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ROTATABLY SUPPORTED DOLL'S HEAD

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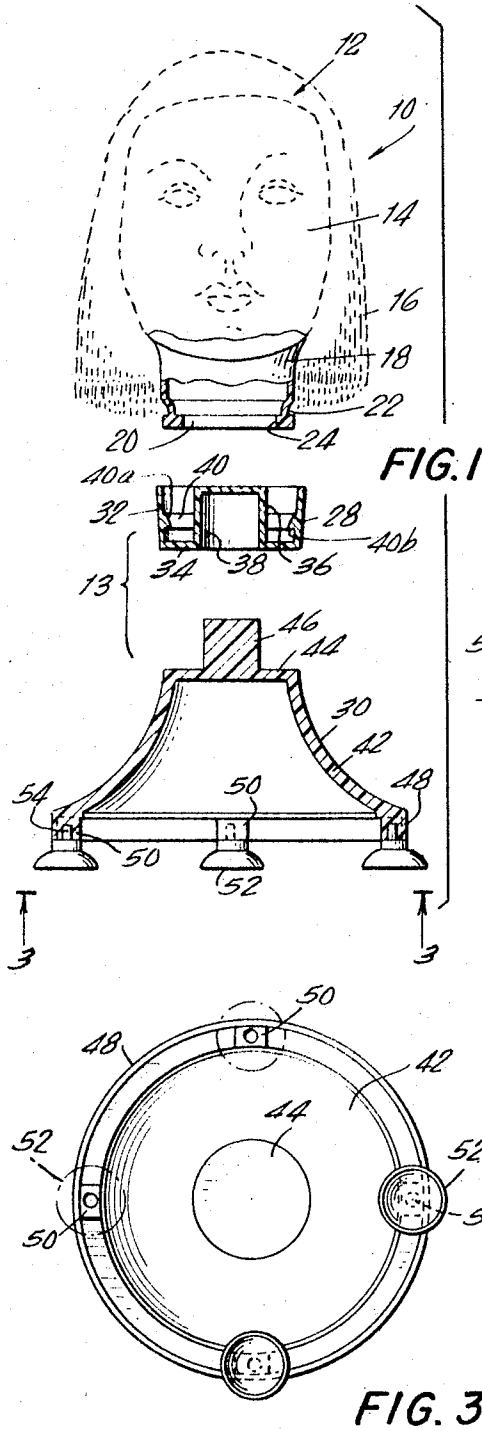


FIG. 1

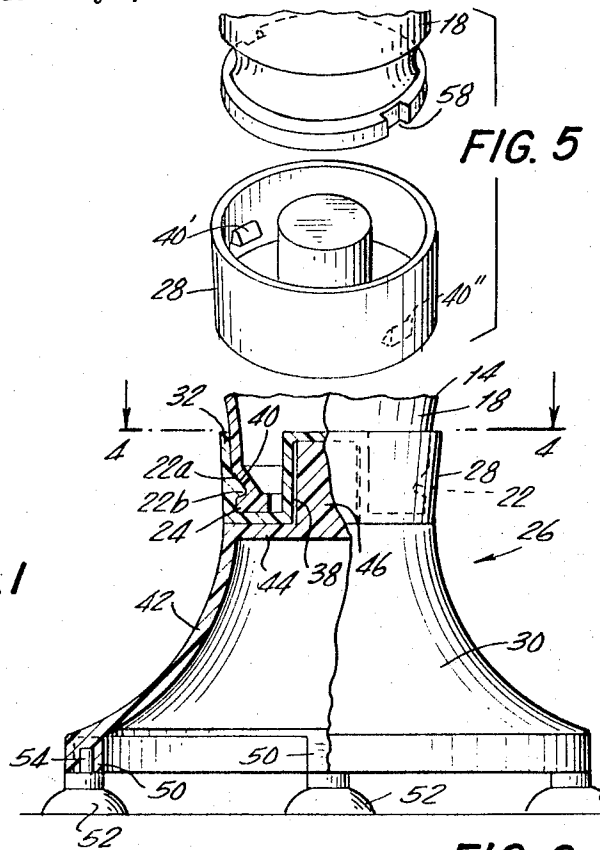


FIG. 2

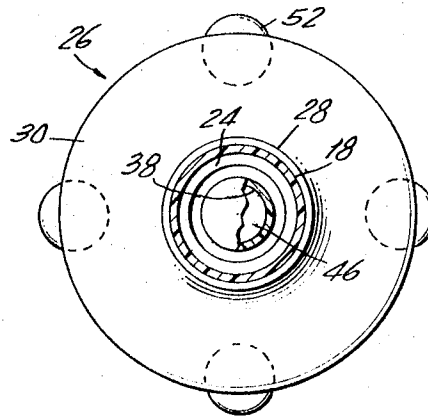


FIG. 3

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ROTATABLY SUPPORTED DOLL'S HEAD

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1 Claim

ABSTRACT OF THE DISCLOSURE

A doll's head which is rotatably mounted on a support and which is held upright by the support to permit the hair of the doll's head to be combed, set, etc. in a convenient manner. The support includes a base which is held on any flat surface by suction cups and a cup rotatably mounted on the base. The cup receives the neck of the doll's head and holds the head upright. The cup is rotatable with respect to the base to thereby enable rotation of the doll's head about a vertical axis.

The present invention to a doll's head characterized by a substantial quantity of hair and a support for the head which rotatably mounts said head.

It is the primary object of the present invention to provide in combination, a doll's head and a support rotatably mounting the head, which is simple in operation, few in its number of parts, long lasting in use, and which performs its function in a desirable and efficient manner.

It is a further object of the present invention to provide a rotatably supported doll's head of the character described wherein the support receives and is attached to the doll's head in a simple and quick manner so that both adults and children may set up the unit with ease.

It is a further object of the present invention to provide a rotatably supported doll's head of the character described which while firmly holding the doll's head permits free angular rotation of the doll's head about a vertical axis.

It is still another object of the present invention to provide a rotatably supported doll's head of the character described wherein the support includes a member adapted to be fixed to a flat surface and a member rotatably mounted with respect to the fixed member, the rotatably mounted member receiving the neck of the doll's head and being adapted to be supported from and replaced on the fixed member without hindrance.

It is still another object of my invention to provide a rotatably supported doll's head of the character described which is well suited for manufacture by mass production techniques and which thus can be marketed at a relatively low cost.

It is another object of the present invention to provide a rotatably supported doll's head of the character described wherein the support is light weight so that it may be easily moved from one location to another and which further includes means for quickly attaching the support to any flat surface and subsequently quickly enabling detachment of the support from said surface.

The above brief description, as well as further objects, features and advantages of the present invention, will be more fully appreciated by reference to the following detailed description of a presently preferred, but nonetheless illustrative embodiment in accordance with the present invention, when taken in conjunction with the accompanying drawings, wherein:

FIG. 1 is an exploded view of the rotatably supported doll's head of the present invention, showing the doll's head partially in front elevation and its neck partially in cross section, the cup in cross section and the base in cross section;

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FIG. 2 is an enlarged fragmentary view of the neck of the doll's head, the cup to which the neck is attached and the base;

FIG. 3 is a bottom plan view of the base of the support taken substantially along the line 3—3 of FIG. 1;

FIG. 4 is a cross sectional view taken substantially along the line 4—4 of FIG. 2; and

FIG. 5 is a cross sectional view of a second embodiment of the cup and doll's neck for the present invention.

Referring now in detail to the drawings, the reference numeral 10 denotes a rotatably supported doll's head assembly made in accordance with the present invention. The assembly 10 includes, as its basic components, a doll's head 12 and a support 13, the support holding the head 12 upright and permitting rotation of the head about a vertical axis to any desired angle in any direction. The term "doll's head," as used herein shall mean a doll's head, a mannequin's head, a wig mounted on a head block, or the like. However, due to the simplicity of the present structure and due to its ability to be manufactured by mass production techniques at a relatively low cost, it will be appreciated that in its preferred form, the assembly 10 functions as a toy for children. The parts of the support are most appropriately formed from a synthetic resin by molding in a known manner.

The doll's head 12 has a head block 14 which is hollow and which is formed desirably from a flexible resilient tough synthetic resin of the type conventionally used for the molding of doll's heads. The head block 14 has molded thereon the usual child-imitating features such as a nose, mouth and a pair of eyes. The head block 14 of the doll's head 12 is characterized by having fixed to it a substantial quantity of relatively long hair 16, either natural or synthetic, the same being joined to the head block 14 in a conventional manner, as by rooting. The hair 16 is, of course, provided for the purpose of enabling a child to comb it, set it, wash it, dye it or otherwise play with it in any desired manner, much as a woman's hair is treated in a beauty parlor.

The doll's head 12 further includes a hollow neck 18 which is substantially cylindrical in shape and which defines an interior neck passageway 20. The neck 18 has a groove 22 circumferentially circumscribing it on its outer surface. Said groove includes a downwardly and inwardly inclined, conical upper surface 22a and a horizontal lower surface 22b.

The lower periphery of the neck 18 includes an inwardly enlarged circular flange 24 which serves to strengthen the free end of the neck. It will be appreciated that except for the construction of the lower portion of the doll's neck 18 including the groove 22 and the flange 24, the head is entirely conventional in construction.

The unit further includes a two-piece support 13, the support including a cup 28 and a base 30. The cup 28 is adapted to receive and to be firmly attached to the neck 18 of the doll's head 12 and includes an outer upstanding cylindrical wall 32, a horizontal floor 34 which is circular in plan and which is attached to the wall 32 at its periphery and a central spindle 36. The spindle 36 is of a height substantially the same as the height of the wall 32, is uniformly radially inward of the wall 32 and defines a bore 38. The bore 38 runs from the bottom face of the cup 28 axially and centrally of the cup and into the spindle 36. Only the bottom end of the bore is open.

The cup 28 carries a circumferentially continuous inwardly protruding rib 40 on the inner face of the wall 32, which has a downwardly and inwardly inclined upper surface 40a and a horizontal lower surface 40b. The cross section of the rib 40 is complementary to the cross section of the circumferential groove 22 on the neck of the doll's head 12.

The base 30 of the support includes a substantially conical outwardly flaring wall 42 which is joined at its uppermost portion to a circular-in-plan horizontal bearing wall 44. A solid cylindrical stud 46 protrudes upwardly from the center of the bearing wall 44 and has an outside diameter only slightly less than the diameter of the bore 38 (see FIGS. 2 and 4). The height of the stud 46 is slightly less than the depth of the bore 38.

The bottom periphery of the base 30 enlarges to a rim 48 of a relatively large diameter and reinforcing blocks 50 are fixed to the rim 48 on its inner surface at equi-distant locations. A number of suction cups 52 are carried by the lower portion of the base 30, and for this purpose, each suction cup includes an upwardly protruding tongue 54 which is held in a downwardly opening bore 56 in its associated block 50 as by an appropriate adhesive. In a desired form of the present invention, there are four such equally spaced suction cups 52.

In use, the doll's head 12 is joined to the support 13 by simply grasping the head block 14 and forcing the neck 18 into the cup 28 so that the neck wall passes between the outer wall 32 of the cup and the spindle 36. As the neck 18 is forced toward the floor 34 of the cup 28, the flange 24 contacts the rib 40 and is forced inwardly until such flange clears the lower surface 40b of the rib. When the flange 24 sits on the floor 34, the rib 40 will engage, that is, will protrude into the groove 22 in the neck 18 and thereby retain the neck within the cup. It will be appreciated that the downwardly sloping configuration of the rib 40 enables the neck to be easily slipped into the cup, but removed therefrom only with greater effort.

It should be appreciated that by this relatively simple structure, a firm engagement has been made between doll's head and the cup. The flange 24 sits on the floor 34 of the cup 28, the cup wall 32 surrounds a frictionally contacts the wall of the neck 18 and the rib 40 protrudes into the neck groove 22. Further, this attachment is made by simply thrusting the head into the cup and can be readily carried out even by young children. The engagement of the neck to the cup can be clearly seen in FIG. 2 and during this engagement, the longitudinal axis of the neck is coaxial with the central axis of the cup 28. Engagement of the cup 28 to the doll's head 12 may be done with the cup separated from the base 30 or with the cup 28 on the base 30.

To further achieve good frictional contact between the neck wall and the inner surface of the cup, the outside diameter of the flange 24 may be slightly larger than the inside diameter of the wall of the cup. The flange will be forced inwardly when the neck is thrust into the cup, this flexing being allowed due to the placement of the groove 22 immediately above the flange.

Once the doll's head is secured to the cup, the head attached to the cup may be removed from the base as desired, and without interference, and may be subsequently again placed on the base.

With the cup firmly attached to the neck of the doll, the head may be rotated about a vertical axis in any direction (clockwise or counterclockwise) to any angular position. For this purpose, the cup 28 rotates on the base 30, with the floor 34 of the cup riding on the bearing wall

44 of the base 30 and the stud 46 protruding into the bore 38 of the spindle 36. The doll's head may be freed from the support by pulling the head away from the cup. The neck wall will flex sufficiently to permit this.

The cup may have a second form 28 shown in FIG. 5. Therein, the rib 40', rather than being continuous within the cup wall, comprises a small angular segment of the same configuration as the rib 40 but of greatly less angular extent. There may be two 40', 40'' or more such segments. In this form, the neck flange has a slot or interruption 58 of the same plan dimensions as a segment 40'. There is a slot to match each segment. The slot 58 is aligned to pass by the segment 40' when the neck is thrust into cup. There is sufficient friction between the neck wall and the inner surface of the cup wall to retain the neck in place. If greater security is desired, the neck is twisted so that the segments 40', 40'' pass into the groove 22. Desirably, the segments are opposed.

A latitude of modification, change and substitution is intended in the foregoing disclosure and in some instances some features of the invention will be employed without a corresponding use of other features. Accordingly, it is appropriate that the appended claim be construed broadly and in a manner consistent with the spirit and scope of the invention herein.

I claim:

1. A rotatably supported doll's head assembly including a doll's head having a head block, a substantial quantity of hair fixed to said head block, a neck formed of flexible material and being deformable inwardly thereof, a continuous groove circumscribing said neck on the exterior surface thereof, the groove including a substantially horizontal lower wall and a downwardly rearwardly sloping back wall, a continuous enlarged flange circumscribing the neck and forming the lower wall of the groove, and a support including a base adapted to be fixed to a flat surface, a cup having an upstanding cylindrical wall, and means mounting the cup on the base for rotation about a vertical axis, the cup having at least one rib projecting radially inwardly from said cylindrical wall and situated below the upper edge of said wall, the external diameter of the flange on the neck being not larger than the internal diameter of the upper edge of the wall, the rib and the groove being of mating configurations so that when the neck is placed into the cup, the rib engages the groove.

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