

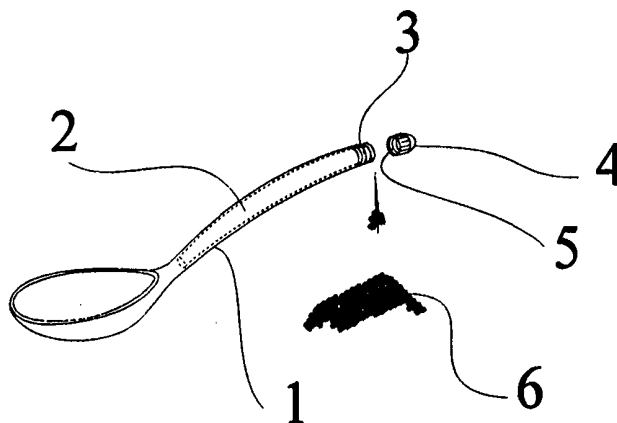
## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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| <b>(51) International Patent Classification <sup>6</sup> :</b><br><br><b>A47G 21/04</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>A1</b> | <b>(11) International Publication Number:</b> <b>WO 99/44482</b><br><br><b>(43) International Publication Date:</b> 10 September 1999 (10.09.99)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>(21) International Application Number:</b> PCT/IT99/00049<br><br><b>(22) International Filing Date:</b> 25 February 1999 (25.02.99)<br><br><b>(30) Priority Data:</b><br>PI98A000020      2 March 1998 (02.03.98)      IT<br><br><b>(71)(72) Applicants and Inventors:</b> DE BELLIS, Domenico [IT/IT]; Via Mastro Rocco, 57, I-70021 Acquaviva delle Fonti (IT). DE BELLIS, Francesco [IT/IT]; Via Mastro Rocco, 57, I-70021 Acquaviva delle Fonti (IT).<br><br><b>(74) Agent:</b> TURINI, Laura; Via Castello, 50, I-56030 S. Pietro Belvedere (IT). |           | <b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).<br><br><b>Published</b><br><i>With international search report.<br/>         Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> |

**(54) Title:** TEASPOON WITH A CONTAINER FOR SWEETENER OR OTHER SUBSTANCE INCORPORATED OR ATTACHED

**(57) Abstract**

The invention relates to a teaspoon equipped with a container (2) on its handle (1), inside which sugar, milk or other substances are located. In this way the user, just by taking the teaspoon, takes always and simultaneously the measure of sugar or other substance he wants to add to the drink as well. It affords the advantage of reducing the bulk in public places and allowing the user to have at his disposal, by means of only one instrument, both the teaspoon and the sugar. It affords advantages from a hygienic point of view too, since it is sold in throwaway sealed packaging.



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### DESCRIPTION

"TEASPOON WITH A CONTAINER FOR SWEETENER OR OTHER SUBSTANCE  
INCORPORATED OR ATTACHED"

#### Technical Field

5 The present invention relates to the technical sector of the  
production of cutlery and particularly of spoons and  
teaspoons.

Conveniently the invention is fit to be utilized in public  
places and relates specifically to the technical sector of the  
10 production of cutlery particularly for coffee bars,  
restaurants, hotels and other places open to the public.

It consists of a teaspoon for tea, coffee, milk or other  
drinks, which has three purposes: to contain, also measure  
out, dissolve and stir the sweetener, or other substance, in  
15 the drink, by means of a container incorporated or attached on  
its handle.

#### Background Art

Traditional steel or plastic spoons are well known to  
technicians of this field; by means of these spoons, we take  
20 the sugar, or another sweetener, from a proper container and  
then we pour and dissolve it in the beverage.

Such an operation turns to be very difficult especially in  
very crowded coffee bars when it's impossible to reach the  
counter in order to take the sweetener, the milk or other  
25 substances we want to add in our drink, either tea, coffee or  
something else.

In order to allow anyone to enjoy, in a hygienic way, the  
substances to add to the drink, small prepacked bags

containing the substance (sugar, milk or other) were realized;  
the user has only to take and pour them in the beverage.

This solution however doesn't solve the problem of the bulk,  
since the user must hold in his hands many objects in order to  
5 enjoy the drink, operation often not easy.

Another technical problem concerns the hygiene, as inevitably  
the teaspoon, and often even the substance, comes into contact  
with the external environment and this involves the risk of  
contamination and spreading of germs and bacteria.

10 The principal aim of this invention is to eliminate the above  
mentioned inconveniences and provide a teaspoon which contains  
the sweetener for the drink, or other substance, in it. It  
would be better sold in a sealed packaging, so that the user  
may take, open and use it, both to measure out the sweetener  
15 he desires and to stir it, without any risk of external  
contact and without using any other accessory.

The proposed solution is perfectly suitable for drinks  
dispensers too, since the teaspoon, with the sweetener  
measure, completely sealed, may be supplied together with the  
20 beverage so that the user may use it according to his tastes.

We must underline that, in the performing description, we'll  
often refer to coffee and sweetener, for mere simplicity, but  
the specific teaspoon can be used for any kind of drink and  
can contain in it any substance we wish to add to the  
25 beverage.

#### Disclosure of invention

These are the essential advantages the present invention  
affords: the user can measure out and dissolve conveniently

and rapidly the sweetener in the drink; he can enjoy the drink in limited rooms as well, because he must carry out few operations, as the sugar is contained in the spoon by means of which we dissolve the sweetener in the beverage; he avoids the dangerous spreading of germs and bacteria, since the spoon is ideally used only once; the bulk is reduced both in coffee bars and drinks dispensers, since it is sufficient to have a single container with these specific teaspoons rather than two distinct containers, one for the teaspoons and another for the sugar; it is functional and cheap; it may be also used to show trademarks or sponsorships, since it has a larger handle in order to embody the container.

Reduced to the essential structure and referring to the figures of the attached drawings, a teaspoon for tea, coffee, milk or other drinks, equipped with a container for sweetener or other substances, in accordance with the invention, comprises:

- means to contain the sweetener or other substances such as milk, liquor or others, by an accommodation (2) inside the teaspoon handle or attached on it;
- means to close such accommodation containing the sweetener or other substance, by a stopper (4), a yank joint closure (16), a plastic or aluminium film (9), or other appropriate means;
- means to open the accommodation (2) and make the substance contained in it come out, by a stopper (4), a yank closure (16), a film (9) or other means able to keep the duct close as well as able to open it backwards, or by means other

than closing elements which allow the substance contained in the duct come out anyway.

Advantageously, the accommodation (4) containing the sweetener or other substance is located on the teaspoon handle (1) and  
5 may take any conformation, either cylindrical (Fig. 1, Fig. 2, Fig. 5) or like a "tray" (Fig. 3) or others, changing the shape according to aesthetic features and to the kind of opening we want to use for any specific model.

Advantageously, the container of the sweetener or other  
10 substance may be incorporated or attached on the teaspoon.

Advantageously, the teaspoon may be either a traditional one (Fig. 1) or a "stick" one (Fig. 2) or others, whatever material it is constituted of (metal, plastics, etc.) and with the possibility of changing its dimensions.

15 Advantageously, the teaspoon is realized in plastics, "throwaway" kind, by printing or thermoforming or other qualified system.

Advantageously, the container (2) may provide for various means of opening and closure for putting in and out the  
20 substance that it contains, either reversible and reusable means or throwaway means.

Advantageously, in a practical, but not restrictive, example (Fig. 1), the container is closed by means of a stopper (4) to screw on the teaspoon handle thanks to a thread at the end of  
25 the handle and one inside the stopper. In this case the duct results perfectly sealed and this solution is particularly suitable for containing liquid substances such as milk for white coffees, liquor to lace coffees or the like.

Advantageously, in a further practical, but not restrictive, example (Fig. 3), the container take a tray shape (8) and is perfectly sealed by means of a thin aluminium or plastic film or the like, which sticks on the container borders. When we want to take the measure of sweetener or other substance contained in the handle, we have only to pull the proper tab (10) to lift the film. This is an excellent solution for the realization of throwaway teaspoons, since it is a very practical solution, easy to develop.

Advantageously, in a further practical, but not restrictive, example (Fig. 4), the handle (11) is close in its body and at the top, but presents, near the teaspoon hollow, an opening (13) which is inserted in the teaspoon duct (14), so that the user may either remove the element (17) and pour the contents in the drink, or press slightly the handle (11) to push the substance down, so that the film breaks (14) and the substance comes out in the teaspoon hollow and then in the drink.

Advantageously, in a further practical, but not restrictive, example (Fig. 5), the closure is realized by means of an element (16) joint to the handle through a slight yank film (15); by pulling it, the joint between stopper (16) and handle (1) breaks so that the substance contained in the accommodation (2) comes out.

Advantageously, other types of closure may be considered and change according to the kind of teaspoon, as the type of opening is not bound to a specific shape of teaspoon and vice versa.

Advantageously, the container and/or the handle may be equipped with measure systems for the sweetener or other substance they contain.

Advantageously, the teaspoon is realized in throwaway plastics and distributed in throwaway sealed hygienic packaging in order to avoid external contacts till the final user opens it.

Brief description of drawings

- Fig. 1 represents the frontal view of the designed spoon.  
We can see the accommodation (2) located inside the teaspoon handle (1) where the sweetener (6) for the drink is inserted. The accommodation (2) is closed by the stopper (4) which, thanks to the inside thread (5), is screwed on the end of the handle (1) where another thread (3) is present. The spoon, containing a measure of sugar (6), results in this way well sealed by the stopper (4) and easy to use. As a matter of fact the user has only to screw off the stopper (4) from the handle (1) with a slight force and then make the sweetener (6) come out in order to put it in the drink. Furthermore, in this practical example, the duct (2) results perfectly sealed and may be also used for containing substances other than sugar, such as milk for white coffees, liquor to lace coffees or the like.
- Fig. 2 represents the frontal view of a stick teaspoon. In fact, as the drawing shows, the designed spoon may even take the form of a simple shovel with a handle (7) inside which a duct (2) fit to contain the sweetener (6) for the drink is located. The duct (2) is well sealed thanks to the stopper (4) perfectly screwed on the end of the handle (7)

by means of two threads (3) (5), one on the handle and one inside the stopper. This specific spoon may be particularly useful in places in which there are passing clients, as well as for drinks dispensers; in these cases, the aesthetic features of the product are not important, while  
5 convenience and manoeuvrability are essential.

- Fig. 3 represents the frontal view of another kind of spoon fit to contain the sweetener. The drawing shows the particular hollow shape of the teaspoon handle (8) where  
10 sugar (6) is inserted. The handle (8) is covered by a thin plastic film or the like (9) perfectly stuck on the borders of the handle; we can observe that a tab (10) at the end of the handle allows the user to lift the plastic film (9) from the handle (8) in order to be able to use the  
15 sweetener (6) present inside it. The film material can resist possible bumps and simultaneously make the spoon easy to use; as a matter of fact, in this case, the user has only to pull the tab with a slight force in order to lift the film from the handle borders.

. 20 - Fig. 4 represents the view of another practical solution of the invention. In this case, the teaspoon presents a handle (11) inside which an accommodation (12) fit to contain the sweetener is located. The duct is close at the end of the handle, while a small opening (13) is present on the  
25 opposite part where the handle thin to get perfectly stuck in the hollow (17) of the spoon which presents a circular shape (14) to join the handle. The user, in order to utilize the sweetener inside the spoon, must keep the

hollow part with a hand and take off the handle with the other. At this point he can pour the sugar inside the handle in the drink, then join the two parts of the spoon in order to dissolve the sweetener, otherwise he can press  
5 a little on the supple handle so that the duct (14) breaks and the sweetener comes out directly in the hollow of the teaspoon.

- Fig. 5 represents the frontal view of a spoon with a different kind of opening. We can observe the teaspoon  
10 handle (1) inside which a duct (2) for containing the sweetener is located; such duct is sealed by the stopper (16) joint at the top of the handle (1) through a thin plastic support or the like (15). The user, in order to be able to utilize this type of spoon and make use of the  
15 sweetener inside it, must remove the stopper by pulling the thin plastic or paper film (15); at this point he will command the desired measure of sugar to pour in the coffee.

- Fig. 6 represents the frontal view of the handle of the spoon we have just described. Such handle (1) has a duct  
20 (2) inside it, which contains sweetener (6) for drinks. The drawing shows how we can use the sugar (6) inside the duct (2) by removing the stopper (16) which closes it.

Practically, details of construction may alter however, in equivalent way, in shape, dimensions, arrangement of the  
25 elements, nature of the materials employed, without going beyond the scope of the idea of solution we have adopted; they must indeed come under the limits of protection agreed by the present patent for industrial invention.

## CLAIMS

- 1) Spoon or teaspoon for tea, coffee, milk or other drinks characterized in that it comprises:
- means to contain sweetener or other substances such as milk, liquor or others, by a compartment (2) located inside the teaspoon handle or attached on it;
  - means to close perfectly the compartment (2) containing the sweetener or other substance, by a stopper (4), a yank joint closure (16), a plastic or aluminium film (9) or the like, or other appropriate means;
  - means to open the compartment and make the substance contained in it come out, by a stopper (4), a yank closure (16), a film (9) or other means able to keep the compartment close as well as able to open it backwards, or by means other than closing elements which allow the substance contained in the compartment come out anyway;
- 2) Teaspoon according to claim 1, characterized in that the compartment (2) containing the sweetener or other substance is located on the body of the teaspoon handle (1) and may take any conformation either cylindrical or like a "tray" or others, changing the shape according to aesthetic features and to the kind of opening we want to use for any specific model;
- 3) Teaspoon according to claim 1, characterized in that it may be either a traditional one or a "stick" one or others, whatever material it is constituted of (metal, plastics, etc.) and with the possibility of changing its dimensions;

- 4) Teaspoon according to claim 1, characterized in that it is realized in plastics, "throwaway" kind, by printing or thermoforming or other qualified system, and distributed in sealed hygienic packaging;
- 5) Teaspoon according to claim 1, characterized in that the container and/or the handle may be equipped with measure systems for the sweetener or other substance they contain;
- 6) Teaspoon according to claim 1, characterized in that the container is closed by means of a stopper (4) to screw on the teaspoon handle thanks to a thread at the end of the handle and one inside the stopper. In this case the compartment (2) results perfectly sealed and this solution is particularly suitable for containing liquid substances such as milk for white coffees, liquor to lace coffees or the like;
- 7) Teaspoon according to claim 1, characterized in that the container take a tray shape (8) and is perfectly sealed by means of a thin aluminium or plastic film or the like, which sticks on the container borders. When we want to take the measure of sweetener or other substance contained in the handle, we have only to pull the proper tab (10) to lift the film (9);
- 8) Teaspoon according to claim 1, characterized in that the handle (11) presents near the teaspoon hollow, a hole (13) which is inserted in the duct (14) reaching the hollow (17) itself, so that the user may either separate the hollow part (17) and the handle (11) and pour the contents in the drink, or press slightly the handle (11) to push the

substance down so that the film breaks (14) and the substance comes out in the teaspoon body and then in the drink;

- 9) Teaspoon according to claim 1, characterized in that the  
5 handle (11) is not stiff but supple;
- 10) Teaspoon according to claim 1, characterized in that the closure is realized by means of an element (16) joint to the handle through a slight yank film (15); by pulling it, the joint between stopper (16) and handle (1) breaks so  
10 that the substance contained in the duct (2) comes out.

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Fig. 1

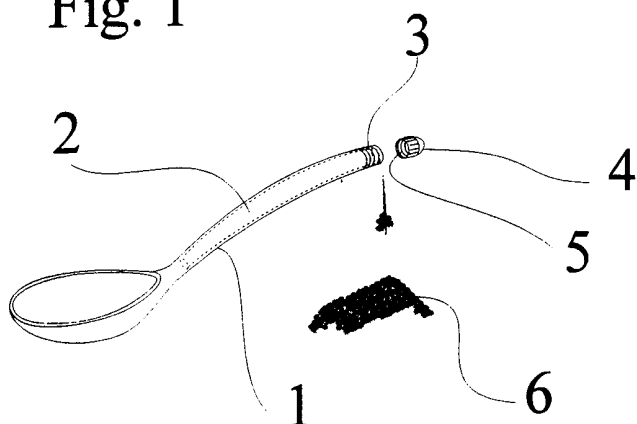


Fig. 2

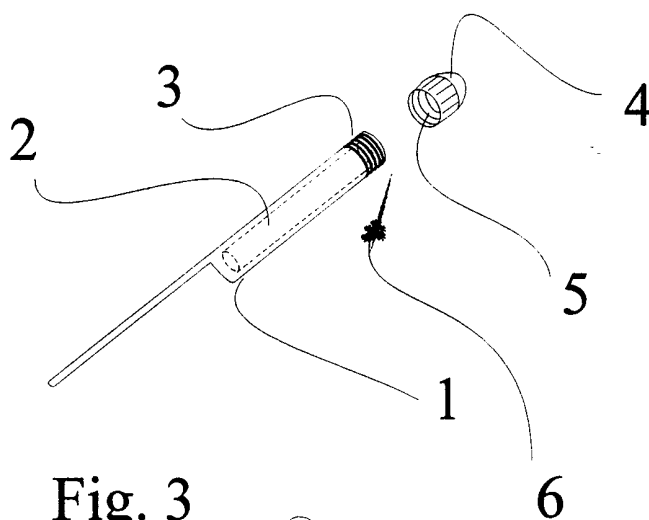
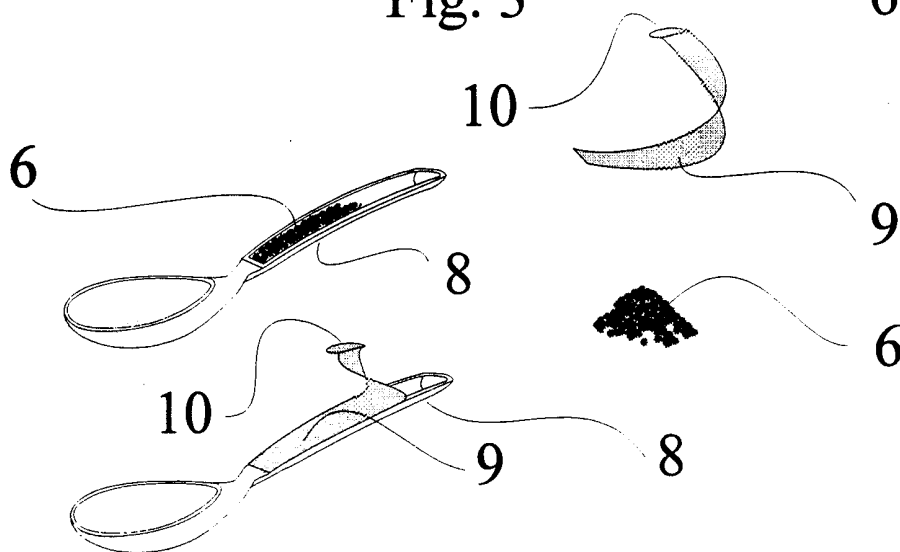


Fig. 3



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Fig.4

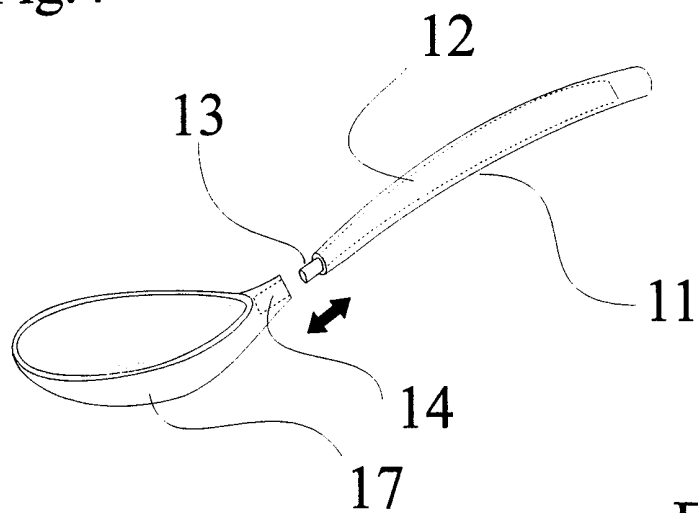


Fig. 5

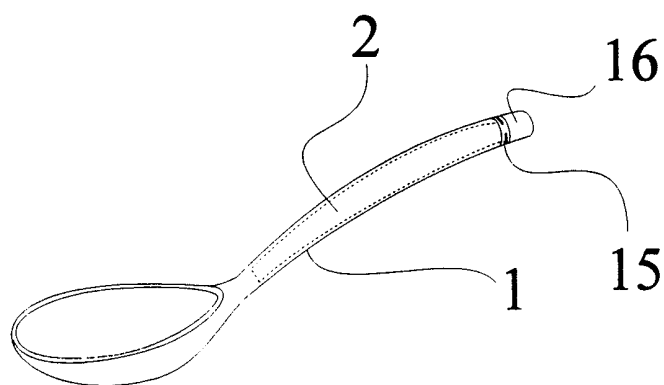
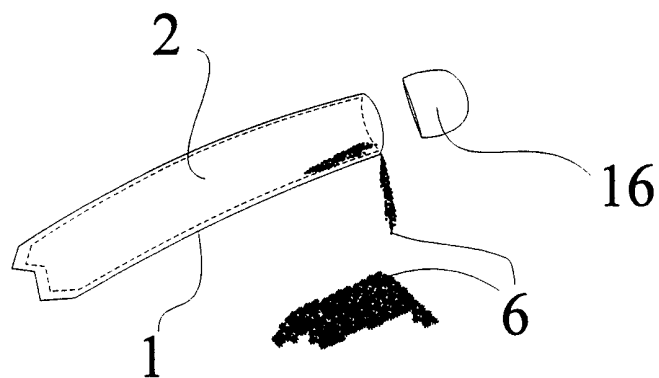


Fig. 6



# INTERNATIONAL SEARCH REPORT

International Application No

PCT/IT 99/00049

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 A47G21/04

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 6 A47G A61J

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

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## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category ° | Citation of document, with indication, where appropriate, of the relevant passages                                                        | Relevant to claim No. |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| X          | US 4 888 188 A (CASTNER JR JOHN F ET AL)<br>19 December 1989 (1989-12-19)<br>column 2, line 57 - column 3, line 40;<br>figures 1-6<br>--- | 1-5,8-10              |
| X          | FR 2 622 424 A (RAMBIN CHRISTIAN)<br>5 May 1989 (1989-05-05)<br>page 3, line 18 - page 5, line 9; figures<br>---                          | 1-5,7                 |
| X          | DE 35 03 167 A (WENK KARL HEINZ)<br>7 August 1986 (1986-08-07)<br>page 6, last paragraph - page 8, last<br>paragraph; figures<br>---      | 1-3,5,8,<br>9         |
| X          | CH 573 848 A (LEPPER WILHELM)<br>31 March 1976 (1976-03-31)<br>page 1, column 1, line 45 - page 1,<br>column 2, line 47; figures<br>---   | 1-3,5,6,<br>10        |
|            | -/--                                                                                                                                      |                       |



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26 July 1999

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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|------------|---------------------------------------------------------------------------------------------------------|-----------------------|
| X          | BE 1 008 054 A (PIERRET JOHAN ;PIERRET KAREL) 3 January 1996 (1996-01-03)<br>the whole document<br>---- | 1-3,5,7               |
| A          | GB 2 295 076 A (LIM HYUN)<br>22 May 1996 (1996-05-22)<br>page 2, paragraph 2; figures<br>-----          | 5                     |

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
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| US 4888188 A                              | 19-12-1989          | NONE                       |                     |
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