

C. M. DALY & G. A. WEIDHAAS.
MOVING EYE FIGURE.
APPLICATION FILED DEC. 23, 1912.

1,061,965.

Patented May 13, 1913.

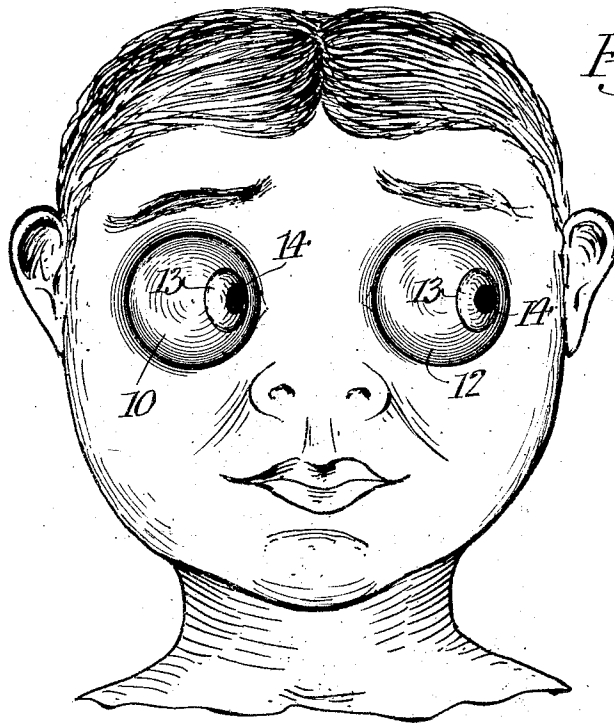


Fig. 1

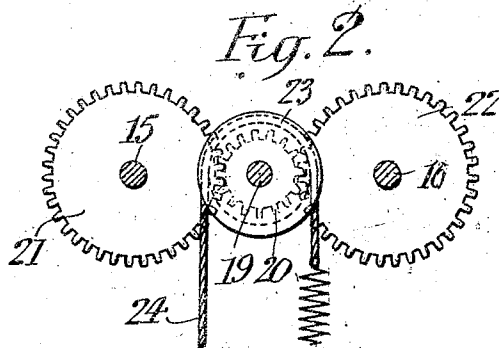


Fig. 2.

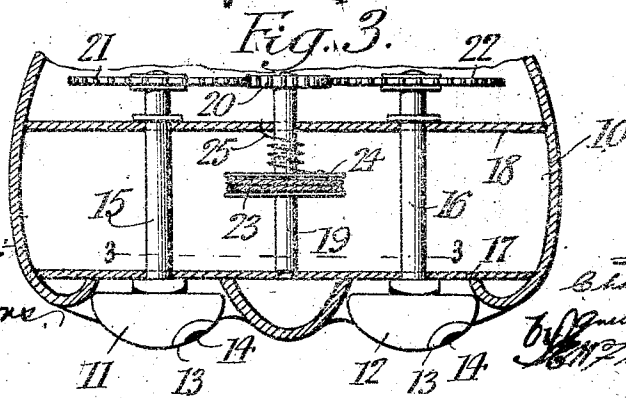


Fig. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

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MOVING-EYE FIGURE.

1,061,965

Specification of Letters Patent.

Patented May 13, 1913.

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To all whom it may concern:

Be it known that we, CHARLES M. DALY and GUSTAVE A. WEIDHAAS, citizens of the United States, and residents of New York city, borough of Manhattan, in the county of New York and State of New York, have invented certain new and useful Improvements in Moving-Eye Figures, of which the following is a specification.

This invention relates to improvements in moving-eye figures, and involves certain novel features in the eyes and also in the means employed for giving movement to the eyes.

In our improved construction we so mount the eyes that they are capable of rotation about separate parallel axes substantially at right angles to the general plane of the face of the figure and preferably in alinement with the center of each eye. The novel feature of the eyes themselves involves the forming of the pupils and iris at one side of the center of the eyeball, or in other words, eccentric in respect to the axis of rotation of the eyeball. Thus when the eyes are rotated about their axes the pupils will travel in paths concentric with said axis and produce an interesting and attractive effect.

Reference is to be had to the accompanying drawing forming a part of this specification in which similar reference characters indicate corresponding parts in the several views.

Figure 1 is a face view of a doll having the eyes constructed in accordance with our invention; Fig. 2 is a vertical transverse section on the line 3—3 of Fig. 3, and Fig. 3 is a horizontal section through a portion of the head showing one form of mechanism for operating the eyes.

We have illustrated our invention as applied to the eyes of a doll but it is evident that the invention is equally applicable in connection with any figure representing a person, bird, animal or grotesque image, and therefore, we wish it understood that of the figure illustrated the invention resides solely in the eyes and means for giving them the desired movement.

In the specific construction illustrated the head 10 is formed as a hollow casing and may be made of any material desired. The face has two eyes 11 and 12 which instead of being elliptical are approximately hemispherical or at least are symmetrical in respect to the axes at right angles to the gen-

eral plane of the face. Each eye has an iris 13 and pupil 14 formed thereon at one side of the center thereof so that the figure gives the appearance of looking upwardly, downwardly or at one side. The two eyes are mounted upon parallel shafts or pivots 15 and 16 which extend back into the head substantially at right angles to the plane of the face. The two shafts may be mounted in any suitable manner as for instance upon two transverse braces 17 and 18 which may also serve to prevent longitudinal movement of said shafts or pivots 15 and 16. Any suitable means may be employed for rotating these shafts or pivots and we do not desire to limit ourselves to any specific construction for this purpose. The mechanism employed may serve to rotate the eyes simultaneously in the same direction so as to keep them in phase or the mechanism may permit of an independent rotation of the eyes.

Preferably we employ the mechanism shown which includes an intermediate shaft 19 also supported in the two braces 17 and 18 and having a gear wheel 20 meshing with gears 21 and 22 of equal size on the two shafts, so that when the intermediate shaft 19 is rotated both of the other two shafts may be rotated in the same direction and at the same speed. Any suitable means may be employed for rotating the center shaft 19 but preferably there is employed a pulley 23 over which a cord 24 extends. The cord may have one end extend down through the body and properly secured so that it may be pulled by squeezing the sides of the body or moving any part thereof, or it may emerge from the back of the body so that it may be directly pulled upon. For returning the eyes to a normal position the opposite end of the cord may be connected to a spring as shown in Fig. 2, or there may be employed a spring 25, having engagement with one of the cross braces, for instance the brace 18, and with the pulley or drum 23 as shown in Fig. 3. This spring may serve to hold the pulley in a predetermined position and the cord may be secured to the pulley so that the pulley may rotate one or more times by pulling on the cord.

Having thus described our invention what we claim as new and desire to secure by Letters Patent is:—

1. A figure having a face, eyes visible through openings in the latter and having pupils eccentrically disposed in respect to

the visible portion of said eyes and means for moving said eyes to cause said pupils to travel in curved paths about the centers of the visible portions of said eyes.

5 2. A figure having eyes rotatable about separate axes extending through the eyes substantially at right angles to the general plane of the face of the figure.

10 3. A figure having eyes rotatable about separate axes substantially at right angles to the general plane of the face of the figure, and having their pupils eccentric with respect to the axes of rotation.

15 4. A figure having eyes substantially hemispherical in form and having the pupil of each eye disposed adjacent one edge thereof and means for rotating said eyes about substantially parallel axes.

20 5. A figure having eyes bearing pupils adjacent the edges thereof and means for simultaneously rotating said eyes in the same direction about substantially parallel axes at an angle to the general plane of the face.

25 6. A figure having eyes substantially circular in vertical section and having the

pupils eccentrically disposed thereon and means for rotating said eyes about separate axes at an angle to the general plane of the face of the figure and extending rear- 30 wardly from said eyes.

7. A figure having eyes bearing eccentrically disposed pupils, substantially parallel shafts supporting said eyes and extending rearwardly therefrom and means for rotat- 35 ing said shafts simultaneously and in the same direction.

8. A figure having eyes bearing eccentrically disposed pupils, substantially parallel shafts supporting said eyes, an intermediate 40 shaft, gear wheels connecting said shafts to insure their simultaneous rotation and means connected to said intermediate shaft for rotating the latter.

Signed at New York city, in the county 45 of New York and State of New York this 20th day of December A. D. 1912.

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Witnesses:

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