F. PETERMAN.

DOLL'S EYES.

APPLICATION FILED JUNE 6, 1919.

1,332,518. Patented Mar. 2, 1920.

Fig. 1,

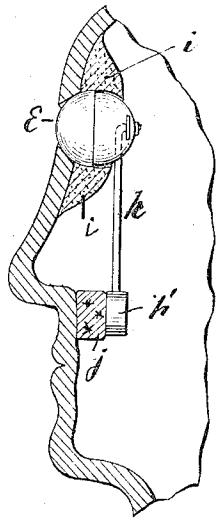


Fig. 2,

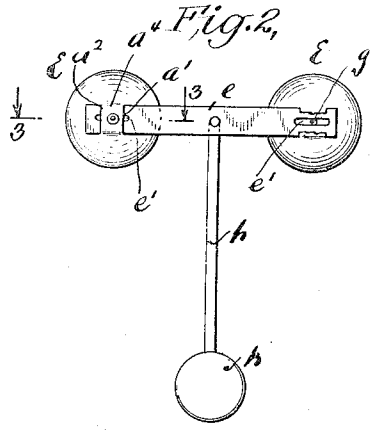


Fig. 3,

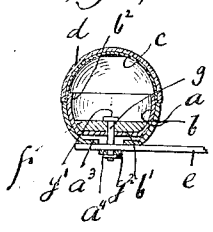


Fig. 4,

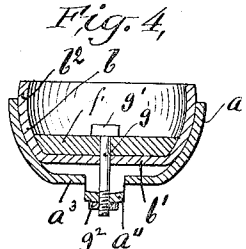


Fig. 5,

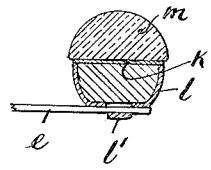
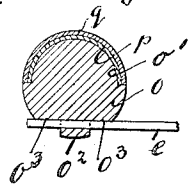


Fig. 6,



INVENTOR

Frederick Peterman

BY

Marshall Brennan

ATTORNEY

UNITED STATES PATENT OFFICE.

FREDERICK PETERMAN, OF NEW YORK, N. Y.

DOLL'S EYES.

1,332,518. Specification of Letters Patent. Patented Mar. 2, 1920.

Application filed June 6, 1919. Serial No. 302,085.

To all whom it may concern:

Be it known that I, FREDERICK PETERMAN, a citizen of Germany, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Dolls' Eyes, of which the following is a specification.

The present invention relates to improvements in artificial eyes for dolls and the like, which are adapted to roll when the doll is turned from a vertical to a horizontal position and vice versa, and has for its object to provide a novel eye structure and also a novel means for securing a pair of eyes together whereby the manufacture of such eyes will be considerably simplified and cheapened.

With these and other objects in view my invention consists in the construction, combination and arrangement of parts as will be hereinafter more fully described and set forth in the appended claims.

Figure 1 is a vertical section of a doll's head showing the artificial eyes movably supported therein; Fig. 2 is an elevation of the novel means for securing the eyes together; Fig. 3 is a cross section through a novel eye structure; Fig. 4 is an enlarged similar cross section of one half of said eye structure; Fig. 5 is a cross section of a modification of an eye structure and Fig. 6 is a cross section of a further modified eye structure.

Referring more specifically to the drawing my new eye structure E consists of a number of hollow substantially spherical shells suitably fastened together into the shape of a ball. According to Fig. 3 there are two pairs of shells, one pair forming the rear hemisphere and another pair the front hemisphere of the ball. The shells a, b of the rear hemisphere are preferably made of celluloid and so admeasured that the shell b fits more or less snugly in the shell a. The bottom b' of the shell b is flattened and the upper part b^2 of said shell somewhat protrudes outwardly from the shell a to form an annular flange.

The inner shell c of the front hemisphere may be also of celluloid or the like and has painted on or otherwise applied to its surface, the pupil and iris representing the eye. The outer shell d of the front hemisphere is made of transparent material preferably glass and fits snugly over said inner shell. It serves as a cover and also to impart to the eye a gloss to resemble a natural eye. The two shells when assembled and placed over the assembled rear pair of shells a, b are adapted to snugly fit over the protruding flange b^2 to which they are glued or otherwise fixed.

The outer shell a of the rear hemisphere is provided in its bottom with two parallel cuts a', a^2 arranged centrally of the bottom thereof. The material of the shell at the outer side of each cut is flattened as at a^3, so that the portion a^4 located between the two cuts a', a^2 forms a sort of a loop. The flattened portions a^3 and the loop a^4 serve as a bearing for a flat bar or arm e adapted to connect the two eyes together. According to Fig. 2 the flat bar e made preferably of metal is slotted lengthwise at its ends as at e'. Fitted into the inner shell b of the rear hemisphere is a circular disk f of wood or the like so as to rest on the flat bottom b' thereof. This disk f and the flat bottom b' are each centrally perforated to form passages for a bolt g which serves for fastening the eye E to the flat bar e. The bolt may be formed with a head g' on its inner end and with a threaded portion on its outer end to receive a nut g^2 (Figs. 3 and 4). The bolt is adapted to loosely pass through the slot e' in the respective end of the flat bar e, whereby a longitudinal adjustment of the eye on the bar e is made possible. This adjustment is necessary in order to enable a proper alinement of the eyes with the openings in the head of the doll. It also enables the use of a connected pair of eyes for heads varying in sizes within certain limits.

The bar in the usual manner has attached to it centrally a pendulum or a weighted rod h whereby the eyes when inserted into the holes or openings in which they may be held in known manner by forming sockets i of clay or the like, will be allowed to swing or roll when the doll is turned from vertical into horizontal position or vice versa. A stop j of cork or the like is provided in the head opposite the weight h' of the pendulum, limiting the swinging motion of the latter.

In Fig. 5 the structure of the eye E is somewhat modified. Here the pupil and iris are applied to a flat disk k which is fitted to the top of a hemispherical celluloid shell l. This flat disk k has glued to its outer surface a solid hemispherical glass m. Both the disk k and glass m are glued or

otherwise applied to the rear shell *l*. The latter may have snugly fitted in itself a core *n* of wood or the like.

For the attachment of the eye to the bar *e* a similar construction may be used as that described in connection with the structure shown in Figs. 3 and 4 or the end of a bar *e* may be passed through the loop *e'* formed at the bottom of the shell like loop a^4 and the eye glued in position thereon.

In Fig. 6 the rear hemisphere is shown as a wooden ball *o* which at its rear may be provided with the flattened portions *o'* and the loop o^2 similar to the flattened portions a^3 and loop a^4 in Figs. 3 and 4 for the attachment of the eye to the end of the bar *e*, or with any other suitable attachment means.

The front hemisphere o^3 of the ball *o* is reduced in diameter to an extent equal to the total thickness of two hemispherical shells *p*, *q* fitted in one another, of which the inner shell *p* bears the iris and pupil and may be of celluloid and the outer shell *q* is a glass shell. These two shells may be glued to the circumference of the reduced portion o^3 of the ball.

Various other modifications may be made in the construction of the eye and its attachment to the connecting member *e* without departing from the spirit of my invention. I therefore do not wish to restrict myself to the details described and shown.

What I claim and desire to secure by Letters Patent is:—

1. A pair of eyes for dolls or the like, each eye having at its rear a flattened portion and a loop and a rigid member for connecting said eyes to one another, said rigid member having its ends bearing against the said flattened portions and passed through the said loops.

2. A pair of eyes for dolls or the like, each eye having at its rear a flattened portion and a loop, a rigid member for connecting said eyes together, said rigid member having its ends bearing against the said flattened portion and passed through the said loops, and means for fastening said eyes to said rigid member.

3. A pair of eyes for dolls or the like, each eye having its rear formed with a loop and a central perforation, a rigid slotted member for connecting the two eyes together and means passed through said central perforation of each eye and through the slot of said member for adjustably fastening said eyes to said member.

4. A pair of eyes for dolls or the like, each eye having two interengaging centrally perforated hemispherical shells at its rear, the outer one of said shells being formed with a loop, a rigid slotted member passing with its ends through said loops and means passed through said central perforations and through the slot of said member for adjustably fastening said eyes to said member.

5. A pair of eyes for dolls or the like, each eye having two interengaging centrally perforated semispherical shells at its rear, the inner one of said shells having a flat bottom, a filler member resting on said bottom, said shells and filler being centrally perforated, a rigid member for connecting said eyes together, said member being formed with slots at its ends and means passed through said perforation and said slots for adjustably fastening the eyes to the ends of said member.

6. An eye for dolls or the like, consisting of two semispherical interengaged rear shells, of which the inner shell has a portion projecting outwardly from the outer shell, a semispherical shell bearing the pupil and iris and a semispherical glass shell fitted over said last named shell, both these last named shells being fitted over the said projecting portion of the inner rear shell and fixed in position thereon.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK PETERMAN.

Witnesses:

JOHN A. McCOLE,

A. R. BRICE.