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J. M. MOSES

1,991,289

RAZOR WITH BLADE ADAPTER

Filed Oct. 25, 1934

Fig. 1.

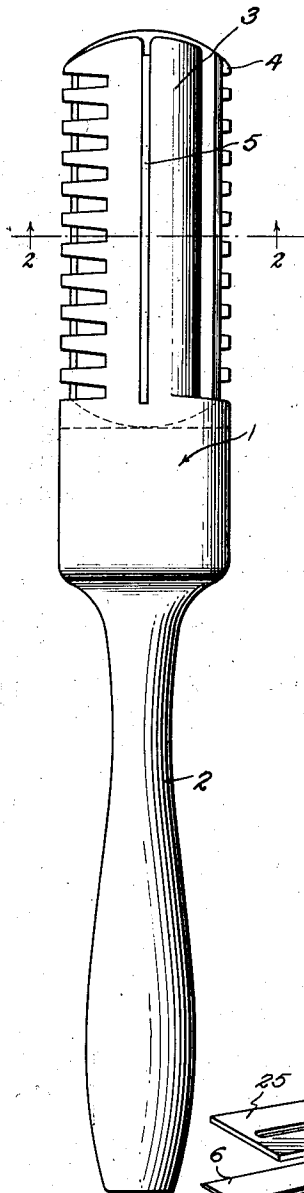


Fig. 2.

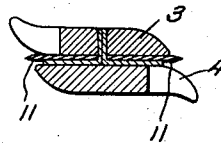
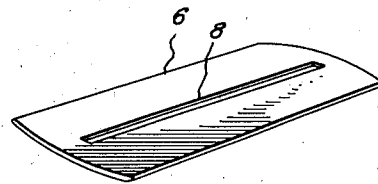


Fig. 3.

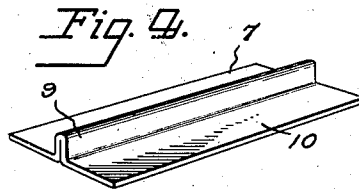


Fig. 4.

Fig. 5.

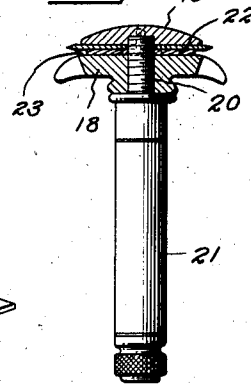
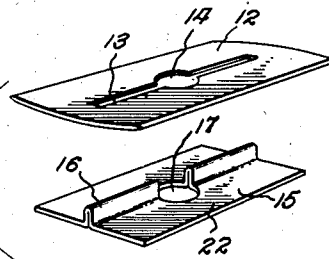


Fig. 6.

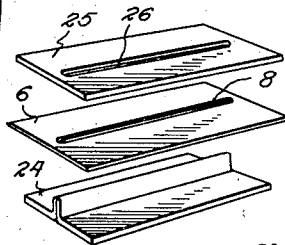


Fig. 7.

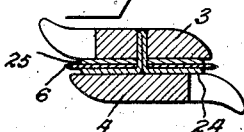


Fig. 8.

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RAZOR WITH BLADE ADAPTER

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5 Claims. (Cl. 30—12)

This invention relates to razors of the wafer blade type, and it has for its general object the provision of a blade assembly including an adapter, which not only enables the same style of blade to be used either with the "straight" or "hoe" type frame, but co-operates with the blade so as to leave the margins uniformly unsupported back of the cutting edges for such distance as to permit slight yield or vibration of the blade as it engages the beard. It is known that a blade which is clamped so close to the cutting edges as to be unyielding, engages the beard with all the inertia of the mass of the frame, and if not extremely keen, causes painful pulling of the beard. It is also known that a razor that "sings" gives the smoothest shave and this "singing" is produced by vibration of the edge portion of the blade.

Specifically stated, the object of the invention is the provision of an adapter, inter-fitting with a wafer blade and with the frame, for holding the blade in place, and interposing a portion of itself between medial portions of the blade and the clamping means between which the blade is constricted, holding the marginal portions of the blade free from the clamping pressure so that they can yield in the manner set forth.

A further object of the invention is to provide means for insulating the blade from metallic contact with other parts of the razor, so that electrolytic action will be averted and the razor may be put away wet without being subject to corrosion from this cause.

Other objects of the invention will appear as the following description of preferred and practical embodiments thereof proceed.

In the drawing which accompanies and forms a part of the following specification and throughout the several figures of which the same characters of reference have been employed to designate identical parts:

Figure 1 is a plan view of a razor of the "straight" type embodying the invention;

Figure 2 is a section taken along the line 2—2 of Figure 1;

Figure 3 is a perspective view of the blade;

Figure 4 is a perspective view of the adapter;

Figure 5 is a side elevation partly in section showing the invention applied to a "hoe" type razor;

Figure 6 shows in perspective, a modified blade and adapter;

Figure 7 is a cross section through a modified form of the adapter, the latter being inserted in a frame of the type shown in Figure 1; and

Figure 8 is a perspective view of the two-part adapter and the blade.

Referring in detail to the several figures, the razor shown in Figure 1 is of the "straight" type, the frame 1 of which is disclosed in the application for patent Serial No. 677,507, by Ernest T. Fry, and filed June 24, 1933. It comprises a handle 2 and integrally extending plates 3 and 4 having a narrow transverse space between them adapted to receive the razor blade. In the Fry invention, the plates 3 and 4 may be rigid or slightly resilient so as to increase their pressure upon the blade when the razor is pressed against the skin. The blade is a friction fit in the Fry invention and is provided with a rib fitting into a slot 5 in the frame for holding the blade against lateral displacement. Such a blade as the Fry application discloses and describes is difficult to manufacture.

The present invention substitutes therefor a two-part construction represented by the blade 6 shown in Fig. 3 and the adapter 7 constituting Fig. 4. The blade 6 is a flat element having a simple slot 8 stamped therethrough in a longitudinal direction, and is therefore easy and inexpensive to manufacture. The adapter 7 which may be of metal, celluloid or any other suitable material is formed with a longitudinal rib 9 adapted to extend through the slot 8 in the blade and then, in association with the blade the rib 9 is designed to project through the slot 5 in the frame when the blade is inserted in the frame. The rib 9 as illustrated, is formed by folding the sheet metal blank of which the adapter is composed, but this construction is not mandatory for the rib may, if desired, be a separate member welded or otherwise secured to a base 10 of the adapter. One must not be misled into the impression that the blade and adapter are a mere two-part equivalent of the ribbed blade shown in the Fry application for while the rib 9 of the adapter 7 does co-operate with the slot 5 in the frame to secure the blade in the razor, a new and important function is served by the present invention which is not performed by the Fry construction.

It will be observed by comparing the width of the adapter with that of the blade in Figures 2 and 5 that the base 10 of the adapter is narrower than the blade and that the blade rests upon the base of the adapter when the couple is in position within the razor. Thus, as is indicated in Figure 2, the base of the adapter elevates the blade from the inner face of the underlying plate 4 and keeps the marginal portions 11 of the blade, back of the cutting edges, free from the clamping pressure

of the two plates 3 and 4. Thus the said margins have freedom to slightly yield or vibrate which would not be the case in the absence of the base 10 of the adapter for the clamping pressure would extend very close to the cutting edges and hold the edges of the blades substantially rigid.

As has been stated, a much more smooth and comfortable shave is obtained from a blade having some freedom of resiliency than with a blade which is rigid with respect to the frame.

In removing the blade and adapter assembly from the frame shown in Figure 1, the rib 9 is simply pushed out of the open end of the slot 5 with the thumb or finger, carrying with it the blade. Re-insertion of the blade is effected by reverse movement. The blade may be readily separated from the adapter for purpose of wiping the parts dry or substituting a fresh blade.

Figures 5 and 6 show the inventive principle adapted to a razor of the "hoe" type. In this form of the invention the blade 12 is similar to the blade 6 to the extent that it is provided with an intermediate longitudinal slot 13, but the slot intersects a central enlarged hole 14. The adapter 15 too, is similar in principle to the adapter 7 being provided with a rib 16. The rib is however interrupted by a central aperture 17 which when the blade is mounted upon the adapter, registers with the hole 14 in the blade. These holes are to permit the passage of the coupling means which connects the upper and lower clamping members 18 and 19 together. These coupling means may be of any suitable construction, but are here indicated as a simple screw 20 forming part of the handle 21, which passes through a bore in the clamping member 18 and screws into a socket in the clamping member 19, intersecting the plane of the blade and adapter.

The clamping member 19 is provided with a longitudinal recess receiving the rib 16 of the adapter and fixing the position of the blade. The base 22 of the adapter is of such width as to terminate at a distance back from the cutting edges of the blade and to space the marginal portions of the blade from the adjacent clamping member as is indicated at 23, leaving the marginal portions free to yield or vibrate.

In Figures 6 and 7 a modified adapter is shown consisting of two parts 24 and 25, which may be metallic, but are preferably of non-metallic substance such as celluloid or bakelite. The part 24 is like the adapter shown in Figure 4. The part 25 is flat like the blade, but smaller in width and has a similar slot 26.

After the blade has been slipped on the adapter element 24, the adapter element 25 is placed upon the blade with the rib of the element 24 projecting through the slot 26. Thus the blade is completely isolated from metal contact when set up in a frame either of the "hoe" type shown in Figure 5 or "straight" as indicated in Figure 7.

By the use of the two-part adapter, the blade is not only equally spaced from both the upper and lower clamping members of the frame, but it is cushioned by the nature of the non-metallic substance of the adapter, easing the impact of the blade against the beard. The blade being of small mass soon acquires the temperature of the face irrespective of whether the frame is cold or hot, thus maintaining uniform temperature conditions while one is shaving. Electrolytic action is also prevented, so that it becomes no longer necessary to dismantle the razor and wipe it dry after shaving, since it may be put away wet without fear of corrosion.

While I have in the above description disclosed what I believe to be preferred and practical embodiments of my invention, it will be understood to those skilled in the art that the details of construction as shown and described are merely by way of example and not to be construed as limiting the scope of the invention as claimed.

What I claim is:

1. In a razor of the type having a frame including clamping members having cooperating faces for receiving a wafer blade therebetween, a blade couple comprising a slotted flat blade and an adapter having a rib passing through the slot in said blade and through a positioning recess in one of said clamping members, said adapter having a base portion upon which said blade rests, of less width than said blade and the adjacent face of the clamping member, forming a channel at each side of said razor of which the marginal portions of said blade and the said adjacent face of said clamping means form the sides, and maintaining said marginal portions of said blade free from clamping pressure when said blade couple is in fixed position in said razor.

2. Razor comprising a frame including a handle, and substantially flat blade-engaging members extending longitudinally from said handle and having their adjacent faces spaced apart to form a blade receiving passage, one of said flat members having a longitudinal slot therethrough communicating with said passage, said passage and slot being open at the end of said frame opposite said handle, a blade couple slidably received and frictionally retained between the said adjacent faces of said flat members, comprising a wafer blade having a slot, and an adapter having a rib passing through the slot in said blade and through the slot in the one of said flat members, said adapter having a base portion upon which said blade rests, of less width than said blade and the face of the flat member which it contacts forming a channel at each side of the razor of which the marginal portions of said blade, and said flat member form the sides, and maintaining said marginal portions of said blade free from clamping pressure when said blade couple is in fixed position in said razor.

3. Razor comprising spaced frame members and a blade couple clampably held therebetween comprising a wafer blade having a slot and a two-part adapter for embracing said blade comprising upper and lower members of substantially similar size, and of smaller width than the blade which they are designed to embrace, the upper member having a slot and the lower member having a mid-rib adapted to pass through the slot in said blade, the slot in said upper member and to seat in a slot in said frame member, said adapter member spacing said blade from the adjacent frame members.

4. In a razor of the type having clamping means for receiving therebetween a slotted wafer blade, a two-part adapter for embracing said blade comprising upper and lower members of substantially similar size, the lower member having a mid-rib adapted to pass through the slot in said blade, and the upper member having a similar slot receiving said mid-rib, the latter being adapted to seat in a positioning recess in one of said clamping members.

5. In a razor as claimed in claim 4, the two-part adapter being of non-metallic substance.