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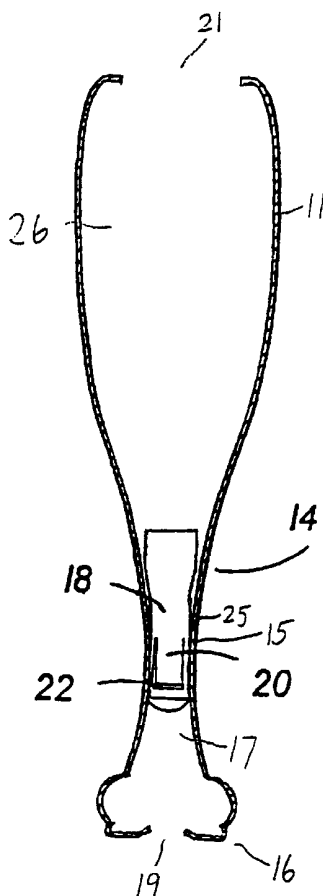
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[Continued on next page]

(54) Title: NOISEMAKING DEVICE



(57) Abstract: A noisemaking device having a body (11), a top aperture (21); a bottom aperture (19); an internal noise module (18) comprising a reed (20). Noise module (18) has a cylindrical external wall (22) which is secured by the body (11) within an air passage (17). The noise module (18) is positioned along and gripped by a narrow region (14) of body (11) in a region proximate the bottom end (16) of body (11). There is an air-tight seal (25) between the external wall (22) of the noise module (18) and wall (15) of the body (11). An internal sound chamber (26) between the noise module (18) and the top aperture (21) amplifies the noise emitted by the noise module (18).

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

NOISEMAKING DEVICE

RELATED APPLICATION:

This application claims the priority of provisional U.S. Patent Application No.
5 60/190,677, filed March 22, 2000.

FIELD OF THE INVENTION:

The present invention relates generally to toys and novelty items. More specifically, the invention is a hand-held device whose body has the general shape of
10 a piece of conventional athletic gear and whose body is specially configured to provide an internal air passage with a noise-generating apparatus mounted therein.

BACKGROUND OF THE INVENTION:

It is commonly known that spectators of live athletic events show their
15 enthusiasm and convey their support to a team by making noise in the stands, e.g., by stomping their feet, applauding, and shouting. Several stadiums are especially intimidating to visiting teams because the audience tends to be extremely loud and supportive of its home team. At tense moments in a game, this noise may be an important factor, since a loud rumble from the fans has the effect of motivating the
20 home team while distracting the visiting team. However, when the number of fans is small or when the spectators are unenthusiastic, the noise does not rise to a level sufficient to convey support and encourage the players. For this and other reasons, it would be advantageous to provide a device that could be used by spectators to make a lot of noise in the stands in order to convey their support to a team.

25

In addition, spectators sometimes choose to show their support by waving flashy signs and other paraphernalia bearing team logos and team colors. Thus it would be useful if the noise-making device were suitable to display team logos, team colors, and the like thereon, and if the device were physically attractive and appealing
30 to sport fans. It is also common for a fan of a sport to be an athlete who plays that sport recreationally. Thus it would be advantageous if the device could be used to play or to simulate play of the sport itself.

SUMMARY OF THE INVENTION:

The present invention is a novelty device that has a body with the shape of any
5 of various types of conventional athletic gear, such as a baseball bat, football, etc.
The body, usually slightly smaller than its real-life counterpart, may be used to play or
to simulate play of the sport for which it is intended. The body of the device is
specially configured to provide an internal air passage suitable for mounting a noise-
generating apparatus therein. A user may generate a whistle-like noise by simply
10 blowing into the air passage through an aperture in the body. The noise-generating
apparatus and the air passage are advantageously internal to prevent them from
otherwise interfering with the use of the device as a piece of athletic gear.
Promotional indicia such as team colors and logos may be displayed easily and
prominently on the body. The device may further be waved and tapped. In addition,
15 the device amplifies one's voice when singing or speaking into an aperture.

The novelty device of the present invention has several advantageous features.
It can be lightweight since it may be made largely out of blow molded plastic
components. It may be designed to resemble virtually any piece of athletic
20 equipment. Its size and shape may be varied. It may have a large surface for
displaying team logos and the like. It is versatile in that it may be used to show
support and make noise in a variety of ways without straining one's voice. It is
durable, for it generally has no moving parts. It is safe to use and is unlikely to cause
injury to nearby spectators. It may be used to play or to simulate play of a sport. It
25 has a shape that provides amusement and appeals to sport fans and athletes. It may be
manufactured easily and economically.

The novelty device includes a body having an outer wall that is formed by
blow molding or by a similar manufacturing process. The shape of the outer wall may
30 resemble virtually any piece of athletic gear, including balls, hockey sticks, bats, and

other sports gear. In accord with an important principle of the invention, the body is shaped to provide an entrance aperture, an exit aperture, and an internal air passage that extends between the apertures. Any of various types of noise modules, such as those including reeds and tongues, may be mounted inside the passage. Thus, when a user blows into the internal air passage, the reed resonates and a loud and distinctive noise is emitted. The body may also be configured to have an integrated sound chamber for further amplifying the noise.

BRIEF SUMMARY OF THE DRAWINGS:

FIG. 1 is a perspective view of the device of the present invention having an outer wall shaped to resemble a baseball bat.

FIG. 2 is a top view of the device of FIG. 1.

FIG. 3 is a bottom view of the device of FIG. 1.

FIG. 4 is a sectional view of the device of FIG. 1, taken along line 4-4 in FIG. 1.

FIG. 5 is a perspective view of an internal noise module of the device of the present invention.

FIG. 6 is a cross-sectional view of the noise module of FIG. 5, taken along the line 6-6 in FIG. 5.

FIG. 7 is a sectional view of a second embodiment of the device of FIG. 1, taken along line 7-7 in FIG. 2.

FIG. 8 is a sectional view of a third embodiment of the device of FIG. 1, taken along line 8-8 in FIG. 3.

FIG. 9 is a side view of an alternate embodiment of the device of the present invention, having an outer wall with a spherical shape.

FIG. 10 is a side view of an alternate embodiment of the device of the present invention, having an outer wall whose shape resembles a football.

FIG. 11 is a sectional view of the device of FIG. 9, taken along line 11-11 in FIG. 9.

FIG. 12 is a sectional view of the device of FIG. 10, taken along line 12-12 in FIG. 10.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS:

5 As shown in FIG. 1, the device of the present invention, referred to generally by reference numeral 10, replicates a baseball bat and has a size and shape that allow it to be held easily by its user. The hand-held device 10, or baseball bat, has a body 11, here comprising an outer wall 15. The outer wall 15 is preferably composed of plastic and formed by blow molding or by a similar manufacturing process. The outer
10 wall 15 has an outer surface 5 that is well suited for decorating with team logos, team colors, and the like. The device 10 has a narrow region 14 (handle) for being gripped easily by a user. The device 10 has a top end 12 and bottom end 16. An internal air passage 17 within the body of the device 10 extends between the top and bottom ends. The bottom end 16 has a bottom aperture 19, which provides an entrance to the
15 internal air passage 17. The top end 12 has a top aperture 21), which provides an exit therefrom.

As shown in FIG. 2, the outer wall 15 of the body 11 is formed with a top lip 9 at the top end 12. The top lip 9 surrounds the top aperture 21. The top aperture 21
20 provides the exit from the internal air passage 17, which extends down from the top aperture to the bottom aperture along the length of the bat.

As shown in FIG. 3, the outer wall 15 of the body 11 has a bottom surface 23 at the bottom end 16. The bottom surface 23 has the bottom aperture 19 therein. The
25 bottom aperture 19 is an entrance to the internal air passage 17.

As shown in FIG. 4, the body 11 of the device is specially configured to grip an internal noise module 18 therein. The noise module 18 has a generally cylindrical external wall 22 which is secured by the bat body 11 within the air passage 17. The
30 noise module 18 is preferably positioned along and gripped by the narrow region 14

(handle) of the bat in a region proximate the bottom end 16 of the bat. An internal sound chamber 26 between the noise module and the top aperture (air exit) amplifies the noise emitted by the noise module.

5 There is a substantially air-tight seal 25 between the external wall 22 of the module and the wall 15 of the bat body 11. An adhesive may be applied between the inner surface of the wall 15 of the bat body and the cylindrical external wall 22 of the noise module 18 to fasten the module more securely to the body. Alternately, the seal 25 may be a friction fit. In a preferred embodiment, the seal further comprises a thin
10 layer of flexible material mounted to the exterior of the external wall 22 of the noise module in order to grip the wall 15 of the bat body more tightly and to hold the module more securely therein. Such a seal advantageously forces all of the air blown into the bottom aperture 19 to travel through the noise module 18 rather than avoid the module by traveling outside the external wall 22 of the module.

15 As shown in FIG. 5, the noise module 18 has a substantially cylindrical external wall 22 with an air entrance 23 and an air exit 25 (not shown in FIG. 5 but shown in FIG. 6). The module generally has at least two cylindrical regions 27, 28 with different cross sections as well as a transitional section 29 between the two
20 cylindrical regions 27, 28. A flat internal tongue, or reed 20, extends longitudinally inside the module.

 As shown in FIG. 6, the inner end 30 of the reed 20 is attached to a semi-circular inner wall 31 normal to the longitudinal axis of the noise module. The outer
25 end 32 of the cantilever-like reed 20 is free-floating and is thus free to resonate upon the passage of air beneath it. A small clearance 35 between the outer end 32 of the reed and a semi-circular outer wall 33 provides an opening through which air that is blown into the air entrance 23, in the direction shown by the arrows, must travel. The air then passes through a rectangular aperture 34 in a flat surface 36, which surface is
30 parallel to the reed 20 and perpendicular to both the inner 31 and outer 33 walls. Thus

the rectangular aperture 34 provides a thruway through which air travels, meanwhile traveling along the reed 20 and causing the reed to vibrate. This vibration causes a distinctive whistle to resonate out of the noise module via the air exit 25 and to be amplified first by the large cylindrical region 28 of the module 18 and then by the
5 sound chamber 26 of the bat.

The device 10 may be used to make noise by simply covering the bottom aperture 19 with one's mouth and then blowing into the bottom aperture. Specifically, a user places his or her mouth on the bottom surface 23 of the bat and
10 blows into the bottom aperture 19. Because the internal noise module 18 is uni-directional (it emits a whistle when air travels through it in only one direction), blowing into the top aperture 21 would not result in such a whistle.

Alternate types of noise modules may also be used. For example, as shown in
15 FIG. 6', the alternate noise module 90 has a center wheel 92 which rotates when air is blown longitudinally through its housing 94, causing a loud whistle to be emitted from the module.

As shown in FIG. 7, a sectional view of a second embodiment of the baseball
20 bat, the bat can have an elongated flexible cantilever arm 40 attached at one end 42 to the inner surface of the bat body or to the noise module. The flexible arm 40 is preferably composed of an appropriate material, such as plastic or rubber, to allow it to flex when the bat is shaken. The flexible arm has a protruding circular noise element 44 at its free end. Upon shaking the bat, regardless of the direction in which
25 it is shaken, the arm flexes. As the arm swings back and forth, the noise element repeatedly strikes the inner surface of the bat body to create a thumping noise. The sound chamber 26 amplifies this noise. Thus the flexible arm 40 provides an additional means for creating noise and, in turn, supporting a team.

As shown in FIG. 8, a sectional view of a third embodiment of the baseball bat, the bat can have an enclosed interior pocket 50 with dried beans 52 or the like therein. Therefore, shaking the bat is like shaking a maraca, in that it creates a rattling noise. It is appreciated that the various noise-making apparati disclosed may be easily
5 used in conjunction, since each may be easily positioned inside the bat at a location where it does not interfere with the other apparati. Moreover, more than one noise module may be position in the internal passage, and each noise module may include more than one reed.

10 Although the foregoing hand-held device in FIG. 1 resembles a baseball bat, this selection was made only for exemplary purposes and should not be construed as a limiting factor of the invention. Instead, the shape of the present invention may resemble virtually any piece of conventional athletic gear without affecting the sound-making performance of the device. For example, as shown in FIGS. 9 and 10, the
15 device may instead assume the shape of a variety of types of sports equipment, such as a spherical ball 60 or football 70, respectively. The spherical ball, for example, may in turn be designed to resemble a basketball, soccer ball, volleyball, etc. Although the shape and thus appearance of the body of the device may vary, the underlying principles and configuration of the invention remain substantially the
20 same, as shown in FIGS. 11 and 12. Namely, each of the spherical ball 60 and football 70 has an internal passage 17 with a noise module 18 therein for providing an amplified noise by blowing air therethrough. Similarly, the body of the device may also assume the shape and appearance of other types of athletic paraphernalia, such as a baseball, softball, tennis racket, tennis ball, racquetball, hockey stick, hockey puck,
25 bowling ball, bowling pin, bicycle, golf club, golf ball, boxing glove, rugby ball, lacrosse stick, fencing sword, ski pole, etc. The body may also assume the shape of a race car, race horse, race dog, martial arts figure, gymnastics figure, marathon running figure, swimming figure, or wrestling figure. The internal passage may also be used as a receptacle or container for packaged food such as pre-wrapped popcorn.

The body of the device 10 may not only assume a variety of shapes but also have any of various structures. For example, as shown in FIG. 8, the body can have a separate outer wall 15 and inner wall 80, wherein the inner wall forms the internal air passage 17. Rather than having a noise-generating material therein, the region
5 between the inner and outer walls can be filled with an appropriate material, such as foam, to provide a rigid construction. In addition, instead of the thin-walled plastic shown, the body itself can be composed of thick foam core which is shaped to provide an internal passage therethrough.

10 Although the preferred embodiments of the novelty item of the present invention have been disclosed for illustrative purposes, those who are skilled in the art will appreciate that various modifications, additions and substitutions are possible, without departing from the scope and spirit of the invention as set forth in the accompanying claims.

15

I claim:

1. A novelty item for creating an amplified noise upon blowing into the item, comprising:
 - (a) a body having an entrance aperture, an exit aperture, and an internal air passage extending between the entrance aperture and the exit aperture; and
 - (b) an internal noise module positioned inside the internal air passage, wherein the noise module causes the novelty item to emit a noise upon blowing air into the internal air passage through the entrance aperture;wherein the body of the novelty item has the shape of a piece of conventional athletic gear.
2. The novelty item of claim 1, wherein the noise module has at least one reed that vibrates upon blowing air into the internal air passage through the entrance aperture thus causing the novelty item to emit a noise.
3. The novelty item of claim 1, wherein the internal noise module is positioned midway between the entrance aperture and the exit aperture.
4. The novelty item of claim 1, wherein the internal noise module is positioned closer to the entrance aperture than to the exit aperture.
5. The novelty item of claim 1, wherein the internal air passage comprises a sound chamber positioned between the noise module and the exit aperture.
6. The novelty item of claim 5, wherein the sound chamber comprises a region of the internal air passage having an enlarged girth for amplifying a noise emitted from the noise module.

7. The novelty item of claim 4, wherein the internal air passage comprises a sound chamber positioned between the noise module and the exit aperture.
- 5 8. The novelty item of claim 7, wherein the sound chamber consists of a region of the internal air passage having an enlarged girth for amplifying a noise emitted from the noise module.
- 10 9. The novelty item of claim 1, wherein the body of the novelty item has the shape of a baseball bat.
- 10 10. The novelty item of claim 9, wherein the baseball bat has a handle region, and the noise module is positioned inside the air passage proximate the handle region.
- 15 11. The novelty item of claim 10, wherein the baseball bat has a region having an enlarged girth proximate its upper end, said region of enlarged girth providing an internal sound chamber for amplifying a noise emitted by the noise module.
- 20 12. The novelty item of claim 1, wherein the body of the novelty item has a spherical shape.
13. The novelty item of claim 1, wherein the body of the novelty item has the shape of a football.
- 25 14. The novelty item of claim 1, wherein the body has an outer wall and an inner wall, and the internal noise module is connected to the inner wall.

15. The novelty item of claim 14, wherein the outer and inner wall form an enclosed region therebetween, the enclosed region having rattling elements therein.
- 5 16. The novelty item of claim 1, wherein the body has a pocket having rattling elements therein.
17. The novelty item of claim 1 having a cantilever arm within the internal air passage, the cantilever arm having a protruding noise element at its free
10 end.

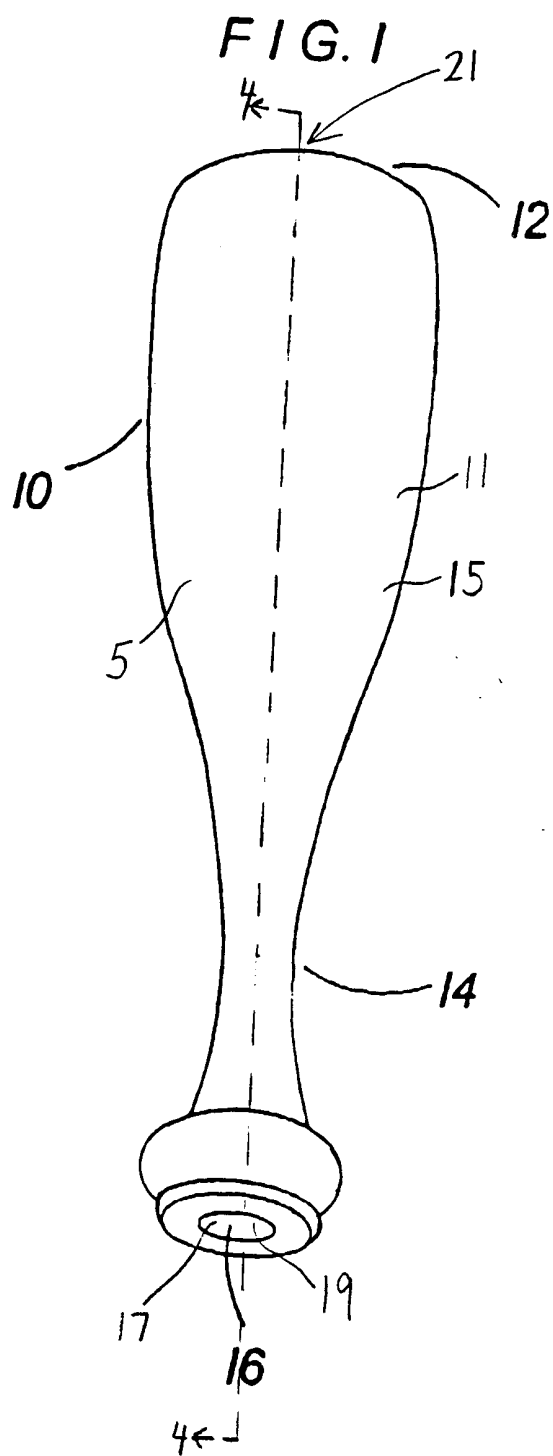


FIG. 2

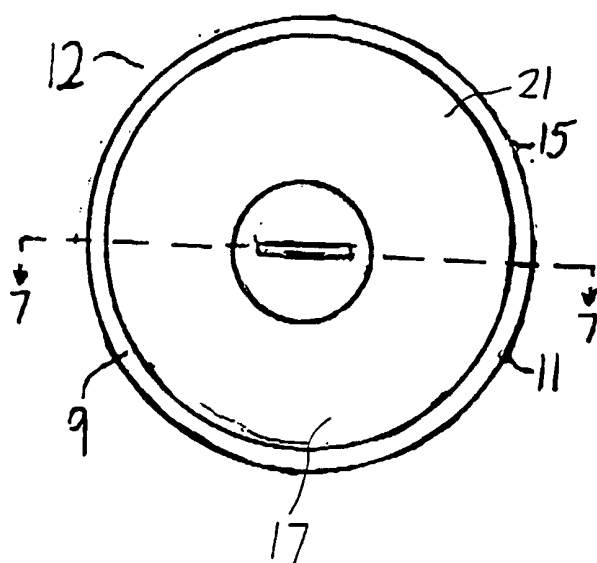
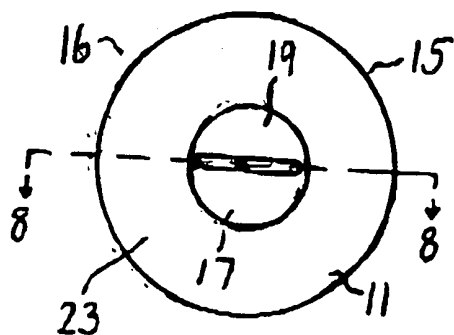


FIG. 3



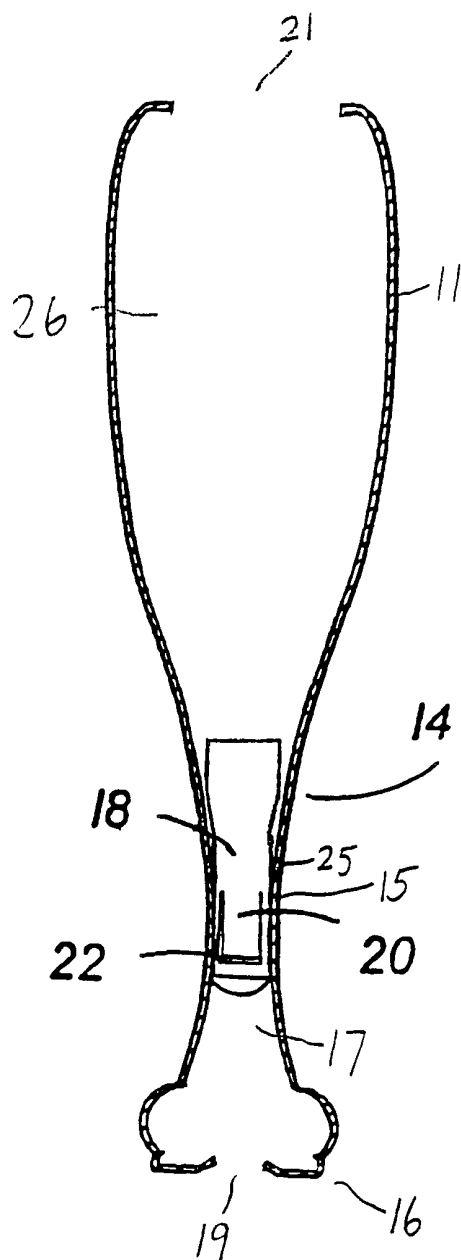


FIG. 4

FIG. 5

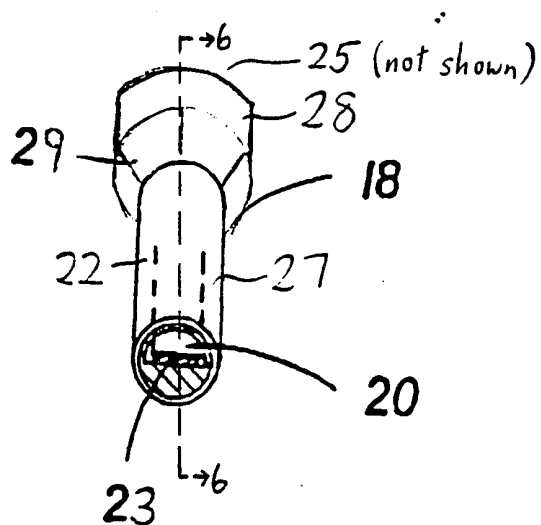


FIG. 6

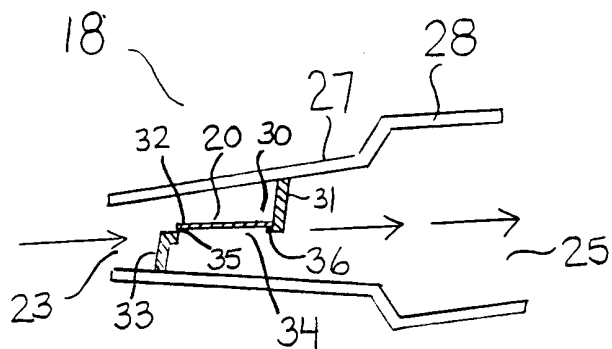
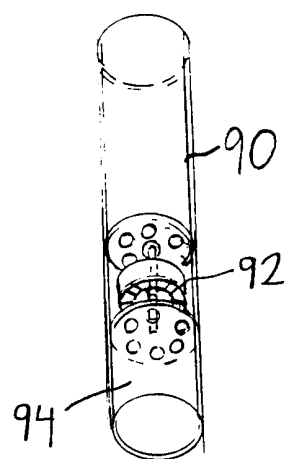


FIG. 6'



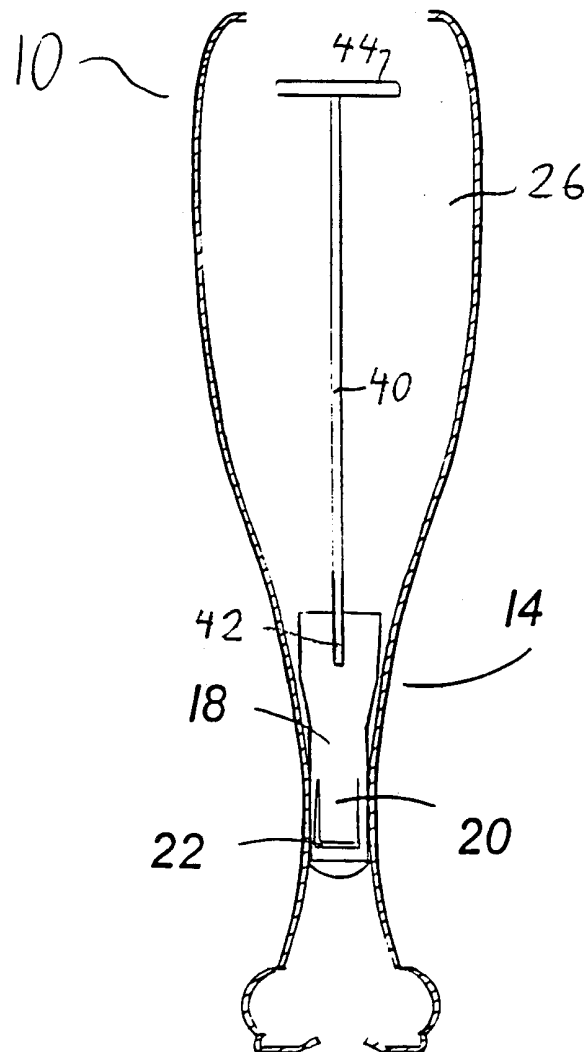


FIG. 7

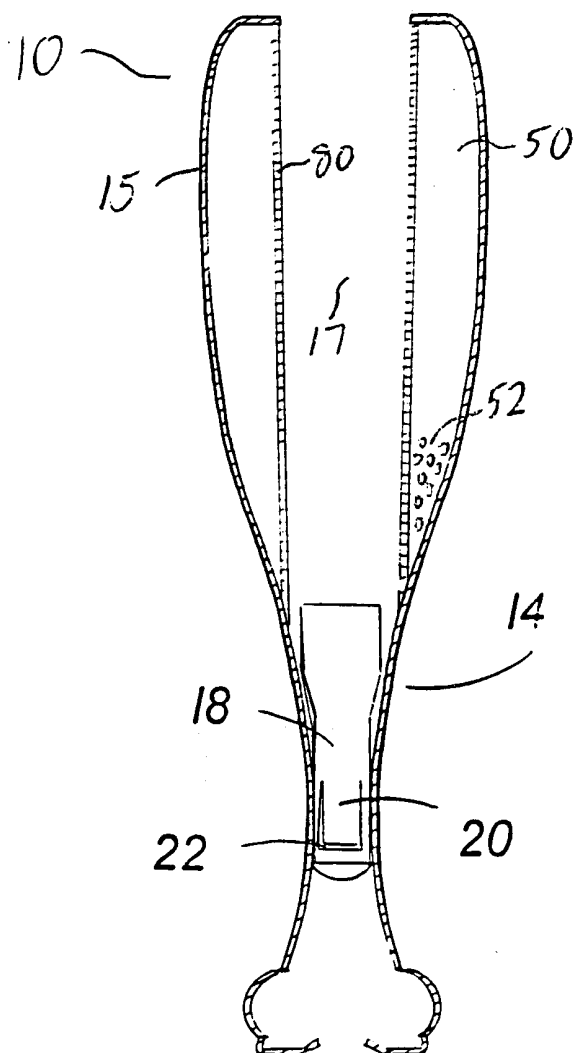


FIG. 8

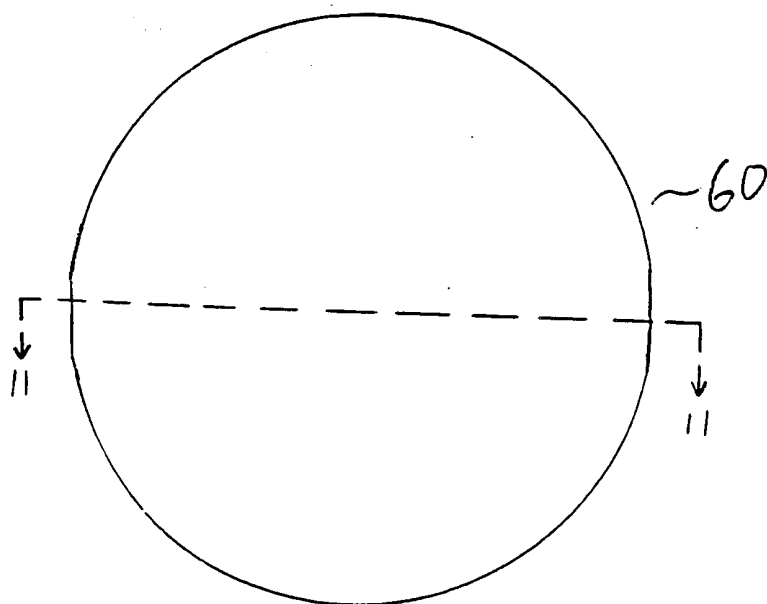


FIG. 10

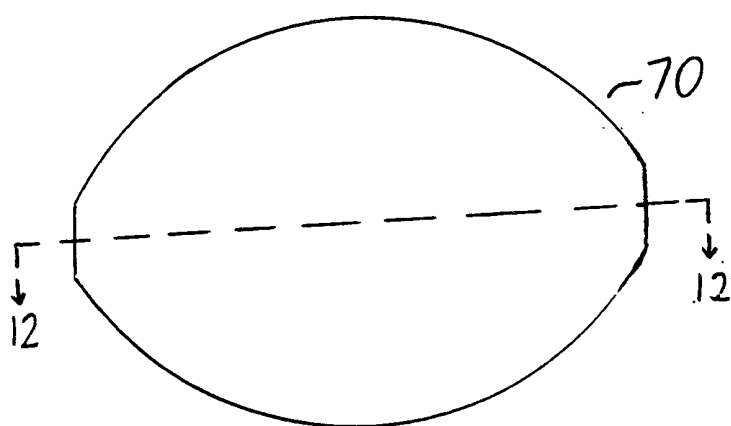


FIG. 11

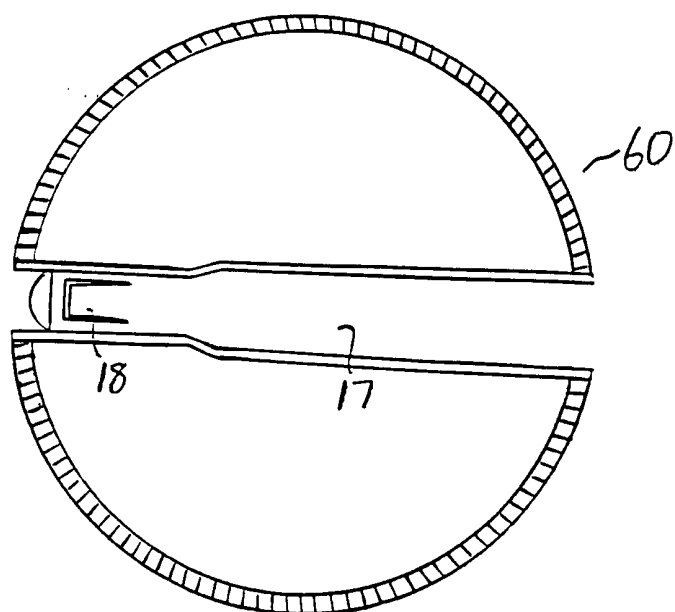
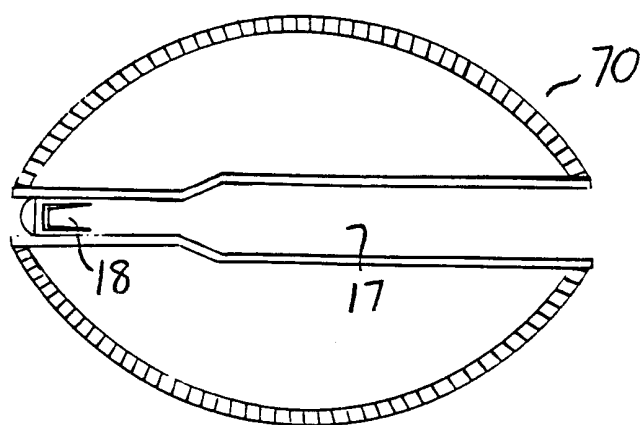


FIG. 12



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US01/40330

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A63H 5/00

US CL : 446/203, 204

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 446/203, 204, 202, 205, 207, 209, 397

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 1,113,162 A (MURPHY) 6 October 1914, Figure 1 and col. 1, lines 33-41.	1-11 and 14
X	US 879,917 A (SEILER) 25 February 1908, Figure 2 and col. 2, lines 75-79.	17
Y	US 874,526 A (McLAUGHLIN et al.) 24 December 1907, Figures 2 and 4.	15 and 16
A	US 5,288,069 A (MATSUMOTO) 22 February 1994, col 1, lines 6-12.	12 and 13



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

11 JUNE 2001

Date of mailing of the international search report

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