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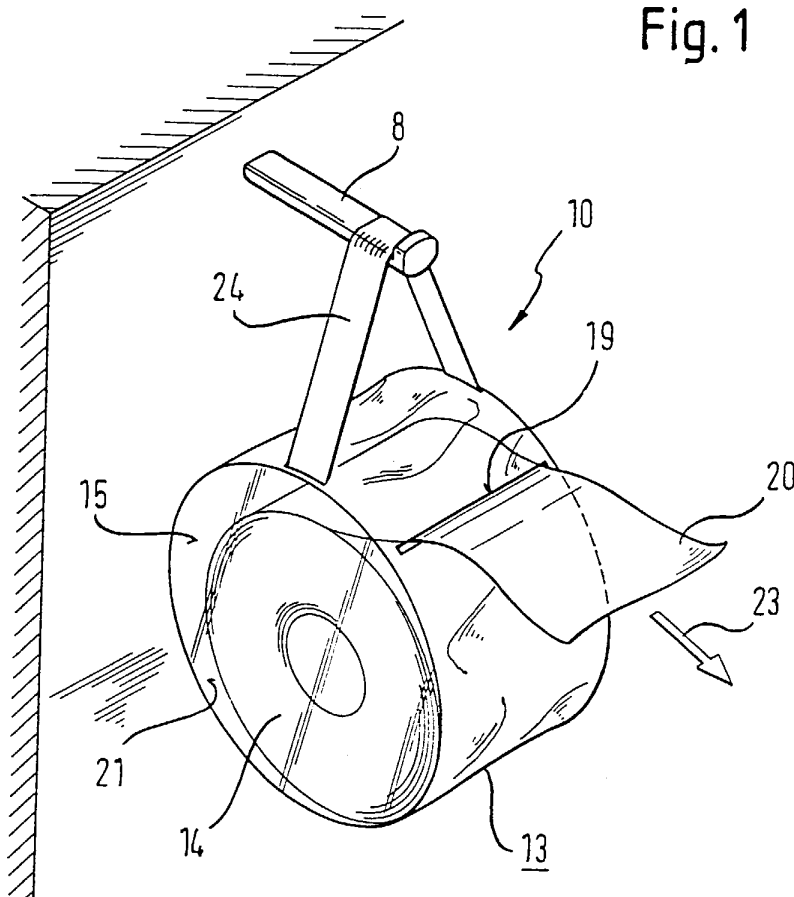
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(54) **Package for dispensing a paper roll**

(57) The present invention relates to a package for dispensing a paper roll, the package comprising a rotatable paper roll and a housing in which the paper roll is contained. In this manner, the housing forms a dispens-

er for the paper roll due to the presence of a dispensing opening provided in the housing and a fastener for attaching the package to a wall, a hook, or the like. As such, there is no need for using a separate dispenser.



Description

Technical Field

[0001] The technical field to which the invention relates is the field of hygiene and wiping products, especially paper rolls, such as a roll of facials, a roll of moisture tissue, a roll of lotioned tissue, toilet paper and kitchen towels.

[0002] In this context, hygiene or wiping products primarily includes all kinds of dried creped tissue paper as well as wet creped paper and cellulose or pulp wadding or all kinds of non-wovens, or combinations, laminates or mixtures thereof.

[0003] Thereby, a tissue paper is defined as a soft absorbent paper having a basis weight below 65 g/m² and typically between 10 and 50 g/m². Its density is typically below 0.6 g/cm³, preferably below 0.30 g/cm³ and more preferably between 0.08 and 0.20 g/cm³. Moist tissue paper webs are usually dried by the so-called Yankee drying, the through air drying or the impulse drying. The fibres contained in the tissue paper are mainly pulp fibres from chemical pulp, mechanical pulp, thermo mechanical pulp, chemo-mechanical pulp and/or chemo-thermo mechanical pulp. The fibres may also be recycled fibres. The tissue paper may also contain other types of fibres enhancing, for instance, strength, absorption or softness of the paper. Tissue paper may even be converted to the final tissue product in many ways, for example embossed, laminated to a multi-ply product, rolled or folded.

[0004] The term non-woven is applied to a wide range of products, which in terms of their properties are located between groups of paper and cardboard on the one hand, and textiles on the other hand. Non-wovens may also be called textile-like composite materials, which represent flexible porous fabrics that are not produced by the classic methods of weaving web and weft or by looping. In fact, non-wovens are produced by intertwining cohesive or adhesive bonding of fibres, or a combination thereof. The non-woven material can be formed of natural fibres, such as cellulose or cotton fibres, but can also consist of synthetic fibres, such as PE, polypropylene (PP), polyurethane (PU), polyester, nylon or regenerated cellulose, or a mix of different fibres. The fibres may for example be present in the form of endless fibres of prefabricated fibres of a finite length, as synthetic fibres produced in situ or in the form of staple fibres.

[0005] Typical properties of these hygiene and wiping products include the ready ability to absorb tensile stress energy, their drapability, good textile-like flexibility, properties which are frequently referred to as bulk softness, a high surface softness, a high specific volume with a perceptible thickness. As high a liquid absorbency as possible and, depending on the application, a suitable wet and dry strength as well as an interesting visual appearance of the outer product surface. These prop-

erties, among others, allow these hygiene and wiping products to be used for example as cleaning wipes: paper or non-woven wipe, windscreen cleaning wipe, industrial wipe, kitchen paper, or the like; as sanitary products: for example toilet paper, paper or non-woven handkerchiefs, household towels, towels, and the like; cosmetic wipes: for example facials and as serviettes or napkins, just to mention some of the products that can be used. Furthermore, the hygiene and wiping products can be dry, moist, wet or pre-treated in any manner.

[0006] Due to the above description, the products can be used for personal and household use as well as commercial and industrial use.

Background art

[0007] Usually, paper rolls are bought in a packaged manner for protection, storage and transport. The bought paper rolls are then taken out of the packing and located on a dispenser device for use. This procedure is performed with for instance toilet paper or kitchen towel paper rolls. From US 4,199,078 a toilet tissue storage container is known. Such a storage container contains a plurality of toilet paper rolls positioned in a row with the container being attached on a wall. Unused toilet paper rolls can be removed from this container and placed on a dispenser. US 3,986,479 discloses a vapour impervious pouch containing a roll or web of absorbent material. The pouch is sealed before uses, placed into a separate standing dispenser and opened at the time of first use. JP 9020377 shows a plastic pouch having a zipper opening, which contains a pile of wet tissue paper. Thereby the wet tissue paper can be pulled out sheet by sheet.

Disclosure of invention

[0008] The underlying problem (object) of the invention is to suggest a paper roll, such as a toilet paper roll or a kitchen towel paper roll, which provides a more flexible range of application.

[0009] This problem is solved by a package comprising a rotatable paper roll, and a housing which at least partially covers the paper roll and defines an opening to dispense a leading end of the paper roll.

[0010] Thus, a paper roll is simultaneously available in a protected condition for storage, transport and selling as well as acting as a dispenser for pulling out the paper for use. Therefore, there is no need for an additional dispensing device and the paper product can be easily used where no dispenser is available. Furthermore, a coreless paper roll can be used as there is no need for a usually found core, which would be necessary to attach the paper roll to a dispenser rod.

[0011] In the case where the housing completely covers the roll, it is possible to use the package outdoors as the paper roll is protected against water and contamination.

[0012] Complete hygiene protection of the paper roll is guaranteed, especially when the opening is closed by a detachable seal. This seal could be a portion of a wall of the housing which is limited by a weakening line such that this portion can be torn off in order to form the dispensing opening.

[0013] When the leading end of the paper roll is fastened to the seal, this leading end is pulled out of the dispensing opening automatically when the seal is removed.

[0014] Another favourably embodiment is that the opening is a re-sealable opening to enable the user to unseal the package, to dispense the paper product, and finally re-seal the package to protect the paper roll from contamination after first use. The re-sealable opening can be a zip-bag-like opening.

[0015] Preferably, the opening is shaped as a slot being parallel to the axis of the paper roll, whereby said roll is provided within the housing such that the roll is rotatable around its own axis without the need of a special journal within the housing. When the paper roll is positioned for use, the slot can be located in the vicinity of the top of the housing in order to reduce friction between the paper sheet and the edge of the slot such that the paper sheet can be pulled out of the housing easily and without the risk of being torn off unintentionally.

[0016] Preferably, the housing is provided with a fastener. When the fastener is a hole, the package can be hung up on a nail or hook present on a wall in the vicinity of where the paper product is to be used. It may be possible to use adhesive tapes as a fastener so that the package can be bonded to a wall or another place. In order to enable a smooth rotation of the roll within the housing, the housing is substantially shaped tubular such that it fits closely around the roll. Simultaneously, the inside surface of the housing should be a surface of low friction in order to promote an easy rotation of the roll within the housing. Therefore, the inside surface could be smooth or embossed in order to reduce the contact surface between the roll and the inside surface of the housing.

[0017] The housing having essentially the contour of the paper roll can be provided with a radially extending flap being provided with the fastener.

[0018] Preferably, the fastener which is attached to the housing is provided by a loop to facilitate the application of the package to an existent dispenser. The loop may have first and second ends, the first end being connected to the top of the housing and provided with one member of a re-sealable fastener and the second end being provided with a corresponding second member of the re-sealable fastener. The re-sealable fastener can be a zip-bag-like seal having a female and a male member. This embodiment enables the user to form the loop by turning down and interlocking the second end to the first end by the matching members of the re-sealable fastener.

[0019] The housing can be made of plastic, card-

board, or combinations thereof. Preferably, the housing can be dimensionally self-stable.

[0020] The paper roll covered by the housing can be made of tissue, non-woven and combinations thereof.

[0021] Preferably, the flap, which is attached to the housing, further comprises a snapping latch to separable connect one package to another, whereby each package can contain different paper rolls or the same. Preferably, the members of the re-sealable fastener, used to form the loop, are also adapted to connect one package to another.

[0022] The package can be entirely soft, entirely stiff, or partly soft and partly stiff. Preferably, the housing is shaped by at least one side wall which is substantially stiff. For instance, it is possible that the housing is cylindrically shaped whereby the sidewalls are stiff and the cylinder jacket is soft.

Brief description of drawings

[0023] The drawings illustrate in:

Fig. 1 a three dimensional view of the package according to the invention,

Fig. 2 a diagrammatical section view of a package as illustrated in Fig. 1,

Fig. 3 a partly exploded three dimensional view of an alternative embodiment of the package according to the invention,

Fig. 4 diagrammatically an alternative embodiment of a housing of the package illustrated in Fig. 3,

Fig. 5 a diagrammatical section view of a package as an embodiment according to which the paper is pulled out axially from the paper roll,

Fig. 6 a row of two packages connected to one another,

Fig. 7 an embodiment showing the possibility of providing the package on a rod of a usual dispenser,

Fig. 8 a snappy solution for providing a loop for providing a package on a usual dispenser.

Embodiments of the Invention

[0024] In Fig. 1 a package comprising a protective housing 10, which contains a paper roll 14, such as a toilet paper roll, is illustrated. The housing 10 consist of a cylindrical main body (cylinder jacket) 13, whose front openings are closed by sidewalls 15. The front openings can also be closed by welding together the edges of the cylindrical main body, which overlap the paper roll. The

housing 10 can be made of stiff or soft material. In order to provide a self-stable structure of the housing 10 the main body 13 can be made of soft material and at least one of the sidewalls 15 of stiff material. The main body 13 is made of a plastic film tube, created at the same time as the paper rolls approach. The sidewalls 15 can be welded to the edges of the front openings of the main body 13. A loop 24 is attached to the main body 13 such that the package can be hung onto a nail or a hook 8 being provided on a wall in the vicinity of a closet for example.

[0025] In Fig. 1 the package is illustrated as being provided for use. A slot 19 is defined by the main body 13, through which a leading sheet 20 of the paper roll 14 can be dispensed as illustrated by the arrow 23. Thereby, the slot 19 is provided in a two o'clock position i.e. in the upper part of the main body 13 as illustrated in Fig. 2. Therefore, the paper can be pulled out of the housing 10 with low friction at the edge of the slot 19. In order to facilitate the dispensing process, the inner surface 21 of the main body 13 should be a surface enabling a low friction between the paper roll 14 and the inner surface 21.

[0026] In Fig. 3 an alternative embodiment of a package is illustrated. This package also has a housing 10, which in this case is made of two-parts 11 and 12 being connected to one another as illustrated in Fig. 3. The two parts 11,12 provide a circular and cylindrical main body 13 containing in a closed manner a paper roll 14. The main body 13 having two front openings is closed by sidewalls 15, which are named lids 15 in the illustrated embodiment. Two flaps 16 and 17 extend from the main body 13. The flap 16 is provided with a fastening hole 18 such that the package can be hung onto a nail or hook 8 being provided on a wall in the vicinity of a closet. The other flap 17 is used for interconnecting two packages 10 as illustrated in Fig. 6. However, more than two packages can be interconnected as well.

[0027] In Fig. 3 the package is illustrated as being provided for use. A slot 19 is present in the main body 13, through which the leading sheet 20 of the toilet paper roll 14 can be pulled as illustrated by the arrow 23. The slot 19 is as in Fig. 1 provided in a two o'clock position i.e. in the upper part of the main body 13 as illustrated in Fig. 3. Further, the paper roll is disposed such that the leading end is dispensed from the top of the roll as shown in Fig. 3.

[0028] As opposed to the design of the housing illustrated in Fig. 3 which combines the two parts 11 and 12 by bonding or other fixing means, it could be possible to manufacture an integral housing. The housing, as illustrated in Fig. 4, could also be made such that the two parts 11 and 12 are, at manufacture, connected at the free end of the flap 17 insofar as the flap 17 is needed. It is possible not to use flap 17. Then, as illustrated in Fig. 4, the main body 13 is integral at that location. In contrast to Fig. 3, in this embodiment, the paper roll is disposed in such a way that the leading end is dispensed

from the bottom of the roll as illustrated in Fig. 4.

[0029] According to the illustration in Fig. 5, an axial dispensing opening 27 is provided in the lid 15 such that the toilet paper sheet 20 can be pulled out axially.

[0030] The interconnected packages (can be more than two rolls) illustrated in Fig. 6 form a family kit which combines several different paper qualities depending on the individual needs of the customer. The packages may also be for a single person kit, whereby one package is in use, and the others are for exchange. The packages in Fig. 6 are interconnected by a snapping latch 22. This interconnection can also be made by a re-sealable fastener 25, comprising a female 25b and a male 25a member as illustrated in Fig. 8, whereby the female member 25b and the male member 25a are joined with the corresponding members of the fastener 25 of another package.

[0031] According to Fig. 7, a loop 24 formed by the two parts 11 and 12 of the flap 16 is illustrated. Fig. 8 shows diagrammatically the re-sealable fastener 25 for making the loop 24. This loop 24 opens up the possibility of fastening the package to a rod 26 of a usual dispenser, whereby the female member 25b is connected with the male member 25a of the re-sealable fastener 25.

Claims

1. A package for dispensing a paper roll (14), the package comprising:
 - a rotatable paper roll (14) having a leading end and an axis; and
 - a housing (10) having a top, said housing (10) at least partially covering said paper roll (14), said housing defining an opening (19) to dispense said leading end of said paper roll (14).
2. A package as set forth in claim 1, wherein said housing (10) entirely covers said paper roll (14).
3. A package as set forth in any of claim 1 or 2, wherein said opening (19) is closed by a detachable seal.
4. A package as set forth in claim 3, wherein said leading end of said paper roll (14) is fastened to said seal.
5. A package as set forth in claim 1 or 2, wherein said opening (19) is a re-sealable opening.
6. A package as set forth in claim 1, wherein said opening (19) is shaped as a slot, said slot being parallel to said axis of said paper roll.
7. A package as set forth in claim 6, wherein said slot is located in the vicinity of said top of said housing (10).

8. A package as set forth in claim 1, wherein said package further comprises a fastener (24) attached to said housing.
9. A package as set forth in claim 8, wherein said fastener (24) defines a hole (18). 5
10. A package as set forth in one of claims 6 or 8, wherein said housing (10) is substantially shaped tubular to closely surround the paper roll. 10
11. A package as set forth in claim 6, wherein the inner surface (21) of said housing (10) is a low friction surface. 15
12. A package as set forth in claim 10, wherein said inner surface (21) is smooth.
13. A package as set forth in claim 10, wherein said inner surface (21) is embossed to reduce the contact surface between said paper roll (14) and said inner surface (21). 20
14. A package as set forth in claim 10, wherein said package further comprises a flap (16, 17) attached to said housing, said flap being provided with said fastener (24). 25
15. A package as set forth in any of claim 8 or 14, wherein said fastener (24) is provided by a loop (24). 30
16. A package as set forth in claim 15, wherein said loop (24) has first and second ends, said first end being connected to said top of said housing (10), said first end being provided with one member (25a) of a re-sealable fastener, said second end being provided with a corresponding second member (25b) of said re-sealable fastener, whereby said loop (24) is formed by turning down said second end and interlocking said second end to said first end by said members (25a, 25b) of said re-sealable fastener. 35 40
17. A package as set forth in one of claims 1 to 16, wherein said housing (10) is made of material selected from the group consisting of soft plastic, hard plastic, cardboard and combinations thereof. 45
18. A package as set forth in claim 1, wherein said housing (10) is dimensionally self-stable. 50
19. A Package as set forth in one of claims 1 to 18, wherein said paper roll (14) is made of a material selected from the group consisting of tissue, non-woven and combinations thereof. 55
20. A package as set forth in claim 1, wherein said flap further comprises a snapping latch (22) to separate connect one package to another.
21. A package as set forth in claim 12, wherein said members (25a, 25b) of said re-sealable fastener are adapted to connect one package to another.
22. A package as set forth in any of claim 1 or 2, wherein in said housing (10) is entirely soft.
23. A package as set forth in any of claim 1 or 2, wherein in said housing (10) is entirely stiff.
24. A package as set forth in any of claim 1 or 2, wherein in said housing (10) having at least one sidewall (15), said sidewall being substantially stiff to shape said housing (10).

Fig. 1

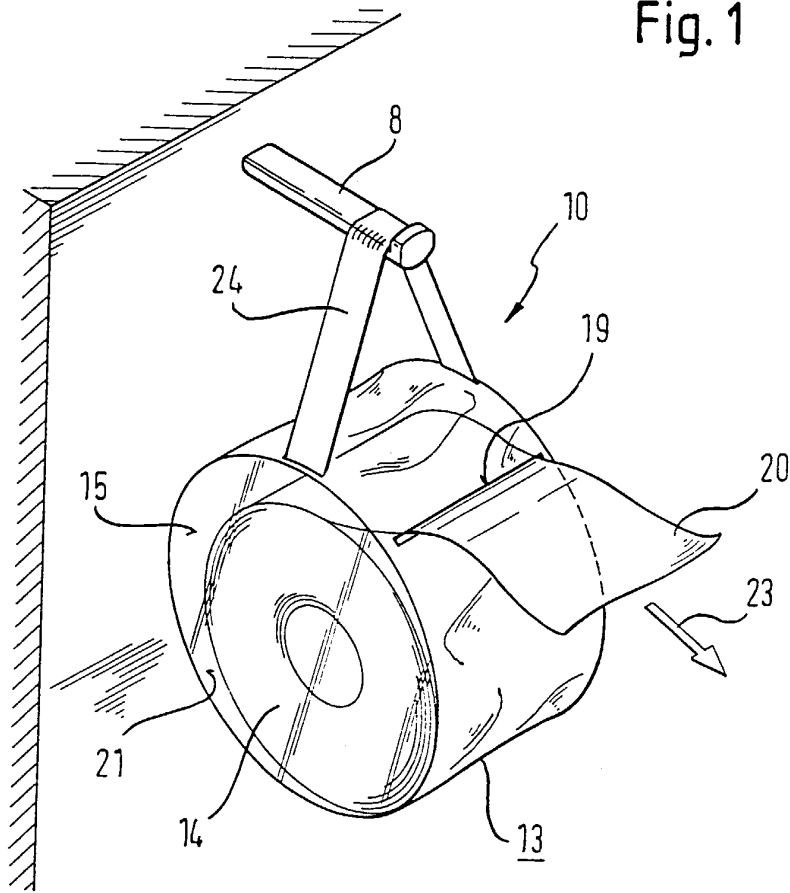


Fig. 2

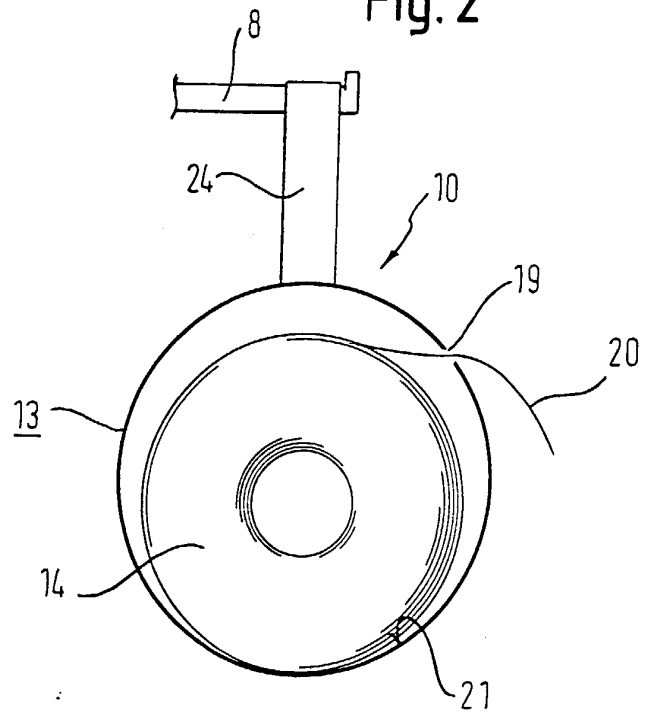


Fig. 3

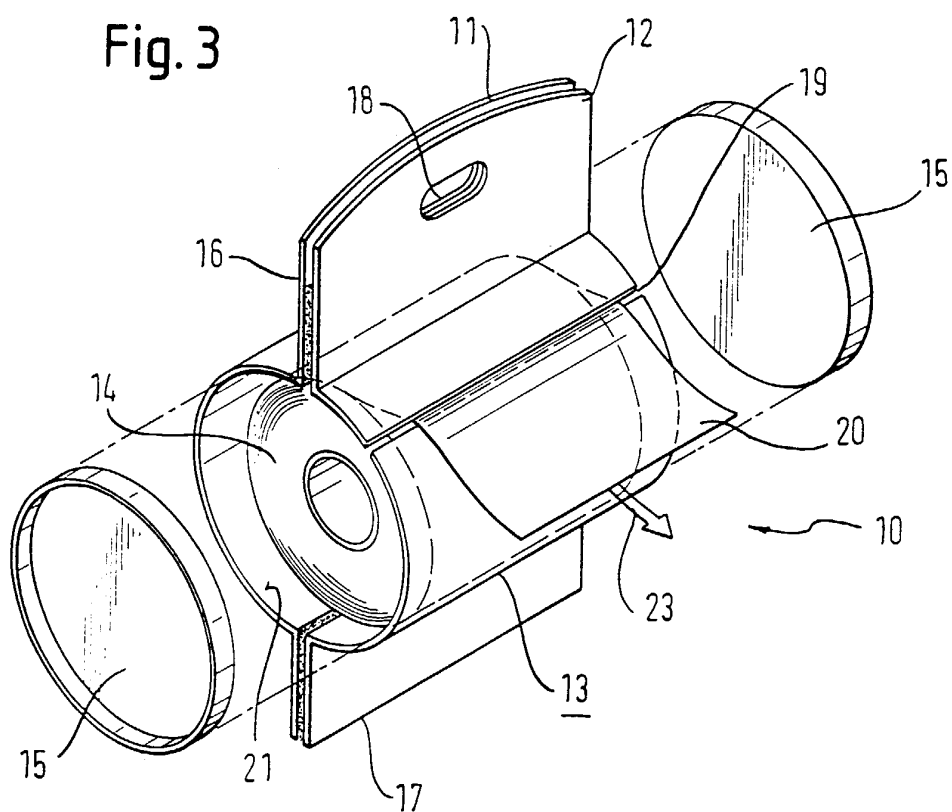


Fig. 4

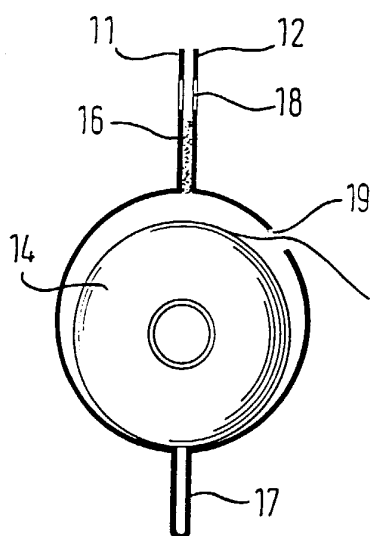


Fig. 5

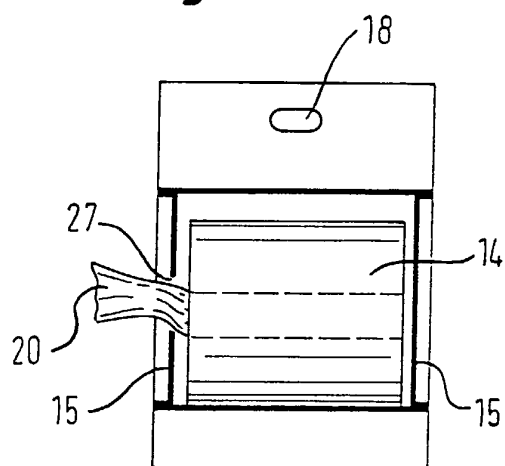


Fig. 6

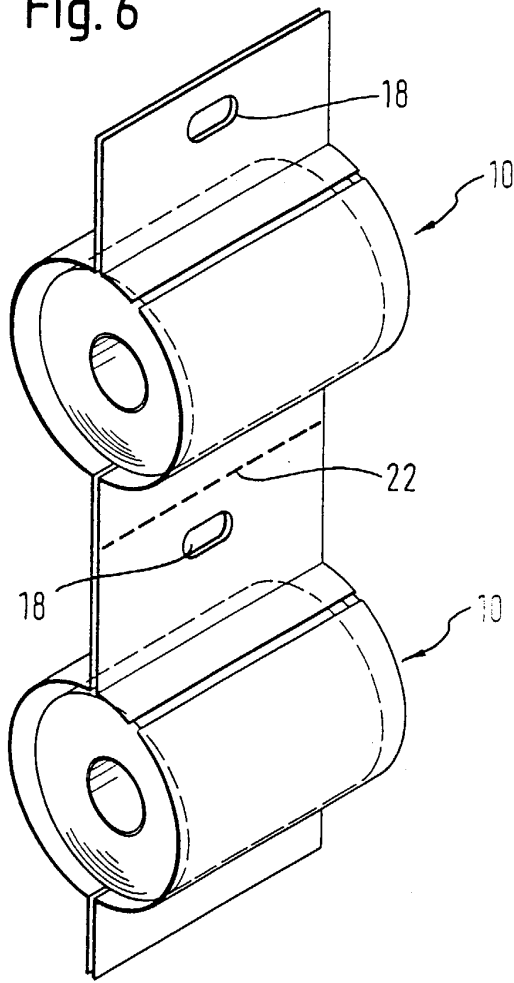


Fig. 7

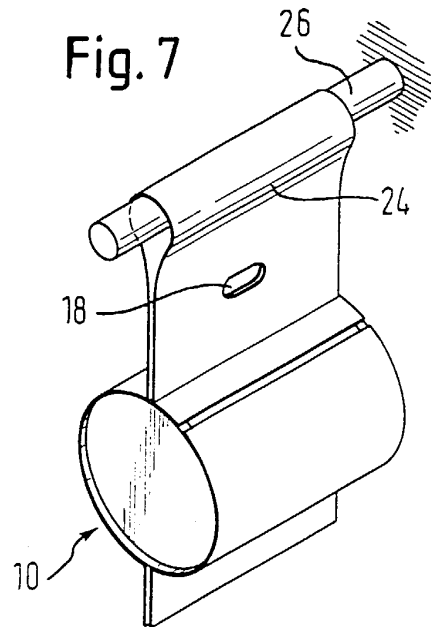


Fig. 8

