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I-40137 Bologna(IT)(54) **Articulated button for shirts.**

(57) The button is foreseen with a head (1) on a stem (2) kept in issue by its annular end (3) with outer bending, within the mouth-piece (4) of a central emerging part (5) of a layer (6). The above free articulation allows the head (1) slanting and to change its distance from the tissue, which facilitates the eyelet practicability. The button can be fitted on the tissue by means of a small ring (7) with jaws (8) which penetrate into the same tissue without impairing the fibres and, after squashing, are set to block the whole into a hollow (9) formed by the outer part of the layer (6). The means allows to reduce encumbrance, a planning versatility, a shape reentering in employ condition, and the possible use of valuable materials even of small diameter and thickness on the stem end.

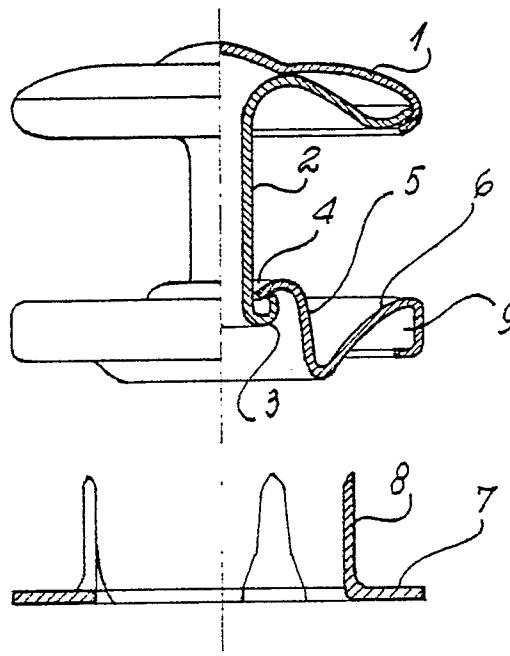


FIG. 1

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Articulated button for shirts.

The invention refers to a button to be fixed in a mechanical way on the tissue avoiding to damage the fibres, the head of which, set on a free articulation, can be introduced into the eyelet. The buttons for the clothing industry are at present of two types: buttons with automatic binding half-parts and buttons ideally consisting of a small disk with bores to be fitted on the tissue by means of sewing, to introduce into eyelets foreseen to connect on the other part. The first type, which simplifies the manufacturing of pieces and in the feasibility of the corresponding tissue edges to connect, however, determines a precarious bending according to the modest resistance done by its retention device and does not allow the manufacturing of valuable dressing components. The conventional system, on the contrary, allows valuable executions, but has the heavy inconveniences of the fixing sewings and causes a binding condition liable to breaking through wear, since it is bound by means of threads.

The invention carries out a new conception button type which excludes fitting by sewing on the tissue, and an articulated head is foreseen which can be unthreaded from one of its proper imposing base, which can be more easily fitted and extracted from the conventional connecting eyelet.

At present, buttons are foreseen to be mechanically fixed with articulated head on the small column of the imposer. This system is a highly limiting one since it requires a cap containing the articulation. Consequently, a compulsory conformation of the head is required which does not allow to go below some sizes, does not admit a design versatility and valuable material use. Moreover, since such device does not allow a shape reentering of the small column supporting the cap, when putting on the dressing piece, the negative presence of it noted which emerges from the connecting tissue border.

In comparison with the present device, the button according the invention enables an additional reduction of the head encumbering which, therefore, can consist even of a small diameter disk with a low thickness, and a shape reentering which, with connected edges, brings it to adhere to the tissue. What precedes allows also a design versatility and, in particular, to use even precious materials which can be fixed in different ways on the upper end part of the stem.

Substantially, the button is foreseen with a head 1 on a stem 2, which on issue is kept by its annular outwards bent end 3 in the entrance 4 of emerging central part 5 of a layer 6. This freely working articulation allows to bend the head 1 and

to change its distance from the tissue facilitating the introduction into the eyelet and, consequently, the manufactured item can be more easily put on. The button can be mechanically fitted on the tissue by means of a small ring 7 with jaws 8 which penetrate into it, without damaging the fibres, and after squeezing are fitted so as to block everything into the hollow 9 formed by the outer part of the imposer 6.

In a version, a part to be fitted is foreseen with a stem 10 having a higher containment part 11, in binding condition, of a tablet 12 of several kind and, in particular, of valued material.

In another version, a part is foreseen which can be inserted by means of a stem 13 which higher part 14 penetrating into cavity 15 of body 16, in particular of valued material, in order to operate as its binding support.

Execution forms of the device are illustrated in a merely indicative way and, consequently, not limiting way, in the drawings of table 1. Referring to this one, figures 1, 2 and 3 show the same type of execution base form of the invention device. In particular, fig. 1 is the section view of the button with its fitted part on the exit limit and, separately, of the jaw ring for the mechanical binding. Fig. 2 is the section view of the button with the inserted part in slanting position. Fig. 3 is the section view of the button fitted on the tissue. In this condition the button shows a limited shape re-entering. As it can be noted from the subsequent fig. 4, in the case of a somehow elastic tissue, a possible increase can be noted in the button shape re-entering. Fig. 5 is the section view of a button using the end binding part for tablet 12. Fig. 6 is section view of a button using the end binding part 14 for tablet 16. In particular, if the button is foreseen as part of a single-body head, its carrying out is possible with different shapes and sizes, also with fitting other either valuable or not valuable parts.

The free motion embodiment of the articulation into the imposer 6 enables the double advantage of carrying out a reduction of the base button operative encumbering by means of shape reentering which, in employ phase, allows to improve the possibility of wearing the dressing piece by letting the button head adhere to the tissue of the connected border.

The shapes of the components, the base materials as well as those that possibly will be fitted, may be foreseen in different ways.

Claims

1) Articulated button for shirts, characterized by the fact that a head (1) is foreseen on a stem (2), in issue kept back by its annular (3) with outwards bending, in a mouth-piece (4) of an emerging central part (5) of a laying part (6). The said free articulation permits to tilt the head (1) and to change its distance from the tissue thus facilitating the input into the eyelet and improve the garment putting on. The button can be mechanically fitted on the tissue by means of a small ring (7) with jaws (8) which penetrate into the tissue without damaging the fibres and, after having been squeezed, block the whole within a hollow (9) formed by the outer part of the layer (6).

2) Articulated button for shirts, as per claim 1, characterized by the fact that in a version, a part to insert is foreseen with stem (10) and a higher containment part (11) for a pastille (12), in a bound condition, of different kind and generally in valued material.

3) Articulated button for shirts, as per claim 1, characterized by the fact that in a version, a part is foreseen to insert with stem (13) and with a higher part (14) which penetrates into a cavity (15) of body (16), of different kind and in particular in valued material, to operate as its binding support.

4) Articulated button for shirts, as per claim 1, characterized by the fact that a part of single-body head has been foreseen, its carrying out is possible with different shapes and sizes, as well as possible uses.

5) Articulated button for shirts, as per claim 1, characterized by the fact that the embodiment of the articulation in the layer (6) grants the double advantage to perform an encombrance reduction of the base button as well as an additional reduction of the encumbrance with the shape reentering which, in employ phase, permits to improve the piece putting on by letting the button head adhere on the tissue of the connected border.

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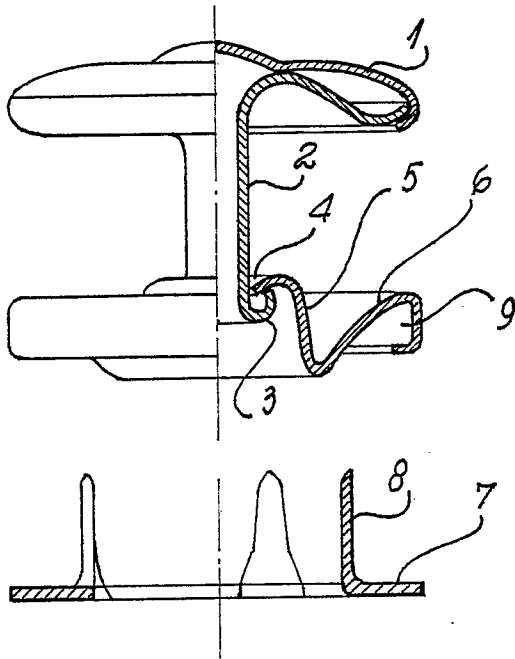


FIG. 1

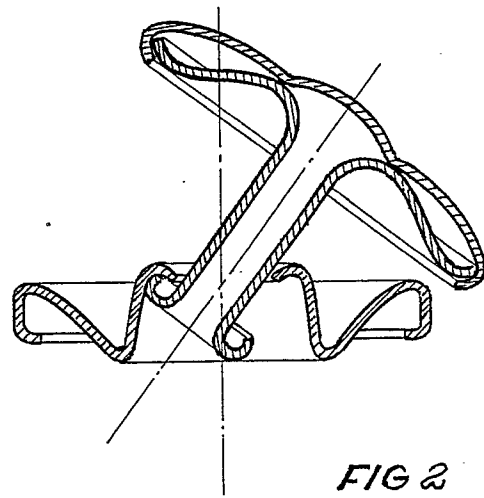


FIG. 2

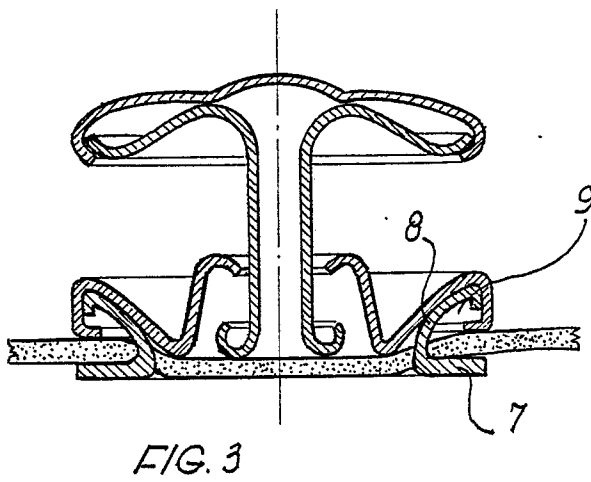


FIG. 3

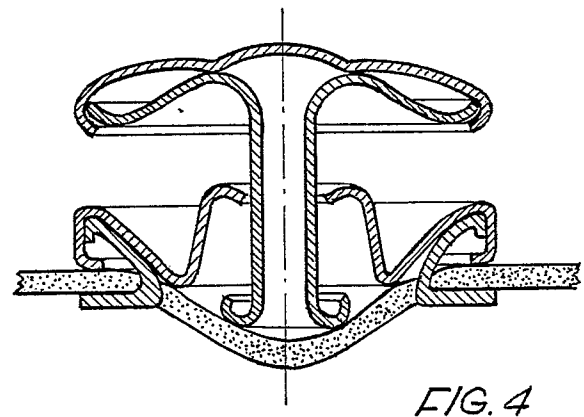


FIG. 4

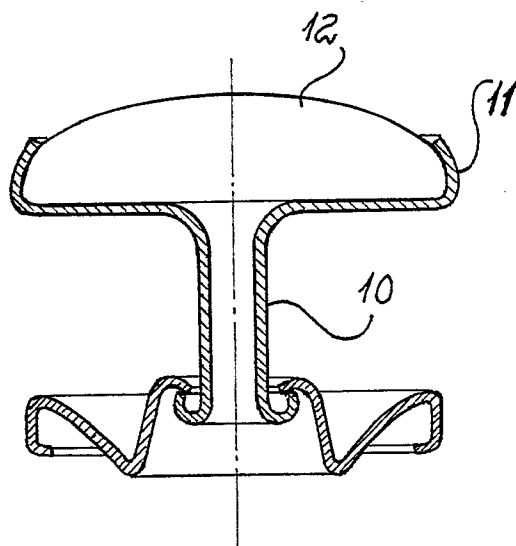


FIG. 5

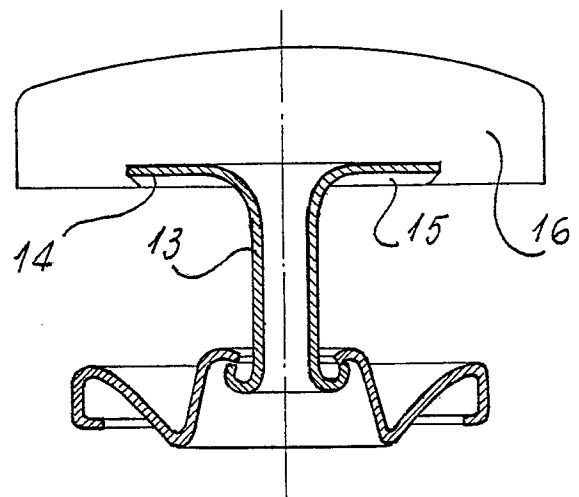


FIG. 6



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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	US-A-4137607 (KRAMER ET AL) * column 4, line 64 - column 5, line 57; figures 1, 3 *	1	A44B1/08
A	---	2-5	
X	US-A-1718843 (F.R.WHITE ET AL) * figures 1-10 *	1	
A	---		
A	DE-A-3724831 (SCOVIL JAPAN K.K.) * claims 1-3; figures 1-5 *	1	
A	---		
A	US-A-1359684 (W.G.FRANKLIN) ---		
A	US-A-2061506 (J.F.COX) -----		
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			A44B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 20 OCTOBER 1989	Examiner KARIPIDOU C.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	