

[54] **HOLDERS FOR SHAVING DEVICES**

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[56] **References Cited**

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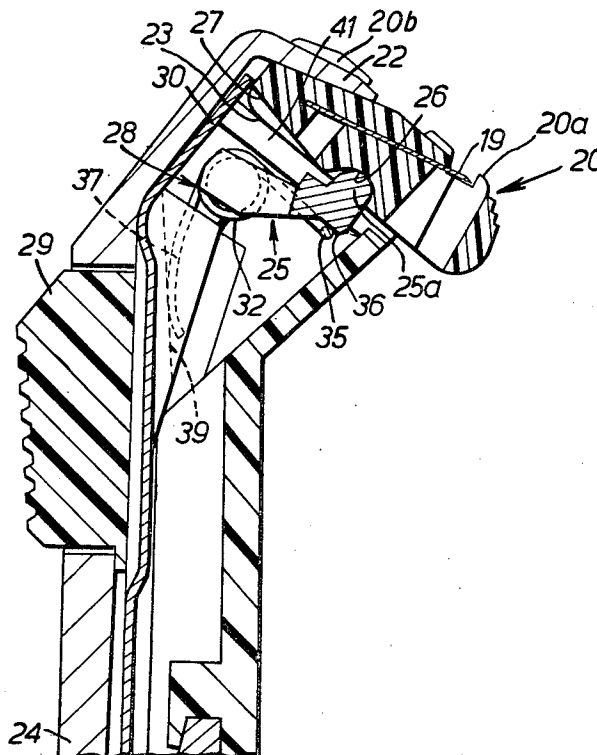
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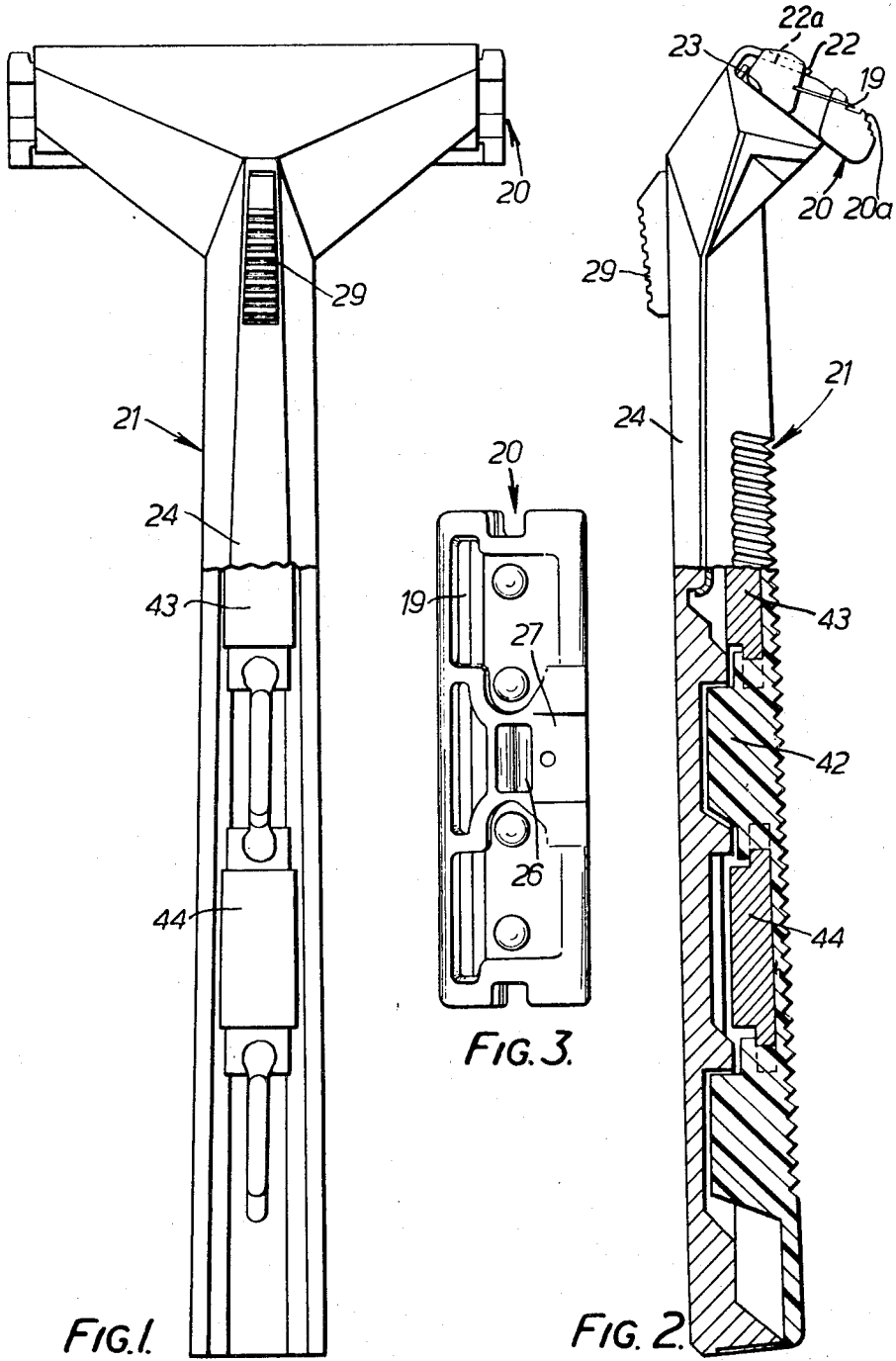
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[57] **ABSTRACT**

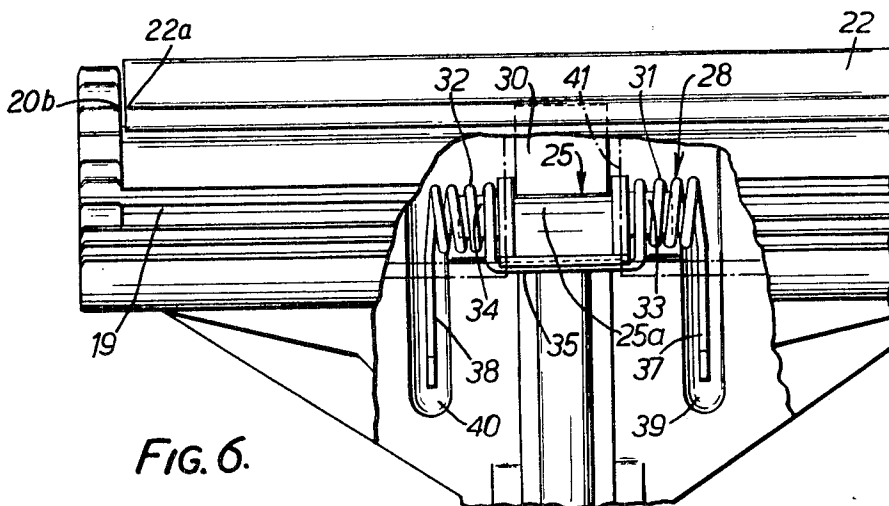
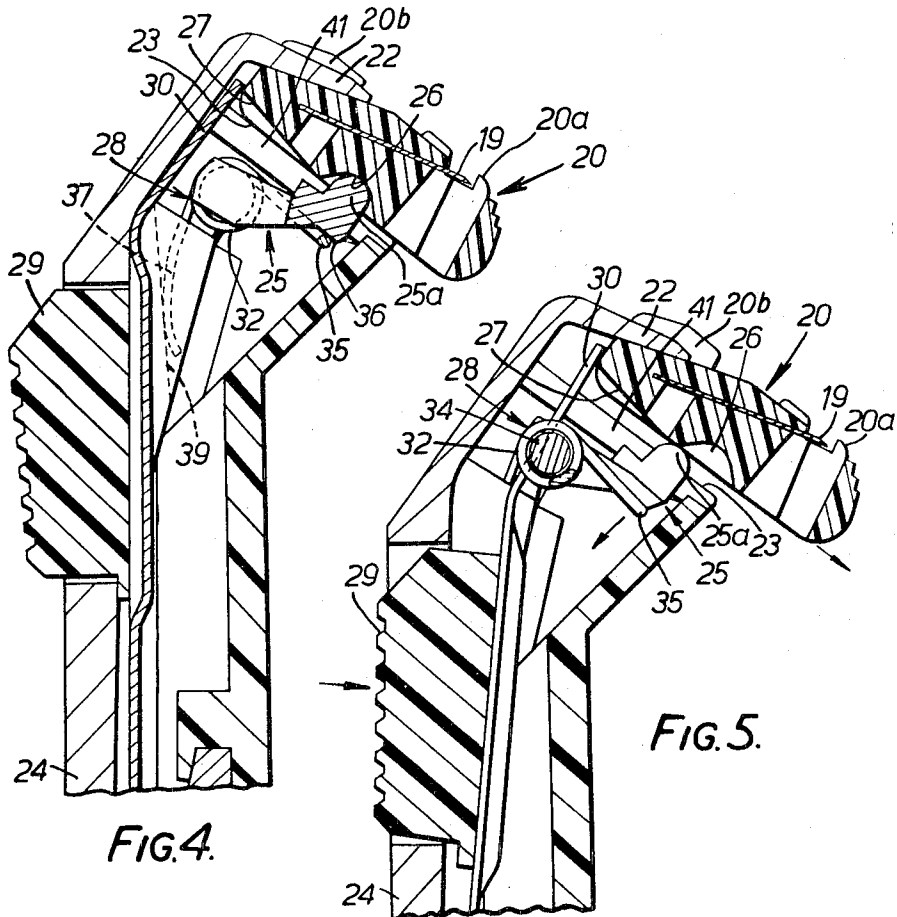
A holder for a shaving unit, the shaving unit consisting of a substantially rigid member to which a razor blade is secured in a permanent manner with the rigid member having a guard surface located at a preset spacing from the cutting edge of the blade, comprising a catch which is movable between a first position at which it retains a shaving unit in the holder and a second position at which it no longer retains the shaving unit in the holder, and means for initiating movement of the shaving unit out of the holder when the catch is moved to the second position.

2 Claims, 6 Drawing Figures





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HOLDERS FOR SHAVING DEVICES

This invention relates to holders for shaving units, to shaving units for use with such holders and to the combination of such holders and shaving units.

According to the present invention there is provided a holder for a shaving unit, said shaving unit consisting of a substantially rigid member to which a razor blade is secured in a permanent manner with the rigid member having a guard surface located at a preset spacing from the cutting edge of the blade, wherein said holder comprises selectively operable means for ejecting a shaving unit from said holder when the shaving unit is to be replaced.

The invention also provides a holder for a shaving unit, said shaving unit consisting of a substantially rigid member to which a razor blade is secured in a permanent manner with the rigid member having a guard surface located at a preset spacing from the cutting edge of the blade, comprising a catch which is movable between a first position at which it retains a shaving unit in the holder and a second position at which it no longer retains said shaving unit in the holder, and means for initiating movement of said shaving unit out of said holder when said catch is moved to said second position.

One construction of holder and shaving unit in accordance with the present invention will now be described, by way of example, with reference to the accompanying drawings in which:

FIG. 1 is a rear elevation of the holder with part of the rear cover broken away to show the inside of the holder;

FIG. 2 is a part sectional side elevation of the holder;

FIG. 3 is an underneath view of the shaving unit;

FIG. 4 is a sectional side elevation of the head of the holder on a larger scale than that of FIG. 2;

FIG. 5 is a similar view to FIG. 4 showing the shaving unit being ejected from the holder; and

FIG. 6 is a front view of the head of the holder on an enlarged scale, with the shaving unit in position, partly broken away to show the inside of the head of the holder.

The drawings show a shaving unit 20 having a razor blade 19 secured in a permanent manner to the substantially rigid body of the shaving unit 20 with a guard surface 20a located at a preset spacing from the cutting edge of the blade 19. In use a shaving unit 20 is located in the holder 21 between jaws 22 and 23. The jaw 22 has end locating surfaces 22a for positioning the shaving unit 20 relative thereto, the rigid body of the shaving unit 20 having cooperating surfaces 20b for engagement with locating surfaces 22a on the holder 21. The shaving unit 20 being held in position by engagement of the head 25a of a spring-loaded detent 25 within an aperture 26 (see FIG. 4) in the underside of the shaving unit 20.

The shaving units will normally be stored in a dispenser, for example of one of the kinds described and illustrated in British Pat. specification 1,160,542. When a shaving unit 20 is to be withdrawn from a dispenser by use of the holder 21, the jaws 22 and 23 of the holder are presented to the rear of the shaving unit 20 so that the inner surface of the lower jaw 23 will engage with the underside of the shaving unit 20 and the inner surface of the upper jaw 22 will engage with the upper surface of the shaving unit 20. As the jaws 22, 23 are moved into engagement with the shaving unit 20, the head 25a of the detent 25 engages with a cam surface 27 (FIGS. 3, 4 and 5) which extends from the rear edge of the shaving unit 20 to the aperture 26, the cam surface 27 causing progressive depression of the detent 25 against the reaction of a detent spring 28 until the movement of the shaving unit 20 into the jaws 22 and 23 is such that the detent head 25a snaps into position in the aperture 26 (as seen in FIG. 4) thereby positively locating the shaving unit 20 within the jaws 22, 23 of the holder.

When the shaving unit is no longer fit for further use and is to be dispensed with, in order that a further shaving unit may be picked up by the holder, an ejector button 29 which projects from the rear of the holder 21 is depressed and causes forward movement of the upper end of a cantilever ejector spring 30. The engagement of the upper end of spring 30 with the rear edge of the shaving unit 20 causes the shaving unit to

move outwardly from the jaws 22, 23 of the holder with consequent depression of the detent 25 against the reaction of spring 28 thereby releasing the detent from its engagement in the locating aperture 26 as shown in FIG. 5. The curved surface 25a of the head of the detent 25 rides out of the aperture 26 and comes into engagement with the initial portion of cam surface 27. Consequently, reaction occurs between the cam surface 27 and the detent 25 due to the spring pressure which is urging the detent upwardly resulting in the application of a force to the shaving unit 20 which accelerates its outward movement from the jaws of the holder to give positive and rapid ejection of the shaving unit. When the thumb or finger pressure is removed from the ejector button 29 the latter is restored to its normal position by the pressure of the ejector spring 30.

As can be seen from FIG. 6 the two coiled portions 31, 32 of spring 28 fit respectively over lugs 33, 34 of detent 25 and the central link portion 35 of spring 28 bears on the underside 36 of detent 25. The two end links 37, 38 of spring 28 fit respectively in recesses 39, 40 provided in the rear component 24 of the holder with the head of the detent 25 located in a central slot 41 in the jaw 23. The detent 25 and spring 28 are located in position by the engagement of the front component 42 with the rear component 24. Balance weights 43, 44 are secured to the inner face of the front component 42.

It will be appreciated that the above described construction is only one of many possible ones by which the desired ejection of a shaving unit may be achieved.

I claim:

1. In combination, a shaving unit comprising a substantially rigid member having a guard surface on its forward edge portion for contact with the skin and an elongated blade thinner than said rigid member and having a cutting edge, said blade being permanently fixed to said rigid member with its cutting edge parallel to, and spaced from, said guard surface in shaving relation to the latter, said rigid member having a portion of its surface formed as a cam surface of predetermined shape, and a handle having a transverse support including clamp jaws forming a transverse opening therebetween for receiving said rigid member therein with the cutting edge extending outwardly from said opening, one of said jaws having locating surfaces for positioning said shaving unit relative thereto, said rigid member of said shaving unit having cooperating surfaces for engagement with said locating surfaces on said handle, said handle also having means associated with one of said jaws for engaging said rigid member and holding the same on said support, said engaging means being urged by resilient means into engagement with said rigid member and means for transmitting pressure, applied by the user, to said rigid member to disengage said rigid member from said one of the jaws and simultaneously initiate movement of said shaving unit outwardly from said jaws, initial outward movement of said shaving unit which results from the pressure applied by the user causing movement of said engaging means against the urging of said resilient means and bringing said engaging means into engagement with said cam surface, the shape of said cam surface being such that the force applied to said surface by said resilient means accelerates the outward movement of said shaving unit to eject the shaving unit clear of said handle.

2. In combination, a shaving unit comprising a substantially rigid member having a guard surface on its forward edge portion for contact with the skin and an elongated blade thinner than said rigid member and having a cutting edge, said blade being permanently fixed to said rigid member with its cutting edge parallel to, and spaced from, said guard surface in shaving relation to the latter, said rigid member having in its under-surface a recess and a cam surface rearwardly of said recess, and a handle having a transverse support including clamp jaws forming a transverse opening therebetween for receiving said rigid member therein with the cutting edge extending outwardly from said opening, one of said jaws having locating surfaces for positioning said shaving unit relative thereto, said rigid member of said shaving unit having cooperating surfaces

3

for engagement with said locating surfaces on said handle, said handle also having a spring-loaded detent associated with one of said jaws for engaging in said recess of said rigid member to hold the same on said support, and means for transmitting pressure, applied by the user, to the rearward edge portion of said rigid member to disengage said rigid member from said one of the jaws and simultaneously initiate movement of said shaving unit outwardly from said jaws, initial outward move-

4

ment of said shaving unit which results from the pressure applied by the user causing movement of said detent against the urging of its spring and bringing said detent into engagement with said cam surface, the shape of said cam surface being such that the force applied to said surface by said spring accelerates the outward movement of said shaving unit to eject the shaving unit clear of said handle.

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