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(54) **Tubular pillow pack, particularly for food products**

Kissenförmige Packung, insbesondere für Nahrungsmittel

Emballage en forme de coussin pour des produits alimentaires

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EP 0 538 768 B1

Description

The present invention relates to a tubular pillow pack, particularly for food products.

In the food industry, substantially parallelepiped products in particular are wrapped in so-called tubular "pillow" packs formed from a continuous strip, one surface of which, contacting the product and hereinafter referred to as the "inner surface", presents two peripheral longitudinal portions and a succession of cross bands coated with cold-stick adhesive material.

For wrapping the products, these are normally loaded successively on to the inner surface of the strip, in the space defined by each two adjacent cross bands; and the strip is folded transversely so as to overlap the adhesive peripheral longitudinal portions, which are pressed together to define a continuous tubular wrapping with a lateral tab consisting of the joined opposite longitudinal edges of the strip.

The continuous wrapping is then cut along the center line of each cross band to produce a succession of fluidtight tubular pillow packs, each containing one product.

For enabling troublefree removal of the pack as described above, it is normally provided with a ripoff tape.

According to one known technique, between each two adjacent cross bands, the inner surface of the continuous strip presents a further cross band of cold-stick adhesive material to which is applied a first surface of a ripoff tape, one end portion of which extends across one of the peripheral longitudinal portions of the strip. Moreover, for ensuring perfect fluidtight sealing of the two longitudinal portions of the strip, a second surface of the ripoff tape, opposite the first surface, is coated, at least on said end portion of the tape, with a layer of cold-stick adhesive material.

For wrapping food products, known pillow packs of the aforementioned type have proved excellent, both as regards sealing of the product, and the absence, during the wrapping process, of any heat-sealing in the presence of the product.

Nevertheless, the design of known pillow packs of the aforementioned type, and particularly of the ripoff tapes, requires the use of auxiliary equipment of extremely complex design. The ripoff tapes, in fact, are formed by transversely cutting a continuous tape wound off a reel and one surface of which presents a longitudinal lateral portion coated with cold-stick adhesive material. On the reel, the adhesive lateral portion must be protected by a nonstick backing tape, which, as the reel is unwound, must be eliminated and wound on to an auxiliary takeup reel.

It is an object of the present invention to provide a tubular pillow pack designed to eliminate the construction difficulties typically associated with known wrappings.

According to the present invention, there is provided a tubular pillow pack, particularly for food products, comprising a portion of a first sheet having an inner surface contacting the product, two longitudinal edges and two transverse edges, a first layer of cold-stick adhesive material on a portion of said inner surface extending along each of said edges, and a ripoff tape integral with said inner surface and perpendicular to said longitudinal edges; said sheet being folded so as to mate both the two inner surface portions along the longitudinal edges, with the interposition of an end portion of said tape, and the two inner surface portions along the transverse edges; characterized by the fact that the tape is heat-sealed integral with said inner surface; and the tape is formed from a second sheet having a first surface contacting said inner surface and coated with a layer of non-cold-stick material, and a second surface, opposite said first surface, coated with a second layer of cold-stick material, at least on a lateral portion corresponding with said end portion of said tape.

Said nonstick material preferably consists of lacquer applied to at least a portion of said first surface corresponding with the end portion of said tape.

A non-limiting embodiment of the present invention will be described by way of example with reference to the accompanying drawings, in which:

Fig.1 shows a view in perspective of a preferred embodiment of the pack according to the present invention;
Fig.2 shows a spreadout view of the Fig.1 pack;
Fig.3 shows a section along line III-III in Fig.2;
Fig.4 shows, schematically, the various stages for producing a detail in Fig.s 2 and 3.

Number 1 in Fig.1 indicates a tubular pillow pack or wrapping for a product 2 (Fig.s 2 and 3), in particular, a substantially parallelepiped food product.

As shown in Fig.2, wrapping 1 is formed from a flat rectangular sheet 3 produced by transversely cutting a continuous strip 4, and having an inner surface 5 (Fig.3) contacting product 2 and defined by two longitudinal edges 6 and two transverse edges 7. Portions 8 and 9 of inner surface 5 extending respectively along edges 6 and 7 are coated with respective layers 10 and 11 of cold-stick adhesive material.

Wrapping 1 is formed by folding sheet 3 about product 2 so as to join the two portions 8 with respective adhesive layers 10 and so form a tab 12 (Fig.1) extending longitudinally outwards of wrapping 1 and which is folded on to the outer surface of sheet 3; and by joining facing transverse portions 9 with respective adhesive layers 11 so as to form two transverse tabs 13.

When, as in the example shown, sheet 3 forms part of a continuous strip 4, layers 11 are joined for forming tabs 13 in known manner at the same time as strip 4 is cut transversely.

As shown particularly in Fig.2, wrapping 1 also comprises a ripoff tape 14 extending along an intermediate portion 15 of inner surface 5 of sheet 3 and perpendicular to longitudinal edges 6.

The length of tape 14 is at least equal to the distance between the inner edge of one of longitudinal portions 8 and the opposite longitudinal edge 6, and is so arranged as to extend across one of longitudinal portions 8 and to be gripped between portions 8 during the formation of tab 12.

As shown in Fig.3, tape 14 presents a first inner surface 16 contacting portion 15 of inner surface 5 of sheet 3, and which is heat-sealed in place before product 2 is loaded on to inner surface 5. Opposite surface 16, tape 14 also presents an outer second surface 17 coated at least partially with a layer 18 of cold-stick adhesive material. More specifically, layer 18 is applied, as in the example shown, to the portion of surface 17 extending along end portion 19 of tape 14 over one of portions 8.

As shown in Fig.4, tapes 14 are formed by a cutting device 20 transversely cutting a strip 21 wound off a reel 22 and having a surface 23 corresponding with outer surface 17 of tapes 14 and which is coated, at least along a longitudinal lateral portion 24, with a continuous layer 25 of adhesive material corresponding with layer 18. Opposite surface 23, strip 21 also presents a surface 26 coated, at least along a lateral portion corresponding with end portion 19 of tapes 14, with a layer 27 of non-cold-stick material preferably consisting of lacquer.

The non-cold-stick material of layer 27 in no way prevents tapes 14 from being heat-sealed to sheets 3, during which process, in fact, it is converted, as in the Fig.3 example, into a layer 28 of adhesive material between surface 16 of tape 14 and inner surface 5 of sheet 3, or, according to a variation not shown, evaporates completely.

Wrapping 1 as described above may thus be produced with no recourse to heat-sealing in the presence of products 2, and provides for perfect fluidtight sealing as normally required by health standards governing the packing of food products.

Moreover, by virtue of non-stick layer 27, strip 21 on reel 22 requires no backing strip for preventing adhesive layer 25 of one turn from adhering to surface 26 of the adjacent turn on reel 22.

Claims

1. A tubular pillow pack (1), particularly for food products, comprising a portion of a first sheet (3) having an inner surface (5) contacting the product (2), two longitudinal edges (6) and two transverse edges (7), a first layer (10, 11) of cold-stick adhesive material on a portion (8, 9) of said inner surface (5) extending along each of said edges (6, 7), and a ripoff tape (14) integral with said inner surface (5) and perpendicular to said longitudinal edges (6); said sheet (3) being folded so as to mate both the two inner surface portions (8) along the longitudinal edges (6), with the interposition of an end portion (19) of said tape (14), and the two inner surface portions (9) along the transverse edges (7); characterized by the fact that the tape (14) is formed from a second sheet (21) having an inner surface (26; 16) heat-sealed integral with said inner surface (5) and coated with a layer (27; 28) of non-cold-stick material, and an outer second surface (23; 17), opposite said first surface (26), coated with a second layer (25; 18) of cold-stick material, at least on a lateral portion (24) corresponding with said end portion (19) of said tape (14).

2. A tubular pillow pack as claimed in Claim 1, characterized by the fact that said nonstick material consists of lacquer.

3. A tubular pillow pack as claimed in Claim 1 or 2, characterized by the fact that said nonstick material is applied to at least a portion of said first surface (26; 16) corresponding with the end portion (19) of said tape (14).

Patentansprüche

1. Kissenförmige Packung, insbesondere für Nahrungsmittel, bestehend aus einem Abschnitt eines ersten Blatts (3), das eine innere, das Produkt (2) berührende Oberfläche (5) hat, aus zwei Längskanten (6) und zwei Querkanten (7), aus einer ersten Schicht (10,11) kaltklebenden Klebstoffs auf einem Abschnitt (8,9) der inneren Oberfläche längs jeder der Kanten (6,7), und aus einem Abreißband (14), das mit der inneren Oberfläche (5) integral und senkrecht zu den Längskanten (6) ist, wobei das Blatt (3) gefaltet ist, um die beiden Abschnitte (8) der inneren Oberfläche längs der Längskanten (6) unter Dazwischenlegen eines Endabschnitts (19) des Bandes (14) und die beiden Abschnitte (9) der inneren Oberfläche längs der Querkanten (7) zu verbinden, **dadurch gekennzeichnet**, daß das Band (14) aus einem zweiten Blatt (21) gebildet ist, das eine innere Oberfläche (26; 16) hat, welche integral mit der inneren Oberfläche (5) heißgesiegelt und mit einer Schicht (27;28) nicht kaltklebenden Materials beschichtet ist, wobei wenigstens ein seitlicher Abschnitt (24) mit dem Endabschnitt (19) des Bands (14) übereinstimmt.

2. Kissenförmige Packung nach Anspruch 1, **dadurch gekennzeichnet,** daß das nicht klebende Material aus Lack besteht.

3. Kissenförmige Packung nach Anspruch 1 oder 2, **dadurch gekennzeichnet**, daß das nicht klebende Material auf wenigstens einen Abschnitt der ersten Oberfläche (26;16) angewendet wird, der dem Endabschnitt (19) des Bands (14) entspricht.

Revendications

1. Emballage en forme de coussin tubulaire (1), particulièrement destiné à des produits alimentaires, comprenant une partie d'une première feuille (3)

possèdant une surface intérieure (5) venant au contact du produit (2), deux bords longitudinaux (6) et deux bords transversaux (7), une première couche (10, 11) d'un matériau adhésif collant à froid sur une partie (8, 9) de ladite surface intérieure (5), s'étendant le long de chacun desdits bords (6, 7), et une bande de déchirure (14) solidaire de ladite surface intérieure (5) et perpendiculaire auxdits bords longitudinaux (6) ; ladite feuille (3) étant pliée de façon à épouser a la fois les deux parties (8) de surface intérieure le long des bords longitudinaux (6), une partie d'extrémité (19) de ladite bande (14) s'interposant, et les deux parties (9) de surface intérieure le long des bords transversaux (7) ; caractérisé en ce que la bande (14) est formée à partir d'une seconde feuille (21) possèdant une surface intérieure (26; 16) rendue solidaire par thermosoudage de ladite surface intérieure (5) et revêtue d'une couche (27; 28) de matériau non collant à froid, et une seconde surface extérieure (23; 17) opposée à ladite première surface (26) et revêtue d'une seconde couche (25; 18) de matériau collant à froid, au moins sur une partie latérale (24) correspondant à ladite partie d' extrémité (19) de ladite bande (14).

2. Emballage en forme de coussin tubulaire selon la revendication 1, caractérisé en ce que le matériau non collant à froid est composé de vernis.

3. Emballage en forme de coussin tubulaire selon la revendication 1 ou 2, caractérisé en ce que le matériau non collant à froid est appliquée au moins sur une partie de ladite première surface (26; 16) correspondant à ladite partie d'extrémité (19) de ladite bande (14).

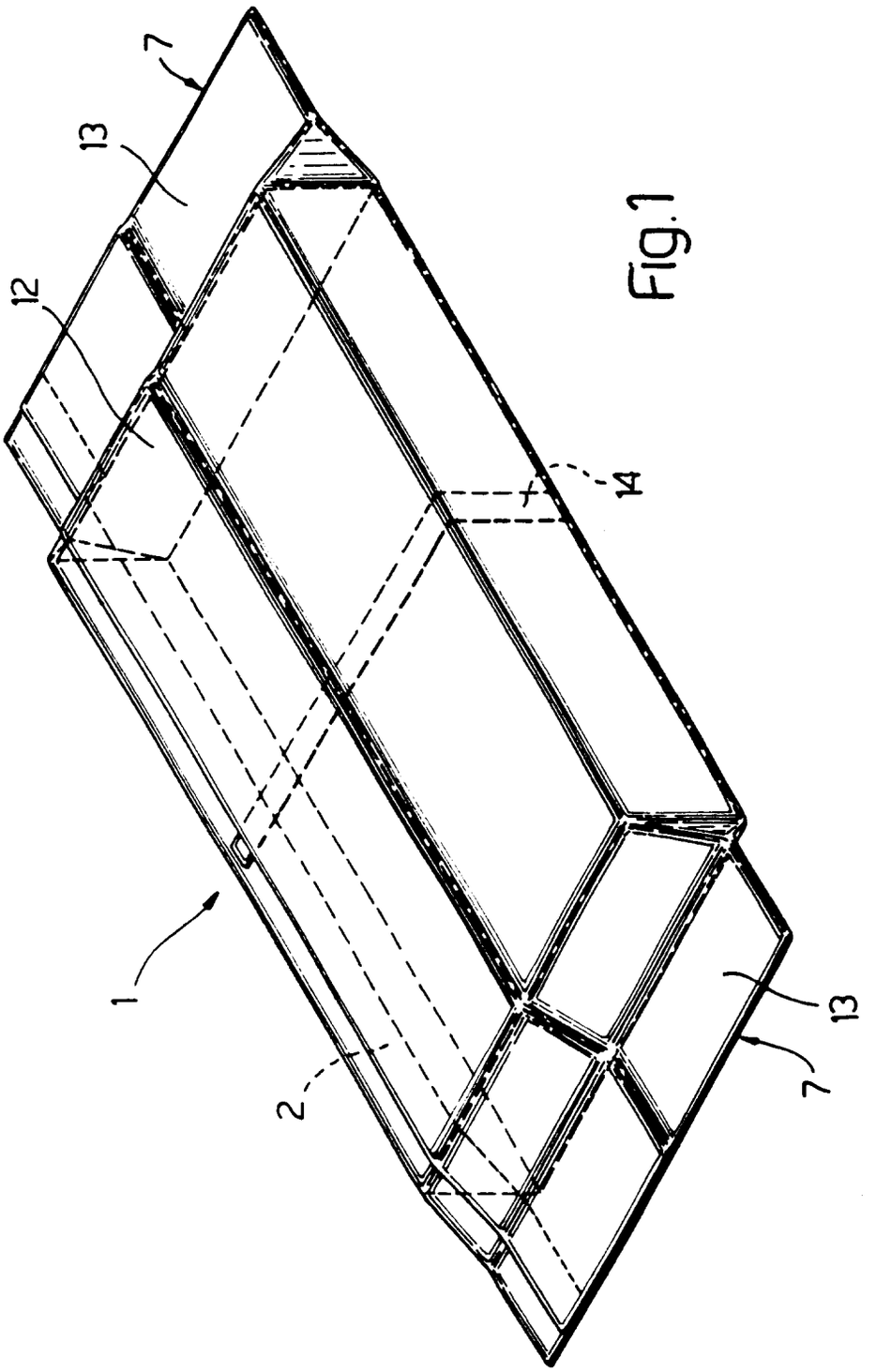
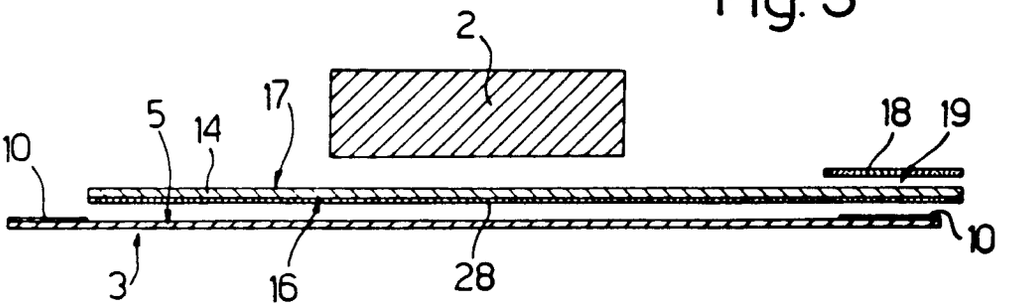


Fig.1

Fig. 3


2
17
5
14
18
19
10
10
3
16
28

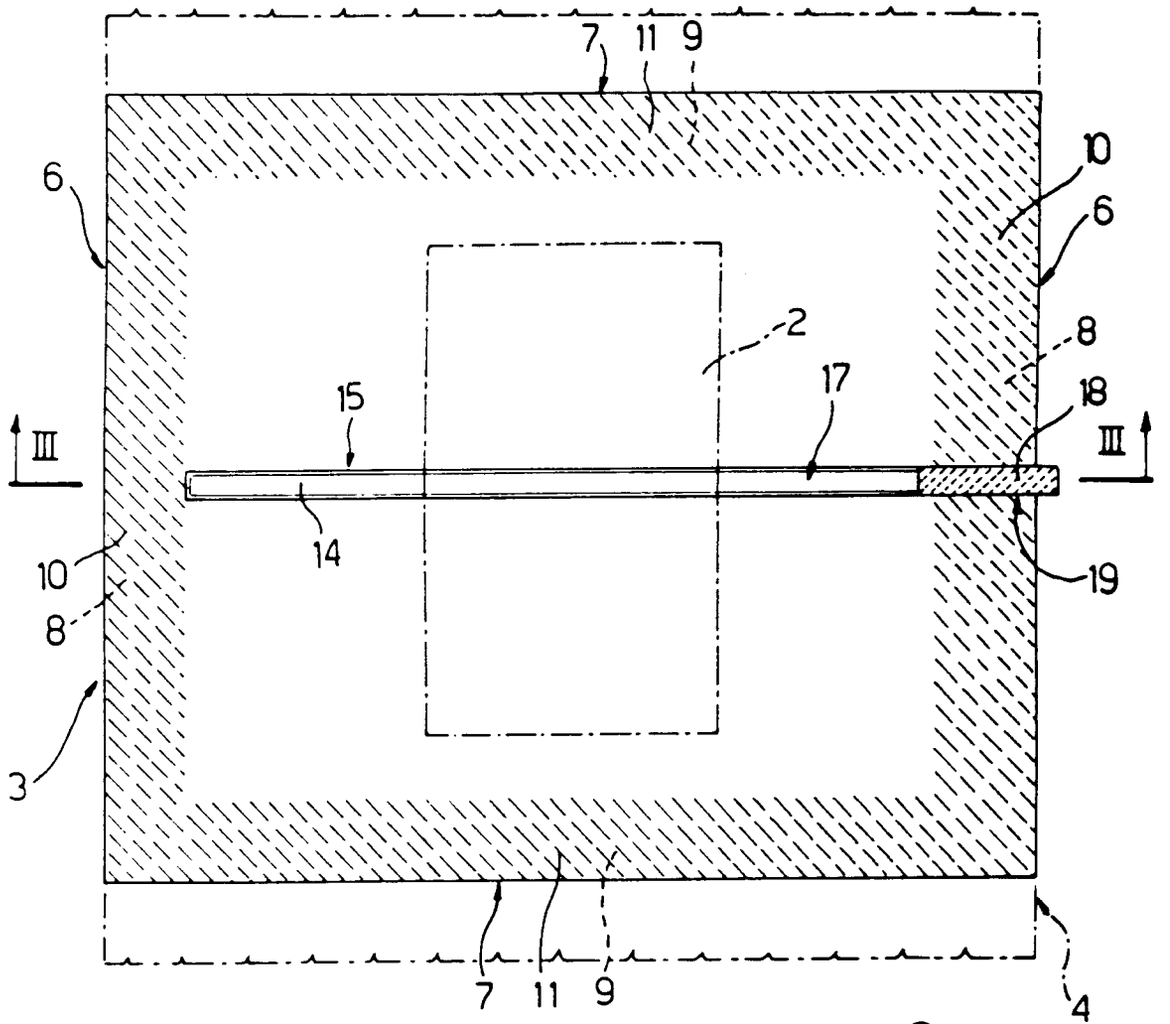

7
11
9
6
10
6
2
8
15
17
18
III
III
14
10
19
8
3
7
11
9
4

Fig.2

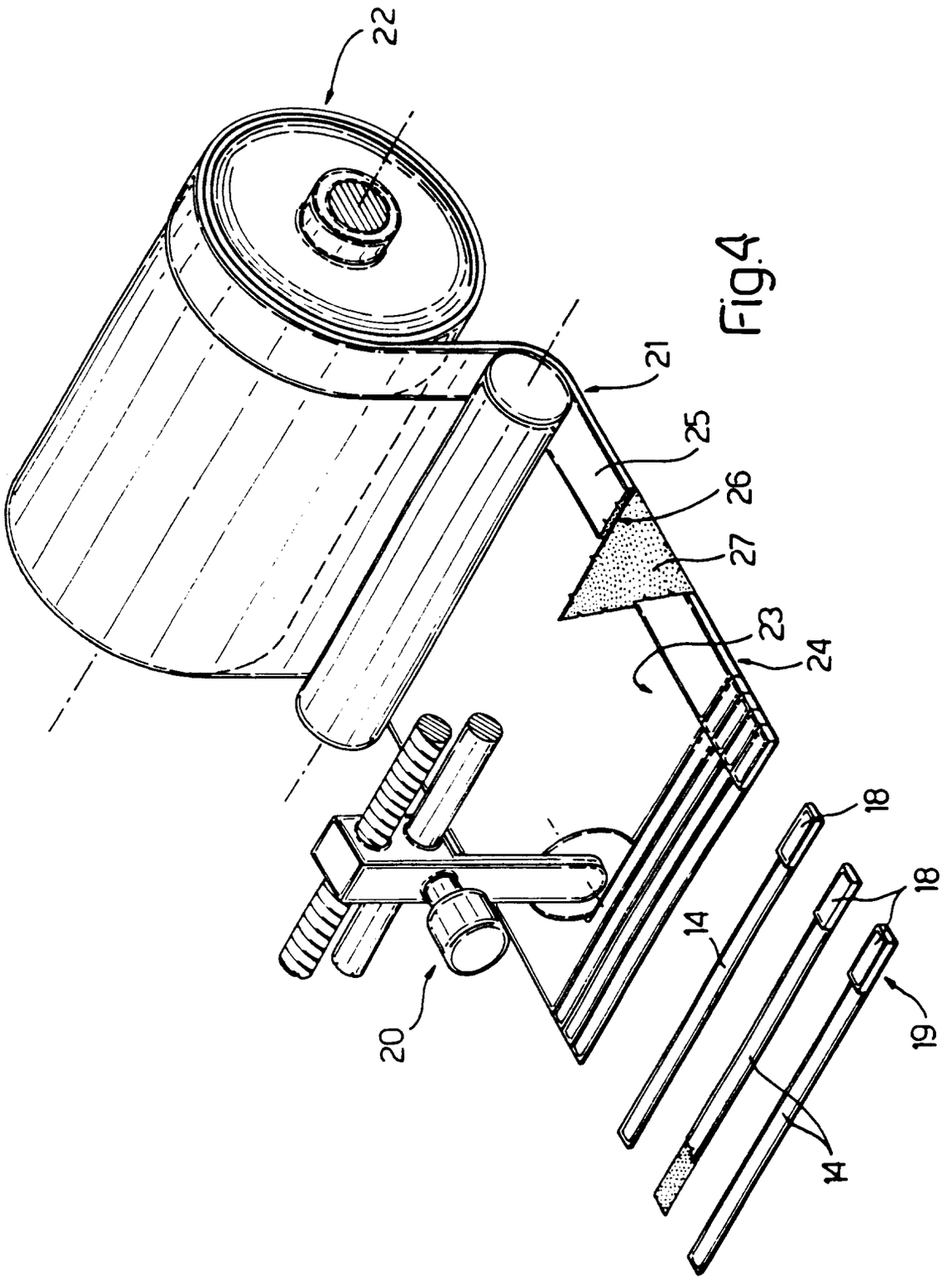


Fig.4