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INFANT HOLDER

Filed June 28, 1960

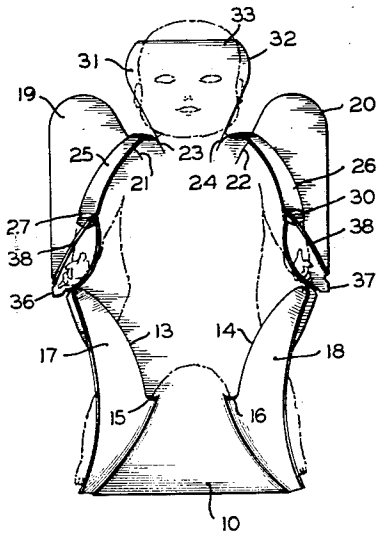


FIG. 1

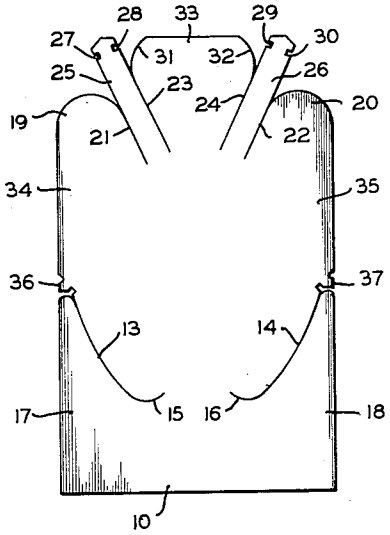
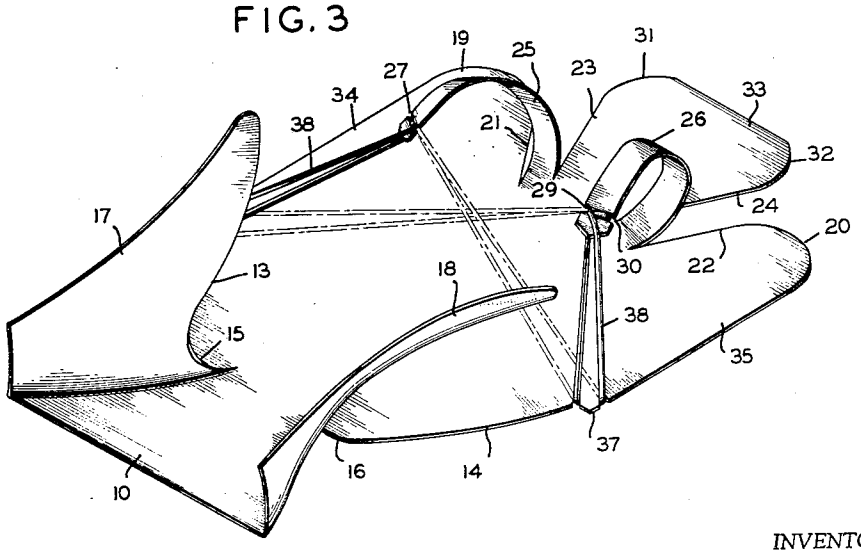


FIG. 2

FIG. 3



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INFANT HOLDER

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This invention relates to restraining devices employed for limiting the movement of animate objects human and otherwise during the treatment of or operation upon the same including in hospitals and in other locations.

The invention relates specifically to devices for use in assisting in the holding or restraining of infants and small children during certain operative procedures and medical administrations to facilitate such procedures and administrations without injury to the infant or child.

In the treating of infants and small children sometimes it is necessary to enlist the aid of several adults to hold the child kicking, flailing its arms, and squirming and the presence of adults in increasing numbers increases the fright and activity of the child and interferes with treatment and sometimes results in the knocking over of material and equipment and sometimes resulting in injury to the child.

It is an object of the invention to provide a device for restraining or limiting the activities of a child to a limited degree only but which does not rigidly hold the infant or child for the operative procedures and medical administrations.

Another object of the invention is to hold or restrain an infant or small child with the arms and legs extended in such position that various parts of the body of such infant or child can be readily exposed and treated, for example during circumcision, parenteral fluid injections, bone marrow punctures and other minor or major operations as well as in hospitals or residences or wherever it is necessary for mild or full restraint of infants.

A further object of the invention is to provide an infant or child holding or restraining device composed of semi-stiff material of plastic, metal or the like which can be readily sterilized by steam or fluid or which can be readily boiled and in which the parts may be fastened together by elastic bands.

Another object of the invention is to provide a semi-stiff article of a single piece of material capable of being bent or distorted to conform to the body of the infant to which it is applied and which device includes outwardly flared leg restrainers for maintaining the legs apart facilitating circumcisions and other operations on the genitalia and rectal areas ordinarily difficult to expose and remain exposed in infants, with the legs relatively held but not completely restrained from lateral motion in a manner to allay the apprehension of the child and on the other hand reduce the mobility of the limbs to such an extent that parenteral needles will not be dislodged by the child rolling over or cross kicking.

A further object of the invention is to provide a device of the character indicated having means including a crotch-saddle for partial restraining of the shoulders and arms to prevent the child from squirming or wiggling out of the crotch-saddle but providing shoulder straps which maintain the torso in prone condition and limit to a degree the complete freedom of thrashing arms although the degree of mobility may be varied by the tightening or loosening of the elastic straps as well as by the way in which they are applied for instance contra-chest or ipsilaterally, the bowing or unbowing of the shoulder harness permitting application of the device for short or longer torsos and being designed to accommodate infants of all sizes from premature to relatively large babies or children.

A still further object of the invention is to provide a

device of the character indicated which can be readily produced from any sheet material capable of being heated to soften the same and then cut and shaped to the desired configuration with raised flared wings cut high and beneath which the legs can be placed so they cannot be moved and with chest and shoulder straps having free ends which can be attached to the sides and body of the device by removable rubber or elastic bands.

Other objects and advantages of the invention will be apparent from the following description taken in conjunction with the accompanying drawing, wherein:

FIG. 1 is a top plan view illustrating the use of the invention;

FIG. 2, a similar view of the sheet in flat condition before it is bent or distorted; and

FIG. 3, a perspective of the finally formed device.

Briefly stated, the invention is a holder or restraining device for an infant or small child and composed of sheet material of sufficient stiffness to enable it to perform the functions for which it is designed and having cuts from its side portions towards one end providing wings beneath which the legs of the infant or child may be applied and which will hold the legs apart but not prevent limited lateral movement, and with integral straps cut from the upper portion of the sheet material having notches so that a rubber band can be engaged around the free end of each of such straps and the opposite ends of the rubber bands can be engaged around projections in the sides of the holder whereby the straps can be secured over the shoulders and sides of the torso in a manner to hold the child but permitting limited use of the arms.

With continued reference to the drawing, the holding or restraining device of the present invention is formed of a generally rectangular body **10** having an upper end or head portion, said body being constructed of sterilizable sheet material having cuts **13** and **14** extending inwardly substantially from the center of each side and such cuts terminate in curved end portions **15** and **16**. Wing-forming portions **17** and **18** are located between the cuts **13** and **14** and the bottom of the body **10** and are adapted to be bent upwardly after heating and rounded outwardly to allow the insertion of the legs of a child therebeneath. The spacing of the curved wing-forming portions **15** and **16** is sufficient to maintain the legs of the infant or child apart to afford access therebetween while permitting limited lateral movement thereof.

The upper end of the sheet blank of which the device is formed is provided with curved portions **19** and **20** terminating in straight lines **21** and **22** in parallel relation to other straight lines **23** and **24** which provide flexible straps **25** and **26** for location around the shoulders, chest and thorax of the child to retain the same with limited mobility. The straps have notches **27, 28, 29** and **30** on opposite sides to facilitate the application and retention of elastic bands **38** around the ends of such straps to hold the straps around the body of the child.

Between the lines **23** and **24** curved cuts **31** and **32** and a terminal **33** provide a flap for underlying the infant's head. Small projections **36** and **37** midway of the sides of the device provide securing points for the rubber bands which fit in the notches about the ends of the straps **25** and **26**. The sides of the device extending towards the foot from the curved portions **19** and **20** are adapted to be shaped to provide curved portions to conform to a degree to the curvature of the body of an infant or child to which the device is applied. In production the device can be made in a flat sheet with the cuts or curves described and with the shaping of the sheet left until near the time of use whereupon the sheet can be subjected to a softening temperature and shaped on location to the desired configuration to accommodate the infant whereupon it can be cooled and used or applied.

It will be noted that the device can be produced by any other acceptable method such as injection molding, forming or the like. If desired, the device can be produced in a number of sizes to accommodate infants and children of any size and physical characteristic.

In the use of the device, an infant or small child is placed on the body **10** with one of its legs inserted beneath each of the wing-forming portions **17** and **18** which maintain the legs apart but permit limited lateral movement thereof. The flexible straps **25** and **26** are placed over the shoulders and along the upper portion of the torso and are connected to the body **10** by rubber bands **38**. The curvature of the straps is adjustable so that when the legs of the child have been placed beneath the wing-forming portions the straps will fit over the shoulders of the infant and will extend along the body of the same. The distance that the straps extend along the body is dependent on the length of the child. The rubber bands may be connected either ipsilaterally as shown in full lines in FIG. 3 or contra-chest as shown in phantom lines in FIG. 3 to restrain the arms of the child.

It will be obvious to one skilled in the art that various changes may be made in the invention without departing from the spirit and scope thereof and therefore the invention is not limited by that which is illustrated in the drawing and described in the specification, but only as indicated in the accompanying claims.

What is claimed is:

1. A device for holding and limiting the movement of an infant and comprising a unitary body of sterilizable sheet material having a head portion and at its lower end a pair of relatively stiff wing-forming portions spaced apart in a manner to receive the legs of an infant therebeneath and to overlie and maintain the upper portions of the legs apart while permitting limited lateral movement of the lower portions of the legs, said body having

straps each with one end integrally connected to the upper end of said sheet adjacent said head portion and adapted to lie beside the neck of an infant located on said body with the free ends of said straps notched for attachment of elastic fastening elements, the intermediate portions of said body being provided with projections over which said elastic fasteners can be engaged over the chest, arms and thorax and with such straps limiting the movement of the arms but allowing restricted movement thereof.

2. A device for holding and limiting the movement of an infant comprising a unitary body of sheet material having a head portion at its upper end and at its lower end a pair of relatively stiff wing forming portions spaced apart in a manner to receive the legs of an infant therebeneath and to overlie and maintain the upper portions of the legs apart while permitting lateral movement of the lower portions of the legs, said body having retaining means connected to said sheet adjacent said head portion and adapted to lie beside the neck of an infant located on said body, the ends of said retaining means being of a construction for attachment of fastening elements, the intermediate portion of said body being provided with projections over which said fastening elements can be engaged over the chest of the infant and with such retaining means limiting the movement of the arms of the infant.

References Cited in the file of this patent

UNITED STATES PATENTS

335,324	Thunborg	Feb. 2, 1886
2,589,708	Koster	Mar. 18, 1952
2,631,301	Hyland	Mar. 17, 1953

FOREIGN PATENTS

824,668	Germany	Dec. 13, 1951