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(54) **Safety rasor, particularly of the pocket or portable type.**

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(73) Proprietor: **EURAFRICA VIDEOMATIC S.r.l.**
Società per Ricerche Elettroniche ed Audiovisive
Via Padova 314
I-20132 Milano (IT)

(72) Inventor: **Righi, Nardino**
Viale Lombardia 117 C/2
I-20093 Cologno Monzese (IT)

(74) Representative: **Porsia, Bruno et al**
c/o Succ. Ing. Fischetti & Weber
Via Caffaro 3/2
I-16124 Genova (IT)

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Description

The invention relates to a portable safety razor made substantially in form of a pen, and corresponding to the pre-characterizing part of claim 1.

A safety razor of this kind is known from the document EP-A-0 278 272. In this known embodiment, the supporting stem consists of a supporting stirrup-like member which by the free ends of its parallel arms is inserted between two wings projecting from the fore or upper end of the handle, and by means of two external co-axial pivots 7 provided on its arms, is snappingly fitted into respective bores in said wings. Thus, the supporting stirrup is pivotable relative to the handle, around the transversal axis formed by these two pivots. The opposite end of the supporting stirrup is shaped like an arc of a circle, and extends between the two arms of said stirrup. The hub of the head-carrying bar is shaped as a disc which is housed in the recess formed by the said arcuate end of the supporting stirrup. The said disc is rotatably engaged by its peripheral edge in a matching groove which is provided in the inner face of the stirrup, and extends also along the two arms of said stirrup. The rotatable disc has a co-axial, discoid extension which is also encompassed by the supporting stirrup, but is not engaged in the groove in said stirrup. This disc extension is integral with a fork extending out of the supporting stirrup, and carrying the shaving head. The rotatable disc is held within the supporting stirrup by a positioning platelet fitted and locked between the arms of the supporting stirrup. In the middle of its side turned toward the rotatable disc, the positioning platelet has a locking tooth which is elastically yieldable in the longitudinal direction of the handle, and cooperates with a matching locking notch provided in the periphery of the extension of the rotatable disc, so as to lock this disc in the shaving position of the shaving head. The 90° rotation of the rotatable disc between the shaving position and the rest position of the shaving head is limited in both directions by a stop tooth which is integral with the arcuate portion of the supporting stirrup, and is engaged in a sector-shaped peripheral recess in the disc extension, thus cooperating as a pawl with the ends of said recess.

From the same document EP-A-0 278 272, and also from the documents US-A-4.074.428 and U8-A-4.332.321, safety razors are known in which the head-carrying bar is rotatably mounted on a pin of the supporting stem, and manually operated locking means, such as a shaving head-locking bar slidably guided in the longitudinal direction of handle or spring washers combined with a cap and with suitable detents, are provided for locking the head-carrying bar in its two positions. The rear end of the supporting stirrup is firmly incorporated or screwed in the handle.

The invention aims to provide a razor of the type as disclosed in the pre-characterizing part of claim 1, which is very easy to make, and inexpensive from the manufacturing standpoint, so that an extremely low-cost razor that may be also used as a disposable razor, particularly when made of plastics material, is obtained.

The invention attains this object by the combination of the features according to the characterizing part of claim 1.

The way of assembling by a snap fit the supporting stem with the handle and the head-carring bar with the supporting stem, is simple and economical, whereby the manufacturing costs come to be minimized.

Some further improvements of the safety razor, according to claim 1, are characterized in the dependent claims. More particularly, the improvement as stated in claim 3, according to which the dispensing valve at the handle rear end is constructed so as to be snap-fitted into a cap which, in turn, may be sealingly snap-fitted onto a tubular union provided at the lower end of the razor, further simplifies the manufacturing of the whole razor, and further abates the manufacturing cost thereof.

A preferred embodiment of the invention is disclosed in the following description, and is shown as a non-limiting example in the accompaying drawings, wherein:

Figures 1 and 2 are perspective views of the razor according to the invention, respectively, with the covering cap and without the covering cap and with the head-carrying assembly in the shaving position;

Figures 3 and 4 show constructional details of the covering cap and associated clip;

Figures 5 and 6 each show a longitudinal sectional view of the razor of Figures 1 and 2, at the region of the upper end and at the region of the lower end thereof, respectively;

Figures 7 to 11 show constructional details of the head-carrying assembly.

With reference to the Figures, the razor according to the invention, specifically, has an outer appearance which is substantially similar to that of a big pen and is of parallelepipedal shape. The body of the razor is formed of a handle 1 which, as shown in Figures 5 and 6, is of hollow, reservoir-like construction and is used as a container for any shave cream with no pressurized gas. In order to permit the dispensing of the shave cream, the handle 1 is made resiliently compressible by the force of only one hand. The upper end of the handle 1, which mounts the head-carrying assembly 4, may be covered together with said head-

carrying assembly 4 by a covering cap 2, while at the lower end of the handle 1 there is provided a dispensing nozzle 3 which, as described below, is also used as a valve shutter.

As appearing from the following detailed description of the head-carrying assembly 4 and as appearing from Figures 10 and 11, the head 5 may be rotated by at least 90° from a shaving position wherein the head is disposed transversely of the longitudinal direction of the handle 1 (Figures 2 and 10) to a rest position wherein the head 5 is parallel to the longitudinal direction of the handle 1 (Figures 5 and 11), thus permitting the covering cap 2 to be impaled thereon.

To enable the razor according to the invention to be manufactured easily and inexpensively, said razor is of such a construction whereby the individual parts thereof are manufactured separately and are assembled together successively, preferably, with a fit-in engagement.

The covering cap 2 is provided with a clip 6 which is manufactured separately therefrom, means being provided to fit-in said clip 6 into the cap 2. Specifically, said fit-in means comprises an undercut groove 102 at the upper end of the cap 2, wherein a T-shaped projection 106 of the clip 6 is fitted-in, said projection being suitably provided with a ratchet formation at the side edges thereof. Said groove 102 terminates slightly below the upper closed end of the cap 2 whereby, in the assembled condition, the upper end of the clip 6 is substantially flush with the upper end of the cap 2. To enable air to circulate somehow within the cap 2, the upper end of the cap 2 is provided with suitable aeration slits 202.

As shown in Figure 5, the cap 2 is snappingly engageable on the upper end of the handle 1 in that it is provided, in proximity of its open end, with fit-in projections 302, which are preferably beveled at their side edges, and which co-operate with corresponding grooves 7 of the handle 1. The head-carrying member 4 is also snappingly assembled with the handle 1 in a removable manner. For this purpose, the handle 1 comprises a pin 101 provided with a peripheral groove 8 of V-shaped section, and a hollow supporting stem 9 of the head carrying assembly 4 is impaled on 'said pin 101. The supporting stem 9 is provided with fit-in projections 109 designed to co-operate with said peripheral groove 8 of the pin 101.

Specifically, the pin 101 is in the shape of a parallelepiped of comparatively little thickness and is offset laterally with respect to the longitudinal central plane of the handle 1, which is parallel to the plane whereon the shaving head 5 is rotated, thus permitting it to be covered by the cap 2 in the rest condition thereof.

The dispensing nozzle 3 provided at the lower end of the hollow handle 1 is angularly movable about an axis which is transverse to the longitudinal direction of the handle 1, within an accommodation recess 10 in the closed end side of a cap 11. The lower cap 11 can be snap-fitted on the lower end of the handle 1. The angular displacement of the dispensing nozzle 3 is effected over an angular extent of about 90°, alternately to a retracted position wherein the nozzle 3 is disposed parallelly and substantially flush with the end side of the cap 11, and to a dispensing position wherein the dispensing nozzle 3 is disposed substantially parallel to the longitudinal direction of the handle 1 and protrudes beyond the end surface of the cap 11. The dispensing nozzle 3 is provided with a central through-hole 103 in the longitudinal extent thereof, and it also serves as a valve member. In the retracted position, the central hole 103 of the dispensing nozzle 3 is disposed transversely to the longitudinal direction of the handle 1, while the pivoted end portion of the nozzle 3 sealingly closes a hole 110 in the bottom of the accommodation recess 10 in register with a tubular union 201 of the handle 1. In fact, the pivoted end portion of the nozzle 3 is of substantially cylindrical shape and of such a diameter as to sealingly engage at all times against the bottom of the accommodation recess 10, along at least the portion of its surface co-operating with the hole 110 provided in the bottom of said accommodation recess 10 during its angular displacement either to the dispensing position or retracted position. In the dispensing position, the central hole 103 in the nozzle is in register with the hole 110 in the bottom of the cap 11 and permits the shave cream in the handle 1 to be dispensed. The dispensing nozzle 3 is also constructed separately from the remaining parts of the razor and is mounted snappingly into the cap 11. It is provided at two opposite sides thereof with two pins 203 which, more particularly, are co-axial with the cylindrical part of its pivoted portion. The pins 203 become engaged with corresponding cylindrical seats 12 in the associated sidewalls of the accommodation recess 10. Said seats 12 are opened in the direction of the outer end of the cap 11 through a groove 112 which is slightly constricted with respect to the diameter of the pins 203, whereby thanks to the inherent resiliency of the material said nozzle may be mounted from the exterior into the accommodation recess 10 by snap-fitting the pins 203 into the associated seats 12. Moreover, as from Figure 6, the dispensing nozzle 3 is provided, on its outwardly-directed side when in the retracted position, with a lug 303 which is designed to co-operate as a stop with the outer end of the cap 11 and which, by protruding beyond said outer end of the cap 11 transversely to the handle 1, constitutes

a suitable grip for angularly displacing the dispensing nozzle 3 to its dispensing position.

The cap 11 is also constructed as a separate part which may be snap-fitted on the handle 1 and comprises for this purpose at least two wings 111 arranged diametrically opposite to each other around the hole 10 in the bottom of the accommodation recess 10, and directed in the longitudinal direction of the handle 1. The wings 111 are designed to become engaged, by means of their detent-shaped free ends, with an annular shoulder 13 of the tubular union 201 of the handle 1, thus establishing such a locking position whereby the edge of the free end of the tubular union 201 engages sealingly against the bottom of the accommodation recess 10. In order to facilitate the centering of the cap 11 upon fitting it onto the handle 1 and to give a higher strength to the coupling of these two ao portions, as well as to improve the seal between said two portions, an annular extension 211 the diameter of which matches with the inner diameter of the tubular union 201 is provided on the bottom of the accommodation recess 10, so that it may penetrate the tubular union 201 upon mounting the cap 11. Figures 7 to 11 show the particular construction of the head-carrying assembly 4 which, as stated above, is also adapted to be snap-fitted onto the upper end of the handle 1. Moreover, it is formed advantageously of two discrete parts which are suitably snap-engaged with each other, i.e. a supporting stem 9 and a head-carrying bar 14 which are angularly displaceable with respect to each other about an axis which is perpendicular to the longitudinal direction of the supporting stem 9 and head-carrying bar 14. As it can be viewed in the Figures, the head-carrying bar 14 is constructed so that a usual shaving blade may be mounted thereon and dismounted therefrom, and on the opposite side it comprises a hub 15 which is accommodated in a recess 16 formed in the side of the head-carrying stem 9 that is directed towards the shaving head 5 (not shown in the Figures 7 to 11). The hub 15 has a groove 115 to engageably receive an annular edge 17 of a hole in the recess 16. The free end of the hub 15 has a conical bevel to permit the head-carrying bar 14 to be snap-fitted into the supporting stem 9. Moreover, in order to rotate the head-carrying bar without touching the shaving head, the free end of the hub is provided with a grip wing 315 which, when said two parts are assembled, protrudes out of the supporting stem 9 remote from the shaving head 5.

As it can be viewed in Figures 10 and 11, the head-carrying bar 14 may be rotated from a shaving position wherein it is disposed transversely to the longitudinal direction of the supporting stem 9 and, therefore, as from Figures 2 and 5, transversely to the longitudinal direction of the handle 1, to a rest position wherein it is disposed parallelly to the longitudinal direction of the supporting stem 9 and handle 1. To enable the head-carrying bar 14 to be locked sufficiently in the shaving position, the hub 15 is provided with an integral tooth 215 co-operating with a resilient locking lug 116 integral with the supporting stem 9 on the inner side of the recess 16. In the shaving position of the head-carrying bar 14 (Figure 10) the lug 116 abuts behind the tooth 215 of the hub 15, yielding resiliently upon rotation of the hub from said shaving position to said rest position. Advantageously, the free end of the lug 116 is of rounded outline.

The advantages of the safety razor according to the invention appear from the Figures and from the preceding description, and they reside first of all in the fact that the handle, constructed in the form of a container, can be compressed by the force of only one hand, thus permitting the use of shave creams containing no pressurized gas. Secondly, the construction of the razor with separately-manufactured discrete parts which may then be snap-fitted together is extremely advantageous. Thanks to the above, the razor according to the invention has an extremely low manufacturing cost and, therefore, it may even be used as a disposable article, while being of handy and reliable operation.

Claims

1. A portable safety razor made substantially in the form of a pen, comprising:

a) a handle (1) made in the form of a container for shaving cream, and provided with a dispensing valve (3) at the lower end thereof,

b) a supporting stem (9) fixed at the upper end of handle (1), and arranged parallel, but eccentrically to the longitudinal axis of the handle,

c) a head-carrying bar (14) holding a single-blade or double-blade shaving head (5), and provided with a central hub (15) which is rotatably inserted into a recess (6) in the supporting stem (9), and can be rotated through at least 90° along with the head-carrying bar (14), around an axis which is transversal to both the shaving head (5) and the handle (1), from a shaving position in which the head-carrying bar (14) extends transversely to the longitudinal direction of handle (1), to a rest position in which the head-carrying bar (14) is oriented in the direction of handle (1),

d) co-operating abutment and locking means (215, 216) provided on the head-

carrying bar (14) and the supporting stem for locking the head-carrying bar (14) in its shaving position to the supporting stem (9),

characterized by the following features:

e) the handle (1) is constructed so as to be resiliently compressible by the force of only one hand,

f) the supporting stem (9) is made hollow at its end associated with the handle (1), and is snap-fitted on a corresponding pin (101) protruding from the handle (1), and provided with a peripheral groove (8) engaged by fit-in projections (10) in the supporting stem (9),

g) the hub (15) of the head-carrying bar (14) is provided with a peripheral groove (115) in which it is snappingly engaged an annular edge (17) of a hole provided in the recess (16) in the supporting stem (9),

h) the hub (15) of the head-carrying bar (14) is provided with a radially projecting tooth (215) which abuts against opposite walls of the recess (16) in the supporting stem (9), in the shaving and rest positions of the head-carrying bar (14),

i) in the shaving position of the head-carrying bar (14), the tooth (215) of hub (15) engages behind a resilient locking lug (116) which is integral with the associated wall of the recess (16), and protrudes inwardly therefrom, so as to be caused to elastically yield by the action of the tooth (215) of hub (15) in both senses of the hub rotation.

2. The razor according to claim 1, characterized in that the free end of hub (15) protruding out of the recess (16), on the side of stem (9) remote from the shaving head (5), is provided with a grip wing (315).

3. The razor according to claim 1, characterized in that the dispensing valve consists of a dispensing nozzle (3) acting as a valve shutter, and is constructed so as to be snap-fitted into a cap (11) which, in turn, may be sealingly snap-fitted onto a tubular union (201) provided at the lower end of the razor.

4. The razor according to claim 3, characterized in that the said dispensing nozzle (3) is provided with an axial passageway (103), and is snap-fitted in angularly displaceable manner by means of co-axial pins (203), into an accomodation recess (10) in said cap (11), which is open toward the outer end of said cap, the said pins (203) being provided on the opposite sides of said nozzle (3), and becoming engaged in seats (12) formed in the associated sidewalls of the accomodation recess (10), the said seats (12) being open toward the outer end of cap (11) through a groove (112), which is slightly constricted relative to the diameter of said seats (12).

5. The razor according to claim 4, characterized in that the dispensing nozzle (3) may be angularly displaced alternately to a position where it closes a hole (110) formed in the bottom of the accomodation recess (10), and registering with the said tubular union (201) of handle (1), and where the said nozzle is enclosed within the accomodation recess (10), with its outer side arranged parallel and substantially flush with the outer end of cap (11), and to a dispensing position where the dispensing nozzle (3) is arranged substantially parallel to the longitudinal extent of handle (1), and its central passageway (103) registers with the hole (110) in the bottom of the accomodation recess (10), and communicates with the tubular union (201) of handle (1).

6. The razor according to claim 5, characterized in that the pivoted end portion of the dispensing nozzle (3) is constructed of substantially cylindrical shape and of such a diameter as to sealingly engage at all times against the edges of the hole (110) in the bottom of the accomodation recess (10), along at least one portion of its surface intended to co-operate with said hole (110) during its angular displacement to either the closed position and the dispensing position.

7. The razor according to claims 5 and 6, characterized in that the dispensing nozzle (3) is provided at the free end thereof, and on the side lying flush with the end surface of cap (11) in the closed position, with a protruding lug (303) co-operating as a stop shoulder with the associated edge of cap (11), and which constitues a grip for rotating the said nozzle (3) to the dispensing position.

8. The razor according to claims 3 to 7, characterized in that the said cap (11) comprises two wings (111) extending in the longitudinal direction of handle (1) at diametrically opposite positions to the hole (110) in the bottom of the accomodation recess (10) for the dispensing nozzle (3), the said wings (111) comprising detents at the free end thereof, to co-operate with an annular shoulder (13) in the tubular union (201) of handle (1).

9. The razor according to claims 3 to 8, characterized in that, in the assembled condition of the cap (11) on the tubular union (201) of handle (1), the edge of the free end of said tubular union (201) sealingly engages against the bottom of the accomodation recess (10) for the dispensing nozzle (3), an annular extension (211) being provided on the said bottom to surround the said hole (110) and to co-axially fit in the tubular union (201).

10. The razor according to one or more of the preceding claims, characterized in that a covering cap (2) is provided with aeration slits (202) in its end side.

11. The razor according to claim 10, characterized in that the covering cap (2) is provided with a clip (6) which may be snap-fitted thereon, preferably thanks to a T-shaped, rear projection (106) of said clip (6), which can be snap-fitted into an undercut groove in the covering cap (2).

12. The razor according to one or more of the preceding claims, characterized in that it is made of plastics material, and its handle (1) which is shaped as shaving cream container, is constructed so as to be resiliently compressible by the force of only one hand.

Patentansprüche

1. Ein transportabler Sicherheitsrasierapparat im wesentlichen in der Form eines Stiftes, enthaltend:

a) einen Handgriff (1) in Form eines Behältnisses für Rasierschaum und ausgerüstet mit einem Zapfventil (3) an seinem unteren Ende,

b) ein Tragestiel (9) befestigt am oberen Ende des Handgriffes (1) und parallel, aber exzentrisch ausgerichtet zur Längsachse des Handgriffs,

c) eine kopftragende Stange (14), die einen Rasierkopf (5) mit einer Klinge oder zwei Klingen hält und ausgestattet ist mit einer zentralen Nabe (15), die drehbar in eine Vertiefung (6) in dem Tragestiel (9) eingesetzt ist und die über mindestens 90 Grad gemeinsam mit der kopftragenden Stange (14) um eine Achse gedreht werden kann, die rechtwinklig sowohl zum Rasierkopf (5) als auch zum Handgriff (1) ist, von einer Rasierposition, in der sich die kopftragende Stange (14) sich rechtwinklig zur Längserstreckung des Handgriffes (1) erstreckt, zu einer Ruhestellung, in der die kopftragende Stange (14) in der Richtung des Handgriffes (1) ausgerichtet ist,

d) an der kopftragenden Stange (14) und dem Tragestiel ausgerüstet mit zusammenarbeitenden Lagerungs- und Befestigungsmitteln (215, 216) zum Verriegeln der kopftragenden Stange (14) in ihrer Rasierposition bezogen auf den Tragestiel (9),

gekennzeichnet durch folgende Eigenschaften:

e) der Handgriff (1) ist so konstruiert, daß er durch die Kraft nur einer Hand elastisch kompressibel ist,

f) der Tragestiel (9) ist an seinem mit dem Handgriff (1) verbundenen Ende hohl ausgeführt, und mit einer Schnappverbindung befestigt an einem vom Handgriff (1) vorspringenden Stift (101) und ausgerüstet mit einer umlaufenden Nut (8), die im Eingriff ist mit eingepaßten Vorsprüngen (10) des Tragestiels (9),

g) die Nabe (15) mit der kopftragenden Stange (14) ist ausgerüstet mit einer umlaufenden Nut (115), in die eine ringförmige Kante (17) eines Loches schnappend eingreift, mit der die Vertiefung (16) des Tragestiels (9) ausgerüstet ist,

h) die Nabe (15) der kopftragenden Stange (14) ist ausgerüstet mit einem radial vorspringenden Zahn (215), der sich an einander gegenüberliegenden Wänden der Vertiefung (16) des Tragestiels (9) abstützt, in der Rasierstellung und der Ruhestellung der kopftragenden Stange (14),

i) in der Rasierposition der kopftragenden Stange (14) greift der Zahn (215) an der Nabe (15) hinter einen elastisch schließenden Ansatz (116), der Bestandteil der zugehörigen Wand der Vertiefung (16) ist und nach innen von dieser vorspringt und dazu bestimmt ist, durch die Aktion des Zahnes (215) der Nabe (15) in beiden Richtungen der Drehung der Nabe elastisch nachzugeben.

2. Der Rasierer gemäß Anspruch 1, **dadurch gekennzeichnet**, **daß** das freie Ende der Nabe (15) aus der Vertiefung (16) hervorspringt und auf der dem Stiel (9) abgewandten Seite des Rasierkopfes (5) mit einem Griffflügel (315) ausgerüstet ist.

3. Der Rasierer gemäß Anspruch 1, **dadurch gekennzeichnet**, **daß** das Zapfventil aus einer Zapfdüse (3) besteht, die als Ventilverschluß arbeitet und so konstruiert ist, daß sie in einer Kappe (11) schnappend befestigbar ist, die wiederum abdichtend mit einer röhrenförmigen

Einheit (201) schnappend verbindbar ist, mit der das untere Ende des Rasierers ausgerüstet ist.

4. Der Rasierer gemäß Anspruch 3, **dadurch gekennzeichnet**, **daß** die besagte Zapfdüse (3) mit einem axialen Durchlaß (103) ausgerüstet und schnappbar so mit Hilfe von koaxialen Stiften (203) winklig schwenkbar in einer passenden Vertiefung der besagten Kappe (11) befestigt ist, wobei die Vertiefung zum äußeren Ende der besagten Kappe offen ist, die besagten Stifte (203) auf gegenüberliegenden Seiten der besagten Düse angeordnet und in Sitze (12) eingesetzt sind, die in zugehörigen Seitenwänden der passenden Vertiefung (10) geformt sind, die besagten Sitze (12) zum äußeren Ende der Kappe (11) durch eine Nut (112) geöffnet sind, die ein wenig relativ zum Durchmesser der besagten Sitze (12) eingeschnürt ist.

5. Der Rasierer gemäß Anspruch 4, **dadurch gekennzeichnet**, **daß** die Zapfdüse (3) winklig so schwenkbar ist, daß sie entweder in einer Position ein Loch (110) verschließt, das im Boden der zugehörigen Vertiefung (10) geformt ist, und passenend zur besagten röhrenförmigen Einheit (201) des Handgriffs (1), und wo die besagte Düse von der zugehörigen Vertiefung (10) umschlossen ist, mit ihrer Außenseite parallel und im wesentlichen bündig mit der Außenseite der Kappe (11) angeordnet, und in eine Zapfstellung, wo die Zapfdüse (3) im wesentlichen parallel zur Längserstreckung des Handgriffes (1) ausgerichtet ist und sich ihr zentraler Durchlaß (103) mit dem Loch (110) im Boden der zugehörigen Vertiefung (10) deckt und in Verbindung steht mit der röhrenförmigen Einheit (201) des Handgriffes (1).

6. Der Rasierer gemäß Anspruch 5, **dadurch gekennzeichnet**, **daß** das schwenkbare Ende des Zapfdüse (3) im wesentlichen aus einer zylindrischen Form besteht und einen solchen Durchmesser aufweist, daß es in jeder Stellung gegen die Ränder des Loches (110) im Boden der zugehörigen Vertiefung (10) dichtend abschließt, wobei mindestens ein Teil seiner Oberfläche dazu gedacht ist, mit dem besagten Loch (110) während der Schwenkung entweder zur geschlossenen Stellung oder zur Zapfstellung zusammenzuarbeiten.

7. Der Rasierer entsprechend den Ansprüchen 5 und 6, **dadurch gekennzeichnet**, **daß** die Zapfdüse (3) an ihrem freien Ende und auf ihrer Seite, die bündig zur Endfläche der Kappe (11) in der geschlossenen Position liegt, mit einem vorstehenden Ansatz (303) ausgestattet ist, der als ein Anschlag mit der zugehörigen Kante der Kappe (11) zusammenarbeitet und der einen Griff zum Drehen der besagten Düse (3) in die Zapfposition darstellt.

8. Der Rasierer gemäß einem der Ansprüche 3 bis 7, **dadurch gekennzeichnet**, **daß** die besagte Kappe (11) zwei Flügel (111) enthält, die in Längsrichtung des Handgriffes (1) in einander gegenüberliegenden Positionen des Loches (110) im Boden der zugehörigen Vertiefung (10) für die Zapfdüse (3) hervorstehen, wobei die besagten Flügel (111) einrückbare Arretierungen am freien Ende aufweisen, die mit einer ringförmigen Anlagekante (13) der röhrenförmigen Einheit (201) des Handgriffes (1) zusammenarbeiten.

9. Der Rasierer gemäß einem der Ansprüche 3 bis 8, **dadurch gekennzeichnet**, **daß** in der aufgesteckten Stellung der Kappe (11) auf der röhrenförmigen Einheit (201) des Handgriffes (1) die Kante des freien Endes der besagten röhrenförmigen Einheit (201) dichtend gegen die Grundfläche für das Zapfventil (3) befestigt ist eine ringförmige Verlängerung (211) auf der besagten Grundfläche um das besagte Loch (110) herum angeordnet und zur koaxialen Befestigung der röhrenförmigen Einheit (201) vorgesehen ist.

10. Der Rasierer gemäß einem oder mehreren der vorstehenden Ansprüche, **dadurch gekennzeichnet**, **daß** eine Verschlußkappe (2) mit Lüftungsschlitzen (202) an ihrer Oberseite versehen ist.

11. Der Rasierer gemäß Anspruch 10, **dadurch gekennzeichnet**, **daß** die Verschlußkappe (2) mit einem Clip (6) ausgerüstet ist, der schnappbar an ihr befestigbar ist, vorzugsweise durch T-förmige, rückwärtige Vorsprünge (106) des besagten Clips (6), die schnappbar befestigbar in einer hinterschnittenen Nut des Verschlußkappe (2) sind.

12. Der Rasierer gemäß einem oder mehreren der vorstehenden Ansprüche, **dadurch gekennzeichnet**, **daß** er aus Plastik hergestellt ist und ein Handgriff (1), der die Form eines Rasierschaumbehältnisses aufweist, so konstruiert ist, daß er elastisch komprimiessibel von der Kraft nur einer Hand ist.

Revendications

1. Rasoir de sécurité portatif dont l'aspect se rapproche de celui d'un stylo, comprenant :
   a) un manche (1) conçu sous la forme d'un réservoir destiné à contenir de la crème à raser et pourvu d'une valve de distribution (3) formée au niveau de son extrémité inférieure,
   b) une tige de support (9) fixée à l'extrémité supérieure du manche (1) et disposée pour être parallèle à l'axe longitudinal du manche en étant cependant excentrique, par rapport à ce dernier.
   c) une barrette porte-tête maintenant une tête de rasage (5) à simple lame ou à double lame et pourvue d'un moyeu central (15) qui est inséré avec faculté de rotation dans un évidement (6) ménagé dans la tige de support (9) et que l'on peut faire tourner sur 90° au moins, avec la barrette porte-tête (14), autour d'un axe qui est transversal à la fois à la tête de rasage (5) et au manche (1) d'une position de rasage dans laquelle la barrette porte-tête (14) s'étend transversalement à la direction longitudinale du manche (1), à une position de repos dans laquelle la barrette porte-tête (14) est orientée suivant la direction du manche (1),
   d) des moyens de butée et de blocage (215, 216) agissant d'une manière concourante et disposés sur la barrette porte-tête (14) et sur la tige de support en vue de bloquer la barrette porte-tête (14) en sa position de rasage sur la tige de support (9),
   caractérisé par les caractéristiques suivantes :
   e) le manche (1) est conçu d'une façon telle à pouvoir être comprimé, d'une manière élastique, par la force d'une seule main,
   f) la tige de support (9) est rendue creuse en son extrémité associée au manche (1) et est encliquetée sur une broche (101) correspondante, dépassant du manche (1), pourvue d'une gorge périphérique (8) dans laquelle s'engagent par insertion des saillies (10) ménagées dans la tige de support (9),
   g) le moyeu (15) de la barrette porte-tête (14) est pourvu d'une gorge périphérique dans laquelle s'ajuste par encliquetage un bord annulaire (17) d'un trou ménagé dans l'évidement (16) présent dans la tige de support (9),
   h) le moyeu (15) de la barrette porte-tête (14) est pourvu d'une dent (215) dépassant dans le sens radial, venant en butée contre des parois opposées de l'évidement (16) présent dans la tige de support (9) dans les positions de repos et de rasage de la barrette porte-tête (14),
   i) dans la position de rasage de la barrette porte-tête (14), la dent (215) du moyeu (15) s'engage derrière une patte de blocage flexible (116) qui est solidaire de la paroi associée de l'évidement (16) et qui en dépasse vers l'intérieur, de manière à être amenée à céder élastiquement sous l'action de la dent (215) du moyeu (15), dans les deux sens de rotation de ce dernier.

2. Rasoir selon la revendication 1, caractérisé en ce que l'extrémité libre du moyeu (15) dépassant de l'évidement (16) sur le côté de la tige (9) distant de la tête de rasage (5) est pourvue d'une ailette de saisie (315).

3. Rasoir selon la revendication 1, caractérisé en ce que la valve de distribution est constituée d'une buse de distribution (3) agissant comme un obturateur à clapet et en ce qu'elle est conçue d'une façon telle à être encliquetée dans un couvercle (11) lequel, à son tour, peut être ajusté, de manière étanche, par encliquetage sur un raccord tubulaire (201) disposé au niveau de l'extrémité inférieure du rasoir.

4. Rasoir selon la revendication 3, caractérisé en ce que ladite buse de distribution (3) est pourvue d'un passage axial (103) et est encliquetée avec faculté de déplacement angulaire au moyen de broches coaxiales (203) dans un évidement de logement (10) formé dans ledit couvercle (11) qui est ouvert dans la direction de l'extrémité externe dudit couvercle, lesdites broches (203) étant disposées sur les côtés opposés de ladite buse (3) et venant s'engager dans des appuis (12) formés dans les parois de l'évidement (10) et s'ouvrant dans la direction de l'extrémité externe du couvercle (11) à travers une rainure (112) qui est légèrement resserée par rapport au diamètre desdits appuis (12).

5. Rasoir selon la revendication 4, caractérisé en ce que la buse de distribution (3) peut être déplacée angulairement d'une manière alternée vers une position dans laquelle elle ferme un trou (110) ménagé dans le fond de l'évidement de logement (10) de niveau avec ledit raccord tubulaire (201) du manche (1) et dans laquelle ladite buse est contenue dans l'évidement de logement (10), son côté externe étant disposé pour être parallèle et quasiment à niveau avec l'extrémité externe du couvercle (11) et vers une position de distribution dans

laquelle la buse de distribution (3) est disposée pour être sensiblement parallèle à l'étendue longitudinale du manche (1), son passage central (103) étant de niveau avec le trou (110) ménagé dans le fond de l'évidement de logement (10) et communiquant avec le raccord tubulaire (101) du manche (1).

6. Rasoir selon la revendication 5, caractérisé en ce que la partie d'extrémité pivotante de la buse de distribution (3) est conçue de forme quasiment cylindrique et d'un diamètre tel à s'engager à tout moment de manière étanche contre les bords du trou (110) ménagé dans le fond de l'évidement de logement (10) le long d'une partie au moins de sa surface prévue pour agir d'une manière concourante avec ledit trou (110) pendant son déplacement angulaire vers l'une ou l'autre de la position fermée et de la position de distribution.

7. Rasoir selon les revendications 5 et 6, caractérisé en ce que la buse de distribution (3) est pourvue, à son extrémité libre et sur le côté s'étendant à niveau avec la surface d'extrémité du couvercle (11) en la position fermée, d'une patte saillante (303) agissant sous la forme d'un épaulement de butée d'une manière concourante avec le bord associé du couvercle (11), lequel constitue une prise permettant de tourner ladite buse (3) jusqu'en position de distribution.

8. Rasoir selon les revendications 3 à 7, caractérisé en ce que ledit couvercle (11) comprend deux ailes (111) s'étendant suivant la direction longitudinale du manche des positions diamétralement opposées au trou (110) ménagé dans le fond de l'évidement de logement (10) destiné à la buse de distribution (3), lesdites ailes (111) comprenant des ergots formés à leur extrémité libre pour agir d'une manière concourante avec un épaulement annulaire (13) dans le raccord tubulaire (201) du manche (1).

9. Rasoir selon les revendications 3 à 8, caractérisé en ce que, dans l'état assemblé du couvercle (11) sur le raccord tubulaire (201) du manche (1), le bord de l'extrémité libre dudit raccord tubulaire (201) s'engage d'une manière étanche contre le fond de l'évidement de logement (10) destiné à la buse de distribution (3), un prolongement annulaire (211) étant formé sur ledit fond en vue d'entourer ledit trou (110) et de s'ajuster d'une manière coaxiale dans le raccord tubulaire (201).

10. Rasoir selon une ou plusieurs des revendications précédentes, caractérisé en ce qu'un couvercle de recouvrement (2) est pourvu de fentes d'aération (202) ménagées dans sa face d'extrémité.

11. Rasoir selon la revendication 10, caractérisé en ce que le couvercle de recouvrement (2) est pourvu d'une pince (6) susceptible de lui être ajustée par encliquetage, d'une manière préférable, au moyen d'une saillie arrière en forme de T (106) de ladite pince (6), laquelle peut être encliquetée dans une rainure en renfoncement dans le couvercle de protection (2).

12. Rasoir selon une ou plusieurs des revendications précédentes, caractérisé en ce qu'il est constitué de matière plastique et en ce que son manche (1), auquel a été donnée une forme de réservoir de crème à raser, est conçu d'une façon telle à pouvoir être comprimé d'une manière élastique par la force d'une seule main.

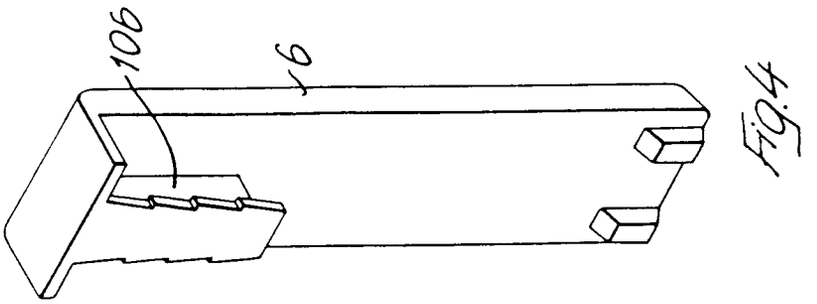


Fig.4

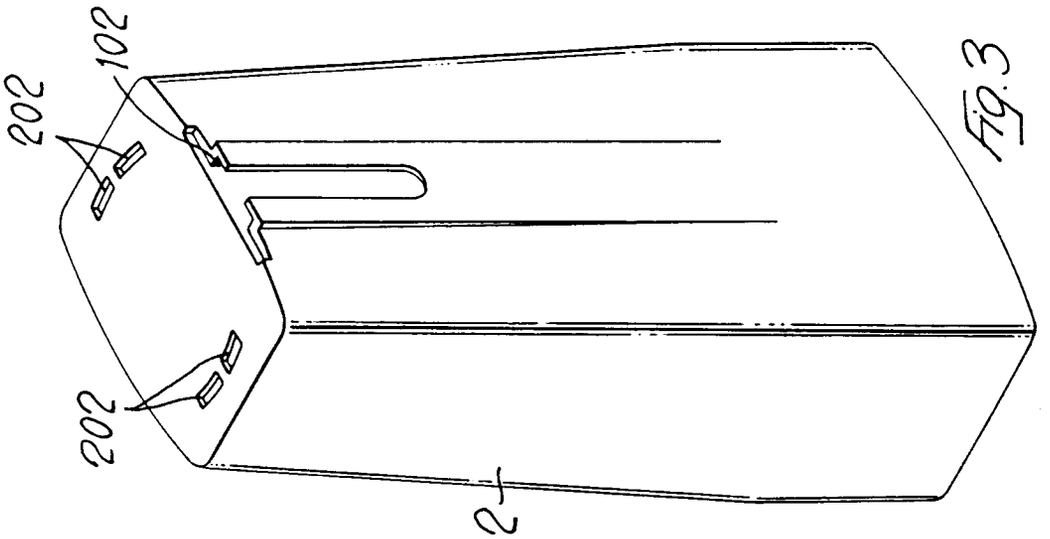


Fig.3

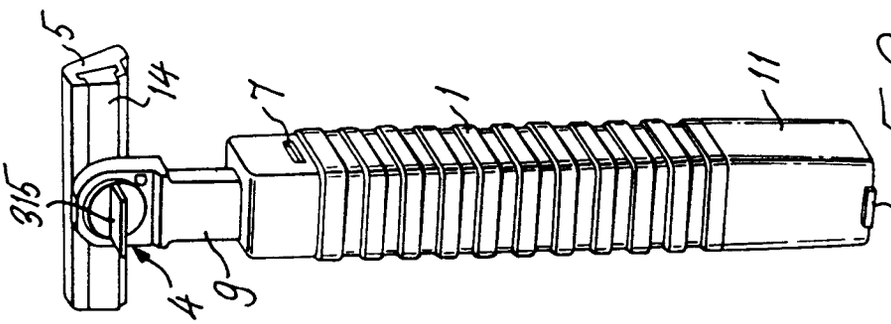


Fig.2

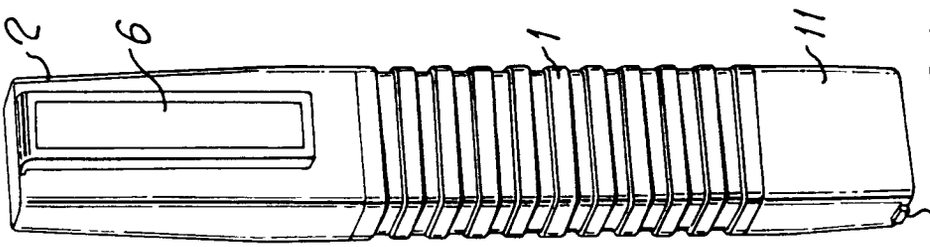


Fig.1

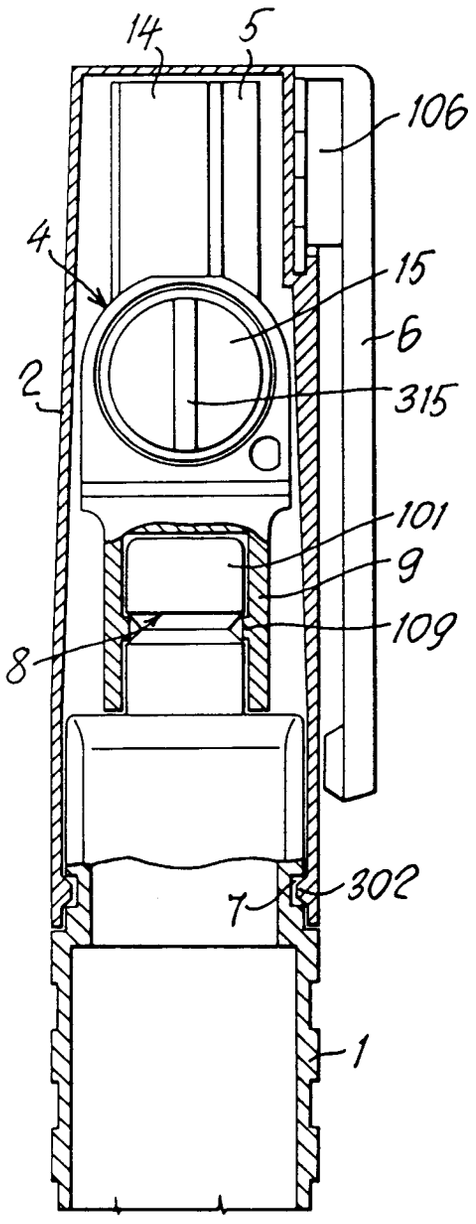


Fig.5

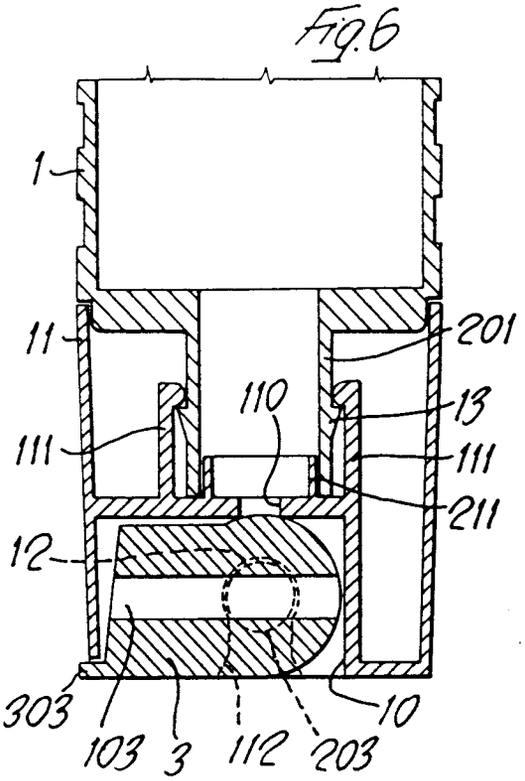


Fig.6

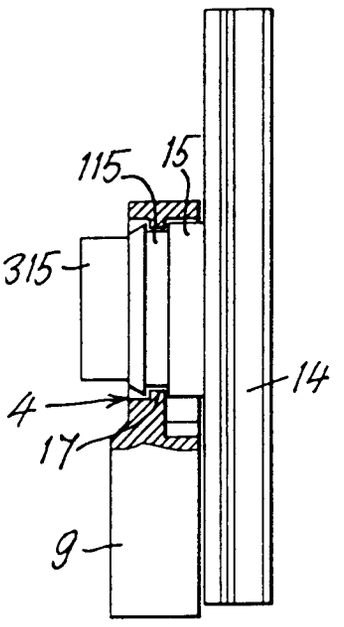


Fig.7

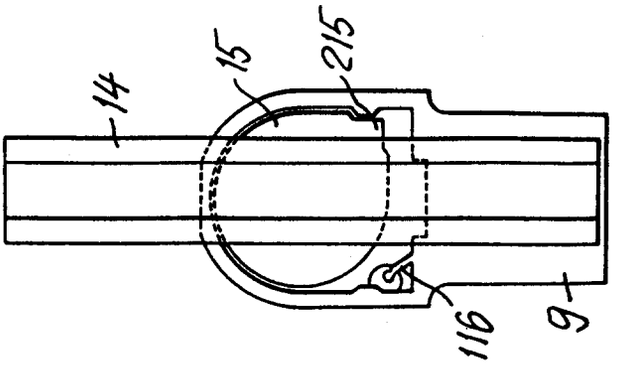


Fig. 11

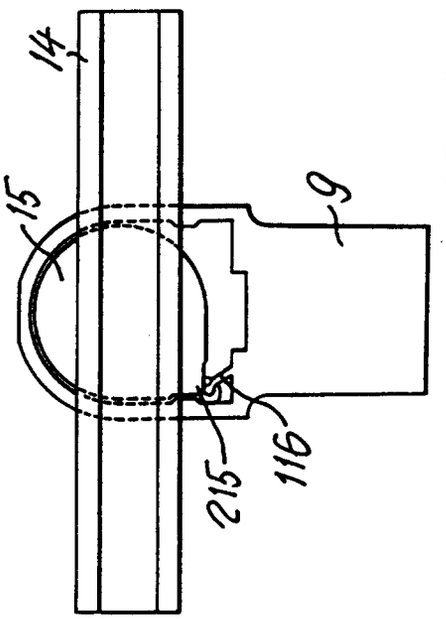


Fig. 10

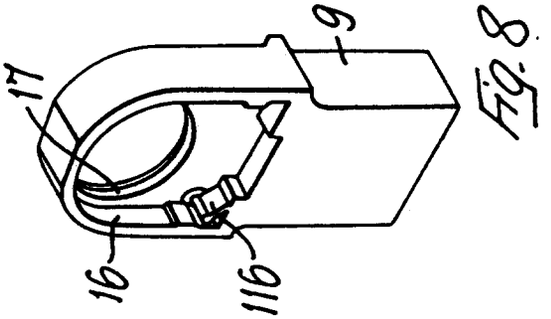


Fig. 8

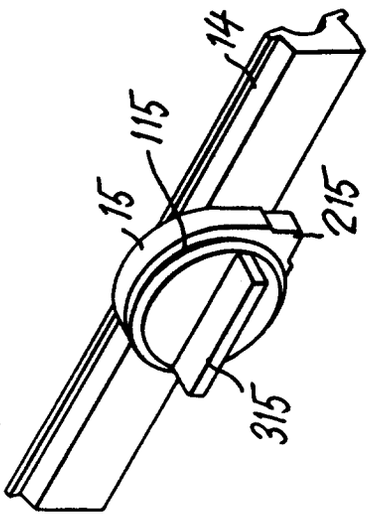


Fig. 9