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L. W. SAMUELS

2,449,147

TOY

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FIG. 1.

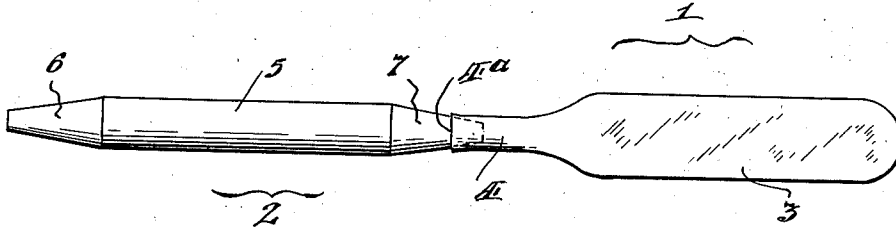


FIG. 2.

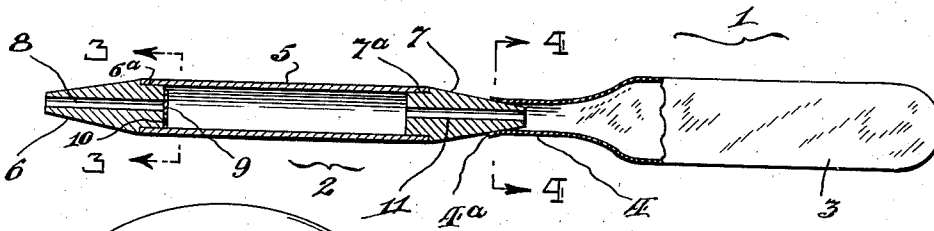


FIG. 3.

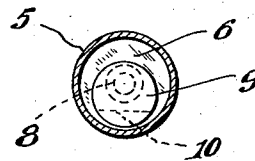


FIG. 4.

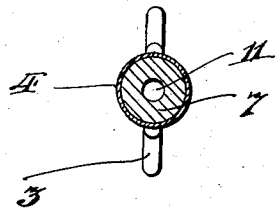
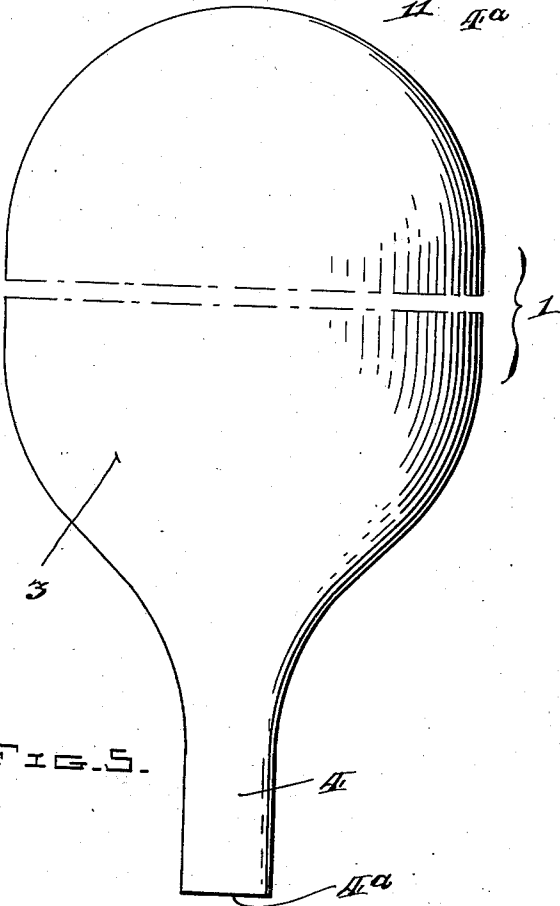


FIG. 5.



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TOY

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3 Claims. (Cl. 46-90)

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This invention relates to toys of the type comprising an inflatable device, such as a rubber balloon, and cooperating means adapted to facilitate inflation of the device and release thereof for free flight action induced by the discharge or escapement therefrom of the air, or other fluid means, initially stored therein.

One object of my invention is to provide a novel toy of the type indicated, which has certain structural and functional features of advantage over the similar prior art devices.

Another object is to provide such a toy comprising a balloon-like device having a novel air, or other fluid, intake and discharge member, arranged to carry out a certain sound-producing vibrating action during the time that the device is in free flight and while the fluid stored within the device is being discharged, or escapes, through said member.

A further object is to provide such a toy comprising means for inflating the said balloon-like device, which means includes a novel element adapted to be temporarily inserted into the fluid intake member of the device in such manner as to form a fluid-tight connection therewith during the time that the device is being inflated, and which element facilitates release of the device for simultaneously carrying out its free flight action and sound-producing effect, after inflation thereof to the desired extent.

It is also an object to provide such a toy comprising means for inflating the said balloon-like device, which means includes a novel element adapted to have the device frictionally secured thereto in such manner as to effect self-disengagement of the device from said element when the device is inflated to a certain extent.

Other objects of the invention are, to provide such a toy including a balloon-like device integrally formed of stretchable elastic material, such as rubber, and comprising an inflatable section, and an elongated air inlet and discharge section, the wall at the forward end of which latter section is of substantially uniform thickness to and including the edge portion defining the opening thereof; and to provide such a toy comprising a tubular unit for inflating a balloon-like device of the indicated type, which unit is provided with a mouth piece at one end having a check valve associated therewith, and at its opposite end is provided with a tip element of lengthwise extending forwardly tapered configuration, arranged so that the air inlet and discharge section of the balloon device may be frictionally engaged therewith in airtight relation and in such manner as

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to facilitate release, or self-disengagement of the balloon when the air within the device reaches a certain pressure.

With these and other objects in view, which will become more apparent from the following detailed description of a practical and illustrative embodiment of my improved toy shown in the accompanying drawings, the invention comprises the novel balloon-like device, the inflating device used in conjunction therewith, as well as the novel elements, features of construction and arrangement of parts in cooperative relationship, as more particularly defined by the hereto appended claims.

In the drawings:

Figure 1 is an elevational view of one form of my novel toy, as it appears when in readiness for use, and while the balloon-like device thereof is deflated; the scale of the toy shown being about one-half full size.

Fig. 2 is a central longitudinal section of the toy shown in Fig. 1.

Fig. 3 is an elevational cross-sectional view, taken substantially as indicated by the arrows 3-3 on Fig. 2.

Fig. 4 is an elevational cross-sectional view, taken substantially as indicated by the arrows 4-4 on Fig. 2, and

Fig. 5 is a side elevational view of one type of balloon-like device forming part of my invention, as it appears when inflated so as to be capable of simultaneously carrying out its free flight action and sound-producing effect.

As shown in the drawings, my novel toy generally comprises two separate cooperating devices, a balloon-like device 1, and a device 2 for inflating the latter.

The balloon-like device 1 is integrally formed of thin stretchable elastic material, such as rubber, and comprises an inflatable section or member 3, which may be of the configuration shown, or some other configuration, and a reduced section or member 4, which forms a neck through which the air freely flows when the member 3 is being inflated or deflated.

The balloon-like device differs from such devices of the prior art in that the wall of the member 4 is of substantially uniform thickness throughout its entire length, that is, to and including the edge portion 4^a which defines the front opening thereof. I have found in practice, that when the forward end of the member 4 is provided with such a wall structure and the air inflated device 1 is released for free flight action, discharge, or escapement, of the air through the

member 4 will not only function to propel the device 1 in the usual manner well known in this art, but will simultaneously cause the member 4 to carry out a vibrating action that produces a noise, tone, or sound effect. This sound effect, which is somewhat like a relatively loud buzzing noise, or tone, adds considerable pleasure to the use of the toy by children, in that they imaginatively associate the flight action of the device 1 and the simultaneously created buzzing sound, with the conditions prevailing when an airplane or the like, is in flight. This added sound feature, therefore, greatly enhances the saleability of my toy. When making a selection of a toy of this type, children are obviously inclined to prefer one which not only simulates the flight of an airplane, but also the sound thereof.

The device 2 is particularly constructed and designed to facilitate inflation and launching of the balloon-like device 1 by children, without danger of detrimental consequences in the event that the device 1 should break or burst during the inflating action. The device 2 comprises a tubular member 5 of cardboard, plastic material, or the like, having a mouth piece 6 secured thereto at one end, and a tip element 7 at its opposite, or front end. The mouth piece 6 is made of wood or the like, and is generally of a conical, or tapered, configuration. Centrally extending through the piece 6, is a bore or passage 8. At its inner end, the mouth piece 6 is provided with a check-valve member 9, in the form of a circular piece of flexible sheet material, such as rubber, which is secured to the flat end surface of the piece 6, at some point adjacent the bore 8, by suitable means, such as an adhesive material indicated by the numeral 10. The hinge-like connection thus formed between the valve member 9 and mouth piece, permits movement of the upper part of the member 9 away from the flat inner surface of the mouth piece 6, when air is blown through the device 2 in the direction of the balloon device 1. When flow of air takes place through the device 2, in the opposite direction, that is, from the balloon device 1, the valve member 9 is pressed tightly against the flat inner surface of the mouth piece 6, thus closing the passage 8. Accordingly, air is blown through the device 2 for the purpose of inflating a balloon device 1 which is temporarily attached to the front end of the device 2 as shown in Fig. 1, and during the time that a child, or person, is inhaling air, the check-valve member 9 automatically closes the passage 8, thereby preventing the air already in the balloon device 1 from escaping through the device 2.

The tip element 7, secured to the front end of the tubular member 5, may also be made of wood or the like, and is generally made the same in size and shape as the mouth piece 6, with a view toward effecting low production cost of the device 2. The element 7 is provided with a centrally located longitudinally extending bore or passage 11 of substantially the same diameter as the passage 8 of the mouth piece 6. The conical or tapered outer front surface portion of the tip element 7 is made smooth and is adapted to receive and have frictionally connected thereto a portion of the open end of the balloon member 4. By inserting the tip element 7 into the open end of the member 4 until the latter is stretched or expanded to a greater or lesser extent, the gripping or holding connection between the element 7 and member 4 can be regulated as desired.

After the balloon device 1 has been connected or attached to the tip element 7, as explained, and shown in Fig. 1, the toy is pointed upwardly and air is blown through the device 2 so as to inflate the device 1. As soon as a certain amount of air has been blown into the balloon device 1, and the latter expanded or inflated to a certain point, so that the air pressure in the device 1 is sufficiently great to overcome the frictional connection thereof with the tip element 7, the balloon device 1 will be automatically released, or will fly off the tip element 7. This release, or flying off action, is facilitated by reason of the forwardly tapered smooth outer surface of the element 7. After release or disconnection of the balloon device 1, it will be propelled upwardly and caused to fly about in various directions, during escape of air through the member 4, and the latter will simultaneously carry out the sound-producing vibrations and produce the buzzing noise or sound, as previously explained. The flying action and sound effect of the device 1 will continue until the latter is substantially entirely deflated. Thereafter, it will obviously drop to the ground.

Instead of inserting the tip element 7 into the balloon device member 4 to such an extent that these parts will be more firmly frictionally connected, to carry out the self-releasing action of the balloon device 1, as above explained, a lighter air-tight connection can be effected by inserting the tip 7 into the member 4 to a lesser extent, and holding the member 4 in place with the fingers of the hand. When so held, the balloon device 1 can be released at will, and irrespective of the amount of air pressure in the balloon device 1.

The mouth piece 6 and tip element 7 may be provided with shouldered portions 6^a and 7^a, at their inner ends, so as to effect a smooth fitting joint, as clearly shown in Fig. 2, and may be either frictionally connected with the tubular member 5, or by some suitable means, such as an adhesive material.

Of course, the toy device herein shown and described can be changed and modified in various ways by the substitution of equivalent materials and parts, or in other ways which will become readily apparent to those skilled in this art from the disclosure made, without however departing from the scope of the invention which is more particularly indicated by the hereto appended claims.

I claim:

1. A toy comprising the combination with a balloon formed of stretchable elastic rubber which balloon is provided with a fluid inlet member; of a tubular device for inflating the balloon provided with a frontal tip of forwardly tapered configuration arranged so that the open end of said member may be frictionally mounted thereon in such manner as to effect self-disengagement of the balloon from the device when the inflating fluid within the balloon reaches a certain pressure.

2. A toy comprising the combination with a balloon formed of stretchable elastic rubber which balloon is provided with an elongated air inlet member; of a tubular device for inflating the balloon, which device is provided with a mouth piece at one end and at its opposite end with a tip element of lengthwise tapered configuration arranged so that the open end of said member may be frictionally engaged therewith in such manner as to facilitate self-disengage-

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ment of the balloon when the air within the latter reaches a pressure which overcomes the frictional engagement of the member and element.

3. A toy comprising in combination; a balloon integrally formed of thin rubber, which balloon is provided with an inflatable section having an elongated air inlet member the wall of which is of substantially uniform thickness to and including the edge portion defining the opening thereof; and a separate elongated tubular device for inflating the balloon, which device is provided at the rear end thereof with a mouthpiece of substantially uniform thickness to and in element arranged to be temporarily inserted into the open end of the air inlet member in such manner as to effect an airtight connection between the device and member during inflation of

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the balloon and to facilitate disengagement of the balloon from the device after the latter has been inflated to a desired extent.

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