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(54) **SNAP BUTTON FOR GARMENTS**

DRUCKKNÖPFE FÜR KLEIDUNGSSTÜCKE

BOUTON PRESSION POUR VÊTEMENTS

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Description

TECHNICAL FIELD

[0001] The present invention relates to a snap button for garments/clothing, in particular for fastening and / or buttoning of clothing. More in detail, the present invention refers to a snap button, also known by the term automatic button for mechanically connecting two flaps, normally of a suit, for example a sports suit.

[0002] Therefore, the present invention finds advantageous use in the technical sector of the production and marketing of small parts, in particular metal, and of devices and accessories in the clothing sector, and more generally in the technical sector of the production and marketing of clothes, and clothing.

BACKGROUND ART

[0003] Many different types of buttons are known in the technical sector of reference, and in particular the snap buttons are known, also known in technical jargon as automatic buttons.

[0004] These snap buttons are devices capable of mechanically joining two free flaps of a suit, normally of sportswear, such as for example two front flaps of a jacket, for example of a gym suit.

[0005] The snap button of the known type comprises a female body, intended to be mechanically fixed to a first free edge of the aforementioned suit, and a male body, intended to be mechanically fixed to a second free edge of the dress, to be joined with the first flap for buttoning and closing said dress or garment.

[0006] More in detail, the male body of the known type snap button is configured to be mechanically coupled in a removable manner with the female body of the button itself, in order to mechanically connect the respective flaps of the garment to join them together. The female body defines a housing seat configured to receive a protruding element of the male body and lock the latter in a removable manner. For this purpose, the female body comprises an elastically yielding element that is movable during the insertion of the protruding element into the housing seat to assume a locking configuration, in which the elastically yielding element blocks the protruding element in the housing seat itself. Normally, the elastically yielding element of the female body of the snap button of the known type comprises an elastically yielding annular element, such as for example an elastic washer, i. e. a truncated annular element to allow its elastic expansion. In this way, the elastically yielding annular element is movable between a retracted configuration, in which it defines a first internal diameter, and an expanded configuration, in which it defines a second internal diameter in May of the first internal diameter.

[0007] Conveniently, the elastically yielding annular element is equipped with an internal diameter less than or equal to the overall dimensions of the protruding element of the male body, and configured to be intercepted by the latter during the insertion of the protruding element itself, to expand elastically the annular body, from the retracted configuration to the dilated configuration, to then return elastically to the retracted configuration when the protruding element is completely inserted in the housing seat. In this way, the retracted configuration coincides with the locking configuration when the protruding element of the male body is completely inserted inside the housing seat of the female body.

[0008] The elastically yielding annular element is arranged around an access mouth of the housing seat, held inside a special annular groove.

[0009] The annular groove located at the access mouth of the housing seat normally has larger internal dimensions than those of the elastically yielding element, in order to allow the latter to expand between the retracted configuration and the dilated configuration.

[0010] Female bodies for a snap button for clothing according to the preamble of claim 1 are described in documents US 6067694 and EP 1883324.

[0011] However, the snap button of the known type briefly described up to now has proved to be not free from drawbacks in practice.

[0012] The main drawback lies in the fact that the elastically yielding element housed in the annular groove defines a mechanical play with the internal walls of the latter. This mechanical play results in the fact that, with the snap button open, or with the flaps of the garment separated, the elastically yielding element hits the walls of the annular groove, generating an annoying rattle.

[0013] The jingle generated by the known type of snap button is unpleasant for the user and in fact makes this type of button unusable in fine clothing, relegating its usability to sportswear only, for which the tolerance to such noises is generally greater.

PURPOSES OF THE INVENTION

[0014] The object of the present invention is to propose a snap button for garments which allows to obviate, at least in part, the drawbacks of the aforementioned prior art.

[0015] A further purpose of the invention is to provide a snap button for clothing that is silent even when open, i.e. when the garment is held with the flaps separated from each other. A further purpose of the invention is to provide a snap button for clothing that is structurally completely reliable.

[0016] A further purpose of the invention is to provide a snap button for clothing that is functionally completely reliable.

[0017] A further purpose of the present invention is to provide a snap button for clothing which is simple and economical to make.

[0018] A further purpose of the present invention is to provide a snap button for clothing which is economically advantageous.

[0019] A further purpose of the present invention is to provide a snap button for garments which can be easily manufactured on an industrial level.

[0020] A further purpose of the invention is to provide a snap button for garments that can be colored and / or customized.

[0021] A further purpose of the invention is to provide a snap button for garments that is suitable for any type of garment.

[0022] A further purpose of the present invention is to provide a snap button for garments which is an alternative and / or an improvement with respect to traditional solutions. Another purpose of the present invention is to propose a snap button for garments which has an alternative and / or improved configuration, both in terms of construction and in terms of function, with respect to traditional solutions.

[0023] All these purposes, are achieved, according to the invention, with a female body for a snap button for garments according to claim 1.

BRIEF DESCRIPTION OF THE FIGURES

[0024] The present invention is further described hereinafter in some of its preferred embodiments, given purely by way of non-limiting example with reference to the attached drawings, in which:

- Figure 1 shows a perspective view from above of the snap button according to the invention, with a male body and a female body separated from each other;
- Figures 2 shows the snap button in figure 1 with the male body partially inserted inside the female body;
- Figure 3 shows a cross-sectional view of the button of Figure 2;
- Figure 4 shows a cross-sectional view of only the male body of the snap button according to the invention;
- Figure 5 shows a cross-sectional view of only the female body of the snap button according to the invention;
- Figure 6 shows a sectional view of an enlarged detail of the female body of the snap button, made along the line VI of Figure 5;
- Figure 7 shows a perspective view from above of the female body of the snap button, in accordance with a second embodiment thereof;
- Figure 8 shows a sectional view of the female body of the snap button in its second embodiment.

DETAILED DESCRIPTION OF THE INVENTION

[0025] An example of a snap button according to the invention has been identified as a whole with the reference 1 in the attached figures.

[0026] The snap button in question is advantageously used in the technical sector of the production and marketing of accessories for garments, and in particular in the technical sector of the production and marketing of small parts, in particular metal and / or in the technical sector of the production and marketing of clothes, and clothing.

[0027] The snap button for garments object of the present invention is suitably applicable to substantially any type of garment, and in particular it is advantageously applicable to sports garments.

[0028] The snap button 1 according to the invention comprises at least one female body 2, extending along a direction of development X between a first face 2'and a second face 2", internally defining at least one housing seat 3 placed in communication with the external from an access mouth 20 obtained in correspondence with said first face 2'.

[0029] Preferably, the female body 2 is made of metallic material, such as for example brass, copper, stainless iron, bronze or alpaca. Otherwise, the female body 2 can be made of plastic material, such as in particular a casting material, for example zamak. Advantageously, the housing seat 3 extends along the direction of development X with substantially constant overall dimensions, defining a shape, for example, substantially cylindrical.

[0030] Preferably, the female body 2 comprises a bottom wall 12 at the second end 2" which defines the housing seat 3. Advantageously, the bottom wall 12 of the female body 2 is equipped with a through hole 13.

[0031] The snap button according to the invention further comprises at least one male body 4 comprising at least one protruding element 5 which can be moved at least along said direction of development X at least between a closing position, in which it is at least partially housed inside said seat of housing 3 of said female body 2 through said access mouth 20 and an opening position, in which it is extracted from said housing seat 4. Conveniently, the female body 2 of the button 1 is intended to be mechanically bonded to a first flap of a garment (not illustrated in the attached figures) and the male body 4 is designed to be mechanically bonded to a second flap of the garment to be mechanically connected to the first flap by means of the button 1 according to the invention.

[0032] For this purpose, the female body 2 comprises a side wall 14 which laterally delimits the housing seat 3 and is designed externally to be mechanically associated with the fabric of the aforementioned first flap of the garment.

[0033] The female body 2 comprises elastic retaining means 6 arranged in correspondence with said access mouth 20 of said female body 2, configured to detachably retain said protruding element 5 in said closed position and comprising at least one elastically yielding element 7 housed in a groove 8 formed in correspondence with said access mouth 20 and configured to intercept said protruding element 5 of said male body 4 in its movement between said closed position and said open position.

[0034] Conveniently, said female element 2 comprises at least one abutment wall 9 which delimits said groove

8 and abuts said elastically yielding element 7 to prevent the movements of said elastically yielding element along said direction of development X.

[0035] In this way, the elastically yielding element 7 of the elastic retaining means 6 normally remains in abutment against the abutment wall 9, preventing it from moving parallel to the direction of development X and obviating the risk that, striking against the internal walls of the groove 8 , you generate unwanted noises.

[0036] Therefore, the snap button according to the invention allows to prevent the movements parallel to the development direction X of the elastically yielding element 7 but allows its expanding movement inside the groove 8 to allow its movement from the retracted configuration to that expanded.

[0037] Advantageously, the groove 8 remains defined inside an annular shoulder 15 provided substantially at the first end 2'of the female body 2. Preferably, the annular shoulder 15 in which the annular groove 8 remains defined protrudes radially with respect to the direction of development. X with respect to the side wall 14 of the female body 2. Conveniently, the annular shoulder 15 develops radially starting from the side wall 14 with a support crown 16 intended to be placed against the fabric of the flap on which the female body 2 of the snap button 1 according to the invention will be applied. Advantageously, the elastically yielding element 7 is movable between a retracted configuration, in which it abuts against said abutment wall 9 of said groove 8, and an enlarged configuration, in which said elastically yielding element 7 is pushed into said groove 8 by said protruding element 5 of said male body 4 radially with respect to said development direction X.

[0038] More in detail, the elastically yielding element 7 has an annular shape, is housed inside the groove 8, and is preferably made of metal material. Conveniently, the elastically yielding element 7 is equipped with a separation section 17, designed to define a continuity separation section of the annular development of the elastically yielding element 7 itself.

[0039] This separation section 17 advantageously allows the widening of the elastically yielding element 7 in its movement between the retracted configuration and the enlarged configuration, inside the groove 8.

[0040] Advantageously, said protruding element 5 of said male body 4 extends between a first free end 5', equipped with a first transverse dimension, and a second end 5'. Conveniently, said protruding element 5 is equipped with at least a narrow section 18 interposed between said first end 5'and said second end 5' with a smaller transverse dimension compared to said first dimension.

[0041] Preferably, in accordance with the embodiment illustrated in the attached figures, the protruding body 5 has a substantially frusto-conical shape.

[0042] Advantageously, the male body 4 comprises a shoulder 21 protruding radially from the second end 5" of the protruding element 5. The shoulder 21 preferably has a substantially annular shape and is configured to abut against an upper wall 22 of the female body 2, in correspondence of the first end 2'of the latter, with the male body in its closed position. Advantageously, the elastically yielding element 7 internally defines a passage opening for said protruding element 5, in which said passage opening extends, with said elastically yielding element 7 in retracted configuration, less than or equal to said first bulk of said first free end 5'of said protruding element 5.

[0043] In this way, during the movement of the male body along the direction of development X to pass from the open to the closed position, the protruding element 5 passes through the access mouth 20 and intercepts an internal portion of the elastically yielding element 7, protruding from the groove 8, and forces the movement of the elastically yielding element 7 from its narrow configuration to the enlarged one.

[0044] Subsequently, continuing the movement of the male body 4 along the direction of development X, the protruding element 5 occupies the housing seat 3 and the elastically yielding element 7 of the elastic holding means 6 slides along the protruding element 5 until it reaches the narrow section 18 of the latter, elastically returning from the enlarged configuration to the narrow configuration, elastically locking the protruding element 5 inside the housing seat 3 and therefore mechanically connecting in a removable manner the male body and the female body of the button according to the invention. Conveniently, said elastically yielding element 7 is mechanically locked around said protruding element 5 in correspondence with said narrow section 18 with said male body 4 in the closed position.

[0045] Advantageously, said female body 2 comprises an annular bottom wall 10, which delimits said groove 8 and extends around the direction of development X.

[0046] Furthermore, the female body 2 is conveniently provided with an annular opening 11 opposite said annular bottom wall 10 crossed by said elastically yielding element 7 in a retracted configuration.

[0047] Preferably, said abutment wall 9 delimits said annular gap 11 with an annular edge thereof. Advantageously, as clearly visible in the attached figures, the abutment wall 9 is inclined and at least partially opposed to said bottom wall 10, delimiting said annular opening 11 with an annular edge thereof and receiving the abutment said elastically yielding element 7 in a retracted configuration.

[0048] Advantageously, in order to block any movement of the elastically yielding element 7 in its retracted configuration (i.e. with the button open) said at least one abutment wall 9 blocks the movements of said elastically yielding element 7 with respect to a transverse direction Y orthogonal with respect to said development direction X.

[0049] Preferably, the abutment wall 9 is at least one folded edge of the shoulder 15 of the female body 2. In particular, the female body 2 is made in a single body,

for example by punching, in metallic material, and the shoulder 15 is made by bending of a single circular side flap.

[0050] Advantageously, the annular opening 11 has an amplitude, parallel to the direction of development X, smaller than the size of the elastically yielding element 7, to block the latter in abutment against the abutment wall 9.

[0051] For this purpose, the diameter of the circle that remains defined internally in the annular gap 11 is preferably greater than the diameter that remains defined internally to the elastically yielding element 7 in its retracted configuration. In this way, the elastically yielding element 7 protrudes for at least a portion of it from the annular opening 11, configured to be intercepted by the protruding element 5 of the male body 4. Advantageously, said female body 2 comprises two abutment walls 9, provided with two corresponding annular edges which define each other said annular gap 11.

[0052] Preferably, the female body 2 comprises a first abutment wall 9 which substantially defines the access mouth 20 to the housing seat 3 and an abutment wall 9 internal to the housing seat 3 itself.

[0053] Conveniently, the two annular edges are parallel to each other and spaced parallel to the direction of development X.

[0054] Preferably, said elastically yielding element 7 has an oblong-shaped cross section, in which said section extends along a transverse direction Y orthogonal with respect to said development direction X.

[0055] Preferably, the internal extension of the groove 8 parallel to the transverse direction Y is greater than the extension of the cross section of the resiliently compliant element 7 parallel to the same transverse direction Y. In this way, the groove 8 allows the resiliently compliant element to expand from retracted configuration to expanded configuration. Advantageously, the cross section of the elastically yielding element is to be understood as made along a plane of section passing through the direction of development X of the female body 2.

[0056] Conveniently, the cross section of the elastically yielding element 7 defines a restricted portion, which faces the abutment walls 9.

[0057] More in detail, the restricted portion of the cross section of the elastically yielding element 7 is equipped with at least one inclined wall and preferably two inclined walls.

[0058] More clearly, said cross section of said elastically yielding element 7 defines at least one inclined wall with respect to said transverse direction Y, configured to abut against said abutment wall 9 with said elastically yielding element 7 in retracted position.

[0059] In accordance with the preferred embodiment illustrated in the attached figures, the cross section of the elastically yielding element 7 is equipped with two distinct inclined walls, which develop at an angle with respect to the transverse axis Y approaching each other towards the direction of development X.

[0060] In other words, said cross section of said elastically yielding element 7 has a substantially drop shape, or has a substantially ogival shape, with a narrow portion facing the at least one abutment wall 9.

[0061] In accordance with a second embodiment of the present invention illustrated in the attached figures 7 and 8, the female body 2 of the snap button 1 defines, with the annular shoulder 15, a substantially flat upper annular wall 22, configured to receive the shoulder 21 of the male body 4 with the latter in the closed position.

[0062] In accordance with this second embodiment, the annular shoulder 15 which internally defines the groove 8 for the elastically yielding element 7 is made of two half-shells, in which the first half-shell 15'is preferably made in a single body with the side wall 14, in particular by bending, and the second half-shell is applied to the first half-shell and mechanically bonded to the latter by means of fixing, for example by welding or by interlocking. In this way, the second half-shell can be made in any desired shape, not being subject to the limitation of forming by bending. For example, the second half-shell can be made of a different material than the first half-shell and / or have a different and / or more expensive color than that of the first half-shell.

[0063] Furthermore, the present invention also relates to a female body for a snap button of the type described up to now, of which all the numerical references will be kept for simplicity of explanation.

[0064] Obviously, all the structural and / or functional technical characteristics described with reference to the snap button 1 according to the invention must also be understood as referring to the female body for a snap button, which is also the subject of the present invention.

[0065] The female body for a snap button for garments according to the invention extends along a direction of development X between a first face 2'and a second face 2", internally defining at least one housing seat 3 placed in communication with the external from an access mouth 20 obtained in correspondence with said first face 2'.

[0066] The female body 2 comprising elastic retaining means 6 arranged in correspondence with said access mouth 20, configured to detachably retain a protruding element 5 of a male body 4 of said snap button and comprising at least one elastically yielding element 7 housed in a groove 8 formed in correspondence with said access mouth 20 and configured to intercept said protruding element 5 of said male body 4 in its movement between a closed position and an open position.

[0067] Conveniently, said female element comprises at least one abutment wall 9 which delimits said groove 8 and abuts said elastically yielding element 7 to prevent the movements of said elastically yielding element along said direction of development X. Advantageously, the female body in question also comprises an annular bottom wall 10, which delimits said groove (8) and extends around the direction of development X. Advantageously, the female body is also provided with an annular opening 11 opposite said annular bottom wall 10 crossed by said

elastically yielding element 7 in a retracted configuration.

[0068] The abutment wall 9 is suitably inclined and at least partially opposed to said bottom wall 10, delimiting said annular opening 11 with an annular edge thereof and receiving in abutment said elastically yielding element 7 in retracted configuration.

[0069] Advantageously, said at least one abutment wall 9 blocks the movements of said elastically yielding element 7 with respect to a transverse direction Y orthogonal with respect to said development direction X.

[0070] Advantageously, said female body 2 comprises two inclined abutment walls 9 substantially opposite and facing each other with respect to said bottom wall 10 to abut said elastically yielding element 7 in retracted configuration.

[0071] From what has been said it is clear that the snap button for clothing, according to the invention, is particularly advantageous in that:

- It is able to obviate, at least in part, the drawbacks of the aforementioned known art.
- it is silent even when open, i.e. when the garment is held with the flaps separated from each other, as the elastically yielding element is blocked in its movements when in the retracted position, as it is placed against at least one stop wall of the groove in which it is housed;
- is structurally completely reliable;
- is functionally completely reliable;
- it is simple and inexpensive to make.
- it is easily achievable at an industrial level, as the internal female body and the internal male body can be made from a single sheet, first by punching and then by bending;
- it can be colored and / or customized;
- it is suitable for any type of garment;
- it is an alternative and / or improvement to traditional solutions;
- has an alternative and / or improved configuration, both in constructive and functional terms, compared to traditional solutions.

[0072] The present invention has been illustrated and described in a preferred embodiment thereof, but it is understood that executive variations may be applied to it in practice, within the scope of the claims.

Claims

1. Female body for a snap button for garments, extending along a direction of development (X) between a first face (2') and a second face (2"), internally defining at least one housing seat (3) placed in communication with the outside by an access mouth (20) obtained in correspondence with said first face (2'); comprising elastic retaining means (6) arranged in correspondence with said access mouth (20), configured to detachably retain a protruding element (5) of a male body (4) of said snap button and comprising at least one elastically element yielding (7) housed in a groove (8) formed in correspondence with said access mouth (20) and configured to intercept said protruding element (5) of said male body (4) in its movement between a closed position and an open position;

wherein said female element comprises at least one abutment wall (9) which delimits said groove (8) and abuts said elastically yielding element (7) to prevent the movements of said elastically yielding element along said direction of development (X);
characterized by said female body (2) further comprising:

- an annular bottom wall (10), which delimits said groove (8), extends around the direction of development (X);
- an annular opening (11) opposite said annular bottom wall (10) crossed by said elastically yielding element (7) in retracted configuration;

said abutment wall (9) being inclined and at least partially opposed to said bottom wall (10), delimiting said annular opening (11) with an annular edge thereof and receiving in abutment said elastically yielding element (7) in retracted configuration.

2. Female body for a snap button for garments according to claim 1, **characterized in that** said elastically yielding element (7) is movable between a retracted configuration, in which it abuts against said abutment wall (9) of said groove (8), and an enlarged configuration, in which said elastically yielding element (7) is pushed into said groove (8) by said projecting element (5) of said male body (4) radially with respect to said development direction (X).

3. Female body of a snap button according to one or more of the preceding claims, **characterized in that** said female body (2) comprises two abutment walls (9), provided with two corresponding annular edges which define each other said annular gap (11).

4. Female body of a snap button according to claim 3, **characterized in that** said female body (2) comprises two inclined abutment walls (9) substantially opposite and facing each other with respect to said bottom wall (10) to abut said element elastically compliant (7) in retracted configuration.

5. Female body of a snap button according to claim 3 or 4, **characterized in that** said elastically yielding

element (7) has an oblong-shaped cross section, in which said section extends along a transverse direction (Y) orthogonal with respect to said development direction (X).

6. Female body of a snap button according to claim 5, **characterized in that** said cross section of said elastically yielding element (7) defines at least one wall inclined with respect to said transverse direction (Y), configured to abut against said abutment wall with said elastically yielding element (7) in the retracted position.

7. Female body of a snap button according to claim 5 or 6, **characterized in that** said cross section of said elastically yielding element (7) has a substantially drop shape, or has a substantially ogival shape, with a narrow portion facing said at least one wall of stop (9).

8. Female body of a snap button according to one or more of the preceding claims, **characterized in that** said at least one abutment wall (9) blocks the movements of said elastically yielding element (7) with respect to a transverse direction (Y) orthogonal with respect to said direction development (X).

9. Female body for a snap button according to any of the preceding claims, **characterized in that** said at least one abutment wall (9) blocks the movements of said elastically yielding element (7) with respect to a transverse direction (Y) orthogonal with respect to said direction of development (X).

10. Female body for a snap button according to any of the preceding claims, **characterized by** comprising two inclined abutment walls (9) substantially opposite and facing each other with respect to said bottom wall (10) for receiving in abutment said elastically yielding element (7) in retracted configuration.

11. Snap button for garments, comprising:

- at least one female body (2) according to any of the preceding claims;
- at least one male body (4) comprising at least one protruding element (5) which can be moved at least along said development direction (X) at least between said closed position, in which it is at least partially housed inside said housing seat (3) of said female body (2) through said access mouth (20) and said open position, in which it is extracted from said housing seat (3).

12. Snap button for garments according to claim 11, **characterized in that** said protruding element (5) of said male body (4) extends between a first free end, provided with a first transverse dimension, and a second end;

- said protruding element being provided with at least a narrow portion interposed between said first end and said second end having a smaller transverse bulk than said first bulk.

13. Snap button for garments according to claim 12, **characterized in that** said elastically yielding element (7) internally defines a passage opening for said protruding element (5), in which said passage opening extends, with said element elastically yielding (7) in retracted configuration, less than or equal to said first bulk of said first free end of said protruding element (5).

14. Snap button for garments according to claim 12 or 13, **characterized in that** said elastically yielding element (7) is mechanically locked around said protruding element in correspondence with said narrow section with said male body (4) in the closed position.

Patentansprüche

1. Buchsen-Körper für einen Druckknopf für Kleidungstücke, der sich in einer Entwicklungsrichtung (X) zwischen einer ersten Fläche (2') und einer zweiten Fläche (2") erstreckt und im Inneren mindestens einen in Verbindung stehenden Aufnahmesitz (3) mit der Außenseite durch eine Zugangsöffnung (20) definiert, die in Übereinstimmung mit der ersten Fläche (2') erhalten wird; elastische Haltemittel (6) umfassend, die auf der Höhe der Zugangsöffnung (20) angeordnet und so konfiguriert sind, dass sie ein vorstehendes Element (5) abnehmbar halten) eines Einsteckkörpers (4) des Druckknopfes abnehmbar halte, und mindestens ein elastisch nachgiebiges Element (7) aufweist, das in einer Nut (8) untergebracht ist, die entsprechend der Zugangsöffnung (20) ausgebildet und so konfiguriert ist, dass sie das vorstehende Element (5) des Einsteckkörpers (4) bei seiner Bewegung zwischen einer geschlossenen Position und einer offenen Position abfängt;

- wobei das Buchsen-Element mindestens eine Anschlagwand (9) umfasst, die die Nut (8) begrenzt und gegen das nachgiebige elastische Element (7) stößt, um Bewegungen des nachgiebigen elastischen Elements entlang der Entwicklungsrichtung (X) zu verhindern;

dadurch gekennzeichnet, dass der Buchren-Körper (2) ferner Folgendes umfasst:

- eine ringförmige Bodenwand (10), die die Nut (8) begrenzt und sich um die Entwicklungsrichtung (X) erstreckt;

- eine ringförmige Öffnung (11) gegenüber der ringförmigen Bodenwand (10), die von dem nachgiebigen elastischen Element (7) in einer eingezogenen Konfiguration durchquert wird;

wobei die Anschlagwand (9) geneigt ist und der Bodenwand (10) zumindest teilweise gegenüberliegt, und die ringförmige Öffnung (11) mit einer ringförmigen Kante davon begrenzt und das nachgiebige elastische Element (7) in einer zurückgezogenen Konfiguration anliegend aufnimmt.

2. Buchsen-Körper für einen Druckknopf für Kleidungsstücke nach Anspruch 1, **dadurch gekennzeichnet, dass** das nachgiebige elastische Element (7) zwischen einer zurückgezogenen Konfiguration, in der es an der Anschlagwand (9) der Nut (8) anliegt, und einer vergrößerten Konfiguration, in der das nachgiebige elastische Element (7) durch das vorstehende Element (5) des Einsteckkörpers (4) radial in Bezug auf die Entwicklungsrichtung (X) in die Nut (8) gedrückt wird.

3. Buchsen-Körper eines Druckknopfs nach einem oder mehreren der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** der Buchsen-Körper (2) zwei Anschlagwände (9) aufweist, die mit zwei entsprechenden ringförmigen Kanten versehen sind, die den ringförmigen Raum (11) zwischen sich begrenzen.

4. Buchsen-Körper eines Druckknopfes nach Anspruch 3, **dadurch gekennzeichnet, dass** der Buchsen-Körper (2) zwei geneigte Anschlagwände (9) aufweist, die im Wesentlichen gegenüber dem Bodenwand (10) einander zugewandt sind und elastisch an diesem nachgiebige Element (7) in der eingefahrenen Konfiguration anstößen.

5. Buchsen-Körper eines Druckknopfes nach Anspruch 3 oder 4, **dadurch gekennzeichnet, dass** das nachgiebige elastische Element (7) einen länglichen Querschnitt aufweist, wobei sich der Querschnitt in einer orthogonalen Querrichtung (Y) mit Bezug auf der Entwicklungsrichtung (X) erstreckt.

6. Buchsen-Körper eines Druckknopfes nach Anspruch 5, **dadurch gekennzeichnet, dass** der Querschnitt des nachgiebigen elastischen Elements (7) mindestens eine Wand definiert, die relativ zur Querrichtung (Y) geneigt und so konfiguriert ist, dass sie an der Anschlagwand anliegt, wobei sich das nachgiebige elastische Element (7) in der eingefahrenen Position befindet.

7. Buchsen-Körper eines Druckknopfes nach Anspruch 5 oder 6, **dadurch gekennzeichnet, dass** der Querschnitt des nachgiebigen elastischen Elements (7) im Wesentlichen eine Tropfenform oder eine im Wesentlichen ogivale Form aufweist, wobei ein schmaler Teil dem mindestens einen Anschlagwand (9) zugewandt ist.

8. Buchsen-Körper eines Druckknopfes nach einem oder mehreren der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die mindestens eine Anschlagwand (9) die Bewegungen des nachgiebigen elastisch Elements (7) relativ zu einer Querrichtung (Y) blockiert, die orthogonal zu dieser Entwicklungsrichtung (X) ist.

9. Buchsen-Körper eines Druckknopfes nach einem oder mehreren der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die mindestens eine Anschlagwand (9) die Bewegungen des elastisch nachgiebigen Elements (7) relativ zu einer Querrichtung (Y) blockiert, die orthogonal zu dieser Entwicklungsrichtung (X) ist.

10. Buchsen-Körper eines Druckknopfes nach einem oder mehreren der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** er zwei geneigte Anschlagwände (9) aufweist, die im Wesentlichen gegenüber der Bodenwand (10) einander zugewandt sind und an dem elastischen nachgiebigen Element (7) in der eingefahrener Konfiguration anliegend aufgenommen sind.

11. Druckknopf für Kleidungstücke, bestehend aus:

- mindestens einem Buchsen-Körper (2) nach einem der vorhergehenden Ansprüche;
- mindestens einem Einsteckkörper (4), der mindestens ein vorstehendes Element (5) umfasst, das mindestens entlang der Entwicklungsrichtung (X) mindestens zwischen der geschlossenen Position, in der es zumindest teilweise im Inneren des Aufnahmesitzes (3) des Buchsen-Körpers durch die Zugangsöffnung (20) aufgenommen wird, und der offene Position, in der es aus dem Aufnahmesitz (3) herausgezogen wird.

12. Druckknopf für Kleidungstücke nach Anspruch 11, **dadurch gekennzeichnet, dass** sich das vorstehende Element (5) des Einsteckkörpers (4) zwischen einem ersten freien Ende, das mit einer ersten Querabmessung versehen ist, und einem zweiten Ende erstreckt;

- wobei das vorstehende Element mit mindestens einem schmalen Teil versehen ist, der zwischen dem ersten und dem zweiten Ende gelagert ist und im Vergleich zur ersten Masse eine geringere Quermasse aufweist.

13. Druckknopf für Kleidungstücke nach Anspruch 12,

dadurch gekennzeichnet, dass das elastisch nachgiebige Element (7) eine Durchgangsöffnung für das vorstehende Element (5) definiert, in der sich die Durchgangsöffnung erstreckt, wobei sich ein elastisch nachgiebige Element (7) in eine eingezogene Konfiguration, die kleiner oder gleich der ersten Masse des ersten Endes des vorstehenden Elements (5) ist, befindet.

14. Druckknopf für Kleidungstücke nach Anspruch 12 oder 13, **dadurch gekennzeichnet, dass** das elastisch nachgiebige Element (7) mechanisch um das vorstehende Element in Übereinstimmung mit dem schmalen Abschnitt blockiert ist, wenn sich der Einsteckkörper (4) in der geschlossenen Position befindet.

Revendications

1. Corps femelle pour un bouton pression pour vêtements, s'étendant selon une direction de développement (X) entre une première face (2') et une deuxième face (2"), définissant intérieurement au moins un siège de logement (3) mis en communication avec l'extérieur par une bouche d'accès (20) obtenue en correspondance avec ladite première face (2'); comprenant des moyens de maintien élastiques (6) disposés au niveau de ladite bouche d'accès (20), configurés pour retenir de manière amovible un élément en saillie (5) d'un corps mâle (4) dudit bouton pression; et comprenant au moins un élément élastiquement souple (7) logé dans une rainure (8) formée en correspondance avec ladite bouche d'accès (20) et configuré pour intercepter ledit élément en saillie (5) dudit corps mâle (4) dans son mouvement entre une position de fermeture et une position d'ouverture;

- dans lequel ledit élément femelle comprend au moins une paroi de butée (9) qui délimite ladite rainure (8) et vient en butée contre ledit élément élastique souple (7) pour empêcher les mouvements dudit élément élastique souple le long de ladite direction de développement (X); **caractérisé en ce que** ledit corps femelle (2) comprend en outre :

  - une paroi annulaire de fond (10), qui délimite ladite rainure (8), s'étendant autour de la direction de développement (X);
  - une ouverture annulaire (11) opposée à ladite paroi annulaire de fond (10) traversée par ledit élément élastique souple (7) en une configuration rétractée;

ladite paroi de butée (9) étant inclinée et au moins partiellement opposée à ladite paroi de fond (10), délimitant ladite ouverture annulaire (11) avec un bord annulaire de celle-ci et recevant en butée ledit élément élastique souple (7) en une configuration rétractée.

2. Corps femelle pour un bouton pression pour vêtements selon la revendication 1, **caractérisé en ce que** ledit élément élastique souple (7) est mobile entre une configuration rétractée, dans laquelle il vient en butée contre ladite paroi de butée (9) de ladite rainure (8), et une configuration élargie, dans laquelle ledit élément élastique souple (7) est poussé dans ladite rainure (8) par ledit élément en saillie (5) dudit corps mâle (4) radialement par rapport à ladite direction de développement (X).

3. Corps femelle d'un bouton pression selon l'une ou plusieurs des revendications précédentes, **caractérisé en ce que** ledit corps femelle (2) comprend deux parois de butée (9), pourvues de deux bords annulaires correspondants qui définissent entre eux ledit espace annulaire (11).

4. Corps femelle d'un bouton pression selon la revendication 3, **caractérisé en ce que** ledit corps femelle (2) comprend deux parois de butée inclinées (9) sensiblement opposées et en regard l'une de l'autre par rapport à ladite paroi de fond (10) pour venir en butée contre ledit élément élastiquement souple (7) dans la configuration rétractée.

5. Corps femelle d'un bouton pression selon la revendication 3 ou 4, **caractérisé en ce que** ledit élément élastique souple (7) présente une section transversale de forme oblongue, dans laquelle ladite section s'étend selon une direction transversale (Y) orthogonale par rapport à ladite direction de développement (X).

6. Corps femelle d'un bouton pression selon la revendication 5, **caractérisé en ce que** ladite section transversale dudit élément élastique souple (7) définit au moins une paroi inclinée par rapport à ladite direction transversale (Y), configurée pour venir en butée contre ladite paroi de butée avec ledit élément élastique souple (7) dans la position rétractée.

7. Corps femelle d'un bouton pression selon la revendication 5 ou 6, **caractérisé en ce que** ladite section transversale dudit élément élastique (7) présente une forme sensiblement en goutte, ou présente une forme sensiblement ogivale, avec une partie étroite faisant face à ladite au moins une paroi de butée (9).

8. Corps femelle d'un bouton pression selon l'une ou plusieurs des revendications précédentes, **caractérisé en ce que** ladite au moins une paroi de butée (9) bloque les mouvements dudit élément élastique-

ment souple (7) par rapport à une direction transversale (Y) orthogonale par rapport à ladite direction de développement (X).

9. Corps femelle d'un bouton pression selon l'une ou plusieurs des revendications précédentes, **caractérisé en ce que** ladite au moins une paroi de butée (9) bloque les mouvements dudit élément élastiquement souple (7) par rapport à une direction transversale (Y) orthogonale par rapport à ladite direction de développement (X).

10. Corps femelle d'un bouton pression selon l'une ou plusieurs des revendications précédentes, **caractérisé en ce qu'**il comprend deux parois de butée inclinées (9) sensiblement opposées et en regard l'une de l'autre par rapport à ladite paroi de fond (10) pour recevoir en butée ledit élément élastique souple (7) dans une configuration rétractée.

11. Bouton pression pour vêtements, comprenant:

- au moins un corps femelle (2) selon l'une des revendications précédentes;
- au moins un corps mâle (4) comprenant au moins un élément en saillie (5) qui peut être déplacé au moins le long de la dite direction de développement (X) au moins entre ladite position de fermeture, dans laquelle elle est au moins partiellement logée à l'intérieur dudit siège de logement (3) dudit corps femelle (2) par la dite bouche d'accès (20), et ladite position d'ouverture dans laquelle elle est extraite dudit siège de logement (3).

12. Bouton pression pour vêtements selon la revendication 11, **caractérisé en ce que** ledit élément en saillie (5) dudit corps mâle (4) s'étend entre une première extrémité libre, pourvue d'une première dimension transversale et une deuxième extrémité;

- ledit élément en saillie étant pourvu d'au moins une partie étroite entreposée entre ladite première et ladite deuxième extrémité avec une masse transversale inférieure par rapport à ladite première masse.

13. Bouton pression pour vêtements selon la revendication 12, **caractérisé en ce que** ledit élément élastiquement souple (7) définit une ouverture de passage pour ledit élément en saillie (5), dans lequel ladite ouverture de passage s'étend, avec un tel élément élastiquement souple (7) dans une configuration rétractée, qui est inférieure ou égale à ladite première masse de ladite première extrémité dudit élément en saillie (5).

14. Bouton pression pour vêtements selon la revendication 12 ou 13, **caractérisé en ce que** ledit élément élastiquement souple (7) est bloqué mécaniquement autour dudit élément en saillie en correspondance avec ladite section étroite avec ledit corps mâle (4) dans la position de fermeture.

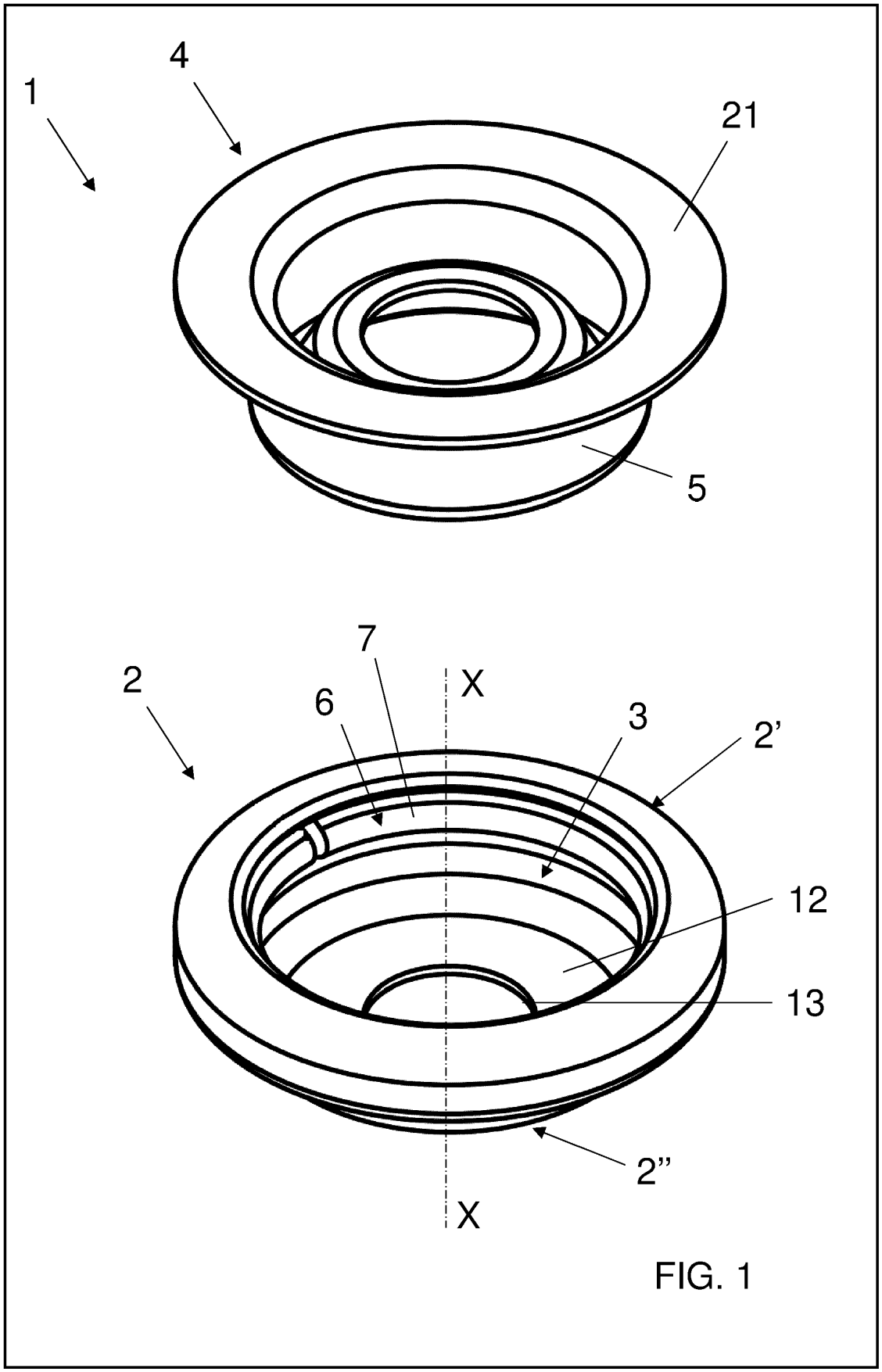

FIG. 1

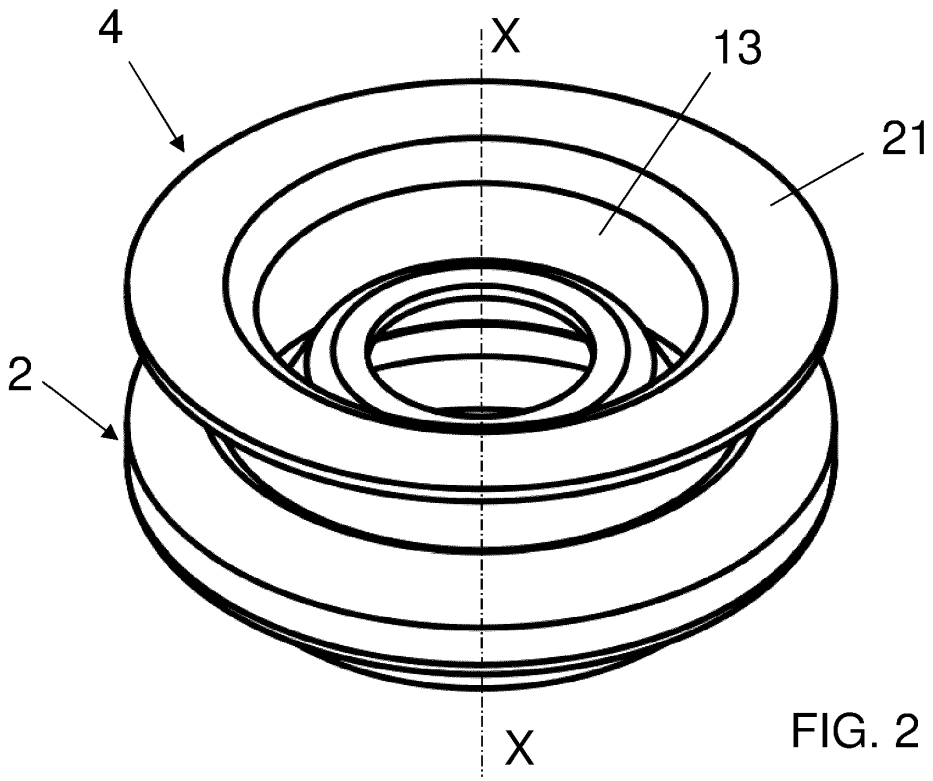

FIG. 2

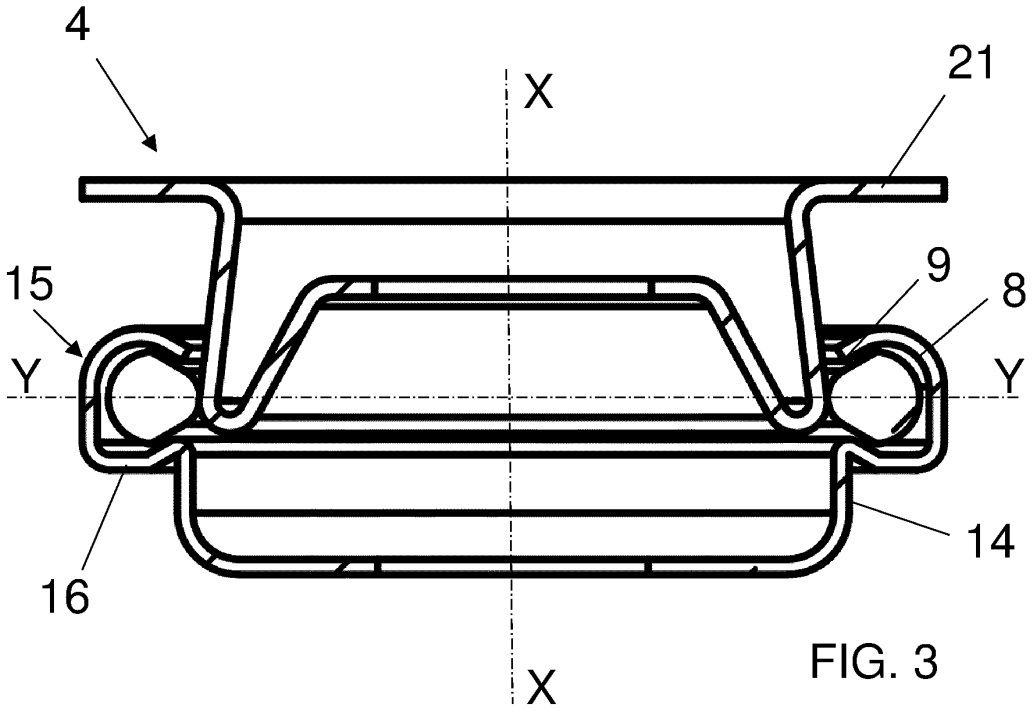

FIG. 3

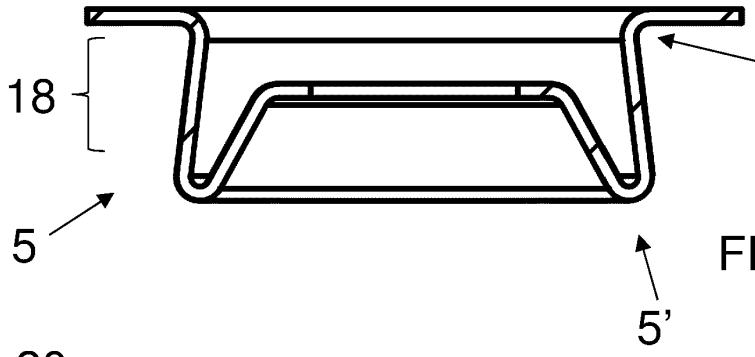

FIG. 4

FIG. 5

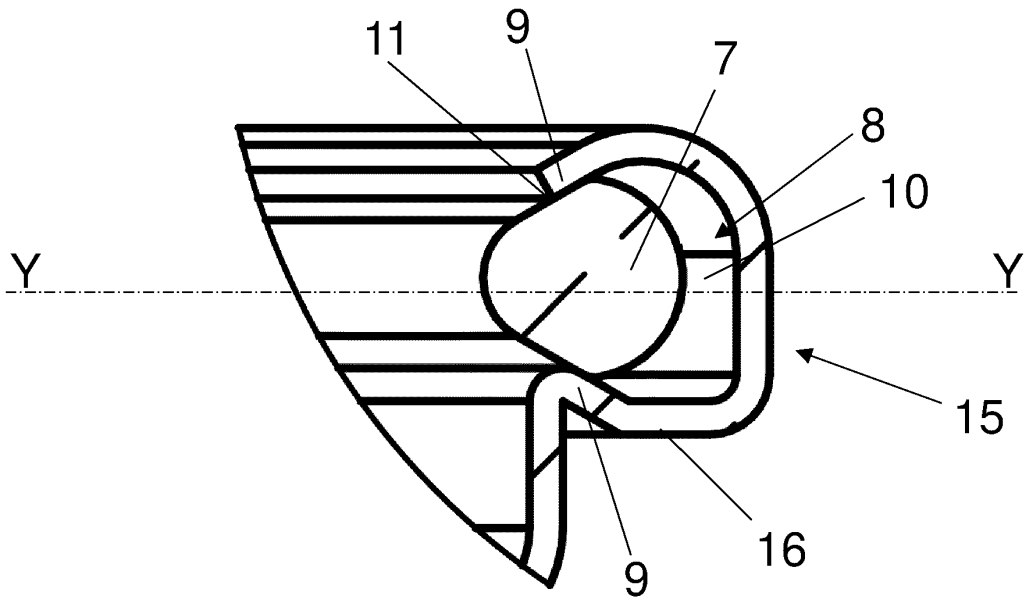

FIG. 6

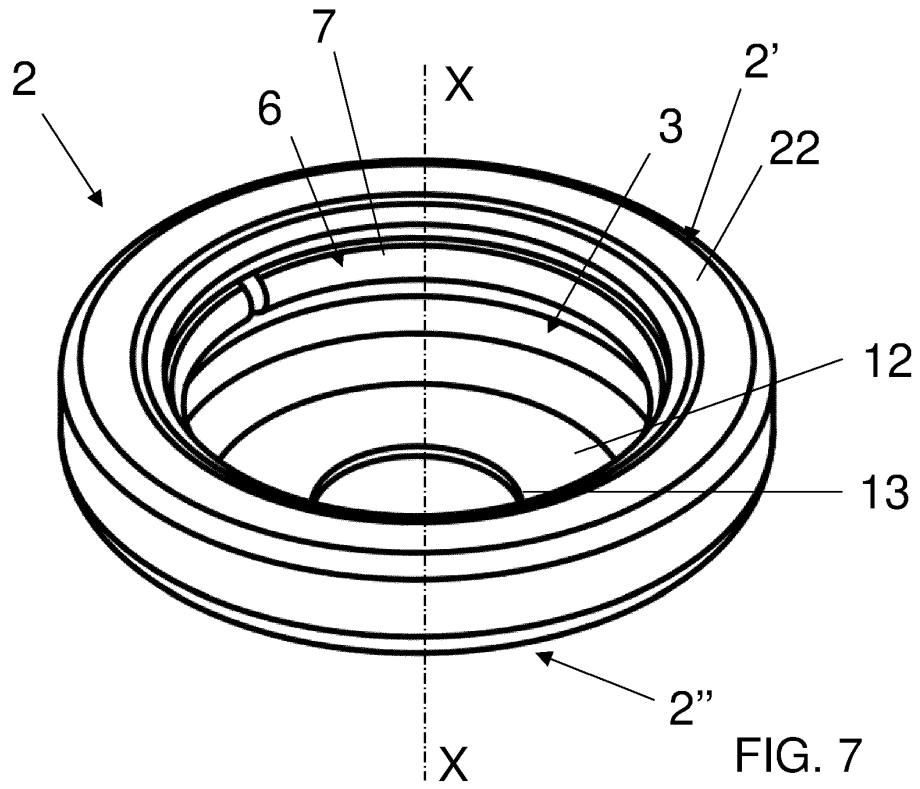

FIG. 7

FIG. 8

REFERENCES CITED IN THE DESCRIPTION

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