Dec. 13, 1960 H. BRUDNEY 2,963,818

MINIATURE DOLL EYE

Filed Feb. 25, 1958

FIG. 1.

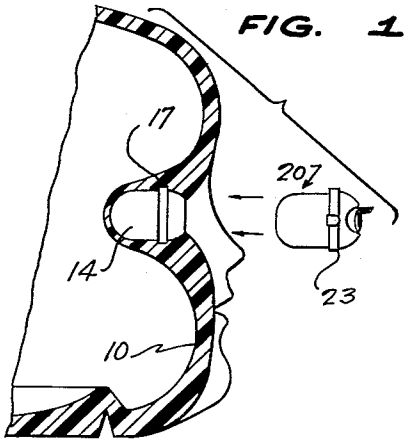


FIG. 2.

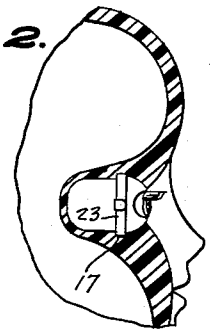


FIG. 3.

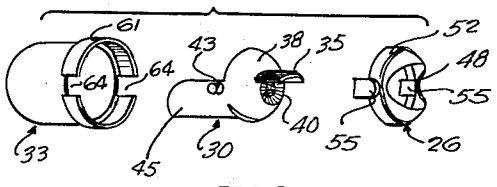


FIG. 4.

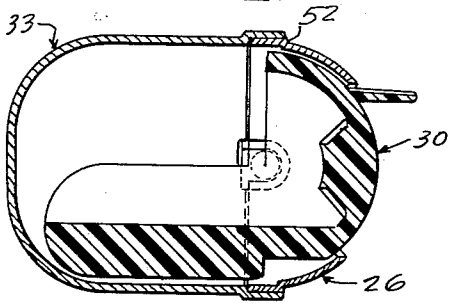


FIG. 5.

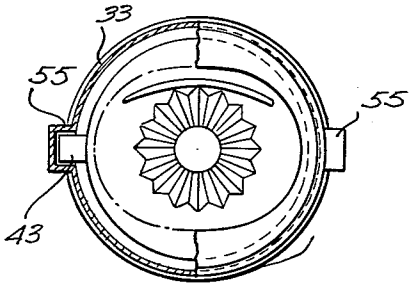


FIG. 7.

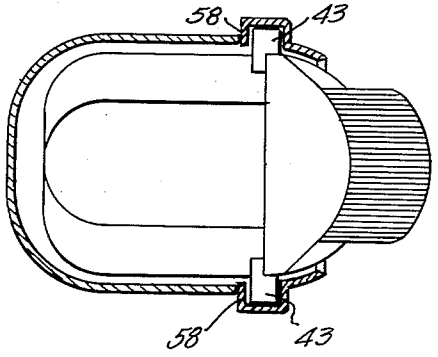
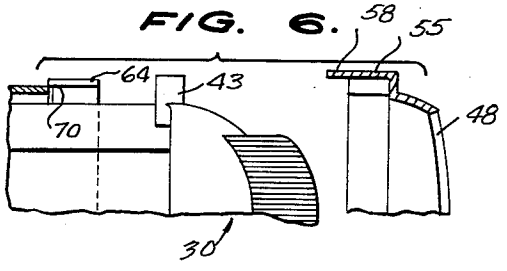


FIG. 6.



INVENTOR.
HARRY BRUDNEY,
BY
Albert M. Zalkind.
ATTORNEY.

United States Patent Office 2,963,818 Patented Dec. 13, 1960

2,963,818

MINIATURE DOLL EYE

Harry Brudney, New York, N.Y.
(% Dollac Corporation, 35 York St., Brooklyn, N.Y.)

Filed Feb. 25, 1958, Ser. No. 717,351

2 Claims. (Cl. 46—169)

This invention relates to dolls' eyes and more particularly to eyes of the sleeping type having a weight attached to the eyeball for effecting relative motion as the doll head is tilted.

One of the problems in connection with the manufacture of sleeping type doll eyes is concerned with the need for making very small eyes to fit miniature dolls. Such eyes must be manufactured with extreme simplicity because of the tininess of the parts and the difficulty of handling components in assembling the eye. In order to produce eyes at an economical cost in small sizes, for which prices are comparatively low as compared with the larger eyes, it is necessary to have the parts made for quick and easy assembly in order to cut down labor costs. It is also desirable to be able to make the eyes in sub-assemblies in order to break up the work sequence between groups of people. There is a further advantage in having sub-assemblies which may be stored in readiness for final assembly.

In accordance with the above requirements, my present invention has for its primary objective the provision of a quickly and conveniently assembled miniature doll eye having components which may be manufactured of stamped metal at small tooling costs.

It is another object to provide an eye which may be quickly assembled from certain components wherein the percentage of rejects upon factory inspection which are salvagable as to one or more components is increased.

In keeping with the above objects, my invention comprises the provision of an eyeball of more or less conventional type; that is, an integrally molden plastic eyeball element and weight element rotatively carried in a housing which comprises a front shell and a rear casing. The eyeball element is provided with integrally molded trunnions receivable in grooves pressed into the material of the front shell, said grooves being the interior of small protuberances stamped from the metallic material of the shell, wherein the protuberances are so fashioned as to have bendable portions for retaining the trunnions and thus the eyeball and the front shell together as a sub-combination. Thereafter, the sub-combination is merely placed into position within a rear casing or housing member so as to form an integral eye unit, such casing member being provided with slots for accommodating the protuberances of the front shell which constitute the trunnion-receiving grooves.

A detailed description of the invention now follows in conjunction with the appended drawing in which:

Fig. 1 is an exploded view partially in section showing an integral eye unit in a position to be forced into a resilient doll head.

Fig. 2 is an elevation partially in section showing the eye secured in place in the socket of the doll head.

Fig. 3 is an exploded perspective of the three components which constitute the doll eye unit.

Fig. 4 is an elevation in cross section of the doll eye unit.

Fig. 5 is a front view of the doll eye unit partially in section.

Fig. 6 is an exploded plan view of fragments of the components, partially in section, which make up the eye unit; and

Fig. 7 is a plan view of the doll eye unit partially in section.

Referring now to Figs. 1 and 2, a flexible type of doll head **10** is illustrated having a socket **14** in which is formed the peripheral groove **17**. A doll eye unit **20** is disclosed in position ready to be thrust into the socket **14**. It will be noted that the external configuration of the unit is such as to provide a ridge **23** to co-act with the groove **17** so as to securely lock the doll eye in place within the socket. It will further be noted that the groove **17** is provided in the thicker portion of the material which forms the socket so that a very substantial securing means for the eye unit is effected.

Referring now to Fig. 3 it will be seen that the doll eye unit comprises the front shell **26**, the eyeball element **30**, and the rear casing or housing **33**. The eyeball unit is formed of an integrally molded plastic element comprising the lash **35**, the spherical portion **38**, the pupil and iris arrangement **40**, the mass or weight **45**, and the trunnions **43**, all as heretofore known and practiced in the art. The front shell **26** is generally of conventional construction having the opening **48** and the enlarged rim **52**. The shell element is preferably stamped of sheet metal and provided with a pair of trunnion receiving hollow protuberances **55**, to serve as bearing supports for trunnions **43**, which are diametrically opposed and wherein the metal which forms the circumferential portion of each protuberance is extended to a free end **58** as clearly seen in Fig. 6. The grooves formed by the protuberances **55** accommodate the trunnions **43** so that the eyeball is freely rotative on its trunnions within the shell. The free end portions or tabs **58**, as seen in Fig. 7, are bent over thus securely retaining the trunnions in their respective grooves so that the eyeball and front shell form an integral sub-combination wherein the eyeball is readily rotative with respect to the shell. This sub-assembly is very economical to produce and may be stored independently of the casings **33** until such time as it is desired to assemble complete eyes. At this time it is merely necessary to thrust the sub-assembly into the casing which is provided with an enlarged peripheral portion **61** having diametric slots **64** for receiving the protuberances **55** as will readily be appreciated by comparison of Figs. 3, 6, and 7. The enlarged peripheral rim **52** has a dimension effective to provide a force fit interiorly of the rim **61** to securely hold the sub-assembly and casing together. To all intents and purposes the rim **61** consists of two partial rims separated by the slots **64** whence a resilient gripping action is effected for holding the rim **52**. The inner edges **70** of the slots **64** thus serve as a limit abutment for the protuberances **55** and properly space the eye shell with respect to the casing while the longitudinal edges of slots **64** grip the respective sides of the protuberances.

From the foregoing description it will be apparent that I have provided an exceedingly cheap and simple construction for a miniature eye and one which may be assembled with a minimum of hand labor while at the same time having the advantages pointed out hereinabove.

Having thus described my invention I am aware that various changes may be made without departing from the spirit thereof and accordingly I do not seek to be limited to the precise illustration herein given except as set forth in the appended claims.

I claim:

1. A miniature doll eye unit comprising a stamped sheet metal front shell having a front and rear opening, an eyeball element therein, said front shell being provided

with a pair of diametrically opposed protuberances formed integrally of the shell material and having tabs, said eyeball unit comprising a pair of diametrically opposed trunnions rotatively carried within said protuberances for bearing support therein, said tabs being bent in to retain said trunnions in said protuberances.

2. In a miniature doll eye unit as set forth in claim 1, said doll eye unit having a casing, said casing having enlarged rim portions to receive said front shell, said rim portions being separated to form a pair of diametrically opposed open slots to grippingly receive said protuberances, wherein edge portions of said casing exposed

by said slots form limit stops for positioning said protuberances.

References Cited in the file of this patent

UNITED STATES PATENTS

2,133,635	Schaeffer	Oct. 18, 1938
2,284,998	Varney	June 2, 1942
2,828,581	Prupis	Apr. 1, 1958
2,856,730	Bashover	Oct. 21, 1958

FOREIGN PATENTS

760,248	Great Britain	Oct. 31, 1956