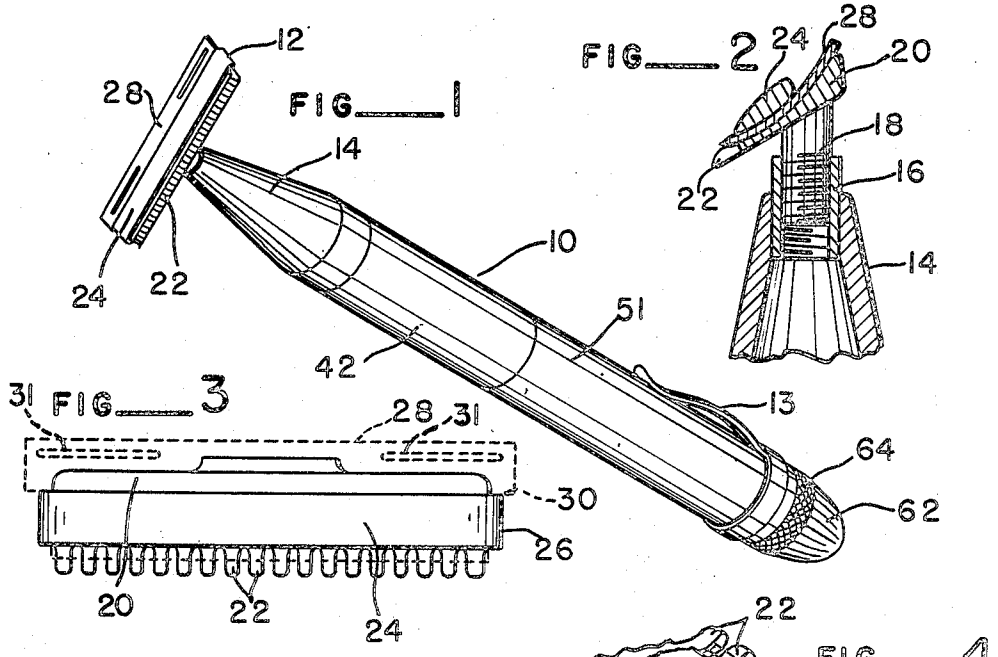
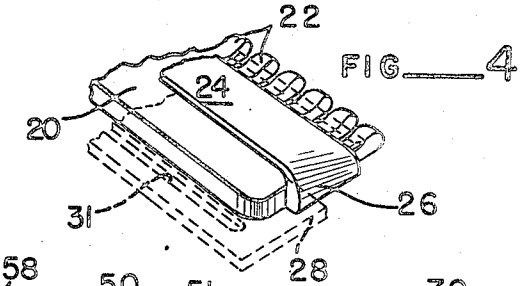
Feb. 16, 1954 K. SEKO 2,669,017

RAZOR HEAD

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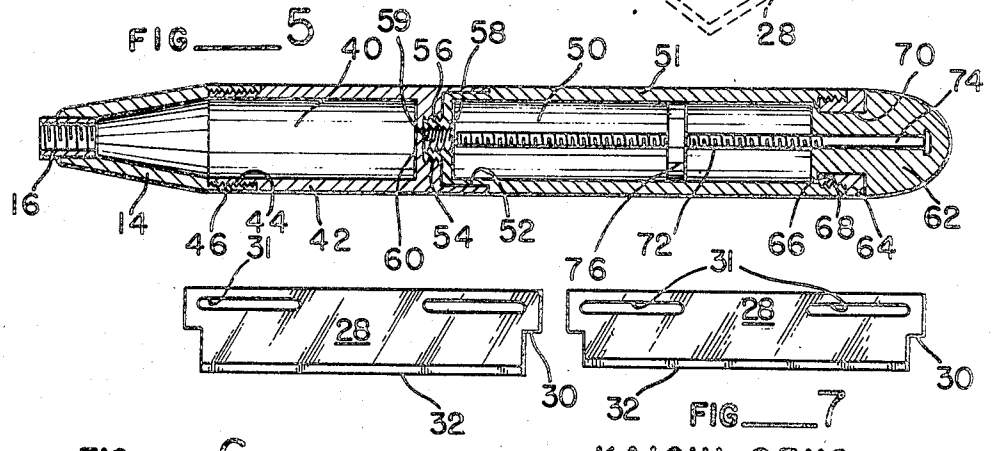


FIG. 6 FIG. 7

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FIG. 12

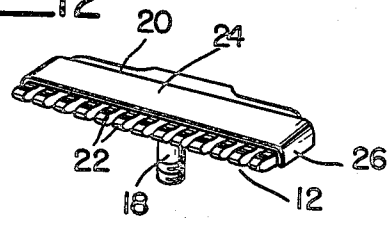
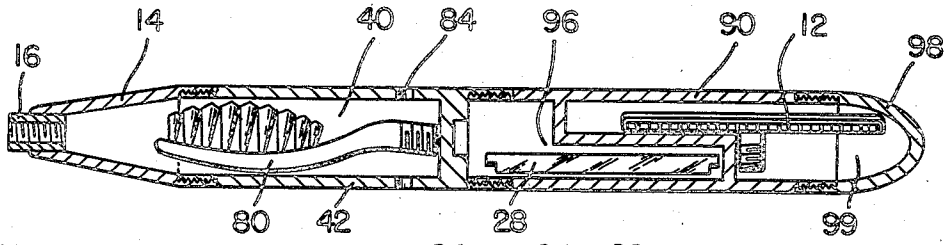


FIG. 9

FIG. 10

FIG. 11



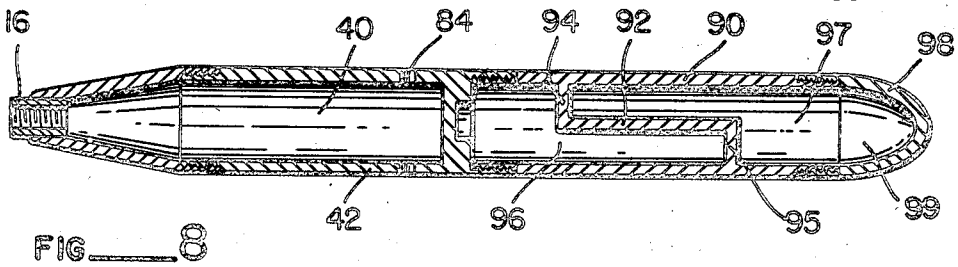


FIG. 8

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UNITED STATES PATENT OFFICE

2,669,017

RAZOR HEAD

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Application November 18, 1950, Serial No. 196,388

2 Claims. (Cl. 30—62)

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The present invention contemplates the provision of a very compact unit substantially the size of a fountain pen which will contain in a single housing the essentials of a razor and toothbrush kit. There are many persons whose nomadic habits require that they have a toilet kit that can be easily transported upon the person. This is true of travelers generally, of sportsmen, hunters, fishermen, and the like, but most especially is it true of members of the armed services. Members of the armed ground forces are constantly finding themselves in positions where in order to carry their essential combat weapons and impedimenta they must many times leave behind items of a personal character and it is especially for people of this type that this present invention has been created. In this one unit, which can be slightly modified by the employment of interchangeable units, a person can at all times have with him the essentials required for cleaning the teeth, shaving the face, and actually in cutting his own hair, and it is particularly desirable that a unit of this order be small enough that it can be carried clipped into a pocket, similarly to a fountain pen.

Our recent wars have shown great ingenuity on the part of manufacturers endeavoring to supply toilet kits and equipment suitable for personal use but in those instances observed the problem has generally been solved by re-combining or re-housing existing types of equipment, and when so employed the bulk of the same became so great that they must of necessity be carried in a kit bag and thus many times are not available for use at the time conditions permit of their use. With this present invention in its preferred form a person can carry conveniently, as clipped into a shirt pocket, a single container which will house a toothbrush, a razor kit, and a supply of razor blades. The housing, being shaped similarly to a fountain pen and provided with a similar type of clip, serves as a handle for the use of either the toothbrush or the razor. With slight substitution of parts it then follows that by having two such units a person could have a toothbrush, together with a supply of tooth paste and, in a separate unit, have a razor, complete with blades and a supply of shaving cream. This latter modification would require a duplication of the handle portion to a degree but still the bulk would not be excessive. To achieve these results it is necessary that the functioning elements, the razor head and the tooth brush head proper, be carefully re-designed so as to adapt them to this use. This present application shows one such preferred development.

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The principal object of the invention is to provide an improved razor head.

A further object of this present invention is to provide in a single container similar in size and shape to a fountain pen all the elements necessary for brushing one's teeth, shaving the face, and trimming or cutting the hair.

A further object of this invention is to provide in a single unit that is compact and easily carried all the essential elements of a toothbrush and safety razor with a supply of blades, in which each of the elements are fully protected until the moment of use occurs.

A further object is to provide a safety razor of very compact form in which blades suitable for shaving the face or for trimming the hair can be employed.

Further objects of the invention are to provide means whereby a storage compartment is provided for either the razor or the toothbrush head and in conjunction therewith a chamber equipped with expelling mechanism so that suitable cream can be carried for use with the razor, on one hand, or the toothbrush on the other.

Further objects, advantages and capabilities will be apparent from the description and disclosure in the drawings, or may be comprehended or are inherent in the device.

In the drawings:

Figure 1 is a perspective view showing the preferred embodiment of my invention.

Figure 2 is a longitudinal, sectional view taken transversely through the razor head and showing the handle member in fragmentary form only.

Figure 3 is a top plan view of the razor head with the form of a razor blade shown in its association therewith in dashed lines.

Figure 4 is a fragmentary perspective view illustrating the construction of the razor and showing a fragment of a razor blade in dashed lines in association therewith.

Figure 5 is a longitudinal sectional view through a modified form of my invention showing means for storing and expelling a suitable cream.

Figure 6 is a face view of a razor blade used with my razor for shaving.

Figure 7 is a face view of a similar razor blade, especially proportioned for use with my razor when used to trim or cut hair.

Figure 8 is a longitudinal sectional view through the preferred form of handle and storage compartment member associated with my toilet kit.

Figure 9 is a perspective view showing an

alternate use of my device in which a toothbrush has been substituted for the razor head.

Figure 10 is a side view of a toothbrush of a form most suitable for use with my device.

Figure 11 is a longitudinal sectional view in which the handle portion is shown without shading, so as to better illustrate the manner in which the razor blades and the toothbrush head are stored within the same.

Figure 12 is a perspective view further illustrating the form of razor head used with this device.

Referring more particularly to the disclosure in the drawings the numeral 10 designates the handle of my traveler's kit. This I prefer to form after the general proportions of a fountain pen, to the end that it may be conveniently carried about in the pocket, and the same may be provided with a spring clip 13 following out the fountain pen carrying principle. Adapted to be secured to one end of handle 10 is a razor head 12. This is made after the general principles of safety razors except that it is of modified structure to adapt it to the compact arrangement which is an essential of the present invention. To facilitate the use of the razor the attachment end 14 of the housing is made tapering or conical so that greater clearance will be provided in the immediate vicinity of the razor head, and the razor itself is adapted to be screwed or otherwise secured into a bushing 16 which is in turn secured within portion 14 of the body. As a most practical manner of making such an arrangement is to mold the body of one of the tough plastic materials, and inasmuch as the razor will be repeatedly removed and be reassembled into the shaving position it has been found desirable to provide an internally threaded metal bushing 16 which can be molded into the body and which will have threads that will be durable and give lasting usefulness over long periods. Co-acting with the internal threads of bushing 16 is the joiner portion 18 which is formed as part of the razor head. This joiner portion normally extends outwardly from the back surface of the razor head, positioned longitudinally of the razor at right angles to the same, and transversely of the razor head it is set at an angle so as to provide the convenient angular positioning of the razor blade with respect to the longitudinal axis of the handle much after the teachings of the present safety razor construction. Joiner portion 18 is exteriorly threaded to coact with the internal threads of bushing 16.

The razor head is provided with a base member 20 which is rather substantial in design and preferably formed of metal although certain of the plastics might be made to serve. The exterior face or that face opposite from the joiner portion 18 is longitudinally provided with a transverse curved surface. The transverse section shown in Figure 2 is illustrative of about the curvature that has been found most acceptable. The shaving edge of base member 20 is reduced or tapered and terminates in a plurality of similar teeth 22 whose construction will be best understood by a study of Figures 2, 3, and 4. Teeth of this order are common in safety razor blade construction and their function in this instance is similar to that of an ordinary safety razor. An elongated clamp member is disposed on the outer surface of base member 20 and spaced away from the same substantially the thickness of the razor blade used in the device. Clamp member 24 terminates in downturned ends 26 which are given considerable body so that a very firm engagement is secured between the clamp member 24 and base member 20. The preferred cross-section of clamp member 24 taken transversely of the same is shown in Figure 2 and as it is outwardly curved on both sides it produces a convexo-convex section.

Clamp bar 24, due to its rather substantial cross section and substantial down-turn portions 26, may be merely snap-clamped onto base 20. This is a most ideal arrangement in that minor variations of pressure can be applied to the razor blade and thus hold it securely in position; yet the frictional grip must be such that the razor blade can be easily inserted and removed.

Razor blade 28 is shown in Figure 2 in exaggerated thickness. Actually, because of the extreme curve found desirable in the blade it should be a very thin blade, should be no thicker than the thinnest of the presently available wafer blades. Blade 28 is seated in its adjacent position by shoulder portions 30 which abut the curved end portions 26. As a convenience in removing blade 28, longitudinal slots are provided as 31, one at each end of the blade so that the finger or thumb nail or some other suitable object can be inserted in these slots and make the withdrawal of the blade a convenient operation. In Figures 6 and 7 have been illustrated the two types of blades normally supplied with this razor. The wider of these two blades, shown in Figure 6 is the one normally used for shaving the skin, and the narrower blade, shown in Figure 7, has been found to be more satisfactory for cutting the hair, particularly for trimming the margins of the hair, the difference in the two blades being that portion extending outwardly from notches 30 to the cutting edge 32 of the blade. This means in fact that the narrower blade will have its edge withdrawn upwardly from the position shown in Figure 2 and, while serving to cut the hair quite effectively or for dry shaving, would not be as suitable for soap or cream shaving, and by the same token, there is a lessened danger of cutting oneself, particularly when the blade is used without any soap or other preparation and for the most part will be used under conditions that are not observable by the user. When the blade shown in Figure 7 is used in dry shaving, the blade engages guard 22 very tightly and is absolutely safe as there is not space between the blade and teeth 22 due to the curvature of the blade. This same principle can be applied in making a curved razor, that can be used to shave the arm pits and other places of a rounded nature.

In Figure 5 I have shown the preferred form of handle when my device is to be used merely as a razor. Under such conditions an intermediate portion of the handle 42 providing the bore 40 is adapted to be secured to the top portion 14 by means of co-acting external and internal threads 44 and 46 respectively. This chamber forms an adequate receiver for the entire razor head 12 and will also permit the storing, in the same compartment, of a limited number of razor blades 28. In this preferred arrangement the handle is completed by the shaving cream container portion 51, which provides the bore 50, which is proportioned to hold several days supply of shaving cream. Portion 51 is secured to portion 42 by means of a co-acting plug and sleeve joint which have a sliding contact surface 52 and a boss 54 formed as part of member 51. This boss is exteriorly threaded at 56 to engage interior threads 58 formed in member 42. This arrangement provides an adequate seal for the shaving cream stored in chamber 50. To facili-

tate charging chamber 50 with shaving cream the interior bore of boss 54 is threaded at 59 to accept a standard threaded end of a collapsible tube. To charge, the tube is screwed in place, piston 76 is retracted to plug 62 and the same is unscrewed sufficiently to permit air to escape through threads 66 and 63. Pressure on the collapsible tube will then fill chamber 50 fully with cream. Piston 76 may be used to pump water in and out through the threaded opening for cleaning purposes. The opposite end of bore 50 is closed by the end portion 62. This end portion 62 is preferably made of plastic material so that it can have molded into it an operating screw for the cream expulsion mechanism. The end portion, however, must be capable of free rotation and, to achieve this, a preferably metal ring member 64 is provided which is threaded onto barrel 51 by the internal and external threads 66 and 68. Ring 64 is preferably molded onto closure 62 so that a free slipping surface 70 is achieved so that continued rotation of closure 62 will have no tendency to wear out the threads that hold the device in place.

Longitudinally disposed within bore 50 is the cream expulsion screw 72. This terminates in an unthreaded end portion 74 which is deformed or configured so as to provide a firm gripping surface so that it, in effect, becomes a part of closure 62 and turns with it at all times. Disposed upon the threaded portion of screw 72 is the cream expulsion piston 76. This piston has been found to have considerable frictional engagement with the cream; consequently as the screw 72 is turned by revolving closure member 62 the piston will be caused to travel along the length of the screw and thus provide an expulsion means for the cream.

Under conditions where extreme compactness of a toilet kit is desirable, and this is especially true of the members of the armed ground forces, the modified form of this device as illustrated in Figure 8 through 11 make a very complete unit. In this instance bore 40 is used for the storage of a toothbrush element 80 which has a joiner portion 82 adapted to engage the internally threaded bushing 16. When bore 40 is used for the purpose of carrying a toothbrush it is very desirable that adequate ventilation be provided; and while a certain degree of ventilation is provided through the bore of bushing 16 it is found desirable to supply one or more ventilating openings 84 at the opposite end of the chamber to the end that air can circulate therethrough and dry the bristles 86 of the toothbrush after the same has been used. In this connection it is desired to point out that the joiner portion 82 is substantially in a prolongation of the general plane of the ends of the bristles 86. This makes a toothbrush that is most convenient in use and permits the storing of the same in a small chamber, as 40, which would be difficult to do with toothbrushes of more conventional shapes.

When using this device as a complete traveler's kit, employing the toothbrush in chamber 40, it is desirable to re-arrange the opposite end of the handle and to this end, portion 90 which is comparable to portion 51 of the preferred form, is provided with an offset partition having the axially disposed wall 92 and the transverse connecting walls 94 and 95. This forms, in effect, two compartments, a compartment 96 for the storage of razor blades, and at the other end a compartment 97 for the storage of the razor head 12. In order to effectively house the razor head without increasing the overall length of the device which it is very desirable to keep within the limits of a fountain pen so that a solider may carry the same in his shirt pocket, the modified closure member 98 is provided with an interior recess as 99 so that a portion of the razor head can extend into the same after the showing of Figure 11.

It is believed that it will be clearly apparent from the above description and the disclosure in the drawings that the invention comprehends a novel construction of a combination razor and toothbrush kit for travelers.

Having thus disclosed the invention, I claim:

1. A razor head, comprising: a small elongated base member having teeth disposed on one side; an elongated clamp member positioned in spaced relationship above the upper surface of said base member, said clamp member being of narrower width than said base member and being positioned with its ends positioned above the ends of said base member and centrally disposed between the sides of said base member; said clamp member having down turned portions extending from its ends and lapping the ends of said base member and secured thereto; said upper surface of said base member being concavely curved transversely; the upper and lower surfaces of said clamp member being curved forming in transverse cross-section an outline which is convexo-convex; said clamp and base members having their greatest thickness on their sides away from said teeth; a round boss secured to the lower surface of said base member and centered on said base member longitudinally and positioned closer to the side away from said teeth than to the teeth side of said base member and extending at an acute angle to the line from its point of joinder with said base member to the teeth side of said base member and being threaded at its lower end; and an elongated razor blade made of thin flexible material having one of its side edges sharpened, said razor blade being removably positioned between said base and clamp members with said sharpened edge positioned above the upper surface of said teeth, and said razor blade having wing extensions at its ends to abut the side of said down turned portions away from said teeth, said base and clamp members being adapted to transversely distort said razor blade to conform to the shape of said upper surface of said base member.

2. A razor head, comprising: a small elongated base member having teeth disposed on one side; an elongated clamp member positioned in spaced relationship above the upper surface of said base member, said clamp member being of narrower width than said base member and being positioned with its ends positioned above the ends of said base member and centrally disposed between the sides of said base member; said clamp member having down turned portions extending from its ends and secured to the ends of said base member; said upper surface of said base member being concavely curved transversely; the upper and lower surfaces of said clamp member being curved forming in transverse cross-section an outline which is convexo-convex; said clamp and base members having their greatest thickness on their sides away from said teeth; means on the lower surface of said base member for securing a handle to said head; and an elongated razor blade made of thin flexible material having one of its side edges sharpened, said razor blade being removably positioned between said base and clamp

members with said sharpened edge positioned above said teeth, said base and clamp members having their adjacent surfaces spaced apart throughout the most of their lateral extent a distance substantially equal to the thickness of said razor blade thereby transversely distorting said razor blade to conform to the shape of said upper surface of said base member, and said razor blade having wing extensions at its ends to abut the side of said down turned portions away from said teeth.

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