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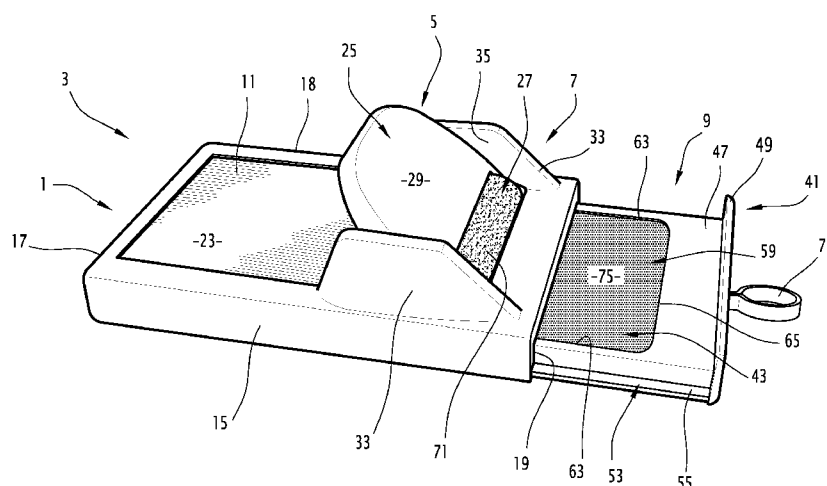
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(54) Title: COSMETICS APPLICATOR DEVICE WITH MOVING DRAWER



**FIG.1**

(57) Abstract: The device for applying a cosmetic product, the device (1) comprises: - a case (3); - a cosmetic product applicator (5); - a reserve (9) containing cosmetic product, able to move between at least first and second positions relative to the case (3). The case (3) comprises a device (7) for receiving the applicator (5) configured to receive the applicator (5) removably in a reloading position in which the applicator (5) is in contact with the cosmetic product during the movement of the reserve (9) relative to the applicator (5) between its first and second positions.

### **Cosmetics applicator device with moving drawer**

The invention generally relates to devices for applying cosmetic products.

More specifically, the invention relates to a device for applying a cosmetic product, of the type comprising:

- 5           - a case;
- a cosmetic product applicator;
- a reserve containing cosmetic product, able to move between at least first and second positions relative to the case.

10           US 4 526 273 describes a device for applying a cosmetic product with several moving drawers containing a cosmetic product and/or one or several applicators. The user must therefore first open a drawer containing a cosmetic product, then possibly a second drawer containing the applicator, and then load the applicator with the cosmetic product before placing the cosmetic product in the desired location.

15           EP-0 861 617 describes a device with a drawer including both the reserve of cosmetic product and the applicator. This device is convenient and compact. However, it would be interesting to propose a device allowing an even faster application of the cosmetic product.

20           FR-2 874 485 describes a device in which the case includes two parts sliding relative to each other. The applicator can be fixed to the case, in a position that locks the two drawers relative to each other. This device is particularly compact. However, as before, it would be interesting to propose a device still more convenient for the user.

          FR 2 779 039 and EP 1 175 846 each describe a device with a case containing the cosmetic product, and an applicator housed respectively in the lid of the case and in a housing formed at the base of the case.

25           Lastly, FR 2 899 075 describes an application device with an applicator housed directly in a tube containing a reserve of cosmetic product. The applicator is loaded automatically when it is removed from the reserve. This device is very effective, but it would be desirable to still better control the loading of the applicator with cosmetic product.

30           Thus, although the above devices are already very satisfactory in terms of their use, it is desirable to further improve the convenience of these devices, in particular to load the applicator with cosmetic product.

          To that end, the invention relates to an applicator device of the aforementioned type, characterized in that the case comprises a device for receiving the applicator removably in a

reloading position in which the applicator is in contact with the cosmetic product during the movement of the reserve relative to the applicator between its first and second positions.

Thus, it is possible to very conveniently load the applicator with cosmetic product, simply by moving the reserve of cosmetic product between its first and second positions relative to the case. The applicator remains mounted on the case during that operation.

Advantageously, in at least the first position of the reserve, the cosmetic product can be housed in the case. Thus, the device has at least one position in which the cosmetic product is protected from outside impurities, for example dust, such that it is possible to store the cosmetic product inside the case for a long period of time.

Advantageously, the device comprises a connection between the applicator and the case provided to allow the movement of the applicator relative to the case between a storage position in which the reserve can be placed in the first position, and its reloading position, said connection being provided so that the movement of the applicator from the storage position to the reloading position causes the expulsion of the reserve from the first position to the second position. Thus, the movement of the reserve between its two positions is initiated very conveniently by a movement of the applicator.

Advantageously, the applicator can be separated from the case in said first position of the reserve. Thus, during the application of the cosmetic product using the applicator, the reserve of the cosmetic product remains protected inside the case.

Preferably, the applicator can be capable of being separated from the case in at least one position of the reserve in which the reserve is connected to the case. Thus, during application of the cosmetic product using the applicator, the reserve and the case remain attached to each other, and the user has only one element to manage. On the contrary, if the reserve is separated from the case, the user would have two elements to manage, which would increase the risk of losing or dropping one of the two elements.

For example, the applicator can be separated from the case regardless of the position of the reserve. Thus, it is possible to modulate the loading of the applicator with cosmetic product, since the amount of cosmetic product deposited on the applicator depends on the travel of the reserve.

Preferably, the reserve can include a bowl containing the cosmetic product, the bowl being shallow and having a wide opening relative to its depth, the applicator including a cosmetic product applicator member with a width substantially equal to that of the opening. It

is thus possible to load the applicator over the entire width thereof, and to consume all of the cosmetic product stored in the reserve.

Advantageously, the reserve can include a bowl containing the cosmetic product, the applicator including an applicator member for the cosmetic product, the applicator member, in the second position of the reserve, extending along a transverse wall of the bowl, said transverse wall being connected to a bottom of the bowl by a bowed zone. Thus, when the applicator member is cylindrical, it is possible to withdraw cosmetic product in the junction zone between the transverse wall and the bottom of the bowl. All of the cosmetic product stored in the reserve can therefore be consumed.

Preferably, the reserve can include a base connected to the case, a bowl containing the cosmetic product, and an elastic connection between the bowl and the base stressing the bowl towards the applicator. Thus, the cosmetic product is still in contact with the applicator, even when the thickness of cosmetic product inside the reserve has decreased, after several applications.

Advantageously, the applicator can comprise a sleeve and an applicator member of the cosmetic product rotatingly mounted on the sleeve, the movement of the reserve between its first and second positions being adapted to cause a rotation of the applicator member relative to the sleeve of at least  $360^\circ$ . Thus, the movement of the reserve between its two positions makes it possible to load the entire perimeter of the applicator member.

Preferably, the applicator member can have a cylindrical outer surface and be in contact with the cosmetic product by a generatrix of the cylindrical outer surface. This allows a good rotation of the applicator member against the free surface of the cosmetic product, and therefore good loading of the applicator member.

For example, the cosmetic product contained in the reserve can have a free surface, the applicator having an applicator member having an outer surface bearing against the free surface of the cosmetic product, said free surface and said outer surface having complementary profiles transverse to a direction of movement of the reserve relative to the case. These characteristics make it possible to obtain good loading of the cosmetic product applicator member.

Advantageously, the device can include a sliding connection between the reserve and the case, and the reserve can move relative to the case between its first and second positions using a rectilinear translational movement. Such an arrangement is particularly convenient.

Preferably, the device comprises a reversible locking of the applicator on the case in the reloading position, for example by snapping. Such locking prevents the applicator from separating from the case inopportunely.

For example, the device comprises a sliding connection of the applicator with the case, provided to make it possible to adjust a separation between the applicator and the reserve. The sliding connection makes it possible to place the applicator so that the cosmetic product is in contact with said applicator, even after part of the cosmetic product stored in the reserve has been consumed, and the level of cosmetic product in that reserve has therefore varied.

Moreover, the sliding connection can be provided to guide the applicator member between a plurality of positions corresponding to respective separations between the applicator and the reserve, the sliding connection comprising a stop defining a low position of the applicator in which said spacing is minimal. This makes it possible to calibrate the applicator at a suitable height relative to the free surface of the cosmetic product stored in the reserve. This is particularly interesting when the reserve includes a bowl elastically returned against the cosmetic product applicator member.

Other features and advantages of the invention will emerge from the detailed description thereof provided below, for information and non-limitingly, in reference to the appended figures, in which:

- figure 1 is a perspective view of an application device according to the invention, the reserve being shown in an intermediate position between its first and second positions;

- figure 2 is a top view of the device of figure 1, without applicator;

- figure 3 is a longitudinal cross-sectional view of the device of figure 1, the reserve being shown in its first position and being only partially sectioned;

- figure 4 is a view similar to that of figure 3, the reserve being shown in its second position;

- figure 5 is a top view of the applicator of figure 1;

- figure 6 is a side view of an applicator according to one alternative embodiment of the invention;

- figure 7 is a perspective view of a device according to a second embodiment of the invention, the applicator being shown reclined in its storage position;

- figure 8 is a longitudinal cross-sectional view corresponding to figure 7;

- figure 9 is a cross-sectional view similar to that of figure 8, the applicator being shown tilted to an intermediate position between its storage position and its reloading position;

- figure 10 is a view similar to figure 8, the reserve being shown in its second position and the applicator in its reloading position; and

- figure 11 is a perspective view of an alternative of the reserve of figure 1.

The device 1 shown in figure 1 is intended for the application of a cosmetic product.

Cosmetic product refers here to a product as defined by Council directive 93/35/EEC dated June 14, 1993.

The device 1 comprises:

- a case 3;

- an applicator 5 for a cosmetic product, the case 3 comprising a device 7 for receiving the applicator 5, configured to allow the reception of the applicator 5 on the case 3 removably in a reloading position;

- a reserve 9 containing cosmetic product, movable between at least first and second positions relative to the case 3 and the applicator 5.

The case 3 is for example a hollow case with a generally parallelepiped shape, as illustrated in figure 1. The case 3 is delimited by first and second large faces 11 and 13, opposite each other, and by four side faces 15, 17, 18, 19, connecting the large faces 11 and 13 to each other. In the embodiment of figures 1 to 4, the large face 11 is partially solid, and the longitudinal faces 15 and 18 are completely solid. The large face 13 and the transverse side faces 17 and 19 are empty. The empty face 19 defines an opening that allows movement of the reserve. The faces 13, 17 or 19 could be partially or completely solid, and the faces 11, 15 or 18 partially or completely empty.

The large face 11 includes a lumen 21, near the opening 19. The lumen 21 extends transversely over substantially the entire transverse width of the case.

The case can also include a mirror 23, rigidly fixed to the large face 11.

In the embodiment of figures 1 to 5, the applicator includes a sleeve 25 and a cosmetic product applicator member 27 rotatably mounted on the sleeve 25. As shown by figure 5, the sleeve 25 includes a gripping area 29 extended by two support arms 31 with the axis of rotation of the applicator member 27. The applicator member here is a substantially cylindrical roller housed between the two arms 31. The two arms 31 are substantially parallel to each other.

In the embodiment of figures 1 to 5, the applicator member 27 is a sponge, a foam, a flocked tip, or an elastomeric material.

The device 7 for receiving the applicator 5 is a slide-type connection. It includes two grooves 32, parallel to each other, formed in flanges 33 supported by the face 11 of the case.  
5 The connection 7 also includes two ribs 34, supported by the gripping area 29 and the arms 31 of the sleeve 25, and provided to slide inside the grooves 32.

The flanges 33 stand substantially perpendicular to the face 11, and have a longitudinal orientation. They are positioned on either side of the lumen 21. The grooves 32 are hollowed out in two faces 35 opposite the flanges 33. The grooves 32 form an angle  
10 between 10° and 80° relative to the longitudinal direction and relative to the large face 11, preferably between 30° and 75°, and for example 45°.

Each groove 32 has a blind end 37, and an open end 39 allowing the introduction of ribs 34. The blind end 37 is relatively closer to the large face 11 than the open end 39.

The two grooves 32 are strictly parallel to each other.

15 When the ribs 34 are engaged in the grooves 32 and abut against the blind ends 37 thereof, the applicator is in its reloading position.

In this position, illustrated in figures 1, 3 and 4, the applicator member 27 is substantially located in the lumen 21. For example, the axis of rotation of the applicator member 27 is oriented transversely, and is situated in or slightly above the lumen 21. Part of  
20 the applicator member protrudes under the face 11, in the inner space of the case 3. The sleeve 25, and in particular the gripping area 29, is situated between the two flanges 33, and protrudes above the large face 11.

The reserve 9 includes a drawer 41, a bowl 43 containing the cosmetic product, and an elastic means 45 inserted between the bowl and the drawer. The drawer 41 includes a base  
25 47 supporting the bowl 43, and a flap 49 integral with the base 47 and intended to cover the opening 19. The base 47 longitudinally has substantially the same length as the inner volume of the case, and transversely substantially the same width. Its height is smaller than the height of the inner volume of the case.

The flap 49 stands for example along a transverse edge of the base 47. The base 47  
30 has a hollow area 51 for receiving the bowl 43. The elastic members 45 are for example blocks of compressible foam inserted between the bowl 43 and the base 47, and placed in the hollow area 51. The elastic members could also be springs, plastic tabs integral or not with the base 47, or any other suitable elastic member.

The device includes a sliding connection 53 between the case 3 and the reserve 9 (figure 1). The sliding connection 53 has a longitudinal orientation. For example, the sliding connection 53 includes two longitudinal grooves 55 formed in the base 47 of the drawer, cooperating with reliefs 56 (figure 4) formed on the walls 15 and 18 of the case. The reliefs 56 are formed on the faces of the walls 15 and 18 facing the inside of the case. The reliefs 56 are for example longitudinal ribs.

The sliding connection 53 guides the reserve 9 between its first and second positions, shown in figures 3 and 4, respectively. In the first position, the base 47 is completely housed inside the case 3, the flap 49 closing the opening 19. The bowl 43 and the cosmetic product stored in the bowl are housed inside the case 3. In the second position, shown in figure 4, the drawer 41 and the bowl 43 are partially situated outside the case 3. Preferably, the drawer 41 includes a lug 57 abutting against a corresponding zone 58 of the case 3 when the reserve 9 reaches its second position. The lug 57 limits the travel of the reserve 9, and prevents the reserve from detaching from the case 3.

As shown in figure 4, the bowl 43 has a shallow volume for receiving cosmetic product, open opposite the base 47. The bowl 43 thus has an opening 59 facing the face 11 of the case and the lumen 21, through which the cosmetic product is withdrawn. The receiving volume is delimited by a bottom 61, two longitudinal walls 63 (figure 2) and two transverse walls 65. The transverse walls 65 are connected to the bottom 61 by bowed areas 67, the receiving volume therefore not having a dead zone in which the recovery of the cosmetic product using a roller would be practically impossible.

The receiving volume of the bowl 43 and the opening 59, transversely, each have a width substantially equal to that of the applicator member 27. The latter part can therefore withdraw cosmetic product over the entire width of the receiving volume.

In the first position of the reserve, the zone of the receiving volume adjoining one of the transverse walls 65 is situated under the lumen 21. The wall 65 is in this case that of the two walls that is closer to the flap 49. In the second position, it is the zone of the receiving volume situated along the opposite wall 65 that is under the lumen 21.

As shown in figures 3 and 4, when the applicator 5 is in its reloading position, the cosmetic product is in contact with the applicator, and more precisely is in contact with the applicator member 27. The outer cylindrical surface 71 of the applicator member is then in contact with the cosmetic product only by a generatrix, or by an angular sector a little larger



than if the applicator member was made from a deformable material and the applicator was greatly stressed against the cosmetic product.

The cosmetic product stored in the bowl 43 is a poured or compacted formula, for example a foundation, lipstick, eye shadow, etc... Alternatively, the cosmetic product could be a liquid cosmetic product, the volume of the bowl then being occupied by an elastic porous material, for example an elastomer foam saturated with the liquid cosmetic product.

The drawer 41 can include a gripping member 73, for example a ring, supported by the flap 49. This gripping member could alternatively be a rib supported by the flap 49, a hollow area formed in the flap 49, a hole, a notch, etc.

The operation of the device will now be described.

Before use, i.e. when idle, the reserve 9 is in its first position, the cosmetic product then being completely housed inside the case 3. The applicator 5 is mounted on the case 3, and is in its reloading position. The applicator member 27 is placed along the transverse wall 65 of the bowl. The elastic members 45 inserted between the drawer 41 and the bottom 63 of the bowl stress the free surface 75 of the cosmetic product against the outer surface 71 of the applicator member.

When the user wishes to use the application device, she grasps the gripping member 73, and pulls it so as to make the reserve 9 go from its first position to its second position. The reserve 9, and in particular the bowl 43, move longitudinally relative to the case, and relative to the applicator 5 mounted on the case. The movement of the bowl relative to the applicator member 27 drives said applicator member by friction in rotation against the free surface 75 of the cosmetic product. The outer surface 71 of the applicator member is then loaded with the cosmetic product. If the user feels that the applicator member is sufficiently loaded with cosmetic product, she grasps the applicator 5 and slides it along the grooves 32, until the applicator 5 is separated from the case 3. She then returns the reserve 9 to its first position.

On the contrary, if the user feels that the applicator is not loaded enough with cosmetic product when the reserve reaches its second position, she returns the reserve 9 to its first position without separating the applicator from the case. The outer surface 71 of the applicator member rolls a second time, in the opposite direction, on the free surface 75 of the cosmetic product. The user then separates the applicator from the case, or moves the reserve again. She can also interrupt the movement of the reserve at an intermediate position between

the first and second positions. She can separate the applicator from the case regardless of the position of the reserve.

The user can also reload the applicator with product when the reserve is in its second position (completely open), by making it roll manually on the free surface 75.

5           The amplitude of the translation of the reserve 9 between its first and second positions is provided so that the applicator member 27 pivots at least  $360^\circ$  around its axis during the movement of the reserve between its two positions. For example, the applicator member pivots by an angle between  $360$  and  $720^\circ$ , preferably between  $360$  and  $540^\circ$ , and still more preferably by about  $360^\circ$ .

10           In other words, the longitudinal length of the bowl 43, and more precisely the receiving volume of the cosmetic product, corresponds substantially to the perimeter of the applicator member 27.

          The bowl 43 exerts, on the applicator member 27, a stress tending to make the applicator 5 go back up along the grooves 32. This stress is counterbalanced by the friction  
15           between the ribs 34 of the applicator and the grooves 32, given the incline of the grooves relative to the longitudinal direction and the large face 11 of the case.

          The smaller the incline angle between the grooves and the longitudinal direction, the less the applicator 5 will tend to leave its reloading position.

          The device can include locking of the applicator in its reloading position. For  
20           example, the locking includes a bead 101 (figures 5 and 6) formed on one of the ribs 34, and a housing 103 (figure 4) complementary to the bead 101, formed in one of the grooves 32. When the applicator is in its reloading position, the bead 101 is engaged in the housing 103, removably. The bead 101 is flexible enough to easily enter and leave its housing 103. The locking can include a bead on each rib 34 and a housing in each groove 32. Such locking  
25           makes it possible to prevent the applicator from separating from the case accidentally and falling, for example in the bottom of a purse. The locking can also be done by locking of the elastic lugs in the corresponding housings. The lugs are for example supported by the arm 31 of the applicator, and the housings formed in the flanges 33, for example at the blind ends 37 of the grooves 32.

30           Alternatively, the reserve 9 could not include elastic means 45 inserted between the bowl 43 and the drawer 41 and stressing the bowl towards the applicator.

          In that case, it is up to the user to ensure that she has pushed the applicator 5 far enough into the grooves 32 for the applicator member 27 to be in contact with the free

surface 75 of the cosmetic product. The blind end 37 of each groove is provided in this case so that the applicator member 27 can come into contact with the free surface of the cosmetic product even when only an extremely thin layer of cosmetic product remains in the bowl, or can even come into contact with the bottom 61 of the bowl.

5 In one alternative embodiment shown in figure 6, the sleeve 25 of the applicator is bent. In the reloading position of the applicator, the gripping zone 29 extends substantially parallel to the face 11 of the case. The arms 31 form an angle  $\alpha$  relative to the longitudinal direction and relative to the face 11 of the case. The arms 31 are parallel to the grooves 32. On the contrary, in the example of figure 1, the gripping zone 29 is a thin plate, extending  
10 substantially in a same plane as the arms 31. The zone 29 therefore itself forms an angle  $\alpha$  relative to the surface 11. One sees therefore that the sleeve 25, in the embodiment of figure 6, protrudes over a lower height relative to the face 11 of the case than in the embodiment of figure 1. The angle  $\alpha$  is between  $10^\circ$  and  $80^\circ$ , preferably between  $30^\circ$  and  $75^\circ$ , and is for example equal to  $45^\circ$ . Thus, the bulk of the applicator device is reduced. It is possible to  
15 house it in a smaller cardboard carton, taking up less linear space.

A second embodiment will now be described, in reference to figures 7 to 10. Only the points by which this second embodiment differs from the first will be described below. Identical elements or elements serving the same function in both embodiments will be designated using the same references.

20 In the second embodiment, the receiving device of the applicator is a connection 76 between the applicator 5 and the case 3, provided to allow the movement of the applicator 5 relative to the case 3 between a storage position, shown in figures 7 and 8, and the reloading position, shown in figure 10.

25 The connection 76 replaces the sliding connection of the embodiment of figures 1 to 6.

The connection 76 is of the sliding pivot type. The connection 76 includes two pivots 77, supported by the arms 31 of the applicator. The connection 76 also includes two guideways 79 formed on the flanges 33 standing on the case. The pivots 77 are engaged in the guideways 79 and are free in translation and rotation inside the guideways 79.

30 The two pivots 77 are aligned with each other in the transverse direction. The guideways 79 are oriented substantially perpendicular to the large faces 11 and 13 of the case, but could be inclined like the guideways in figures 2 and 3. The guideways 79 are

rectilinear, but could include bowed portions. As before, they include an open end and a blind end, the blind end being the closest to the face 11.

In the example shown in figures 7 to 10, the flanges 33 extend over the entire longitudinal length of the case. They could be shorter, as in the example of figures 1 to 5, and extend only at the lumen 21, over a fraction of the total length of the case.

As shown in the figures, the drawer 41 includes a support tab 81 integral with the flap 49. The support tab 81 extends from an edge of the flap 49 opposite the base 47. It extends towards the center of the drawer 41, substantially to the transverse wall 65 of the bowl.

In the storage position, shown in figures 7 and 8, the sleeve 25 of the applicator is reclined substantially parallel to the face 11 of the case, slightly above it. The pivots 77 are situated away from the blind ends of the guideways 79. The applicator member 27 is not in contact with the free surface of the cosmetic product.

In this position, the bulk of the applicator device is reduced. Moreover, microbial contamination is limited by the absence of contact between the cosmetic product and the applicator.

In this position, it is possible to move the reserve to its first position. The support tab 81 is then overhanging the applicator member 27. The applicator member is located between the lumen 21 and the support tab 81. The transverse free edge 83 of the tab extends beyond the pivots 77, and from the sleeve 25 side.

In the reloading position, shown in figure 10, the pivots 77 are closer to the blind ends of the guideways than in the storage position. In the example of figures 7 to 10, the pivots are located at the blind ends of the guideways 79. The applicator member is in contact with the free surface of the cosmetic product. The sleeve 25 is inclined by an angle between 45° and 90° relative to the longitudinal direction and the large face 11.

The applicator goes from its storage position to its reloading position by a double movement. The user moves the applicator from its storage position to its reloading position by grasping the sleeve 25 and making it swivel around the pivots 77 towards the support tab 81.

The applicator member first swivels around the pivots 77 without translation along the guideways 79, such that the sleeve 25 bears against the free end 83 of the support tab 81. The sleeve 25 is then inclined and forms, relative to the tab 81, an angle typically smaller than 45° when it bears against the free edge 83 (figure 9).

When the user extends the rotational movement around the pivots 77, the pivots 77 are stressed by the free edge 83 towards the blind ends of the guideways 79 and move in that direction, at the same time as the pivoting movement.

In return, the sleeve 25 exerts a longitudinal stress on the reserve, via the support tab.  
5 It follows that the reserve is expelled from its first position, towards its second position.

The invention has been described with an applicator member of the rotary roller type.

The applicator member could also be stationary relative to the sleeve 25. In that case, the applicator member can be a sponge, a foam, a flocked tip, a block of elastomeric material, a brush or a comb, this list not being limiting.

10 The sleeve can have all types of forms, and is not necessarily a flat tab as shown in figures 1 to 10. The sleeve 25 can have a substantial thickness, or an ergonomic shape adapted to the shape of the fingers.

In one alternative embodiment shown in figure 11, the cosmetic product assumes the form of a viscous liquid, positioned inside the bowl 43. In that case, the reserve includes a  
15 grate 85 positioned in the bowl 43 so as to offer a support surface for the rolling or movement of the applicator member. The grate 85 covers the entire opening 59 of the bowl 43. It is free relative to the bowl 43, and is formed by a material adapted so that the grate 85 floats on the surface of the liquid cosmetic product.

When the reserve moves between its first and second positions, the applicator member  
20 27 bears slightly on the grate 85, such that the liquid cosmetic product is flush through the free spaces of the grate and loads the applicator member.

In one alternative not illustrated, the protrusion of the reserve between its first and second positions relative to the case is not a translational movement, but a rotational movement. In that case, the reserve can for example assume the form of a disc moving inside  
25 the case also in the form of a disc. The reserve could also have a ring sector shape, or a disc sector shape, moving inside a case with a corresponding shape.

The reserve could also have a cylinder sector shape, coaxial to the axis of rotation of the applicator member 27. The reserve moves between its first and second positions in rotation around said axis of rotation.

30 In one embodiment not shown, the applicator device includes means for reversibly locking the reserve in its first position. The reserve is automatically locked in place when it reaches its first position. It is released when the applicator is pushed into the bottom of the grooves 32.

CLAIMS

1. A device for applying a cosmetic product, the device (1) comprising:

- a case (3);

5 - a cosmetic product applicator (5);

- a reserve (9) containing cosmetic product, able to move between at least first and second positions relative to the case (3);

characterized in that the case (3) comprises a device (7, 76) for receiving the applicator (5) configured to receive the applicator (5) removably in a reloading position in which the applicator (5) is in contact with the cosmetic product during the movement of the reserve (9) relative to the applicator (5) between its first and second positions.

2. The device according to claim 1, characterized in that in at least the first position of the reserve (9), the cosmetic product is housed in the case (3).

3. The device according to claim 2, characterized in that the device for receiving the applicator (5) comprises a connection (76) between the applicator and the case (3) provided to allow the movement of the applicator (5) relative to the case (3) between a storage position in which the reserve (9) can be placed in the first position, and its reloading position, said connection (76) being provided so that the movement of the applicator (5) from the storage position to the reloading position causes the expulsion of the reserve (9) from the first position to the second position.

4. The device according to claim 2 or 3, characterized in that the applicator (5) can be separated from the case (3) in said first position of the reserve (9).

5. The device according to any one of the preceding claims, characterized in that the applicator (5) can be separated from the case (3) in at least one position of the reserve (9) in which the reserve (9) is connected to the case (3).

6. The device according to any one of the preceding claims, characterized in that the applicator (5) can be separated from the case (3) regardless of the position of the reserve (9).

7. The device according to any one of the preceding claims, characterized in that the reserve (9) includes a bowl (43) containing the cosmetic product, the bowl (43) having a wide opening (59) relative to its depth, the applicator (5) including a cosmetic product applicator member (27) with a width substantially equal to that of the opening (59).

5

8. The device according to any one of the preceding claims, characterized in that the reserve (9) includes a bowl (43) containing the cosmetic product, the applicator (5) including an applicator member (27) for the cosmetic product, the applicator member (27), in the second position of the reserve (9), extending along a transverse wall (65) of the bowl (43), said transverse wall (65) being connected to a bottom (61) of the bowl (43) by a bowed zone (67).

10

9. The device according to any one of the preceding claims, characterized in that the reserve (9) includes a base (41) connected to the case (3), a bowl (43) containing the cosmetic product, and an elastic connection (45) between the bowl (43) and the base (41) stressing the bowl (43) towards the applicator (5).

15

10. The device according to any one of the preceding claims, characterized in that the applicator (5) comprises a sleeve (25) and an applicator member (27) of the cosmetic product rotatably mounted on the sleeve (25), the movement of the reserve (9) between its first and second positions being adapted to cause a rotation of the applicator member (27) relative to the sleeve (25) of at least 360°.

20

11. The device according to claim 10, characterized in that the applicator member (27) can have a cylindrical outer surface (71) and be in contact with the cosmetic product by a generatrix of the cylindrical outer surface (71).

25

12. The device according to any one of the preceding claims, characterized in that the cosmetic product contained in the reserve (9) has a free surface (75), the applicator (5) having an applicator member (27) having an outer surface (71) bearing against the free surface (75) of the cosmetic product, said free surface (71) and said outer surface (75) having complementary profiles transverse to a direction of movement of the reserve (9) relative to the case (3).

30

13. The device according to any one of the preceding claims, characterized in that it includes a sliding connection (53) between the reserve (9) and the case (3).

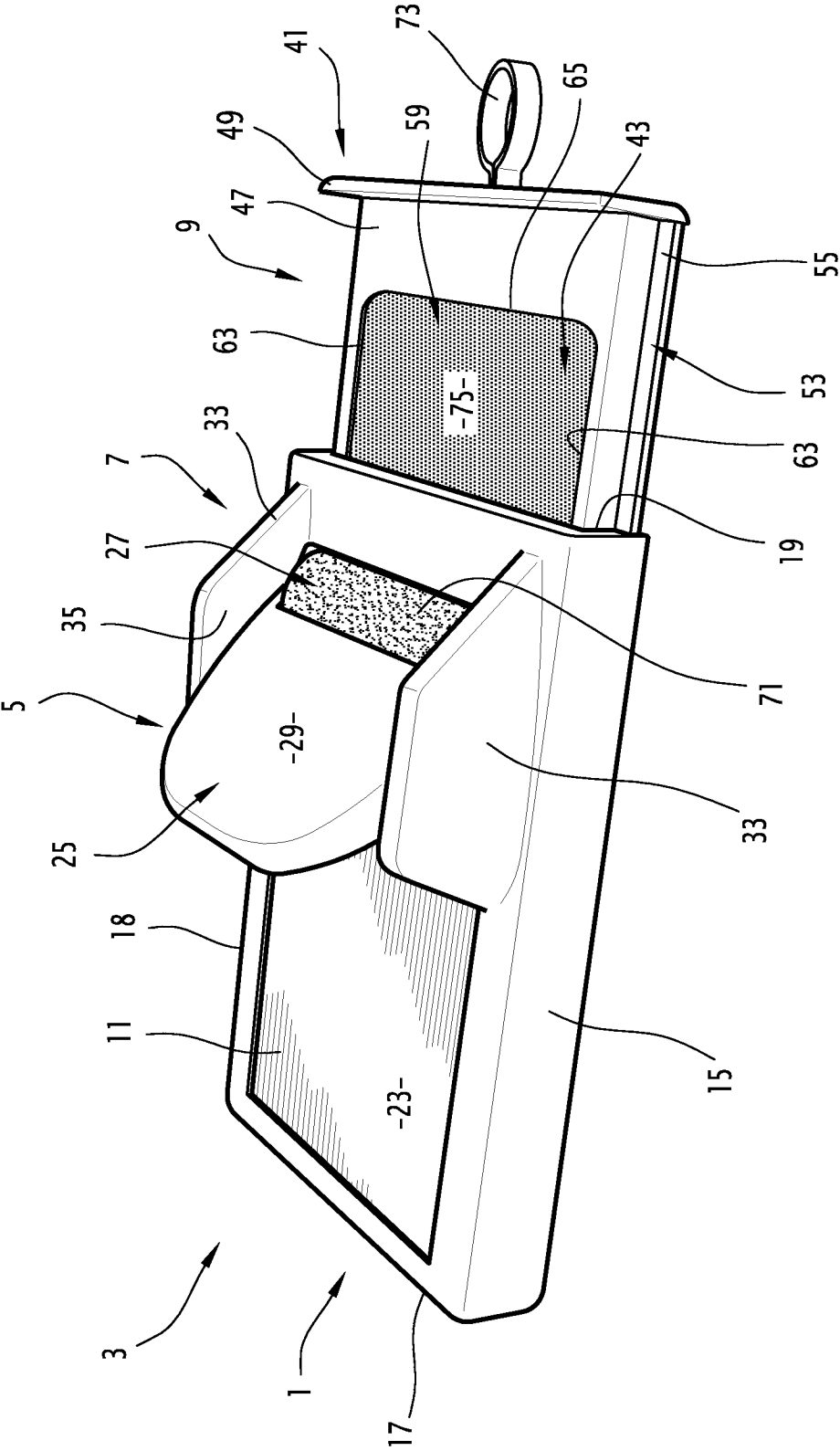
5 14. The device according to any one of the preceding claims, characterized in that the reserve (9) moves relative to the case (3) between its first and second positions using a rectilinear translational movement.

10 15. The device according to any one of the preceding claims, characterized in that it comprises a reversible locking of the applicator (5) on the case (3) in the reloading position, for example by snapping.

15 16. The device according to any one of the preceding claims, characterized in that the device for receiving the applicator (5) comprises a sliding connection (7) of the applicator (5) with the case (3), provided to make it possible to adjust a separation between the applicator (5) and the reserve (9).

20 17. The device according to claim 16, characterized in that the sliding connection (7) is provided to guide the applicator (5) between a plurality of positions corresponding to respective separations between the applicator (5) and the reserve (9), the sliding connection comprising a stop defining a low position of the applicator (5) in which said spacing is minimal.





**FIG.1**

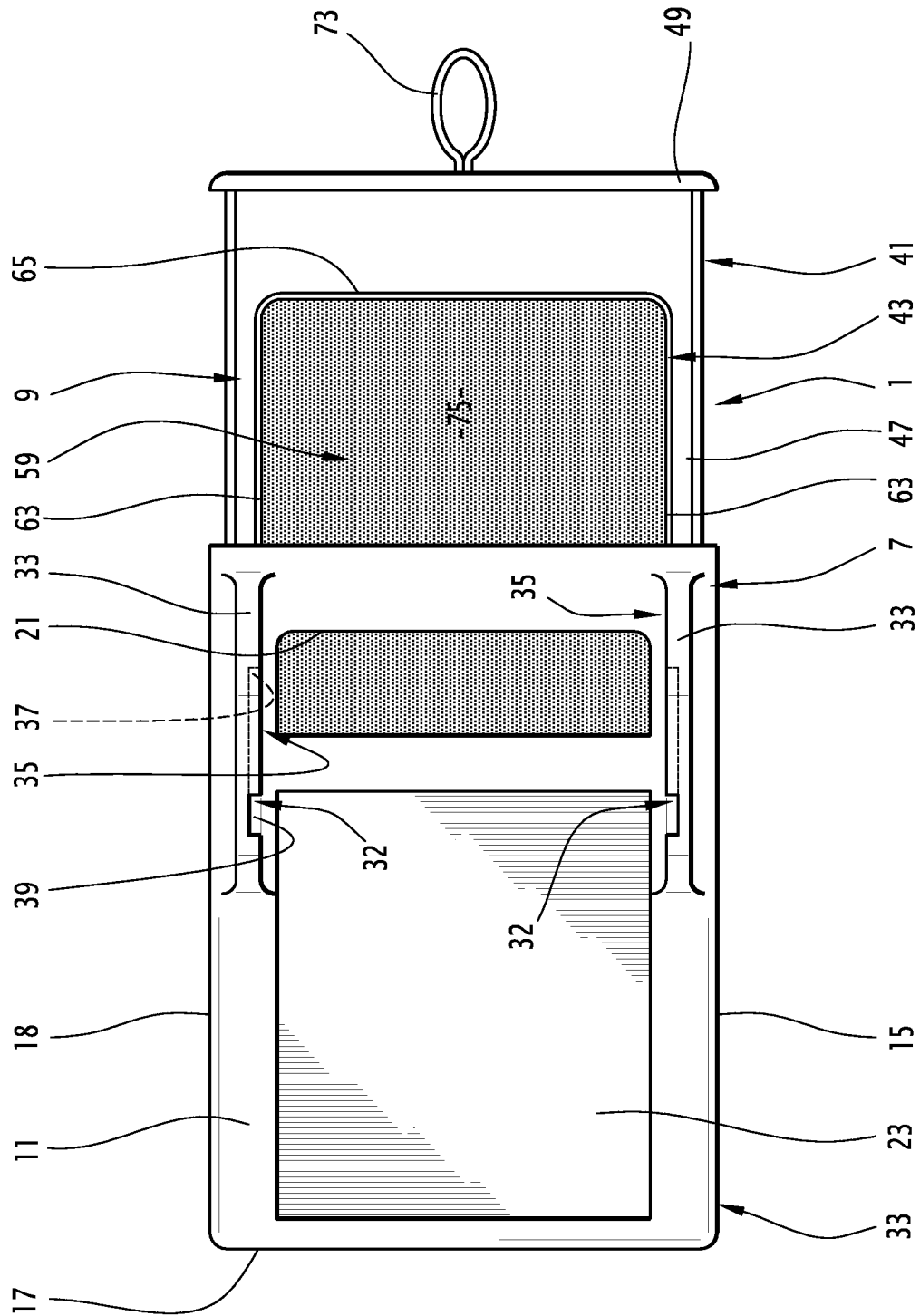
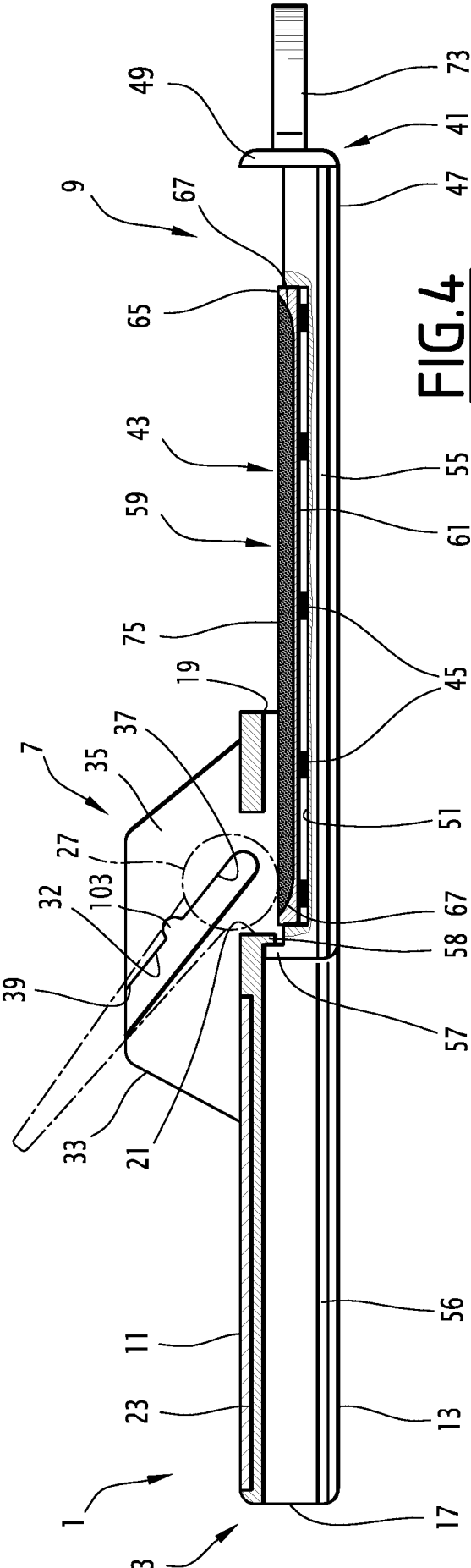
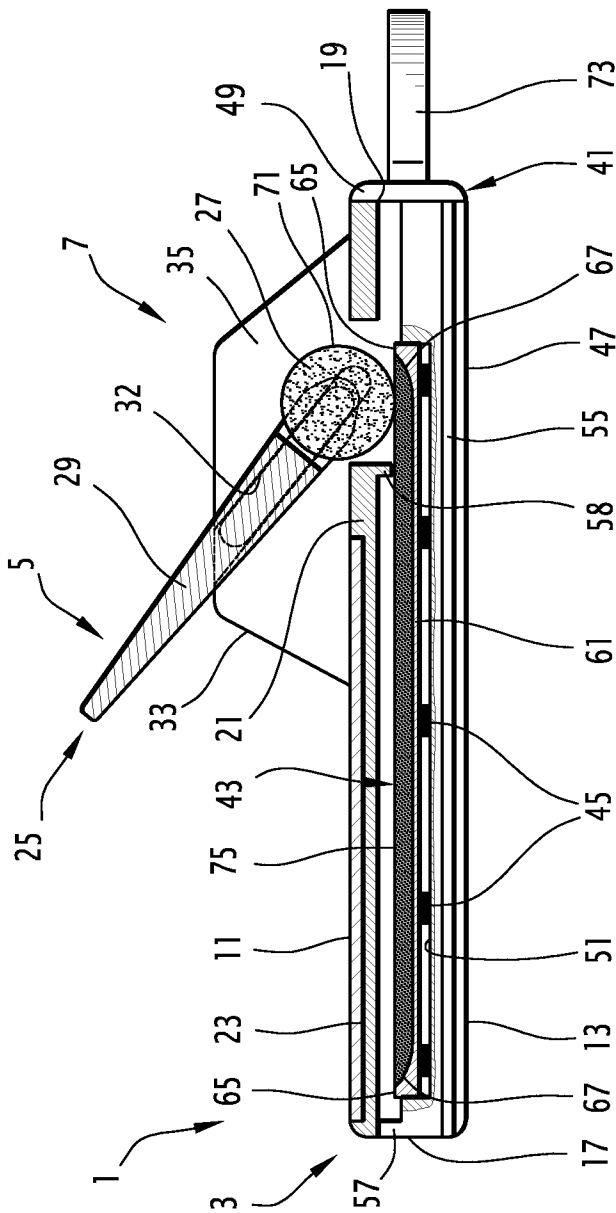


FIG. 2



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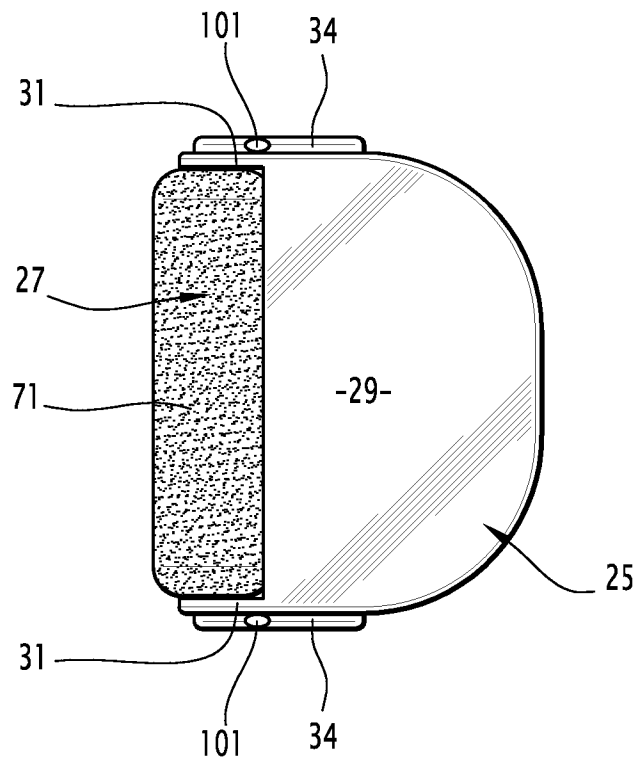


FIG. 5

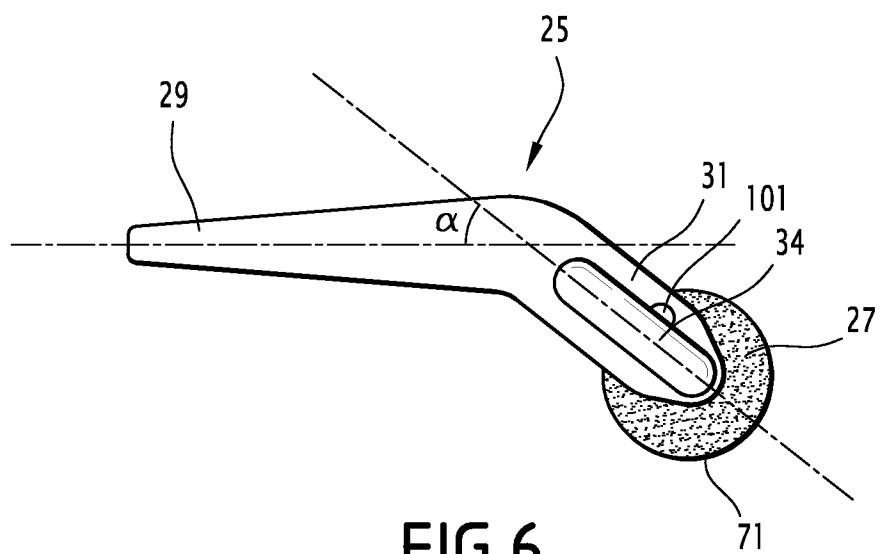
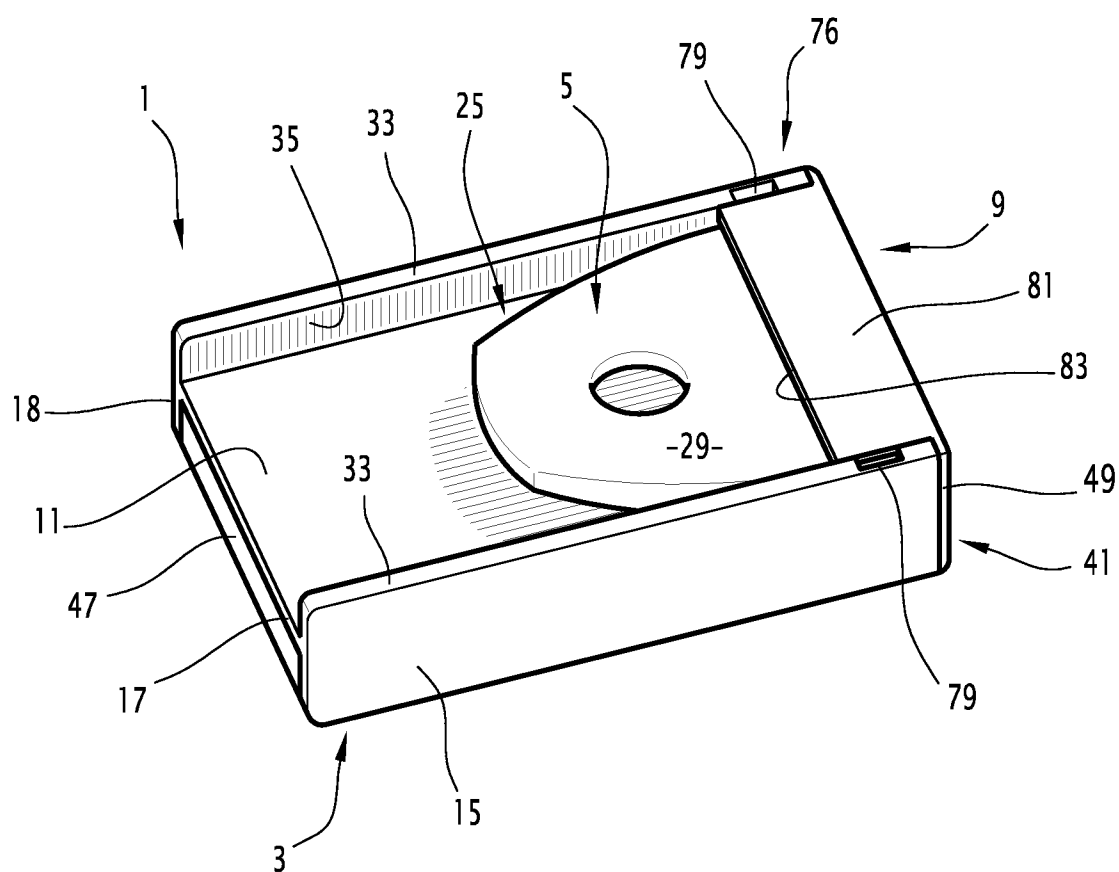


FIG. 6

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**FIG.7**

FIG.8

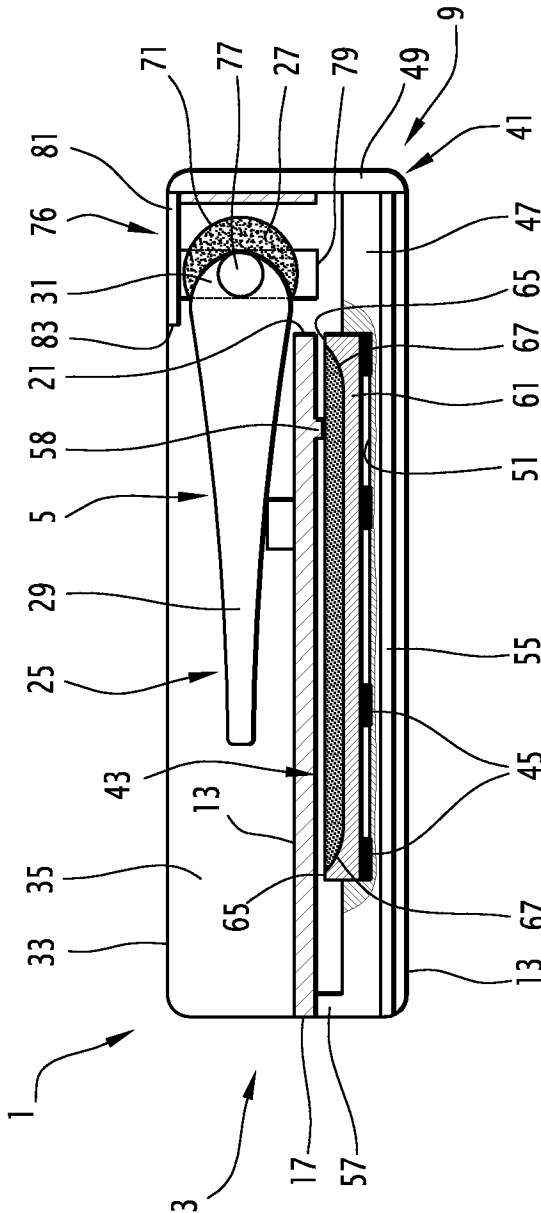
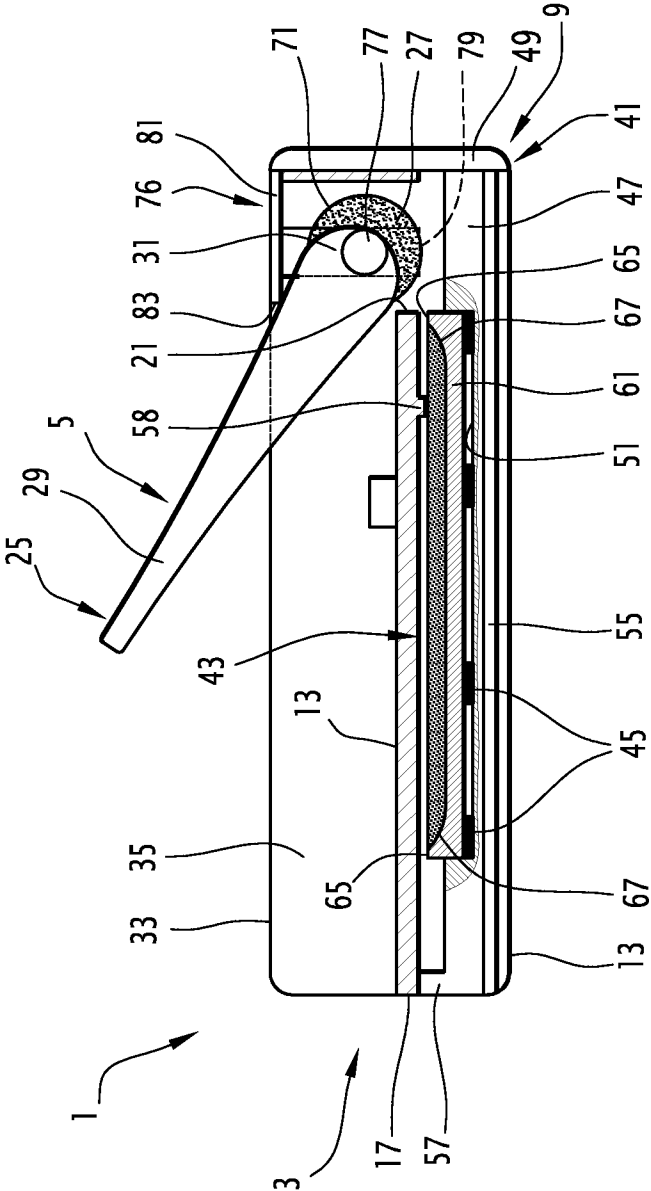


FIG.9



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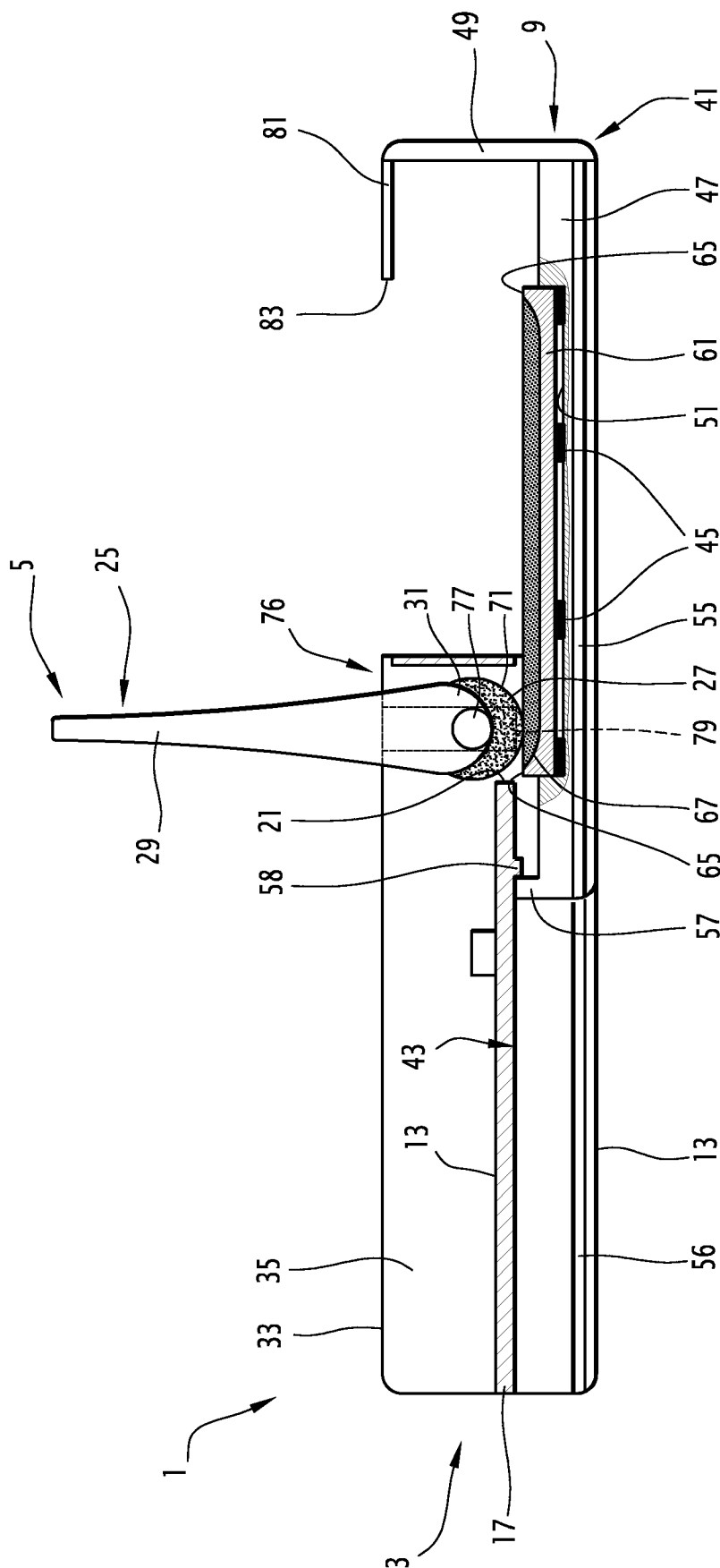


FIG.10

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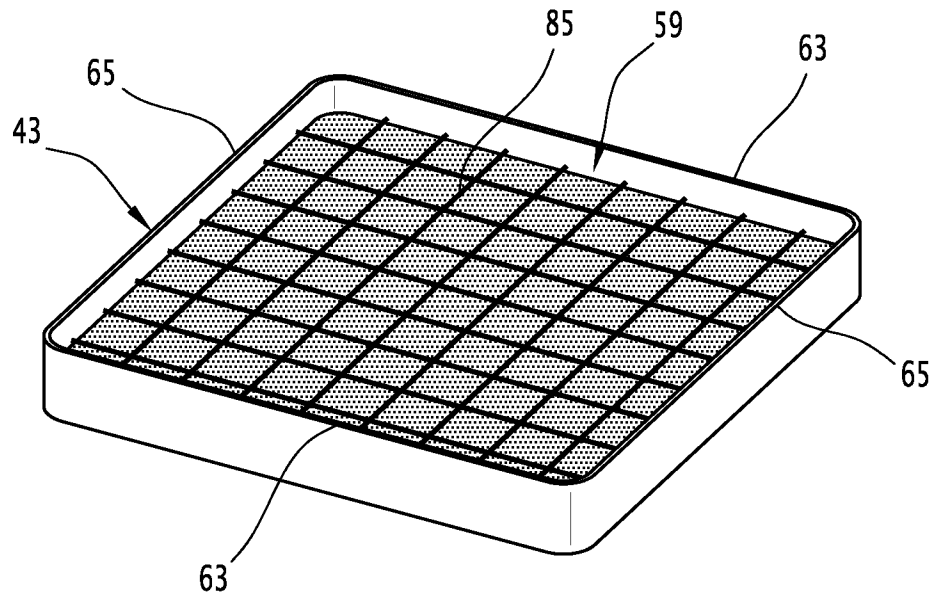


FIG.11



# INTERNATIONAL SEARCH REPORT

International application No  
PCT/EP2011/051998

A. CLASSIFICATION OF SUBJECT MATTER  
INV. A45D33/00 A45D33/20  
ADD.

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)  
A45D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                                 | Relevant to claim No.           |
|-----------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| X<br>A    | US 2007/286831 A1 (KAMADA KENJI [JP] ET AL) 13 December 2007 (2007-12-13)<br>paragraph [0133]<br>figures 15, 16<br>-----           | 1-6,15<br>7-14,16,<br>17        |
| X<br>A    | EP 0 349 407 A1 (OREAL [FR])<br>3 January 1990 (1990-01-03)<br>column 8, line 24 - line 59; figure 3<br>-----                      | 1-6,<br>13-15<br>7-12,16,<br>17 |
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| X<br>A    | US 6 945 723 B1 (GUERET JEAN-LOUIS [FR])<br>20 September 2005 (2005-09-20)<br>column 8 - column 10<br>figures 2, 3<br>-----<br>-/- | 1-6,15<br>7-14,16,<br>17        |

☒ Further documents are listed in the continuation of Box C.

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Date of the actual completion of the international search

10 May 2011

Date of mailing of the international search report

18/05/2011

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Authorized officer

Dydenko, Igor

## INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2011/051998

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|------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------|
| Category*                                            | Citation of document, with indication, where appropriate, of the relevant passages              | Relevant to claim No. |
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| Y                                                    | US 3 023 449 A (JOSEPH AVERSA)<br>6 March 1962 (1962-03-06)<br>the whole document<br>-----      | 1-6,<br>12-15         |
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Information on patent family members

International application No

PCT/EP2011/051998

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date                                                                                                                                                                            |
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| US RE21757                                | E                   | NONE                       |                                                                                                                                                                                                |