Feb. 7, 1956 A. SUBIAS RUIZ 2,733,546

FIGURE TOY WITH MOVABLE EYES

Filed April 9, 1951

Fig. 1

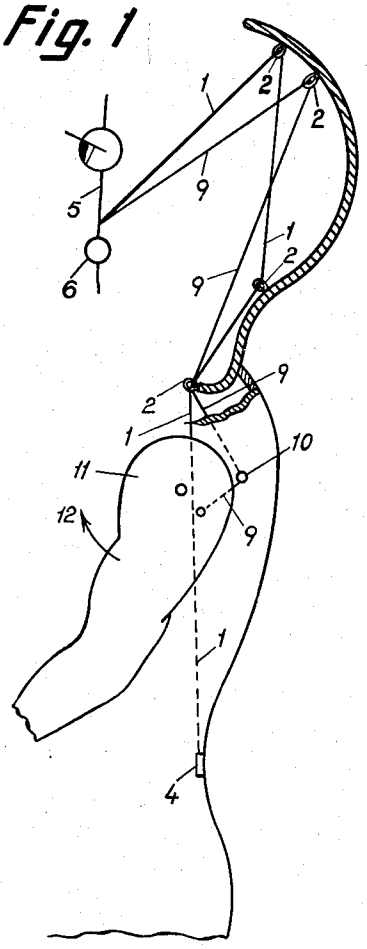


Fig. 2

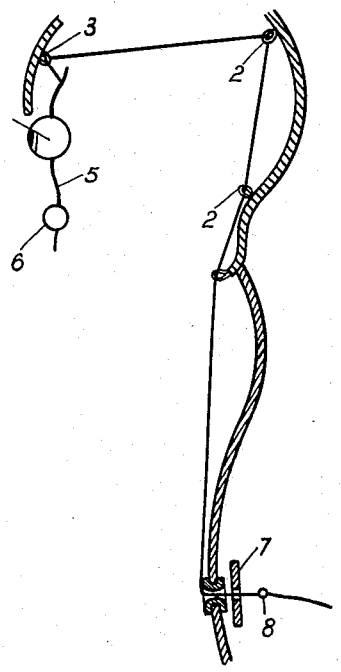


Fig. 3

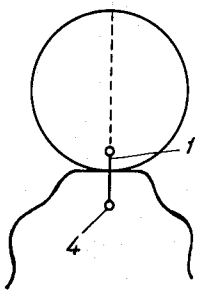
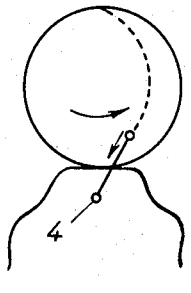


Fig. 4



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FIGURE TOY WITH MOVABLE EYES

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4 Claims. (Cl. 46—135)

The present invention relates to an improved control for the movement of the eyes of dolls and similar toys.

The invention is characterized in that the cords for the closing and opening of the eyes of the dolls are operated by the movement of certain parts or members of the doll, such as the head, arms, or other limbs. For this purpose the ends of the cords for actuating the eyes pass over bridges or guides which direct the cords towards the part or parts that may be convenient, for instance, either to an immovable point of the back, or to a hole or bore in the same, or to an arm. In the case where the cord is directed to a hole, the end is able to project out of the hole but has a stop thereon which may prevent the end of the cord from being pulled inside the body.

With a doll according to this invention, although the movement of the doll, as is obvious, depends on the will of the person who conducts the same, the movement of the eyes of said doll is independent of this will, since the oscillation or turn of the head towards one or the other side causes the tension in the control cords for the eyes to vary, which in turn causes closing of the eyes.

The invention will be clear from the following specification and claims together with the accompanying drawing, in which:

Fig. 1 shows the passage of cords for the control of the eyes of the doll over guides at the rear of the head thereof to an immovable point at the inner part of the back and to a point on the doll's arm;

Fig. 2 shows a similar arrangement in which one end of the cord projects through an orifice in the back;

Fig. 3 illustrates schematically a rear view of the doll's head and shoulders, showing the cord in the center position of the head; and

Fig. 4 shows the same cord after a turn of the head.

The invention comprises a control for actuating the eyes of dolls and similar toys by means of at least one cord in which a cord **1** passes from the eyes, which are movably mounted within the head and which have a rod **5** with a counterweight **6** thereon depending from the eyes, over guides **2** in the back of the head and is thereby directed with a minimum of friction to a fixed point **4** situated for instance in the inside of the doll's back.

The embodiment illustrated in Fig. 2 shows the guides **2** in the same position but the point at which the cord **1** is attached to the rod **5** is different. In this instance it is necessary to provide a guide **3**. It is thus seen that the rod **5** of the counterweight **6** for the eyes may have the cord **1** attached thereto either at the lower portion or at the upper portion thereof.

The cord **1**, instead of having the fixed end thereof at the point **4**, as in Fig. 1, may be passed through the back of the toy through an aperture provided for this purpose as shown in Fig. 2, and may have an outer stop **7**, easily slidable on the end of the cord, said cord having a knot **8** or similar means which prevents the same from being drawn back into the body.

The dolls, because of the many variations of their structure, may include an arrangement which will permit

the opening and closing movement of the eyes by means of the movements of the limbs of the doll other than a turning of the head. Such a case is shown in Fig. 1 in which a cord **9** after passing over guides **2** passes through guide **10** and is connected to the arm **11**, said arm constituting means for the control of the opening and closing of the eyes when the arm is moved in the direction indicated by the arrow **12**.

The working is as follows:

In a doll provided with a control for actuating the eyes according to Fig. 1 with the cord thereof fixed to an inner point of the back, in normal position with the head upright (Fig. 3), the cord is directed within a vertical plane from the rod **5** of the counterweight **6** of the eyes to the fixed point **4**, and the action of the counterweight on the eyes will cause them to stay open when the doll is standing, that is to say that the presence of the cord referred to will not affect them.

When the head of the doll begins its turn towards one side (Fig. 4), the guides in the head are moved therewith towards the side. The guides on the body remain stationary, and thus the distance between the guides on the head and on the body increases thereby increasing the length of cord between them. The remainder of the cord is thus shortened causing a pull on rod **5** and counterweight **6**, deviating the said rod from its initial position thus closing the eyes; the closing will be carried out as slowly as the movement is performed, and the closing and opening of the eyes will appear very natural.

If the cord extends out of the back as in Fig. 2, the eyes will close in a similar manner to that which has just been explained hereinbefore, and in addition it is possible to pull the end of the said cord by hand in order to actuate the eyes at will and independently of the doll's movements.

The coupling of the cords to points of the counterweight rod of the eyes on a different side of their axis of oscillation will cause analogous movements, different only in that they are inverted when the doll is reclining.

It is thought that the invention and its advantages will be understood from the foregoing description and it is apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing its material advantages, the forms hereinbefore described and illustrated in the drawings being merely preferred embodiments thereof.

I claim:

1. In a toy, the combination of a body, a head movably mounted on said body, eyes movably mounted within said head, at least one operating cord having one end thereof operatively connected to said eyes, the other end of said cord connected to a part of the toy other than the head to prevent the said other end of the cord from moving during movement of the head relative to the body, guide means conducting said cord between the thus connected ends of the cord, said guide means including one guide means fixed to the head and one guide means secured to the body, both of said guide means being in close proximity to the zone of union of said head and body, whereby the distance between said guide means changes to lengthen the section of cord between said guide means when said head is moved relative to said body.

2. The combination as claimed in claim 1 in which the said other end of said cord is fixed to the inside of the back of said body.

3. The combination as claimed in claim 1 in which the body has an aperture in the back thereof and in which the said other end of said cord projects through said aperture, and a stop on said cord on the end thereof outside the body preventing said end from being drawn into said body.

4. The combination as claimed in claim 1 in which said body has a plurality of movable limbs and in which there are two operating cords, the first cord having said other end connected to the inside of the back of said body and the second cord having said other end connected to one of said limbs.

References Cited in the file of this patent

UNITED STATES PATENTS

1,325,986	Garami et al.	Dec. 23, 1919
1,582,778	Parsons	Apr. 27, 1926
1,662,691	White	Mar. 13, 1928
1,992,477	Domowitch et al.	Feb. 26, 1935
2,548,237	Pearson	Apr. 10, 1951

FOREIGN PATENTS

705,808	Germany	May 10, 1941