United States Patent

Starr

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[45] **May 30, 1972**

[54] BUBBLE PIPE TOY

[72] Inventor: **Irving Starr,** 28 Bullitt Park Place, Columbus, Ohio 43209

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[21] Appl. No.: **97,092**

[52] **U.S. Cl.** **46/6**

[51] **Int. Cl.** **A63h 33/28**

[58] **Field of Search** 46/6, 7, 8

[56] **References Cited**

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Primary Examiner—Louis G. Mancene
Assistant Examiner—D. L. Weinhold
Attorney—Rogers, Ezell, Eilers & Robbins

[57] **ABSTRACT**

A bubble pipe toy for blowing bubbles. The bubble pipe is in the form of a tubular pipe having an upstanding chimney over which a ring element in the form of an L-shaped wand is fitted. The wand may be integrally formed on the pipe or in a preferred form has a square end receivable within a socket having a square opening to provide registry of the ring over the chimney. The pipe further receives toy figurines, such as in the shape of a locomotive or other toy, which is snapped or molded directly on the tubular pipe with the chimney fitting through the toy. The pipe is simply employed by dipping the ring element of the wand into a soapy solution and blowing through the pipe with air expelled through the chimney and forming bubbles from a soapy film over the ring element.

11 Claims, 17 Drawing Figures

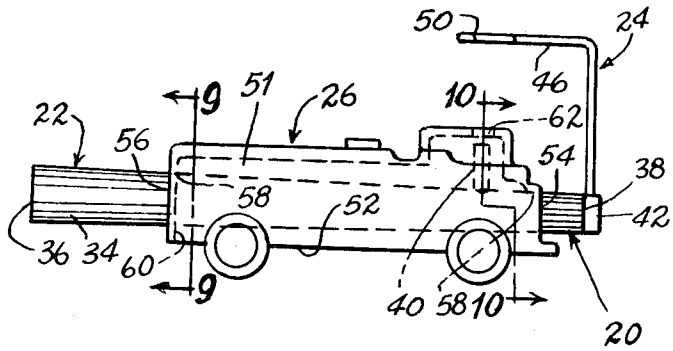


Fig. 1.

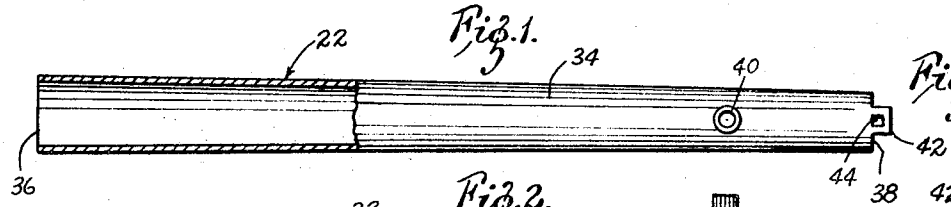


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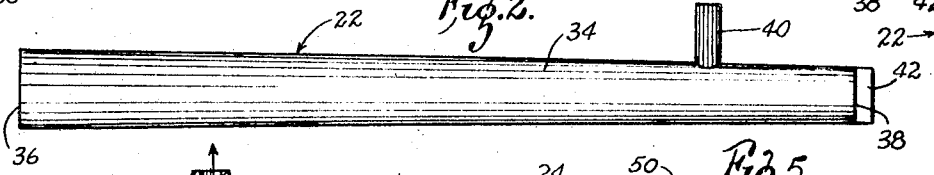


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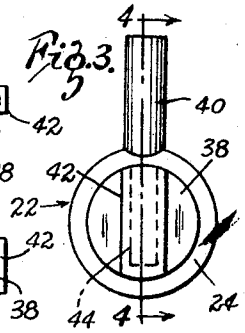


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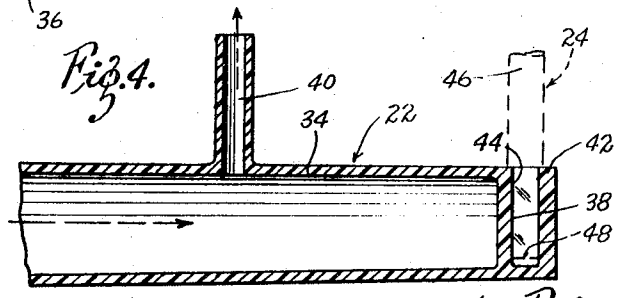


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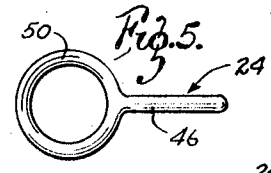


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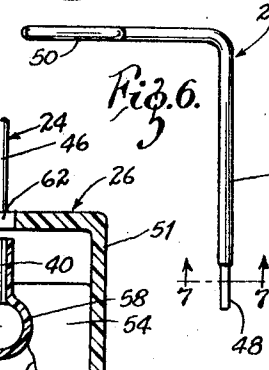


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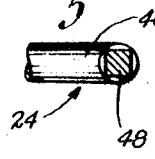


Fig. 8.

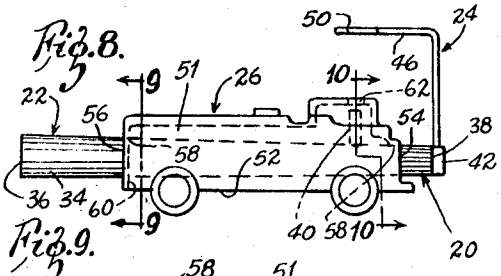


Fig. 10.

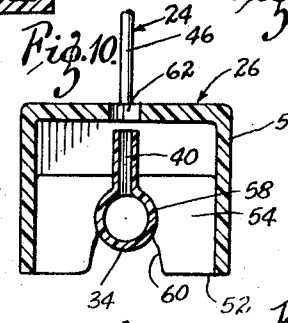


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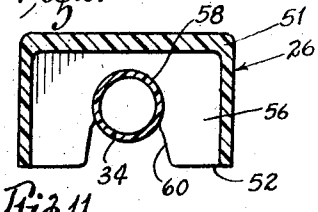


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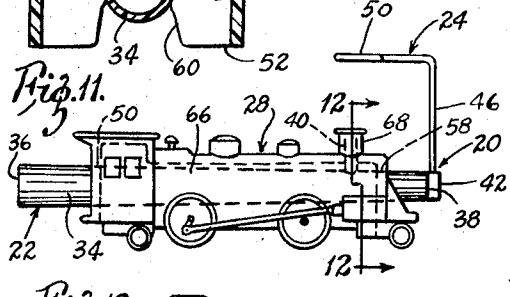


Fig. 12.

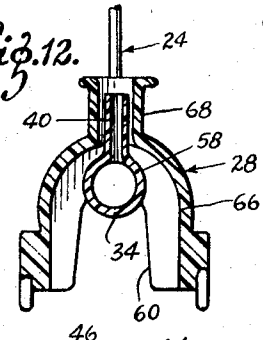


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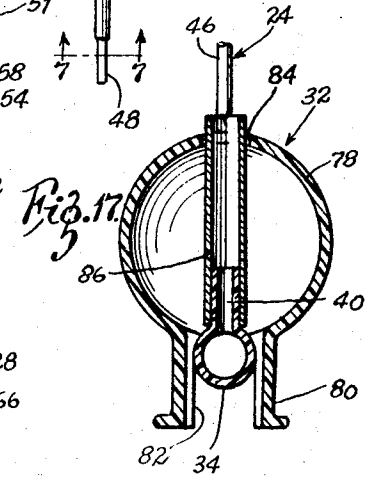


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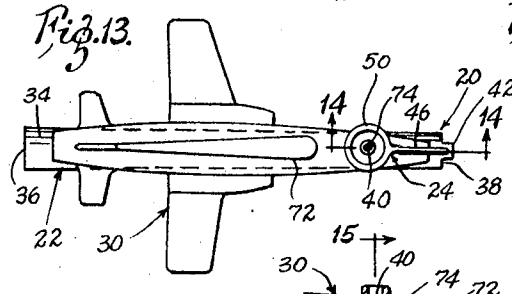


Fig. 15.

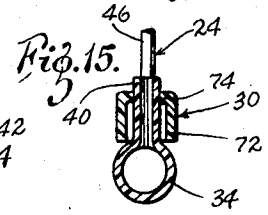


Fig. 16.

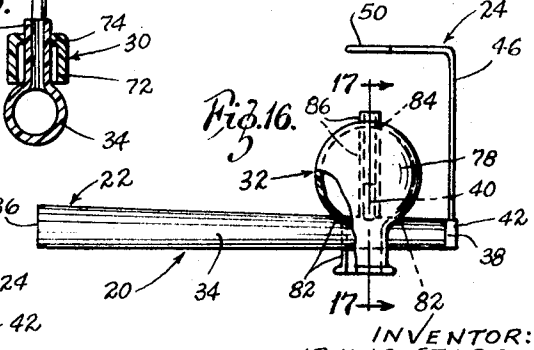
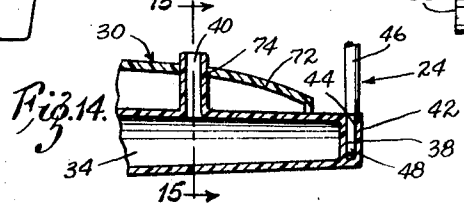


Fig. 14.



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BUBBLE PIPE TOY

SUMMARY OF THE INVENTION

In the past, various types of bubble pipe toys have been devised. Such conventional bubble pipes employ simply a pipe, as in the nature of a normal smoking pipe, which is dipped into a soapy solution and bubbles are blown through the pipe. Other bubble toys employ a wand or ring element dipped into soapy solution with bubbles being formed by blowing the soapy film from the ring.

By means of the instant invention, there has been devised a simple bubble pipe made in the form of various supportable toy members which can be readily employed by the child of tender years. The toy provides a focus of interest and various types of figurines, as in the form of a locomotive, airplane, ball, and the like, can be utilized. The bubble pipe incorporates a tubular member open at one end and closed at the other with an open smoke-stack or chimney intermediate the ends. A socket is provided so that an L-shaped wand having a ring element can be fitted within the socket to provide the ring element in registry over the open chimney. By making the socket of a characterized opening, such as square or elliptical, and the end of the wand of a mating characterized configuration, the wand can be taken away from the bubble pipe or simply installed in immediate registration for use.

The operation of the bubble pipe toy is extremely simple in that, once erected, the wand is simply dipped into a soapy solution and is ready for use. Bubbles are blown by merely blowing through the open end of the pipe, with air being expelled through the chimney and through the film over the ring element of the wand, to form bubbles. The bubbles rising from the pipe simulate the smoking action and when the toy figurine, such as a locomotive or other toy is employed, bubbles simulate smoke from the smoke-stack of the locomotive or other toy figurines.

Various toy figurines can be employed as desired, such that the focus of the interest of the child can be maintained by ready interchangeability. Further, the bubble pipe is extremely simple to use by the incorporation of the registered wand over the chimney of the bubble pipe so that bubbles can be formed with no difficulty. By nature of the construction, the bubble pipe and wand are rugged since they can conventionally be made of plastic construction and are easy to use and inexpensive in cost.

The above features are objects of this invention and further objects will appear in the detailed description which follows and will be otherwise apparent to those skilled in the art.

For the purpose of illustration, there is shown the accompanying drawings, examples and modifications of my invention. It is to be understood that these examples are for the purpose of illustration only and the invention is not limited thereto.

IN THE DRAWINGS

FIG. **1** is a top plan view partly broken away of the bubble pipe, with the wand removed;

FIG. **2** is a view in side elevation of the bubble pipe;

FIG. **3** is an enlarged view in front elevation of a bubble pipe;

FIG. **4** is a view in section, taken on the line **4—4** of FIG. **3**;

FIG. **5** is a top plan view of the bubble wand;

FIG. **6** is a view in side elevation of the wand;

FIG. **7** is an enlarged view in section taken on the line **7—7** of FIG. **6**;

FIG. **8** is a view in side elevation on a reduced scale of the bubble pipe with an attached fire engine toy shown partially in dotted lines for the interior construction;

FIG. **9** is an enlarged view in section taken on the line **9—9** of FIG. **8**;

FIG. **10** is an enlarged view in section taken on the line **10—10** of FIG. **8**;

FIG. **11** is a view in side elevation on a reduced scale, similar to FIG. **8**, but showing a modified type of toy in the form of a steam locomotive;

FIG. **12** is an enlarged view in section taken on the line **12—12** of FIG. **11**;

FIG. **13** is a top plan view on a reduced scale showing the bubble pipe fitted with a further modified toy in the form of an airplane;

FIG. **14** is an enlarged view in section taken on the line **14—14** of FIG. **13**;

FIG. **15** is a view in section taken on the line **15—15** of FIG. **14**;

FIG. **16** is a view in side elevation on a reduced scale showing the bubble pipe with a further modified toy in the form of a ball fitting over an extension on the bubble pipe;

FIG. **17** is an enlarged view in section on the line **17—17** of FIG. **16**.

DESCRIPTION OF THE INVENTION

The bubble pipe toy of this invention is generally indicated by the reference numeral **20**. It is comprised of the main components in the form of the pipe **22**, best shown in FIGS. **1** to **4** and an L-shaped wand **24** shown in FIGS. **5** through **7**. It is adapted to be used with various types of toy figurines, such as the fire engine **26** of FIG. **8**, the locomotive **28** shown in FIG. **11**, the toy airplane **30** in FIG. **13**, and the ball **32** of FIG. **16**.

The pipe **22** is comprised of a tapered, tubular member **34** having an open end **36** which is larger than the closed end **38**. An upstanding chimney **40** is provided adjacent the closed end. A wand receiving socket **42** is connected to the closed end **38** and has a socket **44** open at the top and closed at the bottom of a characterized cross-section, such as the square cross-section shown in FIGS. **1–4**.

The wand **24**, best shown in FIGS. **5–7** is of an L-shaped configuration, comprised of the L-shaped body **46**. The end **48** which is adapted to be received within the socket has a square cross-section that fits within the socket in mating and registering relation to present the ring-like element **50** connected at the other end of the wand over the chimney **40**.

The bubble pipe toy is shown in FIG. **8** provided with a toy figurine in the form of the fire engine **26**. The engine is hollow and made of plastic material, semi-rigid but with a slight degree of flexibility. It has a shell-like body **51** which is open at the bottom **52**. The front **54** and the rear **56** are each provided with a semi-circular recess **58** with a protruding flange portion **60**, such that the body **51** of the fire engine can simply be snapped on the pipe **34** over the recess **58** with the flange **60** being deformed in the connecting operation and then holding the body of the fire engine because of the resilient hugging nature of the flange **60**. The fire engine body is further provided with an opening **62** which fits in registry over the chimney **40** of the bubble pipe such that air can be expelled through the pipe chimney and opening **62** to the ring-like element **50** of the wand **24** in the bubble forming operation.

A further modified toy is shown in FIGS. **11–12** where a locomotive **26** is provided. The construction of the toy figurine locomotive **26** is similar to that of the fire engine in that the hollow body **66** is provided with the cut out recesses in the ends to which similar reference numerals are given. A smoke-stack **68** is provided upon the body, which opens into the interior of the locomotive. The smoke-stack is open at the top and fits concentrically over the chimney **40** of the pipe in the relationship shown in FIGS. **11–12**. By this construction, the air can be expelled through the pipe, the chimney of the pipe and the smoke-stack of the locomotive to the ring element **50** of the wand to form bubbles.

Another modified toy figurine is shown in FIGS. **13**, **14** and **15** in the form of an airplane body **30**. In this embodiment, the airplane has a hollow body **72** which rests on top of the pipe. The body is provided with an opening **74** which fits in frictional engagement about the chimney **40** of the pipe so as to hold the airplane on the top of the tubular member **34** of the bubble pipe.

A still further modified form of figurine is shown in FIGS. **16** and **17** in the form of the hollow ball figurine **32**. In this embodiment the ball figurine hollow body **78** is provided with a

depending tubular extension or collar **80** having a pair of U-shaped grooves or recesses **82** such that the ball can be fitted over the bubble pipe in the relationship shown in FIGS. **16** and **17**. The figurine body **78** has a circular opening **84** at the top which receives a support tube **86** fitting over the chimney and through the ball figurine. Thus, the extension tube **86** serves both as a support and passage for the air through the opening **84**. It will be understood that the ball figurine **32** may be made in the form of a head or any other conventional toy shape.

The bubble pipe of this invention is adapted for simple employment and for use need only the connection of the wand **24** to the tubular pipe **22**. This is simply effected by inserting the square end **48** of the wand into the square shaped opening **44** of the pipe in the relationship shown by the dotted lines in FIG. **4**. Because of the square cross-section, the wand is presented with the ring element **50** directly over the chimney **40** of the pipe. The pipe is then ready for use.

In the employment of the basic pipe, the user simply dips the ring element **50** into the conventional soapy solution used in blowing bubbles. The dipping of the ring into the soapy solution forms a film across the opening of the ring and to form bubbles, the user simply blows into the enlarged open end **36** of the pipe. Because of the constricted nature of the pipe and the tapering towards the chimney, a concentration of force is provided through the chimney which is restricted in size to expel air toward the open ring element. As the air strikes the soapy film held in the ring by the normal surface tension of the soapy solution, bubbles are blown upwardly and the pipe has the appearance of an Indian peace pipe with simulated smoke formed by the bubbles. For blowing additional bubbles, the operation is repeated with the ring **50** of the wand being dipped again into the soapy solution for further bubble blowing.

The various forms of the modified toy figurines shown in FIGS. **8** through **16** are adapted for ready interchangeability. Thus, the fire engine **26** of FIG. **8** can simply be snapped on the tubular body **34** of the pipe in the relation shown. This operation takes only a matter of seconds, with the open recesses **58** of the body being snapped over the tubular pipe body **34**, in the relationship shown in FIGS. **8** and **9**. The opening **62** in the body is presented over the chimney **40** of the pipe and bubbles are blown in the same fashion as previously described.

When the figurine in the form of a locomotive is desired to be used, the assembly operation is effected in the same manner as described for the fire engine **26** of FIG. **8**. Thus the locomotive body **51** is simply snapped over the tapered body **34** of the pipe in the relationship shown in FIG. **12**. In this assembly the open smoke-stack **68** of the locomotive fits over the chimney of the pipe and the registration of the smoke-stack under the ring of the wand provides simulated smoke emanating from the locomotive's smoke-stack as bubbles are blown upwardly from the wand. This relationship is shown in FIG. **11**.

The assembly of the airplane **30** shown in FIGS. **13–15** is effected by simply placing the opening **74** of the airplane body over the chimney **40** of the bubble pipe. This relationship is shown in FIGS. **14** and **15** and because of the resiliency of the plastic body of the airplane, the airplane is firmly held on to the top of the bubble pipe by the frictional interfitting of the chimney into the opening **74** of the airplane body.

The modification of FIGS. **16–17** is likewise simply installed. In this modification, the extension tube **86** is fitted over the chimney of the bubble pipe and then the figurine **32** is fitted over the pipe with the opening **84** fitting over the tubular extension. Then, by the U-shaped grooves **82**, the ball figurine rests on the tubular body **34** and the fitting of extension **86** through the top opening in the ball, further provides support for the figurine. Where the figurine takes the form of a head, the blowing of bubbles through the head figurine simulates smoke coming from the top of the head and the figurine "-blowing its top."

Various changes and modifications may be made within this invention as will be readily apparent to those skilled in the art. Such changes and modifications are within the scope and teaching of this invention as defined by the claims appended hereto.

What is claimed is:

1. A bubble pipe comprising an elongated tubular member having opposed open and closed ends, a chimney member opening into the interior of the tubular member adjacent the closed end and extending perpendicularly from the tubular member and an L-shaped bubble wand, said wand having a ring element fitting in registry over said chimney.

2. The bubble pipe of claim **1** in which the wand is supported in a socket at the closed end of the tubular member receiving an end of the L-shaped wand.

3. The bubble pipe of claim **2** in which the socket has a characterized opening and the wand has an end having a characterized cross-section mating with the socket opening to provide the registration of the wand ring element over said chimney.

4. The bubble pipe of claim **2** in which the tubular member tapers from the open end to the closed end.

5. The bubble pipe of claim **3** in which the socket means is in the form of a sleeve at the closed end of the pipe which is open at a top side of the pipe to receive the characterized end of the wand.

6. The bubble pipe of claim **1** in which a toy figurine is supported upon said tubular member, said figurine having a hollow body open at the bottom, means on said body for attaching the body to the pipe and an opening in the top of the figurine in registry with said chimney.

7. The bubble pipe of claim **6** in which the figurine body has at least one end wall provided with a substantially semi-circular slot means adapted to frictionally clamp upon the tubular body of the pipe.

8. The bubble pipe of claim **7** in which the figurine body is in the form of a steam locomotive having an open topped smoke-stack fitting concentrically over the pipe chimney.

9. The bubble pipe of claim **6** in which the figurine body is adapted to rest upon the top of the tubular member and has a top wall provided with an opening adapted to fit over and frictionally engage the sides of the pipe chimney.

10. The bubble pipe of claim **6** in which the figurine body has a globular shape and is provided with a top opening adapted to frictionally receive a tubular extension member connected to said chimney.

11. A bubble forming toy comprising an elongated tubular member having an air blowing inlet opening and an air outlet opening into the side of the tubular member adjacent a closed end of the tubular member an L-shaped bubble wand supported by the tubular member, said wand having a closed ring element fitting in registry over the air outlet opening.

* * * * *