

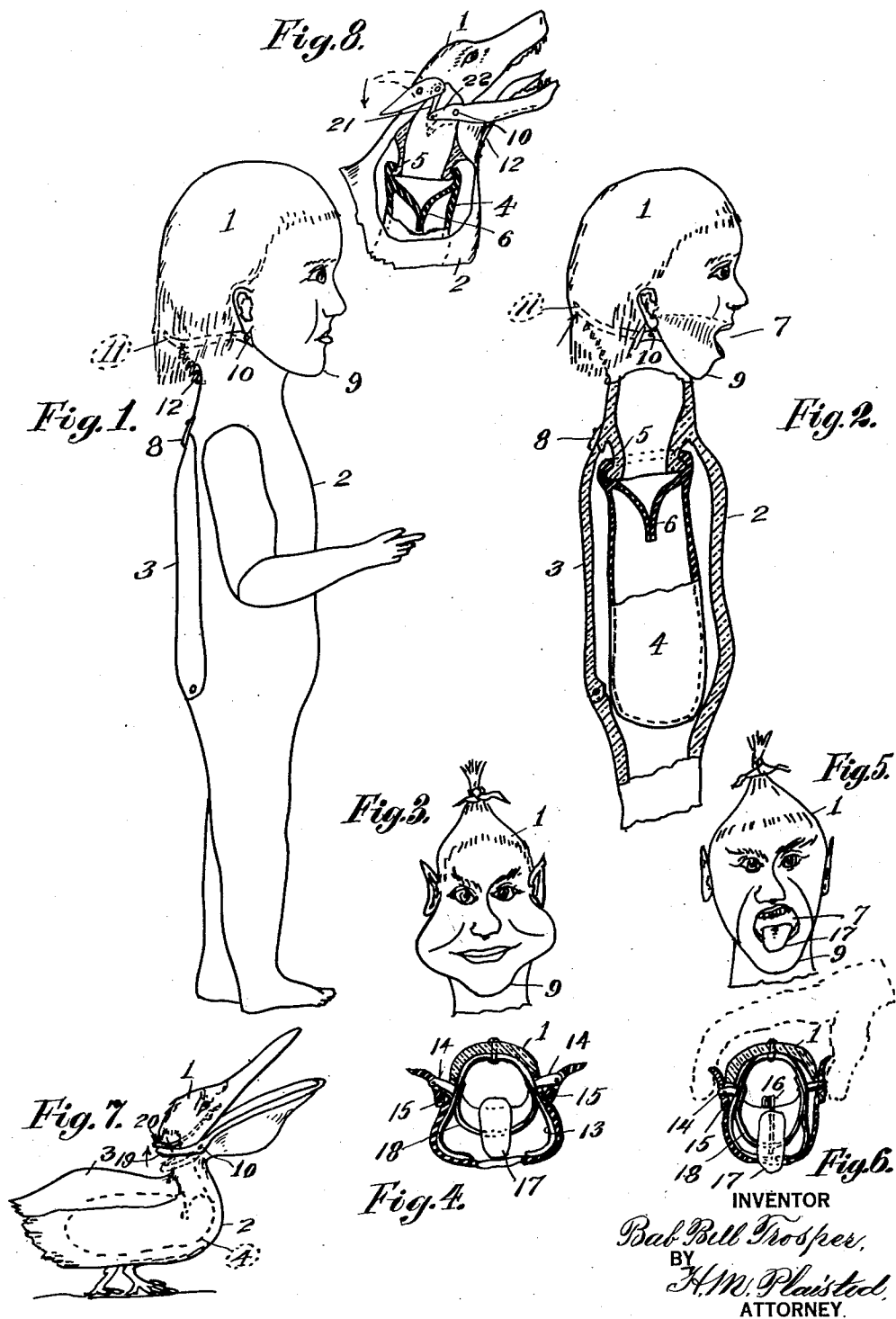
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TOY FIGURE

Filed April 12, 1928



UNITED STATES PATENT OFFICE

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TOY FIGURE

Application filed April 12, 1928. Serial No. 269,543.

This invention relates to certain new and useful improvements in dolls and like figures of animals, birds, etc., the peculiarities of which will hereinafter be fully described and claimed.

The main object of my invention is to adapt such a toy figure to open its mouth by manipulation to receive and retain food in an inner chamber adapted for emptying, whereby a child may simulate feeding her doll or other figure; secondly, to effect such action of the figure by manipulation of the ears as operating levers; thirdly, to simulate sticking out the tongue at the same time the mouth is opened; and fourthly, to provide flexible cheeks in said figure.

Many dolls are adapted to open the mouth, but the construction is often such that the action is a travesty on nature and repugnant to a child. In figures representing animals with deeply slit jaws and birds with long bills, the appearance is more similar to natural action and I provide an interior chamber with a valve adapted to admit food as fed to the figure by the child and retain such contents till it is necessary to empty the chamber, thus furnishing amusing occupation for the little one. Also, simultaneous action of projecting the tongue when the mouth is opened adds to the natural appearance and is so recognized by the child; and manipulation of the ears to effect said action promotes the amusement of the child operator.

In the accompanying drawing in which like reference numerals indicate corresponding parts,

Fig. 1 represents a side view of a doll with my improvements applied thereto;

Fig. 2, a partial vertical section of Fig. 1;

Fig. 3, the head of such a doll with bulging cheeks;

Fig. 4, a horizontal section through the mouth of Fig. 3 and plan view of operating mechanism;

Fig. 5, a head similar to Fig. 3 showing the mouth open and tongue projecting;

Fig. 6, a sectional plan view similar to Fig. 4 showing the mechanism in position for producing the appearance of Fig. 5;

Fig. 7, a figure representing a bird such as a cormorant exemplifying my invention; and Fig. 8, a portion of a figure representing a dog adapted to illustrate my invention.

Referring to the drawing, the numeral 1 designates the head of a doll having a hollow body 2 and a hinged lid 3 for an opening in the back or elsewhere to allow the removal of a sac 4 of rubber or other suitable material adapted to be detachably secured to a neck extension 5, and having a self-closing flap or other check valve 6 guarding the top of the sac to avoid accidental discharge of food delivered thereto through the open mouth 7 by the child operator. With suitable check valve for this sac or other interior chamber, water, milk and other liquids are retained in said sac till the sac is removed through said opening in the back for emptying. The lid is held closed by a button 8 or otherwise.

The doll may be of porcelain clay, papier mâché, or other material, but the sides of the face forming the cheeks are made of flexible and/or elastic sheet material to allow of depressing the jaw 9 on its pivot 10 by a loop lever 11 fixed to the jaw and extending back of the neck where it is practically concealed by the usual hair. By pressing upward on the lever as indicated by the arrow Fig. 2, the mouth is opened as indicated by this figure for admission of food to the interior sac. A spring 12 may be used to assist in keeping the jaw raised to normal closed position. Figs. 3-6 also have a pivoted jaw, and preferably have an interior sac with check valve as shown in Fig. 2.

In Fig. 4 the flexible cheeks of the figure are bulged outward by the arms of the suitably shaped spring 13 secured at its middle to the back of the mouth and its free arms bent to the desired contour of the cheeks as bulged outward, and having a lateral spring tendency outward, which thus act to distend the cheeks and stretch the lips horizontally with the chin raised accordingly as indicated in Figs. 3 and 4.

Each arm of said spring has an outward projection 14 rigidly or otherwise connected to the spring, and passing through adjacent openings back of the ears and are preferably

pivoted by their ends to the ears themselves. The ears are pivoted at 15 or otherwise movable, so that the outward tendency of the spring arms tends to make the ears stand outward from the head as shown in Fig. 4. Pressure on the ears by finger and thumb as indicated in Fig. 6, will cause them to lie close to the head and act as levers on said spring projections 14 to force them inward, compress the spring arms 13 and allow the jaw to drop and be automatically depressed by a weaker spring 16 mounted on the rigid neck and so collapse the cheeks, distended in Figs. 3 and 4, and open the mouth as shown in Fig. 5 similar to Fig. 2.

The coil spring 16 has one arm bearing down on the jaw under the tongue and another arm that is fixed in the throat. The lateral spring tendency of the spring arms 13 distends the flexible cheeks (Fig. 3) and raises the jaw by overcoming gravity and the downward pressure of the weaker spring 16. The latter spring simply adds to the gravitating tendency of the jaw when the spring arms 13 are compressed and release the outward pressure on the cheeks, as shown in Fig. 6.

In order to project the tongue 17 simultaneously with the opening of the mouth by depressing the jaw, the tongue is mounted on an inner spring 18 secured to the inner side of the spring 13 and forming with the middle back portion of said spring 13 or otherwise, a circular loop in normal position that becomes elliptical when laterally compressed and carries the tongue outward as shown in Fig. 6. Since the back end of the spring is fixed at the back of the mouth, compression to an elongated or elliptical form (Fig. 6) causes the front end carrying the tongue to move forward and protrude the tongue simultaneously with the depression of the jaw by the weaker spring 16, and consequent opening of the mouth. When the ear levers are released both parts of this compound spring tend to assume their circular position, and the tongue is retracted and the cheeks are distended again. (Fig. 4.) Protection of the tongue alternates with bulging of the cheeks.

The lower bill of the cormorant Fig. 7 is depressed by manipulating a backward loop 19 (similar to 11 in Figs. 1 and 2) against the normal tendency of a spring 20 to raise the bill.

The pivotal ears of the dog Fig. 8, have links 21 connecting rearward extensions 22 of the jaw with the ear levers. By passing the hand of the operator over the ears and depressing them—as if smoothing the head,—the ears will lie down and the mouth will open.

In all the toy figures, the jaw is pivoted at 10. Closing the mouth is effected by the elastic cheeks in Figs. 1 to 6, assisted by coil spring 12 in Figs. 1-2 that pulls down on the lever 11 fixed to the jaw; or by the flat spring

20 in Fig. 7 that pushes down on the corresponding lever 19. In Fig. 8, the flat spring 12 pushes up on the dog's jaw to close it after the ear levers have opened it as shown.

The pivoted lower jaw is depressed and the mouth opened by manipulating the loop lever upward in Fig. 2; by manipulating the pivoted lever ears backward as indicated in Fig. 6; and by manipulating the pivoted lever ears downward in Fig. 8: thus providing manually actuated levers in each case for opening the mouth of the toy figure when the child operator desires.

An interiorly disposed sac as in Fig. 2 is provided for cormorant and dog, (Figs. 7 and 8) respectively.

Other manually operated means than those illustrated may be used without departing from the spirit of my invention.

I claim:

1. A toy figure of the character described comprising a jaw manually operable to form an open mouth, and a body having walls forming an interior chamber adapted to receive its contents through the mouth, and provided with a check valve having self-closing flaps opening inward and preventing discharge of the contents through the mouth.
2. A toy figure of the character described comprising a jaw manually operable to form an open mouth, a hollow body, and an interiorly disposed sac detachably connected to the mouth and removable with its contents through an opening in said body.
3. A toy figure of the character described comprising a jaw manually operable to form an open mouth, a hollow body, and an interiorly disposed sac connected to the mouth and provided with a check valve, substantially as described.
4. A toy figure of the character described comprising a pivoted jaw with flexible cheeks, spring means located inside said jaw adapted to bulge said cheeks, and movable ears operatively connected to said spring means, substantially as described.
5. A toy figure of the character described comprising a pivoted jaw, means to depress the jaw to open the mouth, a circular spring located within said jaw, a tongue mounted on said spring, and means to compress said spring laterally simultaneously with the opening of the mouth.
6. A toy figure of the character described comprising a pivoted jaw, means to depress the jaw to open the mouth, a circular spring disposed within said jaw and secured in the rear, a tongue mounted on the front of said spring, and pivoted ears operatively connected to the sides of said spring adapted to compress it laterally to elliptical shape and project the tongue, substantially as described.
7. A toy figure of the character described comprising a pivoted jaw, means to depress said jaw, a circular spring disposed within

said jaw and having outward projections through openings back of the ears, and a tongue mounted on said spring adapted to be projected when the jaw is depressed, substantially as described.

8. A toy figure of the character described comprising a pivoted jaw with flexible cheeks, a compound spring fastened at the rear within said jaw and having arms with free ends and lateral tendency and a circular portion between said arms, a tongue mounted on said circular portion, and pivoted ears operatively connected to said spring, substantially as and for the purpose described.

In testimony whereof I have affixed my signature.

BAB BELL TROSPER.