

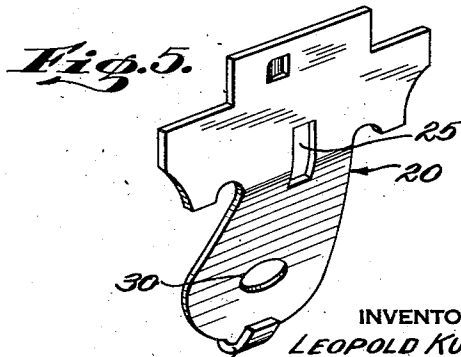
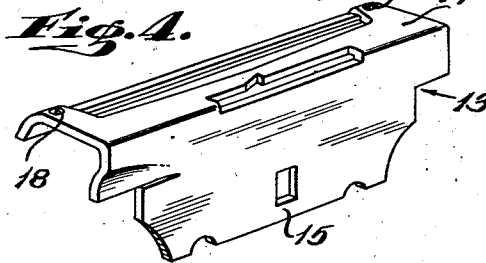
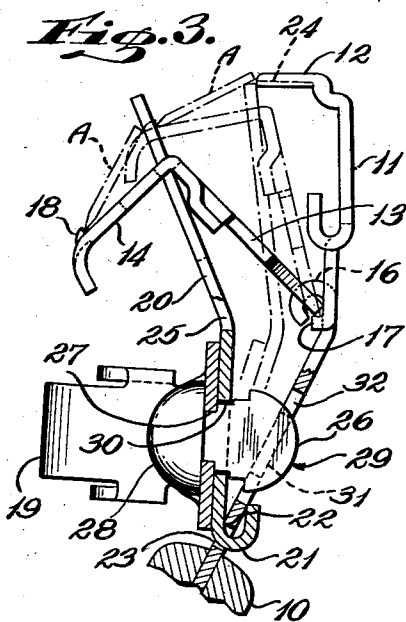
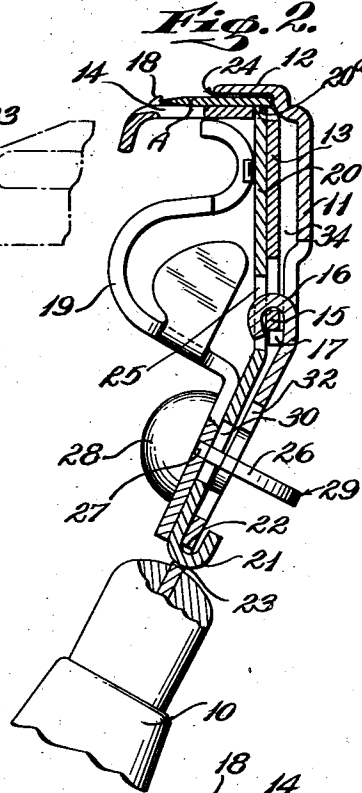
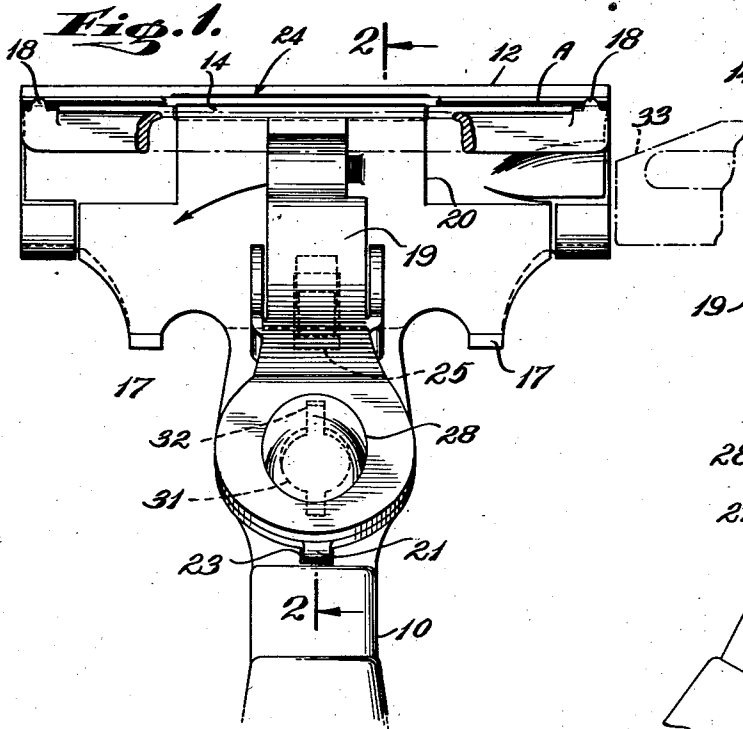
June 25, 1940.

L. KUHN

2,205,568

RAZOR

Filed Oct. 28, 1938



INVENTOR
LEOPOLD KUHN
BY *John H. Willard*
ATTORNEY

UNITED STATES PATENT OFFICE

2,205,568

RAZOR

Leopold Kuhn, Bridgeport, Conn., assignor to
Magazine Repeating Razor Company, New
York, N. Y., a corporation of New Jersey

Application October 28, 1938, Serial No. 237,406

5 Claims. (Cl. 30-40)

The invention relates to so-called "magazine razors" of the type in which blades are fed thereto from a stack of blades contained in a magazine which can be either separate from the razor or permanently attached thereto. An example of a razor of the type referred to is that disclosed in United States Patent to Rodrigues No. 1,969,945. In razors of this particular type, provision is made for separating the cooperating blade-holding parts of the head when desired, in order to facilitate cleaning or inspection or the manual removal of a blade already contained in the shaving head, the latter being the case when it is desired to remove a blade without supplying a new one. However, it has been found that from the practical standpoint it is quite objectionable that ordinary users unfamiliar with the construction of such razors should be able to insert new blades by hand—first, for the reason that they frequently cut themselves in trying to manipulate the new blade into position and, second, for the reason that very frequently the blade is incorrectly positioned, which results in poor performance in shaving and in damage to the razor itself by cutting or injuring the stops which abut against the edge of the blade. It is therefore the object of the invention to remove these objectionable features as far as possible and make it impossible or at least difficult for the ordinary user of this type of razor to insert blades without the use of the mechanism supplied for the purpose.

Referring to the drawing which illustrates a preferred form of the invention:

Fig. 1 is a front view of the shaving head of the type of razor referred to with the guard broken away;

Fig. 2 is a view on the line 2-2 of Fig. 1;

Fig. 3 is a view of the shaving head with the cooperating razor-holding parts separated;

Fig. 4 is a detail view of the member which includes the blade platform;

Fig. 5 is a detail view of the member incorporated into the shaving head for the purpose of presenting or rendering difficult the insertion of blades by hand.

Describing the drawing more in detail:

From the usual handle 10 projects the supporting plate 11 terminating in the top blade clamping plate 12. The complementary movable clamp member 13, terminating in the lower blade platform 14, is hinged connected to the supporting plate 11 by means of the pintle 15 co-operating with the eye 16 struck out of the back plate. For properly locating the movable member 13, the lugs 17 are supplied, these being simply turned-over portions of the supporting plate. The blade platform 14 is furnished with two stops 18 against which the edge of the blade A abuts when the parts are in the closed posi-

tion shown in Fig. 2, the rear edge of the blade backing up against the supporting plate 11. The parts are so dimensioned that, when in this position, the blade is securely clamped between the top blade clamping plate 12 and the blade platform 14 and, as has been noted, is also held firmly in position fore-and-aft by means of the stop 19 and the supporting plate. The clamping of the blade in the manner just described is effected by the spring 19 which is so mounted that it can be swung on a pivot in a transverse direction, thus releasing the parts or locking them together, as may be desired. This part will be presently described in more detail.

The object of the invention is attained by incorporating in the head a member which, when the parts are in process of separation, projects into the blade channel—i. e., the channel formed by the upper blade clamping plate and the blade platform, thus interposing an obstruction to the insertion of a blade except when the parts are in locked position or nearly so, as shown in Fig. 2.

This member consists of a plate 20 hingedly connected to the supporting plate by the half-eye 21 engaging with the pintle 22 formed from the stock simply by punching the hole 23. The plate extends through the slot 20a in the blade platform, with a sliding fit, and with the clamping member in closed position (see Fig. 2) its free end is flush with the blade platform—i. e., it does not project into the blade channel. However, it will be noted that the pivotal axis of the member 20 is further from the blade channel than is the pivotal axis of the movable member 13, and that it is also so located that, as the member 20 swings away from the position shown in Fig. 2 it increasingly projects into the blade channel. In order that it may more effectively obstruct the insertion of a blade by hand, the underside of the top blade clamping plate 12 may be partially cut away, as shown at 24. This permits the projecting end of the plate 20 to sweep upwardly as it is swung on its pivot further than it could otherwise do.

The aperture 25 in the plate 20 is merely for the purpose of accommodating the eye 16 in the supporting plate. It may be noted that the width of the plate may be very much reduced from the width as shown in the drawing. In fact, it may be reduced to the dimension of a mere rod.

In order to release the parts and lock them together as may be desired, the spring 19 is provided with a lug 26 fixedly connected therewith at 27. The lug terminates at one end in the head 28 and at the other end in the flat knob 29. The aperture 30 in the plate 20 is of the proper size to accommodate the lug 26 and allow it to turn therein, as is likewise the circular portion 31 of

the aperture 32. The shape of the aperture 32 is best shown in dotted lines in Fig. 1, and it will be noted that the knob 29 can, when in a vertical plane, pass through this aperture, but when in a horizontal plane cannot do so. In other words, when the parts are locked together with the spring 19 in the position shown in Fig. 1, at which it is resiliently bearing against the movable member 20, the knob is in the position shown in Fig. 2. On the other hand, when the spring 19 is swung in the direction of the arrow (see Fig. 1) through an arc of 90°, the knob can readily pass through the aperture, thus releasing the parts and permitting them to be brought to the positions shown in Fig. 3. It will be noted however that in passing from the locked position of Fig. 2 the free end of the plate 20 gradually rises toward the upper clamp by virtue of the position of its pivotal mounting and thus interposes an obstruction to the insertion of a blade. It is preferable that its length be such and that its hinged mounting be so located with respect to the location of the hinged mounting 15, 16 and with respect to the blade channel that, as the clamps are separated, it will extend into the cut-away portion 24, as it will thus obviously more effectively serve its purpose. On the other hand, when the parts are in locked position, the end of the member 20 is flush with the blade platform and offers no obstruction to the insertion of a blade in the usual manner by means of the injector.

Since the injector and its method of use are well known and are fully illustrated and described in the Rodrigues patent above referred to, the aligning finger only has been illustrated and merely by dot-and-dash lines in Fig. 1, as indicated by the numeral 33. It is merely sufficient to say that, when the aligning finger is inserted in the channel 34 (see Fig. 2), it causes the movable member 20 and the supporting plate 11 to separate very slightly. The effect of this is to relieve the pressure of the stops 18 against the edge of the blade A and, in fact, to cause the stops to move a slight distance from the edge of the blade. A new blade can therefore be readily inserted in the blade channel by means of the injector without contact with the stops. This slight motion, however, is not sufficient to cause the free end of the member 20 to project into the blade channel to a distance sufficient to interfere with the movement of a blade into the blade channel. On the other hand, any such small motion is not sufficient to free the parts sufficiently to insert a blade by hand except with great difficulty. If a blade is to be inserted by hand, a much wider separation is necessary, but as will be seen a separation greater than that effected by the insertion of the injector finger results in projecting the end of the plate 20 into the blade channel and thus effectively preventing the operation.

It is recognized that the present invention may be embodied in other constructions than those herein specifically illustrated, and therefore it is desired that the constructions disclosed shall be considered as illustrative and not in a limiting sense.

I claim:

1. In a razor comprising a support provided with two complementary separable clamp members hingedly connected together for clamping a blade in the blade channel between them, a

plate hingedly mounted on the support and projecting with a sliding fit through one of said clamp members and adapted by the location of its hinged mounting when the clamp members are in blade clamping position to be clear of the blade channel, and as the clamp members are separated to project into the blade channel and thereby constitute an obstruction to the insertion of a blade therein.

2. In a razor comprising two complementary hingedly connected separable clamp members resiliently pressed together for clamping a blade in the blade channel between them, means for interposing an obstruction to the insertion of a blade in the blade channel between said clamp members when they are partly separated, said means comprising a pivotally mounted plate extending through one of said clamp members to said blade channel and adapted by the location of its pivotal mounting to be projected into said blade channel when the clamp members are separated, then to be withdrawn from said channel when the clamp members are pressed together.

3. In a razor comprising two complementary separable clamp members resiliently pressed together for clamping a blade in the blade channel between them, means for interposing an obstruction to the insertion of a blade in the blade channel between said clamp members when they are partly separated, said means comprising a plate extending through one of said clamp members to said blade channel and adapted to be projected into said blade channel when the clamp members are separated and to be withdrawn from the blade channel when the clamp members are pressed together, the other of said clamp members being provided with a groove into which the said plate projects as said clamp members are separated.

4. In a razor comprising a supporting plate provided with an upper blade clamping plate and a member hingedly mounted on the supporting plate and provided with a lower blade clamping plate to co-operate with the upper blade clamping plate for retaining a blade clamped between them for shaving, a third plate hingedly mounted on the supporting plate and projecting through the lower blade clamping plate, the hinged mounting of the said third plate being so positioned that separation of the two blade clamping plates causes the said third plate to project above the lower blade clamping plate and into the blade channel constituted by the upper and lower blade clamping plates and to be withdrawn from the blade channel when the clamp plates are in blade-clamping position.

5. In a razor comprising a support provided with two complementary hingedly connected clamp members for clamping a blade in the blade channel between them, a plate hingedly mounted on the support with its free end projecting with a sliding fit through one of said clamp members, the hinged connection of the clamp members and the hinged connection of the plate being so located with respect to each other and with respect to the blade channel that when the clamp members are in blade clamping position the said free end of the plate is clear of the blade channel and as the clamp members are separated the said free end of the plate projects into the blade channel and thereby constitutes an obstruction to the insertion of a blade therein.

LEOPOLD KUHNLE