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54 **Perch for infants and handicapped individuals.**

57 A perch (10) for infants and handicapped individuals supports them in a prone, generally fetal-like position. In the case of an infant suffering from colic, a midsection (40) of the perch (10) exerts sufficient pressure on the infant's chest and abdomen to relieve the pain and discomfort caused by colic.

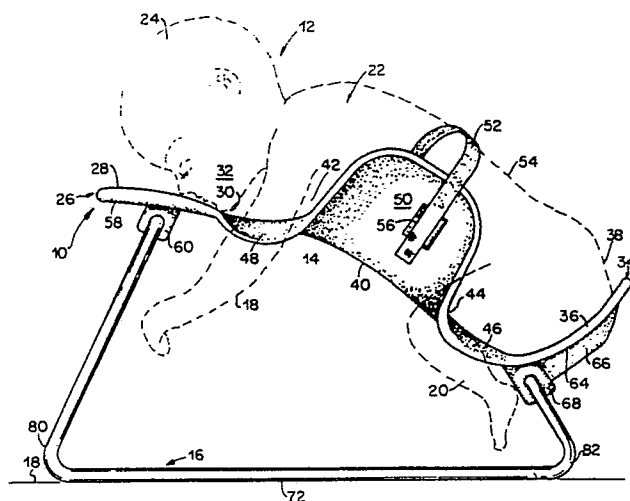


FIG. 1

PERCH FOR INFANTS AND HANDICAPPED INDIVIDUALS

Field of the Invention

The present invention relates to a perch for infants and handicapped individuals which permits them to interact with their environment and, in the case of infants, to relieve the symptoms of colic.

Background of the Invention

Typically, infant seats are of a lounge chair type in which the infant is maintained on its back in a reclined position. Such infant seats are not physiologic. That is, sitting back for an infant who does not have control of its head or its back makes it difficult for the infant to see and interact with its environment.

For many years, some pediatricians have advised parent of infants with colic to lay the infant facedown along the parent's forearm. In such a position, which is generally fetal-like, pressure exerted on the infant's chest and abdomen tends to quiet it.

Gaskins U.S. Patent No. 3,071,410 discloses a baby burp seat adapted to support an infant in a prone position which permits the infant to have a better view of its surroundings and which aids the infant in the relief of stomach gases. The Gaskins seat does, however, have its limitations. For instance, because there is no structure for supporting the head of the infant, the Gaskins seat can only be used by an infant whose neck muscles are strong enough to support its head without any other aids. From a practical standpoint, therefore, the Gaskins seat can only be used by infants who are about three months old or older. The lack of a head support also prevents the Gaskins seat from being used like a conventional chair to support an infant on its back in a reclined position.

Summary of the Invention

The present invention relates to a baby perch for infants or handicapped individuals in which an individual is laid in a prone, generally fetal-like position on a specially designed support member. More particularly, the support member, which can be molded monolithically from plastic or fiberglass, has an upper end adapted to support the individual's head such that the head can be picked up and moved side to side, a lower end adapted to support the individual's buttocks and a midsection adapted to support the individual's trunk. Cutouts in

the midsection near the upper end of the support member permit the individual's arms to hang freely on opposite sides of the support member. Similarly, cutouts in the midsection near the lower end of the support member permit the individual's legs to hang freely on opposite sides of the support member. A base member depending from the support member positions it at a distance above a support surface, such as a floor, the distance being selected such that the individual's legs and arms are suspended above the support surface. The base member maintains the support member at an inclined angle relative to the horizontal. This angle is preferably in a range of from about 30° to about 45°. A strap attached to a pair of wings extending upwardly and outwardly from the midsection of the support member can be used to prevent the individual from falling off of the support member.

Because the individual's head is arranged generally horizontally and at a higher elevation than the rest of the body, the individual can readily interact with its environment, whereby the individual may respond to various stimuli in its environment. In the case of a handicapped infant especially, the parent or therapist may be in direct view of the infant while the infant is being fed or otherwise interacting with its environment. The ability of the infant to directly view the parent or therapist enhances the infant's emotional development. Also, by permitting movement of the individual's head, its head, neck and chest muscles may be strengthened and developed, thereby enhancing the individual's physical development.

The shape of the midsection of the support member is designed so as to maintain the individual in a generally fetal-like position which makes the individual more secure and comfortable. In the case of an infant who has colic, the midsection of the support applies sufficient pressure to the infant's chest and abdomen to relieve the pain and discomfort caused by the colic, resulting, in many instances, in the termination of the crying which is normally associated with colic.

The shape of the support member permits the perch to support an individual in a supine position (i.e., on its back in a reclined position). By increasing the angle of inclination of the support member beyond 45°, the perch can also be used like a conventional chair to support the individual in a generally upright (i.e., sitting) position.

Brief Description of the Drawings

For a more complete understanding of the present invention, reference is made to the following detailed description of two exemplary embodiments considered in conjunction with the accompanying drawings, in which:

Figure 1 is a side elevational view of a perch constructed in accordance with one embodiment of the present invention and adapted for use by an infant;

Figure 2 is a front elevational view of the perch illustrated in Figure 1;

Figure 3 is a top view of the perch illustrated in Figures 1 and 2;

Figure 4 is a cross-sectional view, taken along the line IV-IV in Figure 3 and looking in the direction of the arrows, of the perch illustrated in Figure 3;

Figure 5 is a perspective view of a perch constructed in accordance with another embodiment of the present invention, portions of the perch being broken away and exploded to facilitate consideration and discussion; and

Figure 6 is a perspective view of the perch shown in Figure 5, the perch being shown in a position which is different from the position illustrated in Figure 5.

Description of the Exemplary Embodiments

While the present invention can be used by infants or handicapped individuals, it is especially suitable for use by infants. Thus the present invention will be described with particular reference to two exemplary embodiments designed specifically for use by infants.

With reference to Figures 1-4, a perch 10 for an infant 12 (shown in phantom in Figure 1), includes a support member 14 and a base member 16. The support member 14 and the base member 16 cooperate to maintain the infant 12 in a prone (i.e., face down) generally fetal-like position in which the infant's arms 18 and legs 20 are freely suspended below the infant's body 22 and in which the infant's head 24 is arranged at a higher elevation than the rest of the infant's body 22.

The support member 14, which is molded monolithically from plastic or fiberglass, includes an upper end 26 in the form of a relatively flat horizontally arranged ledge 28, which is sized and shaped so as to support the infant's chin 30 if the head 24 is face down or the infant's cheek 32 if the head 24 is turned to either side. A lower end 34 of the support member 14 is in the form of a saddle 36, which is sized and shaped so as to support the infant's buttocks 38. Between its upper end 26 and

its lower end 34, the support member 14 includes a midsection 40, which is sized and shaped so as to support the infant's chest 42 and abdomen 44. The midsection 40, which is gently curved such that it has a longitudinal cross-sectional shape which is convex relative to the infant 12, exerts a sufficient pressure on the infant's chest 42 and abdomen 44 to relieve the symptoms (e.g., crying) of colic and promotes the support of the infant 12 in a generally fetal-like position.

The midsection 40 of the support member 14 has pair of cutouts 46 adjacent the lower end 34 of the support member 14 and a pair of cutouts 48 adjacent the upper end 26 of the support member 14. Each of the cutouts 46 is sized and shaped so as to receive one of the legs 20 of the infant 12 such that the infant's legs 20 straddle the support member 14 on opposite sides thereof. Each of the cutouts 48 is sized and shaped so as to receive one of the arms 18 of the infant 12 such that the infant's arms 18 straddle the support member 14 on opposite sides thereof. The cutouts 46, 48 are flared for comfort.

A pair of wings 50 is attached to the midsection 40 of the support member 14, the wings 50 extending generally upwardly and outwardly from opposite sides of the midsection 40. A strap 52 is attached to the wings 50. The strap 52 passes around the infant's back 54 such that the infant 12 can be strapped onto the support member 14. The wings 50 cooperate with the strap 52 to restrain the infant 12 and to prevent it from rolling off the support member 14. A Velcro fastener 56 on one of the wings 50 permits the strap 52 to be adjusted.

An undersurface 58 of the upper end 26 of the support member 14 includes a sleeve 60 having a pair of sockets 62 (see Figure 2) adapted to connect the support member 14 to the base member 16 in a manner to be described hereinafter. An undersurface 64 of the lower end 34 of the support member 14 includes strengthening ribs 66 and a sleeve 68 having a pair of sockets 70 (see Figure 2) adapted to connect the support member 14 to the base member 16 in a manner to be described hereinafter.

The base member 16 includes a pair of tubular legs 72, each of which is bent into an angular shape. The legs 72 have ends 74, 76 which are received in the sockets 62, 70, respectively, of the sleeves 60, 68 provided on the support member 14 (see Figure 2). The size and shape of the legs 72 are such that the support member 14 is positioned a distance above a support surface 78, such as a floor (see Figure 1). This distance, which may or may not be adjusted, is selected such that the infant's arms 18 and legs 20 are suspended above the support surface 78. Also, the legs 72 maintain the midsection 40 of the support member 14 at an

inclined angle relative to the horizontal. The angle, which may or may not be adjusted, is preferably in a range of from about 30° to about 45°. The legs 72 extend laterally outwardly from the support member 14 to enhance the stability of the base member 16. The stability of the base member 16 is further enhanced by designing the legs 72 such that the base member 16 has a front end 80 which is wider than a back end 82 (see Figure 3).

Another exemplary embodiment of the present invention is illustrated in Figures 5 and 6. The various elements illustrated in Figures 5 and 6 which correspond to elements described above with respect to the embodiment illustrated in Figures 1-4 are designated by corresponding reference numerals increased by 100. All additional elements illustrated in Figures 5 and 6 which do not correspond to elements described above with respect to Figures 1-4 are designated by odd reference numerals. Unless otherwise stated, the embodiment of Figures 5 and 6 operates in the same manner as the embodiment of Figures 1-4.

With reference now to Figures 5 and 6, a perch 110 for an infant 112 (shown in phantom) includes a support member 114 and a base member 116. Although the infant 112 is shown in a generally prone, fetal-like position in Figure 5, it could also be maintained in a supine position (on its back in a reclined position).

The support member 114 has an upper end 126 in the form of a relatively flat ledge 128, a midsection 140, and a lower end 134 in the form of a saddle 136 extending upwardly and outwardly from the midsection 140. A pair of wings 150 is attached to the midsection 140 of the support member 114, the wings 150 extending generally upwardly and outwardly from opposite sides of the midsection 140. Each of the wings 150 is provided with a slot 111 for a purpose to be described hereinafter.

The base member 116 has a pair of uprights 113. Each of the uprights 113 extends into a corresponding one of the slots 111 and includes an internally threaded bore 115, each of which threadedly receives an externally threaded bolt 117 provided on an adjusting knob 119. A plastic washer 121 is received on the bolt 117 between the adjusting knob 119 and an associated one of the wings 150. By turning the adjusting knobs 119 such that the bolts 117 are screwed further into the bores 115 in the uprights 113, each washer 121 is sandwiched between its corresponding adjusting knob 119 and wing 150 to thereby lock the support member 114 in a preselected position (i.e., at a preselected angle of inclination). In order to change the angle of inclination of the support member 114 relative to the base member 116, the adjusting knobs 119 are rotated in an opposite direction so

that the washers 121 are no longer sandwiched between their corresponding adjusting knobs 119 and wings 150. After adjusting the angle of inclination of the support member 114, the adjusting knobs 119 would be retightened to lock the support member 114 in its adjusted position, like the one shown in Figure 6 in which the infant 112 (shown in phantom) is maintained in a substantially conventional sitting position.

It will be understood that the embodiments described herein are merely exemplary and that a person skilled in the art may make any variations and modifications without departing from the spirit and scope of the invention. For instance, the support members 14, 114 could be manufactured in sections, rather than monolithically, in which case the various sections would be removably but rigidly attached to each other. All such variations and modifications are intended to be included within the scope of the invention as defined in the appended claims.

Claims

1. A perch for an infant or handicapped person, including supporting means for supporting an individual in a prone, generally fetal-like position in which all of the individual's limbs are freely suspended below the individual's body and in which the individual's head is arranged at a higher elevation than the rest of the individual's body and a base member attached to said support member such that said support member is positioned a distance above a support surface, the distance being selected such that the individual's limbs are suspended above the support surface, said perch (10, 110) being characterized in that said supporting means includes a support member (14, 114), said support member having an upper end (26, 126) in the form of a ledge (28, 128) sized and shaped so as to support the individual's head, a lower end (34, 134) in the form of a saddle (36, 136) which is sized and shaped so as to support the individual's buttocks and a midsection (40, 140) located between said upper and lower ends and sized and shaped so as to support the individual's chest and abdomen, said midsection being arranged at an inclined angle relative to the horizontal and including a first pair of cutouts (46, 146) adjacent said lower end of said support member, each cutout of said first pair of cutouts being sized and shaped so as to receive one leg of the individual such that the individual's legs straddle said support member on opposite sides thereof, and a second pair of cutouts (48, 148) adjacent said upper end of said support member, each cutout of said second pair of cutouts being sized and shaped

so as to receive one arm of the individual such that the individual's arms straddle said support member on opposite sides thereof.

2. A perch according to Claim 1, further characterized in that said ledge (28, 128) is relatively flat, whereby the individual's head is free to move side to side so that the individual may interact with its environment. 5

3. A perch according to Claim 1 or 2, further characterized in that said saddle (36, 136) extends upwardly and outwardly from said midsection (40, 140). 10

4. A perch according to any one of the preceding claims further characterized in that said midsection (40, 140) is gently curved such that it has a longitudinal cross-sectional shape which is convex relative to the individual to thereby promote the support of the individual in a generally fetal-like position. 15

5. A perch according to any one of the preceding claims, further characterized in that said midsection (40, 140) includes restraining means for restraining the individual from rolling off of said support member (14, 114), said restraining means including a pair of wings (50, 150) extending generally upwardly and outwardly from opposite sides of said midsection and a strap (52, 152) attached to said wings and passing around the individual's back such that the individual can be strapped onto said support member. 20 25 30

6. A perch according to any one of the preceding claims, further characterized in that said support member (14, 114) is made from monolithically molded plastic.

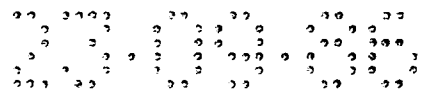
7. A perch according to any one of the preceding claims, further characterized in that said midsection (40, 140) exerts sufficient pressure on the abdomen and chest of the individual to relieve the symptoms of colic. 35

8. A perch according to any one of the preceding claims, further characterized by adjusting means (119) for adjusting the position of said support member (14, 114) relative to said base member (16, 116) such that the angle of inclination of said midsection (40, 140) can be varied. 40 45

9. A perch according to any one of the preceding claims, further characterized in that said support member (14, 114) can be adjusted relative to said base member (16, 116) to such an extent that said midsection (40, 140) can be arranged substantially upright to thereby support the individual in a sitting position. 50

10. A perch according to any one of the preceding claims, characterized in that said support member (14, 114) is adapted to support the individual in a supine position, as well as in a prone position. 55





Neu eingereicht / Newly filed
Nouvellement déposé

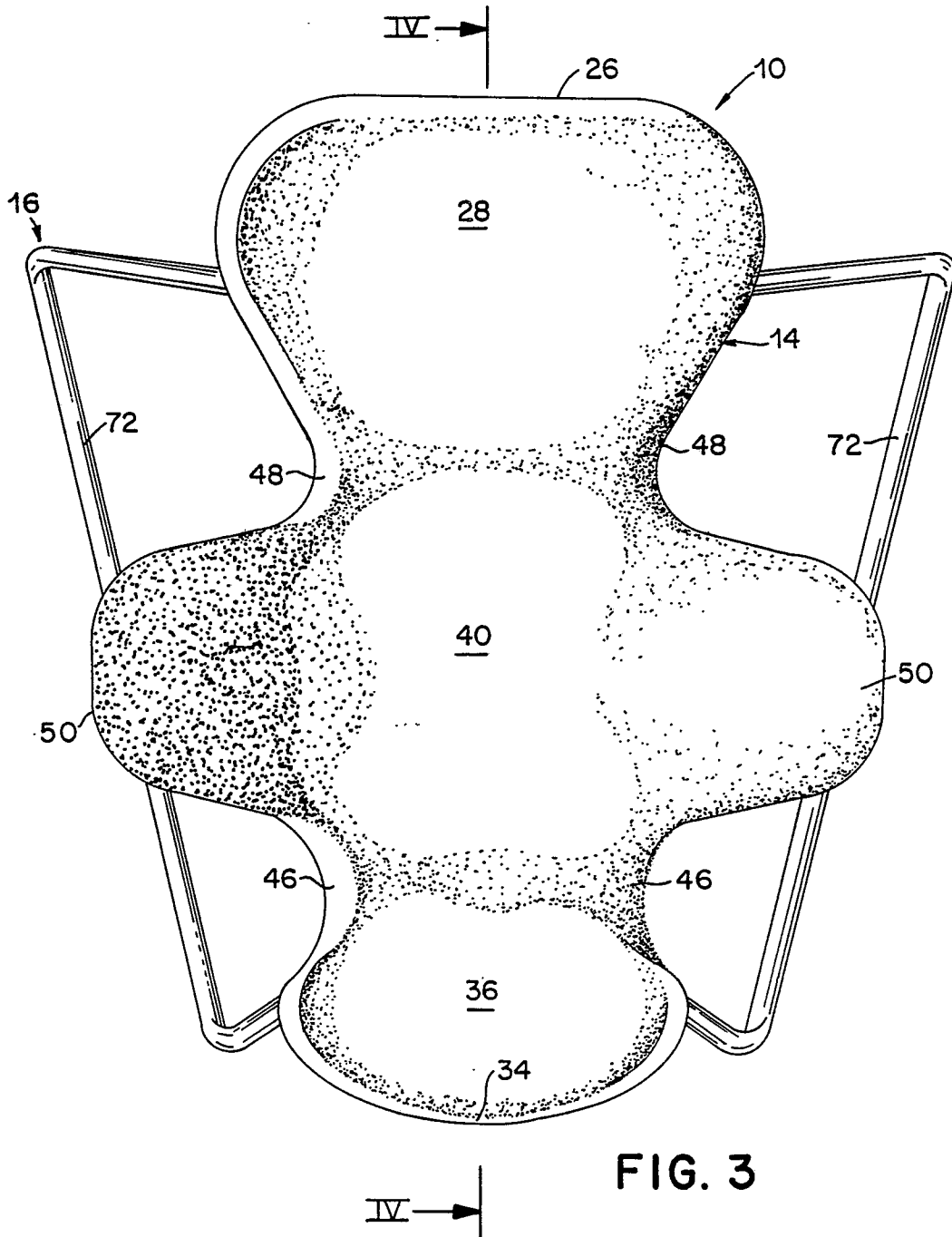
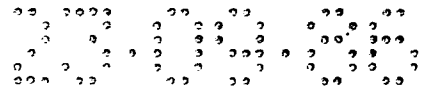


FIG. 3



Neu eingereicht / Newly filed
Nouvellement déposé

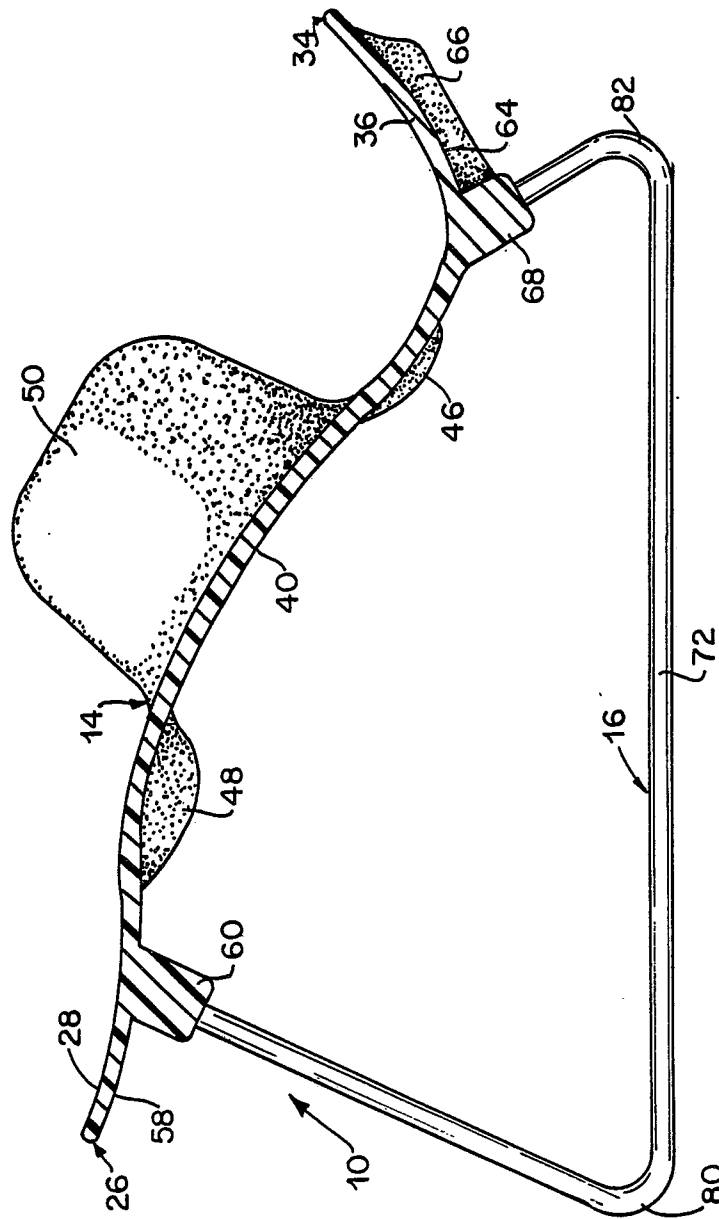


FIG. 4

Neu eingereicht / Newly filed
Nouvellement déposé

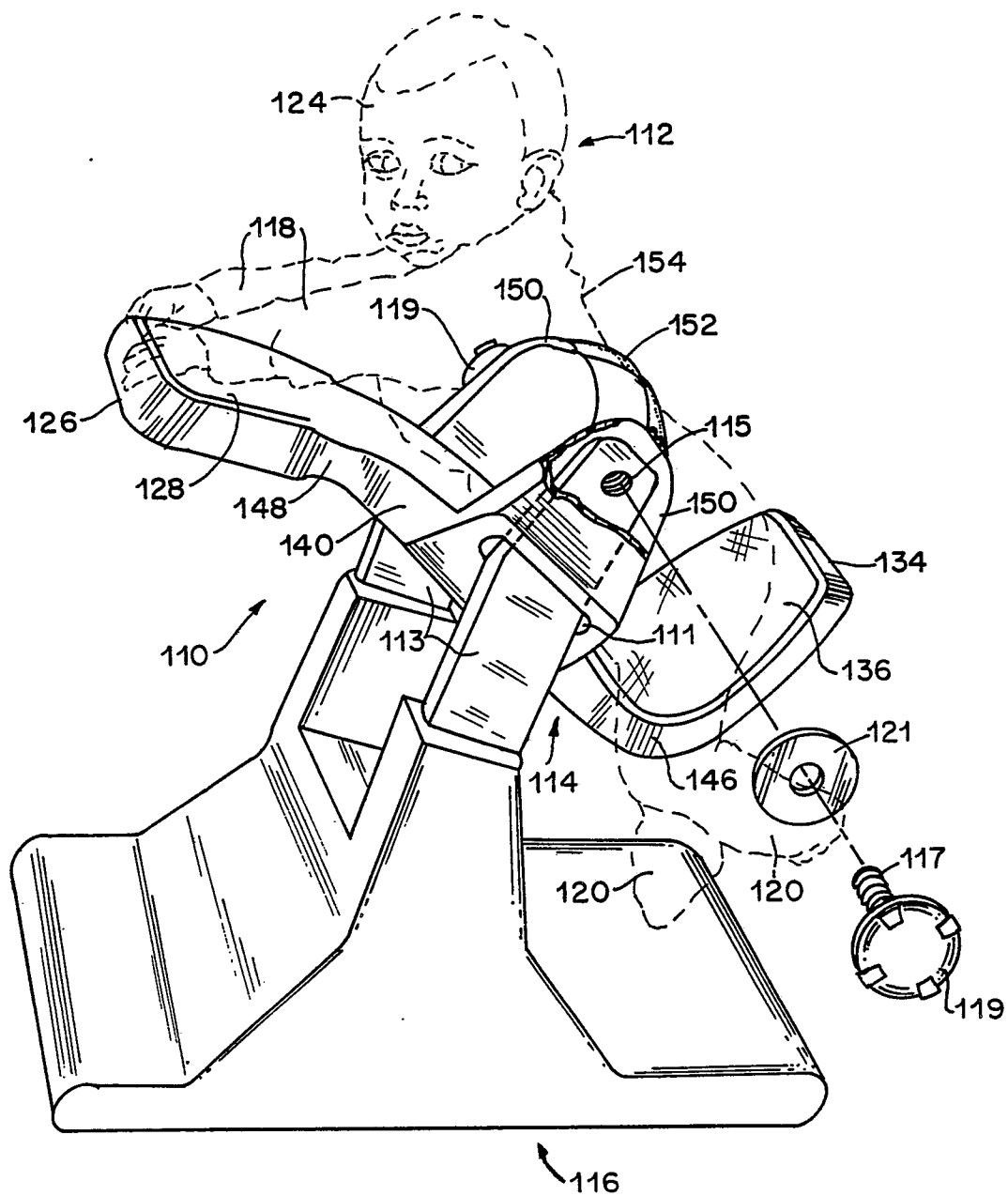
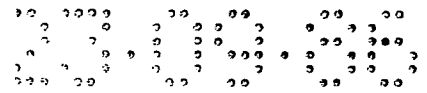


FIG. 5



Neu eingereicht / Newly filed
Nouvellement déposé

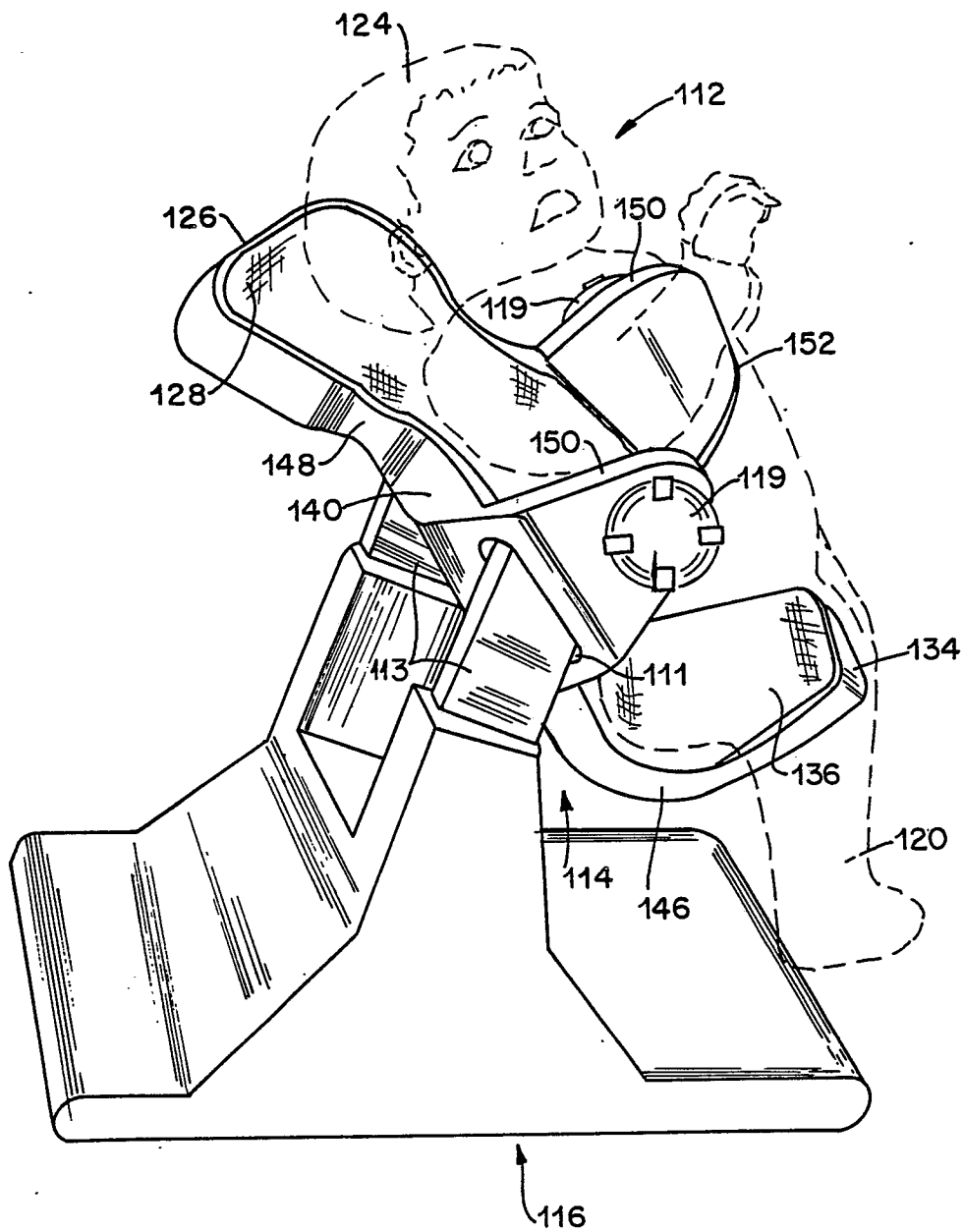


FIG. 6