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(54) Title: LOLLIPOP APPARATUS AND METHOD

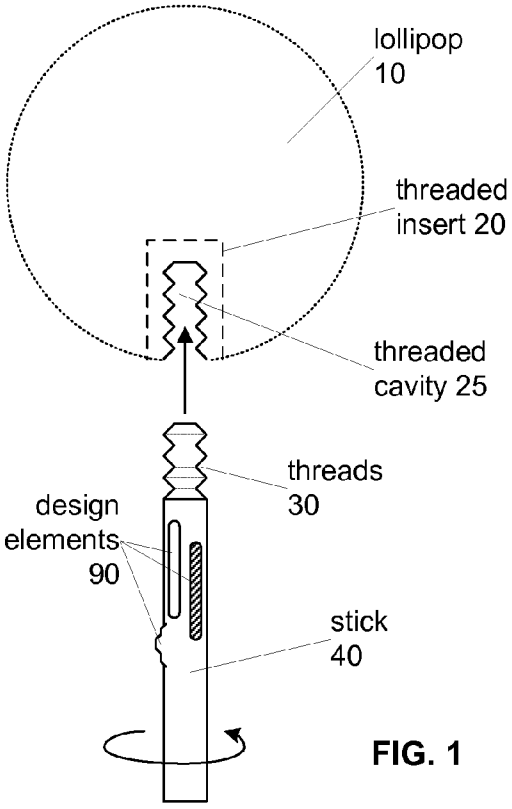


FIG. 1

(57) Abstract: A lollipop ball is formed to a lollipop ball engagement mechanism and the lollipop ball engagement mechanism extends outward from the lollipop ball to releasably engage a proximal end of a lollipop stick. Alternatively, a lollipop ball is formed to a lollipop ball engagement mechanism that defines a cavity inside the sphere of the lollipop ball and the proximal end of the lollipop stick releasably engages the cavity located in the interior of the lollipop. Alternatively, the lollipop itself can be formed to define the cavity such that no lollipop ball engagement mechanism is required to releasably engage the proximal end of the lollipop stick. The lollipop stick can also include one or more design elements.

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OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

LOLLIPOP APPARATUS AND METHOD

Background

1. Field of the Invention

[01] The present invention generally relates to lollipops and the manufacturing of lollipops.

2. Related Art

[02] Conventional candy products such as lollipops have broad appeal to consumers. However, conventional candy products are typically consumed while the wrapping and other accoutrements are discarded. For example, the wrapper and stick of a lollipop is discarded after the lollipop is consumed. Additionally, conventional candy products suffer from a lack of association with high fashion and desirable personal accessories. Therefore, what is needed is a new lollipop that includes re-usable components and has desirable fashion and personal accessory elements.

Summary

[03] Accordingly, described herein is a consumable apparatus that includes candy or other edible material (referred to herein as a "lollipop") mounted on an elongated handle (referred to herein as a "stick"). In a first embodiment, the lollipop is formed to a threaded mount and the threaded mount is configured to releasably engage a threaded cavity on the stick. In a second embodiment, the lollipop is formed to a threaded insert that defines a threaded cavity and the stick has a proximal end with threads that are configured to releasably engage the threaded cavity within the lollipop. Alternatively, the lollipop itself can be formed to define the threaded cavity such that no threaded insert is required to releasably engage the threaded stick. Other features and advantages of the present invention will become more readily apparent to those of ordinary skill in

the art after reviewing the following detailed description and accompanying drawings.

Brief Description of the Drawings

[04] The details of the present invention, both as to its structure and operation, may be gleaned in part by study of the accompanying drawings, in which like reference numerals refer to like parts, and in which:

[05] FIG. 1 is a block diagram illustrating a threaded lollipop with decorative stick according to an embodiment of the present invention;

[06] FIG. 2 is a block diagram illustrating a threaded lollipop according to an embodiment of the present invention;

[07] FIG. 3 is a block diagram illustrating a hinged container for a threaded lollipop according to an embodiment of the present invention;

[08] FIG. 4 is a block diagram illustrating a two piece container for a threaded lollipop according to an embodiment of the present invention;

[09] FIGS. 5A-5D are block diagrams illustrating an example alternative engagement mechanism for securing a lollipop ball to a lollipop stick according to an embodiment of the present invention; and

[10] FIG. 6 is a flow diagram illustrating an example process for using a lollipop according to an embodiment of the present invention.

Detailed Description

[11] Certain embodiments as disclosed herein provide for a threaded lollipop that includes a reusable stick that screws into a threaded cavity within the lollipop or into a threaded cavity defined by an insert about which the lollipop is formed. An alternative embodiment provides for a threaded mount about which the lollipop is formed where the threaded mount extends out from the lollipop and screws into a threaded cavity in the stick. A cap is also provided with an optional hole for use with a lollipop ball alone or for use with a lollipop ball that is engaged with a lollipop stick.

[12] After reading this description it will become apparent to one skilled in the art how to implement the invention in various alternative embodiments and alternative applications. However, although various embodiments of the present invention will be described herein, it is understood that these embodiments are presented by way of example only, and not limitation. As such, this detailed description of various alternative embodiments should not be construed to limit the scope or breadth of the present invention as set forth in the appended claims.

[13] FIG. 1 is a block diagram illustrating a threaded lollipop 10 with decorative stick 40 according to an embodiment of the present invention. In the illustrated embodiment, the lollipop 10 ball is formed around a threaded insert 20 during manufacture of the lollipop 10 ball. The threaded insert 20 is one embodiment of an engagement mechanism for the lollipop. In one embodiment, the lollipop 10 ball is a thirty two (32) gram ball.

[14] The threaded insert 20 can be made of plastic or paper or any other material capable of defining a threaded cavity 25. In one embodiment, the threaded insert 20 is made from an edible material. The function of the threaded insert 20 is twofold. First, the insert defines a base upon which the lollipop 10 ball is formed. In one embodiment, the end of the threaded insert 20 that is near the perimeter edge of the lollipop 10 ball is substantially flush or slightly recessed into the interior of the lollipop 10 ball. In this fashion the surface of the lollipop 10 ball is primarily spherical with a recess where the threaded cavity 25 is located.

[15] In an alternative embodiment, the threaded cavity 25 may be defined by the lollipop 10 ball itself. In such an embodiment, when the lollipop 10 ball is formed, the threaded cavity 25 is defined such that the lollipop 10 ball hardens and the threaded cavity 25 remains.

[16] The threaded cavity 25 is sized and shaped to snugly receive threads 30 that are provided on one end of the lollipop) stick 40. The threads 30 of the stick 40 are twisted into the threaded cavity 25 defined in the lollipop 10 ball in order to releasably secure the lollipop 10 ball to the stick 40.

[17] The stick 40 may also be decorated with design elements 90 to add to the overall appeal of the lollipop 10 and the stick 40. The design elements 90 on the stick 40 may include various prints, designs, wraps, and attachments. In one embodiment, the stick 40 is bejeweled with 2mm to 5mm crystals that are affixed to the outer surface of the stick. The crystals can advantageously be different colors in order to provide the desired look for the lollipop stick 40. Customizable sticks may also be made available to consumers via a custom order interface, e.g., via an operator on a telephone or via a website.

[18] FIG. 2 is a block diagram illustrating a threaded lollipop 10 according to an embodiment of the present invention. In the illustrated embodiment, the lollipop 10 ball is formed around a threaded mount 20 during manufacture of the lollipop 10 ball. The threaded mount 20 extends into the interior of the lollipop 10 ball and also extends beyond the exterior surface of the lollipop 10 ball. The portion of the threaded mount 50 that extends beyond the exterior surface of the lollipop ball 10 (i.e., the exterior portion) is threaded. The exterior portion may also be designed to use an alternative engagement mechanism such as the fork and barb previously described with respect to FIG. 1.

[19] The portion of the threaded mount 50 that extends into the interior of the lollipop ball 10 (i.e., the interior portion) may or may not be threaded. The interior portion is preferably optimally shaped to provide a secure mount upon which the lollipop 10 ball may be formed during manufacture of the lollipop 10 ball.

[20] The exterior portion of the threaded mount 20 is sized and shaped to snugly fit into the threaded cavity 60 that is defined by one end of the lollipop stick 70. When the threaded mount 20 is snugly fit into the threaded cavity 60, the lollipop 10 ball is releasably secured to the stick 70. As previously described, the means for engaging / securing the lollipop 10 ball to the stick 70 may include threads, forks and barbs, or alternative means as will be understood by those skilled in the art. In the illustrated embodiment, the threaded mount 50 is twisted into the threaded cavity 60 that is defined in one end of the lollipop stick 70 in

order to releasably secure the lollipop 10 ball to the stick 70. Although not shown, stick 70 may also include design elements 90 as previously described with respect to FIG. 1.

[21] FIG. 3 is a block diagram illustrating a hinged container 150 for a threaded lollipop according to an embodiment of the present invention. In the illustrated embodiment, the container 150 includes a top 130 portion and a bottom 140 portion that are pivotably connected by a hinge 100. The container 150 surrounds a lollipop 10 ball and is configured to securely close by a clasp 110 means. When closed, the container 150 defines a spherical compartment in which the lollipop 10 ball can be stored. In one embodiment, an optional hole 120 is provided in a portion of the surface of the container 150 so that the lollipop stick 40 may pass through the hole 120 or so that the threaded mount 50 may pass through the hole 120.

[22] FIG. 4 is a block diagram illustrating a two piece container 150 for a threaded lollipop according to an embodiment of the present invention. In the illustrated embodiment, the container 150 includes a top 130 portion and a separate bottom 140 portion that together define a spherical compartment in which the lollipop 10 ball can be stored. The top 130 portion and bottom 140 portion are each configured with one or more matching clasps 110 that engage to securely hold the top 130 portion to the bottom 140 portion to define the spherical compartment. In one embodiment, an optional hole 120 is provided in a portion of the surface of the container 150 so that the lollipop stick 40 may pass through the hole 120 or so that the threaded mount 50 may pass through the hole 120.

[23] FIGS. 5A-5D are block diagrams illustrating an example alternative engagement mechanism for releasably securing a lollipop ball to a lollipop stick according to an embodiment of the present invention. In the illustrated embodiment, a lollipop stick 150 is provided that has two or more forks 160 and each fork 160 has a barb 170 at its end. A corresponding insert 180 is also provided that includes a support 190. The stick 150 is releasably secured to the

insert 180 by compressing the two or more forks 160 together and sliding the forks 160 into the insert 180. When the forks 160 are released, the barbs 170 engage the supports 190 to secure the lollipop ball (not shown) to the lollipop stick 150. The lollipop stick 150 may be detached from the insert 180 by compressing the two or more forks 160 and pulling the stick away from the insert 180. An advantage of this type of engagement mechanism is that it allows the lollipop ball to freely rotate about the lollipop stick 150 while remaining securely fastened to the lollipop stick 150.

[24] FIG. 6 is a flow diagram illustrating an example process for using a lollipop according to an embodiment of the present invention. The steps in the illustrated method can be performed in the order shown or in an alternative order. Initially, in step 200 one ore more lollipop balls are formed about an engagement mechanism. The engagement mechanism can be a female threaded cavity or a male threaded mount. The engagement mechanism may also be support platforms for receiving corresponding barbs on the lollipop stick.

[25] Next, in step 210 the lollipop stick is provided with a corresponding engagement mechanism. The engagement mechanism can be a female threaded cavity or male threads. The engagement mechanism may also be two or more forks with barbs such that the forks can be compressed together to slide into an insert where the barbs can engage the support platforms. The lollipop stick can also be decorated by wrapping the stick in a printed material, by printing directly onto the stick, by affixing items such as decorative crystals, jewels, and the like to the stick.

[26] Once the corresponding engagement mechanisms are in place, in step 220 the engagement mechanism of a first lollipop ball is releasably secured to the lollipop stick. This may be accomplished by screwing the lollipop stick into the engagement mechanism of the first lollipop ball, or by compressing the lollipop stick and sliding it into the engagement mechanism of the first lollipop ball. Once the lollipop ball is consumed or is otherwise done, as determined in step 230, the

engagement mechanism and the lollipop stick are detached in step 240. Then, in step 250 the engagement mechanism of a next lollipop ball is secured to the lollipop stick and the process continues with as many additional lollipop balls as desired.

[27] A significant advantage of the described lollipop ball with engagement mechanism and corresponding lollipop stick with engagement mechanism is that the lollipop stick can be reused by a consumer. Furthermore, the reusability of the lollipop stick causes the lollipop stick to become a fashion accessory that can be attractively decorated. Another significant advantage of the reusable nature of the described lollipop ball with engagement mechanism and corresponding lollipop stick with engagement mechanism is the reduction in litter and paper product consumption that is associated with conventional lollipops that require single use discardable sticks.

[28] The above description of the disclosed embodiments is provided to enable any person skilled in the art to make or use the invention. Various modifications to these embodiments will be readily apparent to those skilled in the art, and the generic principles described herein can be applied to other embodiments without departing from the spirit or scope of the invention. Thus, it is to be understood that the description and drawings presented herein represent a presently preferred embodiment of the invention and are therefore representative of the subject matter which is broadly contemplated by the present invention. It is further understood that the scope of the present invention fully encompasses other embodiments that may become obvious to those skilled in the art and that the scope of the present invention is accordingly not limited.

Claims

1. A reusable lollipop stick for use with a plurality of lollipops, comprising:

a stick having a proximal end and a distal end, wherein the proximal end engages a lollipop;

a first engagement mechanism located at the proximal end of the stick which is releasably engageable with a mating engagement mechanism on the lollipop to releasably secure the lollipop ball to the stick.

2. The lollipop stick of claim 1, further comprising one or more design elements on the stick.

3. The lollipop stick of claim 2, wherein the one or more design elements comprise printed material and/or one or more three dimensional objects affixed to the stick.

4. The lollipop stick of claim 3, wherein the three dimensional object is a crystal.

5. The lollipop stick of claim 4, wherein the crystal ranges in size from 2mm to 5mm.

6. The lollipop stick of any preceding claim, wherein the first engagement mechanism includes an internally threaded section.

7. The lollipop stick of any of claims 1 to 5, wherein the first engagement mechanism includes an externally threaded section.

8. A lollipop apparatus, comprising:

a lollipop stick having a proximal end and a distal end, the proximal end of the stick having a first engagement mechanism; and

a lollipop head which is at least partially formed of edible material and has a second engagement mechanism which releasably engages the first engagement mechanism, whereby the lollipop head is releasably secured to the stick to form a lollipop.

9. The apparatus of claim 8, wherein the lollipop head is of spherical shape.

10. The apparatus of claim 8 or claim 9, wherein the second engagement mechanism has an external surface and the lollipop head has a lollipop portion of edible material formed around at least a portion of the external surface of the second engagement mechanism.

11. The apparatus of claim 8 or claim 9, wherein the lollipop head is formed entirely of edible material and the second engagement mechanism is formed in the edible material of the lollipop head.

12. The apparatus of any of claims 8 to 11, wherein one of the engagement mechanisms comprises a shaped cavity and the other engagement mechanism comprises an externally shaped section which is shaped for releasable mating engagement in the cavity.

13. The apparatus of claim 12, wherein the cavity and section have matching threads or matching snap engaging formations to releasably secure the lollipop head to the stick.

14. The apparatus of claim 12, wherein the first engagement mechanism comprises an externally threaded section of the stick and the second engagement mechanism comprises a threaded cavity extending into the lollipop head which releasably engages the externally threaded section of the

stick to create the lollipop.

15. The apparatus of claim 12, wherein the first engagement mechanism comprises a threaded cavity at the proximal end of the stick and the second engagement mechanism comprises an externally threaded section extending from the lollipop head which releasably engages the threaded cavity of the stick to create the lollipop.

16. The apparatus of any of claims 8 to 15, wherein the lollipop stick comprises one or more design elements.

17. The apparatus of claim 16, wherein the one or more design elements comprise printed material and/or one or more three dimensional objects affixed to the stick.

18. The apparatus of claim 17, wherein the three dimensional object is a crystal.

19. The apparatus of any of claims 8 to 18, comprising a plurality of lollipop heads for successively securing to the stick one at a time prior to consumption.

20. A method of using a lollipop, comprising:

releasably securing a first lollipop head formed about a first lollipop head engagement mechanism to a mating engagement mechanism at a proximal end of a lollipop stick to create a first lollipop;

detaching the first lollipop head engagement mechanism from the mating engagement mechanism on the lollipop stick; and

releasably securing a second lollipop head formed about a second lollipop head engagement mechanism to the mating engagement mechanism on said lollipop stick to create a second lollipop.

21. A lollipop comprising:

a lollipop ball engagement mechanism having an exterior surface for engaging a lollipop ball and an interior surface;

a lollipop ball formed around at least a portion of the exterior surface of the lollipop ball engagement mechanism; and

a lollipop stick having a proximal end and a distal end, wherein the proximal end releasably engages the lollipop ball engagement mechanism to create the lollipop.

22. The lollipop of claim 21, wherein the lollipop ball is greater than 24 grams.

23. The lollipop of claim 21, wherein the lollipop ball is substantially equal to 32 grams.

24. The lollipop of claim 21, wherein the lollipop stick comprises one or more design elements.

25. The lollipop of claim 24, wherein the one or more design elements comprise printed material.

26. The lollipop of claim 24, wherein the one or more design elements comprise a three dimensional object affixed to the stick.

27. The lollipop of claim 26, wherein the three dimensional object is a crystal.

28. The lollipop of claim 27, wherein the crystal ranges in size from 2mm to 5mm.

29. The lollipop of claim 21, wherein the lollipop ball engagement mechanism is positioned substantially in the interior of the lollipop ball and defines a threaded cavity.

30. The lollipop of claim 29, wherein the proximal end of the stick includes an externally threaded section that releasably engages with the threaded cavity of the lollipop ball engagement mechanism to create the lollipop.

31. The lollipop of claim 21, wherein a portion of lollipop ball engagement mechanism extends outward from the lollipop ball and includes an externally threaded section to create the lollipop.

32. The lollipop of claim 29, wherein the proximal end of the stick includes a threaded cavity that releasably engages with the threaded section of the lollipop ball engagement mechanism.

33. A method for using a lollipop, comprising:

providing a lollipop ball engagement mechanism having an exterior surface for engaging a lollipop ball, the lollipop ball engagement mechanism also having an interior surface;

forming a lollipop ball about the lollipop ball engagement mechanism;

providing a lollipop stick having a proximal end and a distal end, wherein the proximal end is shaped to releasably engage the lollipop ball engagement mechanism to create the lollipop.

34. The method of claim 33, wherein the shape of the proximal end of the lollipop stick includes a threaded section.

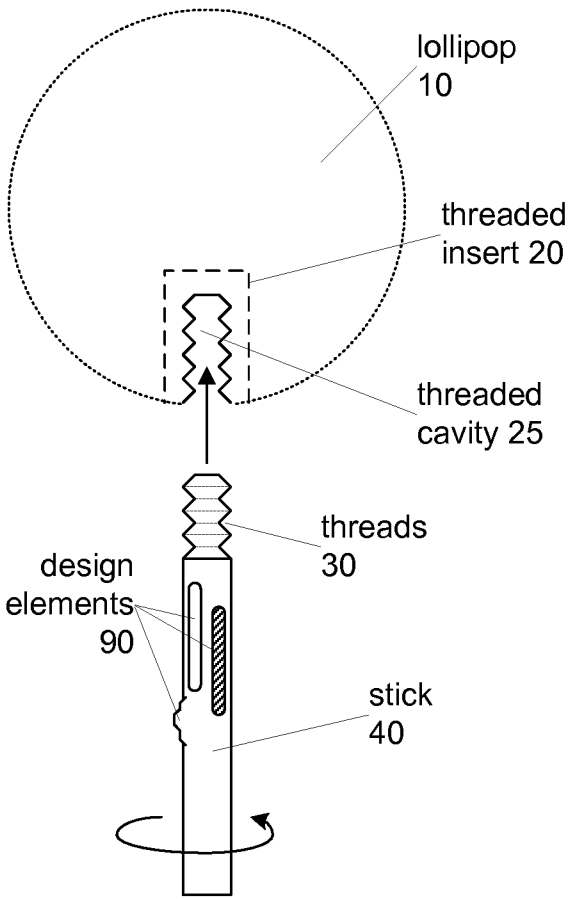


FIG. 1

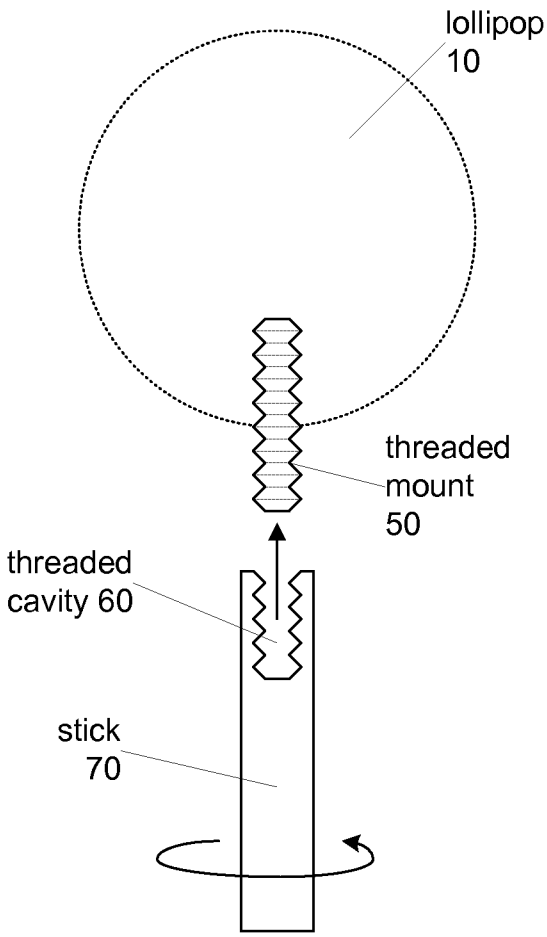


FIG. 2

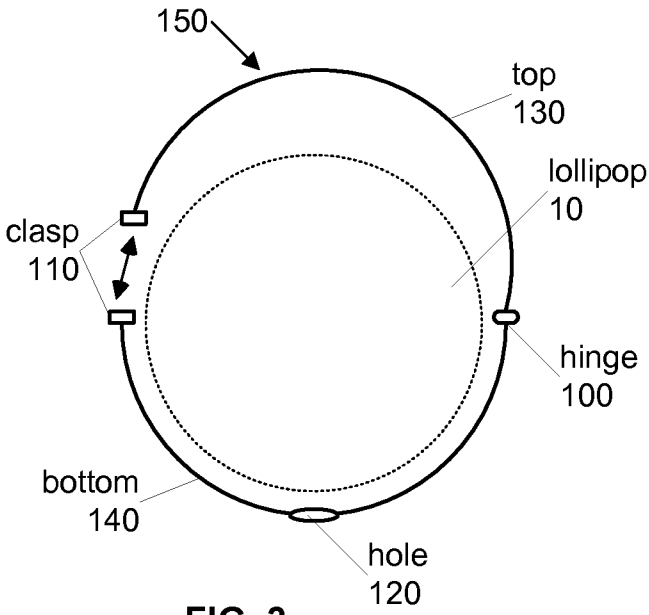


FIG. 3

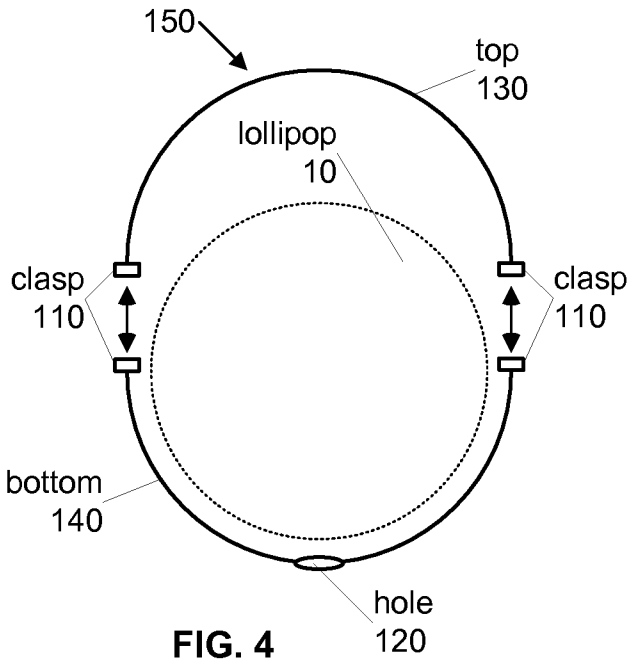


FIG. 4

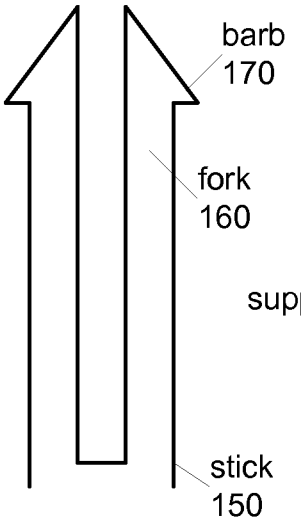


FIG. 5A

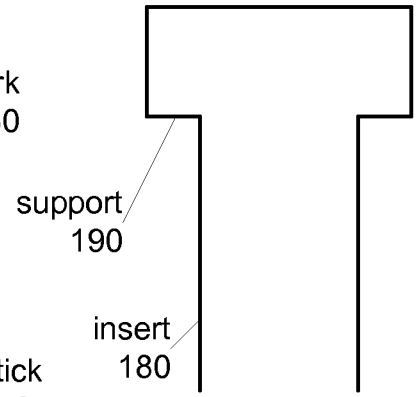


FIG. 5B

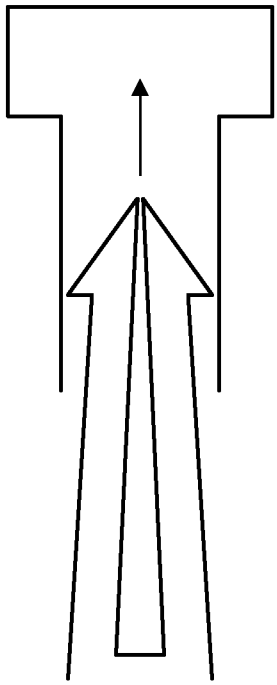


FIG. 5C

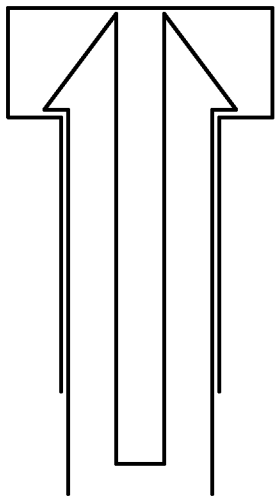


FIG. 5D

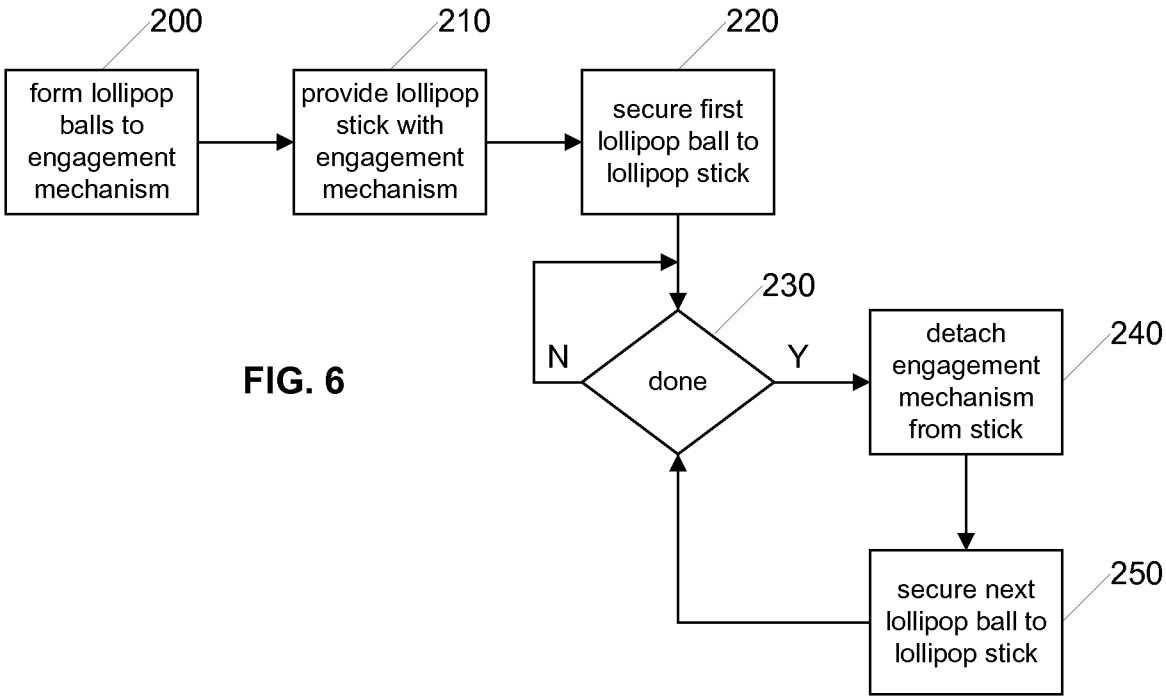


FIG. 6

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2009/033762

A. CLASSIFICATION OF SUBJECT MATTER

A23G 3/56(2006.01)i

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)
IPC A23G 3/00, 3/56

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean Utility models and applications for Utility models since 1975, Japanese Utility models and applications for Utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
e-KOMPASS(KIPO internal database), Dephion

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 7014877 B2 LOBL, NAFTALI Mar. 21, 2006 See abstract; fig.2; column 4, lines 22 to 25. See fig. 9 and column 5, lines 56 to 63.	1-5, 8-11, 21-28
X	US 2006/0286283 A1 YOON, JEONG MIN Dec. 21, 2006 See figs.1-2, paragraphs [0015]-[0016] and claims 1-5. See fig. 3 and paragraph [0019].	1-11, 21-32
A	JP 05-153911 A HIDEKAZU, OGAWA et al. Jun. 22, 1993 See the whole document.	1-11

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
"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
"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
"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
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents,such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
25 NOVEMBER 2009 (25.11.2009)	**27 NOVEMBER 2009 (27.11.2009)**

Name and mailing address of the ISA/KR
Korean Intellectual Property Office
Government Complex-Daejeon, 139 Seonsa-ro, Seo-gu, Daejeon 302-701, Republic of Korea
Facsimile No. 82-42-472-7140

Authorized officer
KIM, Tae San
Telephone No. 82-42-481-5633

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2009/033762

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.: 13-15, 17-18
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

Said claims are too unclear to be defined.

3. ☒ Claims Nos.: 12, 16,19
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required addtional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2009/033762

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