15 forming a part of the main-frame 10 and extended longitudinally thereof, it being understood that there is one of such bars at each side of the frame 10. The bars 14 and 15 may be secured together in any approved manner, as for instance, by means of one or more rivets 16.

Each end of the body or cot is provided with a detachable end-support composed of a lower arched angle-bar 17, the opposite terminal portions of which form the feet of the support and are equipped with casters or rollers 18, 18. Bar 17 has secured thereto two upright legs or posts 19 and 20 of angle-shape in cross-section, the lower end of each of such legs having two ears 21 and 22 secured by means of bolts or rivets 23 and 24 to the sides and top faces of the arch-bar 17, as is clearly shown in Fig. 1. Each of these end supports above the bar 17 has its legs 19 and 20 cross-connected together by means of a straight strap or bar 25, the angle-legs 19 and 20 extending above such bar, as shown. The legs 19 and 20 are spaced apart such a distance that they will just fit over the two corresponding-corner-posts 14, 14, of the main-frame 10, each of the angle-posts 14 fitting snugly within its corresponding leg 19 and 20 as the case may be. Such a fit prevents lateral displacement of the supporting end relatively to the main-frame or body 10, as will be readily understood. In order that the cot proper may be detachably supported at each end on one of these end structures, I provide the outer face of each of the corner-posts or bars 14 with a pin 26 having an enlarged head 27, and I also provide the corresponding flanges of the legs 19 and 20 with slots 28 having a narrow or restricted portion of substantially the same width as the diameter of the pin 26, and an enlarged part 29 of sufficient size to permit the passage of the head 27 therethrough.

Assuming that the parts are assembled, as illustrated in Fig. 1 so that the cot proper is supported by means of the pins 27 on the legs 19 and 20, and that it is desired to take off the end support for the purpose of shipment or crating, the operator lifts the frame 10 until the heads 27 of the pins 26 are in register with the enlarged parts 29 of the slots 28. Then the end structure may be

detached by merely shifting it longitudinally away from the main-body 10, the heads 28 passing through the larger portions of the slots in the legs 19 and 20. The cot or bed may then be shipped in three parts, the cot proper, and the two end structures. To secure one of the ends to the cot it is merely necessary to hold the cot in position so that the heads 28 of the pins 27 may pass through the parts 29 of the slots 28 and then by shifting the end toward the cot so that the heads pass through these holes and then permitting the cot to lower, the pins will pass into the narrow portions of the slots 28 and support the cot on the legs 19 and 20 about the posts 14, preventing lateral shifting of the end structure, and the pin and slot connection prevents displacement of the end-structure longitudinally of the cot so that the parts are rigidly and securely locked together without danger of accidental displacement. That is to say the structure is not a rickety, wabbly, construction, but possesses great strength, rigidity and stability.

In some instances it may be desirable to lock the detachable parts together by means of a hook or catch so that a lifting of the cot will not by any chance permit unintentional detachment of the end-structure. In Figs. 4, 5, and 6 I have illustrated a modification possessing these characteristics. In this instance the slots are provided in the parts corresponding to the posts 14, and the pins on the parts corresponding to the legs 19 and 20. In this modification, each corner-post 30 of angle cross-section and corresponding to the corner-post 14 of the main-frame of the cot, is supplied with a hole or aperture 31 having an upper portion 32 of narrow width, and a lower enlarged part 33. That is to say, the slot in the part 30 is inverted. The leg 34, angle-shaped in cross-section, and corresponding to one of the legs 19 and 20 of the structure shown in Fig. 1, fits closely about the post 30, as shown in Fig. 6, and the flange thereof coöperating with the apertured flange of the post 30 is supplied with a pin 35 having a head 36, this pin being adapted to coöperate with the slot 31, as will be readily understood. The post 30 has pivoted at 37 to the inner face of its apertured flange, a catch or hook 38 having a bent end 39 forming a handle, and a slot 40 adapted to receive the shank of the pin 35 just beneath its head 36. This hook or catch is also beveled at 41, 42, on opposite sides of the entrance to the slot 40 so as to facilitate the passage of the catch beneath the pin head and acts as a cam to draw the leg firmly against the post.

When the end structure is secured to the cot-frame, the parts are in the position illustrated in Figs. 4, 5, and 6, the post 30 of the cot-frame resting upon and being supported by the pin 35 secured to the supporting leg of the detachable end-structure. Unintentional detachment of the end is prevented by the presence of the catch 38 which locks the pin 35 in the restricted portion of the slot 31, and which also holds the leg 34 closely in contact with the corner-posts 30. In case it is desired to detach the end-structure from the cot-frame, then each of the two catches 38 at that end of the structure are swung out of the way, freeing their pins 35. Then by lifting the cot-frame and the posts 30 until the heads 36 are in register with the enlarged portions 33 of the slots 31, the end structure may be readily detached by shifting it lengthwise away from the main-frame, the pin-heads passing out through the enlarged openings 33. Then, of course, the structure may be shipped in knock-down condition.

To assemble the end structure with the main-frame it is merely necessary to bring the end and frame in such relation that the pair of pin heads 36 will pass through the larger portions 33 of the slots in the corner-posts and then by lowering the cot-frame the narrower portions 32 of the apertures will fit about the shanks of the pins and the main-frame will be supported by the end-walls of the slots resting on the pins. Then the two catches at that end of the construction may be swung inwardly, locking the pins in the narrow parts of the slots, preventing lifting of the cot-body, without at the same time lifting the end-structure, (thereby preventing unintentional separation of the parts), and drawing each leg 34 firmly against the adjacent face of its post 30 due to the cam action brought about by the beveled surfaces 41, 42, acting on the under-portion of the pin-heads. It will be observed that the use of these hooks or catches is in the nature of a safety appliance which at the same time effects a somewhat more rigid fastening of the supporting end with the cot-frame.

Herein I have described two desirable embodiments of the invention and have illustrated these in the accompanying drawings, but it is to be understood that the invention is not restricted to the precise and exact details of construction presented because these may be varied within comparatively wide limits without departing from the substance and essence of the invention.

I claim:

In a knock-down construction of the character described, the combination of a main-body and a detachable supporting-end, said body and end having the one a headed pin and the other a slot adapted to accommodate the pin, said slot having an enlargement to permit the passage of the head therethrough, and a cam catch pivoted to the part having the slot and adapted to engage said

pin beneath its head to prevent movement of the pin in the slot and thus prevent unintentional detachment of the end from the main-body and also adapted by its cam action to draw the end and body together to secure greater rigidity, substantially as described.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

WILLIAM W. VINCENT.

Witnesses:
F. L. ALWARD,
W. F. WHITE.

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