Aug. 8, 1944. B. K. GIESLER 2,355,525

INFANT'S CRIB AND THE LIKE

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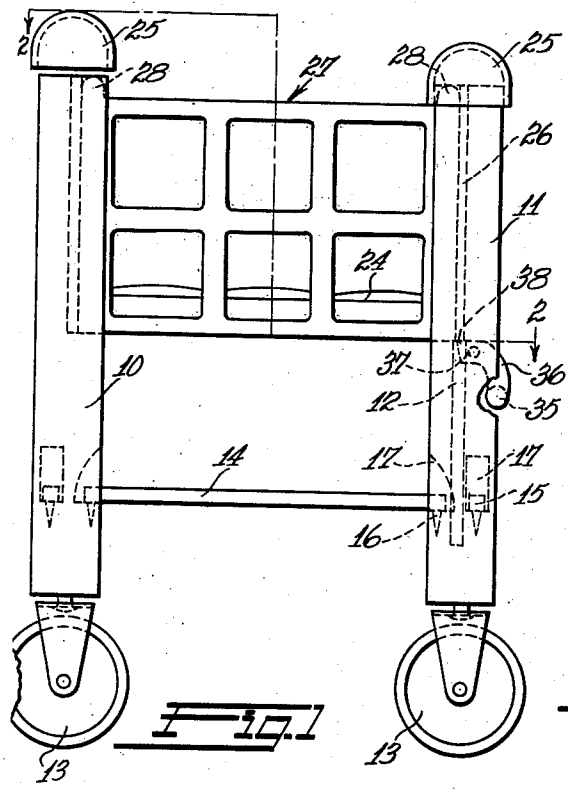


Fig. 1

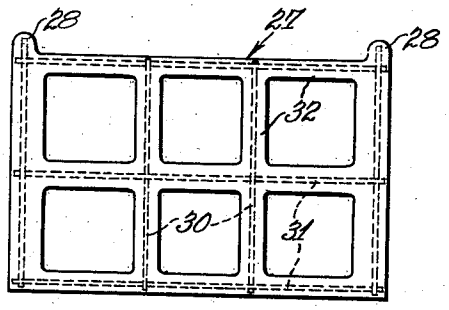


Fig. 4

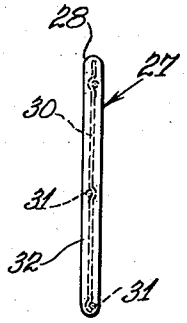


Fig. 5

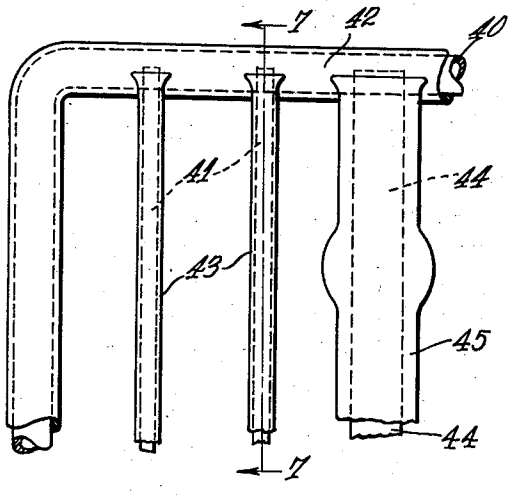


Fig. 6

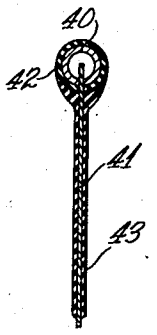


Fig. 7

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Fig. 2

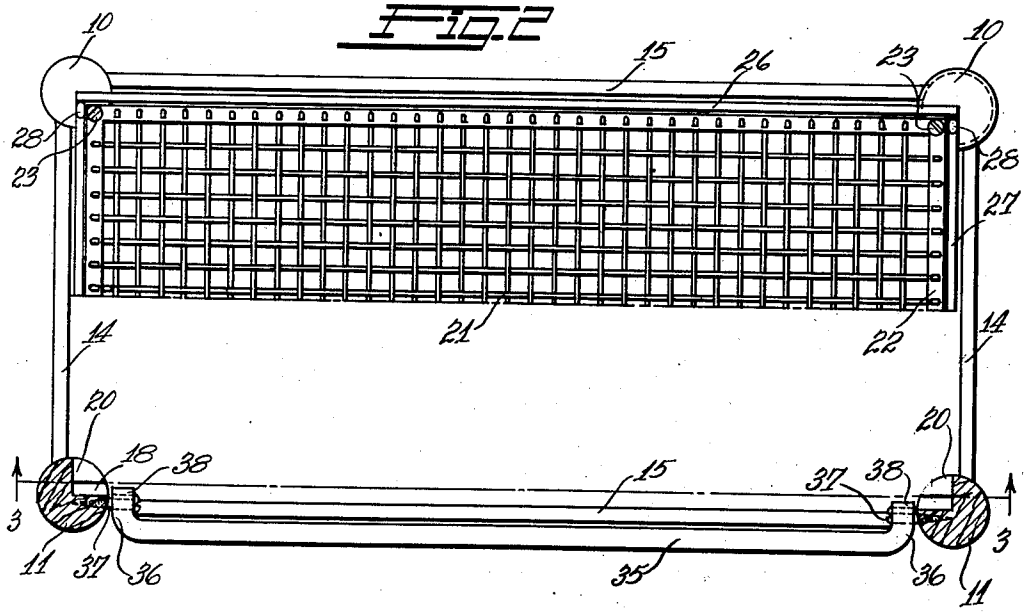
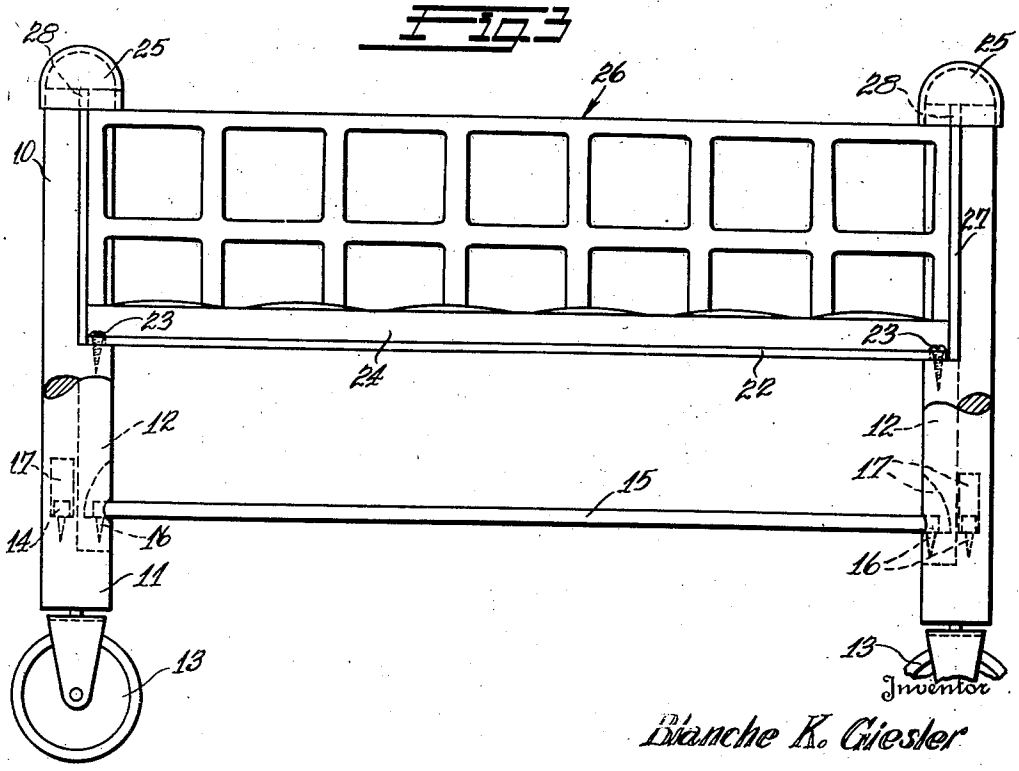


Fig. 3



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Patented Aug. 8, 1944 2,355,525

UNITED STATES PATENT OFFICE

2,355,525

INFANT'S CRIB AND THE LIKE

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Application August 31, 1940, Serial No. 355,100

1 Claim. (Cl. 5—93)

This invention relates to improvements in pen-like structures for safely confining infants while asleep or at play. The invention is concerned primarily with the walls of a crib but certain phases and features thereof are well adapted to other and analogous uses.

All cribs now on the market are made of metal or wood, or of a combination of the two. The surfaces of both materials are sufficiently hard to cause facial injuries and other bruises by impact with the body of the infant. Moreover, when the child is able to stand it exercises and amuses itself by shaking and rattling the sides of the crib. This exhibited tendency may deprive the child of necessary sleep, and often it keeps the parents awake at night.

While the metal structure is particularly objectionable because of hardness and winter-time coldness, the wooden panels are even more objectionable because a teething infant will eat the surface enamel or coating and, where the wood is relatively soft, will also chew the wood until rough splinters appear.

Accordingly, it is the primary object of the present invention to solve the stated problems by providing confining walls that are relatively soft and non-disintegrable and that cannot be rattled, and yet that are impervious to moisture and hence hygienic to teething infants. Prior attempts have been made to eliminate some of the above mentioned disadvantages, as by lining the panel walls with padded sheets and by encasing the upright slats in padded sleeves. Sheets are objectionable because they exclude ventilation and shut off visibility. Padded fabric in any form is objectionable because it assumes an unclean and unsightly appearance and forms a trap for germs and possibly even for vermin. It is essential that all surfaces be impervious and unbroken so that they can be kept in a clean and sanitary condition.

I propose to form the sidewalls of cribs and play-pens of internally reenforced soft rubber or equivalent material. Such material may be coated for decorative effects but preferably it is utilized in one or more natural permanent colors so that it may aid an infant in cutting first teeth while preventing the infant from scraping away and swallowing portions of an enamel surface or other coating that is upon the crib sidewall structure.

There are many subordinate objects of the present invention, as will readily be seen from a perusal of the following detailed description. One of the major objects is to devise a crib wall or like structure in which there is a full elimination of all hard and injurious surfaces. Therefore, my invention contemplates, in addition to a special panel structure an arrangement of uprights and associated structures designed to present nothing but a soft rubber interior to the occupant of a crib or play-pen.

The foregoing and numerous other objects of my invention will clearly appear from a study of the following detailed description when taken in conjunction with the accompanying drawings and the appended claim. In the drawings:

Fig. 1 is an end view of an infant's crib embodying the principal features of my invention.

Fig. 2 represents a sectional view taken upon the irregular line 2—2 of Fig. 1, with the post-caps and the mattress removed for the sake of clarity.

Fig. 3 is a view taken substantially upon the plane of line 3—3, Fig. 2, with the upper portion of one of the complete side frames removed.

Fig. 4 is an elevational view of one of the end panels.

Fig. 5 is an end view of the panel of Fig. 4.

Fig. 6 is a face view of a modified form of side or end panel of a crib or similar structure embodying the present invention, as seen fragmentarily.

Fig. 7 is a vertical section taken substantially upon the plane of line 7—7 in Fig. 6.

With continued reference to the drawings, wherein like numerals are employed to designate like parts, and with particular reference first to the embodiment seen in Figs. 1 to 5, the illustrated crib includes four posts arranged in pairs 10, 11. Except for vertical slots 12 provided in posts 11 for a purpose later explained all of the posts are identical. They are shown constructed of wood but obviously may be formed of other materials, the principal requirement being that they should be so shaped and related to the other parts that their hard and injurious surfaces can not be contacted by the occupant of the crib. In this connection, however, where initial cost is not too important, the upper ends of the posts may be covered with soft rubber so that the shape and disposition of parts becomes less important.

The posts are supported conventionally by casters 13 and are partially maintained in position by cross members 14 and longitudinal members 15. The ends of these several members carry attachment elements 16 that may be either pins or screws and the posts are notched or recessed at 17 to receive said ends for convenient connection of the attachment elements.

The upper ends of the posts are quarter-cut to form vertical right-angled grooves **18** which terminate in horizontal platforms **20** at the level of the crib spring **21**. The latter is conventional in form and includes a rectangular frame **22** the corners of which rest upon the platforms **20** but extend just sufficiently far into the grooves **18** to permit attachment screws **23** to be inserted vertically into the platforms. A mattress **24** is disposed upon the spring. Finishing caps **25** of polished metal or the like may be telescoped onto the upper ends of the posts and held thereon frictionally or by any suitable anchoring means.

The structure thus far described comprises the bedstead or complete framework for association with the soft rubber confining panels of my invention. There are two side panels **26**, and two end panels **27**, all of such longitudinal dimensions that they enter the post grooves **18** and of vertical dimensions substantially equal to the groove height. Where the panels come together at each corner post one of them is relied upon to keep the other from toppling inwardly and is provided with means to stabilize itself. For purpose of illustration the end panels engage the side panels to hold them upright, and the end panels (Fig. 4) are provided with extensions **28** which project into the caps **25** and hence which constitute the stabilizing means. Aside from this one difference, and relative proportions and dimensioning all of the panels are alike.

Each panel in the embodiment under consideration comprises a reticulated arrangement of vertical wires **30** and horizontal wires **31**, preferably welded together at their points of intersection, and all embedded in soft rubber or like material **32**, so that openings are provided as shown for ventilation and visibility. The rubber covering, which ordinarily will be applied by a molding and vulcanizing process, may be but slightly thicker than the wires but preferably it is given considerably greater thickness at the ends and the top and bottom of the panel. Some of the wires or rods may be eliminated, so long as the panel retains sufficient sturdiness and permanence of shape. Minimum quantities of material are desirable of course, but the panels must not have excessive "give" or lateral flexibility. A slight outward bulge when the infant leans or pushes against the panel is permissible and even desirable but it must not be so great that the head or limbs of the child can be protruded and trapped between the bottom of a panel and the spring frame.

Each panel presents a smooth impervious surface that can readily be cleaned. The wires are fully covered and there are no cracks or open seams in the rubber. The rubber preferably is compounded to have one or more colors—as in light or pastel shades and surface decoration may be added if desired. The panels may be removed for cleaning or other purposes and in fact the entire crib structure can easily be dismantled.

The previously mentioned vertical slots **12** are of such depth and width as to permit one of the side panels **15** to drop downwardly for convenient access to the interior of the crib. The slots serve as vertical guides for the end of the panel. This panel normally is held in its uppermost position, as illustrated, by mechanism comprising a relatively heavy bar **35** having integral offset arms **36** that are pivotally attached to the adjacent corner posts **11** by screws **37**. The free ends of the arms have flat surfaces **38** designed to engage the bottom of the side panel. The pivot points are located close to these flat surfaces so that the bar gains sufficient leverage to resist any downward force that an infant could apply to the panel.

To release the mechanism just described it is necessary only to lift the bar until its arms swing outwardly far enough to remove the flat surfaces **38** from the path of downward movement of the panel.

In the modification of Figs. 6 and 7, substantially one-half of the upper portion of a panel is illustrated. Rigidity is imparted to the structure by an encircling metal pipe or tube **40** which is slitted to receive the ends of a plurality of thin flat metal strips **41**. The joints may be effected simply by tight interfit or the parts may be permanently joined as by welding. The tubing **40** is covered with a layer of soft rubber **42** of desirable color, preferably by molding, and this rubber also engages the strips **41** where they enter the tubing. Subsequently, the strips **41** have a soft rubber covering **43** of another color cured around them, and also against adjacent portions of the tube covering **42** to form smooth attractive jointures with the latter.

The wider band **44** seen in Fig. 6 is inserted to form a centerpiece of pleasing appearance, and it is covered with soft rubber **45** that presents sufficient surface area to receive floral decorations or the like. Preferably, in any form of the invention such decorative coatings will be applied to the outer sides of the panels so that they cannot be peeled or chewed off by the infant.

Obviously, many other variations in the shapes and arrangements of parts may be made within the scope of the present invention. The reenforcing metal elements of the panels may be attached to or partially embedded in the outer surfaces of the rubber walls where they cannot be contacted by the infant. Also, as previously stated the confining structure is readily adaptable to play-pens and the like where one or more of its advantages can be beneficially utilized. Therefore, I wish to be restricted, as is customary, only by a reasonably liberal interpretation of the appended claim.

What is claimed is:

In a baby crib, a confining structure comprising four separable upright wall sections forming a rectangular enclosure, each of said sections comprising a flat and rigid grid-like foundation embedded in soft rubber and presenting only soft rubber surfaces to the interior of the enclosure, rigid means associated solely with exterior portions of said sections to maintain them in upright position, said wall sections arranged in two pairs with the vertical edges of one pair in abutment with the vertical edges of the other pair at the corners of the enclosure to prevent inward collapse of any section, said rigid means comprising four corner posts including cap elements receiving the upper ends of the posts and upper portions of the ends of said sections.

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