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CHILD'S CRIB COVER

Filed March 29, 1966

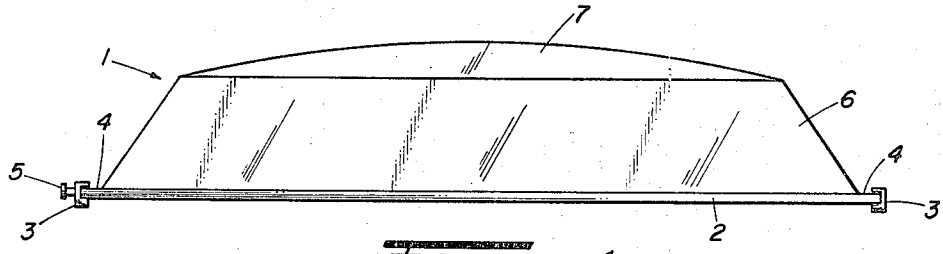


FIG - 1

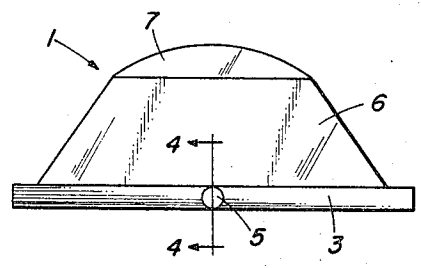


FIG - 2

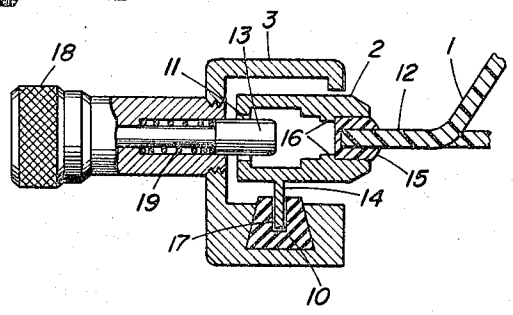


FIG - 4

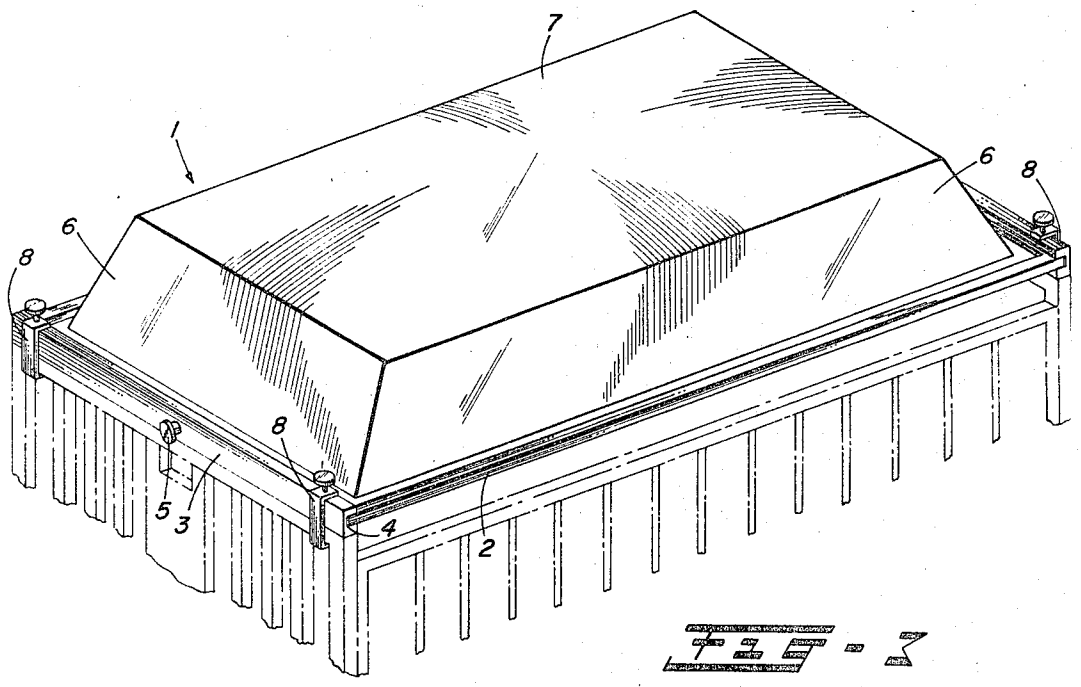


FIG - 3

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CHILD'S CRIB COVER

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ABSTRACT OF THE DISCLOSURE

A child's crib cover comprising a housing to be fitted onto the top of a rectangular child's crib having mounted in said housing on one pair of opposite sides thereof a pair of sliding tracks, a formed transparent plastic bubble composed of a truncated pyramidal base on the top of which is an elongated curved structure which provides the appearance of a segment of a large sphere mounted on a frame slidably mounted on said sliding tracks, said frame being fitted with a locking and unlocking means.

This invention relates to a child's crib cover comprising a housing adapted to be fitted onto the top of a rectangular child's crib having mounted in said housing on one pair of opposite sides thereof a pair of sliding tracks, a formed transparent plastic bubble mounted on a frame slidably mounted on said sliding tracks of said housing, said frame being fitted with a locking and unlocking means which permits the entire assembly to be locked securely in place and yet readily releasable so as to permit the opening of the crib cover by sliding the assembly laterally along the sliding tracks. Still further, this invention relates to a child's crib cover in which the formed transparent plastic bubble is formed from a flat sheet of poly(methyl methacrylate) or other plastic sheet material so as to form the flat sheet into a structure which has in its lower areas the appearance of a truncated pyramid and at its top a curved structure which in cross-sectional view from both the side and the front views has the appearance of an arc from a circle.

One of the objects of the present invention is to produce a child's crib cover comprising a housing to be fitted onto the top of a child's crib having mounted in said housing on one pair of opposite sides of said crib a pair of tracks on which the cover may be reversibly slid and mounted on said housing, a formed transparent plastic bubble which is mounted on a frame and engaged in the tracks to permit the sliding of the bubble and the frame laterally to open and close the cover. A further object of the present invention is to produce a child's crib cover of the class described which has locking and unlocking mechanisms which permit the entire assembly to be simply and quickly locked in the closed position and yet is readily releasable so as to permit the opening of the crib top by sliding the assembly laterally along the sliding tracks. These and other objects of the present invention will be discussed in greater detail hereinbelow.

The problem of containing children, particularly mobile infant children, in a crib has long existed. This problem has been of particular concern in hospitals where a plurality of cribs are assembled in a children's ward, each of which cannot be constantly supervised by available nursing personnel. In certain instances, it is required to restrain the child from climbing out of the crib thereby exposing him to the dangers of falling. In the past, certain methods have been devised to restrict the child to the confinement of the crib. These restricting devices were in the nature of restraint jackets, straps, and fishnet devices and enclosure types which consist of flexible vinyl films which are attached to extensions of the crib's corner posts. Many

of these devices have one or more shortcomings. The restricting devices are frightening to the child, some of them produce chafing, and some can be a dangerous source of accidents. The presently existing flexible film enclosure types must be permanently attached to a specially designed crib which tends to inhibit access to the crib and are relatively unattractive. In special cases of skin disease and burns, the restraining devices can be a source of further irritation to the child. The crib cover of the present invention eliminates the danger and the possible sources of further irritation and eliminates completely the frightening tendencies of the restraining devices of the prior art but, at the same time, provides the full measure of protection for the child and confines him happily in the crib. Not only is the concept of the present invention directed to crib covers for use on hospital beds for mobile infant children in hospitals but also these crib covers can be used in other areas where a plurality of infant mobile children are contained such as in orphanages, nurseries, and the like. Of course, the crib covers of the present invention can readily be utilized as a unit in a private home. The use of these acrylic crib covers are not, in fact, limited to the use on children's beds as they can be custom made and readily installed on a hospital bed for an adult patient where the adult patient is senile and may have a tendency to endeavor to remove himself or herself without authorization from his hospital bed even though the side guard rails are raised for the purpose of restraining him or her therein.

The concept of the present invention describes an attractive and completely functional crib cover. The design of this cover provides a completely transparent enclosure which confines the child to the crib but allows the child complete freedom within the crib. The unit is designed to slide open in order to allow unobstructed access to the crib, either by a nurse, doctor or parent. Another outstanding feature of the cover of the present invention is that it is light-weight and portable and can be quickly transferred from one crib to another when and as necessary.

The crib cover of the present invention is comprised of a plurality of parts. The first and probably most important part is the formed transparent plastic bubble which may be prepared from a sheet of thermoplastic polymeric material. These sheets of thermoplastic polymeric material may be made from any one of a plurality of thermoplastics such as polystyrene, poly(methyl methacrylate), and the like. The thickness of the plastic sheet may be ⅛", ¼", ⅜" or more, in thickness. The entire bubble, as produced, is a substantially rigid and shock resistant element as well as shatter resistant. The sheets of poly(methyl methacrylate) are preferred and in some instances copolymers of methyl methacrylate with minor amounts of other polymerizable materials such as methyl acrylate, ethyl acrylate, and the like, may be used to form the sheet which is then subsequently formed to the appropriate contour. It is desired, but not required, that the overall appearance of the plastic bubble have side walls on four sides of its rectangular configuration which move upwardly from the base at a comparatively sharp angle so as to provide the appearance of the base of a pyramid. This is to provide adequate head room for a standing child within the confines of the crib without unduly restricting his mobility within the crib. The base having this pyramidal configuration is then truncated and the top is distoted in such a manner as to provide a curved surface in both the side and front elevational view so that such views in cross-sectional observation provides the appearance of a segment of an arc of a large sphere or circle.

The formed transparent plastic bubble may have incorporated therein decorative effects which would be found pleasing to the eye of a child. Other decorative

effects can be subsequently applied to the surface of the deformed plastic bubble in the nature of decals and other decorative effects which again would be pleasing and, in certain instances, entertaining to the child. Still further, the transparent plastic bubble is receptive to manuscript inscriptions by marking crayons, and the like, which inscriptions can be accomplished again for the purpose of entertaining the child or for hospital informative purposes. If desired, the plastic bubble may have incorporated therein certain dyes and/or pigments that will impart a desired coloration to the plastic bubble while retaining its transparency.

The plastic crib covers of the present invention can be custom made to fit practically any size bed having an elevated head and foot board with side rails. Many of the cribs manufactured and sold today come in a plurality of standard sizes and, as a consequence, these crib covers may be mass produced in advance in these certain fixed standard sizes such as to fit a crib that is 36" wide and 60" long or 36" wide and 72" long.

The formed transparent plastic bubble is mounted on a frame. This frame may be any one of a plurality of materials but it is preferred that the formed transparent plastic bubble be mounted in an aluminum frame. The framed plastic enclosure is fitted into a sliding track assembly. The sliding track housing is attached to the headboard and the footboard of the crib with four simple C type clamps. When the entire assembly is clamped in position on the crib, the plastic enclosure can slide open in either direction so as to provide unobstructable access to the crib. The sliding track assembly is fitted with a snap lock which locks the cover in the closed position (and in the open position) but which can be simply and quickly released allowing the cover to slide to the open position or to the closed position. Alternatively, the track housings may be fitted with nylon stops which will prevent the cover from sliding off of the crib. The metal frame and track housings may be constructed of anodized aluminum. The sliding track is preferably nylon and the C clamps are preferably cadmium plated steel.

A further feature of the crib cover of the present invention is the fact that the entire unit is lightweight and in some instances no more than about twenty pounds so that it is easily removed from the crib for the purpose of cold sterilization. Still further, the installation of the crib cover to the crib is very simple. The light-weight cover is quickly clamped to the crib ends on the four corners and with a simple release operation the cover slides open in either direction and stops automatically to give the nurse, doctor or parent unobstructable access to the patient. The rust proof frame and the greaseless nylon sliding device permit the use of the cover in high humidity atmospheres. The crib cover may be cold sterilized in water-soluble disinfectant solutions without fear of rust. The formed transparent plastic bubble is preferably handsomely shaped of cast poly(methyl methacrylate) sheet which is a quality plastic material and has clarity greater than glass but with a high break resistance. This material is resistant to abnormal bumps and knocks of rambunctious children.

For a further and more complete understanding of the concept of the present invention, reference is made to the accompanying drawing in which FIGURE 1 is a side elevational view of the crib cover.

FIGURE 2 is a front elevational view of the crib cover.

FIGURE 3 is an isometric drawing of the crib cover shown superimposed on a conventional crib shown partly in section.

In each of FIGURES 1 and 2, **1** is the formed transparent plastic bubble and **2** is the frame on which the plastic bubble is mounted. In each of FIGURES 1, 2 and 3, **3** is the housing provided with the tracks **4** onto which the plastic bubble mounted on the frame is slidably mounted on the sliding tracks of said housing **3**. In each of FIGURES 1, 2 and 3, **5** is the locking and unlocking means. In each of FIGURES 1, 2 and 3, **6** is the side walls of the truncated pyramidal structure superimposed upon which is the bubble top **7**. The overall height of the plastic bubble including the height of the side walls **6** and the bubble top **7** may be varied according to requirements, but for the average child's crib, an elevation of about 13" to 15" will be sufficient. The elevational height of the truncated pyramidal structure can likewise be varied according to requirements but would ordinarily be about 9" to 12" high.

In FIGURE 4, the plastic bubble **1** having the flange **12** is fitted into the frame **2** utilizing a gasket type of material such as polyvinyl chloride **15** with the restraining members **16** which prevent the gasket encompassed flange from sliding further inwardly. The runner **14** is an elongated member cross-sectionally resembling a pin or finger which is mounted in the slot **17** in the nylon track **10**. The plastic bubble frame **2** has the locking mechanism hole **11** adapted to receive the locking pin **13** as shown partly in section with its knob **18** and spring activating mechanism **19**. The housing **3** having the inverted wedge track housing **10** carrying the slot **17** is designed to accommodate the runner **14**.

In FIGURE 3 notwithstanding the fact that the plastic bubble is a transparent plastic material, the crib portion would normally be clearly visible through the plastic bubble but is purposely left out so as not to confuse the concept of the present invention. The plastic bubble **1** in FIGURE 3 is nevertheless transparent.

In making the formed transparent plastic bubble for use in the child's crib cover of the present invention, a sheet of a thermoplastic material such as a sheet of poly (methyl methacrylate) is heated to its softening temperature and is then draped over a male mold designed to provide precisely the contours required in the formed transparent plastic bubble including sufficient flat sheet to provide the flange which will be inserted into the frame as described in detail hereinabove.

Having thus described our invention, we claim:

1. A child's crib cover comprising a housing adapted to be fitted onto the top of a rectangular child's crib having mounted in said housing on one pair of opposite sides thereof a pair of sliding tracks, a formed transparent plastic bubble mounted on a frame slidably mounted on said sliding tracks of said housing, said frame being fitted with a locking and unlocking means which permits the entire assembly to be locked securely in place and yet readily releasable so as to permit the opening of the crib cover by sliding the assembly laterally along the sliding tracks wherein said formed plastic bubble is composed of a truncated pyramidal base on top of which is an elongated curved structure which provides the appearance of a segment of a large sphere and wherein the locking mechanism can be used to lock the cover in the closed and opened positions.

2. A child's crib cover according to claim **1** in which the formed transparent plastic bubble is formed from a sheet of poly(methyl methacrylate).

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