Feb. 23, 1943. B. ULINE 2,311,892

ADJUSTABLE SPRING FRAME FOR CRIBS

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FIG. 1.

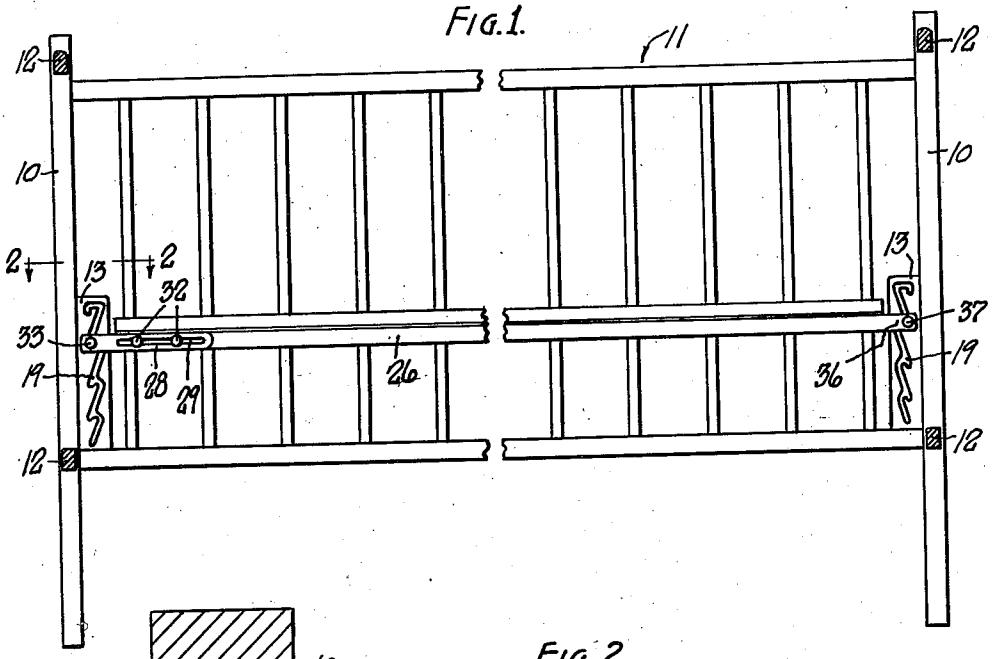
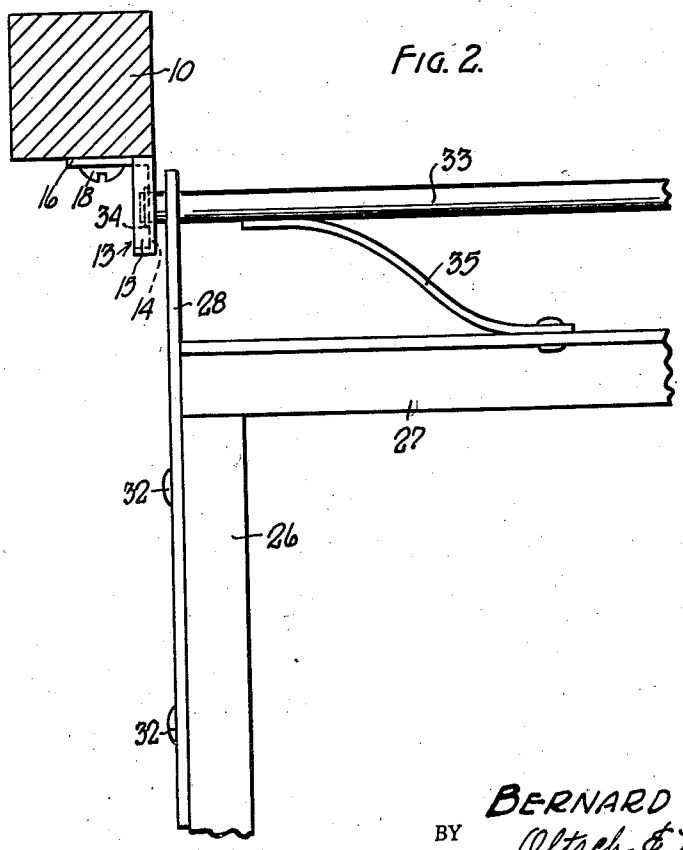


FIG. 2.



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FIG. 3.

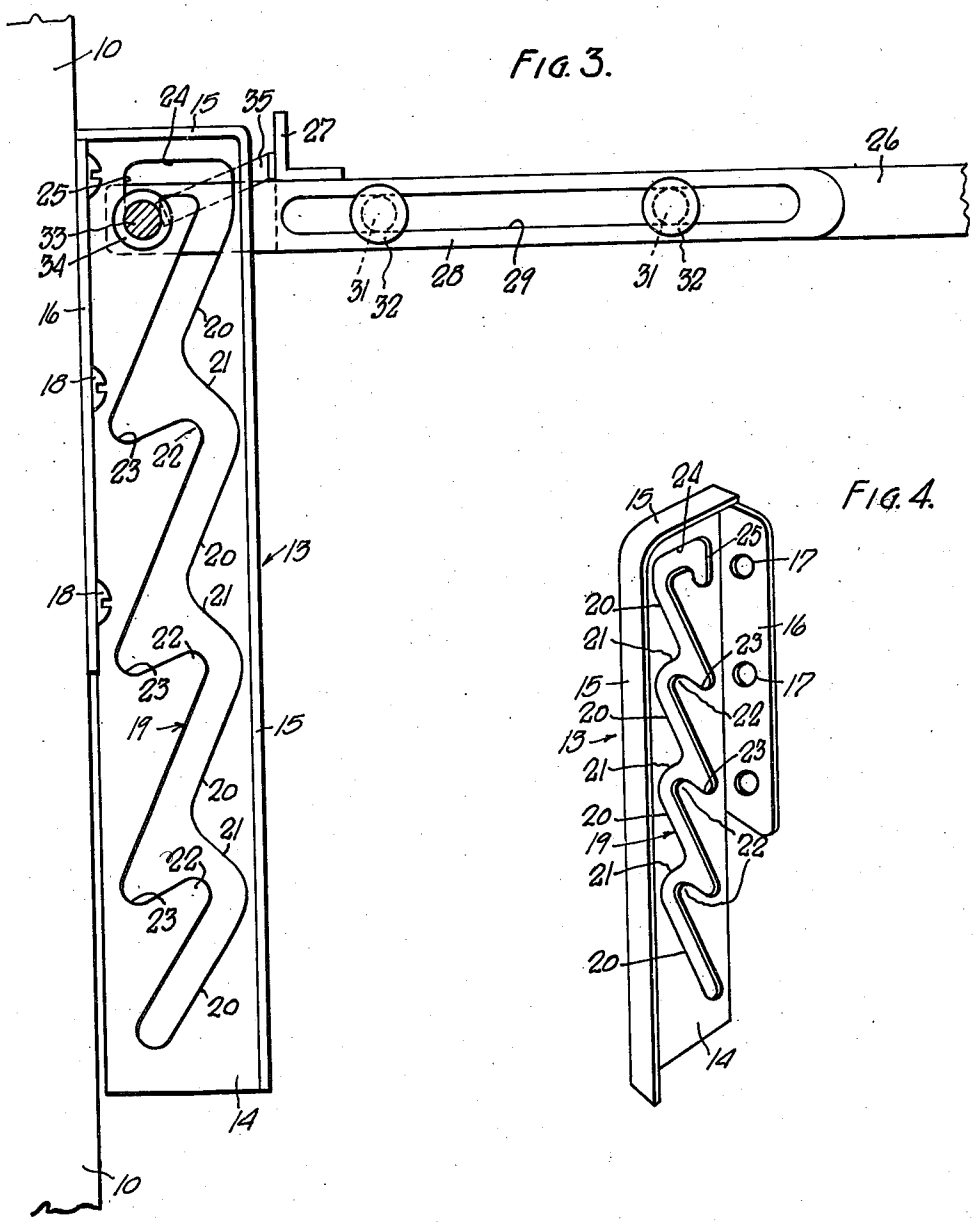


FIG. 4.

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ADJUSTABLE SPRING FRAME FOR CRIBS

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9 Claims. (Cl. 5—11)

This invention relates to an adjustable spring frame for cribs, and more particularly, to a crib of the type wherein the frame mounting the springs of the crib may be adjusted with respect to its vertical position and may also be adjusted in an inclined position.

The care of an infant or small child may frequently be rendered more convenient and easy if it is possible to adjust the position of the spring and the mattress as desired. With the instant device, the spring frame and mattress may be placed in a high position to facilitate the care of a small infant, may be lowered in the crib as the child reaches the age where it becomes more active and hence danger of falling from the crib increases, or may be inclined to facilitate feeding the infant.

The primary object of the invention is to provide an adjustable mounting for the spring frame of a crib which is of a character adapted to be readily and easily adjusted by hand.

A further object of the device is to provide a crib wherein the spring frame is mounted upon brackets each having a slot or track provided with a plurality of interconnected upwardly extending disaligned runs in which cross rods carried by the spring frame are adapted to be selectively supported, and wherein at least one of said cross rods is mounted upon a spring pressed extensible frame portion adapted for guided movement longitudinally of said frame.

A further object is to provide a novel, simple and inexpensive device of the character aforesaid.

Other objects will be apparent from the description, drawings, and appended claims.

In the drawings:

Fig. 1 is a fragmentary longitudinal vertical sectional view of a crib provided with my improved spring frame mounting.

Fig. 2 is an enlarged fragmentary horizontal sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is an enlarged detail view of my improved spring mounting in side elevation.

Fig. 4 is an enlarged perspective view of a bracket utilized in my improved device.

Referring to the drawings, which illustrate the preferred embodiment of the invention, the numeral 10 designates the upright corner supports or legs of a crib which is provided with sides 11 and ends carried by the cross bars 12. The crib may be of the type having one or both sides vertically slidable, as is well understood in the art, although means for mounting said sides for vertical sliding movement have not been shown herein.

Upon each of the uprights 10 is mounted a bracket 13 as best illustrated in Fig. 4. Each bracket 13 comprises a plate portion 14 of vertically elongated form having struck from the upper and one side margin thereof a reinforcing flange 15. At the opposite longitudinal margin of plate 14 projects a flange 16 extending longitudinally and at right angles to plate 14. Flange 16 has a plurality of apertures 17 therein, through which screws 18 or other suitable means are adapted to extend for the purpose of securing the brackets 13 to the uprights 10 in fixed position. The plate portion has a slot or track 19 formed therein which extends generally longitudinally and upwardly in the plate 14. Track 19 comprises a plurality of disaligned substantially parallel inclined runs 20 which are interconnected by laterally extending slot portions 21 extending from the upper end of one run 20 into communication with an intermediate portion of the adjacent run 20 thereabove. Portions 21 are slightly inclined and merge with runs 20, with the merging edges thereof curved. An upwardly directed projecting hook-like portion 22 is provided between the lower end 23 of each run 20 and the upper end of the adjacent run 20. The upper end of the track 19 is provided with a laterally extending portion 24 terminating with a downwardly extending portion 25 substantially vertically aligned with the lower ends 23 of each of the inclined runs 20. Thus, it will be observed that the portion 25, portions 23, and the lower end of the lowermost run 20 constituted vertically aligned spaced seats adapted to receive a member slidable within slot 19.

The frame for mounting the spring of the crib constitutes longitudinal bars 26 and transverse bars 27 which are rigidly interconnected. The spring frame 26—27 is preferably of a length shorter than the spacing between the inner edges of the brackets 13 at opposite ends of the crib. At one end of frame 26—27 each longitudinal bar 26 of the spring frame mounts an extensible arm 28 parallel thereto and having an elongated slot 29 therein. Slots 29 receive the shanks 31 of spaced screws or rivets rigidly secured to the frame bars 26 and having enlarged heads 32 bearing against the outer faces of said bars 28. Bars 28 extend beyond the ends of the longitudinal bars 26 of the spring frame as best illustrated in Figs. 1, 2, and 3. The outer ends of the bars 28 fixedly mount a cross rod 33 adapted to be received in the tracks 19 of the pair of

brackets 13 at the adjacent end of the crib. Suitable collars or heads 34 are formed on each end of cross rod 33 to prevent lateral dislocation of parts. One or more leaf springs 35 may be carried by the cross bars 27 of the spring frame and are arranged to bear at their free outer ends upon the cross rod 33 to normally urge said cross rods and the bars 28 which mount the same toward an outwardly extended position.

The longitudinal frame bars 26 project longitudinally beyond the cross bars 27 of the frame at 36 at the opposite end of the frame. A cross rod 37 is fixedly secured to the outer ends of frame projections 36 and its ends are received in the tracks 19 of the brackets 13 at the adjacent end of the crib.

It will be observed that the device may be adjusted by merely grasping one of the cross rods 33 or 37, lifting the same from its seat in the track 19 and then raising or lowering said rod in the track to the new location or adjustment desired. For example, assuming that the spring frame is located in the position illustrated in Fig. 3, and it is desired to lower the same to the position illustrated in Fig. 1, the cross bar 33 is raised out of the seats 25, thence pressed through the transverse runs 24 of the tracks against the action of springs 35, and thence lowered to the seats 23 at the lower ends of the uppermost runs 20 of said tracks 19. A like operation is then performed at the opposite end of the crib in which event the springs 35 compensate for the movement of rods 37 in the transverse runs 24 of the tracks even though located at the end of the frame oppositie rod 37. It will be observed that the runs 20—21 of the bracket tracks will guide cross bar 33 when the same is elevated, without requiring application of manual guiding pressure applied longitudinally as required to lower the spring frame.

The longitudinal extensibility of the bars 28 also accommodates for extension of the frame necessary when the spring frame 26—27 is to be inclined. Thus, it will be obvious that in the event it is desired to position one end of the spring frame lower than the other, the arrangement of the rods 28 will permit the same to be extended beyond the end of the spring frame a greater distance than when the spring frame is horizontal.

While extensible bars 28 are illustrated herein at only one end of the spring frame, it will be understood that they may be provided at both ends of the frame if desired.

I claim:

1. The combination with a crib having sides and ends, and a spring frame, of brackets carried by the ends at each corner of the crib, each bracket having an elongated slot with vertically spaced off-set seat portions, a pair of slide bars carried by and projecting longitudinally from the sides of one end of said frame, means carried by said frame for guiding and limiting sliding of said bars longitudinally of said frame, a pair of cross rods each adapted to seat in selected off-sets of the brackets at one end of said crib, one of said rods being fixedly mounted on and extending between the outer ends of said slide bars and the other being mounted on said frame at the end thereof opposite said slide bars.

2. The combination defined in claim 1 and spring means urging said slide bars longitudinally in outwardly extended seat-portion-engaging position.

3. The combination with a crib having sides and ends, and a spring frame, of brackets carried by said ends and each having a plurality of vertically spaced rod supports, a rod carried by one end of said frame and adapted to be mounted upon selected rod supports of one pair of brackets, and a rigid unit including extensible means mounted on the opposite end of said frame for predetermined guided longitudinal sliding movement, and a rod fixedly carried by said extensible means and adapted to be mounted upon selected rod supports of the other pair of brackets.

4. The combination defined in claim 3, and spring means for urging said rigid unit to longitudinally extended support-engaging position.

5. The combination defined in claim 3, wherein each bracket has a guide slot therein communicating with said rod supports and positioned between said supports and said spring frame, and spring means for urging said rigid unit to longitudinally extended support-engaging position.

6. The combination defined in claim 3, wherein each bracket has a portion parallel to said extensible means provided with a vertically extending slot constituting a series of disaligned runs having their upper portions communicating with an intermediate point of the adjacent run thereabove to define said rod supports at the lower ends of said runs positioned outwardly relative to said spring frame, and spring means for urging said rigid unit longitudinally outwardly relative to said spring frame.

7. The combination defined in claim 3, wherein each bracket has a portion parallel to said extensible means provided with a track comprising a series of disaligned vertically staggered runs inclined upwardly inwardly relative to said spring frame whose upper portions communicate with an intermediate portion of the adjacent run thereabove, the upper end of said track constituting a transverse run communicating with the upper end of the upper run and a downwardly extending portion spaced laterally outwardly from the upper end of the uppermost run, and spring means for urging said rigid unit longitudinally outwardly relative to said spring frame.

8. The combination with a crib having sides and ends, of brackets mounted at the corners of the crib and each having a portion parallel to said sides provided with a track provided with a plurality of vertically spaced seats opening inwardly, and a rigid longitudinally extensible spring frame normally spring pressed to extended position and mounting cross rods at each end, the ends of said rods fitting in said tracks for support at any selected seats thereof.

9. The combination with a crib having sides and ends, and a spring frame, of brackets mounted at the corners of the crib and each having a track provided with a plurality of vertically spaced seats, cross rods fitting in said tracks for support at any selected seat thereof, said rods supporting the ends of said frame, slide bars carried by and projecting longitudinally from at least one end of said frame and means carried by said frame for guiding and limiting sliding movement of said bars longitudinally of said frame, the outer ends of said slide bars being fixedly connected with the ends of a cross bar to form a rigid unit therewith.

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