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(54) **CLEANING DEVICE WITH HOLDING LOOP**

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(57) **ABSTRACT**

The invention relates to a cleaning device (**1**) comprising a surface structure which is made of a cleaning material and is provided with at least one holding loop (**2**) arranged on part of the surface opposite the cleaning side. The loop is used for attachment to the hand or pans of the hand. The invention is characterized in that the ends of the holding loop (**2**) are arranged in close proximity to each other in the region of the above-mentioned surface.

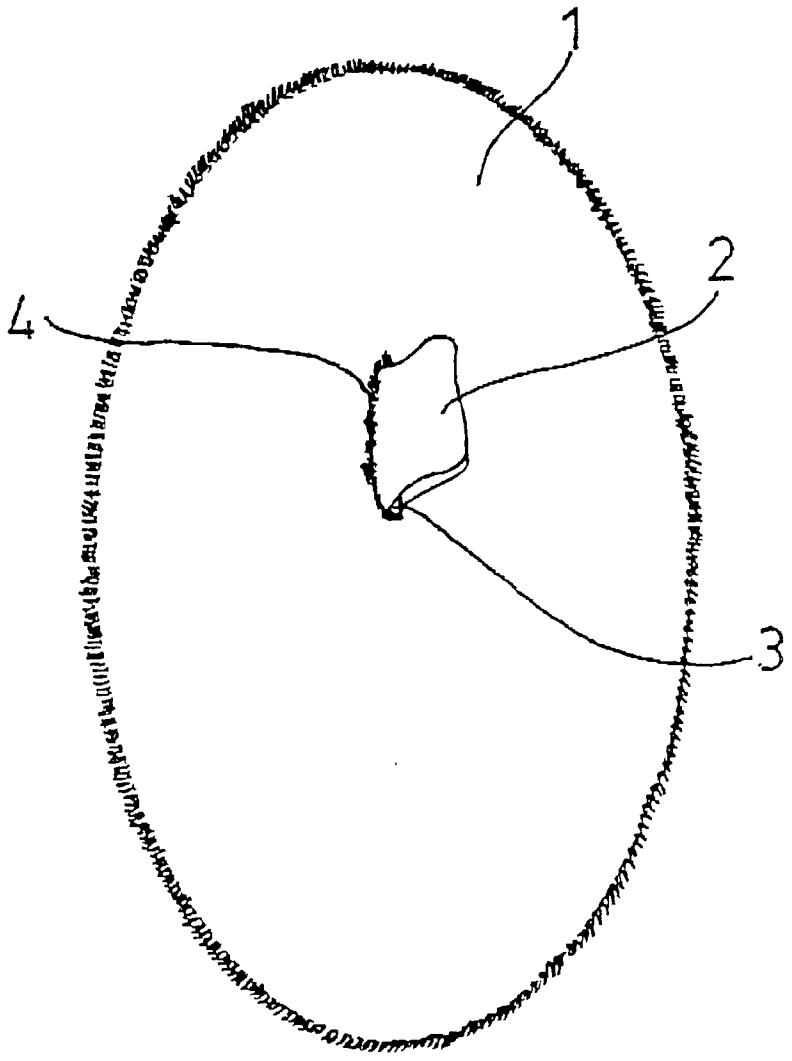


Fig. 1

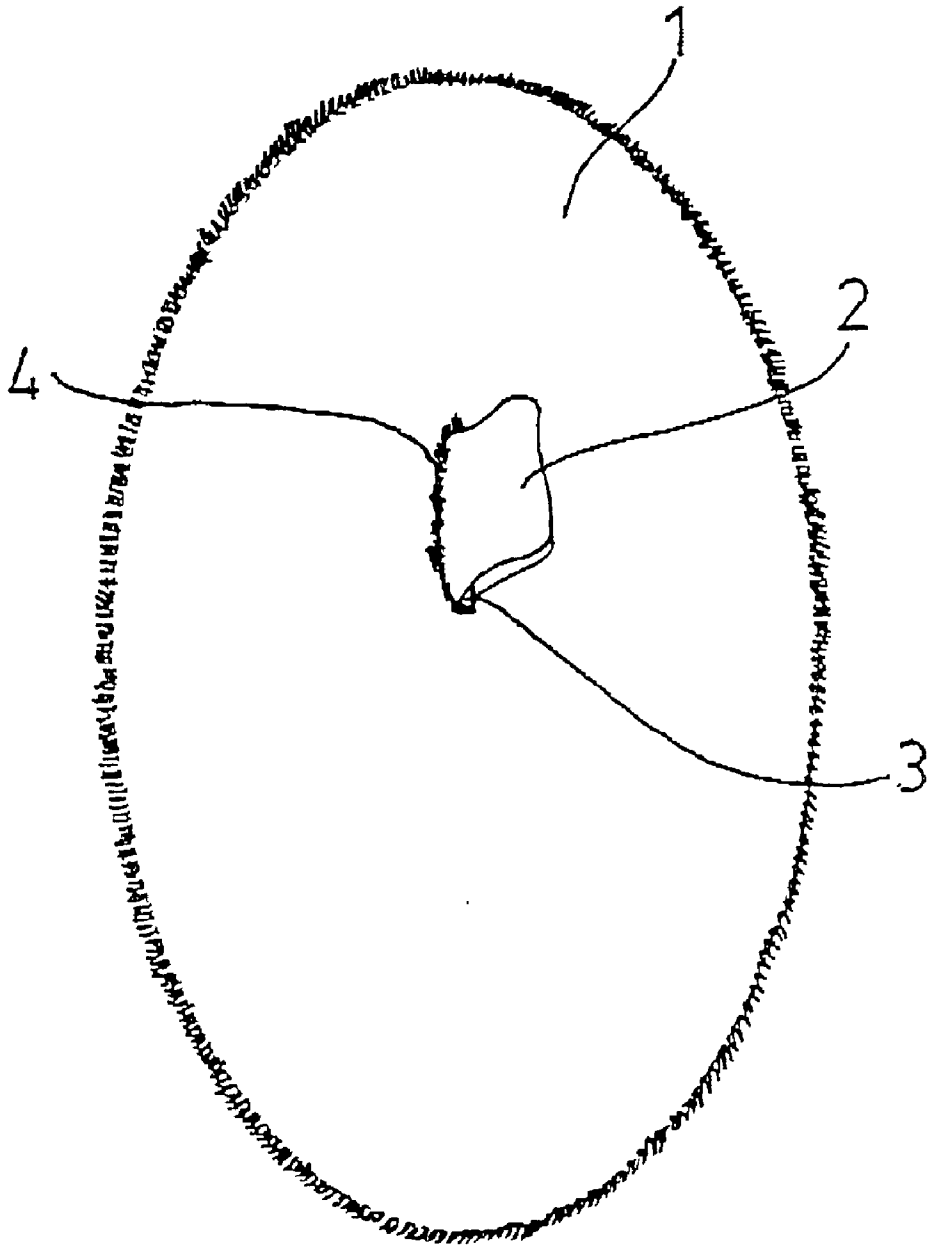


Fig. 2a

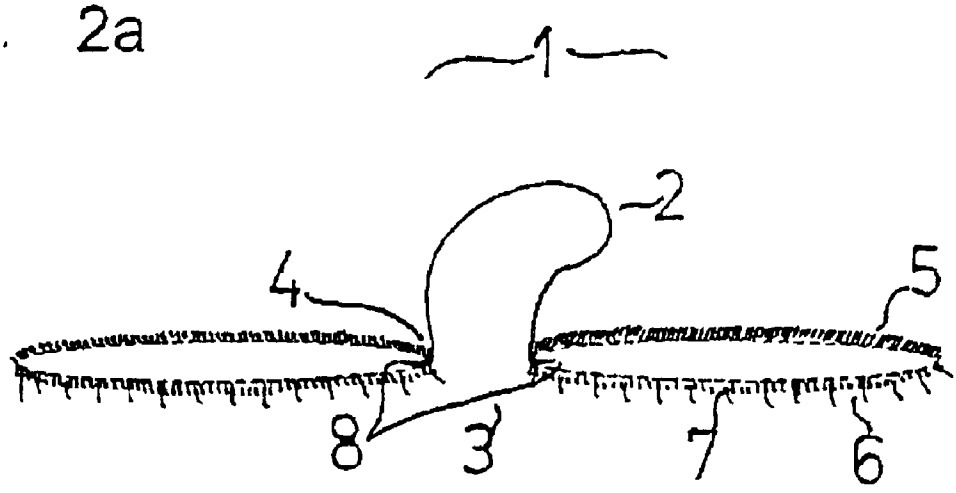
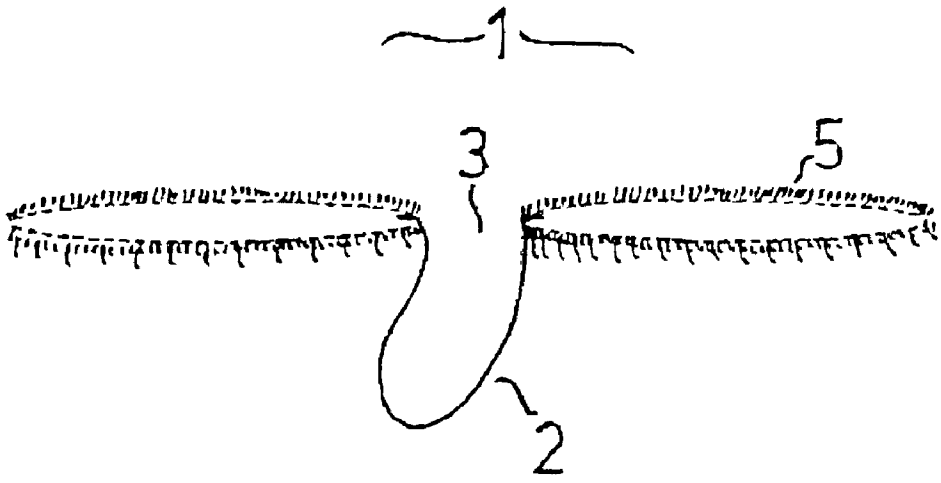


Fig. 2b



CLEANING DEVICE WITH HOLDING LOOP

[0001] The invention relates to a cleaning device that comprises a surface structure made of cleansing material and has at least one holding loop arranged on part of the surface opposite the cleaning side. The loop is used for attachment to the hand.

[0002] The washcloths and cleaning rags conventionally used for cleaning by hand have the disadvantage that they can not be affixed to the hand. Therefore, at the end of a cleaning process, they must be grasped for carrying and thus snatched up and once again spread out before cleaning the next surface. In addition, they are only conditionally suitable for cleaning vertical surfaces since in doing so they easily fall out of the hand.

[0003] The wash gloves, which can be manually guided better and can be mounted on the hand, on the other hand, have the disadvantage that the hand in it during the cleaning process is soaked through in an unpleasant way by the cleaning liquid used.

[0004] Equipping brushes with a holding loop for improving the guiding and affixing to the hand is the known state of the art. The ends are far apart, as a rule they are mounted at the far edges of the brushes. These loops are intended for inserting the hand or the hand with the exception of the thumb. The disadvantage here is that these holding loops only make an insufficient attachment of the brushes to the hand possible in loose condition and then only give support if they fit closely around the hand. However, embodiments that are elastic or adjustable according to size and are formed for this purpose are, if used for a longer period of time, often felt to be restrictive and irritating.

[0005] Thus, the task of the invention is to make a cleaning device available that can be attached well without restricting the hand and consequently can be easily guided during the cleaning process.

[0006] The task is solved as defined by the invention by a cleaning device comprising a surface structure which is made of a cleaning material and is provided with at least one holding loop arranged on part of the surface opposite the cleaning side. The loop is used for attachment to the hand or parts of the hand. The invention is characterized in that the ends of the holding loop are arranged in close proximity to each other in the region of the surface mentioned above.

[0007] The advantage of the invention compared to the state of the art is that when guiding for example the middle and/or ring finger through the holding loop, the finger adjacent to the side of the loop exercises a stabilizing effect on the loop, so that an advantageous and good control of the cleaning device is secured during the cleaning process and also afterward. This will occur without the loop lying tightly on the finger or fingers put through it. Thus it is in particular possible to size the holding loop in a generous way so that it is suitable for use by users with various finger diameters without seeming restricting for the one or not offering enough support for users with small finger diameters.

[0008] In accordance with an advantageous embodiment, both sides of the cleaning device, which is shaped as a surface structure, are formed as cleaning surfaces. In so doing, it is especially practical to arrange a penetration opening for introducing the holding loop. This penetration opening should penetrate through the surface structure and is between or directly next to the loop ends of the holding loop. This embodiment of the invention makes it possible to use both sides of the extensive cleaning device as a cleaning side since after introducing it the loop can be used on either side as a holding loop and does not disturb or soil on the surface used at the time as the cleaning side.

[0009] In so doing it can also be advantageous to form the holding loop to be adjustable in size in order to concede as much leeway as possible with regard to the finger diameter of the users. In so doing, the cleaning device according to the invention is formed practically as a washcloth, cleaning rag, or sponge and can be used for cleaning in the household as well as for cleaning the body.

[0010] It is practical that the cleaning device contains a textile surface structure or consists of this. Thus, it can be advantageous if the surface structure has a certain self-rigidity. The self-rigidity makes possible the use of the total cleaning surface of the cleaning device according to the invention, also if this is substantially larger sized than the surface of the overlying hand.

[0011] It is practical for the cleaning effect of the cleaning device according to the invention to use pile material for the forming of the textile structure since this has a very good fluid absorbing capacity. The pile threads are especially suitable for cleaning of uneven surfaces in the household or also for the cleaning of skin on the body with pores. Here it is especially practical to use a pile material with pile threads that contain microfibers since these make an especially large surface available that can be actively cleaned.

[0012] Thus, the two cleaning sides of the surface structure can be formed the same or differently. For example, they can be different with regard to the cleaning material. Thus, it can also be advantageous, that the cleaning materials are fundamentally different, i.e. for example forming one cleaning side of textile and the other of leather or sponge. In addition, when forming as textile, the two cleaning sides can be different e.g. as pile material with regard to the fiber density, the fiber titer and/or the fiber type. Thus, a cleaning side, for example, can be equipped with fibers with high rigidity for abrasive cleaning and the other side can contain for subsequent polishing or cleaning rather absorbent, soft fibers, for example microfibers in special density for preparing a large surface that can be actively cleaned. In so doing, it is technically especially easy to produce the cleaning device as defined by the invention out of two surface layers that are attached to each other to form the cleaning device.

[0013] The holding loop is thus advantageously produced of flexible, tear-resistant material since it is subject to especially high mechanical stress. It is thus practical that it is also particularly stabile, for example, it is fastened by multiple seams and/or glued or welded etc. to the cleaning device as defined by the invention. It can, for example, be formed by a strap, the two ends of which are affixed to the surface or it can also be formed by a circle shaped textile ring that is affixed to the surface. In this case, the ends of the holding loop inevitably must be contiguous, i.e. in especially close proximity to each other. Of course in this case the penetration opening can only be arranged next to the holding loop.

[0014] The invention should subsequently be more precisely explained based on the embodiment examples shown in the figures.

[0015] It is shown:

[0016] **FIG. 1** The top view of a cleaning device **1** formed as a washcloth as defined by the invention in reduced form.

[0017] **FIG. 2***a* and **2***b* The reduced illustration of a cleaning device **1** formed as a cleaning rag as defined by the invention in cross section view of a cross section at the level of the holding loop **2**.

[0018] The cleaning device shown in **FIG. 1** is formed as a washcloth and produced from a microfiber pile structure with high fiber density in order to guarantee an especially high absorbing capacity for dirt and fluids. The cleaning device **1** is furnished with a holding loop **2**, which consists of a tear-resistant textile strap that is sewed with stable multiple stitching to the cleaning device **1** at fastening points that are arranged close to each other. The support loop **2** is centrally arranged in the cross axis of the cleaning device **1** and in the longitudinal axis within the upper half of the cleaning device **1**. This arrangement is especially advantageous since it approximately corresponds to the proportions of an overlying hand with the middle finger led through holding loop **2**. In addition, the form of the cleaning device **1** is adapted ergonomically to the form of an overlying, guiding hand during the cleaning process.

[0019] A penetration opening **3** in the cleaning device **1** is between the two fastening points of the holding loop or in their immediate vicinity. The holding loop **2** can be led through the penetration opening in order to be able to use it on the one side or the other side of the cleaning device **1** in the same way for attaching to the hand.

[0020] **FIG. 2***a* shows a cleaning device **1** as defined by the invention formed as a cleaning rag in cross section view. The cleaning rag is produced from two differently formed textile layers of pile material, whereby the one layer **5** contains polyester microfibers of a high density of 200,000 per cm^2. The other textile layer **6** contains polyester microfibers in intermediate density (100,000 per cm^2) and has additionally brush fibers **7**. This abrasion side is thus suitable for mechanical/chemical pre-cleaning or the removal of stubborn stains, whereas the subsequent cleaning side **5** stands out because of its especially large soft surface that can be actively cleaned. This surface is suited for absorbing etched dirt and for subsequent polishing. The holding loop **2** consists of a very tear-resistant textile strap. The ends **8** of the textile strap that forms the holding loop **2** are joined between the two various layers **5**/**6** of the cleaning rag and are stably affixed to the edges **4** of the penetration opening **3** by multiple seams to the textile layers **5** and **6**. The holding loop **2** is sized in such a way that it has approximately a circumference of 8 cm and is thus suitable for the accommodating an average-sized middle finger. During the cleaning process, the abrasion side **6** should be used first for the pre-cleaning, whereby the holding loop **2** is guided first to the subsequent cleaning side **5** of the cleaning rag **1** in order to serve there for fastening to the hand. Subsequently, it can be simply guided through the penetration opening (see **FIG. 2***b*), so that the subsequent cleaning or polishing can occur with the subsequent cleaning side **5**.

[0021] In a similar embodiment, the cleaning device **1** as defined by the invention can be used as a washcloth for the body with variously formed cleaning sides, whereby in a practical way materials are used that are especially friendly to the body and to the skin. The use of the abrasion side thereby causes an advantageous peeling effect and the subsequent cleaning side is especially well suited for cleaning sensitive parts of the body.

1. A cleaning device (**1**) comprising a surface structure of cleaning material with at least one holding loop (**2**) arranged on part of the surface opposite the cleaning side. The loop is used for attachment of the hand or of parts of the hand, characterized in that the loop ends of the holding loop (**2**) are arranged in the region of the surface in close proximity to each other.

2. A cleaning device (**1**) according to claim 1, characterized in that both sides of the surface structure are formed as cleaning surfaces and a penetration opening (**3**) that penetrates through the surface structure and leads through the holding loop (**2**) is arranged between or immediately next to the loop ends of the holding loop (**2**).

3. A cleaning device (**1**) according to claim 1 or **2**, characterized in that the holding loop (**2**) is formed with adjustable sizes.

4. A cleaning device (**1**) according to one of the previous claims, characterized in that it is formed as a washcloth, cleaning rag or sponge.

5. A cleaning device (**1**) according to one of the previous claims, characterized in that the surface structure contains a textile structure.

6. A cleaning device (**1**) according to one of the claims **5**, characterized in that the textile structure contains pile material.

7. A cleaning device (**1**) according to one of the previous claims, characterized in that the surface structure is self-rigidly formed.

8. A cleaning device (**1**) according to claim 7, characterized in that the pile material contains microfibers.

9. A cleaning device (**1**) according to one of the previous claims 2 to 8, characterized in that the two cleaning sides of the surface structure are formed differently.

10. A cleaning device (**1**) according to one of the previous claims, characterized in that they are produced from two layers.

11. A cleaning device (**1**) according to one of the previous claims, characterized in that the holding loops (**2**) are produced from tear-resistant flexible material.

12. A body washcloth according to one of the claims 1 to 11.

13. A cleaning rag according to one of the claims 1 to 11.

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