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(54) Jewellery accessory, in particular for the earlobe

(57) In a jewellery accessory (1) comprising a basic accessory part (2), an insertion part (3), which is joined to the basic accessory part (2) and inserted into a penetration hole (5a) provided in a wearing target (5), and a catch (4) for holding a portion of the insertion part (3), which penetrates into the penetration hole (5a), the insertion part (3) comprises an insertion core part (3a) one end of which is joined to the basic accessory part (2), and a stop part (3b) which is formed at the other end of the insertion core part (3a) and has a diameter (L2) larger than the insertion core part (3a) on a plane orthogonal to the longitudinal direction (A) of the insertion core part (3a), and the catch (4) is made of an elastic material and has an insertion hole (4a) corresponding to the shapes of the stop part (3b) and a portion of the insertion core part (3a) extending from the stop part (3b) by a predetermined length.

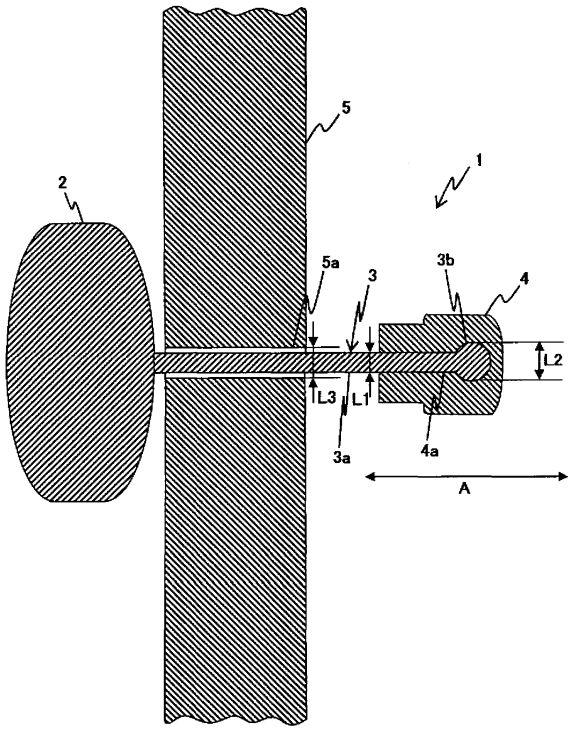

FIG. 1

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Description

Background of the Invention

Field of the Invention

[0001] The present invention relates to an accessory put on a human earlobe, etc.

Description of the Related Art

[0002] Conventionally, accessories such as pierced earrings are configured by joining an accessory core part (such as a needle) to a basic accessory part, and a portion of the accessory core part, which penetrates into a wearing target (such as an earlobe), is held by a catch in normal cases. Here, holding by a normal catch is made to prevent the accessory core part from falling out of the wearing target.

[0003] For the above described accessory, the following accessory is disclosed, for example, by Patent Document 1 (Japanese Examined Utility Model Application Publication No. HEI7-6809). This accessory is configured by providing a basic accessory part having a diameter larger than that of the accessory core part at one end of the accessory core part, and a stop part also having a diameter larger than that of the accessory core part at the other end, and by omitting a catch. [Patent Document 1] Examined Utility Model Application Publication (???) No. HEI7-6809

[0004] Incidentally, the accessory according to the above described Patent Document 1 is fixed to a wearing target with the stop part having a diameter larger than the accessory core part. However, since also the stop part once penetrates into the wearing target, it sometimes falls out of an earlobe. If the diameter of the stop part is made larger than the accessory core part in order to prevent this fall, there arises a problem such that the wearing target is injured, or the pierced earring does not become stable in the wearing target.

[0005] Additionally, since the stop part has a protruding configuration, for example, the neck of a person positioned in the rear of the wearing target is injured in some cases. Even if attempts are made to provide a member which covers the stop part in order to overcome this problem, the stop part must be configured to have a diameter further larger than the insertion core part, and this is difficult.

Summary of the Invention

[0006] It is an object of the present invention is to provide an accessory which prevents a fall, and enhances safety with a simple configuration in consideration of the above described conventional problems.

[0007] To overcome the above described problems, the accessory according to the present invention comprises a basic accessory part, an insertion part that is joined to the basic accessory part and inserted into a penetration hole provided in a wearing target, and a catch for holding a portion of the insertion part, which penetrates into the penetration hole. The insertion part comprises an insertion core part one end of which is joined to the basic accessory part, and a stop part which is formed at the other end of the insertion core part and has a diameter larger than the insertion core part on a plane orthogonal to the longitudinal direction of the insertion core part. The catch is made of an elastic material, and is configured to have an insertion hole part corresponding to the shapes of the stop part and the insertion core part extending from the stop part by a predetermined length.

[0008] With the above described configuration, the insertion hole part corresponding to the shapes of the stop part and the insertion core part extending from the stop part by the predetermined length are comprised, and the stop part is fixed to the catch made of an elastic material, whereby the stop part is easy to be inserted into the catch and difficult to fall. Accordingly, with the simple configuration, the accessory is prevented from falling out of a wearing target, and the stop part is prevented from injuring the neck of a person, an object, etc. positioned in the rear of the wearing target.

[0009] Preferably, the stop part is configured to be almost spherical or almost semispherical.

[0010] Preferably, the stop part is configured to be almost ellipsoidal or almost semi-ellipsoidal.

[0011] Preferably, the elastic material is silicone rubber.

[0012] With the accessory according to the present invention, the insertion hole part corresponding to the shapes of the stop part and the insertion core part extending from the stop part by the predetermined length are comprised, and the stop part is fixed to the catch made of an elastic material, whereby the stop part is easy to be inserted into the catch and difficult to fall. Accordingly, the accessory is prevented from falling out of a wearing target, and the stop part is prevented from injuring the neck of a person, an object, etc. positioned in the rear of the wearing target with the simple configuration. Therefore, with the accessory according to the present invention, a fall can be prevented and safety can be enhanced with the simple configuration.

Brief Description of the Drawings

[0013] The present invention will be more apparent from the following detailed description in conjunction with the accompanying drawings, in which:

Fig. 1 is a cross-sectional view showing an accessory according to one preferred embodiment of the present invention;

Fig. 2A is a cross-sectional view showing an insertion part and a catch according to the preferred embodiment;

Fig. 2B is a cross-sectional view showing an insertion

part and a catch according to a first modification example of the preferred embodiment;

Fig. 2C is a cross-sectional view showing an insertion part and a catch according to a second modification example of the preferred embodiment; and

Fig. 2D is a cross-sectional view showing an insertion part and a catch according to a third modification example of the preferred embodiment.

Description of the Preferred Embodiments

[0014] An accessory according to a preferred embodiment of the present invention is hereinafter described with reference to the drawings.

[0015] Fig. 1 is a cross-sectional view showing the accessory according to one preferred embodiment of the present invention.

[0016] In this figure, the accessory 1 comprises a basic accessory part 2, an insertion part 3, and a catch 4. This accessory 1 is inserted into a penetration hole 5a provided in a wearing target 5. The basic accessory part 2 is an accessory portion, which is positioned on the front side of the wearing target 5, namely, positioned in a portion that is most visible in the accessory 1.

[0017] The insertion part 3 comprises an insertion core part 3a and a stop part 3b. One end of the insertion core part 3a is joined to the basic accessory part 2, for example, by being formed as a single-piece or by being welded. In contrast, the stop part 3b, which has a diameter L2 larger than the diameter L1 of the insertion core part 3a on a plane orthogonal to the longitudinal direction A of the insertion core part 3a, is provided at the other end of the insertion core part 3a. The stop part 3b here is spherical in shape.

[0018] The catch 4 is made of an elastic material (such as silicone rubber), and an insertion hole part 4a, which corresponds to the shapes of the stop part 3b and the insertion core part 3a extending from the stop part 3b by a predetermined length, namely, which has the same shapes, is open. This insertion hole part 4a is open to an extent not to penetrate into the catch 4 in order to prevent the stop part 3b from touching the neck of a person, etc. positioned in the rear of the wearing target. In the state shown in Fig. 1, the insertion part 3 (the stop part 3b and a portion of the insertion core part 3a) is already inserted into the insertion hole part 4a, and fits neatly. Here, the catch 4 is made of an elastic material. Therefore, even if the stop part 3b having the larger diameter (diameter L2) is inserted into the portion (diameter L1) of the insertion hole part 4a, which corresponds to the insertion core part 3a, the insertion hole part 4a once expands and restores to the original shape.

[0019] If the wearing target 5 is a human earlobe, the insertion part 3 having a diameter larger than the diameter L3 of the penetration hole 5a shown in Fig. 1 can be penetrated without being damaged. Therefore, it is desirable to make the diameter L2 of the stop part 3b slightly larger than the diameter L3 of the penetration hole 5a.

[0020] Additionally, if the diameter L1 of the insertion core part 3a is equal to or smaller than 2 mm, it is desirable to multiply the diameter L2 of the stop part 3b by 1.05 to 2.00 times of the diameter L1 of the insertion core part 3a, preferably, 1.2 to 1.8 times, and, more preferably, 1.5 to 1.7 times. Here, if the above proportions are applied when the diameter L1 is more than 2 mm, this causes a problem such that a difference between the diameter L2 of the stop part 3b and the diameter L1 of the insertion core part 3a increases, and the insertion core part 3a does not become stable in the penetration hole 5a of the wearing target 5. Accordingly, it is desirable to make the above described proportions lower when the diameter L1 is more than 2 mm.

[0021] As described above, the accessory 1 according to this preferred embodiment has a configuration where the insertion core part 4a, which corresponds to the shapes of the stop part 3b and the insertion core part 3a extending from the stop part 3b by a predetermined length, is comprised, and the stop part 3b is fixed to the catch 4 made of an elastic material, whereby the stop part 3 is easy to be inserted into the catch 4 and difficult to fall. Accordingly, the accessory 1 is prevented from falling out of the wearing target 5, and the stop part 3b is prevented from injuring the neck of a person, an object, etc. positioned in the rear of the wearing target 5 with the simple configuration. Therefore, with the accessory 1 according to this preferred embodiment, its fall can be prevented and safety can be enhanced with the simple configuration.

[0022] Additionally, the stop part 3b is configured to be spherical in shape, whereby the stop part 3b is easy to be inserted into the insertion hole part 4a of the catch 4, and the insertion hole part 4a is difficult to be destroyed. Accordingly, the catch 4 can be used without daily trouble.

[0023] Fig. 2A is a cross-sectional view showing the insertion part and the catch according to the above described preferred embodiment. Figs. 2B to 2D are cross-sectional views showing insertion parts and catches according to modification examples of the above described preferred embodiment.

[0024] The insertion part 3 and the catch 4, which are shown in Fig. 2A, are the same as those shown in Fig. 1. Namely, the stop part 3b of the insertion part 3 is spherical in shape. In contrast, a stop part 13b of an insertion part 13, which is shown in Fig. 2B, is semispherical in shape. In this case, the stop part 13b can be further prevented from falling out of a catch 14.

[0025] Additionally, a stop part 23b of an insertion part 23, which is shown in Fig. 2C, is ellipsoidal in shape. This stop part 23b is ellipsoidal in shape extending on a plane orthogonal to the longitudinal direction A of an insertion core part 23a. Furthermore, a stop part 33b shown in Fig. 2D is semi-ellipsoidal in shape. Also in this case, the stop part 33b is semi-ellipsoidal in shape extending on a plane orthogonal to the longitudinal direction A of an insertion core part 33a. Also with these stop parts 23b and 33b,

which are ellipsoidal and semi-ellipsoidal, the accessory 1 is further prevented from falling out of catches 24 and 34.

Claims

1. An accessory (1) having a basic accessory part (2), an insertion part (3), which is joined to the basic accessory part (2) and inserted into a penetration hole (5a) provided in a wearing target (5), and a catch (4) for holding a portion of the insertion part (3), which penetrates into the penetration hole(5a), wherein:

   the insertion part (3) comprises an insertion core part(3a) one end of which is joined to the basic accessory part (2), and a stop part (3b), which is formed at the other end of the insertion core part (3a) and has a diameter (L2) larger than the insertion core part (3a) on a plane orthogonal to a longitudinal direction(A) of the insertion core part(3a); and
   the catch(4) is made of an elastic material, and has an insertion hole part (4a) corresponding to shapes of the stop part(3b) and the insertion core part(3a) extending from the stop part(3b) by a predetermined length.

2. The accessory (1) according to claim 1, wherein the stop part (3b) is almost spherical or almost semispherical in shape.

3. The accessory (1) according to claim 1, wherein the stop part (3b) is almost ellipsoidal or almost semi-ellipsoidal in shape.

4. The accessory (1) according to any one of claims 1 to 3, wherein
   the elastic material is silicone rubber.

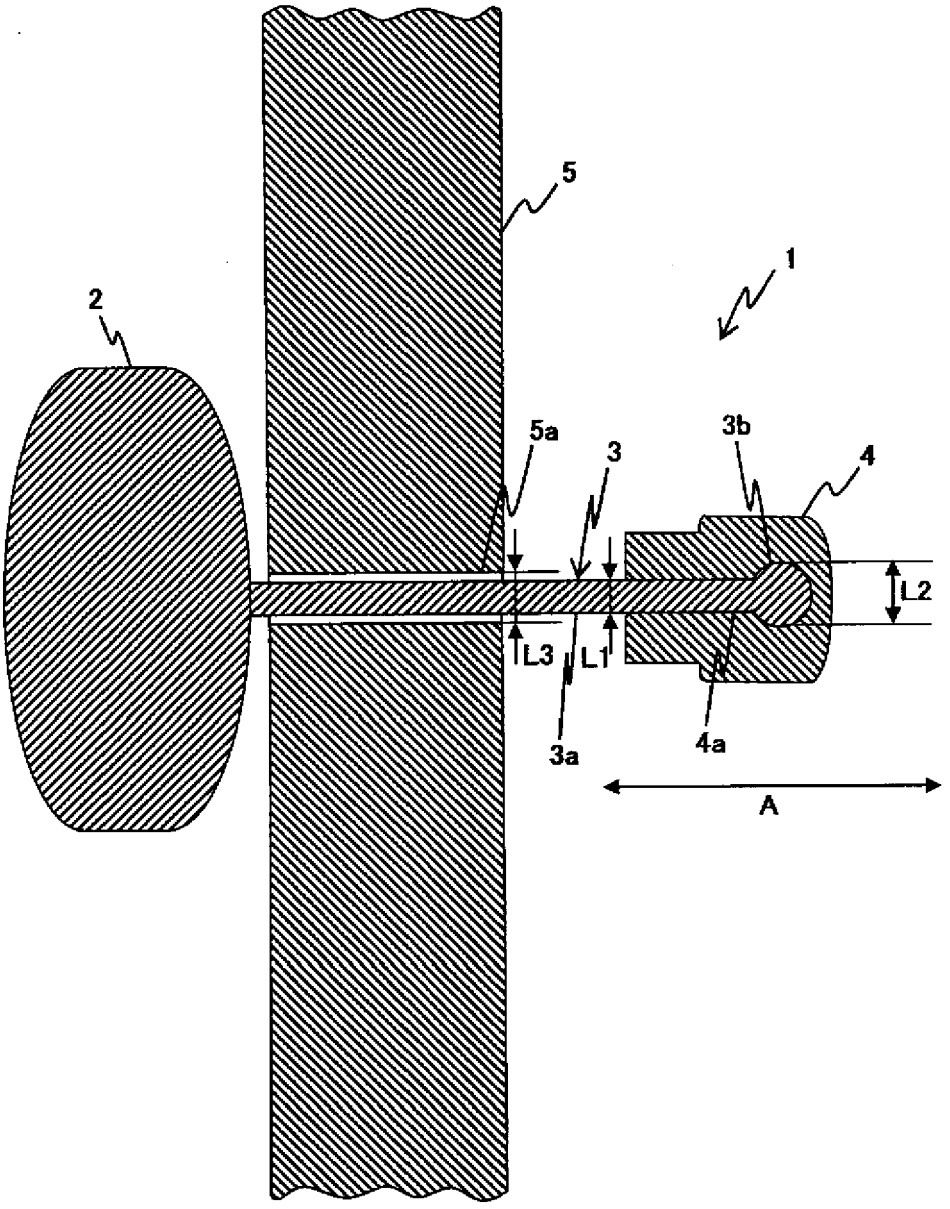

FIG. 1

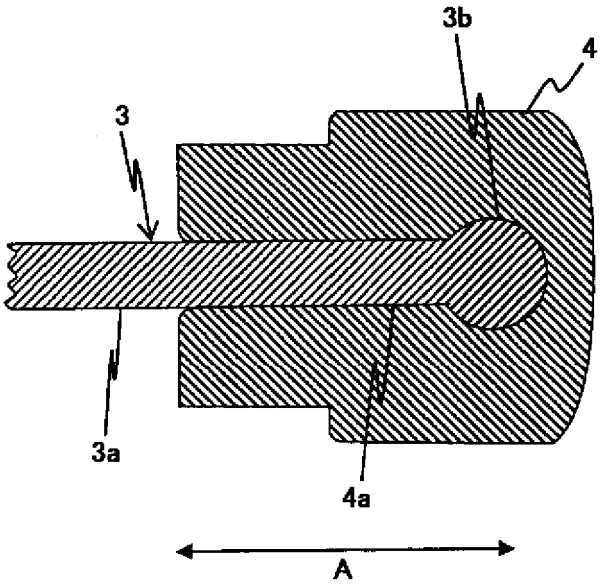

FIG. 2A

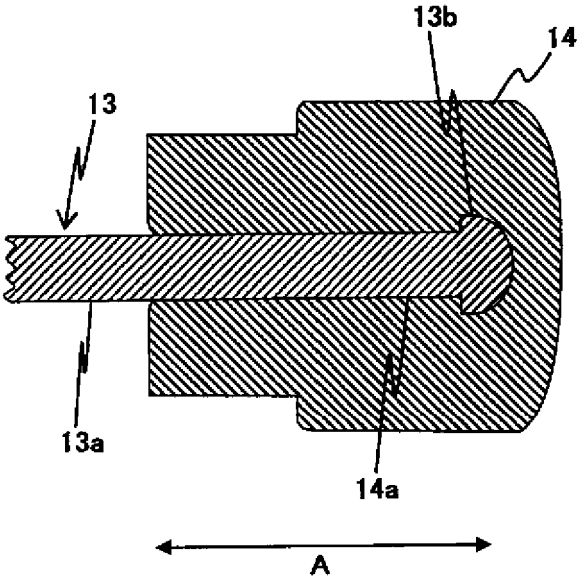

FIG. 2B

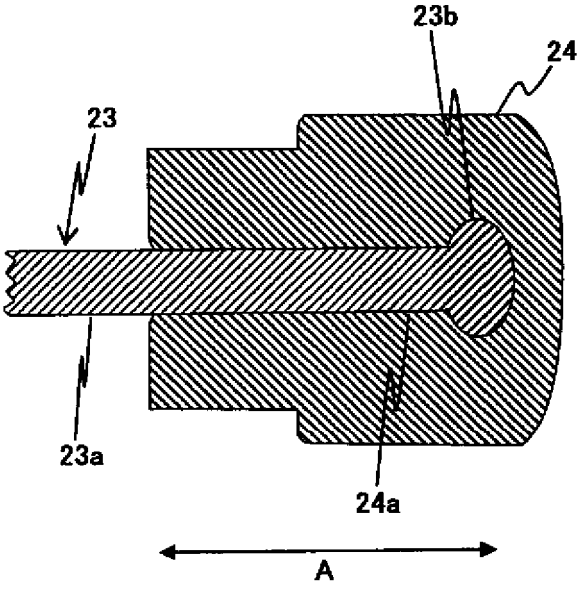

FIG. 2C

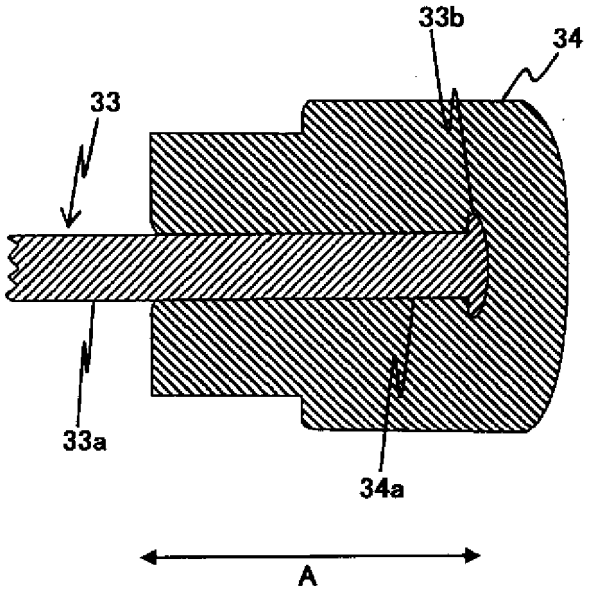

FIG. 2D

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EUROPEAN SEARCH REPORT

Application Number
EP 07 10 0315

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 276 993 A (A F ARNOLD) 8 May 1893 (1893-05-08) * column 1, line 43 - column 3, line 15; figures 1-4 *	1-3	INV. A44C7/00
Y	JP 2001 120313 A (MARUYAMA INC) 8 May 2001 (2001-05-08) See PAJ extract	4	
Y	JP 2002 306216 A (MARUYAMA INC) 22 October 2002 (2002-10-22) See PAJ extract	4	
X	US 4 344 240 A (SCHILLER KARL H) 17 August 1982 (1982-08-17) * column 4, line 24 - column 5, line 44; figures 2-4 *	1,2	
X	US 2003/037416 A1 (BUETTELL BRUCE J [US]) 27 February 2003 (2003-02-27) * paragraph [0019] - paragraph [0025]; figures 2-4 *	1	TECHNICAL FIELDS SEARCHED (IPC) A44C
A	US 3 945 089 A (GAGNON KENNETH M) 23 March 1976 (1976-03-23) * column 1, line 54 - column 2, line 45 *	1-4	
A	JP 08 052014 A (HARADA TAKASUE) 27 February 1996 (1996-02-27) See PAJ Abstract* figures 1,2,8 *	1-4	

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	11 May 2007	Thomson, Sarah

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11-05-2007

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 276993 A		NONE	
JP 2001120313 A	08-05-2001	JP 3797591 B2	19-07-2006
JP 2002306216 A	22-10-2002	NONE	
US 4344240 A	17-08-1982	NONE	
US 2003037416 A1	27-02-2003	NONE	
US 3945089 A	23-03-1976	NONE	
JP 8052014 A	27-02-1996	NONE	

EPO FORM P0459

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REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- JP 7006809 A **[0003]**
- WO 76809 A **[0003]**