June 18, 1968 W. MARTIN 3,388,467

OPEN RAZOR-TYPE SHAVING IMPLEMENT

Filed May 18, 1966

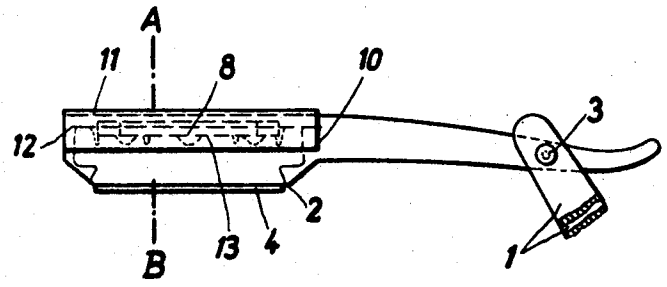

Fig. 1

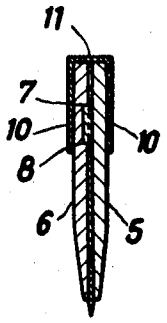

Fig. 2

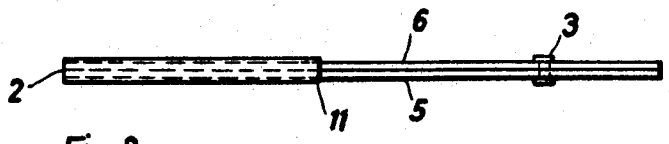

Fig. 3

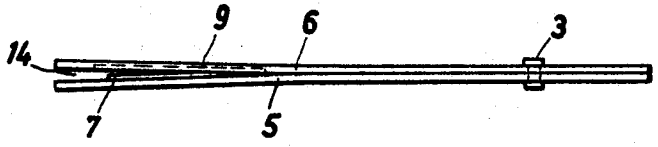

Fig. 4

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OPEN RAZOR-TYPE SHAVING IMPLEMENT

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1 Claim. (Cl. 30—53)

ABSTRACT OF THE DISCLOSURE

An open razor-type shaving implement comprising of four parts, a handle, a razor-blade holder, a single edged razor blade carried by the razor-blade holder, and a pressure plate fitted over the holder in the area of the razor-blade, characterized by the design of the holder which is formed to accept the frustrated half of a double-edged conventional razor blade and without special adjustment position the razor blade so that only its cutting edge extends below the holder.

BACKGROUND OF THE INVENTION

The present invention concerns an improved open-razor-type shaving implement.

Field of the invention

The field of invention is defined under Class 33, subclass 32.

Description of the prior art

Known shaving and hair cutting implements in the form of razors having replaceable single edge razor blade, i.e. substantially half a conventional twin-edged razor blade, have the disadvantage that despite their costliness do not attain the form and simplicity of the razor.

In one known arrangement the razor blade holder comprises a pivotal lever and a pressure plate for supporting the blade, projections for centering the perforated razor blade in the holder and guide ribs and springs and several unequal, and therefore costly, milled recesses for springs and centering projections both in the pivotal lever and in the pressure plate movable thereon in the form of a slide. In further known types of such razor-like shaving implements, in which the blade holder also comprises a pivotal lever and a single pressure plate displaceably mounted thereon, a pair of screw rivets for centering the single edge razor blade inserted therebetween, and an asymmetrical and costly lever construction, there is provided a second so-called tilting lever journalled to the holder, the pressure plate for clamping the blade between itself and the blade holder having a wedge-like cross-section and having to be displaced, but without a closure there is no guarantee of the blade being firmly clamped in position.

Shaving implements are also known which comprise a pair of carriers for the single edge blade which are adapted to be mutually connected by closures to act as clamping elements, the closure of which results in both a costly and insecure clamping.

Summary of the invention

The basic concept of the present invention is that a single edge razor blade, supported only at the rear without centering, stands up to the cutting forces occurring during shaving with the application of only slight pressure.

According to the present invention an open razor-type shaving implement comprises a razor handle, a holder pivotally connected thereto, a pressure plate having a clamping action, and a single-edged razor blade insertable

therebetween, wherein the holder consists of a pair of symmetrical holder sections firmly connected together only in the region of the pivotal connection with the handle and splayed apart only by resilience at the ends remote from the pivot for inserting the blade, the holder sections having flat inner surfaces facing one another with one of the sections acting as a spine stop for the blade, the other section having a raised portion for centering the holder sections and engaging in a corresponding recess of the other holder section, the holder sections being firmly held together in the region of the inserted razor blade and with the blade securely clamped therebetween by means of the pressure plate which has a generally U-shaped cross-section and which is adapted to be clipped over the spine of the sections with its limbs engaging the outer sides thereof.

Preferably the rib with spine abutment for the single edge razor blade is arranged in the region of the slot of a twin-edged slotted blade, the straight part of a longitudinal edge of the slot being supported against the spine abutment.

Description of the drawings

The invention will be described further with reference to the accompanying drawings which show an example of the invention, and in which:

FIG. 1 is a side view;

FIG. 2 is an enlarged cross-section on the line A–B of FIG. 1;

FIG. 3 is a plan view; and

FIG. 4 is a plan view showing the razor before inserting the interchangeable razor blade.

Description of the preferred embodiment of the invention

The shaving implement consists of grip plates **1** joined together to form a handle, between which plate **1** the blade holder with the single edge blade **2** are pivotally arranged about the connecting rivet **3**. The blade holder has two holder sections **5** and **6** supported with their flat inner surfaces against the flat surfaces of the razor blade **2**, of about 0.1 mm. thickness, and supporting the blade in the operational position with only its cutting edge **4** projecting from the holder. The sections **5** and **6** are symmetrically identical and interconnected at the rivet **3**, the section **5** having internally a slightly raised portion in the form of a longitudinal rib **7** (FIG. 2) with a longitudinal stop **8** on the edge side for the spine of the razor blade **2**, and the other section **6** having a longitudinal groove **9** forming a recess for engagement with the longitudinal rib **7** of section **5**. The outer surfaces of the sections **5** and **6** extending from the spine are flat and embrace the blade with a clamping action provided by legs **10** of a flat spring **11** extending somewhat beyond the rib stop **8** and the blade length for pressing the blade **2** into position. The holder sections **5** and **6** are roller hardened, so that they are slightly resilient, the sections being interconnected in the region of the connecting rivet **3** by spot welding or cementing.

The longitudinal rib **7** is simply cemented or welded to the holder section **5**, whilst the longitudinal groove **9** is a simple flat milling.

The cross-sectional view in FIG. 2 shows that the shaving implement, with the externally thickened spine portion and the flat spring **11**, externally bevelled edges of the holder sections **5** and **6** in the region of the blade cutting edge and the protruding cutting edge of the blade **2** clamped in position, is generally similar to the shape of conventional open razors.

The flat spring **11**, which is removable and of U-shaped cross-section, has the property of permitting its resilient limbs **10** to be compressed by hand to a greater or lesser extent after each change of blade **2**, to such an extent that

it ensures sufficient pressure for reliable bracing of the spine of the holder.

The rib **7** with the stop **8** on the blade side is conveniently shorter than the slot in a twin-edged slotted blade and its width is also less than that of the slot of a slotted blade, as evident from the single edge razor blade **2** broken at longitudinal centre **12** in FIG. 1. The blade **2**, which is a fragmentary half of a conventional slotted razor blade with normally straight slot edge **13** at the centre portion is, as shown in FIG. 4, inserted between the holder sections **5** and **6** which are slightly splayed or held apart from the flushly tightened connecting rivet **3** or the adjacent weld point due to natural resilience of the material, to the longitudinal stop **8** of the longitudinal rib **7** in the gap **14**, in which position the cutting edge **4** of the blade **2** appropriately projects beyond the bevelled edges of the holder section **5** and **6**. The blade **2** thus drops without any frictional resistance through the gap **14** to the longitudinal stop **8**. With the holder sections **5** and **6** then held together with one hand, the flat spring **11** is mounted over the spine of the holder with the other hand.

I claim:

1. An open razor-type shaving implement comprising a razor handle, a holder pivotally connected thereto, a pressure plate having a damping action and a single-edged razor blade insertable therebetween, wherein the holder consists of a pair of symmetrical holder sections firmly connected together only in the region of the pivotal connection with the handle and splayed apart only by resilience at the ends remote from the pivot for inserting said blade, said holder sections having flat inner surfaces facing one another, one of said flat inner surfaces having a slightly raised portion in the form of a longitudinal rib and the other of said flat inner surfaces having a longitudinal groove forming a receses for accepting said longitudinal rib, said longitudinal rib being shorter than the slot in a twin-edged conventional slotted razor blade and its width less than that of the slot in said slotted razor blade and positioned parallel with respect to the lower edge of said holder sections so when a fragmentary half of said slotted blade forming a single-edged blade is inserted between said holder sections its upper edge, one of the straight slot edges, abuts the lower edge of said longitudinal rib positioning said blade in its operative position with only its cutting edge projecting beyond the lower edge of said holder, said longitudinal rib and groove further serving to center said holding sections in their operable position, said holding sections being firmly held together in the region of said inserted razor blade with said blade securely clamped therebetween by means of said pressure plate, said pressure plate having a generally U-shaped cross section, the legs of said U-shaped plate extending somewhat beyond the lower edge of said longitudinal rib and the length of said U-shaped plate being longer than said blade length and extending beyond the lateral edges of said blade when said U-shaped plate is positioned over the spine of said holder sections with its legs engaging the outer sides of said holder sections.

References Cited

UNITED STATES PATENTS

917,043	4/1909	Gage	30—53 X
3,255,523	6/1966	Robertson et al.	30—53 X

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