United States Patent [19]

Miki

[54] PUPPET HEAD WITH MOVABLE EYES AND LIP AND REMOTE HAND CONTROLS THEREFOR

- [75] Inventor: Tokuhito Miki, Osaka, Japan
- [73] Assignee: Perfect Liberty, Japan
- July 12, 1974 [22] Filed:
- [21] Appl. No.: 488,252
- [30] **Foreign Application Priority Data** Jan. 10, 1972 Japan..... 47-5484
- [52] U.S. Cl..... 46/126; 46/135 R; 46/154; 40/106-132
- [51] Int. Cl..... A63h 7/00
- [58] Field of Search 46/135, 126, 154, 128, 46/148, 210, 118; 40/106-132

References Cited [56] UNITED STATES PATENTS

3/1922 Mack...... 40/106.32 1,410,408

3,893,257 [11]

[45] July 8, 1975

2.114.851	4/1938	McCown	46/126
2.466.214	4/1949	Deaton	46/126 X
3.200.537	8/1965	Glass et al	
3.212.213	10/1965	Perego	46/154 X
3,315,406	4/1967	Ryan	46/118
FOD		FENTS OR APPL	ICATIONS

REIGN PATENTS OR APPLICATIONS

818,673	8/1959	United Kingdom	46/126
329,130	9/1935	Italy	46/210

Primary Examiner-F. Barry Shay

Attorney, Agent, or Firm-Hill, Gross, Simpson, Van Santen, Steadman, Chiara & Simpson

ABSTRACT [57]

A puppet head or the like provided with simulated eyeballs and a simulated lip, both the eyeballs and the lip being pivotally mounted within the head of the puppet, and a pair of sheathed wires connected to the pivotally mounted eyeballs and lip and extending beyond the puppet head for remote operation thereof for movement of the eyes and lip.

1 Claim, 6 Drawing Figures





FIG.3A 5 14 16 16



FIG.4 A





PUPPET HEAD WITH MOVABLE EYES AND LIP AND REMOTE HAND CONTROLS THEREFOR

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention is in the field of puppets, marionetts, or the like, wherein movement of the eyeballs and the lips is controlled remotely by means of wires.

2. Description of the Prior Art

Various types of means have been suggested for moving or opening and closing the eyeballs or eyelids and the lips of dolls or other playthings. Such means may include springs, weights, magnets or electrical devices. While such means have been used for playthings, they 15 are not readily adaptable to be used in puppet heads for theatricals such as marionette performances because in such theatrical performances it is necessary to move the eyeballs or eyelids and the lips of a puppet at different rates of speed so as to produce a realistic effect.

SUMMARY OF THE INVENTION

This invention provides a device for moving the eyeballs and lip in a puppet head used for theatricals to enable anyone without specific talent or training to oper- 25 ate the eyeballs and lips in a puppet head with ease. The device of the present invention is simple in construction and is virtually trouble free.

The puppet head of the present invention includes a pair of simulated eyeballs and a simulated lip. The eye-30balls are mounted on pivotal means within the head, and the lip is likewise mounted pivotally within the head itself. A pair of sheathed wires is connected to the pivotal means which support the eyeballs and the lip, respectively, the ends of the sheathed wires extending 35beyond the head for remotely controlled pivotal movement by means of the operator's fingers. The puppet head is conveniently combined with a glove to which the ends of the sheathed wires are secured, with loops fingers of the glove to assist in manipulation.

BRIEF DESCRIPTION OF THE DRAWINGS

Other objects, features and advantages of the invention will be readily apparent from the following de- 45 scription of certain preferred embodiments thereof, taken in conjunction with the accompanying drawings, although variations and modifications may be effected without departing from the spirit and scope of the novel 50 concepts of the disclosure, and in which:

FIG. 1 is a front elevational view, partially in crosssection, of the device of the present invention;

FIG. 2 is a transverse sectional view of the device; FIG. 3A is a perspective view of the mechanism in 55the eyeball portion;

FIG. 3B is a perspective view of the mechanism in the lip portion:

FIG. 4A illustrates the manner in which the wires can be combined with a glove; and

FIG. 4B illustrates the manner in which the loops on 60the wires are engaged with the glove on the user's hand.

DESCRIPTION OF THE PREFERRED **EMBODIMENTS**

In FIG. 1, reference numeral 1 has been applied to a hollow head body containing suitable apertures (not shown) behind which are located a pair of eyeballs 2.

The eyeballs 2 are mounted on a support shaft 3 which is arranged for pivotal movement between a pair of support brackets 16 secured to the interior of the head. The shaft 3 has an integral semicircular protuberance

5 4 disposed midway between the eyeballs 2. The protuberance 4 is provided with a central aperture through which passes a wire 5 which is the inner wire of a sheathed flexible wire generally indicated at reference numeral 14. The inner wire 5 is provided with a detent 10 or stopper 6 at one end thereof and another detent or stopper 6' is located on the opposite side of the protuberance 4, a short distance from the stopper 6. The distance between the two detents or stoppers 6 and 6' is determined by the desired degree of opening of the eyeballs 2.

At the mouth cavity, there is provided a lip support shaft 9 which is secured to the interior of the head by means of eyelets 17. A forked lip support including spaced arms 7 and bearing portions 10 are pivotally re-20 ceived on a shaft 9. The ends of the arms 7 are fixedly secured to a lip portion 8. The lip support structure includes a semicircular protuberance 11 through which an inner wire 5' is passed through a central aperture provided in the protuberance 11. A detent or stopper 12 is provided at one end of the inner wire 5', and a second detent or stopper 12' is provided beyond the aperture and the protuberance 11, a short distance from the detent or stopper 12. The distance between the detents 12 and 12' is determined by the desired degree of opening of the lip 8.

Both the inner wires 5 and 5' extend through their sheaths 14 and 14' within the periphery of the head portion as best seen in FIG. 2 of the drawings. At their other ends, the inner wires 5 and 5' are connected to loops 13 and 13' as best seen in FIGS. 4A and 4B.

In operation, as illustrated in FIG. 4B, the operator passes his forefinger and middle finger into the loops 13 and 13' and then he bends or stretches his forefinger being provided to the ends of the wires for engaging the 40 and/or middle finger to permit the inner wire 5 or 5', or both of them, to slide within the sheath 14 or 14'. causing the detents 6 and 6' for the eyeballs 2 to engage the semicircular protuberance 4 so as to turn the eyeball support shaft 3, thereby turning the eyeballs 2 to produce an eye-opening or eye-closing effect. Sliding movement of the inner wire 5' pushes the protuberance 11 at the fork of the lip support arms 7, causing the lip 8 to turn with the arm 7 to thereby open or close the lins.

> For convenience in operation, the portions of the sheaths 14 and 14' near the loops 13 and 13' may be sewn to the palm portion of a glove 18 as by means of a patch 19. This facilitates manipulation more readily than when fixing the loops 13 and 13' directly on the operator's fingers.

A lobe 15 simulating a tongue may be provided on the lip support shaft 9 between the tubular portions 10 of the lip support arm 7 and a colored cloth may be attached to the lobe 15 to enhance the visual effect.

The device of the present invention is capable of producing realistic expressions of human beings or animals by positively moving the eyeballs 2 and the lip 8 of the hollow puppet head 1 with simple and relatively small finger actions. Audiences are amused because they 65 cannot readily perceive how the eyeballs 2 and the lip 8 of the puppet head 1 manipulated by the performer are moved so realistically.

It will be evident that various modifications can be made to the described embodiments without departing from the scope of the present invention.

I claim as my invention:

1. A puppet head or the like comprising a pair of simulated eyeballs, a simulated lip, first pivotal means within said head pivotally mounting said eyeballs therein, second pivotal means within said head pivotally mounting said lip therein, and flexible hollow wires 4

having slidable wires therein connected to said first and second pivotal means, a glove of a size for receiving the hand of a user, means for securing said hollow wires to the palm of said glove and loops secured to the ends of said slidable wires for engaging the fingers of said glove, whereby said user may manipulate said slidable wires.

* * * * *

10

15

20

25

30

35

40

45

50

55

60

65