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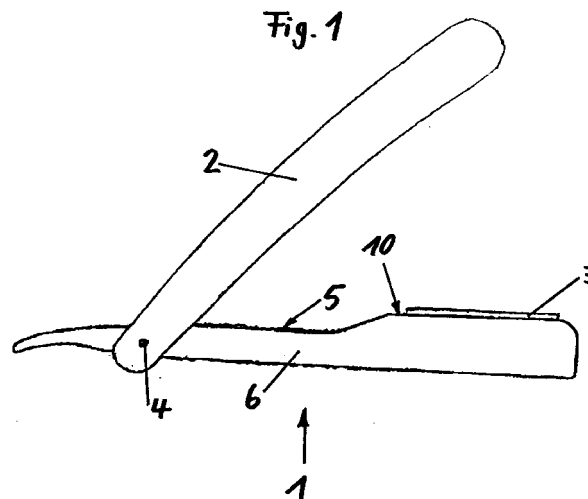
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(54) **Disposable shaving device having single, double or triple razor blade assembly for use in barbershops and/or hairdressers**

(57) The disposable straight razor (1, 21, 31) comprises: an elongate body (6, 7, 24, 32); a single, double or triple razor blade assembly (3) mounted in the body (6, 7, 24, 32); the body (6, 7, 24, 32) being molded about the said razor blade assembly (3); the said razor blade assembly (3) extending outwardly from the body (6, 7, 24, 32) a distance of from approximately 0.05 mm to approximately 4 mm; and a cover (2, 26, 46) for the body (6, 7, 24, 32) and the said razor blade assembly (3) which extends over the body (6, 7, 24, 32) and completely over the single, double or triple razor blade assembly (3).



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Description

FIELD OF THE INVENTION

[0001] The present invention relates to a disposable shaving device with razor blade of the type used in barbershops and by hairdressers. The present invention relates to a disposable straight razor having one, two or three razor blades for use in barber shops and by hairdressers.

DESCRIPTION OF THE PRIOR ART

[0002] Presently available shaving devices and razor blades used therein typically include a body and a razor blade which is periodically changed while keeping the body of the device for further use.

[0003] The shaving device of this type is exposed to various contamination factors during the process of changing blades such as may result from any wounds that might have taken place during the prior shaving use.

[0004] This can lead to the contamination of the shaving device per se, which in turn can cause infection and may cause the transfer of different diseases from one infected person to another healthy person. Infections are now very serious and include skin diseases in addition to the more serious diseases, which are carried by skin and blood, such as staphococcus, hepatitis Virus B and C and AIDS.

[0005] Heretofore, several disposable straight razors have been proposed and examples of same are disclosed in the Patents US 4,622,742 (Lee), US 4,920,644 (LaGattuta) and US 5,649,364 (Ilanlou).

SUMMARY OF THE INVENTION

[0006] An object or feature of the present invention is to provide a disposable straight razor having one, two or three blades for shaving which is light weight and easy to use in barber shops and by hairdressers.

[0007] Another object or feature of the present invention is to provide a disposable straight razor having a body molded about one, two or three razor blades for shaving with a highly safety factor that ensures non transmission of diseases and microbes from one infected person to another healthy person together with a smooth shave in an easy and safe manner.

[0008] Another object of the invention is to provide a disposable straight razor having one, two or three razor blades fixed in a body which does not need blade replacement or changing and accordingly does not need to be touched by the user whereby infections are not transmitted to the user himself.

[0009] According to the teachings of the present invention there is provided a disposable straight razor comprising: an elongate body; a single, double or triple razor blade assembly mounted in the body; the body

being molded about the triple razor blade assembly; the razor blade assembly extending outwardly from the body a distance of from approximately 0.05 mm to approximately 4 mm; and a cover for the body and the razor blade assembly which extends over the body and completely over the razor blade assembly. In a first embodiment of this invention there is a disposable straight razor having a cover and a single razor blade. In a second embodiment of this invention there is a disposable straight razor having a cover and a double razor blade. In a third embodiment of this invention there is a disposable straight razor having a cover and a triple razor blade.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010]

FIG. 1 is a plan view of one embodiment of the straight razor of the present invention;

FIG. 2 illustrates three shapes of the cover or handle extension for the straight razor shown in FIG. 1; FIG. 3 is a plan view of another embodiment of the straight razor having single razor blade;

FIG. 4 is a plan view of still another embodiment of the straight razor having single razor blade;

FIG. 5 is a plan view of second embodiment of the disposable straight razor of the present invention having double razor blades;

FIG. 6 is a sectional view through the body of the disposable straight razor shown in FIG 5 and is taken along line A - A of FIG 5;

FIG. 7 is a top plan view of the body of the disposable straight razor shown in FIG 5 and is taken along line B - B of FIG 5;

FIG 8 is bottom plan view of the cover for the disposable straight razor shown in FIG 5;

FIG. 9 is a plan view of another example of the disposable straight razor of the present invention having double razor blades;

FIG. 10 is a sectional view through the body of the disposable straight razor shown in FIG 9 and is taken along line C - C of FIG 9;

FIG. 11 is a top plan view of the body of the disposable straight razor shown in FIG 9 and is taken along line D - D of FIG 9;

FIG. 12 is a plan view of another example of the disposable straight razor of the present invention having double razor blades;

FIG. 13 is a sectional view through the body of the disposable straight razor shown in FIG 12 and is taken along line E - E of FIG 12;

FIG. 14 is a top plan view of the body of the disposable straight razor shown in FIG 12 and is taken along line F - F of FIG 12;

FIG. 15 is a plan view of a third embodiment of the disposable straight razor of the present invention having triple razor blades;

FIG. 16 is a sectional view through the body of the disposable straight razor shown in FIG. 15 and is taken along line G - G of FIG. 15;

FIG. 17 is a top plan view of the body of the disposable straight razor shown in FIG. 15 and is taken along line H - H of FIG. 15;

FIG. 18 is bottom plan view of the cover for the disposable straight razor shown in FIG. 15;

FIG. 19 is a plan view of another example of the disposable straight razor of the present invention having triple razor blades;

FIG. 20 is a sectional view through the body of the disposable straight razor shown in FIG. 19 and is taken along line I - I of FIG. 19;

FIG. 21 is a top plan view of the body of the disposable straight razor shown in FIG. 19 and is taken along line K - K of FIG. 19;

FIG. 22 is a plan view of still another example of the straight razor of the present invention having triple razor blades;

FIG. 23 is a sectional view through the body of the disposable straight razor shown in FIG. 22 and is taken along line L - L of FIG. 22;

FIG. 24 is a top plan view of the body of the disposable straight razor shown in FIG. 22 and is taken along line M - M of FIG. 22;

DESCRIPTION OF THE PREFERRED EMBODIMENT(S)

[0011] FIG. 1 is a plan view showing the straight razor 1 of the present invention. The straight razor 1 comprises two sections. The first section is a body 6 of the straight razor 1 having a metal razor blade 3 fixed therein, such as by having the body 6 molded around the razor blade 3. The second section comprises a cover 2 for the body 6 and razor blade 3 and also serves as a balance tool for the user's hand. The two sections are connected by a screw 4 which can be made from any suitable material, e.g. a plastic or a metal.

[0012] It should be noted that the surface 5 of the body 6 of the straight razor 1 has a rough texture or serrations and is not smooth in order to prevent sliding of the straight razor 1 in the hand of a user and allow maximum control of the straight razor during use to get the best shaving result in the shortest possible time.

[0013] The razor blade 3 is fixed in the body 6 such as by molding a plastic body 6 about the razor blade 3 thereby to provide a unitary one piece body 6 and razor blade 3 so that the razor blade 3 cannot be detached or removed or replaced.

[0014] According to one teaching of the present invention, the razor blade 3 projects above an edge 10 of the body 6 a distance of from approximately 0.5 mm to approximately 4 mm.

[0015] The cover 2 can be pivoted about the screw 4 to cover for the razor blade 3 and body 6 to facilitate the use of the straight razor 1. The cover 2 may have

any shape other than the shape shown in FIG. 1, e.g. one of the shapes 11, 12 or 13 shown in FIG. 2 or be a separate cover as shown in FIG's 3 and 4.

[0016] FIG. 2 illustrates three shapes 11, 12 or 13 of the cover 2 which can also form part of a handle and which can be grasped to facilitate handling of the straight razor and provide a more attractive cover or handle 2. However it will be noted that any desirable shape can be used for the cover 2.

[0017] FIG. 3 illustrates another example of a straight razor 21 of the present invention. In this example, a curved razor handle 22 is integral with a body 24 having a razor blade 3 mounted in the body 24. In this example, a separate, plastic, elongate, inverted U-shaped cover 26 is provided which is not connected to the body 24. Here the straight razor 21 and the razor blade 3 mounted in the body 24 of the straight razor 21 are one simple piece easy to handle and use with a disposable plastic cover 26.

[0018] FIG. 4 illustrates still another example of a straight razor 31 having a body 32 constructed according to the teachings of the present invention. The straight razor 31 represents a slight variation of the straight razor 21 shown in FIG. 3. In this respect, the variation resides in the shape of the body 32 of the straight razor 31 which has a ring shaped handle portion 34 and an upper edge 36 having the razor blade 3 mounted therein and having a notch 38 for receiving a finger or thumb. Also a lower edge 40 of the body 32 has finger receiving notches 42 for facilitating gripping of the body 32 and handle portion 34. The razor blade 3 is identical to the blade 3 shown in FIG. 3 and the simple plastic cover 46 is identical to the cover 26 shown in FIG. 3.

[0019] In FIG. 5 there is illustrated a plan view of a second embodiment disposable straight razor 1 constructed according to the teaching of the present invention. The disposable double edge straight razor 1 comprises two sections, the first section being a body 7 of the straight razor 1 with a double razor blade assembly 3 fixed therein, and the second section being a cover 2 for the disposable straight razor 1 which is coupled to the body 7 and can act as a balance for the straight razor 1 when it is held in user's hand. The two sections 2 and 7 are connected by screw 4 which can be made from any suitable material, e.g. plastic or metal.

[0020] It should be noted that a surface 5 of the disposable straight razor is rough or serrated and is not smooth in order to prevent sliding of the disposable straight razor in the hand of the user and to allow maximum control of the straight razor during use to get the best shaving result in the shortest possible time.

[0021] FIG. 6 is a cross-section of the body and the double razor blade assembly 3 shown in FIG. 5. The double blade razor assembly 3 is fixed in the body 7 so that it cannot be detached or removed or replaced. The double razor blade assembly 3 comprises a higher or upper blade 11 and lower, outer blade 12. There is a

space 8 between the upper edges of the blades 11 and 12 and spacing material 13 between the two blades 11 and 12. The distance between the two blades is between approximately 0.5 mm and 2.00 mm. Also the lower blade 12 can have the body 7 molded up to the upper edge of the lower, outer blade 12 and the upper edge can even be a smooth continuation of the side of the body 7.

[0022] FIG. 7 is a top plan view of the body 7 of the disposable straight razor 1 shown in FIG. 5 and shows the double razor blade assembly 3 with two blades 11 and 12 and the rough or serrated surface 5 on an upper edge of the body 7 adjacent the double razor blade assembly 3 mounted in the body 7.

[0023] It is to be noted that the double razor blade assembly 3 is fixed in the body 7 of the disposable straight razor 1 so that it cannot be detached or removed and so that the upper blade 11 projects above an upper edge 10 of the body 7 by approximately 0.5 mm to 4.00 mm, and preferable between 1-2 mm for providing smooth fine shaving. The higher or upper blade 11 projects between approx. 0.5 mm to 2.00 mm above the lower, outer blade 12. The distance between the blades 11 and 12 is in the range of about 0.5 mm and 2.00 mm and is maintained by the normally plastic, spacing material 13.

[0024] FIG. 8 is a bottom or underside view of the cover 2 and shows a slot or cavity 16 which receive the double blade assembly and at least part of the body 7 of the disposable straight razor 1 and shows the position of the screw 4 forming a pivot axis for the cover 2 and a cover stopper rod 6 which extends across the cover 2 and serve to stop movement of the cover 2 against the body 7 of the disposable razor 1.

[0025] The cover 2 serve to cover the double razor blade assembly 3 and serves as a handle to facilitate the use of the disposable straight razor 1.

[0026] The cover 2 may have any shape other than the shape shown in FIG. 5 e.g. shapes 11, 12, 13 shown in FIG. 2, although the shape of the cover 2 is not to be limited to the shapes shown in the drawings.

[0027] FIG. 9 illustrates another example of a straight razor 21 of the present invention. In this example, a curved razor handle 22 is integral with a body 24 having a double razor blade assembly 3 mounted in the body 24. In this example, a separate, plastic, elongate, inverted U-shaped cover 26 is provided which is not connected to the body 24. Here the straight razor 21 and the double razor blade assembly 3 mounted in the body 24 of the straight razor 21 are one simple piece easy to handle and use with a disposable plastic cover 26.

[0028] It is to be noted that the double razor blade assembly 3 is fixed in the body 24 of the disposable straight razor 21 so that it cannot be detached or removed and so that the upper blade 11 projects above an upper edge 28 of the body 24 by approximately 0.5 mm to about 4 mm and preferably between 1 and 2 mm

for providing smooth fine shaving. The higher or upper blade 11 projects between approximately 0.5 mm and about 2 mm above the lower, outer blade 12 by 0.5 - 2 mm. The distance between the blades 11 and 12 is in the range of between approximately 0.5 mm and about 2 mm and is maintained by the normally plastic, spacing material 13.

[0029] FIG.10 is a sectional view of the body 24 shown in FIG. 9 and is similar to the sectional view shown in FIG 6 and shows the body 24, the double razor blade assembly 3, the higher or upper blade 11, the lower outer blade 12 and the spacing material 13.

[0030] FIG 11 is a top plan view of the body 24 shown in FIG 9 and is similar to the top plan view shown in FIG 7 and shows the double razor blade assembly 3 and the rough or serrated surface 5.

[0031] FIG.12 illustrates still another example of a straight razor 31 having a body 32 constructed according to the teaching of the present invention. The straight razor 31 represent a slight variation of the straight razor 21 shown in FIG 9. In this example, the variation resides in the shape of the body 32 of the straight razor 31 which has a ring shaped handle portion 34 and an upper edge 36 having the double razor blade assembly 3 mounted therein and having a notch 38 for receiving a finger or thumb. Also, a lower edge 40 of the body 32 has finger receiving notches 42 for facilitating gripping of the body 32 and handle portion 34. The double razor blade assembly 3 is identical to the double razor blade assembly 3 shown in FIGS 5 and 9 and the simple plastic cover 46 is identical to the cover 26 shown in FIG 9.

[0032] It is to be noted that the double razor blade assembly 3 is fixed in the body 32 of the disposable straight razor 31 so that it cannot be detached or removed and so that the upper blade 11 projects above an upper edge 36 of the body 32 by approximately 0.5 mm to about 4.00, and preferably between 1 and 2 mm for providing smooth fine shaving. The higher or upper blade 11 projects between approximately 0.5 mm and about 2 mm above the lower, outer blade 12 by 0.5 - 2 mm . The distance between blades 11 and 12 is in the range of between approximately 0.5 mm and about 2 mm and is maintained by the normally plastic, spacing material.

[0033] FIG. 13 is a sectional view of the body 32 shown in FIG.12 and is similar to the sectional view shown in FIG. 6 and shows the body 32, the double razor blade assembly 3, the higher or upper blade 11, the lower outer blade 12 and the spacing material 13.

[0034] FIG 14 is a top plan view of the body 32 shown in FIG.12 and is similar to the top plan view shown in FIG.7 and shows the double razor blade assembly 3 and the rough or serrated surface 5.

[0035] The straight razor 1, 21 or 31 can be made from different materials e.g. plastic, stainless steel, aluminium, wood, etc. However, in one preferred embodiment of the straight razor of the present invention the body 6, 7, 24 or 32 is made from plastic, as it is cheap,

light weight and easy to handle.

[0036] In FIG. 15 is illustrated a plan view of a disposable straight razor 1 constructed according to the teachings of the present invention. The disposable triple edge straight razor 1 comprises two sections, the first section being a body 7 of the straight razor 1 with a triple razor blade assembly 3 fixed therein, and the second section being a cover 2 for the disposable straight razor 1 which is coupled to the body 7 and can act as a balance for the straight razor 1 when it is held in a user's hand. The two sections 2 and 7 are connected by a screw 4 which can be made from any suitable material, e.g. a plastic or a metal.

[0037] It should be noted that a surface 5 of the disposable straight razor is rough or serrated and is not smooth in order to prevent sliding of the disposable straight razor in the hand of the user and to allow maximum control of the straight razor during use to get the best shaving result in the shortest possible time.

[0038] FIG. 16 is a cross section of the body 7 and the triple razor blade assembly 3 shown in FIG. 15. The triple blade razor assembly 3 is fixed in the body 7 so that it can not be detached or removed or replaced. The triple razor blade assembly 3 comprises a higher or upper blade 11 and two lower, outer blades 12. There is a space 8 between the upper edge of the blade 11 and each one of the lower outer blades 12 with spacing material 13 between the higher blade 11 and a first one of the lower blades 12 and between the higher blade 11 and the other lower blade 12. The distance between the two outer blades is between approximately 0.5 mm and approximately 2 mm. Also, each lower blade 12 can have the body 7 molded up to the upper edge of the lower, outer blade 12 and the upper edge even can be a smooth continuation of the side of the body 7.

[0039] FIG. 17 is a top plan view of the body 7 of the disposable straight razor 1 shown in FIG. 15 and shows the triple razor blade assembly 3 with the three blades 11 and 12 and the rough or serrated surface 5 on an upper edge of the body 7 adjacent the triple razor blade assembly 3 mounted in the body 7.

[0040] It is to be noted that the triple razor blade assembly 3 is fixed in the body 7 of the disposable straight razor 1 so that it can not be detached or removed and so that the upper blade 11 projects above an upper edge 10 of the body 7 by approximately 0.5 mm to approximately 4 mm, and preferably between 1 and 2 mm for providing smooth fine shaving. The higher or upper blade 11 projects between approximately 0.5 mm and approximately 2 mm above the lower, outer blades 12. The distance between the blade 11 and each one of the lower blades 12 is in the range of between approximately 0.5 mm and approximately 2 mm and is maintained by the normally plastic, spacing material 13 on each side of the higher blade 11.

[0041] FIG. 18 is a bottom or underside view of the cover 2 and shows a slot or cavity 16 which receives the triple blade assembly and at least part of the body 7 of

the disposable straight razor 1 and shows the position of the screw 4 forming a pivot axis for the cover 2 and a cover stopper rod 6 which extends across the cover 2 and serves to stop movement of the cover 2 against the body 7 of the disposable razor 1.

[0042] The cover 2 serves to cover the triple razor blade assembly 3 and serves as a handle to facilitate the use of the disposable straight razor 1.

[0043] As shown in FIG. 2, the cover 2 may have any shape other than the shape shown in FIG. 15, e.g. the shapes 11, 12 and 13 shown in FIG. 2, although the shape of the cover 2 is not to be limited to the shapes shown in the drawings.

[0044] FIG. 19 illustrates another example of a straight razor 21 of the present invention. In this example, a curved razor handle 22 is integral with a body 24 having a triple razor blade assembly 3 mounted in the body 24. In this embodiment, a separate, plastic, elongate, inverted U-shaped cover 26 is provided which is not connected to the body 24. Here the straight razor 21 and the triple razor blade assembly 3 mounted in the body 24 of the straight razor 21 are one simple piece easy to handle and use with a disposable plastic cover 26.

[0045] It is to be noted that the triple razor blade assembly 3 is fixed in the body 24 of the disposable straight razor 21 so that it can not be detached or removed and so that the upper blade 11 projects above an upper edge 28 of the body 24 by approximately 0.5 mm to approximately 4 mm, and preferably between 1 and 2 mm for providing smooth fine shaving. The higher or upper blade 11 projects between approximately 0.5 mm and approximately 2 mm above the lower, outer blade 12 by 0.5 - 2 mm. The distance between the higher blade 11 and each one of the lower blades 12 is in the range of between approximately 0.5 mm and approximately 2 mm and is maintained by the normally plastic, spacing material 13.

[0046] FIG. 20 is a sectional view of the body 24 shown in FIG. 19 and is similar to the sectional view shown in FIG. 16 and shows the body 24, the triple razor blade assembly 3, the higher or upper blade 11, the lower outer blades 12 and the spacing material 13.

[0047] FIG. 21 is a top plan view of the body 24 shown in FIG. 19 and is similar to the top plan view shown in FIG. 17 and shows the triple razor blade assembly 3 and the rough or serrated surface 5.

[0048] FIG. 22 illustrates still another example of a straight razor 31 having a body 32 constructed according to the teachings of the present invention. The straight razor 31 represents a slight variation of the straight razor 21 shown in FIG. 19. In this respect, the variation resides in the shape of the body 32 of the straight razor 31 which has a ring shaped handle portion 34 and an upper edge 36 having the triple razor blade assembly 3 mounted therein and having a notch 38 for receiving a finger or thumb. Also a lower edge 40 of the body 32 has finger receiving notches 42 for facili-

tating gripping of the body 32 and handle portion 34. The triple razor blade assembly 3 is identical to the triple razor blade assembly 3 shown in FIG's. 16 and 20 and the simple plastic cover 46 is identical to the cover 26 shown in FIG. 19.

[0049] It is to be noted that the triple razor blade assembly 3 is fixed in the body 32 of the disposable straight razor 31 so that it can not be detached or removed and so that the upper blade 11 projects above an upper edge 36 of the body 32 by approximately 0.5 mm to approximately 4 mm, and preferably between 1 and 2 mm for providing smooth fine shaving. The higher or upper blade 11 projects between approximately 0.5 mm and approximately 2 mm above the lower, outer blade 12 by 0.5 - 2 mm. The distance between the higher blade 11 and each one of the lower blades 12 is in the range of between approximately 0.5 mm and approximately 2 mm and is maintained by the normally plastic, spacing material 13 on each side of the higher blade 11.

[0050] FIG. 23 is a sectional view of the body 32 shown in FIG. 22 and is similar to the sectional view shown in FIG. 16 and shows the body 32, the triple razor blade assembly 3, the higher or upper blade 11, the lower outer blades 12 and the spacing material 13.

[0051] FIG. 24 is a top plan view of the body 32 shown in FIG. 22 and is similar to the top plan view shown in FIG. 17 and shows the triple razor blade assembly 3 and the rough or serrated surface 5.

[0052] In the manufacture of the straight razor 1, 21 or 31, a mold having the required shape for the body 6, 7, 24 or 32 is made and plastic is injected into the mold. It should be noted that injection of the plastic is made after first fixing the razor blade 3 to project out from an edge of the body 6, 7, 24 or 32 to be molded by the distance specified above, namely 0.5 to 4 mm and preferably 1 to 2 mm so that the razor 3 forms part of the one piece body 6, 7, 24 or 32 whereby the razor blade 3 cannot be removed from the straight razor 1, 21 or 31.

[0053] From the foregoing description, it will be understood that the disposable straight razors of the present invention have a number of advantages, some of which have been described above and others of which are inherent in the invention.

[0054] Also, it will be understood that modifications can be made to the disposable straight razor of the present invention without departing from the teachings of the invention.

[0055] Accordingly, the scope of the invention is only to be limited as necessitated by the accompanying claims.

Claims

1. A disposable straight razor (1, 21, 31) comprising an elongate body (6, 7, 24, 32), a single, double or triple razor blade assembly (3) mounted in said body (6, 7, 24, 32) and a cover (2, 26, 46) for said

body (6, 7, 24, 32) and said razor blade assembly (3) which extends over said body (6, 7, 24, 32) and completely over said razor blade assembly (3), wherein said body (6, 7, 24, 32) is being molded about said razor blade assembly (3) and said razor blade assembly (3) is extending outwardly from said body (6, 7, 24, 32) a distance of from approximately 0.05 mm to approximately 4 mm.

2. The disposable straight razor (1) of claim 1 wherein said body (6, 7) includes a handle portion, said cover (2) is pivotally connected to said handle portion of said body (6, 7) and said cover (2) has an elongate slot (16) with a width sufficient to cover the single, double or triple razor blade assembly (3) and body portion in which said razor blade assembly (3) is mounted.

3. The disposable straight razor (1, 21, 31) of one of the preceding claims wherein the surface (5) of said body (6, 7, 24, 32) has one of a rough texture or serrations to prevent sliding of said body (6, 7, 24, 32) in the hand of the user to provide for maximum control of the straight razor (1, 21, 31) during use.

4. The disposable straight razor (1, 21, 31) of one of the preceding claims wherein said razor blade assembly (3) is a single razor blade and projects out of said body (6, 7, 24, 32) a distance from approximately 0.5 mm to approximately 2 mm.

5. Double razor blade assembly (3) comprising a higher or upper blade (11) and lower, outer blade (12), wherein there is a space between the upper edges of the blades (11, 12) and spacing material (13) between the two blades (11, 12).

6. The disposable straight razor (1, 21, 31) of one of the claims 1 to 3 wherein said razor blade assembly (3) is a double razor blade and projects above the upper edge of the body (6, 7, 24, 32) by approximately 0.5 mm to 4.00 mm, and preferable between 1-2 mm, the higher or upper blade (11) projects between approx. 0.5 mm to 2.00 mm above the lower, outer blade (12) and the distance between the blades (11, 12) is in the range of about 0.5 mm and 2.00 mm and is maintained by the normally plastic, spacing material (13).

7. The triple razor blade assembly (3) comprising a higher or upper blade (11) and two lower, outer blades (12), wherein there is a space between the upper edge of the upper blade (11) and each one of the lower outer blades (12) which is maintained with spacing material (13) between the higher or upper blade (11) and a first one of the lower blades (12) and between the higher blade (11) and the other lower blade (12) and wherein the distance between

the two outer blades (12) is between approximately 0.5 mm and approximately 2 mm.

8. The disposable straight razor (1, 21, 31) of one of the claims 1 to 3 wherein said razor blade assembly (3) is a triple razor blade and projects so that the upper blade (11) projects above an upper edge of the body (6, 7, 24, 32) by approximately 0.5 mm to approximately 4 mm, and preferably between 1 and 2 mm for providing smooth fine shaving, the higher or upper blade (11) projects between approximately 0.5 mm and approximately 2 mm above the lower, outer blades (12) and the distance between the upper blade and each one of the lower blades is in the range of between approximately 0.5 mm and approximately 2 mm and is maintained by the normally plastic, spacing material (13) on each side of the higher blade (11). 5
9. The disposable straight razor (21, 31) of one of the claims 1, 2, 3, 4, 6 or 8 wherein said cover (26, 46) is a separate, plastic, elongate, inverted U-shaped cover (26, 46). 10
10. The disposable straight razor (1, 21, 31) of one of the claims 1, 2, 3, 4, 6, 8 or 9 wherein said body (6, 7, 24, 32) includes a handle portion which has a curved free end (22). 15
11. The disposable straight razor (1, 21, 31) of one of the claims 1, 2, 3, 4, 6, 8, 9 or 10 wherein said body (6, 7, 24, 32) includes a handle portion which has a free end in the shape of a ring (34) for receiving a finger. 20
12. The disposable straight razor (1, 21, 31) of one of the claims 1, 2, 3, 4, 6, 8, 9, 10 or 11 wherein said body (6, 7, 24, 32) includes a handle portion which has at least one curved finger or thumb receiving notch (38, 42) on a side edge of said body (6, 7, 24, 32). 25
13. The disposable straight razor (1) of one of the claims 1, 2, 3, 4, 6, 8, 9, 10, 11 or 12 wherein said body (6, 7) is molded around said single, double or triple razor blade assembly (3) to provide a one piece straight razor (1) with a pivotally connected, handle extension forming, plastic cover (2). 30
14. The disposable straight razor (21, 31) of one of the claims 1, 2, 3, 4, 6, 8, 9, 10, 11 or 12 wherein said body (24, 32) is molded around said single, double or triple razor blade assembly (3) to provide a one piece straight razor (21, 31) with a separate plastic cover (26, 46). 35
15. The disposable straight razor (1, 21, 31) of one of the claims 13 to 14 wherein said double razor blade assembly (3) comprises an higher, upper blade (11), and, lower, outer blade (12) and spacing material (13) between said higher blade (11) and said lower outer blade (12). 40
16. The disposable straight razor (1, 21, 31) of claim 15 wherein the upper edge of said upper blade (11) is spaced above the upper edge of said lower blade (12) a distance of between approximately 0.5 mm and approximately 2 mm. 45
17. The disposable straight razor (1, 21, 31) of one of the claims 15 to 16 wherein said blades (11, 12) are spaced laterally a distance between approximately 0.5 mm and approximately 2mm. 50
18. The disposable straight razor (1, 21, 31) of one of the claims 15 to 17 wherein said body (6, 7, 24, 32) is molded up to the upper edge of said lower, outer blade (12) whereby said upper edge of said lower blade (12) is a smooth continuation of one side of said body (6, 7, 24, 32). 55
19. The disposable straight razor (1, 21, 31) of one of the claims 13 to 14 wherein said triple razor blade assembly (3) comprises an higher, upper blade (11), and two, outwardly spaced, lower, outer blades (12) and spacing material (13) between said higher blade (11) and each lower outer blade (12). 60
20. The disposable straight razor (1, 21, 31) of claim 19 wherein the upper edge of said upper blade (11) is spaced above the upper edge of each one of said lower blades (12) a distance of between approximately 0.5 mm and approximately 2 mm. 65
21. The disposable straight razor (1, 21, 31) of one of the claims 19 to 20 wherein said blades (11, 12) are spaced laterally from each other said a distance between approximately 0.5 mm and approximately 2mm. 70
22. The disposable straight razor (1, 21, 31) of one of the claims 19 to 21 wherein said body (6, 7, 24, 32) is molded up to the upper edge of each lower, outer blade (12) whereby said upper edge of each said lower blade (12) is a smooth continuation of one side of said body (6, 7, 24, 32). 75

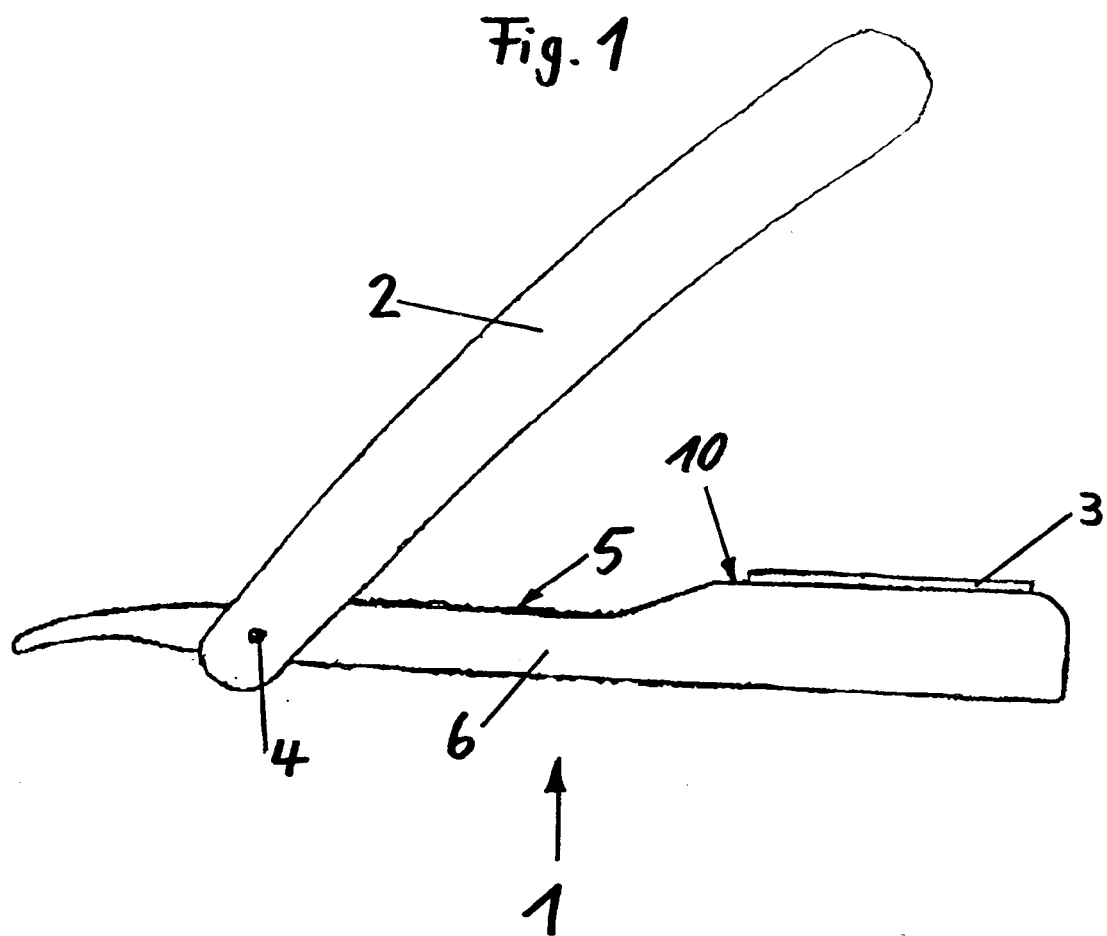


Fig. 2

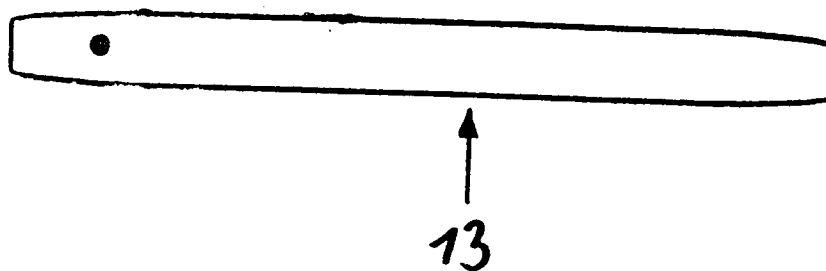
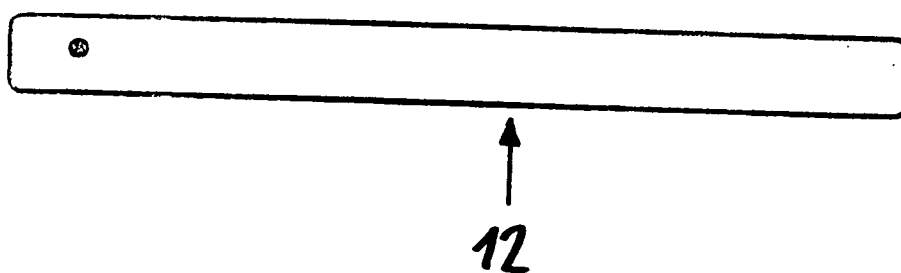
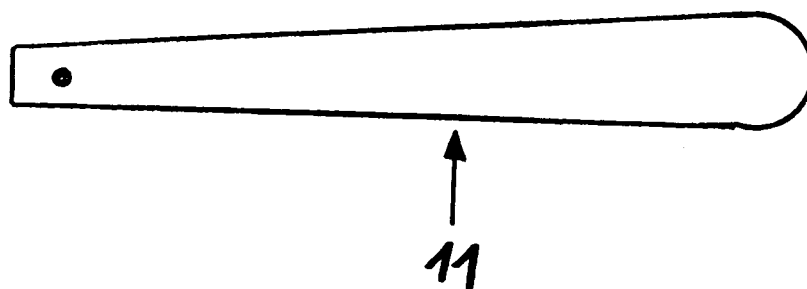


Fig. 3

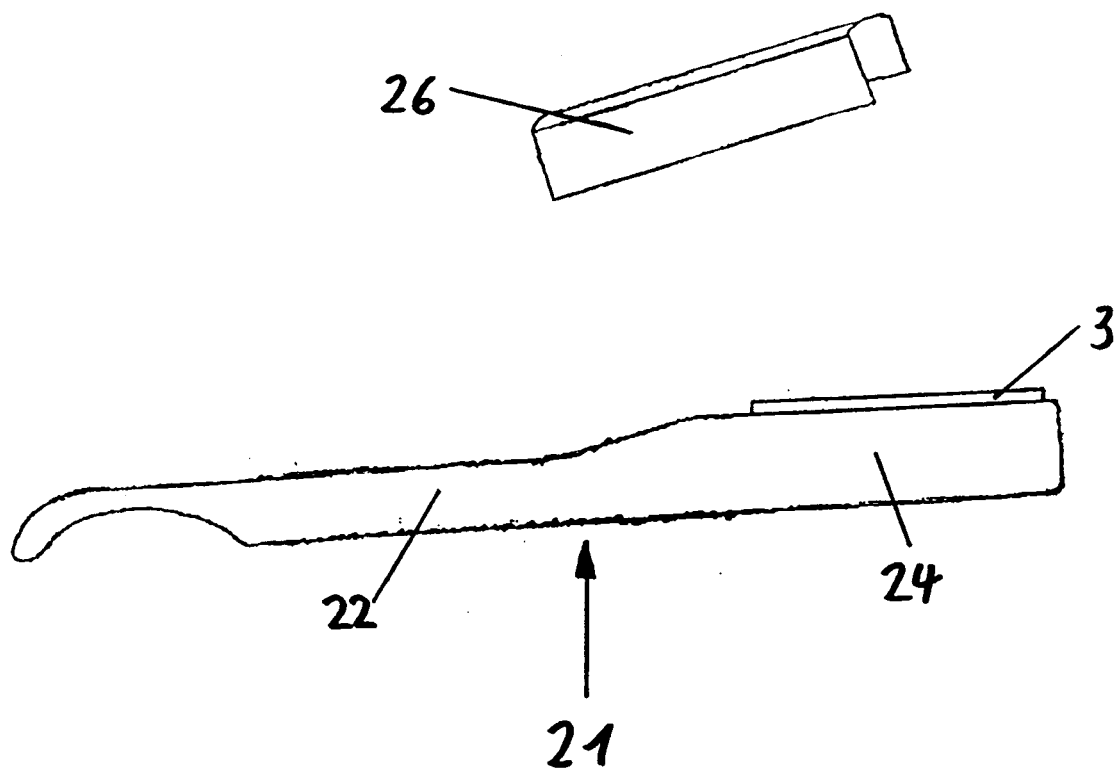
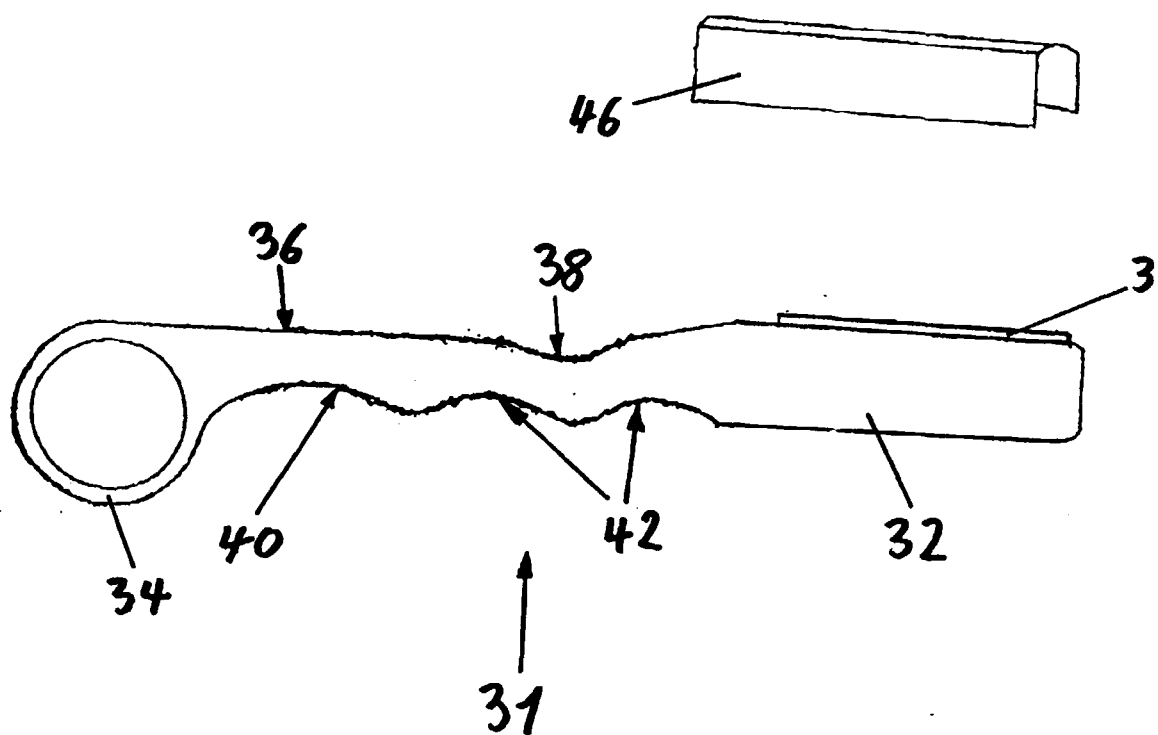


Fig. 4



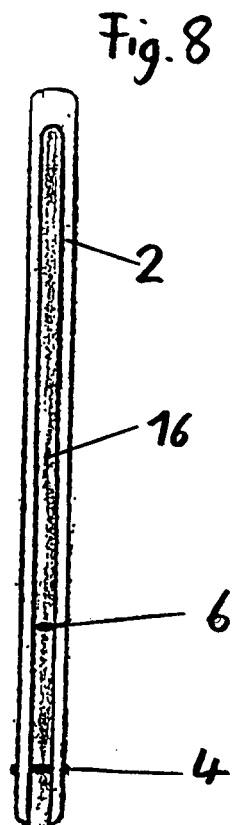
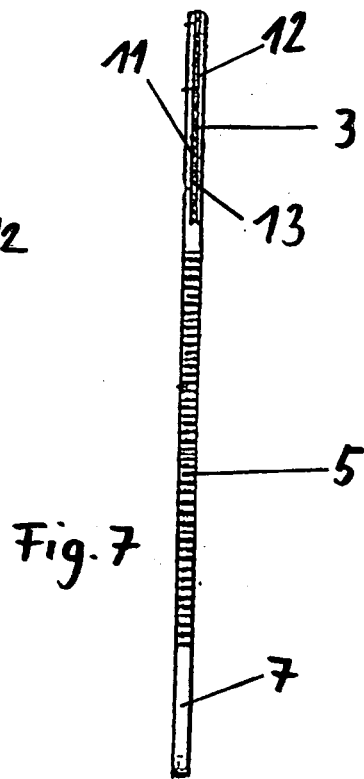
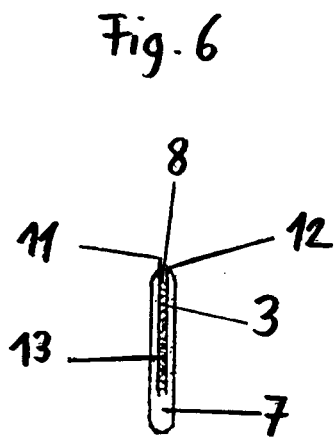
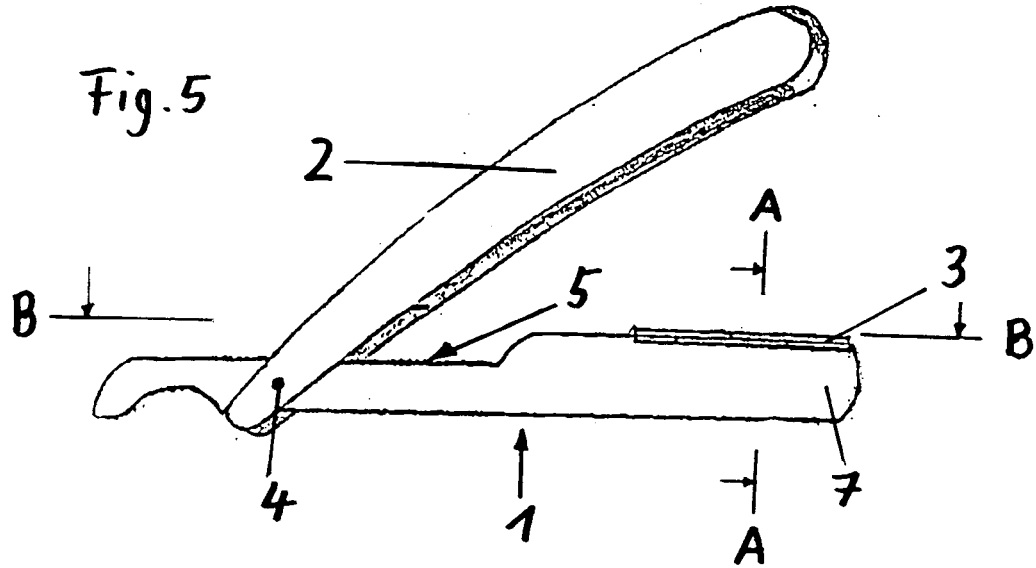


Fig. 9

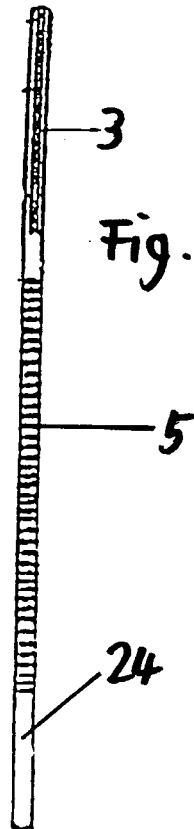
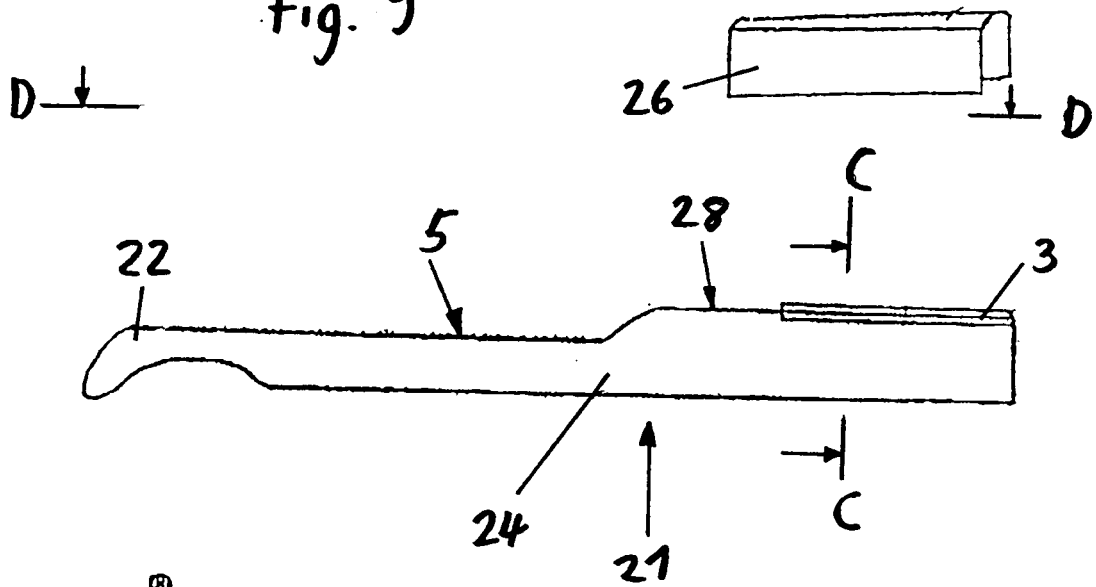


Fig. 11

Fig. 10

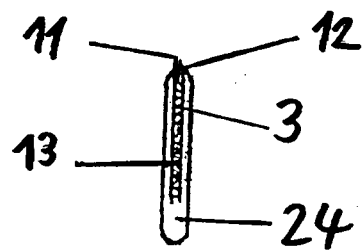


Fig. 12

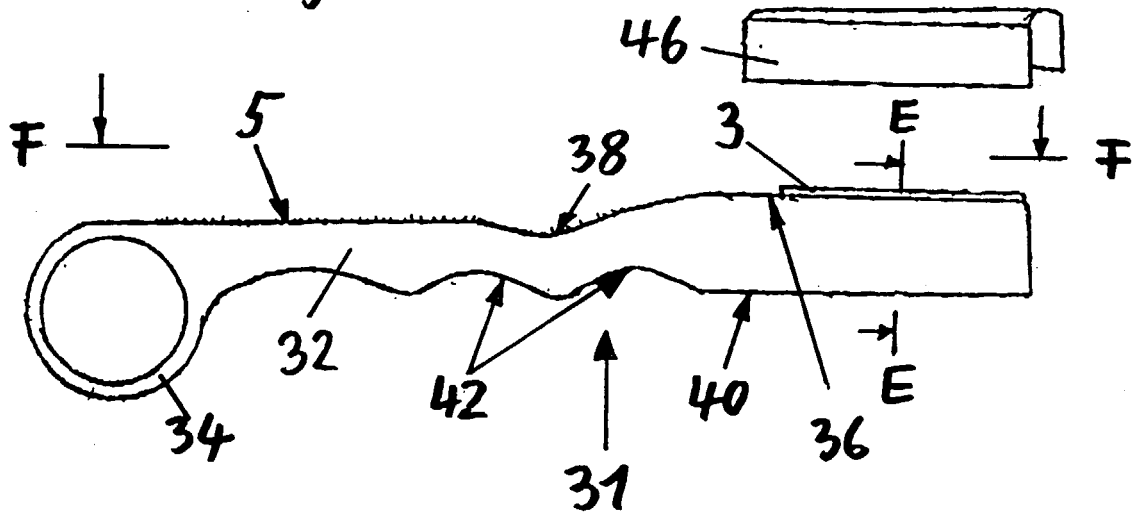


Fig. 13

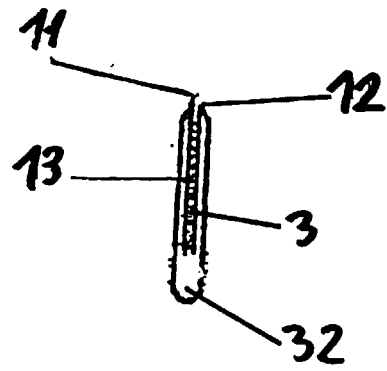
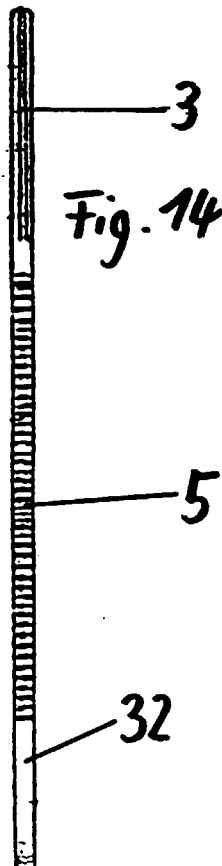


Fig. 14



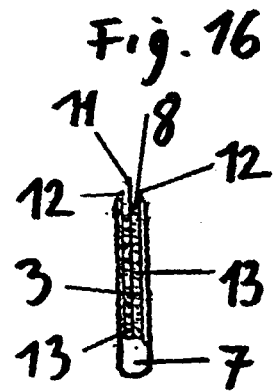
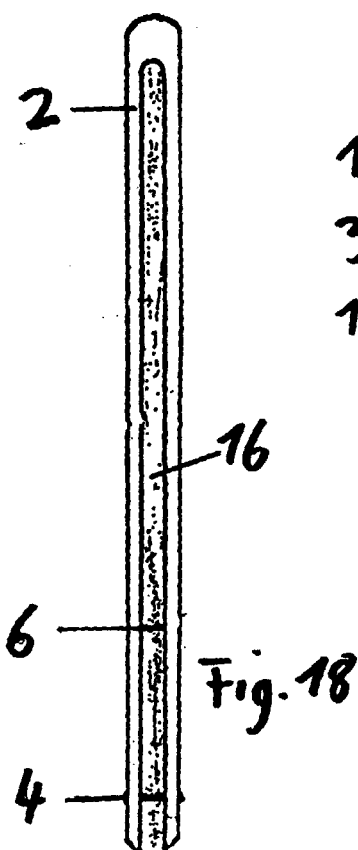
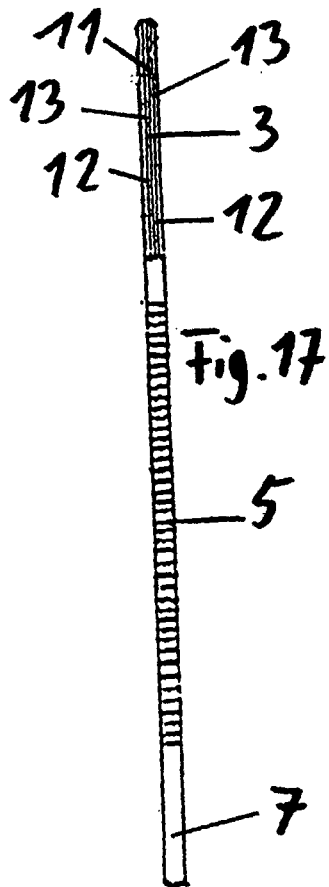
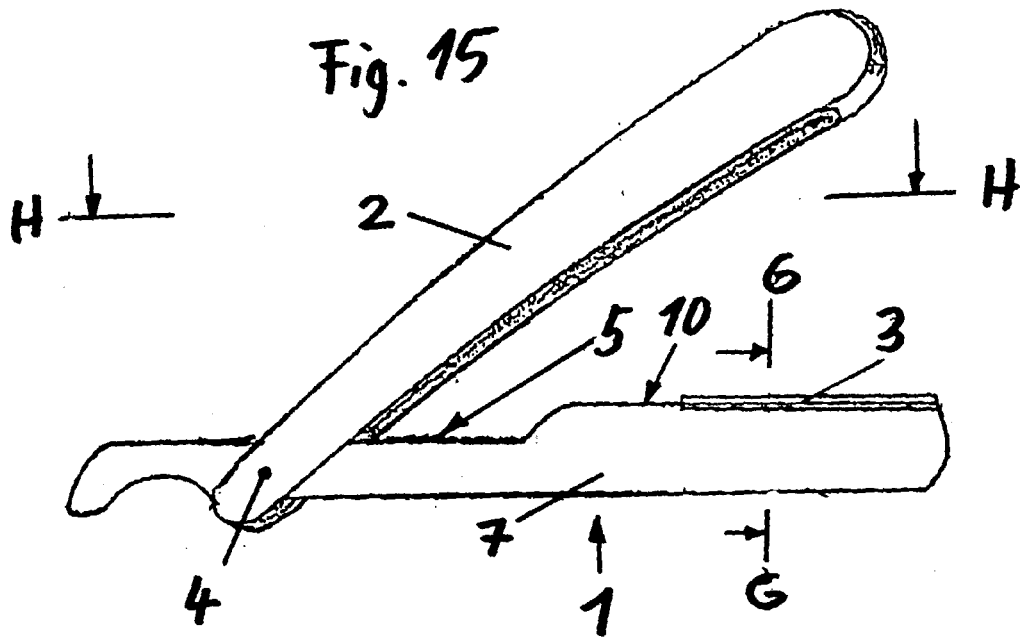


Fig. 19

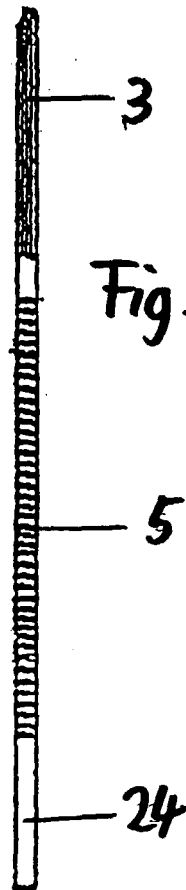
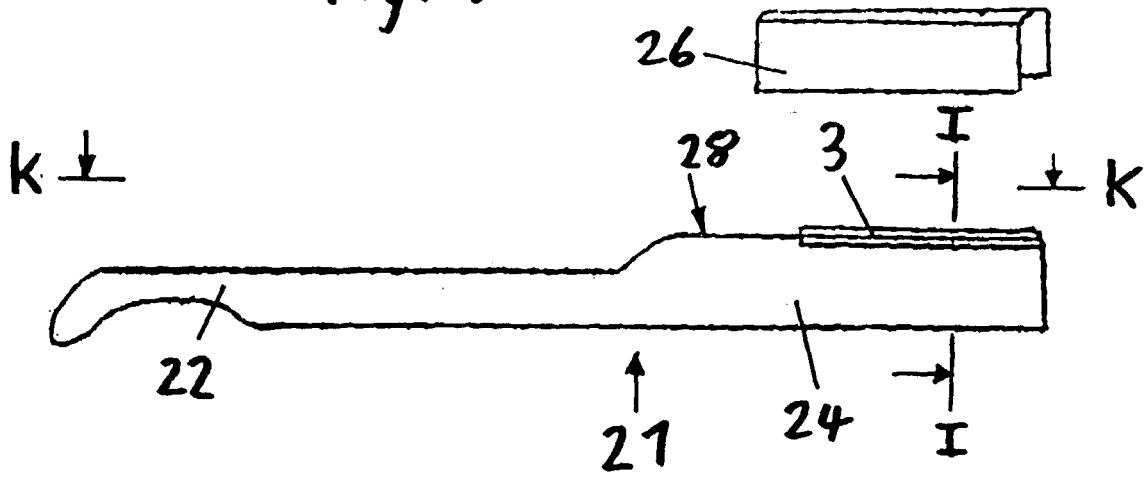


Fig. 21

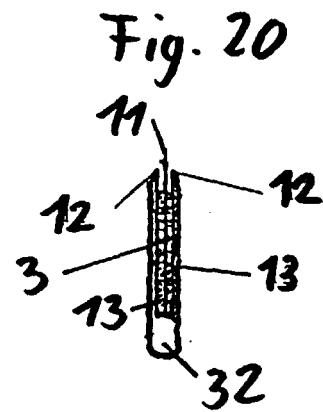


Fig. 20

Fig. 22

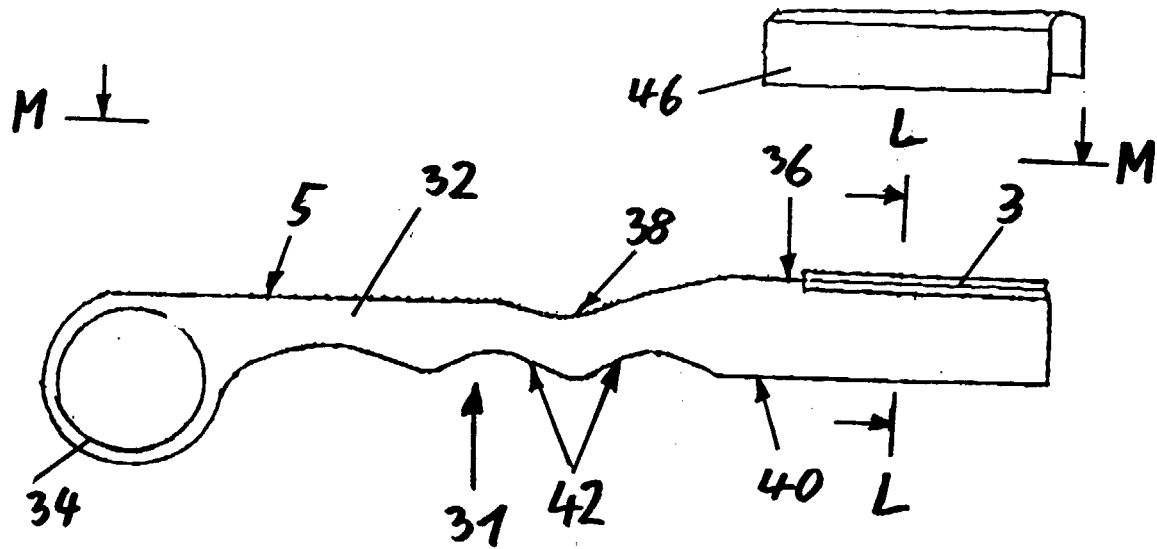


Fig. 23

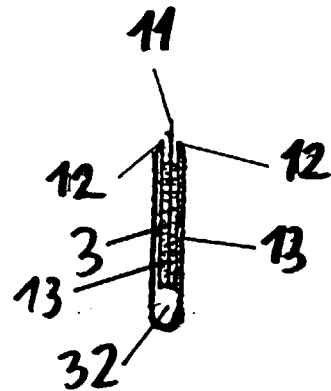
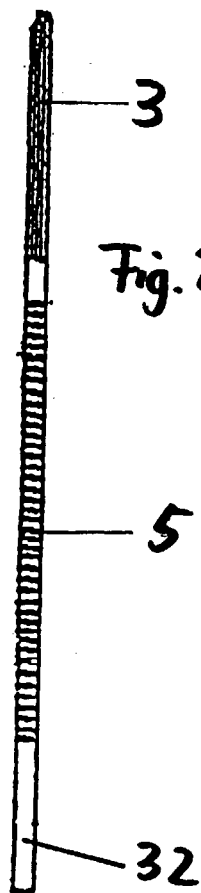


Fig. 24





European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 00 10 3448

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Y	DE 27 21 421 A (EICKER & SOEHNE H) 23 November 1978 (1978-11-23) * page 6, paragraph 5 - page 9, paragraph 2; figures 1-5 *	1-4, 9-14	B26B21/06
Y	US 5 908 036 A (ANDREWS EDWARD A) 1 June 1999 (1999-06-01) * column 12, line 22 - column 13, line 22; figures 4-6 *	1-4, 9, 10, 12-14	
Y	FR 2 704 797 A (LEDUC PIERRE) 10 November 1994 (1994-11-10) * page 2, line 34 - page 3, line 19; figure 1 *	11	
A	US 2 915 818 A (MEOHAS) 8 December 1959 (1959-12-08) * the whole document *	1, 5	
D, A	US 5 649 364 A (ILANLOU JAMSHID) 22 July 1997 (1997-07-22) * the whole document *	1, 5, 7	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7) B26B
Place of search THE HAGUE		Date of completion of the search 16 January 2001	Examiner Herijgers, J
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			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 00 10 3448

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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16-01-2001

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 2721421 A	23-11-1978	NONE	
US 5908036 A	01-06-1999	US 5673711 A	07-10-1997
		US 5479950 A	02-01-1996
		US 5934291 A	10-08-1999
		AU 724330 B	14-09-2000
		AU 6776396 A	12-03-1997
		BR 9610247 A	09-05-2000
		CA 2229489 A	27-02-1997
		EP 0955824 A	17-11-1999
		NZ 315936 A	28-10-1999
		WO 9706711 A	27-02-1997
FR 2704797 A	10-11-1994	NONE	
US 2915818 A	08-12-1959	NONE	
US 5649364 A	22-07-1997	NONE	

EPO FORM P0459

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