July 28, 1931. H. R. SEGAL 1,816,659

RAZOR

Original Filed Sept. 12, 1929

Fig. 1.

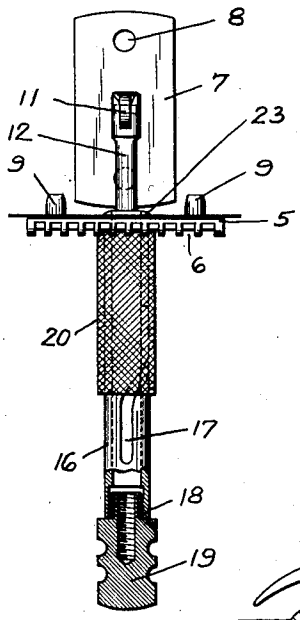


Fig. 2.

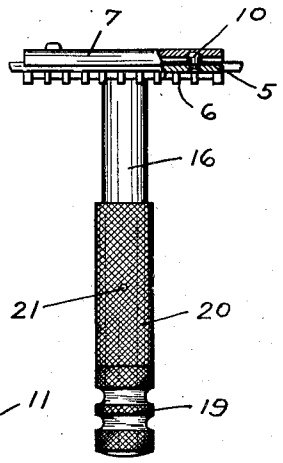


Fig. 3.

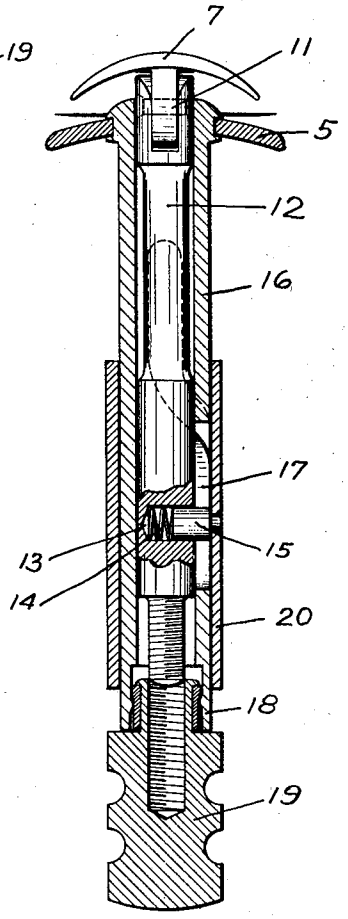
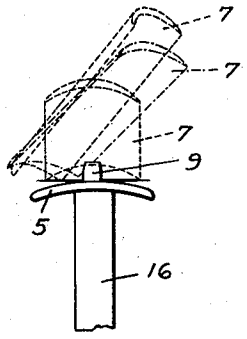


Fig. 4.



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UNITED STATES PATENT OFFICE

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RAZOR

Application filed September 12, 1929, Serial No. 392,011. Renewed May 14, 1931.

This invention relates to a razor which will embrace functionally and structurally improved characteristics.

It is an object of the invention to furnish a device of this nature by means of which the entire blade may be rendered accessible for removal or other purposes and without the necessity of detaching or disassembling the several razor parts.

A further object of the invention is that of providing a structure of this nature in which the parts may be quickly brought to a position at which they are ready for use and in which these several parts may be adjusted to place the blade under exactly the tension which is desired.

A further object is that of furnishing a razor involving relatively few parts, individually simple and rugged in construction, these parts being capable of manufacture largely by automatic machinery, with consequent low cost and being, moreover, capable of ready assemblage to provide an article operating over long periods of time with freedom from difficulties.

With these and other objects in mind, reference is had to the attached sheet of drawings illustrating one practical embodiment of the invention and in which:—

Figure 1 is a partly sectional side view showing the parts in blade-delivering position;

Fig. 2 is a similar view showing the parts in shaving position;

Fig. 3 is an enlarged, sectional end view, and

Fig. 4 is a somewhat diagrammatical view of the positions which the clamping plate assumes with respect to the blade and guard.

In these views the numeral 5 indicates the guard which, in accordance with conventional construction, may be provided with a comb 6 in its longitudinal side edges and, moreover, may be bowed in cross-section. Cooperating with this guard is a clamping plate 7 which is correspondingly curved and may either be formed with openings 8 for the passage of pins 9 extending from the guard, or may else be formed with recesses in its underface to receive, in each instance, a shorter pin 10.

The clamping plate is pivotally mounted substantially intermediate its extremities, as has been indicated at 11, upon a rod 12 and this rod may—as shown—be formed with a transverse recess 13 accommodating a spring 14 for normally urging a pin 15 outwardly. Encircling the rod 12 is a barrel 16, to the upper end of which the guard 5 is secured and this barrel is formed with a slot 17 having offset end portions and a tangentially extending connecting portion. The lower end of the barrel mounts a bushing 18, which is rotatably associated with the reduced end portion of a knob 19 and the bushing, together with the knob, is maintained in operative position with respect to the barrel by intimate frictional contact which exists between these parts and which has been exemplified in a somewhat exaggerated manner in Fig. 3. The barrel is encircled by a sleeve 20, the outer face of which may be knurled, and this sleeve is formed with an opening 21 of sufficient size to receive the reduced end portion of the pin 15.

It will be observed that the end of the rod 12 terminates in a screw-threaded extension 22 for engagement with the correspondingly threaded recess formed in the knob 19, and the upper end of the barrel is extended to provide a cam portion 23 for cooperation with the clamping plate, as will hereinafter more fully appear.

In operation it will be appreciated that a blade is simply passed over the clamping plate when the latter is in the position shown in Fig. 1. This element will assume such position incident to the fact that one side of it is sufficiently weighted that this side will always tend to extend downwardly. With the blade in position upon the pins 9 or otherwise in association with the guard, an operator, by simply pulling downwardly upon the sleeve, while grasping the knob 19, will first cause the lower edge of the clamping plate to strike against the cam member 23, which will cause this lower edge to be deflected out on to the upper surface

of the blade. Continued movement of the sleeve outwardly with respect to the barrel will result in the pin 15 riding within the tangentially extending portion of the slot 17. Consequently, a relative rotation will now be initiated between the clamping plate and the head of the razor, which will result in the edge of the plate coming into contact with the stud 9 and being elevated to a point such that there is no danger of the edge of the plate bearing against the sharpened edge of the blade, with consequent detriment to the latter. Continued movement of the parts in the manner afore described will cause the clamping plate to overlie the blade and the studs or pins 9. Thereupon, an operator, by simply slightly twisting the knob 19, may lock the parts against movement and may additionally bring the blade under proper tension.

When it is desired to place the blade in delivery position, this may be done simply by turning the knob 19 to a point at which the screw-threaded extension 22 moves out of the knob-recess. Thereupon, by simply moving the sleeve upwardly, the parts will be reversed through the several positions diagrammatically illustrated in Figure 4 and finally assume the position shown in Fig. 1. In this position the blade may readily be withdrawn for either drying or stropping and it will be understood that at no time will it be necessary to detach the parts.

If, however, such detachment is essential, this may be achieved readily by simply bearing against the reduced end portion of the pin 15 to a point at which the latter is behind the inner surface of the sleeve. The sleeve may then be positioned so that it does not act as a confining agent for the pin and now, by simply detaching the knob by forcibly withdrawing the bushing thereof from the barrel, the entire rod 12 may be withdrawn from the bore of such barrel. Conversely, when assembling, the barrel may be slipped over the rod and thereupon, with the pin in position the sleeve may be caused to envelop the barrel. Upon the pin coupling with the sleeve, the knob may be forced home and the parts will now be ready for sale and use.

From the foregoing it will be appreciated that, among others, the several objects as specifically afore brought out, are achieved. It will moreover be understood that numerous changes in construction and rearrangement of the parts might be resorted to without departing from the spirit of the invention as defined by the claims.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A razor including, in combination, a clamping plate, a guard, a rod pivotally mounting said plate and movable with respect to said guard and said plate having its center of gravity to one side of its point of pivotal connection with said rod, whereby one end of said plate will tend to rock downwardly.

2. A razor including, in combination, a barrel, a rod shiftable within said barrel, the latter being formed with a slot presenting substantially longitudinally extending end portions offset from each other and a helically extending slot portion connecting said end portions, a clamping plate carried by said rod, a guard carried by said barrel, and a spring-pressed pin carried by said rod and riding within said slot to effect a turning of said clamping plate with respect to said guard as said rod is shifted within said barrel.

3. A razor including, in combination, a barrel, a rod shiftable within said barrel, the latter being formed with a slot presenting substantially longitudinally extending end portions offset from each other and a helically extending slot portion connecting said end portions, a clamping plate carried by said rod, a guard carried by said barrel, a spring-pressed pin carried by said rod and riding within said slot to effect a turning of said clamping plate with respect to said guard as said rod is shifted within said barrel, a sleeve formed with a recess for the accommodation of the end of such pin and such sleeve being mounted for movement upon said barrel.

4. A razor including, in combination, a barrel, a guard secured to said barrel, a rod within said barrel, a clamping plate secured to said rod, a screw-threaded portion forming a part of said rod, a knob, a screw-threaded recess forming a part of said knob and to accommodate said first named portion, an extension forming a part of said knob, a bushing encircling said extension and said bushing being in intimate frictional contact with said barrel.

In testimony whereof I affix my signature.

HYMAN R. SEGAL.