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(54) **Cosmetic case with interchangeable inserts which can be locked therein**

Schminkdose mit verriegelbaren und austauschbaren Näpfchen

Boîte cosmétique avec inserts interchangeables pouvant être verrouillés

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• **PATENT ABSTRACTS OF JAPAN vol. 005, no. 172**
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Description

The invention relates to a cosmetic case with interchangeable inserts which can be locked therein. The inserts can be cosmetic dishes which contain cosmetics such as powder, make-up or colours and can be combined in the cosmetic case to any interchangeable set of cosmetics.

Cosmetic cases are predominantly provided with one or several recesses in which the cosmetics are contained. Once the contents of the recesses are used, the entire cosmetic case has to be replaced.

From DE-C-34 41 460 a cosmetic case is known wherein a number of interchangeable inserts are inserted next to one another in a compartment provided therefor in the lower part of the case. Each insert comprises a projection along its rear lower end which fits into a corresponding recess in the cosmetic case. At the opposing front end each insert comprises a projection in the region of its upper edge which comes into contact with a partition in the cosmetic case once the insert is inserted.

This known cosmetic case has the disadvantage that the interchangeable inserts are held in place by frictional engagement. Repeated removal and insertion of the inserts can decrease the frictional engagement by causing a change in shape and the hold can even be lost completely.

In DE-A-36 26 743 a further cosmetic case is described wherein an insert is held in a cosmetic case in a similar manner to the cosmetic case mentioned above. In this cosmetic case a side wall is swivel-mounted around the longitudinal axis of the cosmetic case such that by swinging the side wall a front side of the insert is lifted out. This construction is very complicated and the suitable tolerances have to be strictly observed during its manufacture.

It is the object of the present invention to provide a cosmetic case with at least one interchangeable insert, which is simple and inexpensive to produce and guarantees a secure and releasable connection between the cosmetic case and the inserts even when used for longer periods.

This object is achieved with the cosmetic case having the features of the claims.

The invention is based on the idea of being able to lock an insert in a corresponding recess of a cosmetic case by firstly inserting the insert essentially vertically into the recess and then shifting the insert essentially parallel to the recess. The guidance of the insert in the way described above is achieved by means of a groove corresponding to the guiding path at a portion in which a respective projection is guidable at another portion. The shape and size of the projection is adapted to the dimensions such that the projection can firstly move freely in the recess when the insert is vertically inserted and the projection is shifted into a preferably narrowing region of the recess when the insert is shifted parallel in relation to the recess of the cosmetic case so that a

clamping force is achieved between the projection and the recess.

On a preferred embodiment of the present invention, an L-shaped groove is formed in a side wall of the recess in the cosmetic case. The insert to be inserted in this recess is provided with a corresponding projection, the dimensions of which are adapted to the dimensions of the L-shaped recess such that the projection can firstly be freely guidable in one portion when the insert is inserted and is subsequently shifted into a second portion of the groove and then held under clamping force. The projection is preferably rectangular and the length and width as well as the height of the projection correspond to the length and width and depth of the second portion of the groove.

On an alternative embodiment of the invention, the L-shaped groove is provided in the side wall of the insert and a corresponding projection is provided on the side wall of the recess. The L-shaped recess extends from the underside of the insert in the direction of its upper side and comprises a second portion adjoining the first portion, said second portion being essentially parallel to the underside.

According to a further embodiment of the invention, at least one groove is provided in each of the two opposing side walls of the recess or the insert. These grooves are preferably symmetrical, i.e. each second portion of the L-shaped groove extends in the same direction e.g. in the direction of the front side of the cosmetic case. Alternatively, the second portion of the one L-shaped groove can point in the one direction and the second portion of the other L-shaped groove can point in the other preferably opposite direction.

According to a further alternative embodiment of the invention, an insert comprises an L-shaped groove in one side and a corresponding projection on the opposing side. Accordingly, on the respective opposing side the recess comprises the corresponding counterpart. This arrangement has the advantage that several inserts can be inserted in one recess whereby the locking means which consists of a recess and a corresponding projection is not only arranged between the recess and the insert but also between inserts arranged next to one another. In this way, two or more inserts can be inserted next to one another in one recess.

According to a preferred embodiment, the length of the side wall of an insert on which a groove or a projection is provided is shorter than the length of the corresponding side wall of the recess on which the corresponding counterpart is provided. The difference in the lengths of the sides preferably corresponds to the length of the second portion of the groove. Most preferably the L-shaped groove is arranged in the middle with respect to the length of the side wall of the recess. The respective opposing projection is arranged correspondingly in the middle of the side wall of the insert.

Alternatively or in addition to the possibility of arranging several inserts next to one another, several inserts can also be inserted one behind the other in a

recess, whereby a locking means consisting of a projection and a groove is preferably provided for each insert corresponding to the number of inserts to be arranged one behind the other. In the latter embodiment, several grooves spaced apart from one another can for example be provided in the side walls of a recess.

According to a further embodiment of the invention, each insert preferably comprises a projecting upper edge on all sides. When the insert is inserted into the recess, the underside of the projecting edge lies opposite the upper side of the walls of the recess preferably in contact with each other. The distance of the projection on the insert from the underside of the upper projecting edge and the distance of the second portion of the L-shaped groove in the recess from the upper side of the recess is chosen accordingly. This has the advantage that the projecting upper edge of the insert covers the edges of the recess. The edge on the rear side of the insert preferably projects further than the other edges, whereby the difference preferably corresponds to at least the length of the second portion of the groove. Thus, on the embodiment wherein the second portion of the L-shaped groove points in the direction of the front side of the cosmetic case the rear edge of the groove can also be entirely covered.

The invention is illustrated in more detail with reference to the drawings.

- Fig. 1 shows a top view of a cosmetic case without lid,
 Fig. 2 shows a sectional view along line II-II of the cosmetic case in Fig. 1,
 Fig. 3 shows a top view of an insert,
 Fig. 4 shows a side view of the insert in Fig. 3 and
 Fig. 5 shows a view of the rear side of the insert in Fig. 3.

The cosmetic case shown in Figures 1 and 2 comprises on the inside a recess 10, which comprises a base 12, a front side 14, a rear side 16, a first side wall 18 and a second side wall 20. The lid to the cosmetic case is not shown. In the first side wall 18 an L-shaped groove 24 is provided which comprises a first portion 26 and a second portion 28, whereby the first portion begins on the upper side 22 of the side wall 18 and extends essentially vertically to the base 12 and the second portion 28 adjoins the first portion and runs parallel to the base 12 in the direction of the front side 14. A corresponding symmetrically arranged L-shaped groove 30 is designed in the second side wall 20. Both grooves are essentially rectangular in cross-section. Furthermore, on this preferred embodiment of the cosmetic case according to the invention a slit 50 extending along the base 12 is provided on the front side 14. An elastic element 52 in the form of a flexible tongue is advantageously provided on the rear side 16.

On an especially preferred embodiment the L-shaped recesses on the one hand and the corresponding projections on the other hand are arranged in such a way

that the contact point of the projection in the second portion of the L-shaped recess is approximately in the middle between the front side (14) and the rear side (16) of the recess. This has the advantage that the clamping force is distributed evenly.

Figures 3 to 5 show an insert 100 which can be inserted into the recess 10 of the cosmetic case in Figs. 1 and 2. The insert 100 comprises an underside 112, a front side 114, a rear side 116, a first side wall 118 and a second side wall 120. Projecting from all sides of the upper side an edge is provided, consisting of a front edge 134, a rear edge 136 and a first side edge 138 and a second side edge 140. On the first side wall 118 a projection 124 extending outwards is provided which in the example shown adjoins the underside 112 of the insert. The projection 124 is essentially cubic, i.e. rectangular in cross-sections parallel and vertical to the side wall 118. A corresponding projection 130 is arranged on the second side wall 120.

This preferred embodiment of an insert further comprises on the front side 114 a nose 150 which adjoins the underside 112.

The size and shape of the insert is adapted according to the size and shape of the recess in the cosmetic case. In detail, the insert has a length y in the region of the underside 112 whilst the length of the recess 10 is slightly greater, e.g. $y + 0,2$ mm. The width of the recess in the example shown is greater than the width x of the insert 100 along its underside by the length of the second portion 28 of the groove 24 or 30. In the example shown, the width of the recess corresponds to $x + 3$ mm.

In addition, the distance of the first portion 26 of the L-shaped groove 24 or 30 from the front side 14 or the rear side 16 and the position of the projection 124 or 130 is chosen such that the insert 100 can firstly be inserted essentially vertically into the recess 10, whereby the rear side 116 of the insert 100 is adjacent to the rear side 16 of the recess 10. As soon as the underside 112 of the insert 100 reaches the base 12 of the recess 10, the insert 100 can be shifted in the recess 10 parallel thereto so that the front side 114 of the insert 100 comes close to the front side 14 of the recess 10. The projections 124, 130 are thereby guided into the respective second portions 28 of the groove 24 or 30. This preferably creates a clamping force between the projections and the edges of the second portions.

In the shown preferred embodiment of the invention, the nose 150 on the front side 114 of the insert is inserted into the slit 50 on the front side 14 of the recess 10. When inserting the insert 100, the elastic element 52 is additionally moved from the rear side 116 of the insert 100 in the direction of the rear side 16 of the recess 10 and the elastic element 52 subsequently presses the insert 100 into the front position in recess 10.

When the insert 100 is inserted, the underside 122 of the upper edge 134, 136, 138 and 140 lies on the upper side 22 of the front side 14, the rear side 16 and both side walls 18 and 20. In particular, the rear upper

edge 136 projects so far that the rear side 16 is covered when the insert 100 is in the recess 10.

The present invention has the advantage that no additional parts are required for locking the insert in the recess of a cosmetic case. The cosmetic case like the insert can consist of a single material, e.g. plastic manufactured by injection moulding techniques. The lock according to the invention between the insert and the cosmetic case enables repeated removal and insertion of the inserts, guaranteeing a secure hold.

According to the invention, several recesses can be provided in one cosmetic case for receiving individual inserts or several inserts arranged next to one another and/or behind one another. Furthermore, it is possible to arrange recesses for receiving inserts not only in the base section but also in the lid section of the cosmetic case.

Claims

1. Cosmetic case with at least one recess (10) for receiving an insert (100) which can be locked therein, characterized by
 - a) at least one L-shaped groove (24, 30) in the recess (10) or the insert (100) and
 - b) at least one projection (124, 130) which can be guided in said groove (24, 30) at the respective part, i.e. the insert (100) or the recess (10).
2. Cosmetic case according to claim 1, characterized in that the L-shaped groove (24, 30) comprises a first portion (26), in which the corresponding projection (124, 130) can be freely guided, and a second portion (28) which extends essentially vertically to the first portion (26) and in which the corresponding projection (124, 130) in relation to the first portion (26) can be shifted into a position in which the projection is preferably held in the groove under clamping force.
3. Cosmetic case according to claim 2, characterized in that the L-shaped groove (24) is arranged in a side wall (18, 20) of the recess (10), whereby the first portion (26) of the groove (24) extends from an upper side (22) of the side wall (18, 20) in the direction of the base (12) of the recess (10) and an adjoining second portion (28) extends essentially parallel to the base (12) of the recess (10).
4. Cosmetic case according to claim 2, characterized in that the L-shaped groove (24) is arranged in the side wall (118, 120) of the insert (100), whereby the first portion of the groove extends from an underside (112) of the side wall (118, 120) in the direction of the upper side of the insert (100) and an adjoining second portion extends essentially parallel to the underside (112).
5. Cosmetic case according to any of claims 1 to 4, characterized in that at least one groove (24, 30) is arranged preferably symmetrically in each of the two opposing side walls (18, 20; 118, 120) of the recess (10) or the insert (100).
6. Cosmetic case according to any of claims 2 to 4, characterized in that on the side with the groove (24, 30) the side wall (18, 20) of the recess (10) is longer than the corresponding side wall (118, 120) of the insert (100), whereby the difference preferably corresponds to the length of the second portion of the groove (24, 30).
7. Cosmetic case according to any of claims 1 to 6, characterized in that the insert (100) comprises a projecting upper edge (134, 136, 138, 140) at least on one side, the underside (122) of which is preferably opposite to the upper side (22) of the walls (14, 16, 18, 20) of the recess (10).
8. Cosmetic case according to claim 7, characterized in that the projecting upper edge (136) on the rear side of the insert (100) projects further than the other edges.

Patentansprüche

1. Kosmetikbehälter mit mindestens einer Ausnehmung (10) zur Aufnahme eines darin verriegelbaren Einsatzes (100) gekennzeichnet durch
 - a) mindestens eine L-förmige Aussparung (24, 30) an der Ausnehmung (10) oder dem Einsatz (100) und
 - b) mindestens einen in der genannten Aussparung (24, 30) fuhrbaren Vorsprung (124, 130) an dem jeweils anderen Teil, d.h. dem Einsatz (100) bzw. der Ausnehmung (10).
2. Kosmetikbehälter nach Anspruch 1, dadurch gekennzeichnet, daß die L-förmige Aussparung (24, 30) einen ersten Abschnitt (26) aufweist, in dem der korrespondierende Vorsprung (124, 130) frei fuhrrbar ist und einen zweiten Abschnitt (28) aufweist, der sich im wesentlichen senkrecht zum ersten Abschnitt (26) erstreckt, in dem der korrespondierende Vorsprung (124, 130) von dem ersten Abschnitt (26) aus gesehen, in eine Stellung verschiebbar ist, in der der Vorsprung vorzugsweise unter Klemmwirkung in der Aussparung gehalten wird.
3. Kosmetikbehälter nach Anspruch 2, dadurch gekennzeichnet, daß die L-förmige Aussparung (24) an einer Seitenwand (18, 20) der Ausnehmung (10) angeordnet ist, wobei der erste Abschnitt (26) der Aussparung (24) sich von einer Oberseite (22) der Seitenwand (18, 20) in Richtung zum Boden (12) der

Ausnehmung (10) erstreckt und ein sich anschließender zweiter Abschnitt (28) sich im wesentlichen parallel zum Boden (12) der Ausnehmung (10) erstreckt.

4. Kosmetikbehälter nach Anspruch 2, dadurch gekennzeichnet, daß die L-förmige Aussparung (24) an einer Seitenwand (118, 120) des Einsatzes (100) angeordnet ist, wobei der erste Abschnitt der Aussparung sich von einer Unterseite (112) der Seitenwand (118, 120) in Richtung zur Oberseite des Einsatzes (100) erstreckt und ein sich anschließender zweiter Abschnitt sich im wesentlichen parallel zur Unterseite (112) erstreckt.
5. Kosmetikbehälter nach einem der Ansprüche 1 bis 4, dadurch gekennzeichnet, daß mindestens eine Aussparung (24, 30) an jeweils zwei einander gegenüberliegenden Seitenwänden (18, 20; 118, 120) der Ausnehmung (10) oder des Einsatzes (100) vorzugsweise spiegelsymmetrisch angeordnet sind.
6. Kosmetikbehälter nach einem der Ansprüche 2 bis 4, dadurch gekennzeichnet, daß an der Seite mit der Aussparung (24, 30) die Seitenwand (18, 20) der Ausnehmung (10) länger als die entsprechende Seitenwand (118, 120) des Einsatzes (100) ist, wobei die Differenz vorzugsweise der Länge des zweiten Abschnitts der Aussparung (24, 30) entspricht.
7. Kosmetikbehälter nach einem der Ansprüche 1 bis 6, dadurch gekennzeichnet, daß der Einsatz (100) mindestens an einer Seite einen überstehenden oberen Rand (134, 136, 138, 140) aufweist, dessen Unterseite (122) vorzugsweise der Oberseite (22) der Wände (14, 16, 18, 20) der Ausnehmung (10) gegenüberliegt.
8. Kosmetikbehälter nach Anspruch 7, dadurch gekennzeichnet, daß der an der Rückseite des Einsatzes (100) überstehende obere Rand (136) einen größeren Überstand aufweist als die übrigen Ränder.

Revendications

1. Boîte pour produits de beauté avec au moins un évidement (10) pour recevoir un élément rapporté (100) qui peut y être bloqué, caractérisée par :
 - a) au moins une rainure en forme de L (24, 30) dans l'évidement (10) ou l'élément rapporté (100), et
 - b) au moins une saillie (124, 130) qui peut être guidée dans ladite rainure (24, 30) à la partie respective, c'est-à-dire l'élément rapporté (100) ou l'évidement (10).

2. Boîte pour produits de beauté selon la revendication 1, caractérisée en ce que la rainure en forme de L (24, 30) comprend une première portion (26), dans laquelle la saillie correspondante (124, 130) peut être guidée librement, et une seconde portion (28) qui s'étend essentiellement dans le sens vertical jusqu'à la première portion (26) et dans laquelle la saillie correspondante (124, 130) en relation avec la première portion (26) peut être déplacée jusqu'à une position dans laquelle la saillie est de préférence maintenue dans la rainure sous une force de serrage.
3. Boîte pour produits de beauté selon la revendication 2, caractérisée en ce que la rainure en forme de L (24) est disposée dans une paroi latérale (18, 20) de l'évidement (10), d'où il résulte que la première portion (26) de la rainure (24) s'étend à partir d'un côté supérieur (22) de la paroi latérale (18, 20) dans la direction de la base (12) de l'évidement (10) et une seconde portion contigue (28) s'étend en étant essentiellement parallèle à la base (12) de l'évidement (10).
4. Boîte pour produits de beauté selon la revendication 2, caractérisée en ce que la rainure en forme de L (24) est agencée dans la paroi latérale (118, 120) de l'élément rapporté (100), d'où il résulte que la première portion de la rainure s'étend à partir d'un côté inférieur (112) de la paroi latérale (118, 120) dans la direction du côté supérieur de l'élément rapporté (100) et une seconde portion contigue s'étend en étant essentiellement parallèle au côté inférieur (112).
5. Boîte pour produits de beauté selon l'une quelconque des revendications 1 à 4, caractérisée en ce qu'au moins une rainure (24, 30) est disposée en étant de préférence symétrique dans chacune des deux parois latérales opposées (18, 20; 118, 120) de l'évidement (10) ou de l'élément rapporté (100).
6. Boîte pour produits de beauté selon l'une quelconque des revendications 2 à 4, caractérisée en ce que, sur le côté ayant la rainure (24, 30), la paroi latérale (18, 20) de l'évidement (10) est plus longue que la paroi latérale correspondante (118, 120) de l'élément rapporté (100), d'où il résulte que la différence correspond de préférence à la longueur de la seconde portion de la rainure (24, 30).
7. Boîte pour produits de beauté selon l'une quelconque des revendications 1 à 6, caractérisée en ce que l'élément rapporté (100) comprend un bord supérieur en saillie (134, 136, 138, 140) au moins sur un côté, dont le côté inférieur (122) est de préférence opposé au côté supérieur (22) des parois (14, 16, 18, 20) de l'évidement (10).

8. Boîte pour produits de beauté selon la revendication 7, caractérisée en ce que le bord supérieur en saillie (136) sur le côté arrière de l'élément rapporté (100) est davantage en saillie que les autres bords.

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