

**(12) PATENT**  
**(19) AUSTRALIAN PATENT OFFICE**

**(11) Application No. AU 200142326 B2**  
**(10) Patent No. 774927**

(54) Title  
**Cleaning body consisting of special steel**

(51)<sup>7</sup> International Patent Classification(s)  
**A47K 007/00**

(21) Application No: **200142326**

(22) Application Date: **2000.12.28**

(87) WIPO No: **WO01/52711**

(30) Priority Data

(31) Number	(32) Date	(33) Country
<b>10001728</b>	<b>2000.01.17</b>	<b>DE</b>

(43) Publication Date : **2001.07.31**

(43) Publication Journal Date : **2001.10.11**

(44) Accepted Journal Date : **2004.07.15**

(71) Applicant(s)  
**Dirk Zielonka**

(72) Inventor(s)  
**Dirk Zielonka**

(74) Agent/Attorney  
**Callinan Lawrie, Private Bag 7, KEW VIC 3101**

(56) Related Art  
**BR 9200222**  
**DE 29812925**

(19) Weltorganisation für geistiges Eigentum  
Internationales Büro



(43) Internationales Veröffentlichungsdatum  
26. Juli 2001 (26.07.2001)

PCT

(10) Internationale Veröffentlichungsnummer  
WO 01/52711 A3

(51) Internationale Patentklassifikation<sup>7</sup>: A47K 7/00,  
E03D 9/00, A22B 3/08, B26B 3/06

(21) Internationales Aktenzeichen: PCT/EP00/13304

(22) Internationales Anmeldedatum:  
28. Dezember 2000 (28.12.2000)

(25) Einreichungssprache: Deutsch

(26) Veröffentlichungssprache: Deutsch

(30) Angaben zur Priorität:  
100 01 728.2 17. Januar 2000 (17.01.2000) DE

(71) Anmelder und

(72) Erfinder: ZIELONKA, Dirk [DE/DE]; Lobetalweg 4,  
33689 Bielefeld (DE).

(74) Anwalt: GESTHUYSEN, VON ROHR UND EGGERT;  
Postfach 10 13 54, 45013 Essen (DE).

(81) Bestimmungsstaaten (national): AE, AG, AL, AM, AT,  
AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU,

CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,  
HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,  
LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,  
MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,  
TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Bestimmungsstaaten (regional): ARIPO-Patent (GH,  
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW),  
eurasisches Patent (AM, AZ, BY, KG, KZ, MD, RU, TJ,  
TM), europäisches Patent (AT, BE, CH, CY, DE, DK,  
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR),  
OAPI-Patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML,  
MR, NE, SN, TD, TG).

Veröffentlicht:

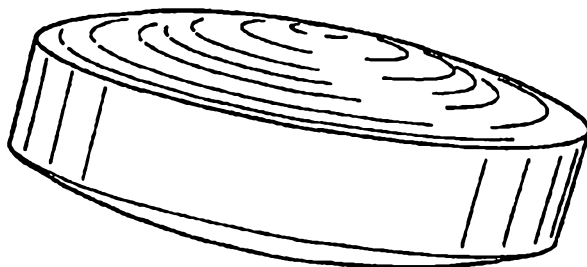
— mit internationalem Recherchenbericht

(88) Veröffentlichungsdatum des Internationalen  
Recherchenberichts: 20. Dezember 2001

Zur Erklärung der Zweibuchstaben-Codes und der anderen  
Abkürzungen wird auf die Erklärungen ("Guidance Notes on  
Codes and Abbreviations") am Anfang jeder regulären Ausgabe  
der PCT-Gazette verwiesen.

(54) Title: CLEANING BODY CONSISTING OF SPECIAL STEEL

(54) Bezeichnung: REINIGUNGSKÖRPER AUS EDELSTAHL



(57) Abstract: The invention relates to a cleaning  
body consisting of special steel, for cleaning human  
skin, especially under flowing water. Said cleaning  
body has at least one active cleaning area. According  
to the invention, said active cleaning area is formed by  
an accessible area of the surface of the cleaning body  
and said active cleaning area is ultimately machined  
down. This results in a cleaning body with particularly  
effective removal of odours.

(57) Zusammenfassung: Die Erfindung betrifft  
einen Reinigungskörper aus Edelstahl zum Reinigen  
der menschlichen Haut, insbesondere unter  
fließendem Wasser, mit wenigstens einem reinigungsaktiven Bereich. Eine besonders gute geruchsentfernende Wirkung des  
erfindungsgemässen Reinigungskörpers wird erzielt, indem der reinigungsaktive Bereich von einem zugänglichen Bereich der  
Oberfläche des Reinigungskörpers gebildet ist, wobei der reinigungsaktive Bereich abschliessend spanabhebend bearbeitet ist.

WO 01/52711 A3

## **Cleaning Body consisting of Special Steel**

The invention relates to a cleaning body made of high-grade steel for the cleaning of human skin, in particular under running water, with at least one cleaning-active area, which is formed by an accessible area of the surface of the cleaning body.

For hygienic and aesthetic reasons, all people regularly need to wash their hands. Especially after manual work, i.e. work on technical machines or work processing or preparing foodstuffs for example, visually detectable soiling of the hands often occurs, which is usually combined with a strong odour adhering to the hands. The visually detectable soiling of the hands is removed by washing the hands with a conventional soap and/or with a washing paste, if necessary with the additional aid of brushes. This sometimes leads to considerable irritation of the surface of the skin, especially when brushes are used. Despite this intensive treatment, which in some cases has a very irritating effect on the skin, it is often only possible, however, to wash off from the hands only the soiling that is visible with the eye. Something which cannot easily be removed and thus often remains, however, is unpleasant odours, which originate for example from lubricants and oils, e.g. gun oil, or certain foodstuffs, such as fish or garlic for example. It is also impossible to remove these odours with scented soaps without leaving residual traces, since the odours are masked by the scent of the soap merely for a certain, usually short, time.

The abovementioned problems of hands smelling unpleasantly do not however occur solely in the area of work or in the area of leisure, such as for example in the case of hunters and anglers, who handle gun oil and come into intensive contact with fish slime, but also in other quite everyday areas, such as for example among smokers, who often complain about their fingers smelling strongly of nicotine. A troublesome odour, even if not as unpleasant, can also be found for example on the hands of masseurs or hospital and nursing staff, who have to handle strong-smelling ointments and dressings and who wish to remove the odour concerned completely from their hands after they leave work.

Accordingly, it is the problem of the invention to provide the possibility of removing odours from the skin, in particular the hands, rapidly and free from residual traces in a low-cost manner and by simple means.

Proceeding from the cleaning body described at the outset, the cleaning body according to the invention, with which the problem derived and set out above is solved, is characterized in that the cleaning-active area is finally worked by metal-cutting. The term "finally worked by metal-cutting" is understood here to mean that, in the production of the cleaning body, its cleaning-active area undergoes working by metal-cutting, such as for example turning on a lathe, in the last, i.e. final, operating step in the working of the surface. There is no further operating step after this working by metal-cutting, and in particular the cleaning-active surface is not thereafter finished, especially not coated or polished.

The cleaning body according to the invention is used for the removal of odour from the hands in such a way that the latter, in the same way as conventional soap, is rubbed between the hands under running water for about 10 to 20 seconds.

Various high-grade steels can be used for the cleaning body according to the invention. Particularly good results with the removal of odour are however achieved with cleaning bodies made of high-grade steel with material number 1.4301 and in particular high-grade steel with material number 1.4571.

The surface of the cleaning-active area of the cleaning body according to the invention, having been finally worked by metal-cutting, can be obtained simply and with particularly good properties for odour removal if the cleaning body is produced from solid material. This then ensures that the material structure of the high-grade steel essentially exhibits its original state, which is the basis for the optimum removal of odour.

All sizes and shapes that can be handled well and easily are in principle conceivable for the cleaning bodies according to the invention, especially such sizes and shapes as are also used for conventional washing soaps. A preferred development of the cleaning body according to the invention, however, consists in the fact that the latter has the shape of a circular or an oval disc. If the cleaning body according to the invention has the shape of a circular disc, it is particularly preferable for a cone-shaped section to be provided on at least one flat side of the circular disc - particularly preferably on both flat sides of the circular disc. Such a cone-shaped section facilitates handling of the cleaning body according to the inven-

tion, since it is then particularly well adapted to the shape of the palm of the hand, as a result of which a particularly intensive and large-area skin contact is achieved. The larger and better the skin contact of the cleaning body according to the invention, the better its effect with the removal of odour. Accordingly, a particularly good effect of the cleaning body according to the invention is achieved when it is designed lens-shaped.

Especially when the cleaning body is designed in the shape of a disc or a lens, it has several edges. Such edges are not detrimental to the cleaning effect, i.e. the odour-removing effect of the cleaning body. However, the effect of such edges is that the cleaning body according to the invention feels unpleasant in the hand and in the worst case can even lead to small injuries to the hand. In this regard, a preferred development of the cleaning body according to the invention consists in the fact that the edges of the cleaning body are rounded off. Accordingly, the edges can also be gripped.

In principle, the cleaning body according to the invention can be composed of several parts. It is preferable, however, for the cleaning body according to the invention to be designed in one piece.

The greatest cleaning effect of the cleaning body is achieved when as large a cleaning-active area as possible is provided. According to an alternative development of the cleaning body according to the invention, however, provision is also made such that a coating, an inscription, a glaze or a plastic cover is provided on an area different from the cleaning-active area. In this way, the cleaning body according to the invention can be provided for example with a manufacturer's or product name, so that its marketing as a branded product is facilitated. A glaze or a coating can be provided on aesthetic grounds, and a plastic cover may be advantageous if the placing of the metal surface on a sensitive base could, as the case may be, cause damage to the latter.

According to a preferred development of the cleaning body according to the invention, provision is made such that the latter has at least one recess or drilled hole. Although the area in which the cleaning-active area can be provided is thus reduced, a weight-saving is on the other hand thus achieved. It is particularly preferable in this regard for the recess or the drilled hole to be provided outside the cleaning-active area.

In order that the cleaning body can be efficiently handled and a sufficiently great cleaning effect can be achieved with the latter, it is preferable according to the invention for the length dimension of the cleaning body to amount to at least 2 cm - preferably at least 4 cm. In this way, a sufficiently large and sufficiently long surface and thus a sufficiently long path is available to permit the hand to be rubbed over this surface, which is of course essential for the odour removal effect.

The invention further relates to a WC stone, in particular for odour-destroying or odour-reducing use in urinals.

The WC stone according to the invention is characterized in that it is produced from high-grade steel and has at least one active area which is formed from an accessible area of its surface, whereby the active area is finally worked by metal-cutting.

The odour-destroying or odour-reducing effect of the WC stone according to the invention is essentially based on the same principle as the effect of the cleaning body described above for the cleaning of human skin. Accordingly, the WC stone according to the invention is preferably produced from high-grade steel with material number 1.4571 or from high-grade steel with material number 1.4301. In this regard, it is also especially preferable for the WC stone to be produced from solid material.

In principle, the WC stone according to the invention can have similar shapes and sizes to the cleaning body according to the invention for the cleaning of human skin.

As with the cleaning body according to the invention for the cleaning of human skin, the WC stone according to the invention can also be composed of several parts, but preferably it is designed in one piece.

One of the main advantages of the WC stone according to the invention lies in the fact that it assumes precisely the same function as conventional WC stones made of soap, i.e. it has an odour-reducing or odour-destroying effect, but in contrast with the conventional WC stones made of soap it does not get used up.

In principle, the WC stone according to the invention has an arbitrarily long life, and therefore never has to be replaced.

The function of the WC stone according to the invention of having an odour-reducing or odour-destroying effect when it is contact with the ambient air and is rinsed round with water can also be employed in other areas of application. In particular, provision is in fact made according to the invention for the use of a high-grade steel body in contact with the ambient air and with water for the purpose of odour-cleaning of the ambient air, whereby the high-grade steel body has at least one cleaning-active area, which is formed by an accessible area of the surface of the high-grade steel body and is finally worked by metal-cutting.

The invention further relates to a fish cosh.

The fish cosh according to the invention is characterized in that it has a cleaning body as described above and a rod - preferably made of metal - is provided as a handle, which is screwed into a thread provided in the cleaning body. An extremely practical tool with a twofold function is thus made available to fishermen and anglers. The fish cosh according to the invention can on the one hand be used to stupefy or chop off caught fish, and on the other hand the fisherman or angler, with the aid of the cleaning body representing a component of the fish cosh, can easily, efficiently and permanently wash off the smell of fish adhering to his hands. To do this, it is not even necessary for the cleaning body to be unscrewed from the rod. In the unscrewed state, however, the cleaning body can also be used in the domestic kitchen, as a separate cleaning body.

The invention further relates to a knife, in particular an angler's or hunter's knife.

The knife according to the invention is characterized in that the handle of the knife is formed by a cleaning body as described above or such cleaning body is integrated into the handle of the knife. The knife according to the invention thus also represents, in the same way as the fish cosh according to the invention described above, an extremely practical tool for anglers or hunters for example, since a hunter, for example, who is carrying such a knife according to the invention with him, immediately has cleaning means available after gutting the game or after maintaining his weapon, with which means unpleasant odours can be efficiently and permanently washed off the hands. It goes without saying that, in

the case of the knife according to the invention, it is possible to diverge considerably from the shapes of the cleaning body that have been described above as particularly preferred developments.

In detail, there is a large number of options for configuring and developing the invention. In this regard, reference is made on the one hand to the claims subordinated to the independent claims and on the other hand to the following description of preferred examples of embodiment making reference to the drawing. The drawing shows the following:

- Fig. 1a        a cleaning body according to a preferred example of embodiment of the invention in a side view,
- Fig. 1b        the cleaning body according to the preferred example of embodiment of the invention in an oblique view from above and
- Fig. 2        a fish cosh according to a preferred example of embodiment of the invention.

A cleaning body according to a preferred example of embodiment of the invention can be seen in a side view in fig. 1. The cleaning body is turned from high-grade steel with material number 1.4571 from the solid. The cleaning body is lens-shaped and has a diameter of 49 mm. The thickness of the cleaning body at the outer edge amounts to 12 mm, and in the centre the thickness of the cleaning body amounts to 16 mm.

Since the cleaning body according to the preferred example of embodiment of the invention shown in fig. 1 is turned from a rod of solid material, the whole surface of the cleaning body is finally worked by metal-cutting. Furthermore, no recesses or drilled holes are provided in the cleaning body according to the first preferred example of embodiment of the invention, so that, whilst the cleaning body has a substantial weight, it can however be held comfortably and well and offers a large cleaning-active area.

A fish cosh according to a preferred example of embodiment of the invention is shown in fig 2. The fish cosh according to the preferred example of embodiment of the invention is formed by a previously described cleaning body 1, in the pe-



ripheral face of which a radial M6 threaded hole is provided, into which a metal rod 2 is screwed. The metal rod consists predominantly of brass and has a diameter of 8 mm and a length of 150 mm. Metals other than brass can of course also be used for rod 2. Cleaning body 1 screwed onto rod 2 is lens-shaped and has a diameter of 49 mm. Its thickness amounts to 12 mm in its thinnest area, i.e. at the edge, and 16 mm in its thickest area, i.e. in the middle. Other dimensions are however also conceivable which, as with conventional fishing coshes, are in particular also suited to the size of the expected fish.

On its end not screwed into cleaning body 1, rod 2 has a plastic ball 3. Plastic ball 3 is secured to rod 2 by the fact that an M6 thread is also provided in plastic ball 3, into which rod 2 is screwed. As can also be seen from fig. 2, a drilled hole 4 is also provided in plastic ball 3 at right angles to the longitudinal direction of rod 2, through which drilled hole a hand strap 5 is passed. When the fish cosh is being used, the latter can be placed around the wrist and thus prevents the fish cosh from being lost if it inadvertently slips out of the hand during use.

The claims defining the invention are as follows:

1. A cleaning body made of high-grade steel for the cleaning of human skin, in particular under running water, with at least one cleaning-active area, which is formed by an accessible area of the surface of the cleaning body, wherein the cleaning-active area is finally worked by metal-cutting.
2. The cleaning body according to claim 1, wherein the cleaning body is made of high-grade steel with material number 1.4571 or of high-grade steel with material number 1.4301.
3. The cleaning body according to claim 1 or claim 2, wherein the cleaning body is produced from solid material - in particular turned from the solid.
4. A WC stone, in particular for odour-destroying or odour-reducing use in urinals, wherein the WC stone is produced from high-grade steel and has at least one active area, which is formed by an accessible area of the surface of the WC stone, whereby the active area is finally worked by metal-cutting.
5. The WC stone according to claim 4, wherein the WC stone is made of high-grade steel with material number 1.4571 or of high-grade steel with material number 1.4301.
6. The WC stone according to claim 4 or claim 5, wherein the WC stone is produced from solid material - in particular turned from the solid.
7. A fish cosh with a cleaning body according to any one of claims 1 to 3, whereby a - preferably metallic - rod is provided as a handle, which is screwed into a thread provided in the cleaning body
8. A knife, in particular an angler's or hunter's knife, whereby the handle of the knife is formed by a cleaning body according to any one of claims 1 to 3 or such cleaning body is integrated into the handle of the knife.

9        The use of a cleaning body made of high-grade steel for the cleaning of human skin, in particular under running water, whereby the cleaning body has at least one cleaning-active area, which is formed by an accessible area of the surface of the cleaning body and is finally worked by metal-cutting.

5

10.     The use of a high-grade steel body as a WC stone, whereby the high-grade steel body has at least one cleaning-active area, which is formed by an accessible area of the surface of the cleaning body and is finally worked by metal-cutting.

10     11.     The use of a high-grade steel body in contact with the ambient air as well as with water for the purpose of odour-cleaning of the ambient air, whereby the high-grade steel body has at least one cleaning-active area, which is formed by an accessible area of the surface of the cleaning body and is finally worked by metal-cutting.

15

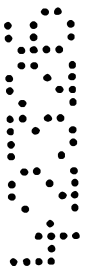
Dated this 7<sup>th</sup> day of May, 2004

**DIRK ZIELONKA**

By his Patent Attorneys:

CALLINAN LAWRIE

20



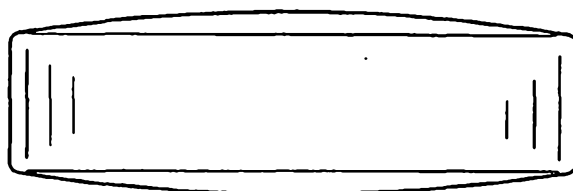


Fig. 1a

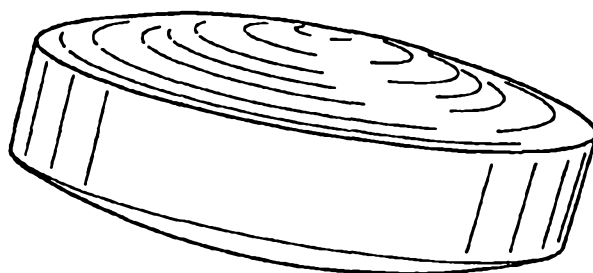


Fig. 1b

