Sept. 12, 1950 H. P. EMMITT 2,521,703

BALL

Filed Feb. 18, 1946 2 Sheets-Sheet 1

FIG. 1

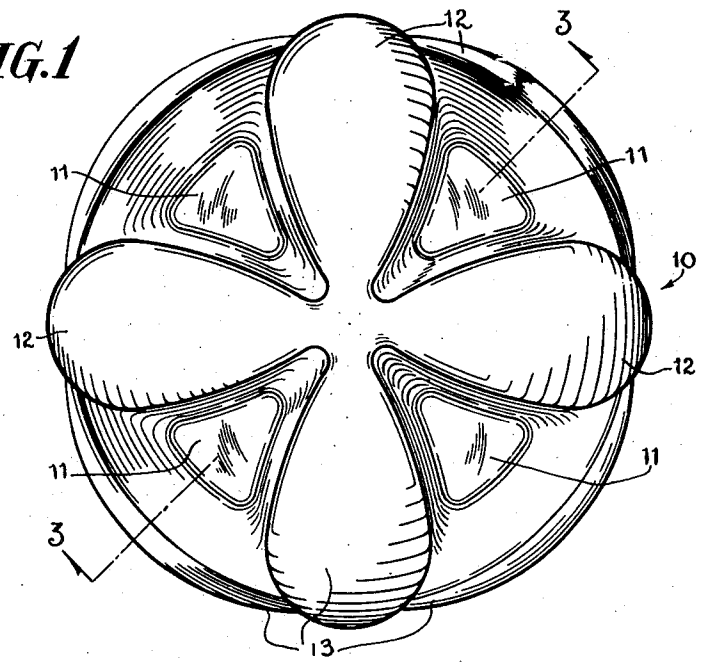
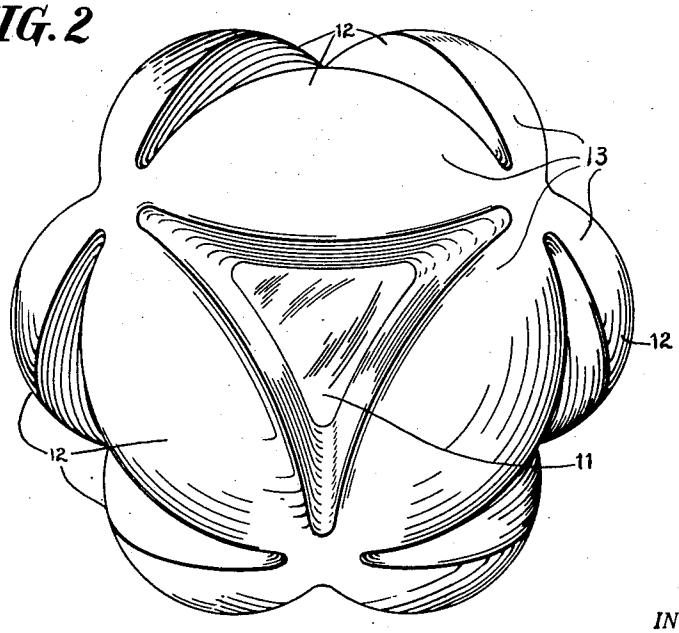


FIG. 2



INVENTOR.
Helen P. Emmitt
BY
William Cleland
Attorney

Sept. 12, 1950 H. P. EMMITT 2,521,703

BALL

Filed Feb. 18, 1946 2 Sheets-Sheet 2

FIG. 3

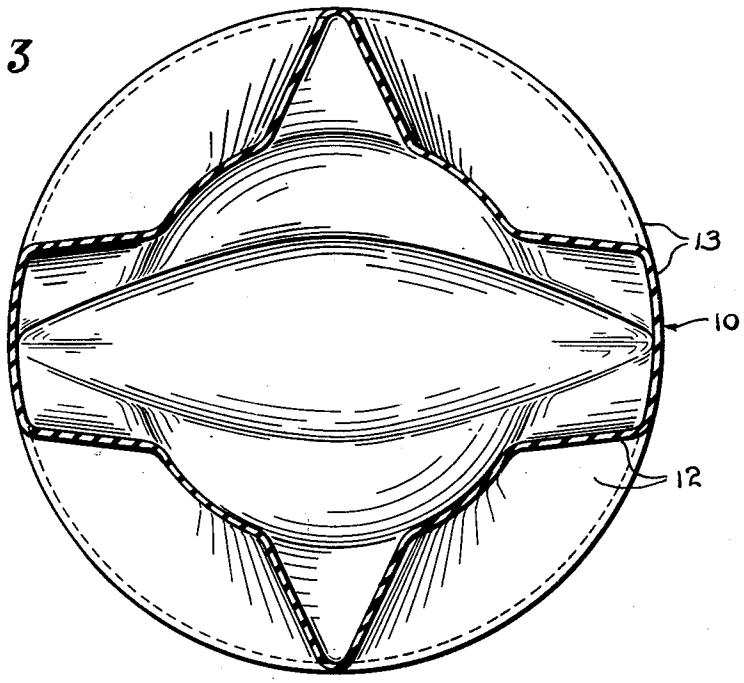
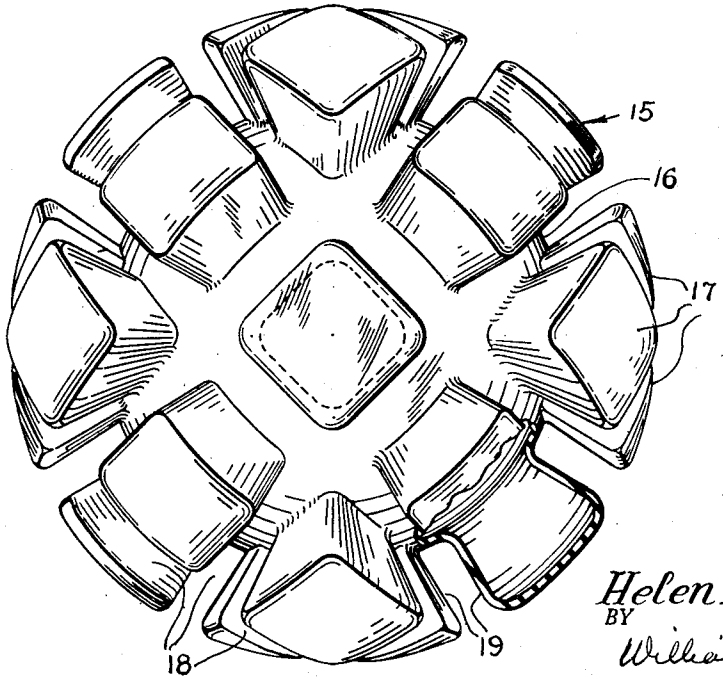


FIG. 4



INVENTOR.
Helen P. Emmitt
BY
William Cleland
Attorney

Patented Sept. 12, 1950 2,521,703

UNITED STATES PATENT OFFICE

2,521,703

BALL

Helen P. Emmitt, Tallmadge, Ohio

Application February 18, 1946, Serial No. 648,250

5 Claims. (Cl. 273—58)

1

This invention relates to a ball.

An object of the invention is to provide a ball, particularly adaptable for use by small children, the ball having improved means thereon whereby it may be readily gripped between the fingers at substantially any point about the periphery thereof, the ball, however, being so constructed that it will roll substantially freely on a surface.

Other objects of the invention will be manifest from the following brief description thereof and the accompanying drawings.

Of the accompanying drawings:

Figure 1 is a front elevational view of a ball embodying the features of the invention.

Figure 2 is a similar view of the ball of Figure 1 in another position of rest thereof.

Figure 3 is a cross-section taken substantially on line 3—3 of Figure 1.

Figure 4 is a front elevation, partly broken away and in section, of a modified form of playing ball embodying the invention.

Referring particularly to Figures 1 to 3, there is illustrated an inflated hollow rubber ball 10, made by known forming and vulcanizing methods, the same having a central spherical core part 11 from which extend a plurality of projections 12, 12 which are also hollow, as shown in Figure 3. The projections 12 may be in the form of elongated segments of a sphere providing outwardly presented lune-shaped surface portions 13, these segments being arranged in series of four thereof having the adjacent apices thereof connected so as to provide like patterns at four oppositely disposed polar areas. The ball, however, may also be made of solid rubber or other material.

Adjacent projections 12 are sufficiently closely arranged that the ball will roll substantially freely upon the spherical surface portions 13 of the projections, in any direction of rotation of the ball on a supporting surface. At the same time the widths of the projections 12 and the widths and depths of interstices between the same are so proportioned that a child may readily grip the projections between the fingers in any given position of the ball.

In use of the ball, a child for example, may insert opposed fingers to a substantial extent into interstices at opposite sides of a selected projection 12, firmly to grip the same, either for throwing the ball into the air or for rolling it upon a surface. Regardless of the position in which the ball comes to rest it again may be readily grasped for further play.

Referring to Figure 4, there is illustrated a

2

modified form of inflated rubber ball 15, which comprises a hollow spherical core 16 from which may extend a plurality of spaced but relatively closely adjacent, square projections 17, 17. As before, the square projections are of such proportions as to be readily grasped between the fingers by a child, and the spaces 18 between adjacent projections are such that the fingers are freely receivable therein but not so great that free rolling action of the ball upon a flat surface would be materially affected. The sides of the projections may be undercut, as indicated at 19, to provide a firm grip for the fingers. Other arrangements, shapes and patterns of projections may be provided on the ball to obtain the features described with respect to the desired gripping and rolling actions, the broad spherical rolling surfaces of the projections in each instance being maintained.

Modifications of the invention may be resorted to without departing from the spirit thereof or the scope of the appended claims.

What is claimed is:

1. A child's playball comprising a central hollow core and a plurality of integral hollow rib-like projections extending radially outwardly therefrom and having outer surface portions substantially coincident with the surface of a sphere, said projections being arranged in series thereof extending in different angular directions from polar areas at spaced points on said spherical surface, the projections of each series thereof cooperating with correspondingly disposed projections of another series thereof to provide a substantially continuous outer surface from one projection to another around the periphery of the ball, the angular disposition of adjacent projections defining interstices therebetween, the widths of said projections and the interstices therebetween being so proportioned that fingers of the hand are receivable to a substantial depth within the interstices at opposed sides of a selected projection for gripping the playball thereby, said adjacent projections being sufficiently closely spaced to permit substantially smooth rolling engagement of the playball in directions across said interstices between the adjacent projections.

2. A child's playball of elastic material, comprising a central hollow core and a plurality of integral rib-like projections extending radially outwardly therefrom and having outer surface portions substantially coincident with the surface of a sphere, said projections being arranged in series thereof extending in different angular directions from polar areas at spaced points on

said spherical surface, the projections of each series connecting with correspondingly disposed projections of another series thereof to provide continuous outer surface portions of interconnecting projections around the periphery of the ball, the angular disposition of adjacent projections defining interstices therebetween, the widths of said projections and the interstices therebetween being so proportioned that fingers of the hand are receivable to a substantial depth within the interstices at opposed sides of a selected projection for gripping the playball thereby, said adjacent projections being sufficiently closely spaced to permit substantially smooth rolling engagement of the playball in directions across said interstices between the adjacent projections.

3. A playball as set forth in claim 2, said projections being lune-shaped.

4. A ball of the class described comprising a central core, a plurality of hollow, inflatable body forming sections, each of said sections being secured at one end to said core and projecting outwardly therefrom, each of said sections tapering outwardly from said core to a larger dimension and having a curvilinear outer face, adjacent sections abutting at their outer ends, and means for securing the outer ends in fixed relation.

5. A playball comprising a central core and a plurality of hollow rib-like projections extending radially outwardly therefrom and having outer surface portions substantially coincident with the

surface of a sphere, said projections being arranged in series thereof extending in different angular directions from polar areas at spaced points on said spherical surface, the projections of each series thereof cooperating with correspondingly disposed projections of another series thereof to provide a substantially continuous outer surface from one projection to another around the periphery of the ball, the angular disposition of adjacent projections defining interstices therebetween, the widths of said projections and of the interstices therebetween being so proportioned that fingers of the hand are receivable to a substantial depth within the interstices at opposed sides of a selected projection for gripping the playball thereby, said adjacent projections being sufficiently closely spaced to permit substantially smooth rolling engagement of the playball in directions across said interstices between the adjacent projections.

HELEN P. EMMITT.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,345,904	Wishart	July 6, 1920
2,324,277	Casey et al.	July 13, 1943