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EUROPEAN PATENT APPLICATION

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(54) DEVICES FOR DEPOSITING AND APPLYING OF DECORATIVE ELEMENTS

(57) A device (1) for depositing and sequential applying of decorative elements is disclosed which comprises a hollow body (2), the inner cross-section of which is determined by the shape of decorative elements, the body (2) provided on one of its end with a mouth (3) with at least two openable jaws (4) and provided on its second end with an ending (5) with openable jaws (4) and further a device (11) for applying decorative element on the dec-

orated surface is disclosed which comprises a head (12) of the device (11), inside which there is a space (14) for depositing a container (15) of decorative elements, a body (13) of the device (11), which is provided with a stepping mechanism (16) and a back stop (17), and a pushing plunger (18) which goes through the body (13) of the device (11) and pushes on the decorative elements deposited in the container (15).



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Description

Field of the invention

[0001] The present invention relates to the field of decorative, namely fashion jewellery, elements which are intended to be fixed to clothing or other items, in particular it relates to devices for depositing and applying of these decorative elements.

Prior art

[0002] Decorative flatback elements provided with pressure-sensitive adhesive on the plane according to the current practice are applied on the non-adhesive underlay in a grid (e.g. square or hexagonal) or in a motif. The grid (pattern) prepared in this way is covered by an adhesive or non-adhesive covering foil, and the elements are subsequently applied by means of tweezers or by means of an adhesive foil.

[0003] In case the decorative elements are not prearranged to a final pattern (motif) which is to be applied on the decorated item by pushing by fingers after removing the covering foil, the current state of the art has many disadvantages.

[0004] The disadvantage of the current state of the art is that when manipulating with stones provided with the final layer of pressure-sensitive adhesive, namely with stones of smaller sizes, they can be applied imprecisely to the destined place, which means the necessity to relocate them, which leads to damaging and degrading the layer of pressure-sensitive adhesive.

[0005] Transporting individual decorative elements by means of tweezers is demanding on the dexterity and experience of the worker and also on the quality and suitability of the tools (tweezers), and it is thus not suitable for amateur use in the so called hobby sector. Moreover, after applying the element to the appropriate position, the element has to be pressed so that sufficient contact occurs between the decorated surface and the whole contact area of the decorative element where pressuresensitive adhesive is placed, so that a sufficiently firm connection between the element and the decorated item is formed. This has the risk of shifting the element from the correct position and thus deteriorating the appearance of the pattern formed.

[0006] Another disadvantage of the current state of the art is the placing of stones with their whole plane on a non-adhesive underlay. This storing method may lead to harming the compactness of the layer of pressure-sensitive adhesive.

[0007] Transporting individual decorative elements by means of an adhesive carrying underlay practically does not enable to apply individual elements precisely to predetermined positions which really complicates forming a more complex pattern, namely in case the individual elements are to be placed on the decorated surface closely next to one another.

[0008] Therefore, there is a need of devices which would enable to store and then sequentially apply decorative elements on a prepared base in an efficient manner.

Summary of the invention

[0009] The disadvantages of the current state of the art are eliminated to a considerable extent by the solution according to the present invention.

[0010] The subject-matter of the present invention is a device enabling a new method of storing, transporting and applying decorative elements (components of fashion jewellery), most preferably of glass, metal, or poly-

¹⁵ meric materials (plastics) to the decorated surface, which makes their subsequent application to the designated place easier.

[0011] The invention relates to a device for depositing and sequential applying of decorative elements, consist-

²⁰ ing of a hollow body, the inner cross-section of which is determined by the shape of the decorative elements, the body provided on one end with a mouth with at least two openable jaws, and provided on its second end with an ending with openable jaws.

²⁵ **[0012]** The device may be manufactured from any material, preferably from polymeric materials (plastics) having the optimum firmness and the flexibility necessary for the application.

[0013] The hollow body may be made from one monolithic piece, and it may be filled with decorative elements corresponding to the inner cross-section. In another embodiment, the hollow body is formed by two parts which can be connected and the body may be filled with decorative elements corresponding to the inner cross-section.

³⁵ In yet another embodiment, the hollow body is composed of at least three parts, the first part being the mouth part, the last part being the ending part, and the trunk being composed of the required number of central parts. In this embodiment, it is possible to influence the length of the

40 container by the number of central parts, and it may be filled with decorative elements corresponding to the inner cross-section.

[0014] On one end of the hollow body, there is a mouth which has at least two openable jaws. The mouth serves

⁴⁵ for applying decorative elements on the given item. [0015] On the second end of the hollow body, there is an ending which also has at least two openable jaws. The ending serves for inserting decorative elements into the device.

⁵⁰ **[0016]** The openable jaws are formed by making an incision in the mouth or the ending, in one or more planes. This creates either two or more jaws.

[0017] Preferably, the device is further provided with a stop placed in a distance from the mouth, corresponding to the maximum height of the decorative element. This stop facilitates separation of only one decorative element.

[0018] Preferably, the ending is provided with a bevel

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which facilitates inserting decorative elements into the design.

[0019] The device according to the invention may contain decorative elements provided with a final layer of pressure-sensitive adhesive, arranged into a column so that the table (the upper part of a stone) is in contact with the plane of the following decorative element, while the perimeter of the decorative element touches the wall of the container, so that the position of the decorative element is stable. By pushing to the designated place, the adhesion of the plane to the designated place will overcome the adhesion to the following stone, and only the first decorative element is separated. The separation is preferably facilitated by the stop placed in the mouth part of the container.

[0020] During the storing and transporting, the decorative elements placed inside the container (device) are protected against mechanical damage by the walls of the container and the considerable difference of areas of the upper and lower part of the decorative element minimises the risk of damaging the layer of pressure-sensitive adhesive.

[0021] The outer surface of the device may bear technical information on the content, may be provided with a logo of the manufacturer, or may serve as an advertising area.

[0022] This device can be used as a container of decorative elements for further use and application.

[0023] The invention further relates to a device for applying decorative element on the decorated surface, the device consisting of a head of the device, inside which there is a space for depositing the container of decorative elements, of a body of the device which is provided with a stepping mechanism and a back stop, and a pushing plunger which goes through the body and pushes on the decorative elements deposited in the container.

[0024] The stepping mechanism serves for a smooth shifting of the pushing plunger and thus for sequential releasing of decorative elements from the container which is placed in the space situated in the head of the device.

[0025] The back stop serves to prevent the movement of the pushing plunger back.

[0026] All individual components may be made from any material. The preferable material is the combination of aluminium and plastics.

[0027] The head of the device and the body of the device may be formed either in one piece, or from two separable parts.

[0028] In one preferred embodiment, the head of the device and the body of the device are in two pieces, connected together with a threaded connection.

[0029] In another preferred embodiment, the head of the device and the body of the device are in two pieces, connected together with a bayonet stop.

[0030] The decorative element is placed on the required place on the decorated surface in the following way: The head of the device with a visible decorative element is placed perpendicularly to the required place of the decorated surface and by pressing on the stepping mechanism operating the pushing plunger the element is released from the container and at the same time is pressed on the decorated surface which leads to forming a connection between the decorative element and the decorated surface. The connection between the decorative element and the decorated surface is formed in one step, joining the precise placing of the element on the

required place and pressing thereof to the decorated surface. The precise application of the decorative element to the required place is facilitated by the fact given by the construction of the device that during applying of the element on the required place and its release from the container the decorative element is visible.

[0031] One aspect of the present invention provides a device for depositing and sequential applying of decorative elements as defined in claims 1 to 4. Another aspect of the present invention provides a device for applying
 ²⁰ decorative element on the decorated surface as defined in claims 5 to 7.

Description of drawings

25 **[0032]**

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Figures 1 to 5 represent side views of the device (1) for depositing of decorative elements consisting of a hollow body (2) provided with a mouth (3) with openable jaws (4) and with an ending (5) provided with openable jaws (4). The mouth is further furnished with a stop (7). The ending (5) is provided with a bevel (6). The device further comprises a technological ring (8).

Figures 6 and 7 represent side views of the device (11) for applying decorative element on the decorated surface which is formed by a head (12) of the device (11) and a body (13) of the device (11) as two separated and removable parts, connected with a threaded connection. A space (14) is inside the head (12) into which the container (15) of decorative elements is deposited. A pushing plunger (18) goes through the body (13) of the device (11) and pushes on the decorative elements deposited in the container (15). The pushing plunger (18) is operated by means of a stepping mechanism (16) and a back stop (17) which are placed on the body (13) of the device (11).

Examples of embodiments of the invention

Example 1

⁵⁵ **[0033]** The device <u>1</u> for depositing and sequential applying of decorative elements is formed by a monolithic hollow body <u>2</u> provided on one of its end with a mouth <u>3</u> with two openable jaws 4, formed by making an incision

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of the mouth 3. In a distance from the mouth 3, corresponding to the height of the decorative element, a stop 7 is placed, the stop facilitating the separation of only one decorative element. On its second end, the hollow body is provided with an ending 2 with two openable jaws 4, formed by making an incision of the ending 5.

Example 2

[0034] The device 11 for applying decorative element 10 on the decorated surface comprises a head 12 of the device and a body 13 of the device 11, formed by two separate and removable parts, connected with a threaded connection. Inside the head 12, there is a space 14 into which the container 15 of decorative elements is placed. A pushing plunger 18 goes through the body 13 of the device 11, the plunger 18 pressing on the decorative elements deposited in the container 15. The pushing plunger 18 is operated by means of the stepping mech-20 anism $\underline{16}$ and the back stop $\underline{17}$ which are placed on the body 13 of the device 11.

Example 3

[0035] A container 15 containing 50 chaton roses provided with a final layer of pressure-sensitive adhesive is placed into the space 14 in the head 12 of the device 11, and the chaton roses are sequentially applied to the decorated surface into a pre-selected pattern.

Example 4

[0036] A decorative motif consisting of more types of decorative elements (chaton roses of different sizes and colours, squares, etc.) is formed by sequential inserting of containers which contain the required decorative elements into the device and applying the decorative elements into the final positions in the motif.

Example 5

[0037] A container 15 containing 50 chaton roses e is placed into the space 14 in the head 12 of the device 11, and the chaton roses are sequentially applied to the decorated surface provided with a layer of adhesive into a pre-selected pattern.

Industrial applicability

[0038] The device according to the present invention 50 will find its use in applying decorative elements on clothing or other items, whereas this device enables an easier manipulation with decorative elements. The device is suitable for use in a private sector by individuals where the use of the device is less demanding on the experience 55 of the user, as well as for industrial production of decorated items where it enables to reach a better performance with a smaller number of workers.

Claims

- 1. A device (1) for depositing and sequential applying of decorative elements characterised in that it comprises a hollow body (2), the inner cross-section of which is determined by the shape of decorative elements, the body (2) provided on one of its end with a mouth (3) with at least two openable jaws (4) and provided on its second end with an ending (5) with openable jaws (4).
- 2. The device (1) according to claim 1 characterised in that the device (1) is further provided with a stop (7) placed in a distance from the mouth (3), corresponding to the maximum height of the decorative element.
- 3. The device (1) according to claim 1 or 2 characterised in that the ending (5) is further provided with a bevel (6).
- 4. The device (1) according to claim 1 or 2 characterised in that the device (1) is further provided with a technological ring (8).
- 5. A device (11) for applying decorative element on the decorated surface characterised in that it comprises a head (12) of the device (11), inside which there is a space (14) for depositing a container (15) of decorative elements, a body (13) of the device (11), which is provided with a stepping mechanism (16) and a back stop (17), and a pushing plunger (18) which goes through the body (13) of the device (11) and pushes on the decorative elements deposited in the container (15).
- 6. The device (11) according to claim 5 characterised in that the head (12) of the device (11) and the body (13) of the device (11) are connected with a threaded connection
- 7. The device (11) according to claim 5 characterised in that the head (12) of the device (11) and the body (13) of the device (11) are connected with a bayonet stop.







Fig. 3



Fig. 4















EUROPEAN SEARCH REPORT

Application Number EP 16 19 4762

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