June 15, 1948. E. S. LUTINS 2,443,395

WHISTLING TOY ROCKET PROJECTILE

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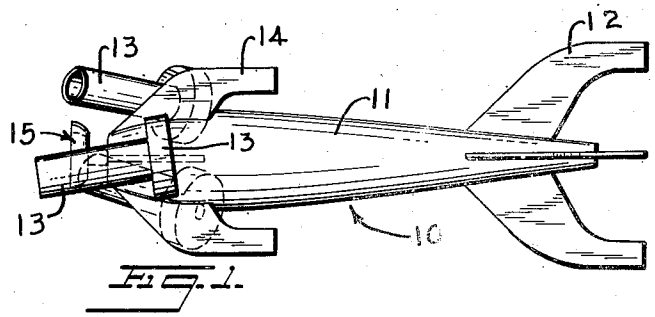


FIG. 1.

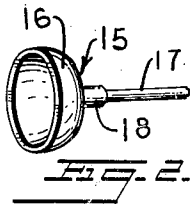


FIG. 2.

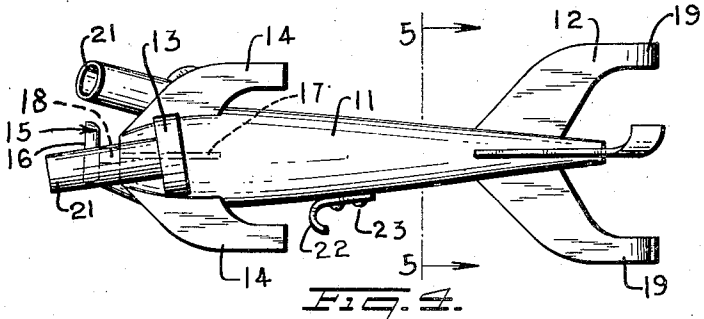


FIG. 4.

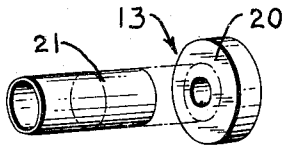


FIG. 3.

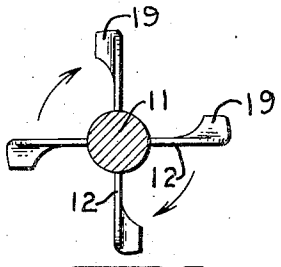


FIG. 5.

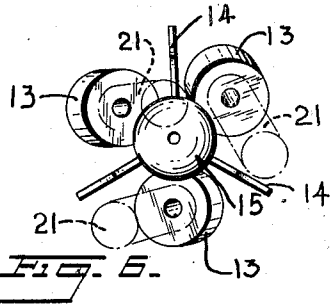


FIG. 6.

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WHISTLING TOY ROCKET PROJECTILE

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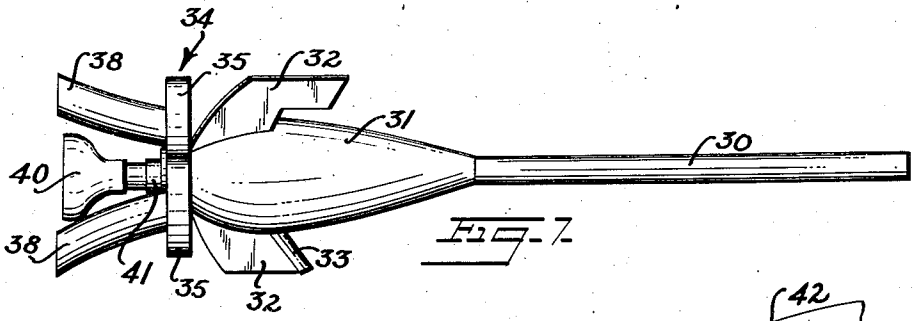


Fig. 7.

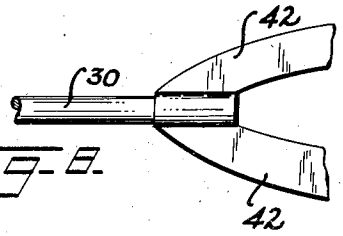


Fig. 8.

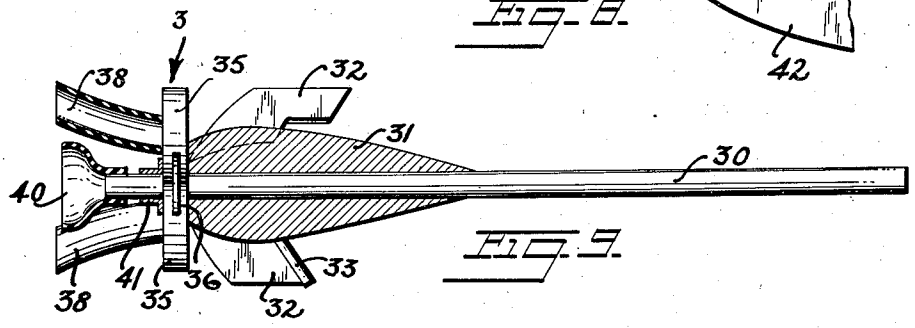


Fig. 9.

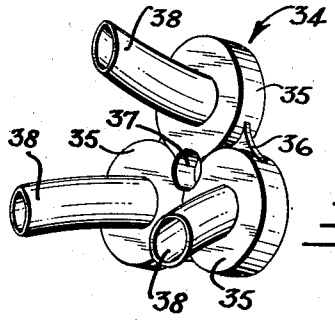


Fig. 10.

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WHISTLING TOY ROCKET PROJECTILE

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Application February 23, 1946, Serial No. 649,659

12 Claims. (Cl. 273—106.5)

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This invention relates in general to a toy rocket, and in particular to a whistling toy simulating in appearance and sound a rocket projectile.

This invention proposes a toy rocket which is adapted to be projected through the air and which simulates in its flight both the sound and appearance of a rocket in flight.

It is a further object of the invention to provide a toy rocket having a suction cup tip and having whistles mounted thereon to simulate in flight the sound of a flying rocket.

Other objects of the invention as well as the construction, use and operation thereof will in part be obvious and will in part become apparent from the following disclosure.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing forming a material part of this disclosure:

Fig. 1 is a perspective view of a toy rocket according to one form of the invention.

Fig. 2 is a perspective view of the tip of the rocket shown in Fig. 1.

Fig. 3 is an exploded perspective view of a whistle member of the rocket shown in Fig. 1.

Fig. 4 is a side elevational view of a rocket according to another embodiment of the invention.

Fig. 5 is a sectional view of the article shown in Fig. 4, taken along the lines 5—5.

Fig. 6 is a front elevation of the rocket shown in Fig. 4 with the suction cup tip removed.

Fig. 7 is an exterior view of a modified form of toy structure.

Fig. 8 is a fragmentary view of the rear portion of the toy illustrated in Fig. 7 showing the use of arrow feathers thereon.

Fig. 9 is a view partly in section of the toy illustrated in Fig. 7.

Fig. 10 is a view in perspective of the whistle tube mounting member.

Referring to the figures in detail, there is shown in Fig. 1 a rocket generally designated 10 comprising a body 11 on which is mounted a tail 12, a plurality of whistle members 13, a front guiding member 14, and a suction cup tip 15.

The body 11 is in general a streamlined, rocket shaped body of light weight. Preferably this body is constructed of a light weight wood such as, balsam or the like, or alternatively of a light metal construction such as a hollow aluminum

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shell or the like. Other structural materials and shapes will, of course be obvious to those skilled in the art. Due to the lightness of the weight of the body, the toy is adapted for use either outdoors or indoors without fear of breaking fragile objects near which the rocket is aimed.

The front guiding member 14 and the tail 12 each comprises a plurality of thin fins which are mounted on the body in a direction to parallel the proposed direction of flight of the toy. These members serve to balance the rocket in its flight, and to make it easier to aim.

On the front end of the body is mounted a suction cup tip 15, which is shown in further detail in Fig. 2. This tip comprises the cup 16 which is in the form of a conventional suction cup, mounted on a sliding mount or pin 17. This pin 17 is adapted to be slidably mounted within a recess in the nose of the body, so that the cup is removably mounted on the front end thereof. A collar 18 on the pin prevents the pin from being sunk too deeply within the body. Optionally the tip is removable from the body; alternatively it is fixed therein by means of glue or the like.

Mounted along the body, preferably near the front thereof are a plurality of whistle members 13, which are shown in further detail in Fig. 3. These whistle members 13 comprise a whistle body 20 and an air tube 21 mounted on the forward side thereof. The whistle body comprises a conventional whistle, namely a whistle which is activated by a current of air therethrough. Such whistle bodies are well known to the art, and need not be described in detail herein. The air tube 21 is a soft, very flexible hollow member positioned on the front of the whistle body, and projecting in front of the tip in an outward direction. Suitably this tube may be a thin walled soft rubber tube.

The air tubes on the various whistle members are aimed in a generally forward direction, but outwardly from the center line of the body, so that the front ends of the tubes are substantially outside the air currents set up by the passage of the body through the air. Likewise the front ends of the tubes are cut on an oblique angle with respect to the center line of the tubes, either to make the front of the tube at right angles to the line of flight, or preferably to make the edge further from the center line of the body the leading edge, slightly advanced over the inner edge. This angular cut of the tube is shown clearly in Fig. 1.

The operation of the toy is clear from the

figures and the above description. The toy rocket is caused to fly through the air, for example by being projected from a toy gun or the like, or alternatively by being manually thrown. The fins comprising the tail and front guide keep the toy headed in the direction of flight, and constantly aim the tip forward.

The outwardly extending air tube gathers in a large air flow, and directs it through the whistle bodies, thereby producing a shriek-like whistle which simulates the well-known whistle of a rocket through the air. Optionally the various whistle members are of different pitch so that the whistle of several tones is created, for example with a discordant sound to make the sound a more fearsome imitation of a real rocket sound. Upon impact with an external object the air tubes are readily flexed out of the way, permitting the suction cup member to contact the surface of the object. The momentum of the toy causes the suction cup to adhere to the external surface.

In addition to the imitation of the rocket-like noise and appearance, the tip permits the toy to be used in games where the aim of the operator is being tested or recorded. For example, the toy may readily be used in games resembling dart games and the like, adding thereto the interest of both appearance and sound.

In Figs. 4 to 6 is shown another form of the invention, generally similar to the previously disclosed form, comprising a body 11 having a tail 12, a plurality of whistle members 13, a front guide member 14 and a tip 15. The body 11 is similar in construction and form, and generally resembles the body shown in Fig. 1.

The tail 12 comprises a plurality of fins, at least the ends 19 of which are positioned at an angle to the direction of flight so as to cause the toy to turn in flight. In the form of the invention specifically set forth in the figures, the ends of the fins are turned all in the same rotary direction, to cause the toy to rotate around the center line during its flight, thus causing the toy to have a spinning appearance in flight.

The front guide member 14 in this form of the invention is optionally mounted parallel with the direction of flight; alternatively the guide member 14 is turned in the same or opposite direction as the tail, to add to the effect of the tail or to modify the effect.

In the form of the invention shown in the figure where the tail is curved to give a spinning motion, the whistle members are mounted on the body with the air tubes aimed in the direction of turning so as to pick up a greater flow of air. Thus, the tail is turned to cause the toy to turn in a clockwise direction while flying through the air, and the air tubes likewise are pointed in a clockwise direction.

In Fig. 4 there is also shown a hook 22 mounted on the body 11 by means of rivets or screws 23, the hook serving to receive a member of a projection means (not shown in the figure), for example an elastic string or the like. In this way, the toy is further adapted to be projected through the air by means other than simple manual means.

A modified form of toy structure is illustrated in the Figs. 7 to 10 inclusive and consists of a stem 30 having molded or otherwise positioned thereon a body 31 of streamline shape which, in its front portion, has attached thereto, or is formed to provide, radially disposed guide vanes 32 one of which terminates at its rear edge in a beaded portion or pin 33 which is carried in the

body 31. The pin 33 provides a rubber band engaging member when one is used on the hand in the well-known manner to launch the device. The front end of the body 31 abuts a molded tube carrier 34 which may be of rubber or other suitable material and which consists of radially disposed cylindrical base members 35 cast in one unit, strengthened by the webs 36 and providing a central opening 37 through the latter of which the stem 30 extends.

Each of the cylindrical portions 35 is provided with an integral whistle tube 38 flared from the median line of the stem 30 and symmetrically arranged about the periphery of a suction cup 40 mounted on the front end of the stem 30. The whistle element 34 is maintained in position on the stem 30 through the medium of a flanged nipple 41. The device is launched by throwing or by the use of a rubber band and if desired the rear end of the stem 30 may be provided with arrow feathers 42 which provide an additional whistling sound and also guide the toy in its flight. The body 31 may be relatively weighted if desired so that the device may be thrown by grasping the stem 30 and the action of the tubes 38, in conjunction with the suction cup 40, is the same as above described and the tubes 38 likewise extend slightly beyond the front face of the suction cup 40.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise construction herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. A toy rocket comprising a body, a tail mounted on the body and a front guide member mounted on the body, said tail and guide members coacting to direct the motion of the body through the air, at least one whistle member mounted on the body to whistle as the body moves through the air, and a suction cup tip on the front of the body to adhere to a surface of an external object which the toy rocket strikes in flight, and a flexible air tube extending forward from said whistle member and terminating forward from said suction cup to direct a current of air through said whistle member.

2. A toy rocket comprising a body, a tail mounted on the body and a front guide member mounted on the body, said tail and guide members coacting to direct the motion of the body through the air, a plurality of whistle members mounted on the body to whistle as the body moves through the air, and a suction cup tip on the front of the body to adhere to a surface of an external object which the toy rocket strikes in flight, and a flexible air tube extending forward from each of said whistle members and terminating forward from said suction cup to direct a current of air through said whistle members.

3. A toy rocket comprising a body, a tail mounted on the body and a front guide member mounted on the body, said tail and guide members coacting to direct the motion of the body through the air, a plurality of whistle members mounted on the body to whistle as the body moves through the air, and a suction cup tip on the front of the body to adhere to a surface of an external object which the toy rocket strikes in flight, and a flexible air tube extending forward from each of said

whistle members and terminating forward from said suction cup to direct a current of air through said whistle members, said tail member being turned at least at its end to cause the rocket to rotate in its flight.

4. A toy rocket comprising a body, a tail mounted on the body and a front guide member mounted on the body, said tail and guide members coacting to direct the motion of the body through the air, a plurality of whistle members mounted on the body to whistle as the body moves through the air, and a suction cup tip on the front of the body to adhere to a surface of an external object which the toy rocket strikes in flight, and a flexible air tube extending forward from each of said whistle members and terminating forward from said suction cup to direct a current of air through said whistle members, said tail member being turned at least at its end to cause the rocket to rotate in its flight, and the air tubes mounted on the whistle members being turned in the direction of rotation of the rocket.

5. A toy rocket comprising a body, a tail mounted on the body and a front guide member mounted on the body, said tail and guide members coacting to direct the motion of the body through the air, a plurality of whistle members mounted on the body to whistle as the body moves through the air, and a suction cup tip removably mounted on the front of the body to adhere to a surface of an external object which the toy rocket strikes in flight, and a flexible air tube extending forward from each of said whistle members and terminating forward from said suction cup to direct a current of air through said whistle members.

6. A toy rocket comprising a body, a tail mounted on the body and a front guide member mounted on the body, said tail and guide members coacting to direct the motion of the body through the air, a plurality of whistle members mounted on the body to whistle as the body moves through the air, and a suction cup tip removably mounted on the front of the body to adhere to a surface of an external object which the toy rocket strikes in flight, and a flexible air tube extending forward from each of said whistle members and terminating forward from said suction cup to direct a current of air through said whistle members, said tail member being turned at least at its end to cause the rocket to rotate in its flight, and the air tubes mounted on the whistle members being turned in the direction of rotation of the rocket.

7. A toy rocket comprising a body, a tail mounted on the body and a front guide member mounteed on the body, said tail and guide members coacting to direct the motion of the body through the air, a plurality of whistle members mounted on the body to whistle as the body moves through the air, and a suction cup tip removably mounted on the front of the body to adhere to a surface of an external object which the toy rocket strikes in flight, and a flexible air tube extending forward from each of said whistle members and terminating forward from said suction cup to direct a current of air through said whistle members, said whistles being adapted to emit sounds of different pitches from one another.

8. A toy rocket comprising a body, a tail mounted on the body and a front guide member mounted on the body, said tail and guide members coacting to direct the motion of the body through the air, a plurality of whistle members mounted on the body to whistle as the body moves through the air, and a suction cup tip removably mounted on the front of the body to adhere to a surface of an external object which the toy rocket strikes in flight, and a flexible air tube extending forward from each of said whistle members and terminating forward from said suction cup to direct a current of air through said whistle members, said tail member being turned at least at its end to cause the rocket to rotate in its flight, and the air tubes mounted on the whistle members being turned in the direction of rotation of the rocket, said whistles being adapted to emit sounds of different pitches from one another.

9. A toy rocket comprising a stem, a body of streamlined contour on said stem, guide vanes radiating from said body, a tube carrier mounted on said stem and abutting said body, whistle tubes extending forwardly from the body in circular arrangement relatively thereto, said tubes being flared with respect to the median line of said stem, and a suction cup on the forward end of said stem disposed centrally of said tube arrangement.

10. A toy rocket comprising a stem, a body of streamlined contour on said stem, guide vanes radiating from said body, a tube carrier mounted on said stem and abutting said body, whistle tubes extending forwardly from the body in circular arrangement relatively thereto, said tubes being flared with respect to the median line of said stem, a suction cup on the forward end of said stem disposed centrally of said tube arrangement, and a launching pin associated with one of said guide vanes.

11. A toy rocket comprising a stem, a body of streamlined contour on said stem, guide vanes radiating from said body, a tube carrier mounted on said stem and abutting said body, whistle tubes extending forwardly from the body in circular arrangement relatively thereto, said tubes being flared with respect to the median line of said stem, a suction cup on the forward end of said stem disposed centrally of said tube arrangement, a launching pin associated with one of said guide vanes and arrow feathers at the rear end of said stem constituting whistle means for guiding said toy in flight.

12. A toy rocket comprising a stem, a body of streamlined contour on said stem, guide vanes radiating from said body, a tube carrier mounted on said stem and abutting said body, whistle tubes extending forwardly from the body in circular arrangement relatively thereto, said tubes being flared with respect to the median line of said stem, a suction cup on the forward end of said stem disposed centrally of said tube arrangement, a launching pin associated with one of said guide vanes, arrow feathers at the rear end of said stem constituting whistle means for guiding said toy in flight and said tubes extending forwardly of said suction cup.

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