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(54) **Interchangeable button**

(57) The present innovation refers to a button provided with a stationary portion (2) apt to be fastened to a fabric (10) and a removable and interchangeable portion (3) "in sight". The button is provided with restraining means (26,27) apt to allow a restrained joint between the removable portion (3) and the stationary portion (2).

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Description

[0001] The present innovation refers to a button provided with an interchangeable portion "in sight".

[0002] From time immemorial, buttons belong to those clothing complements that contribute to making an item more or less attractive and pleasant.

[0003] In fact, through their shapes and/or colours, they complete and personalize the item of clothing, concomitantly carrying out their technical function of closing.

[0004] Colour pairing is an extremely subjective issue; in addition, with the change of clothing, there may be the need and/or wish to modify button shape and/or colours in order to change the overall look of the item. Advantageously, this will also allow to manufacture and use "thematic" buttons depicting specific subjects, depending, e.g. on various occasions such as parties, etc.

[0005] To date, excluding the option of changing over and over again all buttons of an item of clothing, this is possible substantially in two ways. Through "button covers" or using specific buttons having a part fastened to the item of clothing and an interchangeable portion "in sight".

[0006] Of the latter buttons, a couple of variants are known. A first type envisages a circular-shaped portion to be fastened to the item, having a thread along the peripheral edge thereof onto which the portion in sight can be screwed. Evidently, such buttons make the replacement operation particularly indaginous. In fact, the thread is necessarily very thin, and the button on itself is very small; there ensues a specific difficulty in replacing the portions in sight.

[0007] Moreover, buttons with an interchangeable portion in sight are known, in which the portion in sight has projecting tongues that are restrained in the sewing holes of the stationary part. However, also this type of button has the drawback of entailing a difficult replacement, in particular a difficult removal from the portion in sight. This is due to the fact that the restrained joint occurs at the face into contact with the fabric; therefore, in order to release it, somehow an intervention is needed between the fabric and the sewn stationary part.

[0008] Therefore, object of the present innovation is to solve the above-mentioned problems of the known art, by providing a button with an interchangeable capsule, as defined in claim 1.

[0009] Moreover, secondary features of the button according to the present innovation are defined in the corresponding dependent claims thereof.

[0010] The advantages, as well as the features and operation modes of the present innovation, will be made apparent in the following detailed description of a preferred embodiment thereof, given by way of example and not for limitative purposes, making reference to the figures of the annexed drawings, wherein:

- Figures 1A and 1B are two top perspective views of the two portions of a button according to the present innovation;
- Figures 2A and 2B are two bottom perspective views of the two portions of a button according to the present innovation;
- Figures 3A and 3B are two views, respectively plan and elevation, of the stationary portion of a button according to the present innovation;
- Figures 4A and 4B illustrate the connection mode between the two portions of a button according to the present innovation; and
- Figures 5A and 5B are two sectional views, respectively along lines A-A and B-B of Figure 4B.

[0011] In order to describe the present innovation, hereinafter reference will be made to the above-indicated figures.

[0012] Referring initially to Figures 1A and 1B, these show a button according to the present innovation.

[0013] In particular, Figure 1B refers to a stationary portion 2. The stationary portion 2 is provided to be sewn, or fastened with other fastening means, onto the item of clothing, exactly at the position in which the latter needs a button. According to the described embodiment, the stationary portion 2 may be sewn to a fabric through the classic holes 4.

[0014] The stationary portion 2 comprises a preferably concave central region 5, where moreover there have been obtained holes 4 for the sewing onto the fabric, or anyhow bearing the fastening means.

[0015] Along the periphery of the central region 4 two or more radially extending flaps 6 are provided. In case of only two flaps, these should preferably be placed on a diametrically opposite position. In case of more than two flaps, these will advantageously be evenly spaced thereamong. E.g., in the preferred embodiment described herein four flaps are present, arranged at 90° thereamong.

[0016] Figure 1A instead shows a removable portion 3 of the button according to the present innovation.

[0017] Such a removable portion is substantially "button-shaped" on itself, in the sense that it may assume different shapes depending on the type of button that is to be made. In the example described herein a "classic"-type button is depicted, yet it is understood that the outward shape of the removable portion is not limitative to the ends of the present innovation.

[0018] Figure 1A shows the "in sight" side of the removable portion 3, whereas Figure 2A shows the underlying side thereof, usually hidden during use, of the removable portion 3.

[0019] The removable portion 3 is substantially hollow, i.e., empty therein. In other words, it is like a capsule cooperating with the stationary portion 2 to give to the button of the present innovation the desired outward appearance.

[0020] The removable portion 3, as seen in Figure 2a, has a bottom wall partially open at the centre, prolonging along the periphery of the portion itself. On said bottom

wall, notches 16 are obtained that consequently define projections 17. The notches 16 are equal in number, shape and dimensions to those of the flaps 6 of the stationary portion, such as to allow accomodation of said flaps 6 inside the hollow of the removable portion 3.

[0021] Advantageously, the flaps 6, and of course the notches 16, have a greater extension with respect to the corresponding projections 17, as it may be easily found from Figures 2A and 2B or the section of Figure 5B. This facilitates removal of the removable portion, allowing to exert a force directly on the flaps 6 which, were they instead to have the same dimensions of the projections 17, would be entirely hidden inside the removable portion.

[0022] Figures 4A and 4B illustrate in sequence the connection mode of the removable portion 3 on the stationary portion 2, sewn to a fabric 10. The sense of arrow F1 indicates the direction of the motion to be effected in order to couple the two portions.

[0023] Once the two portions are coupled, as illustrated in Figure 4B, a rotation of the removable portion, e.g. along the sense of arrow F2, entails the restrained joint of the flaps 6 of the stationary portion 2 with the projections 17 of the removable portion 3, inside the hollow thereof, as shown in Figure 4B.

[0024] To improve the restrained joint between the two portions, removable restraining means 26, 27 are provided.

[0025] Such means ensure that the two portions, when coupled, be sufficiently firm therebetween, yet at the same time allow to easily uncouple them.

[0026] Of course, uncoupling also occurs by means of rotation of the removable portion with respect to the stationary portion.

[0027] In particular, both on the flaps 6 and the projections 17, respectively first and second projecting tabs are obtained.

[0028] In particular, on the flaps 6 of the stationary portion (as shown in Figure 2B) first radial tabs 26 are obtained; specifically, two tabs parallel and spaced therebetween on each of the flaps 6, in correspondence of the underlying face, i.e. that into contact with the fabric.

[0029] Likewise, inside the removable portion 3, at each projection 17, a corresponding second tab 27 is obtained, it also arranged radially and in a manner such as to be accommodated between the two tabs 26 of a corresponding flap 6.

[0030] It is understood that such restraining means could also be made according to variants of what has been disclosed hereto, though implementing an equivalent functionality.

[0031] Figures 3A and 3B are respectively a plan view and an elevation view of the stationary portion of a button according to the present innovation. These figures better clarify the configuration of the stationary portion and the positioning of the restraining tabs.

[0032] Figures 5A and 5B are instead two sectional views, respectively taken along lines A-A and B-B of Figure 4B showing two viewpoints of a button according to the present innovation, when the two portions are coupled therebetween.

[0033] The present innovation has been hereto described according to a preferred embodiment thereof, given by way of example and not for limitative purposes.

[0034] It is understood that other embodiments might exist, all to be construed as comprised within the protective scope thereof, as defined by the annexed claims.

Claims

1. A button, comprising a stationary portion (2) apt to be fastened to a fabric or the like and a removable portion (3) apt to be removably coupled to said stationary portion, **characterised in that** it comprises restraining means (26, 27) apt to allow a removable restrained joint between said removable portion (3) and said stationary portion (2).

2. The button according to claim 1, wherein said stationary portion (2) comprises a central region (5) bearing the means for fastening to the fabric and two or more radially extending flaps (6) connected along the periphery of said central region (5),.

3. The button according to claim 2, wherein said stationary portion (2) provides four flaps (6), arranged at 90° thereamong.

4. The button according to one of the preceding claims, wherein said removable portion (3) is substantially hollow.

5. The button according to one of the claims 2 to 4, wherein said removable portion (3) has a bottom wall on which notches (16) are obtained that define corresponding projections (17).

6. The button according to claim 5, wherein said notches (16) are in number, shape and dimensions such as to allow accommodation of said flaps (6) inside the hollow of the removable portion (3).

7. The button according to claim 6, wherein said flaps (6) have a greater extension with respect to said projections (17).

8. The button according to one of the claims 2 to 7, wherein said restraining means comprises first and second projecting tabs (26, 27), respectively obtained on each of said flaps (6) and on each of said projections (17).

9. The button according to claim 8, wherein said first tabs (26) are two radial tabs, parallel and spaced therebetween, obtained on each of the flaps (6), in

correspondence of the underlying face.

10. The button according to claim 9, wherein said second tabs (27) comprise a radial tab obtained on each of said projections (17), in a manner such as to be accommodated between said two first tabs (26) of a corresponding flap (6) when the two portions, stationary and removable, are coupled.

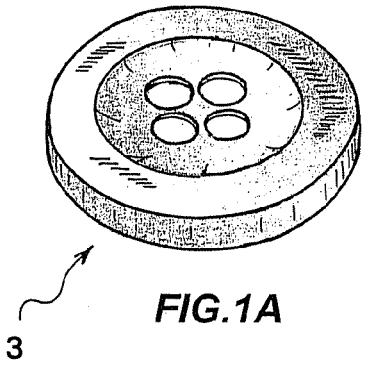

FIG.1A

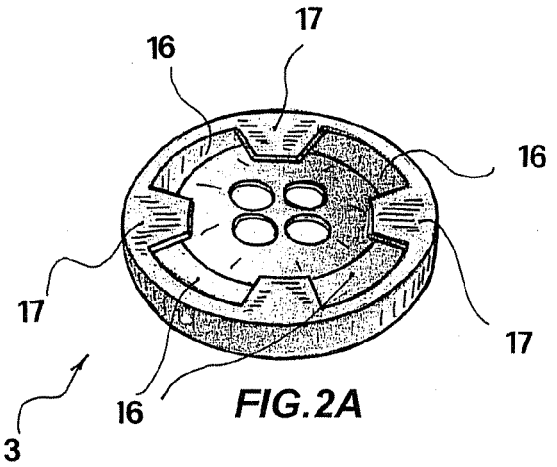

FIG.2A

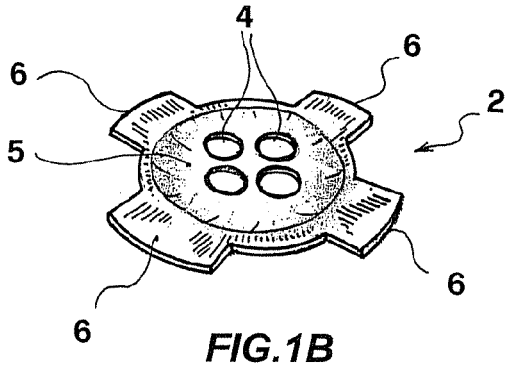

FIG.1B

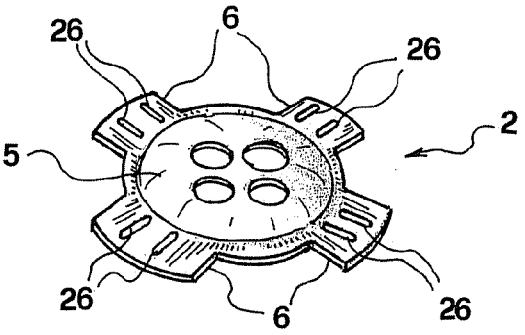

FIG.2B

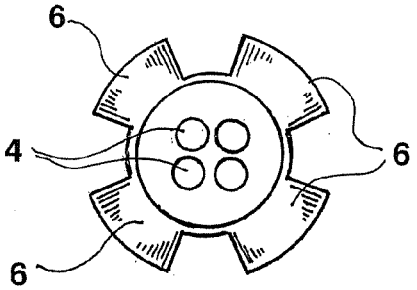

FIG.3A

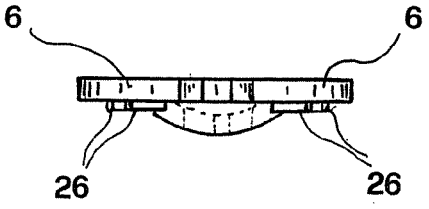

FIG.3B

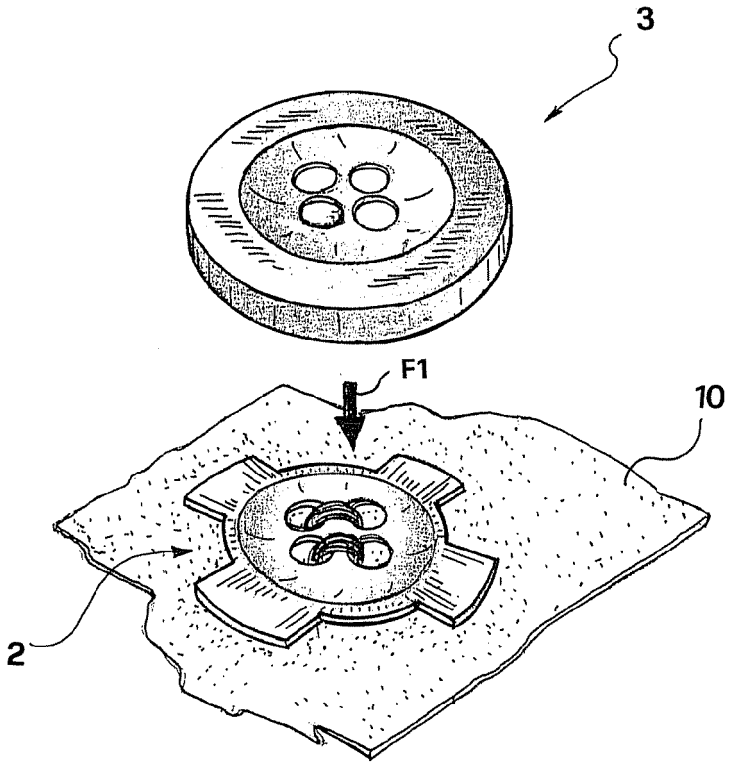

FIG.4A

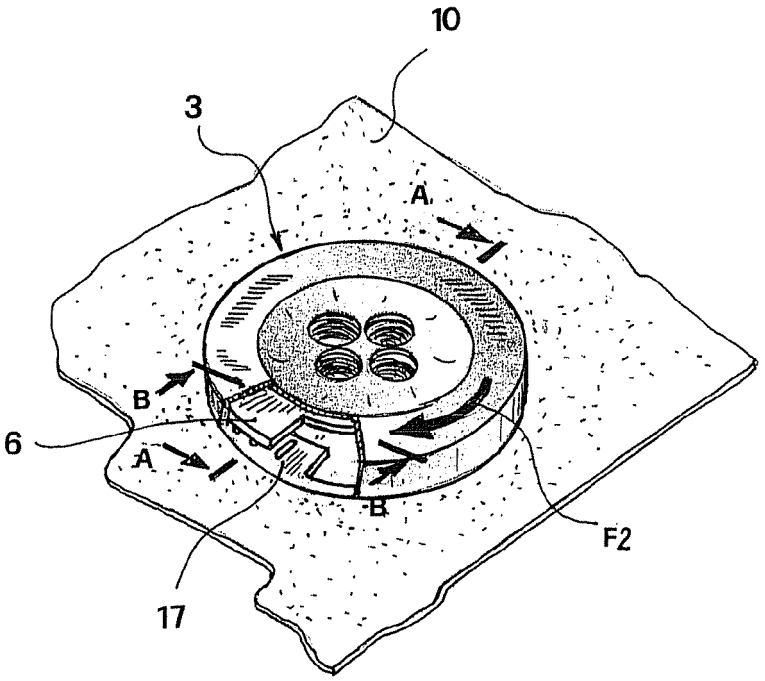

FIG.4B

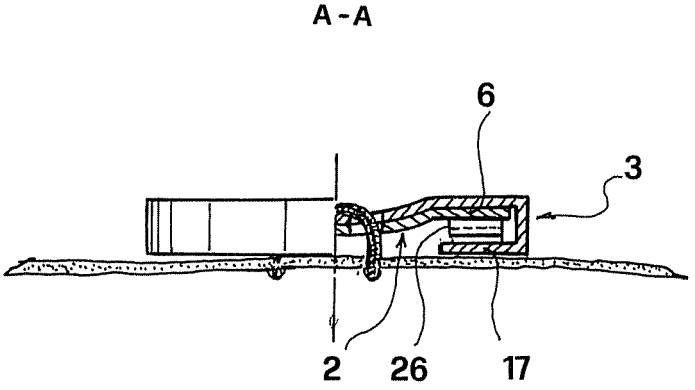

FIG.5A

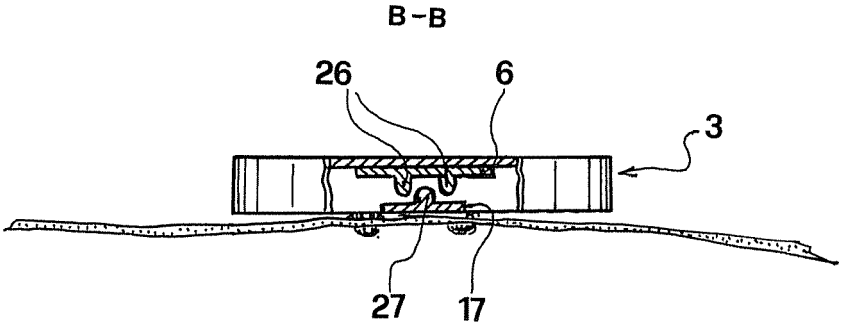

FIG.5B