

# United States Patent

Nissen et al.

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## [54] RAZOR WITH PIVOTALLY MOUNTED SAFETY GUARD

[72] Inventors: **Warren I. Nissen**, Topsfield; **Roger L. Perry**, Lynnfield Center, both of Mass.

[73] Assignee: **The Gillette Company**, Boston, Mass.

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[51] Int. Cl. ....B26b 21/16

[58] Field of Search .....30/77, 80, 81, 83, 293, 27, 30/284, 285, 287, 288, 295, 286

[56] **References Cited**

### UNITED STATES PATENTS

1,935,452 11/1933 Kondolf .....30/77 X  
2,915,817 12/1959 Peck .....30/77 X

### FOREIGN PATENTS OR APPLICATIONS

510,560 8/1939 England .....30/83

*Primary Examiner*—Andrew R. Juhasz

*Assistant Examiner*—Gary L. Smith

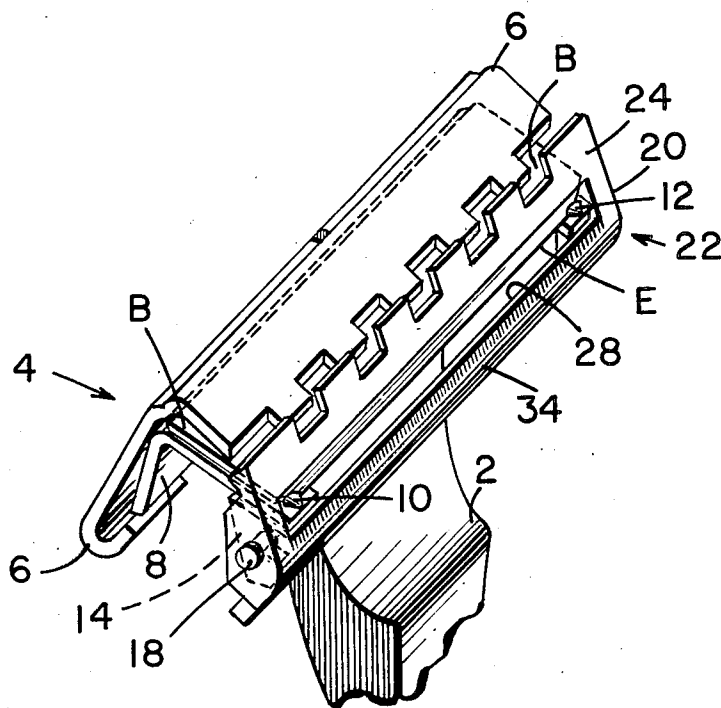
*Attorney*—Philip Colman, Oistein J. Bratlie, William M. Anderson and Scott R. Foster

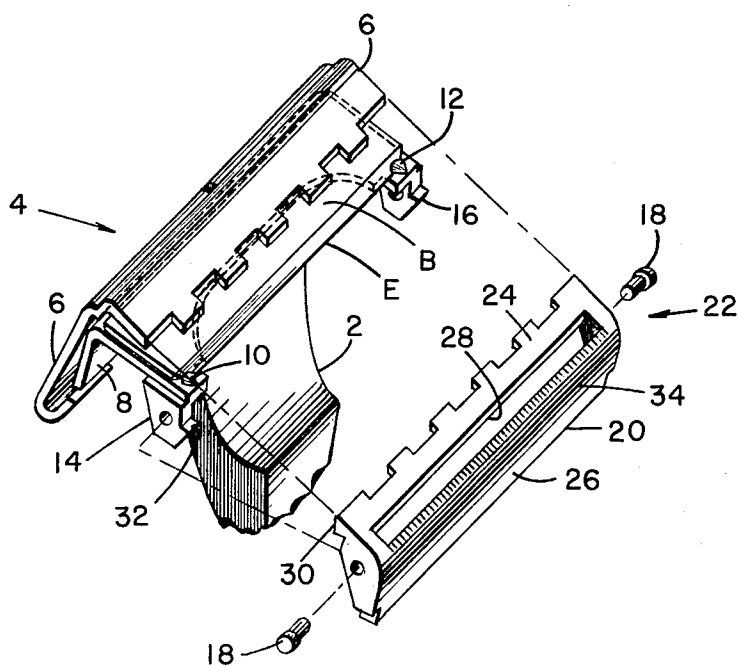
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### ABSTRACT

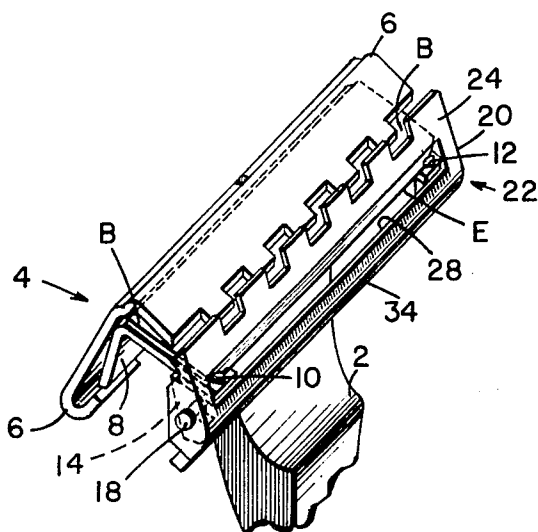
A safety razor including a handle portion and a head portion mounted on one end of the handle portion. The head portion includes blade support means, and a pivotally mounted safety guard member.

**6 Claims, 6 Drawing Figures**





*Fig. 1*



*Fig. 2*

INVENTOR

Warren I. Nissen

Roger L. Perry

By *Scott R. Foster*  
Attorney

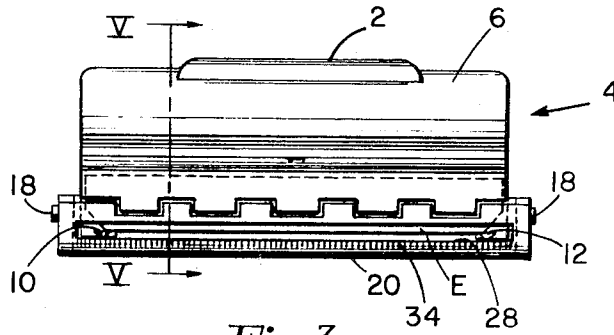


Fig. 3

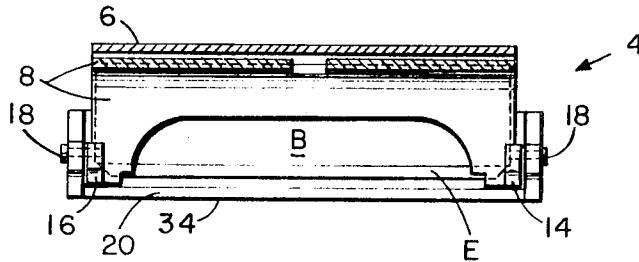


Fig. 4

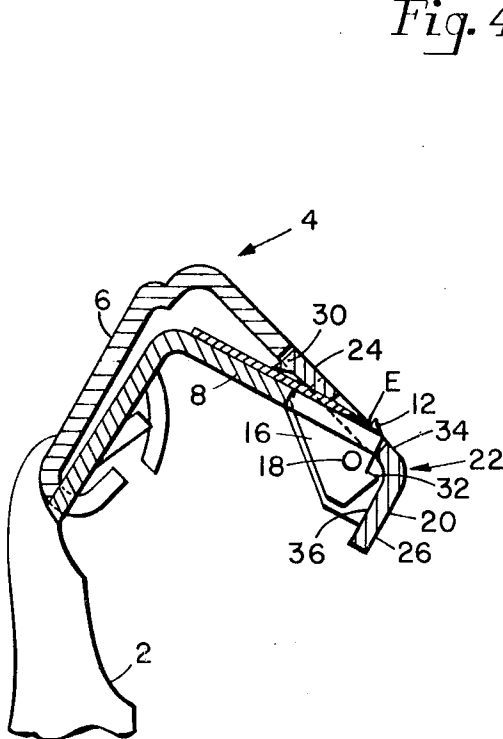


Fig. 5

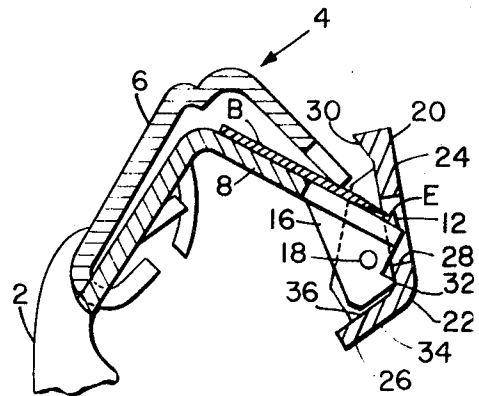


Fig. 6

INVENTORS

Warren I. Nissen

Roger L. Perry

By *Scott R. Foster*  
Attorney

# RAZOR WITH PIVOTALLY MOUNTED SAFETY GUARD

## BACKGROUND OF THE INVENTION

### 1. Field of the Invention

This invention relates to razors and is directed more particularly to safety razors provided with safety guard members.

### 2. Description of the prior Art

Safety razors are generally provided with safety guard members which are disposed proximate to and parallel with the edges of blade supporting platforms whereby to underlie the cutting edge of a razor blade disposed upon a platform. Such guard members are frequently rigidly fixed to the head of the razor.

In common use today are safety razors having an adjustable feature which facilitates varying the position of the guard relative to the blade edge, thus varying the exposure of the blade edge. Such represents a considerable improvement over guards permanently fixed in one position; however, once the guard position is preset, it remains rigidly in the preset position until that position is altered by an operator's changing the adjustment setting.

Recently there have been attempts to provide a razor having a guard member continuously movable during a shaving operation. Illustrative of this concept is U.S. Pat. No. 2,915,817, issued Dec. 8, 1959 to Edward Peck, in which there is disclosed the concept of a pivotally mounted guard member which may continuously change its position relative to the razor blade during the course of a shave. The guard member disclosed in the Peck patent includes a planar face having a central elongated opening about the blade edge. Side portions of the guard member are provided with arcuate slots which receive pins to facilitate pivotal movement of the guard member. The razor accepts a double edge blade which is clamped upon one end of the handle and retained by a holding plate, one cutting edge of the razor being covered and the other cutting edge being exposed in the guard member opening.

Although the pivotally mounted guard member offers some advantages in shaving, the Peck razor guard member has its pivot axis coincident with the blade cutting edge axis, so that pivotal movement of the guard member does not alter the exposure of the blade edge relative to the guard member, but merely changes the angle of the guard relative to the blade edge. Further, the Peck razor is somewhat awkward in structure and function and not readily acceptable by the market generally nor given to economical manufacturing.

## SUMMARY OF THE INVENTION

Accordingly, it is an object of the present invention to provide a safety razor having a guard member pivotally mounted thereon.

A further object of the invention is to provide such a razor in which pivotal movement of the guard alters the exposure of the blades cutting edge relative to the guard.

A still further object of the invention is to provide such a razor which is structurally and functionally similar to safety razors generally in use today and which may be manufactured by processes differing but little from processes presently in use.

With the above and other objects in view, as will hereinafter appear, a feature of the present invention is the provision in a safety razor of a handle, a head portion mounted on one end of the handle, the head portion including a blade support means for receiving a blade having a cutting edge, and a guard member pivotally mounted on the blade support means, the pivot axis of the guard being removed from the nearest cutting edge of the blade.

The above and other features of the invention, including various novel details of construction and combinations of parts, will now be more particularly described with reference to the accompanying drawings and pointed out in the claims. It will be understood that the particular device embodying the invention is shown by way of illustration only and not as a

limitation of the invention. For example the invention is herein illustrated in its application to injector-type razors. While the invention is applicable to injector razors, it is not limited in scope to razors of this type, but is applicable to safety razors generally. The principals and features of this invention may be employed in various and numerous embodiments without departing from the scope of the invention.

## BRIEF DESCRIPTION OF THE DRAWINGS

Reference is made to the accompanying drawings in which there is shown an illustrative embodiment of the invention from which its novel features and advantages will be apparent.

FIG. 1 is an exploded perspective view showing a portion of an illustrative razor embodying the features of the present invention;

FIG. 2 is a perspective view;

FIG. 3 is a top plan view;

FIG. 4 is a bottom plan view of the head portion of the razor;

FIG. 5 is a sectional view taken along line V—V of FIG. 3; and

FIG. 6 is similar to FIG. 5 but shows the guard member pivotally disposed in a different position.

## DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the drawings, it will be seen that the illustrative razor includes a handle portion 2 adapted to be gripped by the hand of an operator. A head portion 4 is mounted on one end of the handle portion 2 and includes a frame member 6 which is rigidly fixed to the handle 2. A generally L-shaped blade support member 8 is fixed relative to the frame member 6, the frame member 6 and the blade support member 8 cooperating to receive and retain therebetween a blade B having a cutting edge E. The blade support member 8 is provided with stop members 10, 12 which engage the edge E of the blade B and serve to properly locate the blade edge in the razor. The razor as described thus far is substantially the same as razors currently available in the market.

There will now be described the pivoting guard feature. The blade support member 8 is provided on either side with lugs 14, 16 which serve to support by pivot pins 18, a guard member 20. The guard member 20 comprises an elongated member which at a central portion 22 is curved, the curved portion being flanked by two generally planar portions, 24, 26. The guard 20 is provided with an elongated slot 28 which is disposed proximate to and generally coextensive with the cutting edge E of the blade B.

Referring particularly to FIG. 5, it will be seen that the guard member 20 may be pivoted counterclockwise, as viewed in the drawings, until an enlarged portion 30 of the guard abuts a surface of the blade B. In such position, the blade edge E extends through the slot 28, slightly beyond the working surface 34 of the guard member. In FIG. 6 it will be noted that the guard is pivoted clockwise until the underside 36 of the guard abuts a projecting portion 32 of the lugs 14, 16 (lug 16 shown in FIG. 6). With the guard in the position shown in FIG. 6, the cutting edge E of the blade B extends into, but not through, the slot 28, the edge E being recessed somewhat beneath the exposed surface.

Thus, the guard is positioned by the angle at which the razor is disposed to a surface being shaved, rather than being rigidly locked into a permanent or preset position as is customary. Further, inasmuch as the pivot axis of the guard is removed from the blade edge, pivotal movement of the guard alters the exposure of the blade cutting edge relative to the guard, as illustrated in FIGS. 5 and 6.

It is to be understood that the present invention is by no means limited to the particular construction herein disclosed and/or shown in the drawings, but also comprises any modifications or equivalents within the scope of the disclosure; for example, the pivot axis of the guard member may be located in various positions other than that shown, relative to the axis of

the blade cutting edge, whereby to alter the exposure of the cutting edge.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent of the United States is:

1. A safety razor comprising a handle portion, a head portion mounted on one end of said handle portion, said head portion comprising a blade support means and a frame member for receiving and retaining a blade therebetween, and a guard member pivotally mounted on said head portion, said guard member having a pivot axis removed from a nearest cutting edge of a blade disposed in said razor, said guard member being provided with an elongated slot adapted to receive said cutting edge of said blade, said guard member being curved about a lengthwise axis to provide a curved working surface disposed between two generally planar working surfaces.

2. The invention according to claim 1 in which said slot is disposed in one of said planar surfaces and proximate to said

curved surface.

3. A safety razor comprising a handle portion, a head portion mounted on said handle portion, said head portion comprising a blade support means and a frame member for receiving and retaining a blade therebetween, and a guard member mounted on said head portion for pivotal movement, said guard member being provided with an elongated slot adapted to receive said cutting edge of said blade, said guard member being curved about a lengthwise axis to provide a curved working surface disposed adjacent a generally planar working surface.

4. The invention according to claim 3 in which said curved working surface is disposed between two generally planar working surfaces.

5. The invention according to claim 3 in which said slot is disposed in said planar working surface.

6. The invention according to claim 4 in which said slot is disposed in one of said planar surfaces.

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