The present invention relates to blades for safety razors of the kind having an imperforate body portion and a single cutting edge and which are adapted to be held in a suitably designed holder—for example by being forced against fixed stops on a toothed guard plate.

The chief object of the present invention is to provide an improved safety razor blade of the kind referred to which is stiffened for the purpose of preventing the cutting edge from vibrating during use and of enabling a keener edge to be produced during processing.

A more particular object of the present invention is to provide a safety razor blade of the kind referred to which is so formed that while it is capable of being made thinner than heretofore it nevertheless has sufficient stiffness or rigidity to ensure that no or substantially no vibration of the cutting edge will take place during use.

Sheet steel blades for articles of cutlery such as knives, razors, lancets and the like have previously been proposed to be made by stamping so as to present ribs which ensure rigidity and a shank enabling them to be fixed in a handle after the manner of a pen. Perforated flexible leaf type safety razor blades having two cutting edges have also been proposed in British specification No. 381,391 in which substantially the whole area of the blade between the cutting edges is stiffened by small shallow indentations produced by hammering or by pressure.

It has also been proposed in British specification No. 121,415 to provide a double edged blade adapted to be clamped between two members or plates with transverse channels or passages for the purpose of permitting hair and soap to pass between the blade and the clamping plates. The present invention applies to a single edge blade which can be fixed in a holder so that the passage of hair and soap will take place whether the blade possesses channels or not. Further, the corrugations which are employed in this present invention are too shallow to allow any appreciable passage of hair or soap between the blade and a flat surface pressing directly against it.

The type of blade to which this invention applies is popularly known as the "Gum" single edge blade.

Also it has been proposed in British specification No. 323,007 to produce blanks for the manufacture of safety razor blades in which the steel band is provided with one or more elevations, ridges, channels or the like in such a way that the blank is of substantially the same thickness throughout.

The present invention broadly stated consists in a safety razor blade of the kind referred to of which the metal is deformed in the area thereof behind but not extending to the cutting edge for the purpose of increasing the stiffness of the blade.

More specifically stated the present invention consists in a safety razor blade of the kind referred to in which the metal of the blade behind the cutting edge is deformed in such wise as to provide one or more sets of shallow corrugations of small pitch having axes of propagation extending parallel or substantially parallel to the cutting edge. The term "axes of propagation" denotes a line drawn perpendicularly to the longitudinal axis of the corrugation. The length of the axis of propagation in a given plane will indicate the breadth of the corrugation.

The blade may be provided with corrugations having different axes of propagation extending in various directions with respect to one another and to the cutting edge, such axes, however, being substantially parallel to the cutting edge.

As previously indicated the corrugations do not extend to the cutting edge but are stopped at a sufficient distance behind it—for instance just behind the commencement of the taper or "cane" of the edge to ensure that the edge is perfectly straight.

In order that the present invention may be more clearly understood and readily carried into effect reference may now be had to the accompanying drawing illustrating the same by way of example and in which:

Fig. 1 is a perspective view of a safety razor blade according to the present invention;

Fig. 2 is an end view of the blade shown in Fig. 1;

Fig. 3 is a sectional view on the line 1—1 of Fig. 1;

Fig. 4 is a perspective view on the line 2—2 of Fig. 1;

Fig. 5 is a detail in perspective of a blade according to the present invention.

Referring to Figs. 1-4 the reference numeral 1 indicates what may be regarded as the body of the blade and is provided along one longitudinal side edge with a guard strip 2 and along the other parallel side edge with a cutting edge 3. The metal of the blade body 1 is deformed for the purpose of increasing its stiffness by corrugations 4 which, as shown, are of small pitch compared with the length of the blade and have a common axis of propagation which extends parallel to the cutting edge 3, that is to say the corrugations
extend in a direction normal to the cutting edge 3. The corrugations 4 do not extend right up to the cutting edge 3 but terminate some distance behind it—as will be evident by an examination of the drawing—to ensure that the edge 3 is perfectly straight.

The necessary deformation of the metal of the blade may be produced in any convenient manner, as for instance by impact, i.e. by stamping or hammering, or by rolling the metal either before or after heat treatment thereof and either before or after fashioning of the blades to the desired form.

In Fig. 5 the corrugations 7 are shown as converging and diverging slightly with respect to each other, although the axes of propagation of the corrugations 7 are substantially parallel to the longitudinal axis of the blade.

It is found that by constructing the blades in the manner described, while they may be made of thinner metal and with a keener cutting edge than heretofore, the cutting edge is effectively prevented from vibrating during use.

The expressions “very shallow” and “very slight” appearing in the claims are employed to describe the depth of the corrugations used in this invention. The corrugations do not extend much below the surface of the metal of the blade and are barely visible. In other words, the core of the blade lies all in one plane. The corrugations are merely impressed upon its surface.

What I claim is:

An improved blade for safety razors comprising in combination a single cutting edge, a reinforcing sheath along the opposite edge, and very slight corrugations formed in the metal of the blade having axes of propagation substantially parallel to said cutting edge but converging and diverging slightly with respect to each other, said corrugations extending from a region adjacent said sheath to the point at which said blade tapers to form the operative portion of the blade.

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