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(54) **APPLICATION HEAD FOR AN APPARATUS USED IN COSMETIC SURGERY AND ELECTROMEDICINE**

(57) Application head for an apparatus used in cosmetic surgery and electromedicine with a housing (3), which it has a cavity (4) in his inner part and orifices (5) for suction that in addition incorporates bearings (2) which they are not fixed to a determined point of the application head, being able to move through this application head in any direction, between the inner cavity (4) and the housing (3).

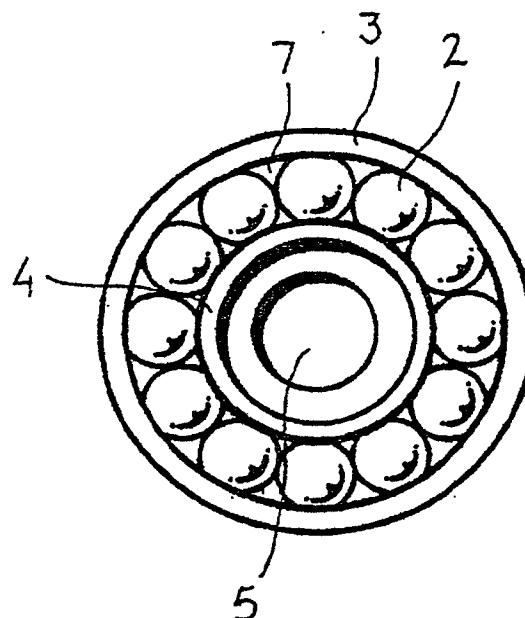


FIG.2

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Description

[0001] Application head for an apparatus used in cosmetic surgery and electromedicine with a housing, which it has a cavity in his inner part and orifices for suction that in addition incorporates bearings which they are not fixed to a determined point of the application head, being able to move through this application head in any direction, between the inner cavity and the housing.

BACKGROUNDS OF THE INVENTION

[0002] Different mechanisms are known for producing massages in the skin, essentially they are devices that exclusively raise only the dead skins giving, sometimes, a small massage.

[0003] Thus the applicant is the owner of the utility model n° 9901705 which it protects a device with suction handle that incorporates application heads, with balls that they can roll in all directions, fixed said balls to a predetermined point.

[0004] European Patent n° 0521095, that designated initially Spain but later it did not enter in national phase, therefore it is public domain in our country, protects an apparatus for massaging with a camera for suction of the skin and a plurality of massage balls so that it provides an interstice for penetration in the skin between two balls.

BRIEF DESCRIPTION OF THE PRESENT INVENTION

[0005] The present utility model solves one of the greatest problems of the apparatus used in cosmetic surgery and electromedicine, the cleaning and disinfection of the application heads.

[0006] When the application head gives a massage with the balls and suctions the skin, it drags skins and impurities of dermis, and a great part of them are going to the mentioned balls.

[0007] After each client the professionals must open the head, that it has screws by safety measures, to clean, to return to screw and to return to place this application head in the handle, and this process with every client, which in the long run it causes damages in the screws and low practicality, by its complexity.

[0008] With the present invention, the owner has solved the serious problem of the cleaning of instruments, through a new application head that with simple turnscrew as a handle can make leave from the mentioned application head all the balls without effort, and allows a much more detailed cleanliness of instruments.

[0009] Moreover no parts of the head are damaged, it means that the same one can be used an infinity of times without hardly wearing as a result of the cleanliness.

[0010] In addition it is necessary to point out the fact that all balls are free, only limited by the bearing track, which it allows that all of them can be moved in all di-

rections, moreover they have associated a traslation movement in respect of the mentioned track of bearing, it improves the massage and the therapy made by the professional.

[0011] The previous application heads, all of them dismantled to facilitate their cleanliness, have a trunco - conical configuration and they use bearings by balls for taking the handle in all directions. One of said application heads incorporates in its central part a conicity in order to avoid haematomas because the skin will have three points of support in the application head. In the other two application heads the mentioned conicity does not exist because the edges of the application head are enough close to each other as to avoid any tension in the skin and, therefore, haematomas.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] With the purpose to facilitate the explanation two sheets of drawings are attached to the present description in which it has been shown a practical embodiment, which it is mentioned only for purpose of example, non limitative of the scope of the present invention.

[0013] In these sheets of drawings:

Figure 1 shows a lateral sight with a quarter section of a suction handle with an application head.

Figure 2 shows a sight of the first application head, from the bottom.

Figure 3 shows a detail of a section cut of an application head, in connection to a single ball and the procedure for its extraction from the application head.

Figure 4 shows a section cut of the second application head.

Figure 5 shows a section cut of the third application head.

CONCRETE EMBODIMENT OF THE PRESENT INVENTION

[0014] Figure 1 shows a suction handle (8) for medical surgery and electromedicine apparatus, an application head (1), bearings in the form of balls (2), the outer housing (3) of the mentioned application head and a part of the inner cavity (4).

[0015] It can be seen the mentioned balls (2), the outer housing (3), the inner cavity (4), the orifice for suction (5) and one track of bearing (7), all of them in Figure 2.

[0016] In Figure 3 it is shown the ball (2), the outer housing (3), the inner cavity (4), the track of bearing (7) and a turnscrew (5).

[0017] In Figure 4 a section cut of an application head (1) can be observed, where the balls (2), the outer housing (3) of the application head, the cavity (4), an orifice for suction (5) and a filter (9) can be seen.

[0018] The balls (2), the outer housing (3), the cavity (4), the orifices for suction (5) and one central ball (6)

are shown in figure 5.

[0019] Thus, once the suction mechanism starts to work, the suction handle (8) with an application head (1) is located on the skin of the person to whom the treatment is given. Through the orifices (5) all skin impurities are sucking which they are collected in a filter (9) and avoid that the same ones are going to the mentioned suction handle (8), obturating it.

[0020] At the same time the application head (1) is moved in all directions, for giving a massage in all of the skin. The balls (2) while they are sliding over the skin, they turn in all directions and at the same time they move through all the track of bearing, in annulus form, in such a way that a concrete ball, at the end of the massage session can be located, within the mentioned track of bearing (7) in a different place from which it began.

[0021] The fact that the balls (2) are not located in a fixed point and can move throughout the track of bearing (7), it allows a better massage and at the same time it avoids that the ball can be blocked, and therefore, fixed, without movement, as a result of an impurity.

[0022] Also it has been thought the positioning of a ball (6) in the centre of the head, in such a way that in the case the application head, having as it bases the mentioned balls (2), is positioned on a horizontal plane, the mentioned ball (6) would not touch said horizontal plane.

[0023] This special configuration of the ball allows not to create tensions or breakings in the user's skin at the moment of the suction, because the ball (6), from one point of view, is a bearance of the skin, reducing the tension and at the same time gives a massage, when it rotates in all directions.

[0024] It has been thought, the use, inside said cavity, of more than one ball (6), positioned within a track of bearing (not illustrated in the drawings).

[0025] Once the massage is finished, the professional can clean the application head in a very easy way, because the housing of the head is formed by an elastic material and the inner part by an antiadherent material, for example Teflon, which it avoids erasures in the user's skin.

[0026] So with a simple instrument, for example a turnscrew (5), doing handle, it is possible to remove all the balls (2) from the inner part of the track of bearing (7), to be able to clean them one by one and later to introduce them within the mentioned track of bearing with a simple pressure of the fingers.

[0027] The present invention describes an application head for an apparatus used in cosmetic surgery and electromedicine. The examples mentioned here are not limitative of the scope of the present invention, for that reason it will be able to have different applications and/or adaptations, all of them within the scope of the following claims.

Claims

1. Application head for an apparatus used in cosmetic surgery and electromedicine that includes a housing (3), with an inner cavity (4) and orifices (5) for the suction characterized because it incorporates bearings (2):
 - a) that they are not fixed in a determined point of the application head (1), being able to move by this application head in any direction, from the inner cavity (4) to the housing (3), and
 - b) that it is very easily to remove from the mentioned application head.
2. Application head in accordance to the claim 1 characterized because the mentioned bearings are balls (2).
3. Application head in accordance to the claim 2 characterized because the position of the balls (2) is in annulus form.
4. Application head in accordance to the claim 3 characterized because said balls (2) are included in at least one track of bearing (7).
5. Application head in accordance to the claim 4 characterized because the most outer track is the inner face of the housing (3) and the most inner track is the inner face of the cavity (4).
6. Application head in accordance to claims 1 or 5 characterized because the cavity (4) is formed by an antiadherent material.
7. Application head in accordance to claim 6 characterized because said antiadherent material is Teflon.
8. Application head in accordance to claims 1 or 5 characterized because the housing (3) is made by an elastic material.
9. Application head in accordance to claim 1 characterized because inside the cavity (4) it is foreseen the positioning of at least one bearing (6).
10. Application head in accordance to claim 9 characterized because said bearing (6) is positioned slightly over the rest of balls (2), in such a way that in the case that the application head is positioned, having as it bases the mentioned balls (2), on a horizontal plane, the bearing (6) would not touch said horizontal plane.
11. Application head in accordance to claim 10 characterized because at least one track of bearing for the

positioned of the bearings (6) is in this cavity (4).

12. Application head in accordance to claim 1 characterized because there is a filter (9) into the head.

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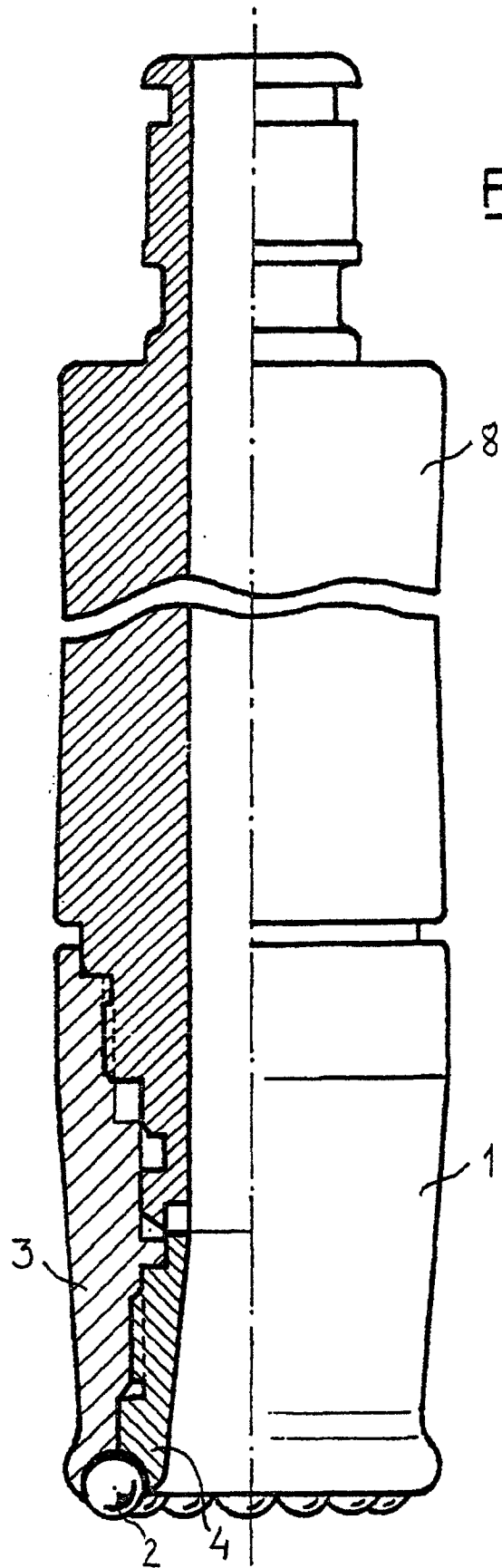


FIG. 1

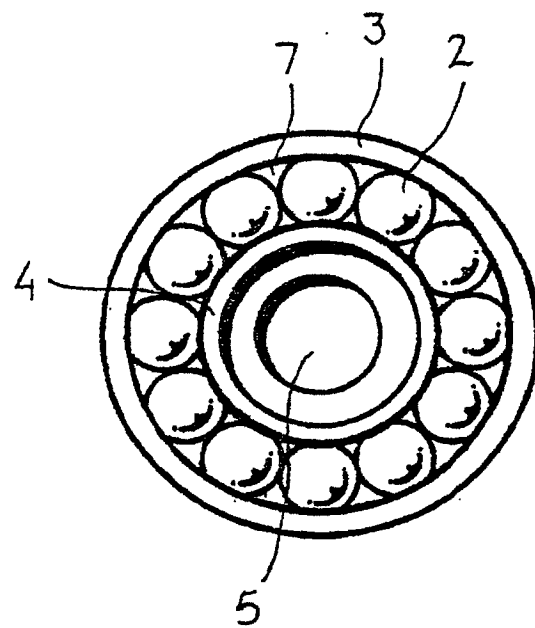


FIG. 2

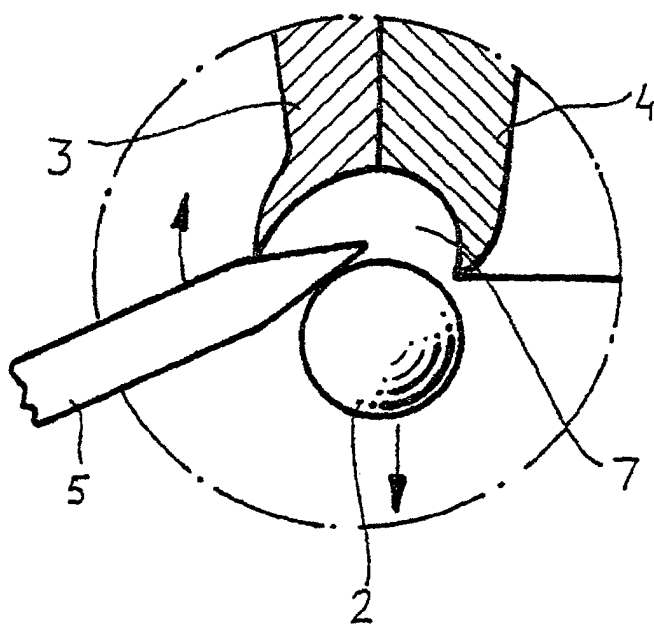


FIG. 3

FIG. 4

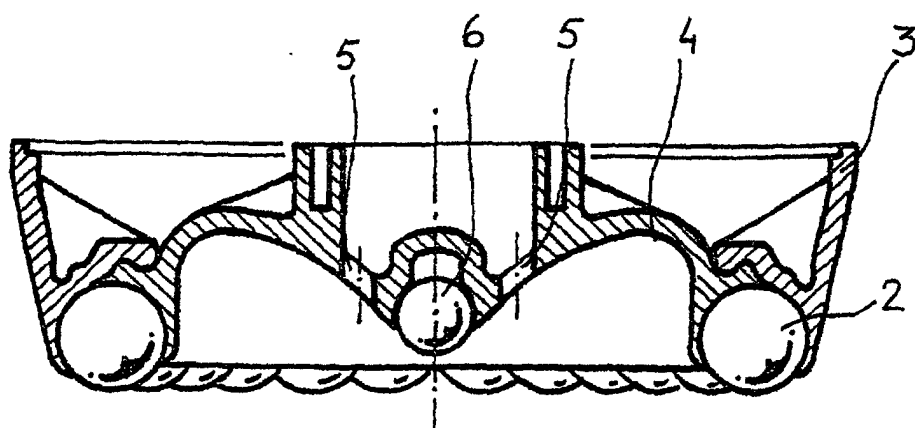
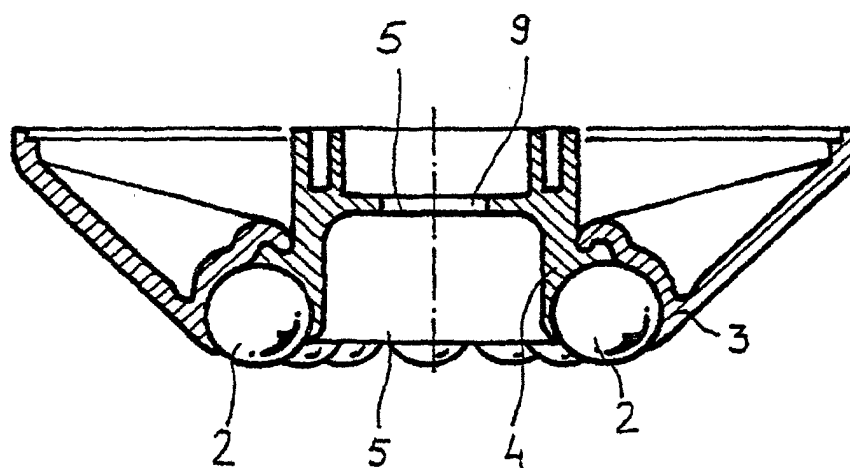


FIG. 5

INTERNATIONAL SEARCH REPORT

International application No
PCT/ES 00/001128A. CLASSIFICATION OF SUBJECT MATTER:
IPC 7 A61H 15/00, 9/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 A61H 7/00, 9/00, 15/00, 23/00, 23/04, 37/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

CIBEPAT, WPIL, EPODOC

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 9114417 A1 (KARAGOZIAN) 03 October 1991 (03.10.91) the whole document	1, 2, 3
Y	FR 854937 A (LAVALLEE. M.) 27 April 1940 (27.04.40) the whole document	1, 2, 3, 4
Y	US 3081769 A (ACKERMAN D.) 10 March 1963 (19.03.63), columns 1-4; figures 1, 2, 3 and 5	2, 3, 4, 5, 9
A	FR 1225094 A (REGLEX) 29 June 1960 (29.06.60), page 2; figures	1, 2, 6
A	US 2043114 A (RÜTTGER - PELLI) 02 June 1936 (02.06.36)	

☐ Further documents are listed in the continuation of Box C☒ See patent family annex.

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Date of the actual completion of the international search report
21 July 2000 (21.07.00)Date of mailing of the international search report
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