(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 1 967 280 A1

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
10.09.2008 Bulletin 2008/37

(51) Int Cl.:
B05B 7/24 *(2006.01)* ***E03C 1/046*** *(2006.01)*

(21) Application number: **08003293.1**

(22) Date of filing: **22.02.2008**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR
Designated Extension States:
AL BA MK RS

(30) Priority: **05.03.2007 GB 0715609**
05.03.2007 GB 0704400

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(54) Atomising mixing unit

(57) The Atomising Mixing Unit adds the contents of a container of an admixture to the flow of shower water or bath and hand wash supplies for a specific application.

The Atomising Mixing Unit (1) is attached to the outlet of a shower unit or mixer shower by screwing the female cone gland (2) onto that outlet. Then a shower hose can be attached to the male gland (3). The container of an admixture (6) (seen in Figure 3) can be attached by screwing (7) into the Atomising Mixing Unit (1), at (5). Turning the selector wheel (4) can regulate the amount of admixture used.

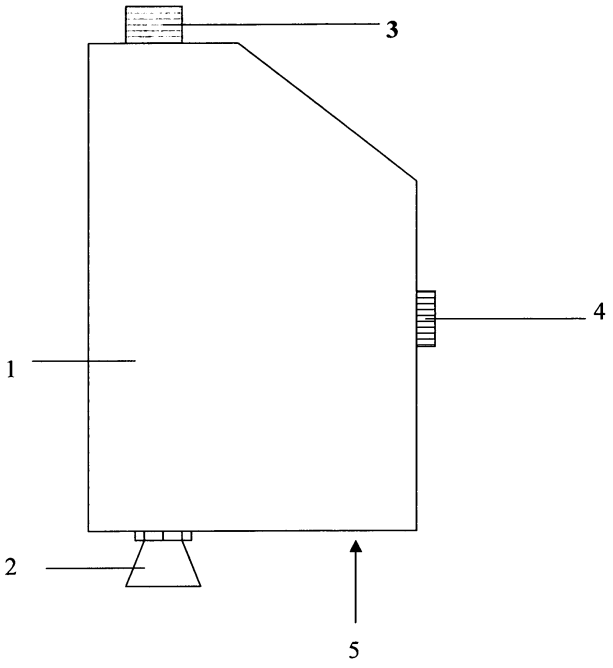

Figure 2

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Description

Background

[0001] The Atomising Mixing Unit is an application tool that admixes a substance to shower water and other water supplies to assist with many different application scenarios.

[0002] The Atomising Mixing Unit is a device that adds a substance/additive to shower water for freshening up purposes and hygiene and medical purposes. The general public in households and all other establishments such as the workplace, hotels, leisure centres, and all who wish to use it can.

[0003] Another use for the Atomising Mixing Unit will be to render a substance admixed with shower water for animal houses or bath and hand wash supplies in hospitals, clinics and doctors' surgeries etc.

[0004] The Atomising Mixing Unit can be fitted to toilet cisterns to admix a substance to the cistern water that is used for flushing.

Statement of invention

[0005] An Atomising Mixing Unit is a unit, allowing a user controlled amount of an admixture such as a supply of fragrance, detergent, soap or the like to be added to a water flow of a shower unit, toilet cistern, or tap, comprises a valve through, which the water flow passes a venturi so as to cause the ingress of air, and admixture from the connected independent admixture supply, into the water flow, thereby producing at the valve exit, an atomised mixture of the admixture, air and water.

[0006] Water flows through a venturi in the Atomising Mixing Unit and as it passes through, it induces the admixture and air into the water flow to render an atomised application of the mixture out of a showerhead, bath taps or hand wash taps.

[0007] The Atomising Mixing Unit can be attached to any shower unit or mixer shower or even built into the design of shower units or mixer showers. The contents of the bottle that is attached to the Atomising Mixing Unit will be drawn into the flow of shower water. The device draws any admixture of the user's choice instantly into the flow of shower water thus rendering the desired application to the user.

[0008] The Atomising Mixing Unit offers a solution for the user who wants to freshen up in his or her shower without having to apply soap or shower gel. The Atomising Mixing Unit renders a fragrant shower experience, thus the user is left feeling revitalised and fragrant. Moreover, this device offers the user a quick and instant fragrance to his or her shower when they need to just freshen up.

[0009] Consequently, the user does not have to apply soap or gel unnecessarily to attain a fragrance instead; a fragrance is rendered instantly out of the user's showerhead for freshening up purposes.

[0010] On the other hand, liquid soap can be admixed to shower water, hand and bath water supplies to ready mix for washing or bathing purposes, especially with elderly people making it easier for them to clean or for nurses or carers who have to wash elderly people or people of disability.

[0011] With this Atomising Mixing Unit being able to add an admixture to bath and hand wash supplies, especially in hospitals and clinics, it would be a useful tool for hygienic purposes and the like. All patients, visitors and staff could wash hands with the an accurate amount of detergent mixed by the Atomising Mixing Unit, which would also be useful in clean rooms, laboratories and animal houses.

[0012] The Atomising Mixing Unit can help with the application of many admixtures to shower water or hand and bath water supplies used for medical purposes such as skin complaints where patients / consumers cannot apply in hard to reach places.

Advantages

[0013] The Atomising Mixing Unit renders admixtures for many different applications. Its versatility and easy fitting could make the Atomising Mixing Unit a permanent fixture in everyday life, which would become a way of life to all users. The Atomising Mixing Unit is a tool that can give all users in all establishments a way of applying any admixture of their choosing which shows how useful and versatile it will be to the user offering an instant service to the user.

Introduction to drawings

[0014] Drawings of the Atomising Mixing Unit and the bottle of admixture are shown on the following pages, which are on pages 5, 6 and 7

[0015] Figure 1 on page 5 shows a front view of the Atomising Mixing Unit.

[0016] Figure 2 on page 6 shows a side view of the Atomising Mixing Unit.

[0017] Figure 3 on page 7 shows a view of the bottle that will hold the admixture.

[0018] The Atomising Mixing Unit 1 is attached to the outlet of a shower unit or mixer shower by screwing the female cone gland 2 onto that outlet. Then a shower hose can be attached to the male gland 3.The container admixture 6 can be attached to the Atomising Mixing Unit 1 by screwing the threaded neck of the bottle 7 into the body of the rejuvenator 5.Once any user turns on his or her shower, the Atomising Mixing Unit will introduce the admixture into the flow of shower water. Turning the selector wheel 4 to various different settings can regulate and meter the desired or required amount of admixture to the shower water and rendered out of the showerhead.

[0019] The shower is turned on resulting in the desired mixture rendered out of the showerhead to the user, to freshen up, revitalise and cleanse the user or another

admixture with the water for a required application.

[0020] NB: The Atomising Mixing Unit will have to be fitted by a qualified plumber to the hand and bath water supplies and water supply for toilet cisterns. (For hand and bath water, Rejuvenator could be manufactured with mixer tap attached).

Claims

1. An Atomising Mixing Unit is a unit, allowing a user controlled amount of an admixture such as a supply of fragrance, detergent, soap or the like to be added to a water flow of a shower unit, toilet cistern, or tap, comprises a valve through, which the water flow passes a venturi so as to cause the ingress of air, and admixture from the connected independent admixture supply, into the water flow, thereby producing at the valve exit, an atomised mixture of the admixture, air and water.

2. An Atomising Mixing Unit, as defined by claim 1, whereby the admixture that is contained within a separate container can be attached to the Atomising Mixing Unit by either screw-in, push-in or push and snap-in means.

3. An Atomising Mixing Unit, as defined in all preceding claims, may also include at least one manifold to allow for high volume use and used also to provide any user with a variety of different admixtures to be selected and utilised as desired by the user.

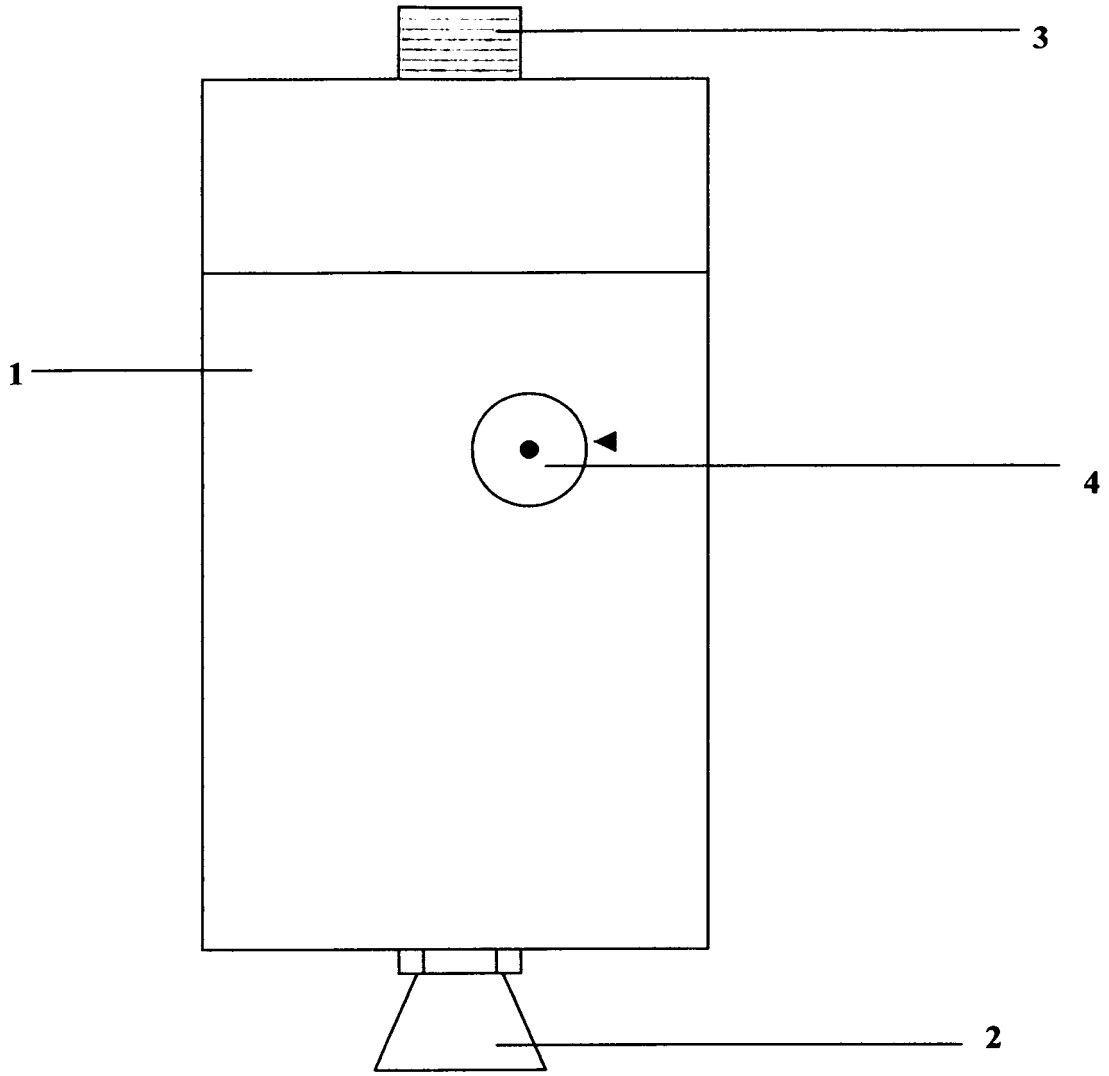

Figure 1

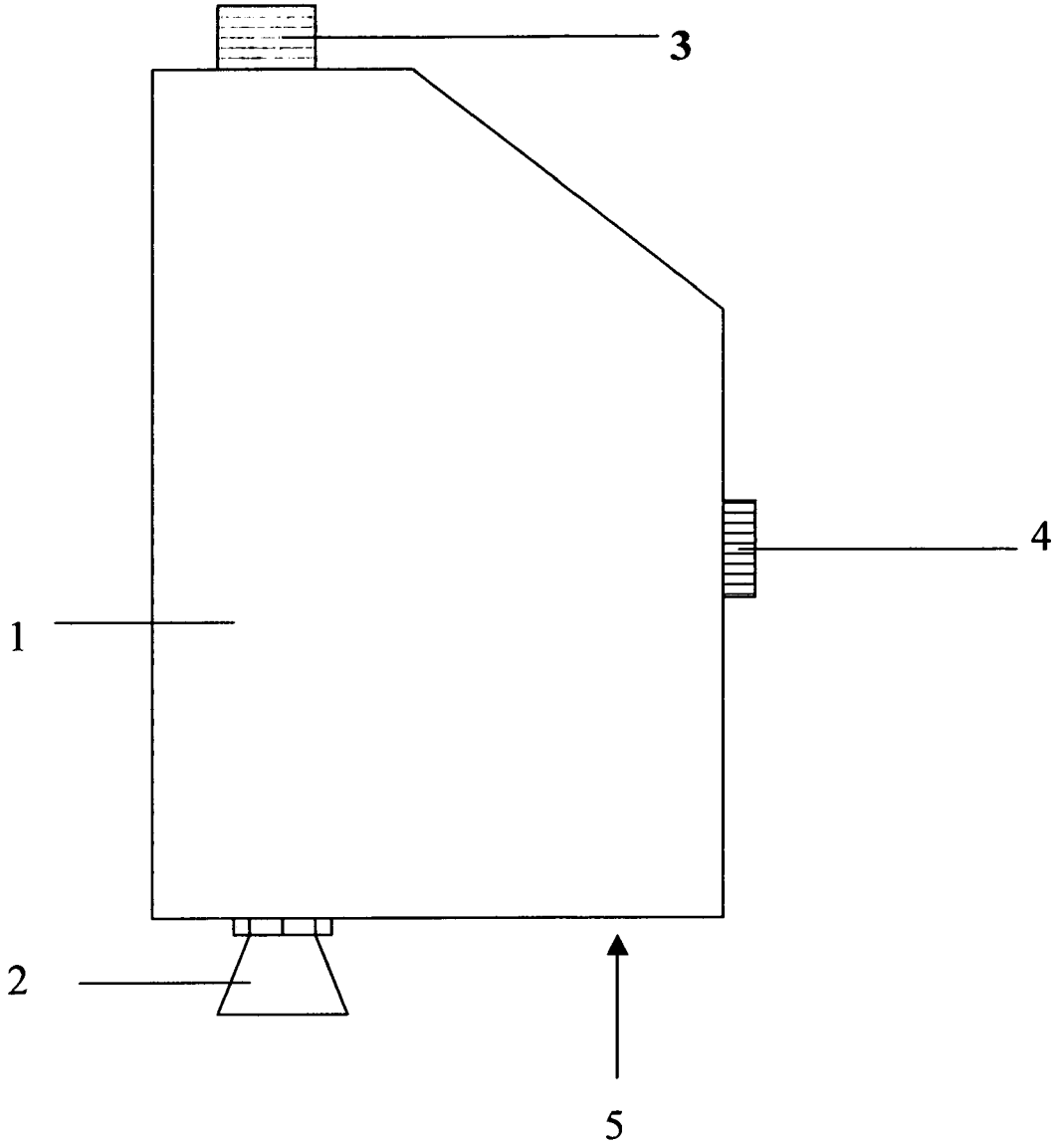

Figure 2

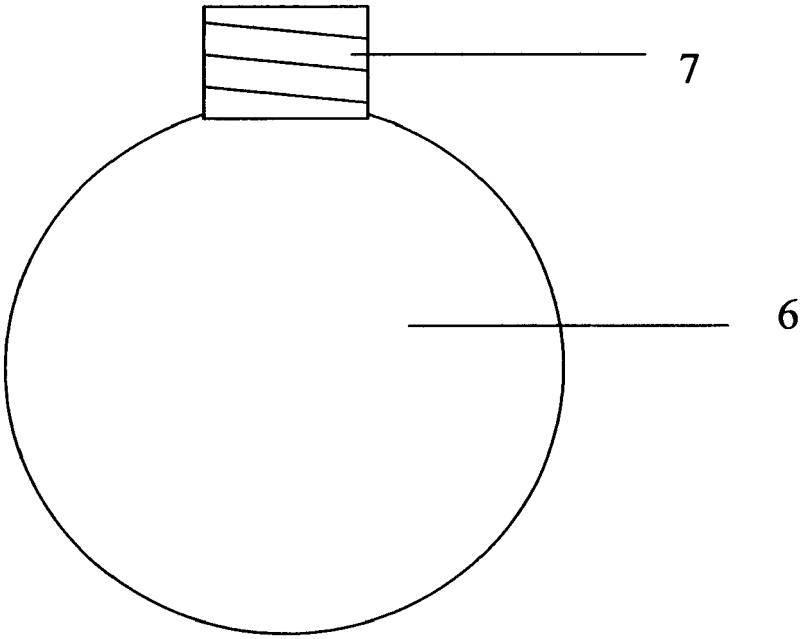

Figure 3

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 08 00 3293

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 5 356 076 A (BISHOP ROBERT A [US]) 18 October 1994 (1994-10-18) * column 4, line 7 - column 7, line 48; figures 1,2,4a,5a *	1,2	INV. B05B7/24 E03C1/046
X	US 4 218 013 A (DAVISON CHARLES A [US]) 19 August 1980 (1980-08-19) * column 3, line 23 - column 5, line 3; figures 1,3,4 *	1,3	
X	US 4 623 095 A (PRONK FRANK E [CA]) 18 November 1986 (1986-11-18) * column 5, line 30 - column 8, line 43; figures 1,2,5 *	1,2	
P,A	US 2007/210185 A1 (PAOLUCCIO JOHN J [US]) 13 September 2007 (2007-09-13) * paragraphs [0059], [0059], [0089], [0090]; figure 1 *	1-3	

TECHNICAL FIELDS SEARCHED (IPC)
B05B
E03C

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	9 June 2008	Gineste, Bertrand

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 08 00 3293

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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09-06-2008

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US 4218013 A	19-08-1980	NONE	
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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82