United States Patent [19]

Pearson

[11] **3,728,788**

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[54] **STRAIGHT RAZOR ADAPTED FOR USE WITH INJECTOR BLADES**

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[52] **U.S. Cl.**.....**30/53,** 30/40.2

[51] **Int. Cl.**.....**B26b 21/10,** B26b 21/24

[58] **Field of Search**.....30/40, 40.2, 53, 30/62, 65, 54, 55, 32

[56] **References Cited**

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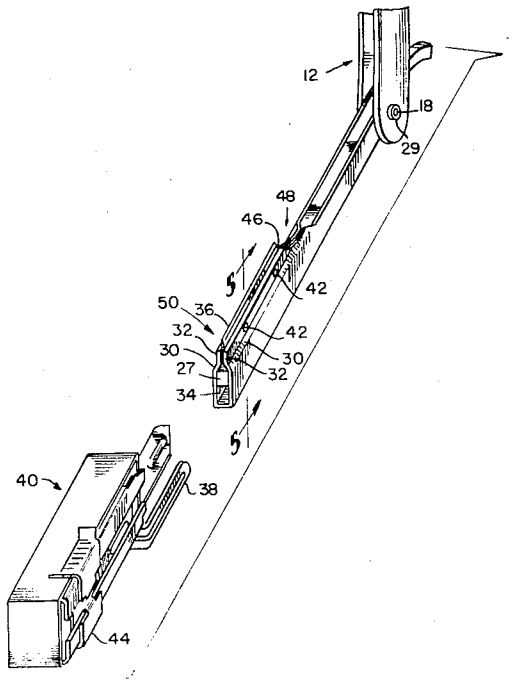
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[57] **ABSTRACT**

A razor of the straight razor type has closely spaced blade shields adjacent one of its ends, and an opening adjacent to but spaced from the blade shields which will receive a key of an injector cartridge with an interference fit, which may use injector blades and receive them directly from their cartridge.

3 Claims, 5 Drawing Figures



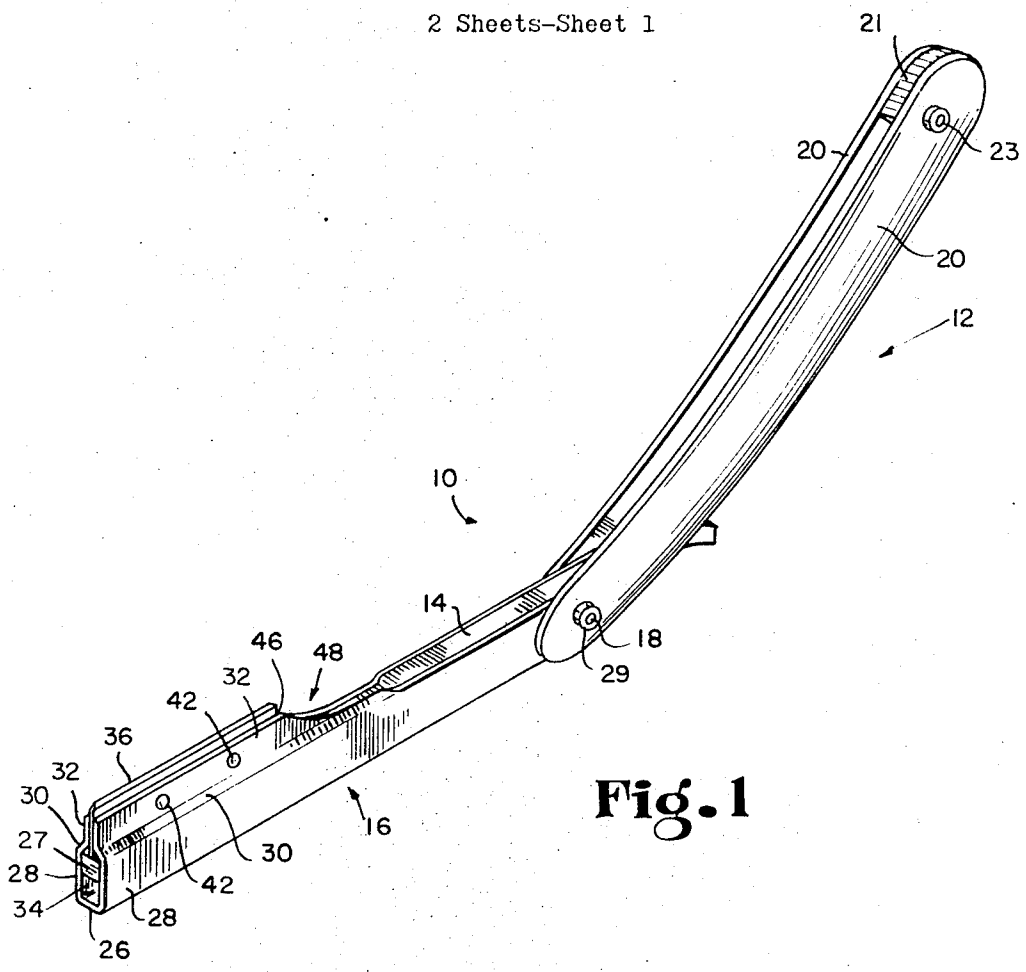

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Fig. 1

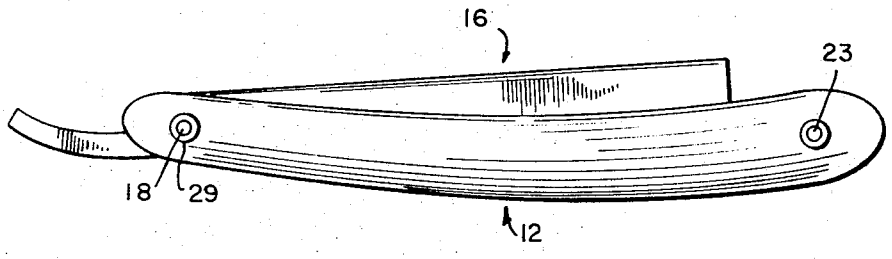

16
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Fig. 2

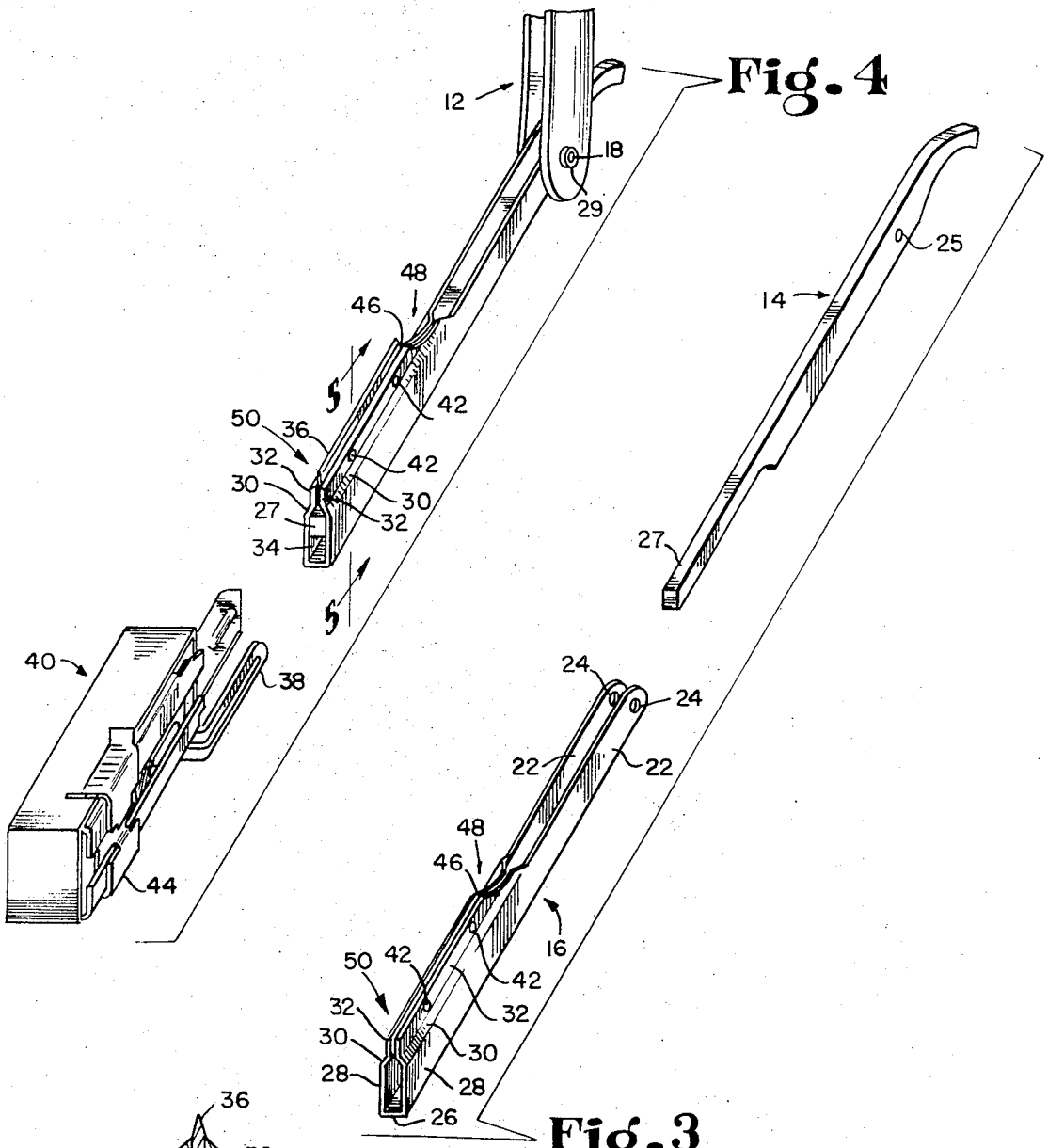


Fig. 4

Fig. 3

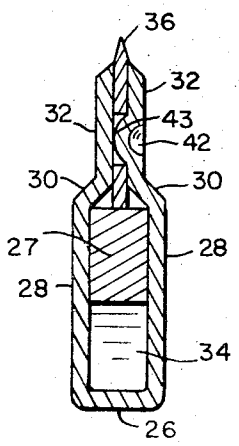


Fig. 5

STRAIGHT RAZOR ADAPTED FOR USE WITH INJECTOR BLADES

BACKGROUND OF THE INVENTION

This invention relates to a razor, and more particularly to a razor of the so-called straight razor type, but which is adapted for use with injector razor blades.

Straight razors, which generally comprise a handle and pivotally attached blade, have been in use for many years. The so-called safety razors are also well known. Safety razors utilize a single or double-edged blade firmly held in a housing having a handle with only the cutting edge or edges of the blade exposed. Various proposals have been made for hybrid type razors which are like the conventional straight razor except that they have a blade holder portion which carries a removable blade. This invention relates to such a straight razor adapted to be used with commercially available injector blades.

The injection of blades from presently available injector cartridges into the razor of this invention presents a problem, since the cartridges are constructed so as to eject blades in a plane perpendicular to the plane of the cartridge stem or key. To inject blades from such a cartridge into the blade holder of this invention necessitates that the cartridge eject the blades in a plane parallel to or coplanar with the plane of the cartridge key. This problem is solved by a new cartridge or cartridge adapter as illustrated generally in FIG. 3, and which is the subject of a separate patent application filed simultaneously herewith.

SUMMARY OF THE INVENTION

In one form, a razor according to this invention has a handle connected to a blade holder portion. Adjacent one of its ends, the blade holder portion has two closely spaced blade shields and an opening which is adjacent to but spaced from the blade shields. That opening is adapted to receive a key of a blade injector cartridge with an interference fit therebetween. The areas adjacent to the ends of the blade shields are unobstructed. The razor may receive injector blades directly from their cartridge.

BRIEF DESCRIPTION OF THE DRAWING

Apparatus in accordance with this invention is illustrated in the accompanying drawing in which:

FIG. 1 is a perspective view of a straight razor adapted for use with injector blades;

FIG. 2 is a side elevation of the razor in the closed or collapsed position;

FIG. 3 is an exploded perspective view showing the components of the blade holder assembly;

FIG. 4 is a fragmentary perspective view of the razor showing an injector cartridge adapted for use therewith; and

FIG. 5 is an enlarged fragmentary section taken on line 5—5 of FIG. 4.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

The razor **10** has a handle **12**, a shank **14**, and a blade holder portion **16**. Shank **14** and blade holder **16** fit together to form a blade holder assembly. Handle **12**, shank **14** and blade holder portion **16** are pivotally interconnected as by a pivot pin **18**. Handle **12** has sides **20** which are spaced apart and held together, as by spacer **21** and fastener **23**, so as to permit the shank and blade holder to fit partially between sides **20** when the razor is in the closed position illustrated in FIG. **2**.

As best seen in FIG. **3**, the blade holder portion **16** has spaced apart legs **22** with aligned openings **24** therein adjacent one end. Adjacent the opposite or blade carrying end, the holder **16** has a bottom **26**, two upwardly extending side walls **28** with inwardly sloped portions **30** which are formed into two closely spaced vertically extending blade shields **32**. When shank **14** is fitted between the legs **22**, an opening **25** in shank **14** is aligned with openings **24**. The end of shank **14** opposite opening **25** has a narrow end portion **27**. The pivot pin **18** passes through each of the openings **24** and **25** and through openings in sides **20** of handle **12** to interconnect the handle **12**, shank **14**, and blade holder **16**. The pin **18** is secured as by a fastener **29**. As best seen in FIGS. **4** and **5**, an opening **34** in holder **16**, spaced below shields **32**, is defined by the bottom **26**, side walls **28**, and the narrow end portion **27** of shank **14**. The depth of opening **34** is determined by the length of the end portion **27**. Opening **34** is adapted to receive a stem or key of a blade injector cartridge. Blade shields **32** are sufficiently close together and of sufficient rigidity to securely hold an injector razor blade **36** therebetween, yet sufficiently flexible to be moved slightly farther apart when a stem or key **38** of a blade injector cartridge **40** is inserted in the opening **34**. An interference fit between key **38** and opening **34** is provided for this purpose. The blade inject area **50** adjacent the key receiving end of the blade holder is free of obstructions so as to provide an unobstructed blade injection area.

One of the shields **32** is provided with a pair of inwardly projecting bosses **42** aligned and spaced apart so as to snap into the elongated holes **43** which are formed in standard injector blades. The shields **32** and bosses **42** along with the holes **43** in the blade, serve to position and securely hold the blade **36** in proper position for use. When a change of blades is desired, a key **38** of cartridge **40** is inserted into opening **34**. The interference fit between the key and the opening causes the blade shields **32** to spread apart slightly. By operating the blade loader or cartridge slide **44** in the usual manner a new blade is pushed into the space between blade shields **32** forcing the old blade out at the end **46**. The ejection end **46** is free of obstructions so as to provide an unobstructed blade ejection area **48**. When the key is removed from opening **34**, the blade shields **32** and bosses **42**, together with holes **43** in the blade, again serve to hold the new blade firmly in the proper position for use.

I claim:

1. A razor of the straight razor type comprising a handle connected to a blade holder portion, a shank having a narrow end portion, said shank being interfitted with said blade holder portion to form a blade holder assembly, said blade holder assembly having adjacent one end thereof two closely spaced blade shields parallel to one another and extending vertically from said assembly and an opening adjacent to but spaced from said shields, said opening being adapted to receive with an interference fit a key of a blade injector car-

tridge, and said blade shields having unobstructed blade inject and blade eject areas adjacent their ends.

2. The invention as set forth in claim 1 wherein said blade holder portion has a pair of spaced, parallel legs adjacent one end thereof and has adjacent the other end thereof, a bottom, side walls extending upwardly from said bottom and spaced apart a sufficient distance to receive the narrow end portion of said shank, and in-

wardly sloped portions integral with said side walls, said blade shields being integral with and extending upwardly from said sloped portions.

3. The invention set forth in claim 2 wherein said opening for a key of a blade injector cartridge is defined by said blade holder bottom and side walls and the narrow end portion of said shank.

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