

(12) STANDARD PATENT
(19) AUSTRALIAN PATENT OFFICE

(11) Application No. **AU 2011253740 B2**

(54) Title
A cleaning device

(51) International Patent Classification(s)
B26B 21/40 (2006.01)

(21) Application No: **2011253740**

(22) Date of Filing: **2011.11.17**

(43) Publication Date: **2013.06.06**

(43) Publication Journal Date: **2013.06.06**

(44) Accepted Journal Date: **2017.02.23**

(71) Applicant(s)
Luke O'Neill

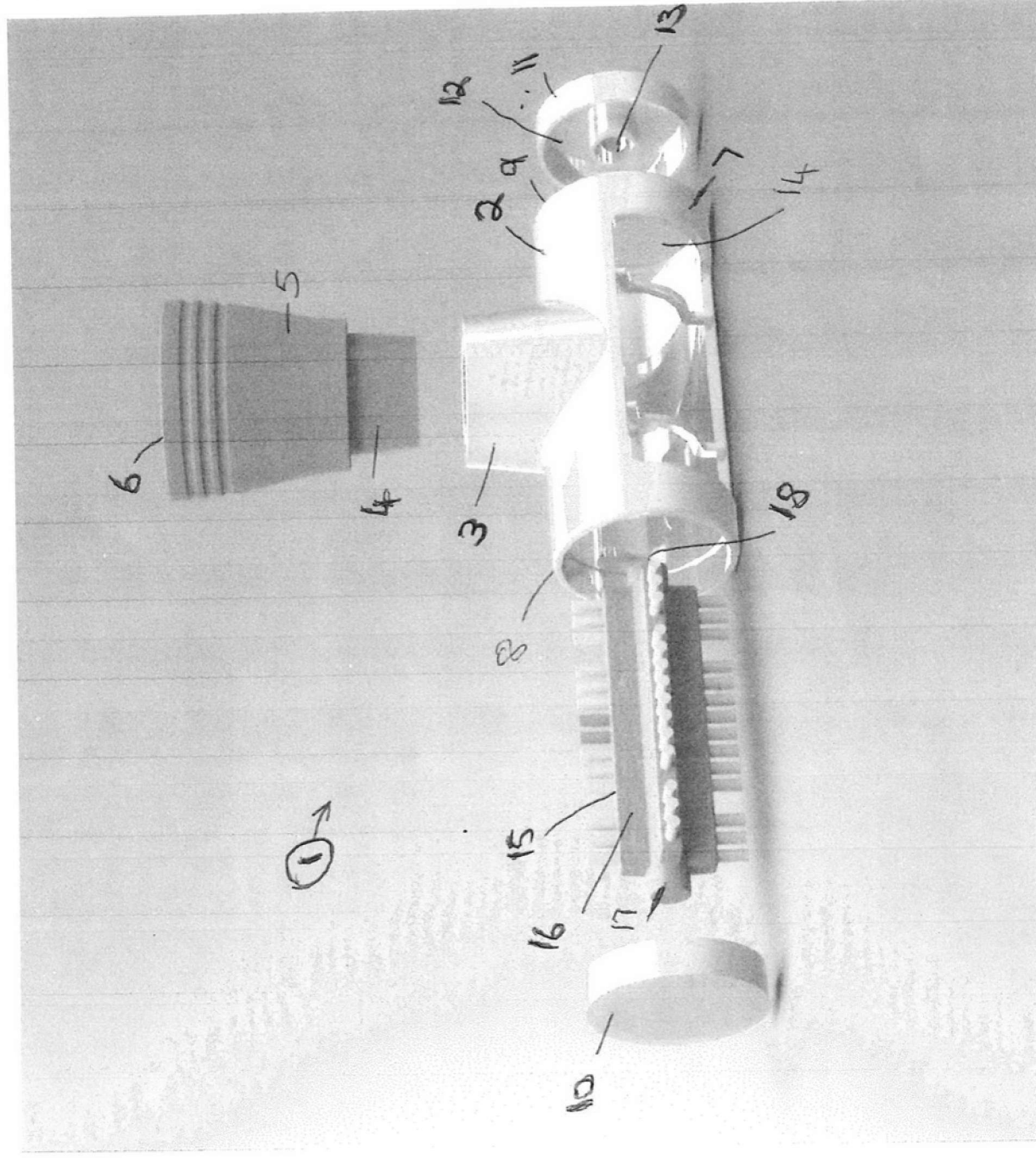
(72) Inventor(s)
O'Neill, Luke

(74) Agent / Attorney
Griffith Hack, GPO BOX 3125, Brisbane, QLD, 4001, AU

(56) Related Art
US 4838949 A
US 4928675 A
DE 3125940 A1

ABSTRACT

A cleaning device (1) for a safety razor having single or multiple parallel blades is disclosed. A hollow connector (5) is affixed to a water tap of a bathroom sink allowing water to flow therethrough into a body (2) depending from the connector (5), rotating a brush (15) held in the body (2) and exiting through a slot (14) in the body (2). The shaving head of the razor is positioned within the slot (14) such that the blades within the head are embedded within the bristles of the brush (15). As the brush (15) rotates, its bristles remove shaving debris from between the blades and immediate surrounds. After use, the device (1) can easily be disassembled to facilitate cleaning of all components thereof



A CLEANING DEVICE

THIS INVENTION relates to a cleaning device. In particular, this invention is directed to a cleaning device for a safety razor.

5

Parallel blade shaving razors, having single or multiple (up to five(5) or more) blades, are in common use today by both men and women. One problem with such razors, however, is that they are difficult to clean principally because of (1) the small spaces between and around the parallel blades with their staggered edges and (2) the parallel blades are encased within the shaving head and are not removable from the head. With such a construction, shaving debris is easily trapped and can be difficult to dislodge by the traditional methods of holding under running water or by the user shaking the razor in a body of water.

10

Although there have been a number of attempts in the prior art to overcome this difficulty in cleaning of safety razors, the resultant devices are complicated or bulky in their structure or unacceptably expensive to manufacture and thus purchase.

15

There thus remains a need for an inexpensive to manufacture and purchase, simple to operate device to clean a safety razor having one or more blades.

20

According to the present invention, there is provided a device to clean a shaving razor of the type having at least one blade encased in a head, said device including:

25

a hollow body having a first end adapted to be affixed to a water faucet and a second end terminating in a hollow chamber, said body and said chamber being adapted to allow water to flow through said body from said first end to exit from said chamber;

30

a brush or similar affixed within said chamber, said brush adapted to rotate as said water flows through said body to exit from said chamber; and

a slot in said chamber through which said at least one blade can be passed and placed in contact with said brush as said brush is being rotated.

35

In one embodiment of the present invention, said first end may include a quick release coupling to said faucet.

In those embodiments of the present invention which includes a said quick release coupling, said coupling may be a resilient push-fit connection.

- 5 In another embodiment of the present invention, said first end may be internally and/or externally threaded to affix to said faucet.

10 In yet another embodiment of the present invention, said body may be manufactured from a resilient material having an internally and/or externally threaded said first end. In these embodiments, a single said device can be either affixed to a threaded said faucet or to an non-threaded faucet as a push-fit connector.

15 Preferably, said brush may be substantially elongated and cylindrical in shape.

Optionally, respective components of said device may be releasably connected to facilitate access to said brush for the cleaning of shaving debris from said brush after said device has been used.

- 20 Preferably, said body may be manufactured from a plastic material.

A preferred embodiment of the present invention will now be described by way of example only with reference to the accompanying non-limiting drawings wherein:

- 25 FIG. 1 is a perspective illustration of an assembled device of an embodiment of the present invention; and

FIG. 2 is a perspective exploded illustration of the device of FIG. 1.

- 30 Referring to the FIGS., the device (1) comprises a hollow substantially T-shaped body (2) conveniently manufactured from any suitable plastic material known in the art. The hollow substantially orthogonal leg portion (3) of the body (2) is of a dimension to allow the stem (4) of a hollow connector (5) to be retained therein as an interference fit. The connector (5) including its stem (4) is conveniently
35 manufactured from any suitable resilient rubber or plastics material known in the

art. The internal diameter of the connector (5) at its upper end (6) is sufficient for a releasable push-fit connection to a water faucet or similar. Optionally (not illustrated), an internal and/or external region of the connector (5) at or near its upper end (6) may be threaded to allow a threaded connection to a complementary threaded water faucet or similar. The head portion (7) of the body (2) has its opposing ends (8,9) closed by corresponding caps (10,11) each being an interference fit. The interior surface (12) of the end cap (11) includes a short hollow extension (13). The interior surface of the end cap (10) includes a similar short hollow extension (not illustrated). The head portion (7) of the body (2) has a slot (14) running substantially the full longitudinal length thereof. A rotatable brush (15) includes a spindle (16) the respective opposing longitudinal ends of which terminate in short spigots (17,18) which are a rotatable fit in the respective short hollow extensions of the caps (10,11). All components of the brush (15) can be conveniently manufactured from any suitable combination of plastic materials known in the art.

In use, to clean the blades of a parallel blade razor (not illustrated), the end (6) of the connector (5) is affixed to a water faucet such as a tap of a bathroom sink (not illustrated). The end (6) either screws onto a threaded faucet or is a push-fit connection thereto. The tap is then turned on and water flows through the connector (5) and the body (2), rotates the brush (15) and exits through the slot (14). The shaving head of the razor is positioned within the slot (14) such that the blades within the head are embedded within the bristles of the brush (15). As the brush (15) rotates, its bristles remove shaving debris from between the blades and immediate surrounds. After use, the device (1) can easily be disassembled to facilitate cleaning of all components thereof prior to the next use of the device (1).

An embodiment of the present invention may thus provide an inexpensive, simple to operate and maintain cleaning device for the parallel blade(s) of a safety razor.

It will be appreciated that the above described embodiment is for exemplification purposes only and that modifications and alterations can be made to the present invention without departing from the inventive concept as defined in the following claims.

It is to be understood that, if any prior art publication is referred to herein, such reference does not constitute an admission that the publication forms a part of the common general knowledge in the art, in Australia or any other country.

- 5 In the claims which follow and in the preceding description of the device, except where the context requires otherwise due to express language or necessary implication, the word "comprise" and "include" or variations such as "comprises", "includes", "comprising" or "including" is used in an inclusive sense, i.e. to specify the presence of the stated features but not to preclude the presence or addition of
- 10 further features in various embodiments of the device.

CLAIMS:

1. A device to clean a shaving razor of the type having at least one blade encased in a head, said device including:

5

a hollow body having a first end adapted to be affixed to a water 5 faucet and a second end terminating in a hollow chamber, said body and said chamber being adapted to allow water to flow through said body from said first end to exit from said chamber;

10

a brush or similar affixed within said chamber, said brush adapted to rotate as said water flows through said body to exit from said chamber; and

15

a slot in said chamber through which said at least one blade can be passed and placed in contact with said brush as said brush is being rotated.

2. A device as defined in Claim 1 wherein said first end includes a quick release coupling to said faucet.

20

3. A device as defined in Claim 2 wherein said coupling is a resilient pushfit connection.

4. A device as defined in Claim 1 wherein said first end is threaded to affix to said faucet.

25

5. A device as defined in Claim 4 wherein said body is manufactured from a resilient material.

30

6. A device as defined in any one of Claims 1 to 5 wherein said brush is substantially elongated and cylindrical in shape.

7. A device as defined in any one of Claims 1 to 6 wherein said body and said chamber are releasably connected to facilitate access to said brush 5 for the cleaning of shaving debris from said brush after said device has been used.

35

8. A device as defined in any one of Claims 1 to 7 wherein said body is manufactured from a plastic material.
- 5 9. A device to clean a shaving razor of the type having at least one blade encased in a head, the device substantially as herein described with reference to the accompanying drawings.

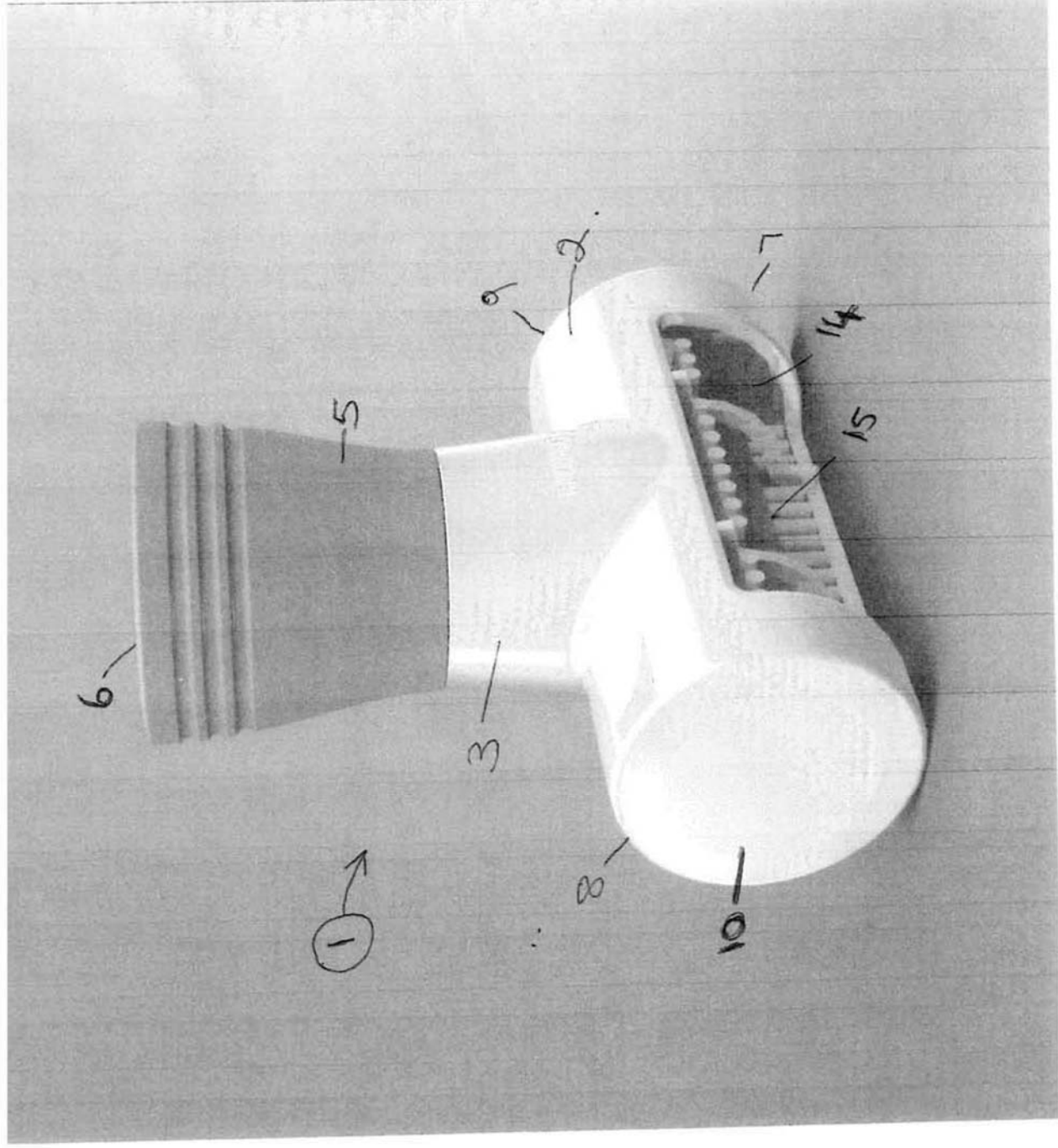


FIG. 1

