Nov. 27, 1923

J. H. BRADLEY

1,475,537

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Filed Aug. 7, 1922

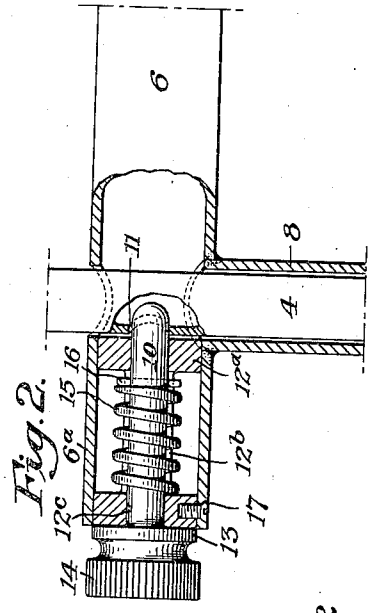


Fig. 2.

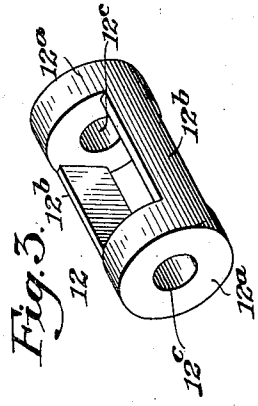


Fig. 3.

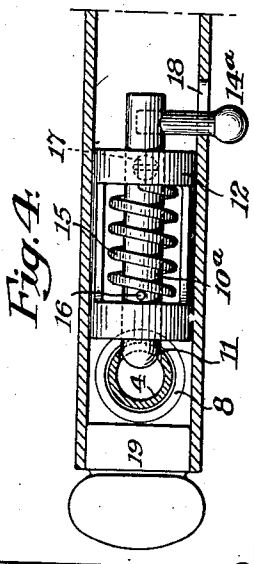


Fig. 4.

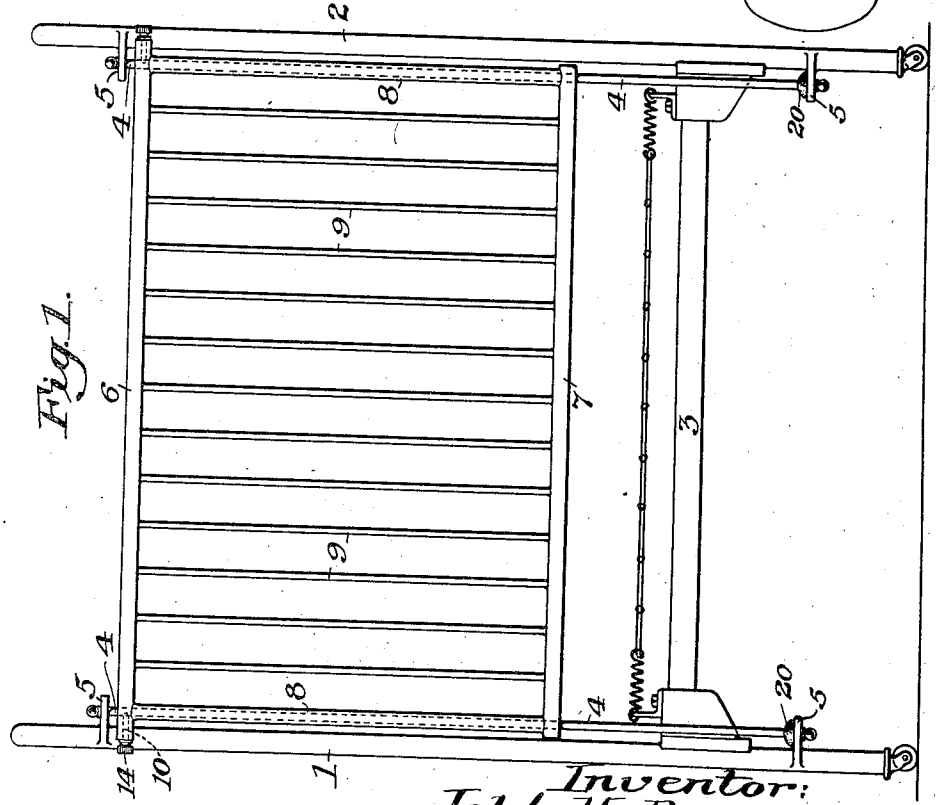


Fig. 1.

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UNITED STATES PATENT OFFICE.

JOHN H. BRADLEY, OF PHILADELPHIA, PENNSYLVANIA.

CRIB.

Application filed August 7, 1922. Serial No. 580,022.

To all whom it may concern:

Be it known that I, JOHN H. BRADLEY, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain new and useful Improvements in Cribs, of which the following is a specification.

My invention relates to cribs and similar structures of a like nature, and it consists of certain improvements in cribs of the drop-side type; such structures having side sections which may be lowered for greater convenience in attending to children sleeping in such cribs, when putting them to bed or taking them up, or during illnesses. My improved construction is particularly desirable for use in hospitals where children in a convalescent stage are required to remain in their cribs when awake.

One object of my invention is to provide a crib or cot of this type with a simple form of drop side section; cheaply and strongly made, and preferably tubular in construction.

A further object of my invention is to dispose the end tubes making up the sections or frames over rods arranged at the head and foot of the cot or crib so as to slide thereon vertically.

A further object of my invention is to provide simple and effective means for retaining the movable side section (or sections) in the raised position; such means being of a character not easily operated by a child and therefore of such a nature as to preclude the possibility of a child in the cot or crib loosening such fastening means and permitting the side section to drop.

A further object of my invention is to provide retaining or locking means for supporting the side section (or sections) in the raised position, in the form of bolts which may be carried by one of the cross-bars or rails of the side section, with springs to actuate said bolts so that they may automatically engage recesses in the rods upon which the tubular ends of the side section (or sections) are adapted to slide; such bolts being provided with knobs or heads externally disposed to permit withdrawal of the same from their engagement with the vertical rods when it is desired to drop the side section (or sections) of the cot or crib. It will be understood, of course, that one or both sides of the cot or crib may be provided with the movable side sections equipped with the retaining means which I have devised.

These and other features of my invention are more fully described hereinafter, reference being had to the accompanying drawings, in which:

Figure 1, is a side elevation of a cot or crib of the drop side type, equipped with side supporting means within the scope of my invention.

Fig. 2, is an enlarged sectional view showing one arrangement of spring actuated bolt which I may employ.

Fig. 3, is a perspective view illustrating a detail of the structure forming the subject of my invention, and

Fig. 4, is a sectional view illustrating a modification within the scope of my invention.

The crib or cot to which my improvements have been applied may comprise the usual head and foot sections or ends, 1 and 2, connected together and spaced apart by a mattress frame 3, of any usual type. The head and foot ends may have corner posts, and to these posts vertical rods (which may be tubular) indicated at 4, are connected; the usual practice being to provide the corner posts of the head and foot ends with brackets 5, to support the rods 4.

Structures of this type have long been in common use, and it is also common to provide drop side sections having portions arranged to slide on rods such as those indicated at 4. The usual means for supporting the drop side sections, however, have been such as to be so readily unfastened or released that a child soon learns the trick and in many instances has dropped the side to its injury.

The particular object of my invention is to provide a simple and efficient device not easily noticed, and of such a nature and concealed in such a way that the ordinary child cannot find it, and even if found, will discover that it cannot be operated.

In the structure made in accordance with my invention, the side section (or sections) of the cot or crib may be made of tubular rods or bars, and may comprise cross-bars or rails 6 and 7, at top and bottom, connected to end tubes 8, preferably by welding, or by brazing so as to insure against the presence of any cracks or open joints in the finished structure, with a series of

smaller tubular rods 9, disposed between and welded or brazed to the cross-bars or rails 6 and 7.

The end tubes 8 of the side section (or sections) are arranged to slide on the rods 4, supported by the corner posts of the crib, so that said side sections (or sections) may be dropped for convenience when attending to the child, putting it to bed, etc. Normally, however, that is to say when the child is in the crib, playing or sleeping, the side section (or sections) should be in the elevated position, and for the purpose of supporting and retaining said side section (or sections) in such elevated position, I have provided the ends of one of the rails or cross-bars thereof, the top rail 6, for instance, with spring controlled bolts 10, arranged to enter recesses or apertures 11, formed in the vertically arranged rods 4, carried by the corner posts of the cot or crib.

To support these bolts in place and practically conceal them from the exterior of the side section, the rail receiving the same may be extended as indicated at 6^a. In the extensions thus provided, an enlarged sectional view of one of which is shown in Fig. 2, which fully discloses features of construction within the scope of my invention, I insert tubular carrier members 12, which may be of the character illustrated in the perspective view, Fig. 3, comprising end members or rings 12^a connected together and spaced apart by side bars 12^b; such end members being apertured at 12^c for the passage of the bolt. The bolts are provided with shoulders 13 to limit their entrance into the member 12, and they may also be provided with an operating knob or handle 14. A spring 15, is disposed between the side bars 12^b of the member 12 and surrounds the bolt, and the latter may have a pin 16 passed through the same for engagement with the spring; the opposite end of such spring engaging one of the end portions 12^a of said member 12, as clearly indicated in the drawings.

The member 12 may be held within the rail or cross-bar by a set screw 17, or by any suitable means that will permit its removal. Preferably the fit of the member 12 is such that it should have no rotary play within the rail, and the set screw will hold it against end play so that the bolt can properly act with reference to the recesses or apertures in the rods 4.

In the arrangement shown in Fig. 4, which view is in the nature of a plan view at right angles to the plane of Fig. 2, the bolt 10^a may be disposed inwardly with respect to the rod 4, and be provided with a knob 14^a projecting through a slot 18, formed in the rail or cross-bar. Such bolt is supported by a carrier member 12, in the same manner as in the structure shown in Fig. 2, and operates in precisely the same manner. The end of the rail may be closed by a plug 19, if desired.

When the side section is dropped, which act requires manipulation of both bolts at the ends of such section at the same time; a condition which also makes it difficult for a child to operate the retaining and supporting means, the springs will tend to hold the bolts against the rods 4, although any friction thus set up will not be sufficient to unduly retard the movement of the section, up or down. As the bolts are held against the rods 4, they will automatically enter the recesses or apertures 11 of the same, when raised to the upper position. If desired, the rods 4 may be provided with recesses or apertures to receive the bolts when the side section is in the lowered position, whereby any strain on the springs is relieved, and bolt-receiving apertures or recesses may also be placed in said rods 4 at various heights, if desired. The rods 4 may be provided with cushioning pads 20, upon which the side section may rest when in the fully lowered position.

While I have shown the retaining means for supporting the side section (or sections) as mounted in or carried by the top rail or cross-bar of such side section, it will be understood that it may be carried by the bottom rail or cross-bar, without departing from my invention. I have illustrated a cylindrical carrier member 12, adapted to cylindrical tubes. It will be understood, however, that I do not wish to be limited as to the cross section of the tubes making up the cot or crib structure, and that square or other polygonally shaped tubes may be employed, with bolt-carrier members of corresponding cross section and arranged to fit the same, without departing from my invention.

In practice, the bolt-carrying member 12, with the bolt and spring in operative position, is not introduced into place until the cot or crib is fully painted or enamelled, as the case may be, since it is desirable that no paint or enamel should enter the recesses or spaces between the coils of the spring. After the painting or enamelling is completed, however, the bolt-carrying members may be introduced and retained in place by the set screws, as indicated.

I claim:

1. In a drop side crib, the combination of vertical rods carried by the head and foot ends, a side section having tubular end members adapted to slide on said vertical rods and top and bottom rails, extensions carried by one of said rails, and spring actuated bolts carried in said extensions and adapted to engage recesses in the vertical rods to support the side section.

2. In a drop side crib, the combination with the head and foot ends having vertical rods, movable side sections having tubular end members adapted to said vertical rods, tubular cross rails at the top and bottom of said side sections, carriers mounted in one of said cross rails; the latter having extensions receiving said carriers, bolts supported by said carriers; each of said bolts having an external operating head, and springs supported in said carriers between the same and the bolts and tending to hold the bolts in the active position; said vertical rods being apertured to receive the ends of said bolts whereby the side sections may be supported thereby, and said bolt carriers being insertible from the outer ends of said rail.

3. As a new article of manufacture, a bolt carrier comprising a tubular member having its central portion removed whereby end rings with connecting bars are provided, a slidable bolt arranged to pass through said end rings, a spring occupying the central portion of said carrier between said end rings and surrounding said bolt; said spring being in engagement with the bolt so as to hold the same in a projected position, and a shoulder carried by the bolt and serving to limit its movement in one direction; said device being adapted for insertion in the rail of a tubular crib frame to constitute retaining means for supporting a portion of the latter slidably mounted with respect thereto.

4. As a new article of manufacture, a bolt carrier comprising a tubular member having its central portion removed whereby end rings with connecting bars are provided, a slidable bolt arranged to pass through said end rings, a spring occupying the central portion of said carrier between said end ring and surrounding said bolt; said spring being in engagement with the bolt so as to hold the same in a projected position, and a shoulder carried by the bolt and serving to limit its movement in one direction; said device being adapted for insertion in the rail of a tubular crib frame to constitute retaining means for supporting a portion of the latter slidably mounted with respect thereto, and means for securing the bolt carrier against endwise movement with respect to the rail in which it is mounted.

In witness whereof I have signed this specification.

JOHN H. BRADLEY.