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(54) **TOP FOR A DRINKS CONTAINER**

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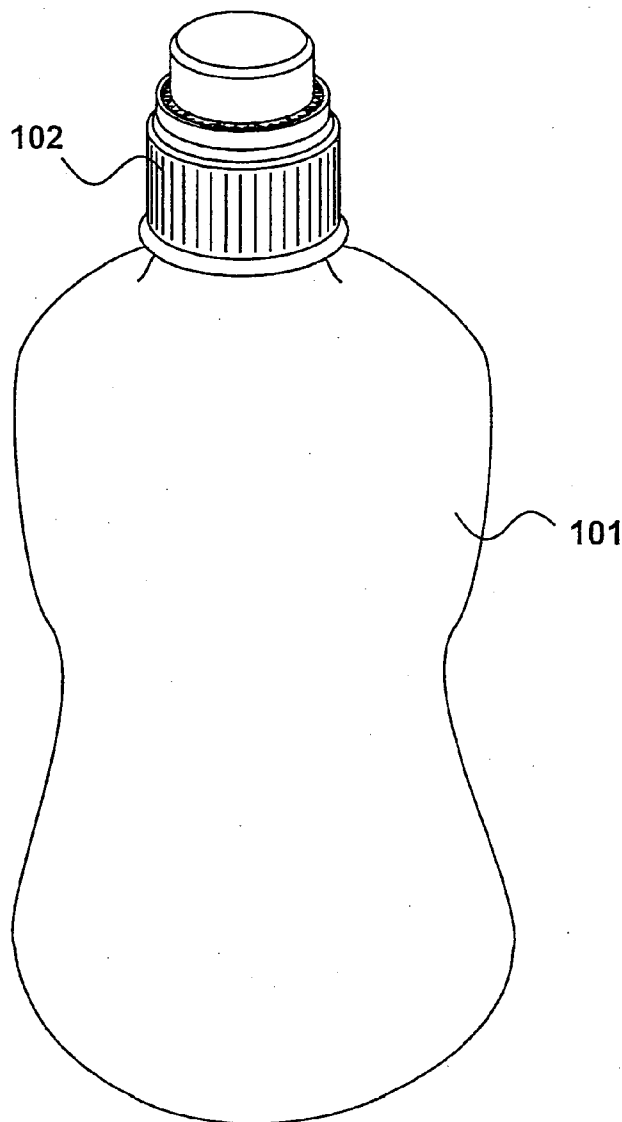
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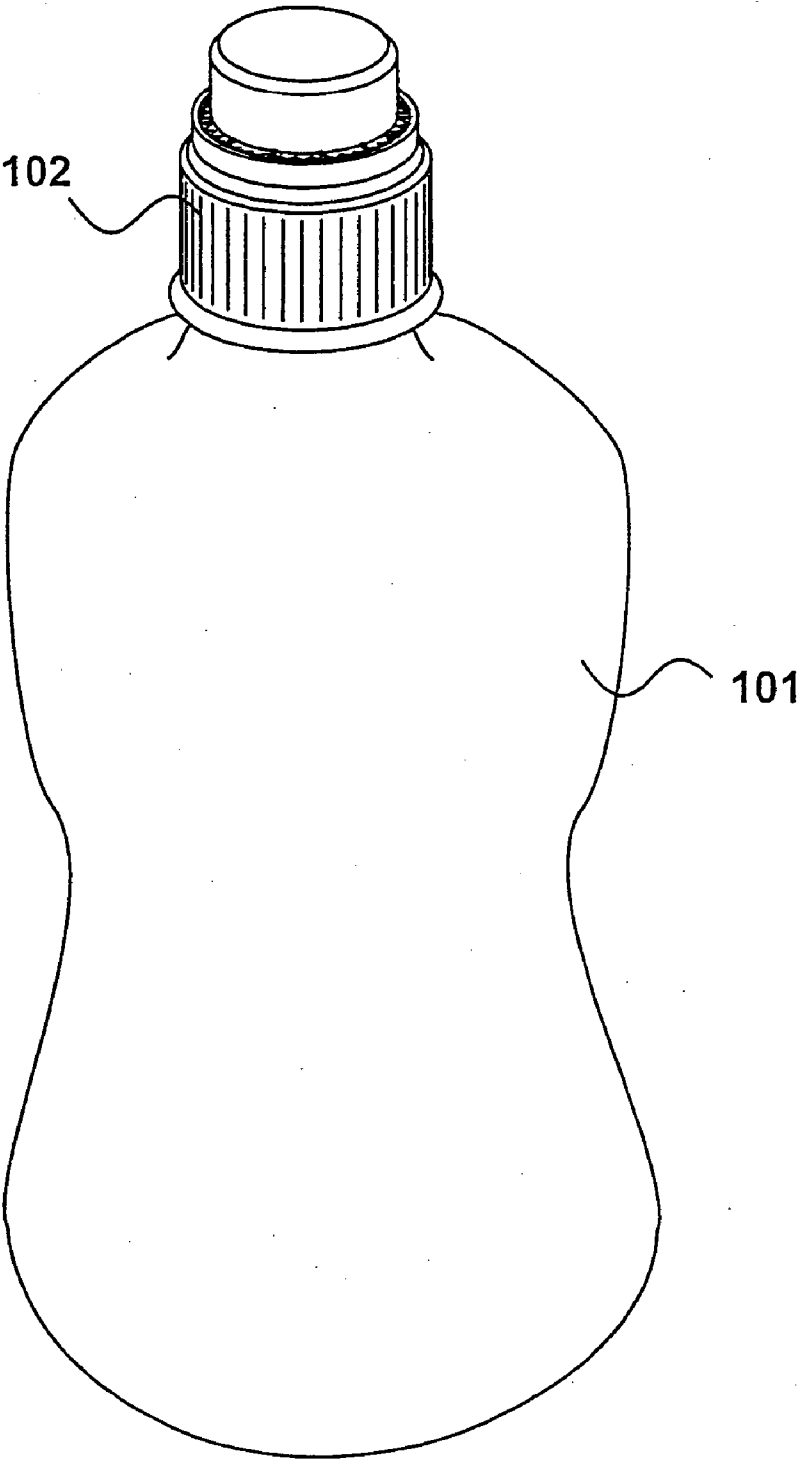
**ABSTRACT**

A top (102) for a drinks container (101) comprising a sealing cap (201) configured to seal the open end of a container. The top also has a cover (202) removably attached to the top of the sealing cap such that a gap is provided between the sealing cap and the cover. A disc (331) is located within the gap such that the disc is accessed by removing the cover from the sealing cap.

(21) Appl. No.: **11/089,068**

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*Figure 1*

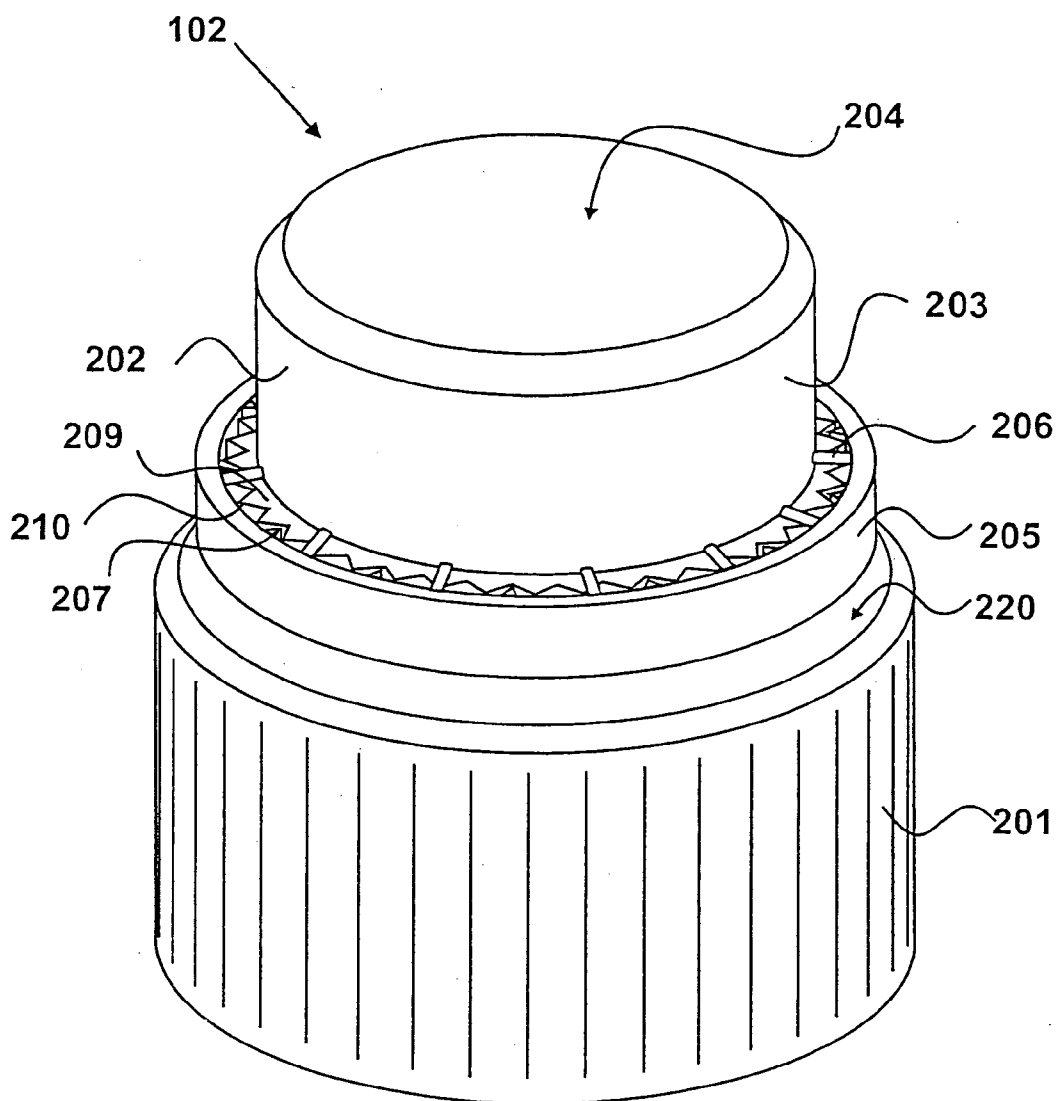


Figure 2

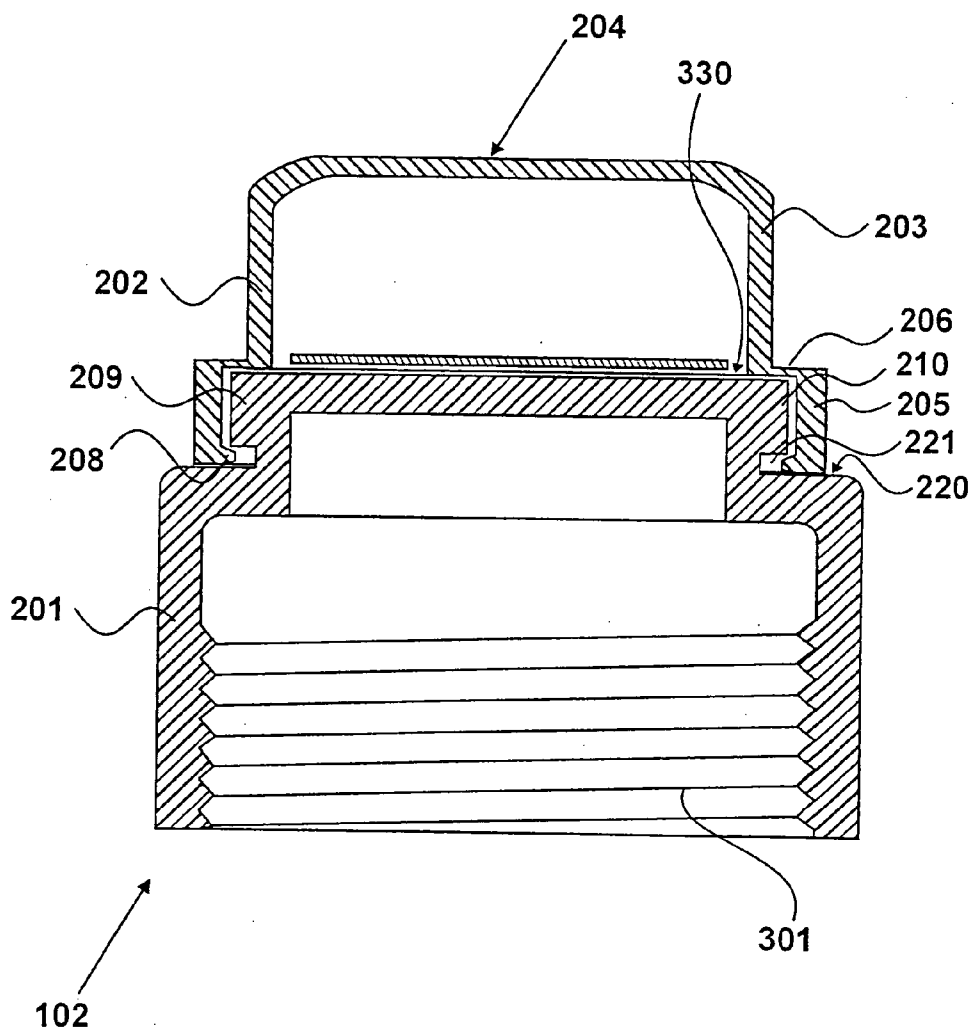


Figure 3

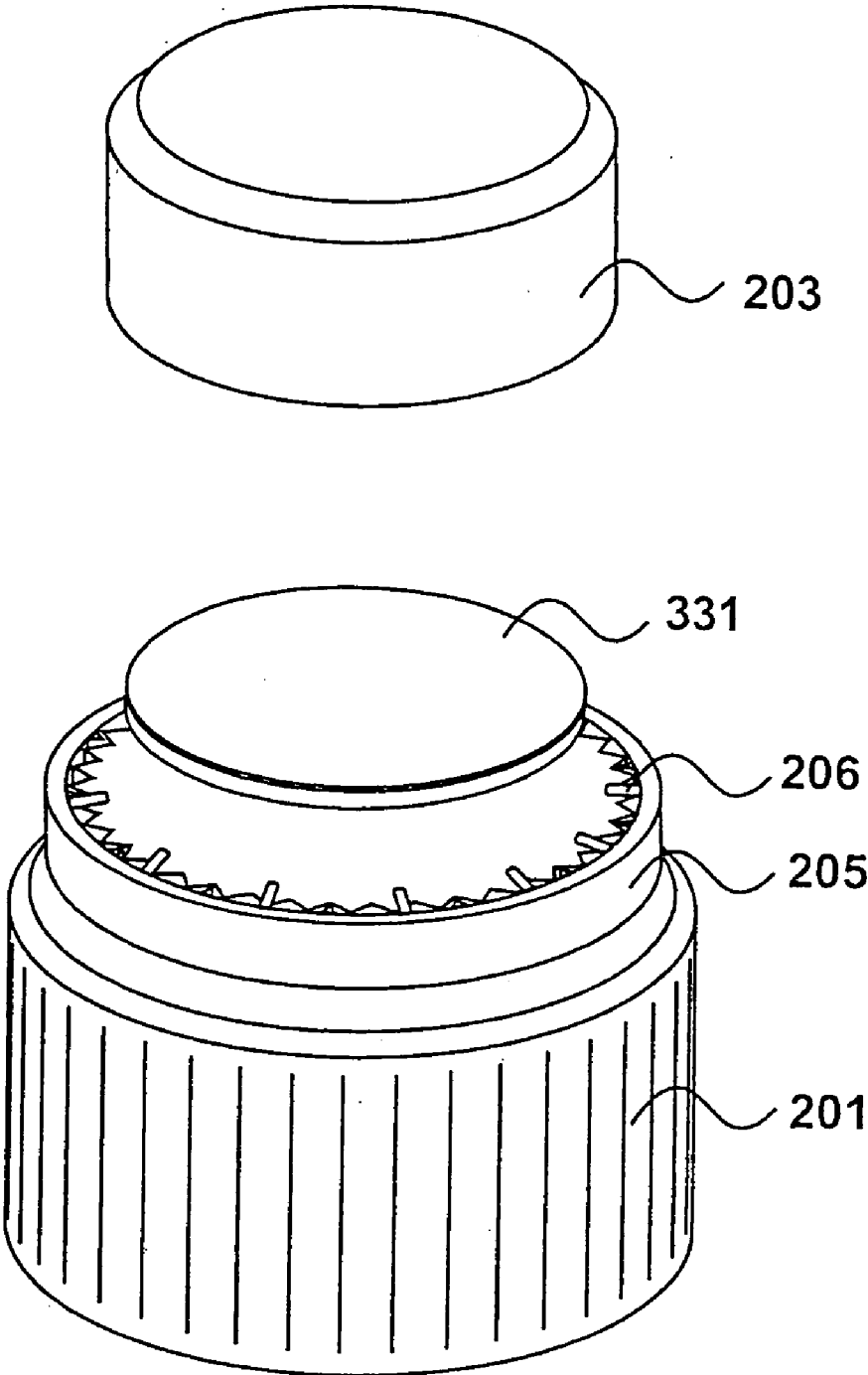


Figure 4

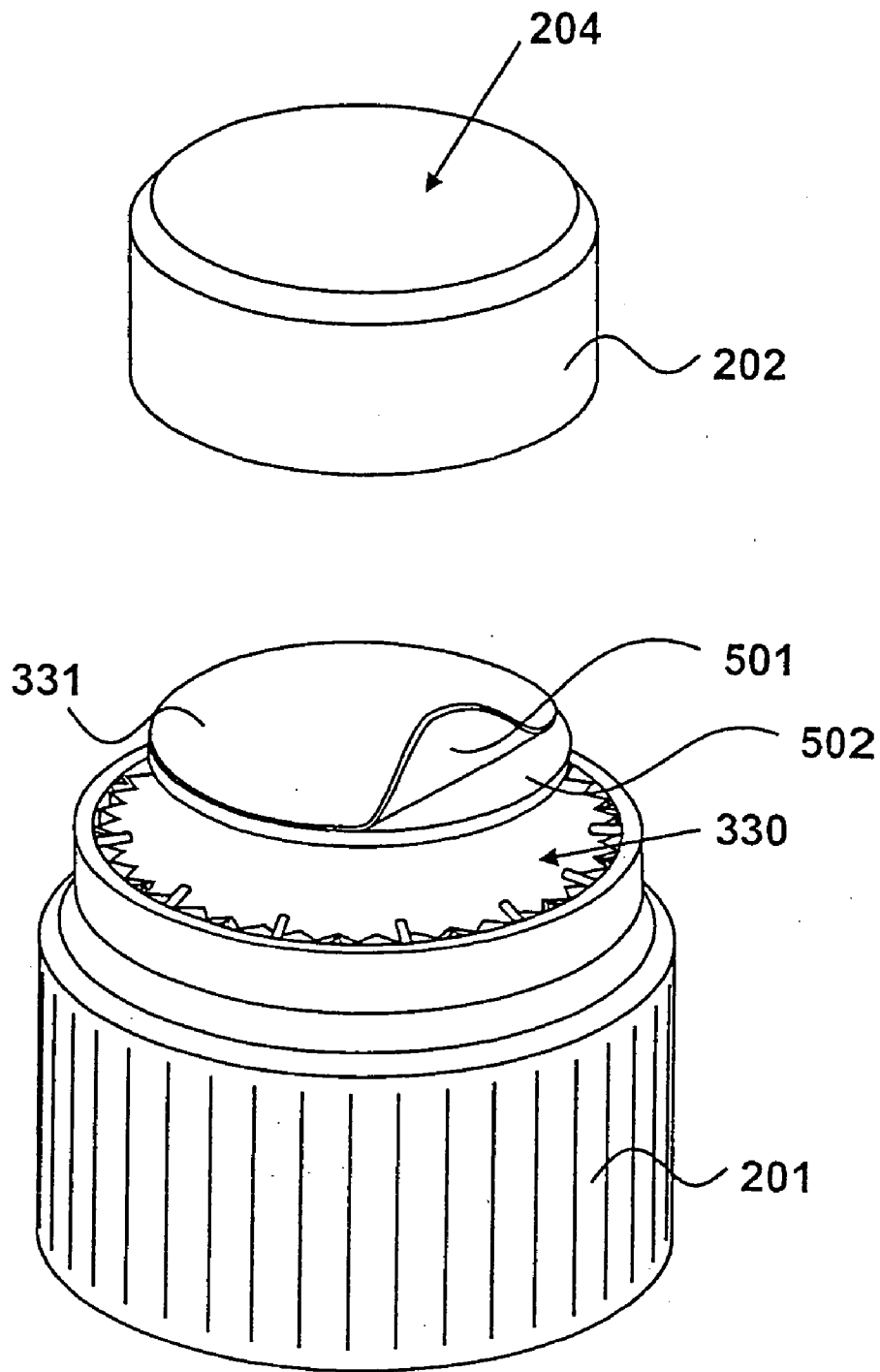


Figure 5

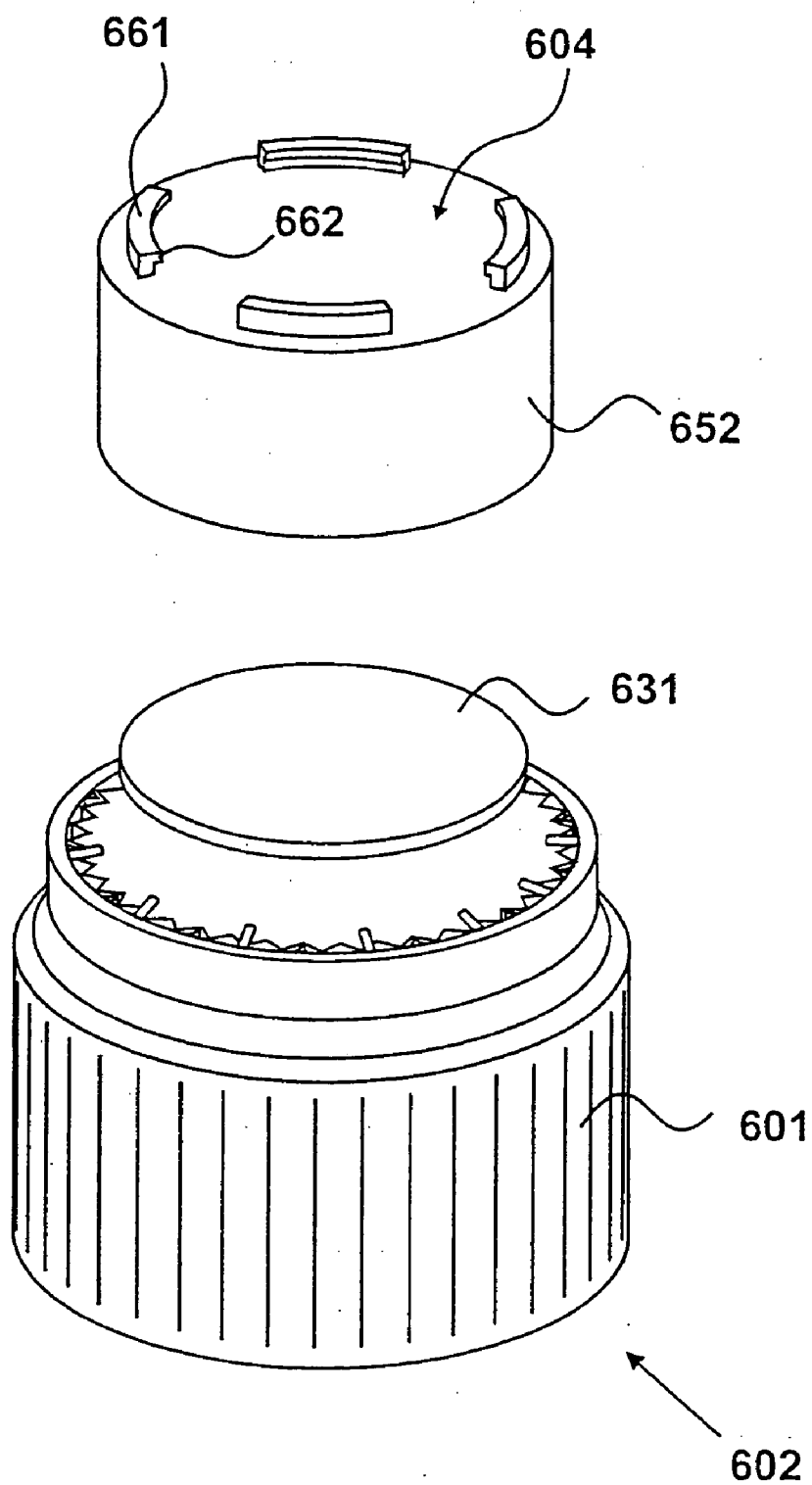


Figure 6

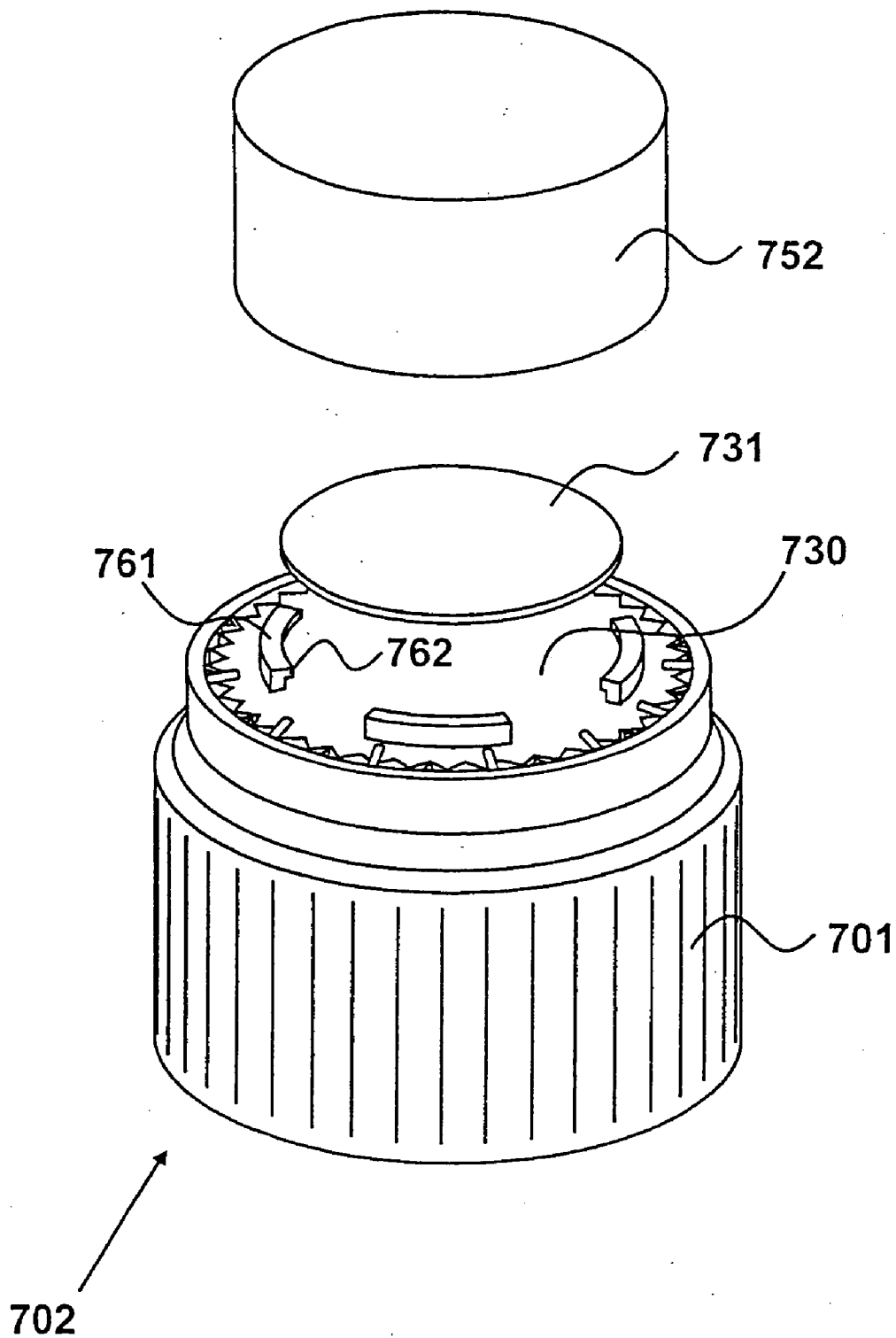
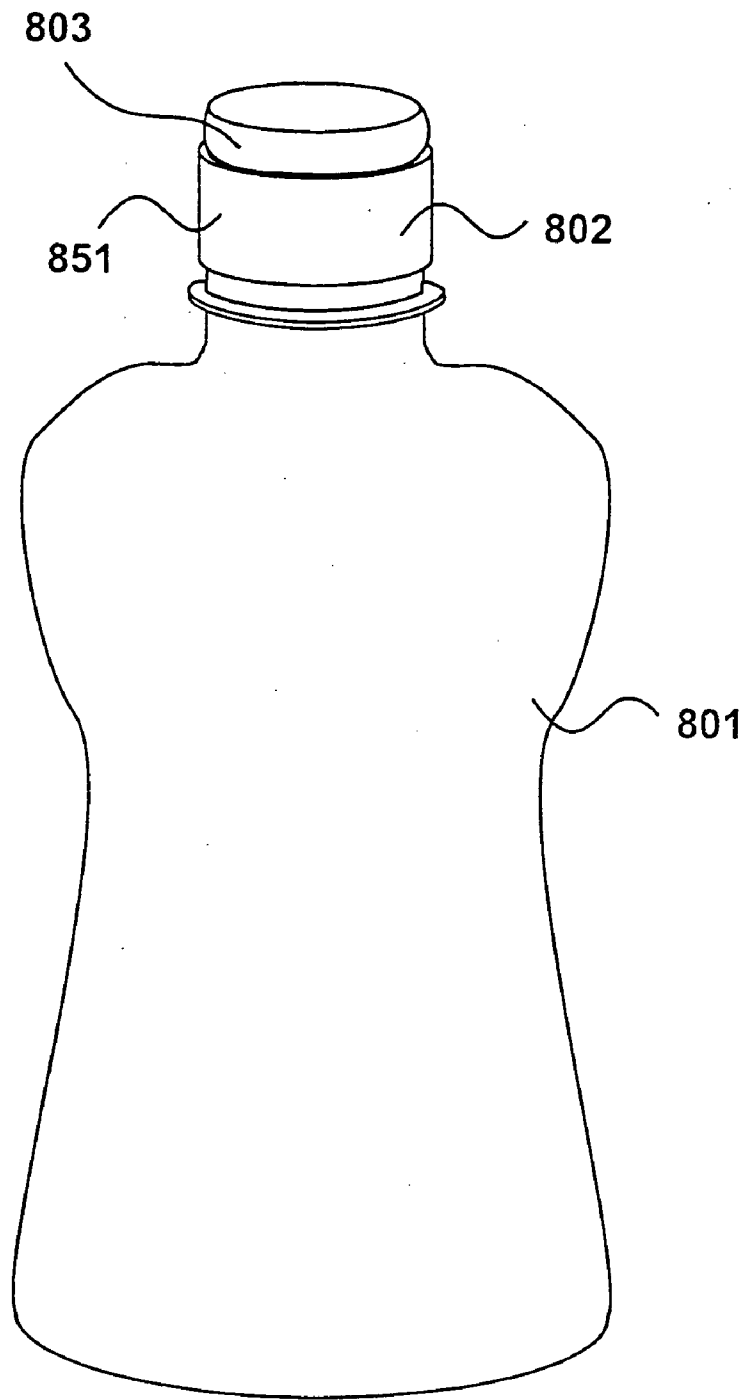


Figure 7





*Figure 8*

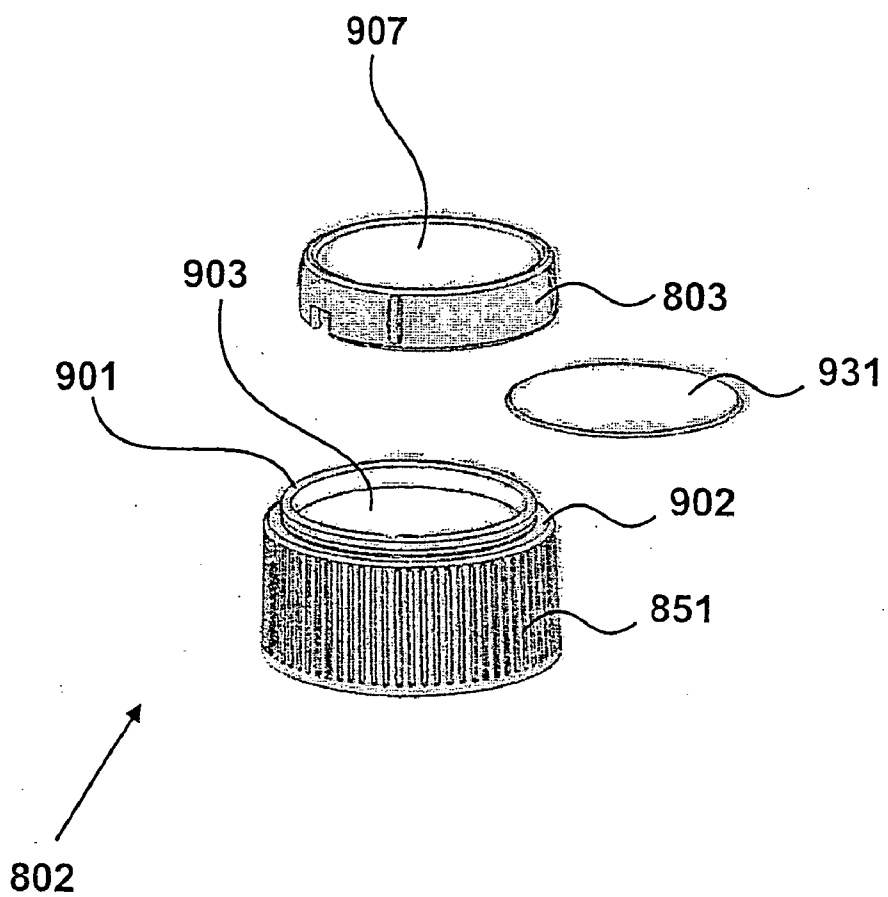


Figure 9

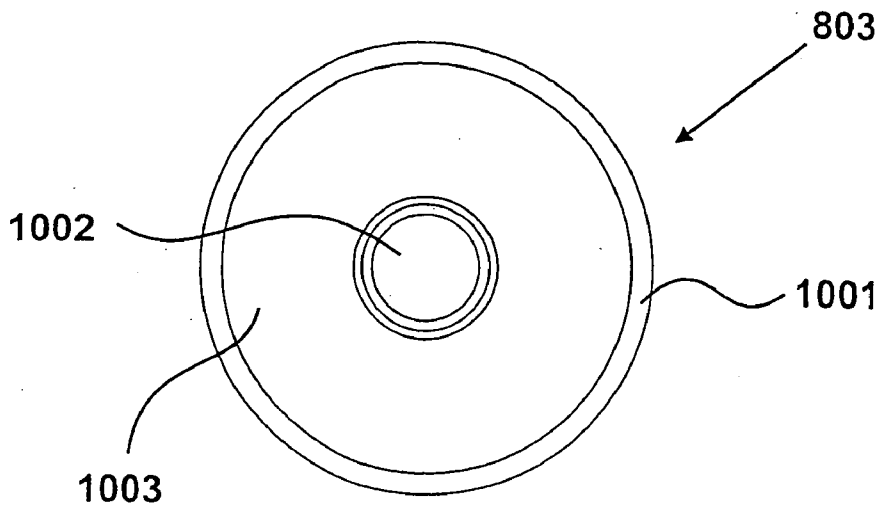


Figure 10A

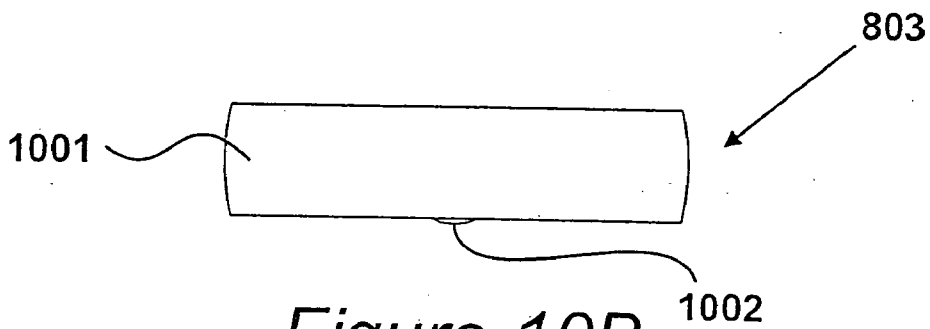


Figure 10B

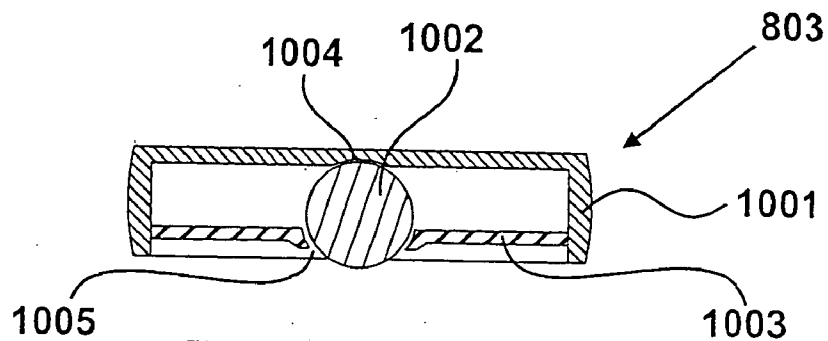


Figure 10C

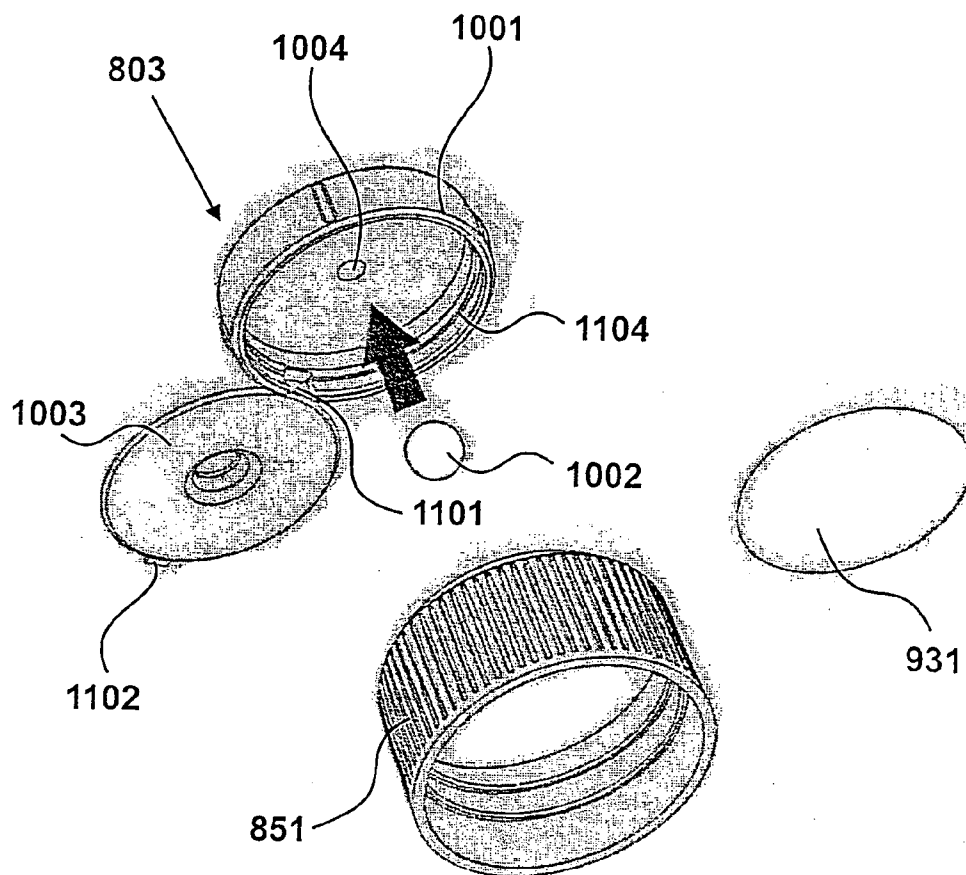


Figure 11

**TOP FOR A DRINKS CONTAINER**

FIELD OF THE INVENTION

[0001] The present invention relates to a top for a drinks container, a playing piece for a game, and a method of manufacturing a playing piece for a game.

BRIEF SUMMARY OF THE INVENTION

[0002] According to a first aspect of the present invention, there is provided a top for a top for a drinks container comprising: a sealing cap configured to seal the open end of a container; a cover removably attached to the top of the sealing cap such that a gap is provided between the sealing cap and the cover; and a disc located within said gap such that said disc is accessed by removing said cover from said sealing cap.

[0003] According to a second aspect of the present invention, there is provided a method of manufacturing a playing piece for a game comprising the steps of: removing a cover attached to the top of the sealing cap of a drinks container; removing a disc located between the sealing cap and the cover; and attaching the disc to the cover or to the cap.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

- [0004] FIG. 1 shows a drinks container 101 having a top 102 embodying the present invention;
- [0005] FIG. 2 shows a perspective view the bottle top 102 after being removed from the bottle 101;
- [0006] FIG. 3 shows a cross-sectional view of the bottle top of FIG. 2;
- [0007] FIG. 4 shows the top 102 with the main body 203 of the cover 202 removed from the sealing cap 201;
- [0008] FIG. 5 shows the top 102 with the main body of the cover 203 removed from the sealing cap 201, and with the first layer 501 of the disc 331 partly peeled away from the transport sheet 502;
- [0009] FIG. 6 shows an alternative top 602 for the drinks container 101;
- [0010] FIG. 7 shows another alternative top 702 for the drinks container 101;
- [0011] FIG. 8 shows an alternative top 802 on a drinks container 801;
- [0012] FIG. 9 shows the bottle top 802 with the cover 803 removed from the cap 851;
- [0013] FIGS. 10A, 10B and 10C show respectively a bottom view, a side view and a cross sectional view of the cover 803; and
- [0014] FIG. 11 illustrate the method of construction of the bottle top 902.

WRITTEN DESCRIPTION OF THE BEST MODE FOR CARRYING OUT THE INVENTION

**FIG. 1**

[0015] A drinks container 101 having a top 102 embodying the present invention is shown in FIG. 1. The drinks container in the present embodiment 101 is a bottle of a

known type and may be manufactured from a plastics material or glass. The neck of the bottle 101 has an external thread while the bottle top 102 has a corresponding internal thread so that bottle top may be screwed onto the bottle as shown, to seal the bottle.

[0016] In the present case, the bottle 101 contains a carbonated drink, but the bottle is useable as a container for other drinks, such as mineral water.

[0017] In an alternative embodiment, the drinks container is a cardboard carton which has a moulded plastic threaded neck sealed to its opening so that the container is sealed by the screw-top 102.

**FIGS. 2 and 3**

[0018] The bottle top 102 after being removed from the bottle 101 is shown in further detail in the perspective view of FIG. 2 and the cross-sectional view of FIG. 3. The bottle top 102 has a lower part 201 which is a sealing cap and has the internal thread 301 for screwing onto the top of the bottle 101. The bottle top 102 also has an upper part 202, attached to the cap 201 and which forms a cover over the upper surface of cap 201.

[0019] In the present embodiment, the cover 202 has a main body 203 which is in the form of a cylinder closed at one end to form a flat upper surface 204. The cover also comprises a cylindrical ring 205 attached to the main body 203 by a number, in this case fifteen, of equally spaced strands 206. The internal surface of the second cylindrical portion 205 is provided with a number of equally spaced triangular shaped ridges 207, and an inwardly extending circular ridge 208 adjacent to its lower edge.

[0020] The cover 202 comprising the main body, the strands 206 and the cylindrical ring 205 with its internal ridges 207 and 208, is moulded as a single item from a plastics material. The strands 206 have a thickness which is relatively thin compared to that of the main body 203 and cylindrical ring 205 so that they may be manually broken without damaging the other parts.

[0021] The sealing cap 201 is substantially cylindrical in shape with a closed end forming an outer upper surface 220 and an inner upper surface 330. The closed end of the cap 201 has an upwardly extending portion 209, co-axial with the screw thread 301, and which has a number of radially extending teeth 210. The teeth are equally spaced around the upwardly extending portion 209 such that they interlock with the inwardly extending triangular ridges 207 of the cylindrical ring 205. A gap 221 is provided, between the teeth 210 and the outer upper surface 220, within which the inwardly extending ridge 208 of the circular ring 205 is located.

[0022] The cap 201, like the cover, is moulded from a plastics material.

[0023] A disc 331 is located on the inner upper surface 330 of the cap 201, and the cover 202 covers the disc. In the present embodiment the cover is formed from a material that is substantially opaque such that the disc cannot be seen.

[0024] To manufacture the top 102, the disc is placed on the cap 201, and the cover 202 is snap fitted onto the cap by passing the ring 205 over the teeth 210.

[0025] To remove the cover 202 from the cap 201 the cover is rotated with respect to the cap. The ring 205 is prevented from rotating with the remainder of the cover by the action of the teeth 210 on the triangular ridges 207 and consequently, the strands 206 are broken allowing the main body of the cover 203 to be removed.

[0026] In an alternative embodiment, the circular ring 205 is formed without the internal ridges and the cap is formed without the teeth 210. However, the ring is provided with a tab which allows a user to break off the ring and thereby lift off the cover.

[0027] In a further alternative embodiment, the cover is provided with a break-off section which extends around only a portion of its circumference. The break-off section is provided with an inwardly extending lip which is located under a flange of the cap, such that the cover cannot be removed until the break-off section has been broken off.

[0028] Thus, in each of the above described embodiments, the cover and sealing cap are shaped to provide a gap between them in which the disc is located, such that the disc is only accessible by removing the cover from the cap. In addition, the cover 202 is formed from two parts which are configured to be separated by a breaking process. Thus, to remove the cover from the cap the two parts are broken apart.

#### FIG. 4

[0029] The top 102 is shown in FIG. 4 with the main body 203 of the cover 202 removed from the sealing cap 201. Thus the strands 206 are broken and therefore the main body 203 is broken away from the ring 205.

[0030] Having removed cover, the disc 331 is now accessible. In the present embodiment the disc is a flat thin circular body, but in alternative embodiments the discs are flat thin bodies having shapes other than circular, such as octagonal, square, etc.

[0031] In the present embodiment the disc 331 is a sticker. It has a first layer which has a graphic on one surface and an adhesive layer on its other surface. The adhesive layer is stuck to a transport sheet which is manufactured to be releasable from the adhesive.

#### FIG. 5

[0032] The top 102 is shown again in FIG. 5 with the main body of the cover 203 removed from the sealing cap 201, and with the first layer 501 of the disc 331 partly peeled away from the transport sheet 502. The adhesive on the first layer allows it to be stuck to the upper surface 204 of the cover 202 or alternatively to the inner upper surface 330 of the cap 201. The cover, or the cap, may then be used in a board game, such as chess, or an original board game, in which playing pieces are distinguished by the picture or graphic on the disc.

[0033] In one embodiment, the graphic on the disc represents a sports person and the cap or cover with the sticker attached are used as playing pieces in a game in which the pieces are manually flicked or pushed.

[0034] In the present embodiment, the graphic illustrates a well known personality, and therefore the playing pieces are collectable items. However, due to the opacity of the cover,

the identity of the personality can only be discovered by breaking off the cover from the cap.

#### FIG. 6

[0035] An alternative top 602 for the drinks container 101 is shown in FIG. 6. The top 602 is substantially the same construction as top 202 except that alternative means are provided to attach the disc 631 to the upper surface 604 of the cover 652.

[0036] In this embodiment, the disc 631 comprises a single layer of material having a graphic on at least one of its two faces. The disc is made from card in the present embodiment but a plastics material is used in an alternative embodiment. The upper surface 604 of the cover 652 is provided with a number, in the present example four, upwardly extending posts 661 which have an inwardly extending lip 662 at their upper end. The posts are located around a circle of a diameter slightly larger than that of the disc 631, such that the disc is locatable between the posts 661 and is retained by the inwardly extending lips of the posts. The posts 761 therefore provide a means of attaching the disc to the cover 602.

#### FIG. 7

[0037] Another alternative top 702 for the drinks container 101 is shown in FIG. 7. The top 702 is substantially the same construction as top 202 except that alternative means are provided to attach the disc 731 to the upper surface 730 of the cap 701.

[0038] In this embodiment, the disc 731 comprises a single layer of material having a graphic on at least one of its two faces. The upper surface 730 of the cap 701 is provided with a number, in the present example four, upwardly extending posts 761 which have an inwardly extending lip 762 at their upper end. The posts are located around a circle of a diameter slightly larger than that of the disc 731, such that the disc is locatable between the posts 761 and is retained by the inwardly extending lips of the posts.

[0039] Thus on removal of the cover 752 from the cap 701, the disc is accessible. It may then be located between the posts 761 and retained by their inwardly extending lips 762. The posts 761 therefore provide a means of attaching the disc to the cap 701.

#### FIG. 8

[0040] An alternative top 802 on a drinks container 801 is shown in FIG. 8. The top 802 comprises a sealing cap 851 and a cover 803 which covers the upper surface of the cap 851. The cap 851 has an internal thread configured to screw onto an external thread on the neck of the container 801.

#### FIG. 9

[0041] The bottle top 802 is shown in FIG. 9, with the cover 803 removed from the cap 851. The cap 851 is moulded from a plastics material, and has a circular ridge 901 extending upward from its upper surface 902. Thus, the upper surface 902 and the ridge 901 form a recess 903 within which a disc 931 is located when the bottle top 802 is whole, as in FIG. 8. However, in FIG. 9 the disc 931 has been removed from the recess 903.

[0042] The cover **803** is substantially cylindrical having a closed end forming a flat upper surface **907**.

[0043] In the present embodiment the disc **931** is a sticker. It has a first layer which has a picture on one surface and an adhesive layer on its other surface. The adhesive layer is stuck to a transport sheet which is manufactured to be releasable from the adhesive. Once removed from the transport layer, the first layer may be positioned over, and stuck to, the top surface **907** of the cover **803**.

[0044] Thus, the cover **803** forms a cover over the sticker **931** when the bottle top **801** is whole, and after removal of the cover **803** from the cap **851**, the sticker becomes accessible and may be stuck to the top of the cover.

[0045] In the present embodiment the cover **803** is opaque such that the picture on the sticker cannot be viewed until the cover is removed.

[0046] In alternative embodiments, the disc is a single sheet of card or plastics material rather than a sticker. In these embodiments, other means of attachment of the disk to the cover are provided. In one case, the cover is moulded such that its top surface is provided with shaped ridges, allowing the disk to be clipped or slotted thereto. Alternatively, posts of the type shown in **FIG. 6** are provided on the cover.

[0047] In the present embodiment, the cover **803** is simply a push fit onto the ridge **901** of the cap **851**. However, in other embodiments, the cap is only removable from the sealing cap **851** by a breaking process. In one such embodiment, the cover is formed with an extended skirt which clips over a flange on the cap. The skirt has a pair of parallel lines of perforations extending around it to form a tear-off strip. Thus, the cover cannot be removed from the cap until the tear-off strip has been torn off. In another such embodiment, the cover is formed with a skirt, the lower part of which clips over a flange on the cap. The skirt has a single line of perforations extending around it, and the top part of the cover can only be removed from the cap by breaking along the line of perforations and leaving the lower part of the skirt in place on the cap. These means of breakable attachment are similar to those presently used for attaching conventional bottle tops to bottles.

**FIGS. 10A, 10B and 10C**

[0048] A bottom view, a side view and a cross sectional view of the cover **803** are shown in **FIGS. 10A, 10B and 10C** respectively. The cover **803** comprises an outer inverted cup **1001** which contains a steel ball-bearing **1002** and an inner plate **1003**. The inside surface of the cup **1001** has a recess **1004** which has a part spherical shape to match that of the ball-bearing **1002**. The inner plate **1003** has: an aperture **1005** at its middle through which a part of the ball-bearing **1002** extends; and a rim around the aperture which provides enhanced strength for locating the ball-bearing. The inner plate **1003** is rigidly attached to the cup **1001**, with the ball-bearing sandwiched between the inner plate **1003** and the inner surface of the cup **1001**, such that it is retained within the recess **1004** and the aperture **1005**.

[0049] The relative dimensions of the ball-bearing, the inner plate and the cup are such that the ball bearing is free to rotate. In addition, the height of the cup **1001** and the diameter of the ball-bearing are such that a small part of the

ball-bearing protrudes below the bottom edge of the cup. Consequently, the cover **803** may be supported on a flat surface on the protruding part of the ball bearing. Furthermore, by manually pushing or flicking its side, the cover **803** may be made to travel over the flat surface.

[0050] It is envisaged, that the cover may be used as a playing piece in a table-top game. If the game were based on a sport such as football, then the disc's picture may represent a sportsman, for example a well known footballer.

[0051] The production of a set of discs, each representing a different well known sports person is also envisaged. Consequently, the covers with their discs attached could be collected by the purchaser of the drinks bottles until they had the full set.

**FIG. 11**

[0052] The method of construction of the bottle top **902** is illustrated in **FIG. 11**. The outer cup **1001** and the inner plate **1003** are joined by a hinge portion **1101**, and are moulded as a single piece of plastics material. The ball-bearing **1002** is located within the recess **1004** and the inner plate **1003** is rotated around the hinge portion **1101** until a tab **1102** moulded on the edge of plate **1003** clips into a groove **1104** on the inner cylindrical wall of the cup **1001**. Thus, the plate **1003** is locked in place, and the ball-bearing is restrained. The sticker **931** is located within the recess on the top of the screw-cap **802**, and then the cover **803** is located onto the cap. Thus, the sticker **931** is located in a gap between the cover **803** and the cap **851**.

[0053] In an alternative embodiment, the outer cup of the cover is deeper, to form a taller playing piece for a game. A post extends from the centre of the inner circular wall of the cup, and it has the part spherical recess formed in its end. Thus, the ball-bearing is retained between the post and the inner plate.

[0054] In a further alternative embodiment, the cover **803** is replaced by an alternative cover that comprises an outer cup, similar to outer cup **1001**, but which has a magnetic material attached to its inner surface. In this embodiment, the cover conceals a disc, as in the above embodiments, which may be attached onto the top of the cover. The magnetic material then allows the cover to be magnetically fixed to a ferrous material to display the graphic on the disc. Thus, the cover/disc assembly may be used as a fridge magnet, or a piece used in a game which makes use of its magnetic properties.

1. A top for a drinks container comprising:

a sealing cap configured to seal the open end of a container;

a cover removably attached to the top of the sealing cap such that a gap is provided between the sealing cap and the cover; and

a disc located within said gap such that said disc is accessed by removing said cover from said sealing cap.

2. A top according to claim 1, wherein the top comprises a means for attaching the disc onto the sealing cap or the cover.

3. A top according to claim 2, wherein said disc is a sticker and said means for attaching is an adhesive layer of the sticker.

4. A top according to claim 2, wherein said means for attaching the disc onto the sealing cap or the cover is a number of elements extending from a surface of the cap or cover and configured to mechanically retain the disc.

5. A top according to claim 1, wherein said sealing cap is moulded from a plastics material.

6. A top according to claim 1, wherein said sealing cap is a screw cap.

7. A top according to claim 1, wherein said cover is removable from said sealing cap by a breaking process.

8. A top according to claim 1, wherein said cover comprises a main part and a second part and said main part is removable from said sealing cap by a breaking the second part away from the main part.

9. A top according to claim 8, wherein said second part is a ring which is connected to the main part by a number of elements that are configured to break.

10. A top according to claim 9, wherein said ring has an inner surface configured to co-operate with a surface of the sealing cap such that the ring is prevented from rotating with respect to said sealing cap.

11. A top according to claim 7, wherein said cover has perforations defining a tear-off strip and said breaking process comprises tearing of said tear-off strip from around the cover.

12. A top according to claim 1, wherein sealing cap and said cover are fabricated from plastics material.

13. A top according to claim 1, wherein said cover has retaining means which retains a ball bearing.

14. A top according to claim 13, wherein a portion of said ball bearing protrudes from said cover such that after removing said cover from said sealing cap said ball bearing provides a rolling or sliding means.

15. A top according to claim 1, wherein said cover comprises; an upper part and a lower part defining an aperture attached to said upper part, the ball bearing being retained between said upper and lower parts while a portion of the ball bearing protrudes through said aperture.

16. A top according to claim 1, wherein said cover comprises a magnetic material to allow attachment to a ferrous material.

17. A top according to claim 1, wherein said cover is opaque such that the disc is obscured from view until the cover is removed from the sealing cap.

18. A bottle sealed by a top according to claim 1.

19. A playing piece for a game which is formed from the disc and the cover of the top of claim 1.

20. A playing piece for a game which is formed from the disc and the sealing cap of claim 1.

21. A game comprising a plurality of playing pieces in which at least one of said playing pieces comprises the disc and the cover of the top of claim 1.

22. A game comprising a plurality of playing pieces in which at least one of said playing pieces comprises the disc and the cap of the top of claim 1.

23. A method of manufacturing a playing piece for a game comprising the steps of:

removing a cover attached to the top of the sealing cap of a drinks container;

removing a disc located between the sealing cap and the cover; and

attaching the disc to the cover or to the cap.

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