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1,759,981

RAZOR

Filed June 20, 1929

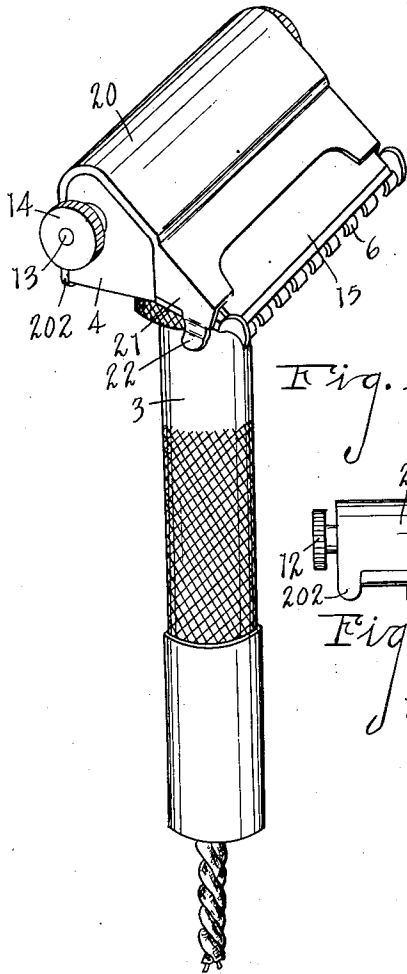


Fig. 1

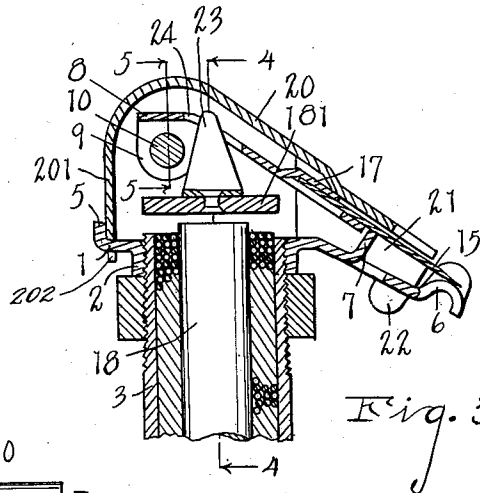


Fig. 3

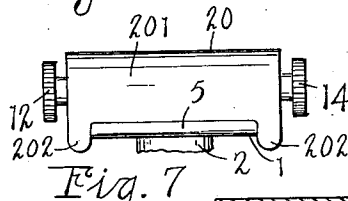


Fig. 7

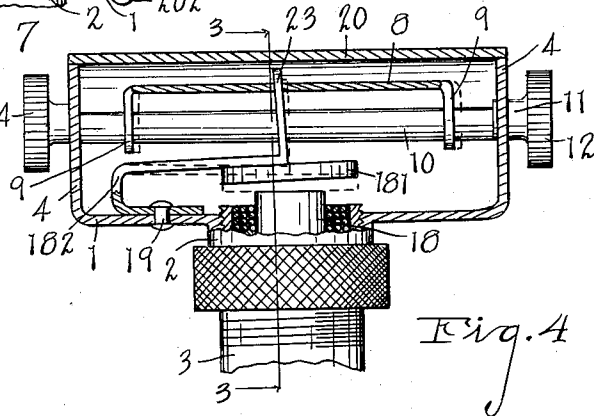


Fig. 4

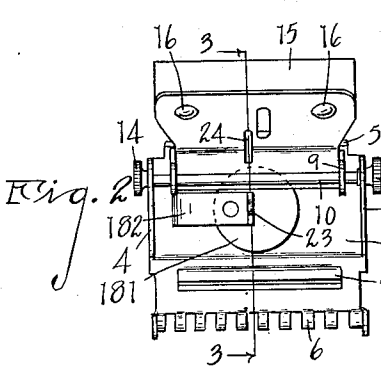


Fig. 2

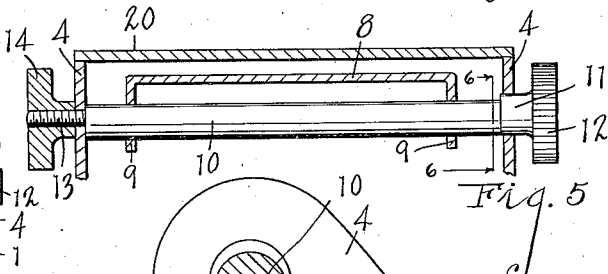


Fig. 5

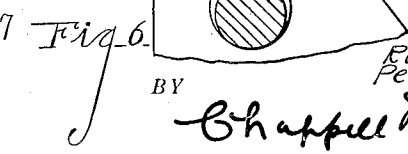


Fig. 6

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RAZOR

Application filed June 20, 1929. Serial No. 372,296.

The main objects of this invention are:

First, to provide a razor having a driven blade in which the blade may be quickly and accurately adjusted relative to the guard.

Second, to provide a razor having an oscillating or driven blade which is very simple in the structure and arrangement of its parts and one in which the moving parts are fully protected when in use and at the same time are readily accessible for cleaning or changing of blades.

Objects pertaining to details and economies of our invention will definitely appear from the description to follow. The invention is defined in the claims.

A structure which is a preferred embodiment of our invention is clearly illustrated in the accompanying drawing, in which:

Fig. 1 is a perspective view of our improved razor.

Fig. 2 is an end view with the cover plate removed and the blade holder swung rearwardly to expose the parts normally at the inner side of the holder.

Fig. 3 is a fragmentary view partially in longitudinal section on a line corresponding to line 3—3 of Figs. 2 and 4.

Fig. 4 is a fragmentary view partially in transverse section on a line corresponding to line 4—4 of Fig. 3.

Fig. 5 is a detail sectional view showing the mounting for the blade holder supporting rod partially in section on line 5—5 of Fig. 3.

Fig. 6 is a detail section on line 6—6 of Fig. 5.

Fig. 7 is a fragmentary elevation showing details of the head and its cover.

In the embodiment of our invention illustrated the head member 1 is provided with a threaded collar 2 for the hollow holder 3. This head 1 is provided with end portions 4 and has an upturned flange 5 on its rear edge. At its forward edge the head member is provided with a toothed guard 6. At the rear of this guard is a blade rest 7.

The blade holder 8 is provided with ears 9 slidably and pivotally engaging the rod-like blade holder slideway 10. This rod is eccentrically mounted on the end portions 4 of the head and has an eccentric portion 11

at one end terminating in a finger piece 12 and an eccentrically disposed screw 13 at the other end provided with a clamping nut 14. By loosening this nut the rod may be turned and, owing to its being eccentrically supported the holder is moved forward or backward, thereby adjusting the end of the blade relative to the guard. It will be understood that only comparatively slight adjustment is required to effect the desired results.

The blade 15 is detachably mounted on the holder, the holder being provided with lugs 16 and a spring tongue 17 engaging the rear edge of the blade. The holder is reciprocated by an electromagnet 18 the disk-like armature 181 of which is mounted on the free arm of a U-shaped spring 182 secured to the head plate by means of the rivet 19 through one of its arms. The coil and core of the electromagnet are mounted in the handle as indicated in the drawing.

To protect the parts and render them readily accessible we provide a detachable cover 20 conformed to the end members, the rear edge 201 of the cover being engaged within the flange 5 at the rear of the head. The cover has lugs 202 engaging the rear edge of the head at the ends of the flange. Adjacent its front end the cover is provided with downturned side flanges 21 terminating in lugs 22 having offsets therein engaging the edge of the head plate, thereby detachably securing the cover to the head. The cover serves as a retaining means for the blade holder, that is, the blade holder is in sliding engagement with the inner side of the cover, thereby holding the edge of the blade in proper relation to the guard.

The spring 182 is provided with a laterally turned finger 23 which engages a hole 24 in the blade holder so that as the armature is vibrated the blade holder is reciprocated on its supporting way or rod.

Structures embodying our improvements may be economically produced, are efficient, durable and easily manipulated.

Having thus described our invention what we claim as new and desire to secure by Letters Patent is:

1. In a razor, the combination of a head

provided with a handle and with a guard at its forward edge and having outwardly projecting end members and an outwardly projecting flange on its rear edge, a blade holder supporting rod eccentrically mounted on said end members for rotative adjustment and provided with a finger piece at one end and a lock nut at the other for securing it in its adjusted positions, a blade holder provided with inturned ears slidably and pivotally engaging said rod, said holder having a slot between said ears, an electromagnet arranged in said handle and provided with a disk-like armature, a U-shaped spring secured by one of its arms to said head, its other arm being free and provided with a laterally turned finger engaging said slot in said blade holder, said armature being mounted on the free arm of said spring, and a cover conformed to said end members and adapted to be engaged within said flange on the rear edge of said head and having lugs overlapping the rear edge of the head, said cover having forwardly projecting side flanges adjacent its front edge terminating in offset lugs having yielding engagement with the edges of the head.

2. In a razor, the combination of a head provided with a handle and with a guard at its forward edge and having outwardly projecting end members, a blade holder supporting rod eccentrically mounted on said end members for rotative adjustment and provided with a finger piece at one end and a lock nut at the other for securing it in its adjusted positions, a blade holder provided with inturned ears slidably and pivotally engaging said rod, said holder having a slot between said ears, an electromagnet arranged in said handle and provided with a disk-like armature, and a U-shaped spring secured by one of its arms to said head, its other arm being free and provided with a laterally turned finger engaging said slot in said blade holder, said armature being mounted on the free arm of said spring.

3. In a razor, the combination of a head provided with a handle and with a guard at its forward edge and having outwardly projecting end members and an outwardly projecting flange on its rear edge, a blade holder supporting rod mounted on said end members, a blade holder slidably and pivotally mounted on said rod, an electromagnet arranged in said handle and provided with a disk-like armature, a U-shaped spring secured by one of its arms to said head, its other arm being free and provided with a laterally turned finger engaging said blade holder, said armature being mounted on the free arm of said spring, and a cover conformed to said end members and adapted to be engaged within said flange and having lugs overlapping the rear edge of the head, said cover having forwardly projecting flanges ad-

jacent its front edge terminating in offset lugs having yielding engagement with the edges of the head member.

4. In a razor, the combination of a head provided with a handle and with a guard at its forward edge and having outwardly projecting end members and an outwardly projecting flange on its rear edge, a blade holder supporting rod eccentrically mounted on said end members for rotative adjustment, a blade holder slidably mounted on said rod, an electromagnet arranged in said handle and provided with a spring supported armature operatively associated with said blade holder, and a cover plate conformed to said end members and adapted to be engaged within said flange on the rear edge of said head and having lugs overlapping the rear edge of the head, said cover having forwardly projecting flanges adjacent its front edge terminating in offset lugs having yielding engagement with the edges of the head.

5. In a razor, the combination of a head provided with a handle and with a guard at its forward edge and having outwardly projecting end members, a blade holder supporting rod eccentrically mounted on said end members for rotative adjustment, a blade holder slidably mounted on said rod, and an electromagnet arranged in said handle and provided with a spring supported armature operatively associated with said blade holder.

In witness whereof we have hereunto set our hands.

ROBERT F. ELZINGA.
PETER ELZINGA.