S. G. MALBY.

SAFETY RAZOR.

APPLICATION FILED MAR. 22, 1920.

1,353,603. Patented Sept. 21, 1920.

Fig. 1

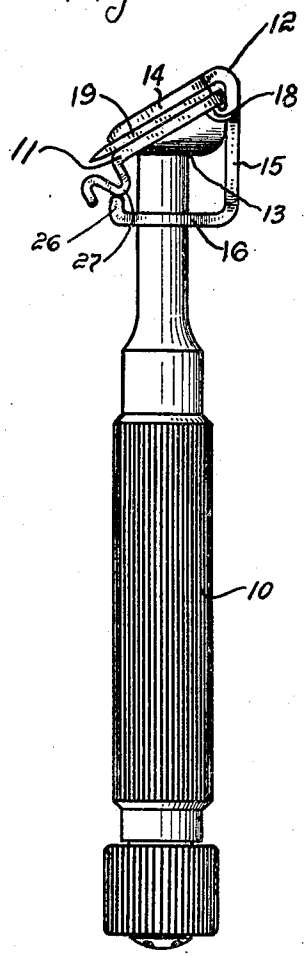


Fig. 2

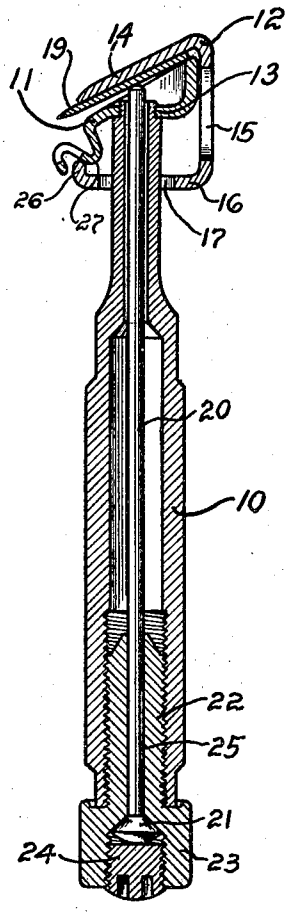


Fig. 3

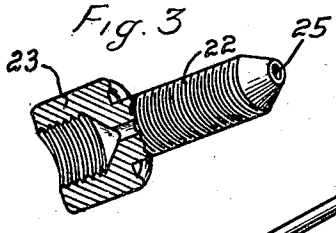


Fig. 4

Fig. 5



INVENTOR

Seth G. Malby

BY

A. Wilbooster

ATTORNEY

UNITED STATES PATENT OFFICE.

SETH G. MALBY, OF DERBY, CONNECTICUT, ASSIGNOR TO CHARLES H. JOCKMUS, OF ANSONIA, CONNECTICUT, DOING BUSINESS AS ANSONIA MANUFACTURING COMPANY.

SAFETY-RAZOR.

1,353,603. Specification of Letters Patent. Patented Sept. 21, 1920.

Application filed March 22, 1920. Serial No. 367,662.

To all whom it may concern:

Be it known that I, SETH G. MALBY, a citizen of the United States, residing at Derby, county of New Haven, State of Connecticut, have invented an Improvement in Safety-Razors, of which the following is a specification.

This invention relates to safety razors, and more particularly has for its object to improve the structure by means of which the blades in razors of the type disclosed in the United States patent to Jacob Kunz and Frederick Goertz, No. 1,288,049, granted December 17, 1918, may be adjusted.

With the above and other objects in view, the invention consists of the combination and arrangement of parts as now to be fully described and hereinafter specifically claimed.

In the accompanying drawing forming a part of this specification,

Figure 1 is a side elevation of the improved safety razor, showing the blade resting on the blade support;

Fig. 2 a longitudinal section, showing the blade adjusted to its farthest position from the blade support;

Fig. 3 a perspective view, partly in section, of the adjusting screw of the invention;

Fig. 4 a perspective view of the adjusting pin of the invention; and

Fig. 5 is a perspective view of the set screw of the invention.

10 denotes the shank or hollow handle, 11 the blade support and 12 the clamping member of the safety razor of the invention. These parts are not new, and, therefore, need but brief description to better explain the features which I have invented. The blade support is provided with a threaded opening 13 and the threaded outer end of the hollow handle is removably connected therewith. The clamping member has a frictional engaging portion 14 and an upright portion 15, said upright portion being provided with an extension 16 having therein an opening 17, larger than the outer portion of the handle, through which said handle passes, as shown. Extension 16 is provided with a lug 26 which bears against an inwardly extending portion 27, shaped as shown, on the blade support. The blade support and clamping member have connection with each other as shown at 18 in Fig. 1, the connection preferably being by means of bayonet slots in the inner edge of the blade support and fingers on the clamping member. 19 denotes a razor blade inserted between the blade support and the frictional engaging portion of the clamping member. To insert or remove the blade, the handle is grasped and the upright portion of the clamping member is pressed toward said handle, the result being that the frictional engaging portion is forced away from the blade support, as will be readily understood. When now the upright portion is released, the blade support and the frictional engaging portion of the clamping member are pressed toward each other, by reason of the bayonet interlocking means between these parts, and the bearing contact between lug 26 and inwardly extending portion 27, to a sufficient extent to grip the blade and hold it, as disclosed in Fig. 1.

20 denotes an adjusting pin having a head 21, 22 denotes an adjusting screw having a hollow head 23 to accommodate the head of the adjusting pin and a set screw 24, the adjusting screw being also provided with a longitudinal opening of smaller size, denoted by 25, through which the adjusting pin is adapted to loosely pass.

As will be apparent from Figs. 1 and 2, the razor blade is adjustable from and toward the blade support by means of the adjusting screw. It is essential that the maximum adjustment of the blade be fixed and determined, that is, the blade should not be capable of adjustment from the support a distance greater than a predetermined distance, this predetermined distance being the maximum adjustment to which the razor should be capable of being set for use. And further, when the blade is adjusted its farthest distance from the blade support, the head of the adjusting screw should rest against the inner end of the handle, as it is shown in Fig. 2. I am aware that heretofore adjusting pins have been arranged in the hollow handles of safety razors of the present type, such, for example, as the adjusting pin disclosed in Letters Patent

No. 1,288,049, hereinbefore referred to, and an adjusting pin which has a drive fit into an adjusting screw of the nature of the one disclosed in the present application, but the adjusting pins heretofore known have been difficult to manufacture, that is, in the manufacture of structure for adjusting the blades of razors of the present type it has been necessary to maintain an almost impossible perfection in the manufacture of the parts, it having heretofore been necessary to construct an adjusting pin of an exact and accurate predetermined length to arrange for the proper maximum adjustment of the blades. By means of my improved structure, as will presently be apparent, the length of the adjusting pin may vary within limits, and consequently, need not be so accurately constructed.

To assemble the adjusting means in the razor, the adjusting screw may be first screwed into the hollow handle until its head rests against the inner end of said handle, as it is shown in Fig. 2, the adjusting pin may then be inserted into the adjusting screw until its outer end rests against the blade, or against the frictional engaging portion of the clamping member, and its head lies in the hollow head of the adjusting screw but away from the lower wall thereof, and the set screw may then be screwed into said hollow head until the outer end of the adjusting pin has raised the blade a predetermined distance from the blade support, or the adjusting pin may be first inserted into the adjusting screw, the set screw then loosely set in the hollow head, the adjusting screw then screwed into the handle until its head rests against the inner end of said handle, and the set screw may then be screwed into the hollow head to raise the blade as before. If desired, the set screw may be coated with shellac, or other similar substance, before it is screwed into the hollow head, to make certain that it will remain in the position to which it is inserted. It will be noted that the set screw may be inserted any desired distance into the hollow head, but it may be added that the head of the adjusting pin should be loosely arranged in the hollow head so that when the adjusting screw is turned to adjust the blade, the adjusting pin will have no turning movement. This is an advantage not found in adjusting means of this character heretofore known, such previously known adjusting means forcing the adjusting pin to turn to exert a twisting action on the blade, thereby forcing the blade from its proper position between the blade support and the frictional engaging portion of the clamping member. The adjusting means hereinbefore fully described forces the outer end of the adjusting pin against the under side of the blade without imparting thereto a rotary thrust.

It will be apparent that the present invention affords a very simple and accurate means for adjusting the blades of safety razors of the present or similar type.

What I claim is:

1. In a safety razor, a hollow handle, an adjusting screw disposed therein and provided with a hollow head, an adjusting pin carried by said adjusting screw and extending into said hollow handle and having a head disposed in said hollow head, and a set screw disposed in said hollow head and adapted to bear against said head of said adjusting pin.

2. In a safety razor, a hollow handle, an adjusting screw disposed therein and provided with a hollow head, an adjusting pin carried by said adjusting screw and extending into said hollow handle and against a blade carried by said razor, said adjusting pin having a head disposed in said hollow head of said adjusting screw, and a set screw disposed in said hollow head and adapted to bear against the head of said adjusting pin, whereby the adjusting pin may be given longitudinal reciprocation to adjust said blade in said razor.

3. In a safety razor, a hollow handle, a blade support anchored thereto, a clamping member carried by said blade support and hollow handle, a razor blade disposed between said blade support and said clamping member, an adjusting screw disposed in said hollow handle and provided with a hollow head, an adjusting pin carried by said adjusting screw and extending into said hollow handle and against said blade, said adjusting pin having a head disposed in the hollow head of said adjusting screw, and a set screw disposed in said hollow head and adapted to bear against the head of said adjusting pin.

4. A safety razor, including a hollow handle and means for holding a blade thereto, and an adjusting pin, an adjusting screw and a set screw, said pin, adjusting screw and set screw comprising the adjusting means for said blade, and said adjusting pin being capable of relative movement with respect to said blade holding means.

5. A safety razor, including a hollow handle and means for holding a blade thereto, and an adjusting pin adapted to have longitudinal movement only in said handle and being movable from and toward said blade holding means.

6. A safety razor, including a hollow handle, means for holding a blade thereto, an adjusting pin adapted to have longitudinal movement only in said handle, and an adjusting screw and a set screw by means of which said adjusting pin is actuated, said

adjusting pin being movable with respect to said blade holding means.

7. A safety razor, including a hollow handle, means for holding a blade thereto, an adjusting pin disposed in said hollow handle and adapted to have longitudinal movement only when actuated to adjust said blade, an adjusting screw, through which said adjusting pin passes, disposed in said hollow handle and provided with a hollow head, and a set screw disposed in said hollow head of said adjusting screw, whereby said set screw may be forced against said adjusting pin to adjust said blade in said razor.

In testimony whereof I affix my signature.

SETH G. MALBY.