

March 12, 1940.

E. E. KRUEGER

2,193,069

TOY BALLOON

Filed Feb. 8, 1939

Fig. 1

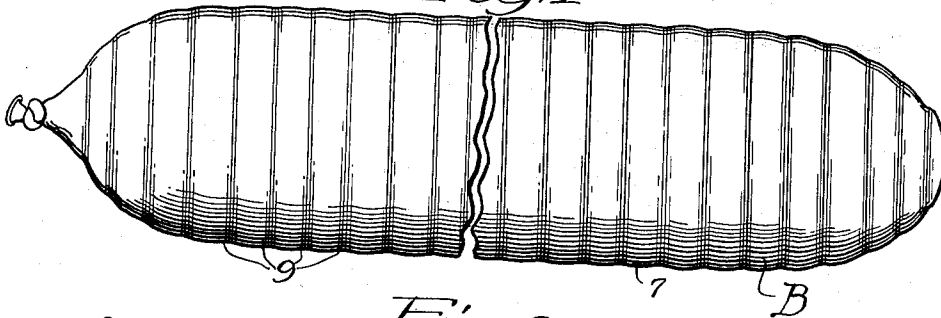


Fig. 2

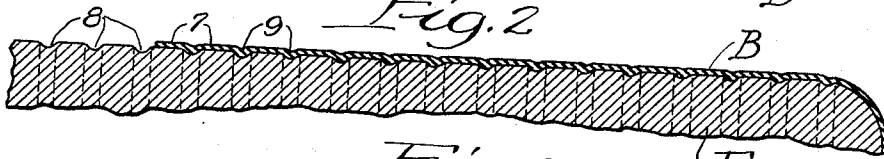


Fig. 3



Fig. 4

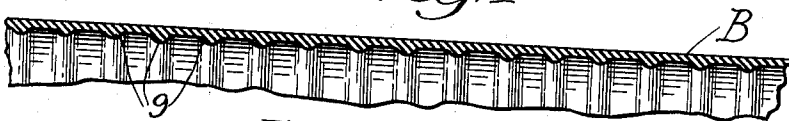


Fig. 5

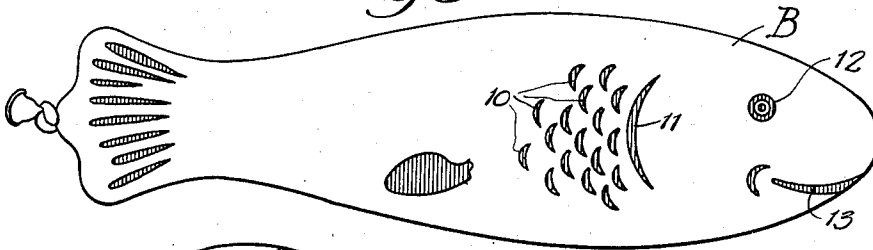
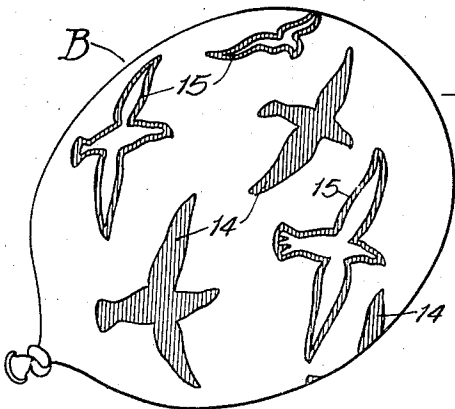


Fig. 6



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UNITED STATES PATENT OFFICE

2,193,069

TOY BALLOON

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Application February 8, 1939, Serial No. 255,306

2 Claims. (Cl. 46—87)

This invention relates to an inflatable toy balloon having integrally incorporated therewith a desired design which appears in the form of (1) a shadow, or (2) a constriction, or (3) both, when viewed from the exterior. Such a design may be of any desired form, contour or figure. In every case the design may be produced in the same dipping operation which is employed in the production of the balloon itself. As a result the design, which enhances the appearance of the balloon and makes it more attractive, may be produced with no extra expense or effort, it remains permanently incorporated into the balloon so as to be incapable of erasure therefrom, and it may be widely varied as to character, extent, etc., so as to meet a great variety of situations.

Certain suggestive embodiments of my invention are illustrated in the accompanying drawing, wherein—

Figure 1 is a view in elevation of an elongated balloon in the inflated condition;

Fig. 2 is a fragmentary view in section through the form, as it appears after the dipping operation, with a coating of latex composition adhered thereto having on the interior surface of the coating certain thickened areas which define a desired design;

Fig. 3 is a fragmentary enlarged view in section showing a balloon having the design which is produced according to Fig. 2;

Fig. 4 shows a similar design incorporated into a balloon whose walls are of increased thickness throughout so as to present, when inflated, a substantially smooth exterior surface;

Fig. 5 is a view in elevation of a balloon having a modified contour with designs of different figures incorporated into its walls; and

Fig. 6 which is a view similar to Fig. 5 shows an inflated balloon having a still different design incorporated into the walls thereof.

According to the usual method now employed, a form *F* of the size and shape of the intended balloon, in deflated condition, is dipped into a bath of latex composition; upon removal from the bath, the form will carry an adhering coat which, when stripped and cured, will constitute a balloon *B* that is susceptible of inflation and use in the usual way. In such a balloon the walls are elastic and somewhat translucent so that light may pass therethrough. Decorative features which enhance the salability of such toys are applied usually upon the exterior surface of the balloon as by ink, paint or other appropriate marking medium.

According to my invention I provide in the sur-

face of the form depressed areas *8* each of a desired contour or configuration. As shown in Fig. 2, these areas extend peripherally around the form, so that in the balloon produced therewith there is provided a number of circumferential bands *9* of increased thickness, relative to the remainder of the balloon body. Owing to the extra wall thickness which defines each band the balloon is less translucent at such points than elsewhere, with the result that the balloon, when inflated, will present to the eye a number of peripheral shadows, each corresponding to one of the bands. This is one of the simplest of the designs which may be produced according to my invention.

In the construction shown in Fig. 3 the walls of the balloon between the bands are slightly arched, as at *a*, with the result that, in a condition of inflation, the exterior surface of the balloon presents a series of undulations extending lengthwise thereof. This undulatory effect is enhanced by the inability of the balloon walls to expand as freely where thickened, i. e., in the region of the bands, with the consequence that the adjacent thinner portions of the balloon walls expand more readily, thereby producing the undulatory effect just noted.

In the construction of Fig. 4 the exterior surface of the inflated balloon is maintained smooth. When the form emerges from the bath the adhered coating is, of course, rather thin and may, in the case of a single dip, follow generally the contour of the form so that its exterior surface will be sunken at points opposite the depressions on the form. By increasing the consistency of the bath, or by successive dipping operations, the exterior surface of the coat upon the form will be rendered smooth and even, as shown in Fig. 4, with the result that the inflated balloon will also be smooth, or relatively so. Such a construction is referred to merely as an illustration of one of the ways in which my invention may be practiced, the design being incorporated into the balloon walls in the manner previously explained.

In Figs. 5 and 6 I have shown two arbitrary examples of inflated balloons having designs produced by thickening of the walls within definite areas which define desired objects or contours. The contour of the balloon walls, as shown in Fig. 5, is such as to resemble a fish, and by thickening the walls in accordance with a prearranged plan I may produce shadow effects simulating scales *10*, gills *11*, eyes *12*, mouth *13*, etc. In Fig. 6 the design is somewhat different in that I have there shown flying objects, of which some

14 are shadowed over their entire area, and others 15 only around their contours.

Designs produced in the balloon walls in accordance with my invention are permanent. The exterior surface of the inflated balloon may be smooth or otherwise. By locating the thickened area properly the balloon walls will be constricted at spaced points with the result that the adjacent portions of the walls will be bulged or arched outwardly. There is accordingly an enhancement of such designs where forces of constriction are present, arising from oppositely located unevennesses on the exterior surface of the balloon. The extent or degree of this unevenness depends upon several factors, such as difference in the relative thicknesses of the walls at and adjacent the points of design, inflation pressure in relation to elasticity of the balloon walls, etc. Enough has been described and illustrated, however, to indicate various possibilities in designs applicable to inflatable balloons whose translucent walls in every case are thickened inwardly at selected points so as to interfere in varying degree with the transmission of light rays therethrough whereby there is produced at such thickened points shadowy effects which,

optionally, may be enhanced by a tangible distortion of the adjacent portions of the balloon walls, all as hereinbefore set forth.

I claim:

1. As a new article of manufacture, an inflatable toy balloon having its walls each consisting of a single integral unitary sheet and said walls being composed of an elastic translucent material whose inner surface is characterized by relatively thickened areas each defining a desired design which in the form of a shadow is visible from the exterior of the balloon.

2. As a new article of manufacture, an inflatable toy balloon having its walls each consisting of a single integral unitary sheet and said walls being composed of an elastic translucent material the inner surface of which is thickened along lines each of which extends peripherally of the balloon to define a band, visible as a shadow from the exterior of the balloon, and less elastic than the adjacent thinner wall portions whereby the latter are free to expand more readily to produce upon the balloon exterior surface undulations extending between the bands.

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