

PATENT SPECIFICATION

(11) 1378085

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(21) Application No. 22939/72 (22) Filed 16 May 1972
(23) Complete Specification filed 27 April 1973
(44) Complete Specification published 18 Dec. 1974
(51) International Classification B26B 21/52
(52) Index at acceptance
B4B 33D1 33E 34B
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(54) IMPROVEMENTS IN OR RELATING TO SHAVING DEVICES

(71) We, WILKINSON SWORD LIMITED, a British Company, of Sword House, Totteridge Road, High Wycombe, Buckinghamshire, HP13 6EJ, formerly of Sword Works, Southfield Road, London W4 5LE, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to shaving devices. More particularly the invention relates to holders for shaving units. By the term 'shaving unit' is meant a substantially rigid member, generally of plastics material, to which one or more razor blades is secured with the rigid member providing a guard surface located at a pre-set spacing from the cutting edge of the, or each, blade.

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 one or more razor blades is secured with the rigid member providing a guard surface located at a pre-set spacing from the cutting edge of the, or each, blade, said holder comprising ejecting means for ejecting a shaving unit from said holder when the shaving unit is to be replaced, said ejecting means being a unitary member which has a latch portion adapted to secure a shaving unit in the holder, and which also has a head adapted to be brought into engagement with the rear of a shaving unit when it is held in the holder to apply pressure thereto to initiate ejection, said latch portion and said head being relatively-movable towards one another against a restoring force which results from the inherent resilience of the unitary member.

The invention also provides a holder for a shaving unit, said shaving unit consisting of a substantially rigid member to which one or more razor blades is secured with the rigid member providing a guard surface located at a pre-set spacing from the cutting

edge of the, or each, blade, said holder comprising ejecting means for ejecting a shaving unit from said holder when the shaving unit is to be replaced, said ejecting means having two coupled limbs, the free end of one limb being adapted to be brought into engagement with the rear of a shaving unit when it is held in the holder, and the free end of the other limb forming a latch which is adapted to secure a shaving unit in the holder, the application of pressure to the rear of the shaving unit by the free end of said one limb causing said latch to move out of engagement with the shaving unit thereby permitting ejection of said shaving unit.

One construction of holder for shaving units will now be described, by way of example only, with reference to the drawings accompanying the Provisional Specification in which:

Figure 1 is a side view of the holder,

Figure 2 is a rear view of the holder,

Figure 3 is a mid-sectional view of the side of the holder opposite to that shown in Figure 1, and with a razor blade in position,

Figure 4 is a side view of the ejector member on an enlarged scale,

Figure 5 is an end view of the ejector member,

Figure 6 is a section on the line VI—VI in Figure 2,

Figure 7 is a section on the line VII—VII in Figure 2, and

Figure 8 is a section on the line VIII—VIII in Figure 3.

Referring now to the drawings, this construction of holder is designed to hold a razor blade 11 (Figure 3) secured in a permanent manner to a substantially rigid member 10 of plastics material, a guard surface 10a being located at pre-set spacing from the cutting edge 11a of the blade 11. In use, and as illustrated, the rigid member 10 is located in a holder 12, assembled from a front 13 and back 14, between jaws 14a, 14b, formed integrally with the holder back 14. The rigid

member 10 is held in position between jaws 14a, 14b by the latch portion 15a of a unitary ejector member 15, the latch portion 15a engaging in an aperture 10b in the underside of the rigid member 10. The latch portion 15a is at the free end of one limb of the two-limbed unitary ejector member 15 the other limb of which carries a button 15b which projects through an aperture 14c in the holder back 14.

To eject the razor blade 11 the user applies pressure, conveniently by the thumb, to the rear of the ejector button 15b so that the head 15c of that limb of the ejector member 15 which carries the ejector button 15b, applies pressure to the rear of the rigid member 10. The resultant reaction between the latch portion 15a and the surface of the aperture 10b in the rigid member 10 is such that the latch portion 15a moves forwardly and downwardly, which is possible due to the flexibility of the ejector member 15 which allows movement of the two limbs towards one another. The rigid member 10 carrying the blade 11 is thus freed and is ejected from the holder 12 positively and rapidly due to the pressure applied by the user to the ejector member 15.

Prior to use, razor blades of the kind described are normally stored in a container with the rear edge of the rigid member accessible. To pick up a new razor blade from the container the opening between the jaws 14a, 14b is presented to the rear edge of the rigid member 10 and the initial contact of the underside of the rigid member 10 with the latch portion 15a causes the latter to be depressed until the aperture 10b comes opposite the latch portion 15a when the latch rises into engagement with the aperture 10b to retain the rigid member 10 between the jaws 14a, 14b so that the razor blade is securely held in the holder and can be removed from the container.

Conveniently the front 13 and back 14 of the holder are both plastic mouldings. To facilitate assembly, and as shown in Figure 6, projections 13a are provided at each end of the upper surface of the front 13 to engage in corresponding recesses 14d in the underside of the jaw 14b. As shown in Figure 7 recesses 14e in longitudinal webs 14f on the inner face of the back 14 engage corresponding projections 13b on the inner face of the front 13

to provide longitudinal location between the front 13 and back 14. A downwardly extending tongue 14g (Figure 3) is provided at the lower end of the back 14 facing inwardly, to secure the front 13 and back 14 together before they are bonded by appropriate means, for example by ultrasonic welding. If desired a metal weight 16 may be housed within the holder 12 to give a desired balance and 'feel'.

WHAT WE CLAIM IS:—

1. A holder for a shaving unit, said shaving unit consisting of a substantially rigid member to which one or more razor blades is secured with the rigid member providing a guard surface located at a pre-set spacing from the cutting edge of the, or each, blade, said holder comprising ejecting means for ejecting a shaving unit from said holder when the shaving unit is to be replaced, said ejecting means being a unitary member which has a latch portion adapted to secure a shaving unit in the holder, and which also has a head adapted to be brought into engagement with the rear of the shaving unit when it is held in the holder to apply pressure thereto to initiate ejection, said latch portion and said head being relatively-movable towards one another against a restoring force which results from the inherent resilience of the unitary member.

2. A holder according to claim 1, wherein said ejecting means carries an ejector button by which pressure is applied, via said head, to the rear of the shaving unit to be ejected.

3. A holder for a shaving unit, said shaving unit consisting of a substantially rigid member to which one or more razor blades is secured with the rigid member providing a guard surface located at a pre-set spacing from the cutting edge of the, or each, blade, said holder comprising ejecting means of ejecting a shaving unit from said holder when the shaving unit is to be replaced, said ejecting means having two coupled limbs, the free end of one limb being adapted to be brought into engagement with the rear of a shaving unit when it is held in the holder, and the free end of the other limb forming a latch which is adapted to secure a shaving unit in the holder, the application of pressure to the rear of the shaving unit by the free end of

member 10 is held in position between jaws 14a, 14b by the latch portion 15a of a unitary ejector member 15, the latch portion 15a engaging in an aperture 10b in the underside of the rigid member 10. The latch portion 15a is at the free end of one limb of the two-limbed unitary ejector member 15 the other limb of which carries a button 15b which projects through an aperture 14c in the holder back 14.

To eject the razor blade 11 the user applies pressure, conveniently by the thumb, to the rear of the ejector button 15b so that the head 15c of that limb of the ejector member 15 which carries the ejector button 15b, applies pressure to the rear of the rigid member 10. The resultant reaction between the latch portion 15a and the surface of the aperture 10b in the rigid member 10 is such that the latch portion 15a moves forwardly and downwardly, which is possible due to the flexibility of the ejector member 15 which allows movement of the two limbs towards one another. The rigid member 10 carrying the blade 11 is thus freed and is ejected from the holder 12 positively and rapidly due to the pressure applied by the user to the ejector member 15.

Prior to use, razor blades of the kind described are normally stored in a container with the rear edge of the rigid member accessible. To pick up a new razor blade from the container the opening between the jaws 14a, 14b is presented to the rear edge of the rigid member 10 and the initial contact of the underside of the rigid member 10 with the latch portion 15a causes the latter to be depressed until the aperture 10b comes opposite the latch portion 15a when the latch rises into engagement with the aperture 10b to retain the rigid member 10 between the jaws 14a, 14b so that the razor blade is securely held in the holder and can be removed from the container.

Conveniently the front 13 and back 14 of the holder are both plastic mouldings. To facilitate assembly, and as shown in Figure 6, projections 13a are provided at each end of the upper surface of the front 13 to engage in corresponding recesses 14d in the underside of the jaw 14b. As shown in Figure 7 recesses 14e in longitudinal webs 14f on the inner face of the back 14 engage corresponding projections 13b on the inner face of the front 13

to provide longitudinal location between the front 13 and back 14. A downwardly extending tongue 14g (Figure 3) is provided at the lower end of the back 14 facing inwardly, to secure the front 13 and back 14 together before they are bonded by appropriate means, for example by ultrasonic welding. If desired a metal weight 16 may be housed within the holder 12 to give a desired balance and 'feel'.

WHAT WE CLAIM IS:—

1. A holder for a shaving unit, said shaving unit consisting of a substantially rigid member to which one or more razor blades is secured with the rigid member providing a guard surface located at a pre-set spacing from the cutting edge of the, or each, blade, said holder comprising ejecting means for ejecting a shaving unit from said holder when the shaving unit is to be replaced, said ejecting means being a unitary member which has a latch portion adapted to secure a shaving unit in the holder, and which also has a head adapted to be brought into engagement with the rear of the shaving unit when it is held in the holder to apply pressure thereto to initiate ejection, said latch portion and said head being relatively-movable towards one another against a restoring force which results from the inherent resilience of the unitary member.

2. A holder according to claim 1, wherein said ejecting means carries an ejector button by which pressure is applied, via said head, to the rear of the shaving unit to be ejected.

3. A holder for a shaving unit, said shaving unit consisting of a substantially rigid member to which one or more razor blades is secured with the rigid member providing a guard surface located at a pre-set spacing from the cutting edge of the, or each, blade, said holder comprising ejecting means of ejecting a shaving unit from said holder when the shaving unit is to be replaced, said ejecting means having two coupled limbs, the free end of one limb being adapted to be brought into engagement with the rear of a shaving unit when it is held in the holder, and the free end of the other limb forming a latch which is adapted to secure a shaving unit in the holder, the application of pressure to the rear of the shaving unit by the free end of



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said one limb causing said latch to move out of engagement with the shaving unit thereby permitting ejection of said shaving unit.

4. A holder according to claim 2, wherein said one limb carries an ejector button by which pressure is applied, via the free end of said one limb, to the rear of the shaving unit to be ejected.

- 10 5. A holder for a shaving unit substantially as described herein.

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Reference has been directed in pursuance of section 9, subsection (1) of the Patents Act 1949, to patent No. 1,294,666.

Printed for Her Majesty's Stationery Office, by the Courier Press, Leamington Spa, 1974.
Published by The Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.

