Jan. 15, 1924. 1,481,168

J. S. WILSON

RAZOR

Filed March 28. 1922

Fig. 1.

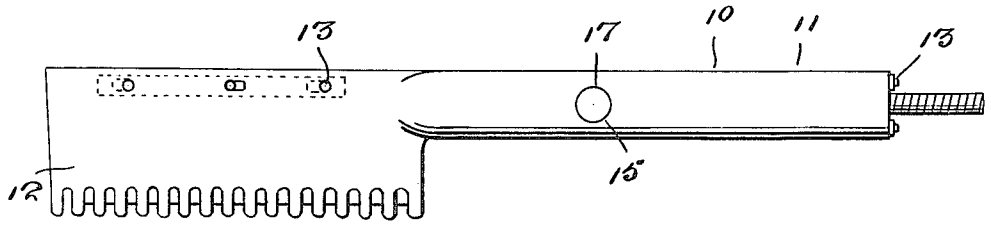


Fig. 2.

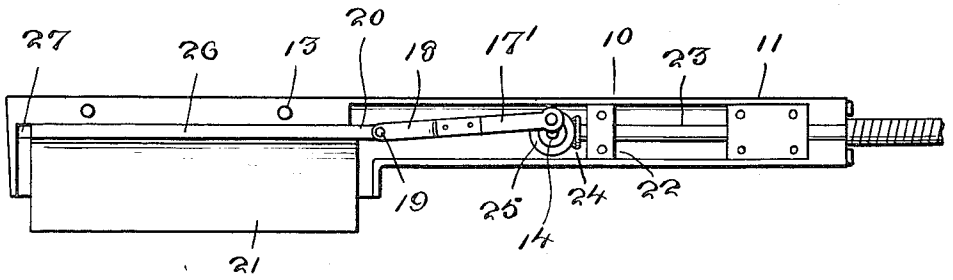


Fig. 5.

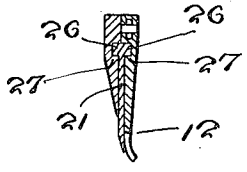


Fig. 3.

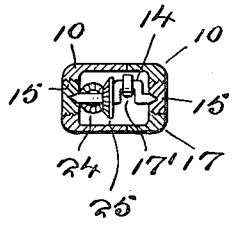
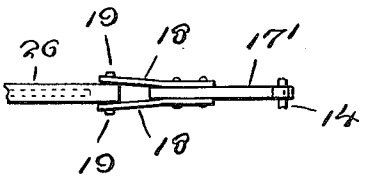


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAMES S. WILSON, OF JAMESTOWN, OHIO.

RAZOR.

Application filed March 28, 1922. Serial No. 547,420.

To all whom it may concern:

Be it known that I, JAMES S. WILSON, a citizen of the United States, residing at Jamestown, in the county of Greene and State of Ohio, have invented new and useful Improvements in Razors, of which the following is a specification.

This invention relates to improvements in safety razors and has particular reference to motor operated razors.

An object of the present invention is the provision of a safety razor which includes a motor driven reciprocatory blade having blade operating means housed within the handle, the construction being such as to permit of the ready substitution of new parts in the event of damage or wear and the ready removal and substitution of fresh razor blades.

With the above and other objects in view, the invention further includes the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the appended claim.

In the drawings:—

Figure 1 is a perspective view of a razor constructed in accordance with the invention.

Figure 2 is an enlarged longitudinal sectional view of the same.

Figure 3 is a transverse section.

Figure 4 is a detail view showing the manner of connecting the blade with the crank shaft connecting rod.

Referring in detail to the drawings, wherein like characters of reference denote corresponding parts, the razor is shown as being formed of a pair of substantially complemental members 10, each of which includes a handle section 11 and a guard section 12 which is formed on or carried by the end of the handle section. The members are removably held together by means of fastening devices 13 so that they may be separated for the purpose of removing and replacing blades and to permit access to be had to the operating mechanism which will be later described.

The handle sections of the members 10 are hollow and provide a housing for a transversely arranged crank shaft 14 which has its opposite ends pointed for engagement in bearing members 15, the latter being removably seated within sockets or recesses 17 provided in the opposite sides of the handle. This construction permits of the ready removal of the crank shaft and bearing members after the sections 10 have been separated, so that in the event of damage to the parts, new parts may be easily substituted. Secured to the crank shaft 14 is one end of a connecting rod 17 and the opposite end of this rod is provided with spaced spring arms 18 which have a detachable connection with ears or studs 19 extending from opposite sides of a projection 20 located at the inner end of a blade 21. For this purpose the spring arms are provided with openings which receive the pins or studs 19. The blade may thus be readily disengaged from the connecting rod for the purpose of inserting a fresh sharp blade.

Rotatably mounted in a bearing 22 provided in one of the handle sections 11 is a shaft 23, whose outer end is provided with means for connection with a flexible motor driven shaft as shown. The inner end of the shaft 23 has mounted thereon a pinion 24 which engages a pinion 25 mounted upon the crank shaft 14, so that when the shaft 23 is rotated, a reciprocatory movement will be imparted to the blade 21.

In order to guide the blade in its movement, the said blade has extending along its upper edge oppositely projecting flanges 26, while the opposed faces of the guard have correspondingly located slots 27 to receive these flanges. The blade will thus be oppositely guided during its movement longitudinally of the guard and when the razor is in use an operative cutting movement will be provided as the said razor is run across the face of the user.

The invention is susceptible of various changes in its form, proportions and minor details of construction and the right is herein reserved to make such changes as properly fall within the scope of the appended claim.

Having described the invention what is claimed is:—

A razor comprising a hollow tubular handle, spaced plates extending from one end

of the handle to receive a blade, said plates having opposed longitudinal grooves to provide a guide, a blade positioned between the plates, a rotatable shaft extending into the opposite end of the handle, means connecting the shaft and blade, whereby the latter may be longitudinally reciprocated and longitudinally disposed ribs extending along opposite faces of the blade for sliding engagement within the guide grooves.

In testimony whereof I affix my signature.

JAMES S. WILSON.