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54 **A cot.**

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Description

The invention relates to a cot, particularly a nursery cot, having a drop side.

Operation of the drop sides of such cots is often such that it is usually necessary to operate a mechanism at each side manually, so that the sides often jam, and in any event carrying out these operations while holding an infant or baby can be difficult.

GB-A-419613 discloses a cot having a drop side, comprising a mechanism for raising and lowering the drop side, consisting of complementary relatively slidable means on opposite ends of the drop side and adjacent members of the cot, and biasing means adapted to secure the drop side in the raised position and which allows the drop side to move to the lowered position when bias thereof is overcome.

GB-A-102775 discloses a slot with an inboard "hook".

It is accordingly an object of the invention to seek to mitigate these disadvantages.

According to the invention there is provided a cot having a raisable and lowerable drop side, comprising opposite ends of the drop side and adjacent members of the cot, a groove in each of the adjacent members and projecting spigots of the opposite ends of the drop side, and means adapted to secure the drop side in the raised position and which allows the drop side to move to the lowered position, characterised by the groove terminating in a blind slot in a plane substantially parallel to the plane of the length of the groove, and by the means comprising biasing means normally blocking passage between the blind slot and the groove, the bias of the means being overcome by a lifting movement and lateral movement of the drop side.

The blind slot may be separated from the groove by an upstanding nib.

The biasing means may comprise a spring inclined towards the blind slot.

The spring may be a leaf spring inclined at about 30° to the length of the groove.

The spring may be of substantially V-shape and one leg thereof may terminate in a hook secured to a fixing device.

There may be a further groove spaced above, in use, the groove and there may be a spigot received in the groove.

The longitudinal axis of the groove may be laterally offset from and substantially parallel to the longitudinal axis of the groove.

There may be an enlarged lower, in use, portion of the respective groove and the enlarged portions may each contain a buffer.

A cot embodying the invention is hereinafter described by way of example with reference to the accompanying drawings.

Fig.1 is a perspective view of a nursery cot ac-

cording to the invention; and

Fig.2 is, to an enlarged scale, a side elevational view of an end rail of the cot of Fig. 1 showing part of a mechanism for allowing drop side operation.

Referring to the drawings there is shown a cot 1, having a drop side 2, wherein there is a mechanism 3 for raising and lowering the drop side 2 comprising complementary relatively slidable means 4, 5 on opposite ends of the drop side 2 and adjacent members 6 of the cot, and biasing means 7 adapted to secure the drop side 2 in the raised position and which allows the drop side 2 to move to the lowered position when the bias thereof is overcome.

The relatively slidable means 4, 5 comprises a groove 8 in the adjacent member 6 of the cot 1, for example the ends, and projecting spigots 4 with enlarged heads (not shown) projecting from the opposite ends of the drop side 2. The enlarged heads are spaced from the opposite ends of the drop side 2 a sufficient distance to engage in the respective grooves 8, and allow relative sliding motion vertically. The grooves 8 are of T-shape in cross section, the enlarged heads essentially engaging in and sliding up and down in the "head" 9 of the "T", the shank of the "T" allowing for passage and sliding of the spigot 4, which is of less lateral dimension than the head. The groove 8 has an enlarged part 10 at the bottom, as viewed, for initial entry of the head and there is mounted therein a resilient buffer (not shown). The upper (as viewed) end of the groove 8 leads to a seat in the form of a blind slot 11, the seat 11 being displaced laterally of the plane of the length of the main body of the groove 8 from which it is separated by an upstanding nib 12 having a rounded nose or free end. The biasing means 7 of the mechanism 3 is in the form of a spring inclined towards the blind slot 11 from a side of the groove 8 opposite the blind slot. The spring in the embodiment shown is in the form of a leaf spring 13, which is one leg of a V-shaped spring the other 14 of which terminates in a hook 15 which hooks over a fixing device such as a screw 16. The spring 7 is mounted in a pressing set in a rebate in the body of the end member of the cot and this is covered with a metal plate 17, also set in the rebate to be substantially flush with the face of the body facing the end of the drop side 2, and providing the nib 12. The screw 16 is one of four screws 16, 16', 16", 16''' which hold the pressing and plate together and in position in the body of end member 6.

The mechanism described is on a lower part of the face of the end member 6 of the cot. Above it there is a further groove 18 which receives a projecting spigot of the cot drop side 2, for relative sliding motion, there being a buffer (not shown) in an enlarged lower part 19 of the groove 18. The horizontal axis of the grooves 8 is laterally offset from, and substantially parallel to, the longitudinal axis of the groove 18. The axis of the groove 18 is colinear with the centre of the

slot 11.

In operation with the upper spigot in the groove 18 and the spigot 4 of the mechanism 3 in the groove 8, it will be assumed that the drop side is in a lowered position. In this position, the heads seat on the respective buffers. If it is desired to close the cot by raising the drop side 2 to the raised position, it is merely necessary to grip the drop side 2 say by its upper rail 20 and raise it vertically. The spigots slide in the grooves to the top. At the top of the groove 8, the spring 13 is pushed to the right as viewed, against its bias. It thus urges the spigot 4 to the left, over the nib 12, and the spigot 4 on release of the drop side 2, drops into the seat 11. Alternatively, it can be lowered in manually. In either case, the spigot 4 is seated in the seat 11 and is held there by the spring 13, which acts as a guard to prevent unwanted use. The drop side 2 is therefore safely and securely maintained in the raised position. To lower the drop side 2, it is gripped, raised and at the same time pushed by the leg or hip of the user outside the cot 1 towards the interior of the cot so that the spigot 4 pushes the spring 13 against its bias to the right as viewed so that the groove 8 becomes unobstructed; the side 2 can then be lowered, spigots 4 travelling down their respective grooves to rest on the buffers, which absorb any shocks on impact.

It will be understood that respective grooves, and the seat 11 and springs 7 are within the body of the end members 6 of the cot 1, so there are no projecting parts which can trap fingers, snag on clothing, or be tampered with by unauthorised user.

The drop side can be manipulated with one hand in raising and lowering operations.

It will further be understood that a drop mechanism at one side only of the drop side 2 has been described. An identical one is provided at the opposite side.

Claims

1. A cot (1) having a raisable and lowerable drop side (2), comprising opposite ends of the drop side (2) and adjacent members of the cot (1), a groove (8) in each of the adjacent members and projecting spigots of the opposite ends of the drop side (2), and means adapted to secure the drop side (2) in the raised position and which allows the drop side (2) to move to the lowered position, characterised by the groove (8) terminating in a blind slot (11) in a plane substantially parallel to the plane of the length of the groove (8), and by the means comprising biasing means (7) normally blocking passage between the blind slot (11) and the groove (8), the bias of the means (7) being overcome by a lifting movement and lateral movement of the drop side (2).

2. A cot according to Claim 1, characterised in that the blind slot (11) is separated from the groove (8) by an upstanding nib (12).

3. A cot according to Claim 2, characterised in that the biasing means (7) comprises a spring (13) inclined towards the blind slot (11).

4. A cot according to Claim 3, characterised in that the spring (13) is a leaf spring inclined at about 30° to the length of the groove (8).

5. A cot according to Claim 4, characterised in that the spring (13) is of substantially V-shape and in that one leg (14) thereof terminates in a hook (15) secured to a fixing device (16).

6. A cot according to any of any preceding claim, characterised by a further groove (18) spaced above, in use, the groove (8) and by a spigot received in the groove (18).

7. A cot according to Claim 6, characterised in that the longitudinal axis of the groove (8) is laterally offset from and substantially parallel to the longitudinal axis of the groove (18).

8. A cot according to either of Claims 6 or 7, characterised by an enlarged lower, in use, portion (10), (19) of the respective groove (8), (18).

9. A cot according to Claim 8, characterised by the enlarged portions (10), (19) each containing a buffer.

Patentansprüche

1. Kinderbett (1) mit einer anhebbaren und absenkenden Absenkseite (2), umfassend gegenüberliegende Enden der Absenkseite (2) sowie benachbarte Elemente des Kinderbetts (1), eine Nut (8) in jede der benachbarten Elemente und vorspringende Zapfen an den gegenüberliegenden Enden der Absenkseite (2) und eine Einrichtung, die dazu ausgelegt ist, die Absenkseite (2) in der angehobenen Position festzusetzen und die es zuläßt, daß sich die Absenkseite (2) in die abgesenkte Position bewegt, dadurch **gekennzeichnet**, daß die Nut (8) in einem Blindschlitz (11) in einer Ebene endet, die im wesentlichen parallel zu der Ebene der Länge der Nut (8) liegt, und daß die Einrichtung ein Vorspannmittel (7) umfaßt, das normalerweise den Durchgang zwischen dem Blindschlitz (11) und der Nut (8) versperrt, wobei die Vorspannung des Mittels (7) durch eine Anhebebewegung und seitliche Bewegung der Ab-

senkseite (2) überwunden wird.

2. Kinderbett nach Anspruch 1,
dadurch **gekennzeichnet**,
daß der Blindschlitz (11) durch eine nach oben stehende Nase (12) von der Nut (8) getrennt ist. 5
3. Kinderbett nach Anspruch 2,
dadurch **gekennzeichnet**,
daß die Vorspanneinrichtung (7) eine Feder (13) umfaßt, die zum Blindschlitz (11) hin geneigt ist. 10
4. Kinderbett nach Anspruch 3,
dadurch **gekennzeichnet**,
daß die Feder (13) eine Blattfeder ist, die um etwa 30° zur Länge der Nut (8) geneigt ist. 15
5. Kinderbett nach Anspruch 4,
dadurch **gekennzeichnet**,
daß die Feder (13) im wesentlichen eine V-Gestalt hat, und daß ein Bein (14) der Feder in einem Haken (15) endet, der an einer Befestigungsvorrichtung (16) befestigt ist. 20
6. Kinderbett nach einem der vorangehenden Ansprüche,
gekennzeichnet durch
eine weitere Nut (18), die im Gebrauch oberhalb der Nut (8) von dieser beabstandet angeordnet ist, und durch einen Zapfen, der in der Nut (18) aufgenommen ist. 25 30
7. Kinderbett nach Anspruch 6,
dadurch **gekennzeichnet**,
daß die Längsachse der Nut (8) seitlich zu der Längsachse der Nut (18) versetzt ist und im wesentlichen parallel zu dieser Achse verläuft. 35
8. Kinderbett nach einem der Ansprüche 6 oder 7,
gekennzeichnet durch
einen vergrößerten im Gebrauch unteren Bereich (10, 19), der jeweiligen Nut (8, 18). 40
9. Kinderbett nach Anspruch 8,
dadurch **gekennzeichnet**,
daß die vergrößerten Bereiche (10, 19) jeweils einen Puffer enthalten. 45

Revendications

1. Lit d'enfant (1) possédant un côté amovible relevable et abaissable (2), comprenant des extrémités opposées du côté amovible (2) et des éléments adjacents du lit d'enfant (1), une rainure (8) dans chacun des éléments adjacents et des ergots en saillie sur les extrémités opposées du côté amovible (2), et des moyens adaptés pour 55

fixer le côté amovible (2) en position relevée permettant au côté amovible (2) de se déplacer vers la position basse, caractérisé par la rainure (8) se terminant dans une rainure borgne (11) dans un plan nettement parallèle au plan longitudinal de la rainure (8), et par les moyens comprenant un dispositif de retenue (7) bloquant le passage entre la rainure borgne (11) et la rainure (8), le blocage du dispositif (7) étant annulé par un déplacement vers le haut et un déplacement latéral du côté amovible (2).

2. Lit d'enfant selon la revendication 1, caractérisé en ce que la rainure borgne (11) est séparée de la rainure (8) par un bec redressé (12).
3. Lit d'enfant selon la revendication 2, caractérisé en ce que le dispositif de blocage (7) comprend un ressort (13) incliné vers la rainure borgne (11).
4. Lit d'enfant selon la revendication 3, caractérisé en ce que le ressort (13) est un ressort à lame incliné d'environ 30° suivant la longueur de la rainure (8).
5. Lit d'enfant selon la revendication 4, caractérisé en ce que le ressort (13) a nettement la forme d'un V et en ce que celui-ci a une branche (14) se terminant par un crochet (15) fixé à un dispositif de fixation (16).
6. Lit d'enfant selon une quelconque des revendications précédentes, caractérisé par une autre rainure (18) située, en utilisation, au dessus de la rainure (8) et par un ergot s'engageant dans la rainure (18).
7. Lit d'enfant selon la revendication 6, caractérisé en ce que l'axe longitudinal de la rainure (8) est décalé latéralement de, et est nettement parallèle à, l'axe longitudinal de la rainure (18).
8. Lit d'enfant selon l'une quelconque des revendications 6 ou 7, caractérisé, en utilisation, par une partie inférieure agrandie (10, 19) de la rainure respective (8, 18).
9. Lit d'enfant selon la revendication 8, caractérisé par les parties agrandies (10, 19) contenant chacune un amortisseur.

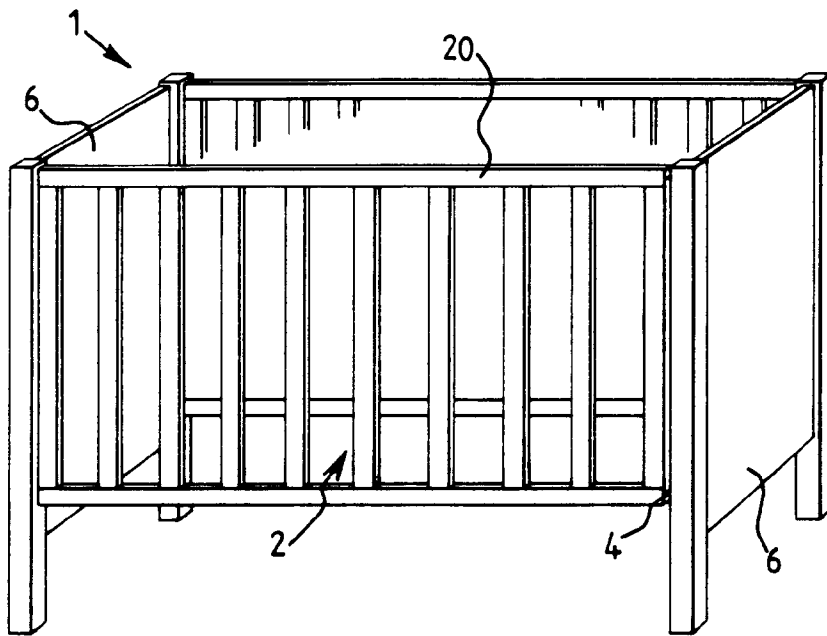


FIG. 1

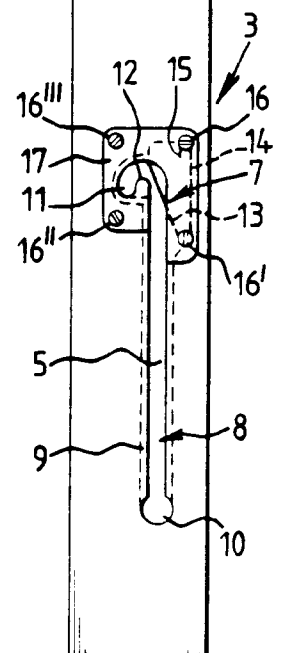
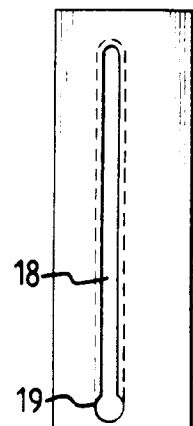


FIG. 2