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(54) Condom applicator

(57) The applicator comprises a rolled up condom 4 and a ring member 6 for applying the condom by unrolling, the ring member comprising side wall 8, flat portion 10, first lip 12, second lip 16, and first and second ends joined together by a frangible joint to form a complete ring retaining the condom in position prior to use of the applicator and which breaks during use, the ring member being constructed to control the tendency of the first and second ends to twist after the frangible joint has been broken. The flat portion 10 may instead be formed inwardly of the side wall 8 (Fig. 4). The applicator may be contained in a hermetically sealed primary container having a peel-off lid and a number of such containers may themselves be contained in a secondary container 44 having hard inner and soft outer parts, the latter being pushable through a hole 54 in the former to displace and eject in primary container.

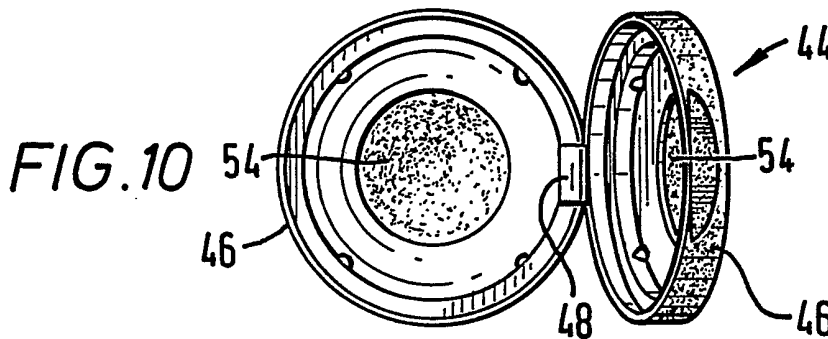
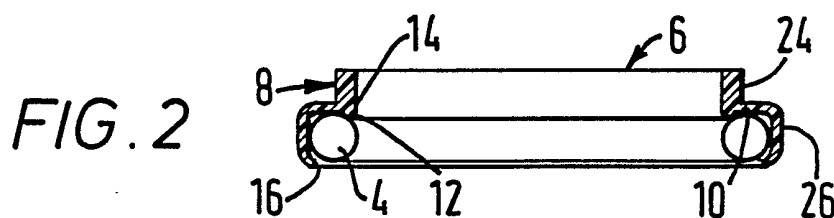


FIG. 1

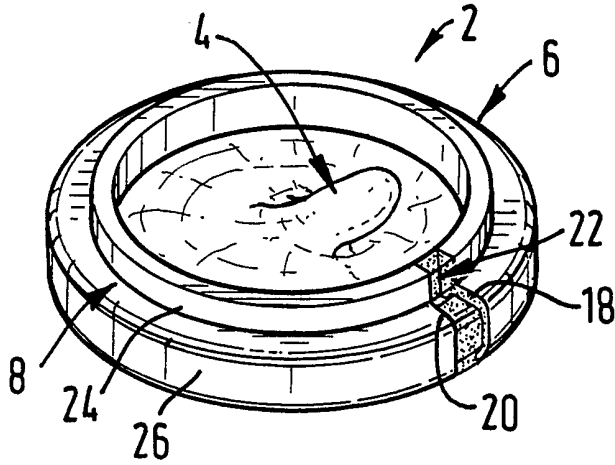


FIG. 2

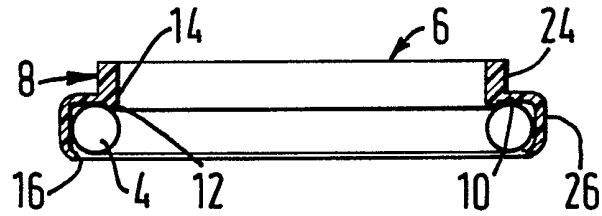


FIG. 3

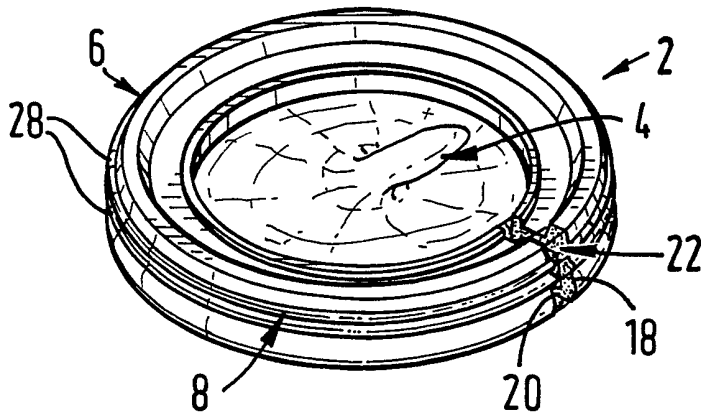


FIG. 4

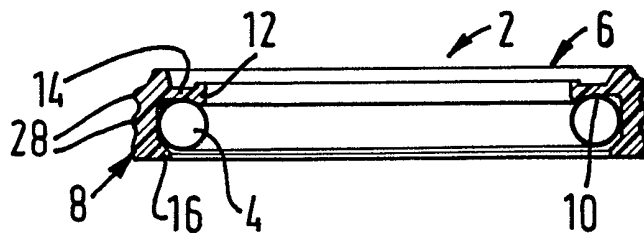


FIG. 5

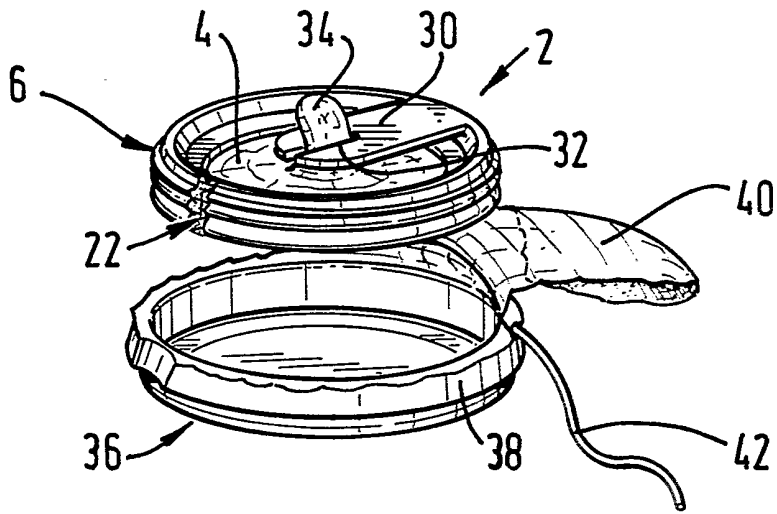


FIG. 6

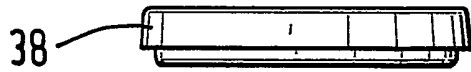


FIG. 7

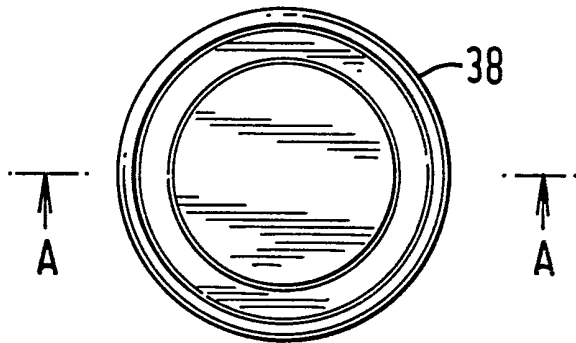


FIG. 8

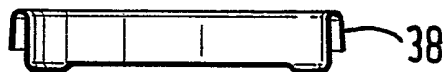
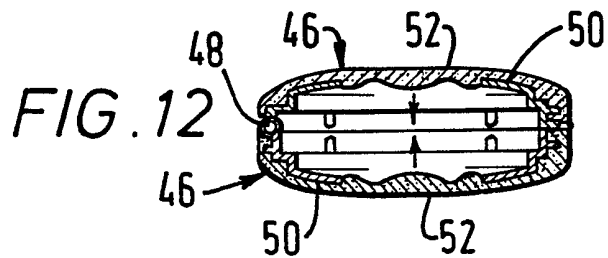
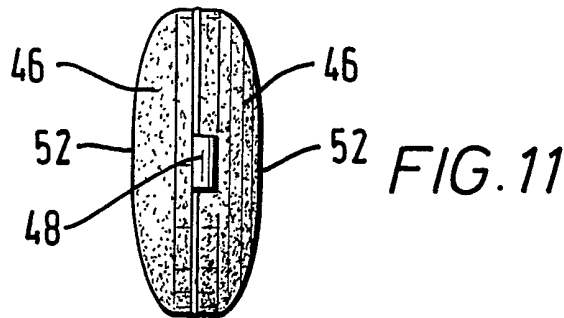
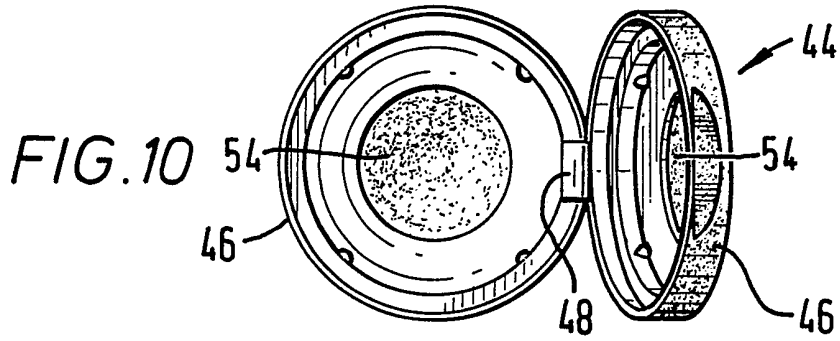
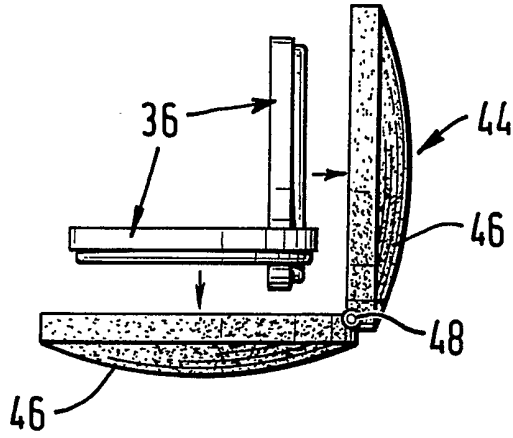


FIG. 9



A CONDOM APPLICATOR

This invention relates to a condom applicator.

Condoms have been widely known and used for many years. Many aspects of condoms are disliked by persons using them, including negative spontaneity, 5 general awkwardness in applying the condom, possibly getting the condom inside out, slipperiness of feel; lubricant smell on fingers and cheap, uninspiring packaging.

It is an aim of the present invention to reduce the above mentioned problems, thereby promoting greater 10 user confidence and user ease of application, which in turn encourages the use of the condom in its important function of acting as a contraceptive and helping to prevent the spread of sexually-transmitted diseases.

Accordingly, this invention provides a condom 15 applicator comprising a rolled up condom and a ring member for applying the condom by unrolling it over a penis:

the ring member comprising a side wall, a flat 20 portion which extends substantially perpendicularly with respect to the side wall, a first lip which is provided along an inner part of the flat portion and over which the condom runs when it is being applied by the ring member, and a second lip which is spaced apart from the flat portion and which acts with the flat portion to

retain the condom in the ring member prior to use;

the ring member comprising first and second ends which are joined together by a frangible joint which forms the ring member into a complete ring in order to retain the condom in position prior to use of the condom applicator and which breaks during use of the condom applicator in order to allow the ring member to expand radially to accommodate different diameters of penis; and

the ring member being such that it is constructed to control the tendency of the first and the second ends to twist with respect to each other after the frangible joint has been broken and whilst the ring member is being moved along the penis.

The ring member is advantageous in placing the condom on the penis, ready for rolling on and the right way up. The flat portion enables the condom to unroll smoothly using the current lubricant methods employed on condoms. The first lip helps to stop the ring member from running over the condom roll during unrolling as the ring member is being moved along the penis. The side wall will normally be constructed to give minimum twisting of the first and the second ends of the ring member, whilst permitting maximum opening of the ring member. It will be appreciated that the twisting occurs in one plane whilst the radial opening occurs in a different plane. Since the majority of rolled up

condoms are of substantially the same diameter, there is no problem in having the ring member initially in the form of the closed ring. The ring member has to be radially expandible however in order to accommodate different diameters of penis. The wall is thus chosen to be of a shape that permits the radial expansion in a smooth and easy manner. The frangible joint allows easy removal of the ring member after use of the condom applicator when the condom is fully unrolled.

Preferably, the condom applicator is one in which the ring member when closed is minimally larger than the condom. This facilitates compact storing of the condom.

In a first embodiment of the invention, the condom applicator is one in which the side wall is such that the flat portion is positioned substantially halfway along the length of the side wall, and in which the side wall has a portion which is thicker than a rearward portion, the forward portion acting to control the tendency of the first and the second ends to twist, by means of its cross section.

In a second embodiment of the invention, the condom applicator is one in which the side wall is such that the flat portion is positioned substantially at a forward end of the side wall, and in which the majority of the side wall is of a uniform cross section, which cross section is

chosen to be such as to control the tendency of the first and the second ends to twist.

5 The condom applicator may be one in which the outer surface of the ring member is provided with grip-increasing means. The grip-increasing means may be radial ribs. If desired however the outer surface of the ring member may be plain.

10 Preferably, the frangible joint is an adhesive joint. The adhesive should be chosen so that it is not too strong and it breaks relatively easily. Other types of frangible joints may be employed.

15 In a third embodiment of the invention, the side wall may be made in two materials of two different strengths, one material being a harder material to control the tendency of the first and the second ends to twist, and the other material being a softer material to allow better radial expansion.

The condom applicator lends itself to being attractively packaged.

20 The condom applicator may include a primary container, the primary container being such as to house the condom and the ring member.

25 Usually, the primary container will only contain one condom and one ring member. If desired however, the primary container could contain two or more of the condoms and the ring members.

Preferably, the primary container is a hermetically sealed container, and therefore "germ-free" and un-tampered.

5 The primary container may comprise a body portion and a lid. Preferably, the lid is a peel-off lid.

The primary container may include a pull tag for peeling off the lid.

10 The body portion may be advantageously produced as a vacuum formed tray. Such a tray can be produced to be cheap, small and light. The body portion can also be formed in other ways, for example by injection moulding.

The condom applicator may include a secondary container.

15 Usually, the secondary container will be for aesthetic purposes, and for giving safe protective carriage in a pocket, handbag or the like.

The secondary container will usually contain two or more of the primary containers. Thus, for example, the secondary container may contain from two to ten of the primary containers, but it may of course contain just one
5 of the primary containers if desired.

Preferably, the secondary container is such that it has a hard inner and a soft outer. Such a secondary container feels and looks different from known containers such for example as powder compact containers.

10 The hard inner of the secondary container may be made of a plastics material, whilst the soft outer of the secondary container may be made of a rubber material or a foam material.

15 The secondary container can be constructed such that the soft outer can be pushed in order to eject the primary containers. This is especially advantageous where the primary containers are a relatively tight fit in the secondary containers, to prevent them dropping out accidentally.

20 The soft outer can be pushed through a hole in the hard inner, in order to push against the primary containers.

The ring member will usually be made of a plastics material. The plastics material will preferably be chosen to give the required qualities of smooth easy radial expansion, whilst controlling the tendency of the first and the second ends of the ring member to twist too much with respect to each other. The plastics material will also be compatible with condom lubricants.

Embodiments of the invention will now be described solely by way of example and with reference to the accompanying drawings in which:

Figure 1 is a perspective view of a first condom applicator;

Figure 2 is a cross section through the condom applicator shown in Figure 1;

Figure 3 is a perspective view of a second condom applicator;

Figure 4 is a cross section through the condom applicator shown in Figure 3;

Figure 5 is a perspective view of a condom applicator having a primary pack with a peel-off lid and pull tag;

Figure 6 is a side view of the primary pack;

Figure 7 is a plan view of the primary pack;

Figure 8 is a cross sectional view on the line A-A shown in Figure 7;

Figure 9 shows primary and secondary containers forming part of a condom applicator;

5 Figure 10 shows in detail the secondary container shown in Figure 9;

Figure 11 shows the secondary container of Figure 10 closed; and

10 Figure 12 is a cross section through the secondary container shown in Figure 10.

Referring to Figure 1, there is shown a condom applicator 2 comprising a rolled up condom 4 and a ring member 6 for applying a condom 4 over a penis (not shown).

15 The ring member 6 comprises a side wall 8 and a flat portion 10 which extends substantially perpendicularly to the side wall 8 as can be seen from Figure 2.

20 The ring member 6 also comprises a first lip 12 which is provided along an inner part 14 of the flat portion 10. The condom 4 runs over this first lip 12 when the condom 4 is being applied over a penis by the ring member 6.

25 The ring member 6 also includes a second lip 16 which is spaced apart from the flat portion 10 as shown and which acts with the flat portion 10 to retain the rolled up condom 4 in the ring member 6 during lifting and placing on to the penis.

The ring member 6 comprises a first end 18 and a second end 20. The first and the second ends 18,20 are joined together by a frangible joint in the form of an adhesive joint 22. The adhesive joint 22 forms the ring member 6 into a complete ring. This is so as to retain the condom 4 in position prior to use of the condom applicator 2. The adhesive joint 22 breaks during use of the condom applicator 2 in order to allow the ring member 6 to expand radially to accommodate different diameters of penis.

The side wall 8 has a portion 24 which is constructed to control the tendency of the first and the second ends to twist with respect to each other after the adhesive joint 22 has been broken and whilst the ring member 6 is being moved along the penis.

As can be seen from Figures 1 and 2, when the ring member 6 is in its closed position, then the ring member 6 is only slightly larger than the condom 4. Thus the ring member 6 does not occupy too much space which is advantageous for packaging purposes.

The cross sectional shape of the flat portion 10 as shown in Figure 2 is advantageous in permitting the easy and smooth radial expansion of the ring member 6. As can be seen from Figure 2, the side wall 8 is such that the flat portion 10 is positioned substantially halfway

along the length of the side wall 8. The side wall 8 has a portion 26 which is thinner than the portion 24. The portion 26 acts with the flat portion 10 to retain the condom 4.

5 Referring now to Figures 3 and 4, there is shown a second condom applicator 2 in which similar parts as in Figures 1 and 2 have been given the same reference numerals for ease of comparison and understanding. In Figures 3 and 4 it will be seen that the side wall 8 is such that the flat portion 10 is positioned substantially at a forward
10 end of the side wall 8.

 The height of the side wall 8 is chosen to be such as to control the tendency of the first and the second ends 18, 20 to twist with respect to each other.

15 As can be seen from Figures 3 and 4, the outer surface of the ring member 6 is provided with grip-increasing means in the form of radial ribs 28.

 Figure 5 shows a condom applicator 2 comprising a condom 4 and a ring member 6. The ring member 6 has a
20 radially inwardly projecting arm 30. The arm 30 is provided with a slit 32 for accommodating a teat part 34 of the condom 4. The slit 32 acts to keep the teat part 34 squeezed closed which helps to prevent the ingress of air into the teat part 34 during use of the condom applicator 2.

Figure 5 shows the condom 4 and the ring member 6 in the form of a pack being inserted into a primary container 36. The primary container 36 is a sealed container.

5 The primary container 36 comprises a body portion 38 and a lid 40. The lid 40 is a peel-off lid. The primary container 36 includes a pull tag 42 for peeling off the lid 40. As shown, the pull tag 42 goes around a top circumferential part of the body portion 38.

10 Figures 6, 7 and 8 show the shape of the body portion 38. The body portion 38 is a vacuum formed body portion 38 which can thus be produced of the minimum of material and to be very light.

15 Figure 9 shows two of the primary containers 36 being inserted into a secondary container 44.

20 The secondary container 44 has two similar parts 46 which are hinged together by a hinge 48. The precise construction of the secondary container 44 is shown more clearly in Figures 10, 11 and 12. A clip is provided to shut the secondary container 44 tightly.

25 Each part 46 of the secondary container 44 has a hard inner 50 and a soft outer 52. The hard inner 50 has a hole 54 and the soft outer 52 can be pushed slightly through this hole 54. The pushing of the soft outer 52 through the hole 54 is effective to push one of the primary containers 36 out of its part 46 of the secondary

container 44. Thus the primary containers 36 can be securely housed in the secondary container 44, whilst at the same time being easily obtainable from the secondary container 44.

5 It is to be appreciated that the embodiments of the invention described above with reference to the accompanying drawings have been given by way of example only and that modifications may be effected. Thus, for example, referring to Figure 2, the portion 24
10 could be made of a relatively hard material in order to control the tendency of the first and the second ends 18, 20 to twist with respect to each other, whilst the flat portion 10 and the portion 26 could be made of a softer material. Also, different types of cross sectional
15 constructions may be employed for the ring member 6. Still further, different types of primary containers 36 and secondary containers 44 may be employed.

CLAIMS

1. A condom applicator comprising a rolled up condom and a ring member for applying the condom by unrolling it over a penis:

5 the ring member comprising a side wall, a flat portion which extends substantially perpendicularly with respect to the side wall, a first lip which is provided along an inner part of the flat portion and over which the condom runs when it is being applied by the ring member, and a second lip which is spaced apart from the flat portion and which acts with the flat portion to
10 retain the condom in the ring member prior to use;

the ring member comprising first and second ends which are joined together by a frangible joint which forms the ring member into a complete ring in
15 order to retain the condom in position prior to use of the condom applicator and which breaks during use of the condom applicator in order to allow the ring member to expand radially to accommodate different diameters of penis; and

20 the ring member being such that it is constructed to control the tendency of the first and the second ends to twist with respect to each other after the frangible joint has been broken and whilst the ring member is being moved along the penis.

2. A condom applicator according to claim 1 in which the side wall is such that the flat portion is positioned substantially halfway along the length of the side wall, and in which the side wall has a portion which is thicker than a rearward portion, the forward portion acting to control the tendency of the first and the second ends to twist, by means of its cross section.

3. A condom applicator according to claim 1 in which the side wall is such that the flat portion is positioned substantially at a forward end of the side wall, and in which the majority of the side wall is of a uniform cross section, which cross section is chosen to be such as to control the tendency of the first and the second ends to twist.

4. A condom applicator according to any one of the preceding claims in which the outer surface of the ring member is provided with grip-increasing means.

5. A condom applicator according to any one of the preceding claims in which the frangible joint is an adhesive joint.

6. A condom applicator according to claim 1 in which the side wall is made in two materials of two different

strengths, one material being a harder material to control the tendency of the first and the second ends to twist, and the other material being a softer material to allow better radial expansion.

5 7. A condom applicator according to any one of the preceding claims and including a primary container, the primary container being such as to house the condom and the ring member.

10 8. A condom applicator according to claim 7 in which the primary container is a hermetically sealed container, in which the primary container comprises a body portion and a lid, and in which the lid is a peel-off lid.

15 9. A condom applicator according to claim 7 or claim 8 and including a secondary container for containing the primary container.

10. A condom applicator according to claim 9 in which the secondary container is such that it has a hard inner and a soft outer.

11. A condom applicator according to claim 10 in which the soft outer is such that it can be pushed through a hole in the hard inner, in order to push against the primary container and eject the primary container from the secondary container.

5

12. A condom applicator substantially as herein described with reference to the accompanying drawings.

Examiner's report to the Comptroller under
Section 17 (The Search Report)

Application number

9204259.7

Relevant Technical fields

- (i) UK Cl (Edition K) A5R (REY)
- (ii) Int CL (Edition 5) A61F 6/00, 6/02, 6/04

Search Examiner

L V THOMAS

Databases (see over)

- (i) UK Patent Office
- (ii)

Date of Search

11 MAY 1992

Documents considered relevant following a search in respect of claims

1-12

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
A	US 4875491 (PARRONE) See lines 4-48 column 2, lines 13-22 column 3 and figures 3, 6 and 7	1

Category	Identity of document and relevant passages	Relevant to claim(s)

Categories of documents

X: Document indicating lack of novelty or of inventive step.

Y: Document indicating lack of inventive step if combined with one or more other documents of the same category.

A: Document indicating technological background and/or state of the art.

P: Document published on or after the declared priority date but before the filing date of the present application.

E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.

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