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S. L. MADUFF ET AL

2,512,953

FOLDING RAZOR

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Fig. 1.

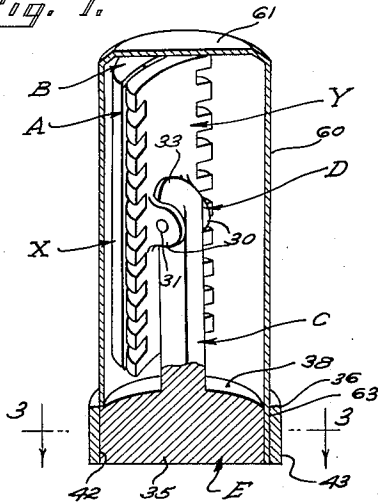


Fig. 2.

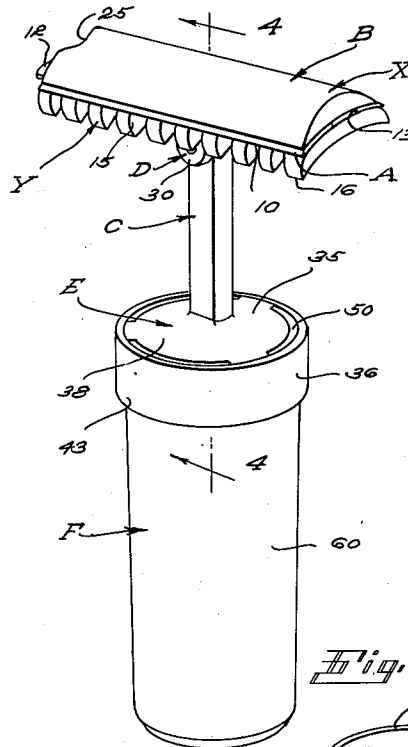


Fig. 3.

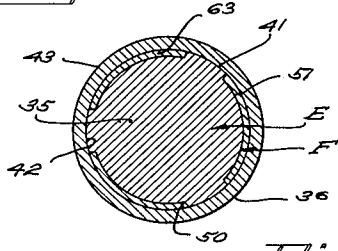


Fig. 4.

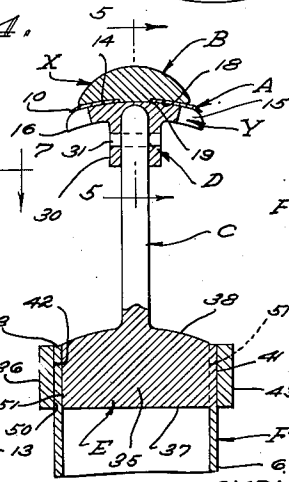


Fig. 5.

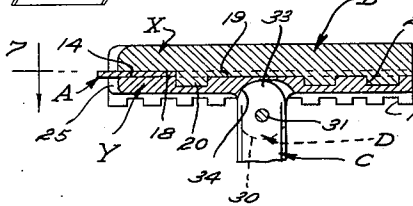


Fig. 7.

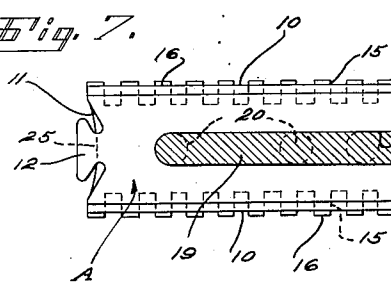
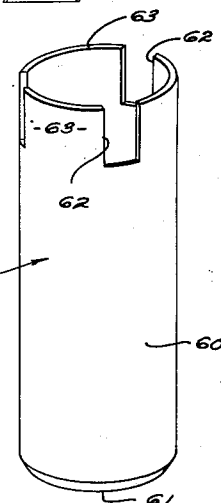


Fig. 6.



INVENTORS
 SYDNEY L. MADUFF
 LEO W. CORNWALL
 BY *W. H. H. H. H.*
 ATTORNEY

UNITED STATES PATENT OFFICE

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FOLDING RAZOR

Sydney L. Maduff and Leo W. Cornwall, Los Angeles, Calif.; said Cornwall assignor to said Maduff

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4 Claims. (Cl. 30-47)

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This invention is concerned with a folding razor, it being a general object of the invention to provide a razor which is simple and convenient to use, of practical inexpensive construction, and such that it can be readily folded into compact form for convenient storage or transportation.

It is a general object of this invention to provide a razor which can be used to advantage by travelers or by persons having but occasional use for a razor and who wish to carry a razor on their person, with luggage, or to store it in a limited space. The construction provided by the present invention lends itself to the production of a razor somewhat smaller than the usual or conventional razor, making it practical either as a razor for general use by men or for occasional use by women.

It is another object of the present invention to provide a razor of the general type referred to embodying a blade-carrying head pivoted to a stem on which there is a base cooperating with a hollow or shell-like body which body is applicable to the base on the stem in a manner either to house or encase the head when it is folded to the stem or to project from the stem forming a handle by which the razor can be conveniently operated.

A further object of the invention is to provide a razor of the character referred to having a simple, practical inexpensive construction by which the base of the stem is related to the body which forms the case or handle, which construction enables the body to be readily engaged with or removed from the base and yet effectively couples the body and the case when the body is serving to encase the head or when the body is acting as a handle for the structure.

Another object of the invention is to provide a razor of the general character referred to embodying but few simple, inexpensive parts making it practical and inexpensive of construction.

The various objects and features of our invention will be fully understood from the following detailed description of a typical preferred form and application of the invention, throughout which description reference is made to the accompanying drawings, in which:

Fig. 1 is a perspective view of the structure provided by the present invention showing parts broken away to illustrate details of construction and showing the body of the structure in position serving as a case or housing for the working parts. Fig. 2 is a perspective view of the structure embodying the invention showing it in work-

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ing condition, that is, with the body extending from the stem to serve as a handle by which the head may be manipulated. Fig. 3 is a transverse sectional view taken in the direction indicated by line 3-3 on Fig. 1. Fig. 4 is a vertical sectional view of the structure, being a view taken in the general direction indicated by line 4-4 on Fig. 2. Fig. 5 is a sectional view taken as indicated by line 5-5 on Fig. 4. Fig. 6 is a perspective view of the body taken alone or apart from the other portions of the structure and showing it in the position in which it appears in Fig. 2 of the drawings, and Fig. 7 is a plan section taken substantially as indicated by line 7-7 on Fig. 5.

The structure provided by the present invention involves, generally, a blade A, a head B carrying the blade, a stem C, means D pivotally connecting the head to the stem, a base E on the stem and a body F applicable to the base to act as a housing or case for the head and stem, as shown in Fig. 1 or as a handle continuing or projecting from the stem as shown in Figs. 2 and 4.

The blade A as used in carrying out the present invention may vary widely in form or design. The particular blade illustrated is of simple form, being in effect a simple flat rectangular blade with longitudinal side edges 10 sharpened to act as cutting or working edges. At one end of the blade oppositely pitched or inclined notches 11 enter the blade leaving a tab 12 which forms a grip by which the blade may be manipulated or handled relative to the head B. At the other end of the blade a deep notch or recess 13 enters the blade midway between the edges 10 and extends a substantial distance in the blade, in fact, throughout the greater portion of the length of the blade, so that the blade is, in effect, U-shaped in plan configuration, as shown in Fig. 7 of the drawings. The deep notch or recess 13 provided in the blade is to accommodate or cooperate with the head B, as will be hereinafter described.

The head B is a rigid unit free of working or relatively moving parts and it is preferably formed of two elements or sections X and Y, which are rigidly joined or connected together. The section Y of the head is in the nature of a plate elongate in form and generally rectangular in plan configuration to conform to the general shape of the blade A. The plate section Y has a top face 14 on which the blade A rests or is confined, and it has notched or serrated longitudinal edges where the sharpened edges 10 of the blade A occur. The desired serrated or toothed effect

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is gained at the edges of the section Y by providing a series of notches 15 in the plate section from the edges 16 thereof.

Section X of the head is in the nature of a cap overlying the plate Y and has an inner or lower face 18 which opposes the top face of the plate and which serves to engage the blade A and confine it to the plate. The head further includes a spacer 19 which occurs between the plate Y and the cap X and which serves to space the faces 14 and 18 apart so that the blade A may be slidably engaged between them to a working position such as is shown throughout the drawings. The spacer is a narrow elongate centrally located part that extends between the plate and cap from one end of the head and terminates a suitable distance short of the other end of the head. As will be seen from Fig. 7 of the drawings the spacer 19 is shaped to correspond with or to be the same as the deep notch 13 in the blade A, all of which enables the blade to be slid between the plate and cap to a position such as is shown in the drawings.

In the course of engaging the blade between the plate and cap it is flexed or bent somewhat so that it corresponds to the curvature of the faces 14 and 18 and when the blade is in place its edges 10 are in proper working position relative to the notched edges 16 of the plate Y. In accordance with the preferred form of the invention the spacer 19 is integrally formed on or with one section of the head. In the case shown in the drawings it is integral with the cap section.

The head further involves means rigidly or permanently coupling the two sections X and Y of the head. In the case illustrated coupling pins or lugs 20 project from one section of the head to be tightly engaged in sockets 21 in the other section of the head. The lug projections 20 are shown occurring on or projecting from the section X and as such as to project from the spacer 19 that occurs on section X. In this case the sockets 21 are located in the section Y and are spaced or positioned to properly receive the lugs. It will be understood that the lugs and sockets may, in practice, be proportioned so that when they are forced or engaged together, as by pressure, the sections X and Y are joined so that they remain connected and need never become separated.

In the particular form of the invention illustrated the ends of the sections X and Y which occur where the tab 12 occurs when the blade is in place in the head are notched somewhat, as at 25, to leave the tab exposed so that it can be readily grasped when it is desired to operate the blade relative to the head. It is preferred, in practice, to so space or locate the lugs 20 and sockets 21 as to make it impossible to join the cap section to the plate section with the notches 25 in other than properly registered relation.

The stem C is preferably a simple elongate part or rod and in practice may vary in form and proportioning it being preferred, however, that it be shaped substantially as shown in the drawings and that it be such as to extend from a point about midway between the ends of the head B to a point slightly beyond one end of the head, as shown throughout the drawings when the parts are positioned as shown in Fig. 1.

The means D pivotally connecting the head and stem may involve or include any suitable pivotal connection between these parts. In the case illustrated the connection involves spaced ears 30 projecting from the lower or bottom side of

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the plate Y about midway between the ends of the plate, the ears having opposed faces which extend lengthwise of the plate. The upper end of the stem fits between the ears 30 where it is pivotally held by a pivot pin 31 that extends between the ears.

In practice it is desirable that the head be limited in its pivotal movement relative to the stem so that it can be operated from the position shown in Fig. 2 only in the direction indicated by the arrow Z until it reaches a position parallel with the stem C, as shown in Fig. 1 of the drawings. To thus limit the operation of the head relative to the stem a stop part or projection 33 is provided on the end of the stem and cooperatively engages or stops against a stop shoulder 34 provided at the bottom side of the plate Y between the ears 30. It is to be understood that in practice the pivotal connection just described is preferably made snug or tight enough so that the head does not swing freely on the stem but must be deliberately operated from one position to the other.

The base E is fixed on or carried by the lower end of stem C and in the case illustrated it is formed as an integral part of the stem. In accordance with the present invention the base involves two elements, one a central element or core 35 and the other an outer element or ring 36.

The core 35 is a disc-like part of considerable thickness having a flat outer or lower end 37 and a convex or crowned inner end 38. The lower end of stem C joins the center of the crowned top end of the core so that the stem and core are concentric.

The core 35 has a round periphery 41 concentric with the axis of the core and that of the stem C. The ring 36 of the base is a simple annular part with an opening 42 through it of such size as to receive the core 35. The ring is of such length axially as to extend from one end of the core to the other, that is, from end 37 to end 38 of the core, and its outer face 43 may be a simple or plain surface, as shown in the drawings, or it may be ornamented as circumstances require.

In accordance with the construction provided by the present invention the ring 36 is tight on the core 35, that is the ring and core are made to be snugly or tightly engaged together, requiring that they be pressed together so that these parts are, for all intents and purposes, solid or permanently joined.

In accordance with the invention a plurality of circumferentially spaced and circumferentially extending sockets 50 extend longitudinally through the base formed by the core 35 and the ring 36, it being preferred that the sockets occur between the core and the ring. The desired sockets 50 are established by providing longitudinal notches in one element or the other of the base. In the preferred form of the invention notches or recesses 51 are provided in the exterior of peripheral surface 41 of the core 35 the notches 50 being circumferentially spaced around the core and being such as to extend from one end to the other of the core. In the case illustrated three notches 51 are provided and they are of considerable extent circumferentially as will be seen in Fig. 3 of the drawings. When the ring 36 is applied to or over the core to be tight thereon the notches 51 are covered or closed by the ring with the result that the base is established with the desired longitudinal

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passageways or sockets therethrough, which sockets are open at each end of the base.

The body F is provided to cooperate with the base E and in accordance with the preferred form of the invention it is a simple element involving an elongate tubular part or shell 60 and an end 61 closing one end of the shell. The other or opposite end of the shell is provided with a plurality of openings or notches 62 which extend into the shell for a considerable distance and which are circumferentially spaced around the shell with the result that a plurality of projections or prongs 63 are established at the end of the shell opposite the closure or end 61.

The prongs 63 correspond in circumferential extent and in spacing with the sockets 50 in the base. In the case illustrated where there are three sockets 50 in the base there are three notches 62 in the shell 60 establishing three prongs 63. The shell 60 is of such diameter that the prongs 63 on the end of the shell 60 will slidably enter or engage in the sockets 50, and since the sockets 50 are open at each end of the base the prongs may be entered into the sockets from either end.

When the head B is folded to a collapsed position such as is shown in Fig. 1, where it extends parallel with the stem C and is adjacent one side of the stem C, the body F may be engaged over the head and stem so that the prongs 63 enter the sockets 50, in which case the base forms a closure for the open end of the body while the head and stem are encased by or housed in the body. When the razor is to be used the prongs may be engaged in the sockets 50 from the other direction, or from the lower end of the base, so that the body projects from the base forming an effective handle or grip by which the razor may be manipulated.

It will be apparent that the prongs 63 engage in the sockets 50 in such manner as to provide substantial bearing engagement between the body and base, with the result that there is considerable friction between these parts holding them effectively joined in either of the two positions above described. It will be apparent that by slightly deforming the prongs 63 the frictional engagement may be varied so that the desired grip between the base and the body may be established.

It is significant to note that with the construction provided by the present invention there are no delicate or intricate parts involved in effecting the desired connection between the base E and body F and that when the razor is in use with the parts positioned as shown in Fig. 2 the prongs 63 occupy the openings 50, leaving the structure without openings, crevices, or interstices subject to becoming clogged or which may hold foreign matter and thus become unsanitary or disagreeable. Any material that might tend to lodge in the openings 50 is quickly ejected or eliminated by the mere operation of the structure between the positions shown in Figs. 1 and 2 of the drawings.

When the razor is folded or collapsed and the body is applied to the base as a cap, as shown in Fig. 1, the entire structure is in a most compact and simple form convenient for storing or handling. When the structure is in use as shown in Fig. 2 the head is supported in a most advantageous manner relative to the handle formed by the body F and the body F presents a part of substantial size conveniently related to the head, making the razor simple and convenient to operate.

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Having described only a typical preferred form and application of our invention, we do not wish to be limited or restricted to the specific details herein set forth, but wish to reserve to ourselves any variations or modifications that may appear to those skilled in the art and fall within the scope of the following claims.

Having described our invention, we claim:

1. A structure of the character described including, a substantially disc-shaped base with a plurality of circumferentially spaced openings therethrough, a stem rigid with the central portion of the base and projecting from one side thereof, a blade carrying head mounted on the stem to shift between a folded position adjacent and parallel with the stem and a working position transverse of the stem, an elongate tubular element having one end closed and the other end open to receive the said portion of the base, the stem and the head when the head is in the folded position, said element having a plurality of circumferentially spaced prongs at the said open end frictionally engaged in said openings releasably connecting the base and said element with a portion of the base exposed to be grasped by the user.

2. A structure of the character described including, a substantially disc-shaped base with an opening therethrough, a stem rigid with the central portion of the base and projecting from one side thereof, a blade carrying head mounted on the stem to shift between a folded position adjacent and parallel with the stem and a working position transverse of the stem, an elongate cylindrical element having one end closed and the other end open to receive the said portion of the base, the stem and the head when the head is in the folded position, said element having a prong portion at the said open end frictionally engaged in said opening releasably connecting the base and said element with a portion of the base exposed to be grasped by the user, said exposed portion of the base being round in cross sectional configuration and being larger in diameter than said element.

3. A structure of the character described including, a substantially disc-shaped base with a plurality of circumferentially spaced openings therethrough, a stem rigid with the central portion of the base and projecting from one side thereof, a blade carrying head mounted on the stem to shift between a folded position adjacent and parallel with the stem and a working position transverse of the stem, an elongate tubular element having one end closed and the other end open to receive the said portion of the base, the stem and the head when the head is in a folded position, said element having a plurality of circumferentially spaced prongs at the said open end frictionally engaged in said openings releasably connecting the base and said element with a portion of the base exposed to be grasped by the user, the said prongs completely occupying said openings when fully engaged therein.

4. A structure of the character described including, a disc-shaped core with a notched periphery, a ring tight around the core and cooperating therewith to form a base with openings therethrough, a stem rigid with and projecting from one side of the core, a blade carrying head mounted on the stem to shift between a folded position adjacent and parallel with the stem and a working position transverse of the stem, an elongate tubular element having one end closed and the other end open to receive the said por-

tion of the base, the stem and the head when the head is in the folded position, said element having a plurality of circumferentially spaced prongs at the said open end frictionally engaged in said openings releasably connecting the base and said element with a portion of the base exposed to be grasped by the user.

SYDNEY L. MADUFF,
LEO W. CORNWALL.

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