No. 840,244. PATENTED JAN. 1, 1907.

D. W. & E. H. ODELL.

SAFETY RAZOR.

APPLICATION FILED FEB. 5, 1906.

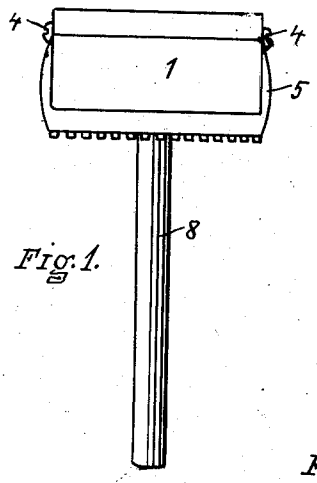


Fig. 1.

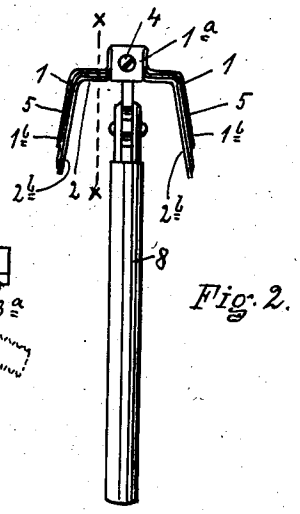


Fig. 2.

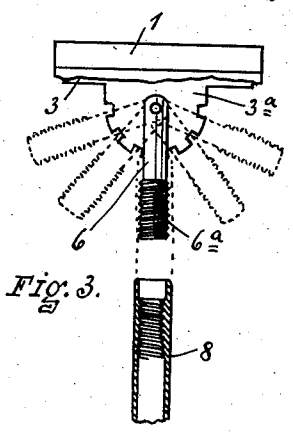


Fig. 3.

Fig. 5

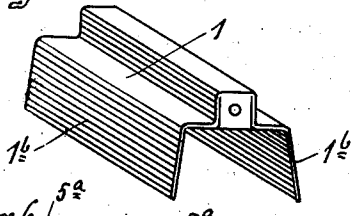


Fig. 6

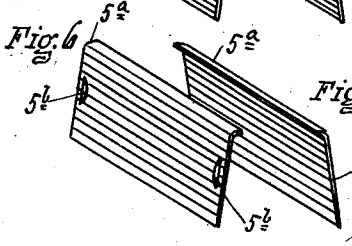


Fig. 6a

Fig. 7

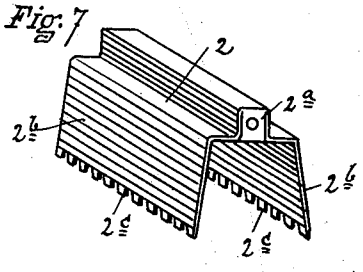
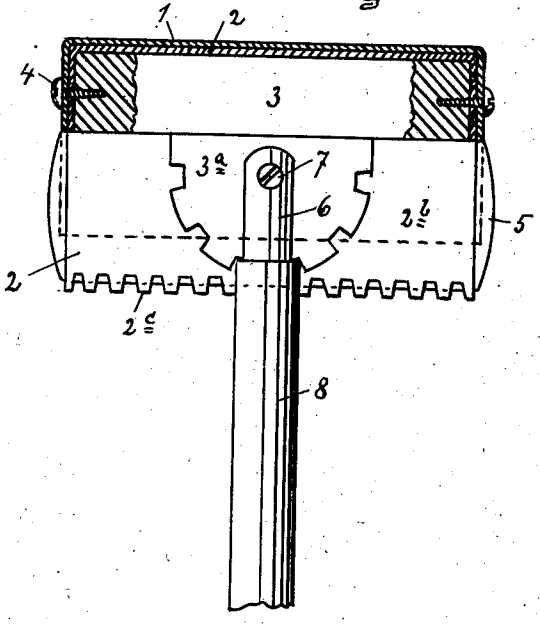


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

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SAFETY-RAZOR.

No. 840,244. Specification of Letters Patent. Patented Jan. 1, 1907.

Application filed February 5, 1906. Serial No. 299,390.

To all whom it may concern:

Be it known that we, DANIEL WM. ODELL and EDWARD H. ODELL, of Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Safety-Razors; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form part of this specification.

The object of our invention is to provide a safety-razor, in which the blades are readily removable and interchangeable and effectively held, in which the handle is angularly adjustable with reference to the blade-holder, and which is simple in construction and cheaply manufactured.

Figure 1 of the drawings shows a side elevation of our safety-razor. Fig. 2 shows an end or edge view of the same. Fig. 3 shows details of the construction, partially in section, appertaining more particularly to the handle adjustment. Fig. 4 shows an enlarged detail view, partially in section. Fig. 5 shows in perspective the outer member of the holder. Figs. 6 and 6^a respectively show the blades. Fig. 7 shows in perspective the inner member of the holder.

The holder consists of two sheet-metal members 1 and 2 nested within each other, as shown, and being of a general trough form, with an extended depression which receives the head 3. The members 1 and 2 are secured together and to the head 3, when located in its said depression, by screws 4, passing through inwardly-extending ears, as 1^a and 2^a on the ends of the members 1 and 2, respectively, and engaging in the head 3. The two holder members 1 and 2 are preferably of spring steel or some elastic metal, and the relative arrangement is such that the free edges 1^b and 2^b respectively press toward each other, whereby the blade 5 is clamped firmly by the spring tension of these parts between these free edges.

The blade 5 has its inner edge turned or rolled to a limited extent, as indicated at 5^a, which rolled edge conforms to the angle in the members 1 and 2 and assists in holding the blade against movement laterally between the free edges of the holder parts. The outer edges of the member 2 are serrated, as indicated at 2^c, and the points of the serration of this edge project beyond the cutting edge of the blade in the usual manner of safety-razors.

The blades 5 are placed in position in the holder by being slid in from either end between the free edges or parts 1^b and 2^b, and to facilitate their insertion and removal these blades are preferably provided with cuts or indentations 5^b to afford opportunity to them by means of the finger-nail.

The head 3 has formed thereon or integral therewith and substantia ly centrally of its length the ear or handle base 3^a, which is of substantially semicircular form and provided with a series of notches around its periphery. The handle-shank 6 is pivotally secured at 7 on this ear, and is slotted to straddle the ear in part, and is screw-threaded at its outer swinging end, as shown at 6^a, as to its remainder. The handle 8 is of tubular form, and is internally screw-threaded to engage the screw-thread 6^a, and the arrangement of the notches or recesses in the ear 3^a is such that when the handle is screwed onto the shank 6 sufficiently the end of the tube will engage in the said notches or recesses and secure the shank and handle against swinging or turning on the pivot 7. By unscrewing the handle 8 to a limited extent, so as to disengage the end from the said notches or recesses, the handle may be swung around in either direction from its normal central position, as shown in dotted lines in Fig. 3, and again secured in any of these several positions of adjustment by screwing the handle down toward the pivot 7 as far is it will go. By this arrangement we are enabled to adjust the angular position of the holder with reference to the handle, whereby the razor can be better and more conveniently used and is not confined to a simple square draw cut as is usual with the ordinary safety-razor.

It will be noted that by simply removing the two screws 4 the holder is capable of being entirely taken apart, also that it is very conveniently assembled by reversing the operation of taking it apart.

It will be noted that the blades are very effectively held between the members of the holder free from all looseness or tendency to vibration and are of such simple form of construction that they can be very easily and cheaply manufactured, also that the head is, in the main, adapted to be manufactured out of sheet metal and at a minimum cost.

What we claim as new, and desire to secure by Letters Patent, is—

1. The combination in a safety-razor of a holder, consisting of elastic members having an angular bend therein, and a blade having a turned edge adapted to be received between the free edges of the elastic members, substantially as set forth.

2. The combination in a safety-razor of a holder, consisting of elastic members having free edges and an angular bend, and one of the members having a serrated edge, and a blade having a turned edge adapted to be placed between the said members, substantially as set forth.

3. The combination in a safety-razor of a holder composed of two trough-shaped nesting spring members, a head to which said members are secured, removable blades adapted to be placed between the free edges of said members, and an angularly-adjustable handle on said head and projecting from the holder between the blade-holding edges, substantially as set forth.

4. The combination in a safety-razor of a holder composed of two trough-shaped nesting spring members, same being secured together at their backs and providing free spring edges, blades adapted to be placed between the free spring edges of said members, a segmental handle-base secured in the trough between the free edges and an angularly-adjustable handle mounted on said segmental handle-base, substantially as set forth.

5. The combination in a safety-razor of a holder composed of two trough-shaped nesting spring parts, having a segmental-notch handle-base secured in the bottom of the trough, a screw-threaded handle-shank pivotally secured to said segmental base, and a tubular handle screw-threaded onto said shank, and removable blades adapted to be placed between the spring edges of said holder, substantially as set forth.

In witness whereof we have affixed our signatures in presence of two witnesses, this 3rd day of February, 1906.

DANIEL WM. ODELL.
EDWARD H. ODELL.

Witnesses:
SARAH E. CLARK,
S. I. DEVINE.