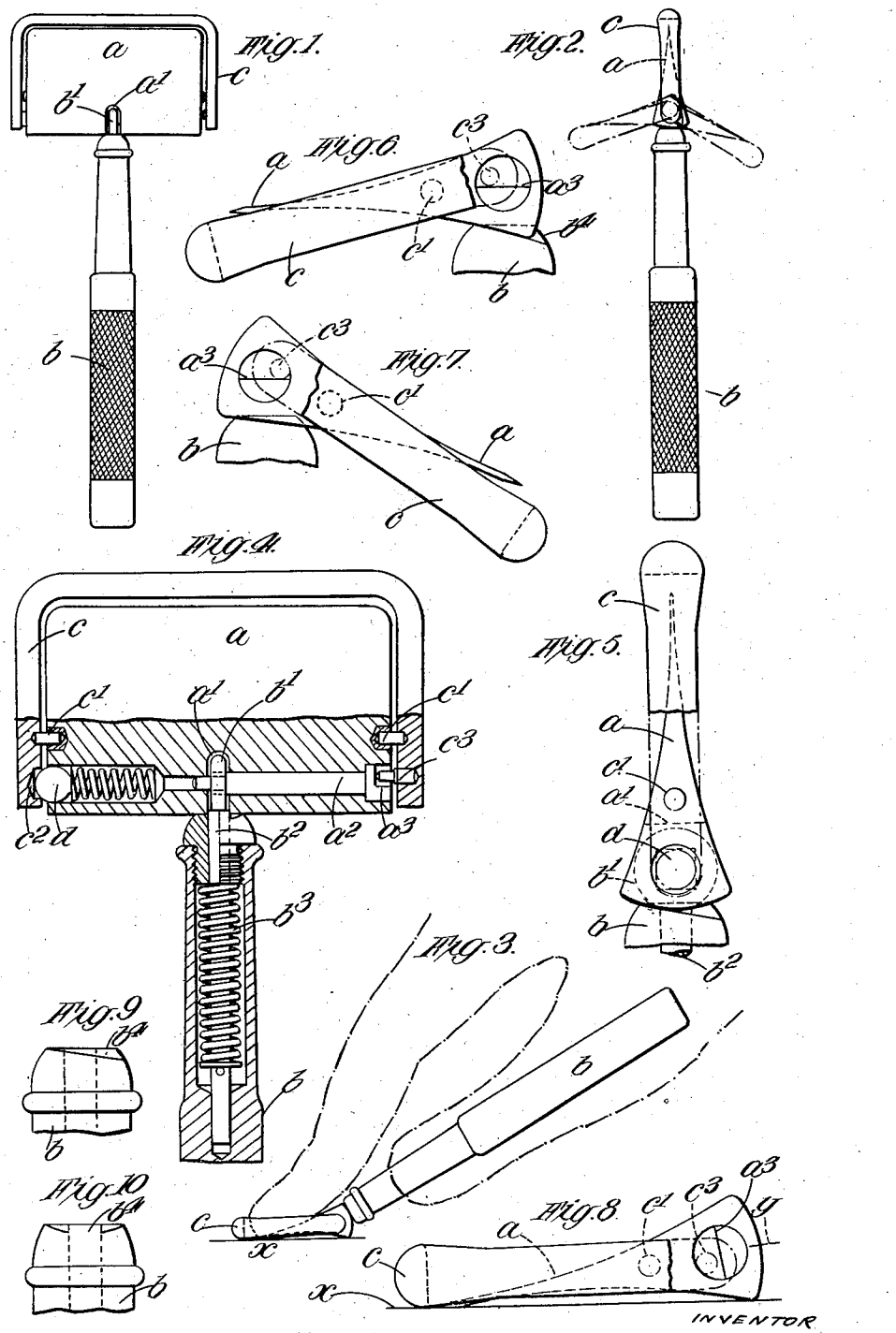
July 22, 1930. P. M. SALERNI 1,771,235

SAFETY RAZOR

Filed July 16, 1926 3 Sheets-Sheet 1



INVENTOR
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July 22, 1930. P. M. SALERNI 1,771,235

SAFETY RAZOR

Filed July 16, 1926 3 Sheets-Sheet 2

Fig. 13.

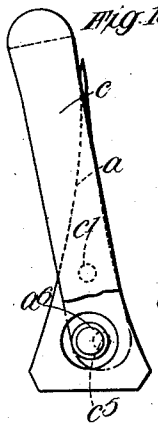


Fig. 11.

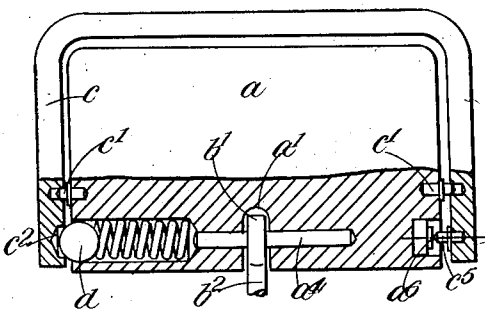


Fig. 14.

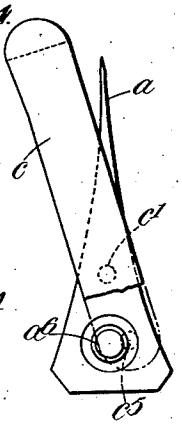


Fig. 12.

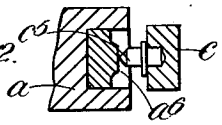


Fig. 15.

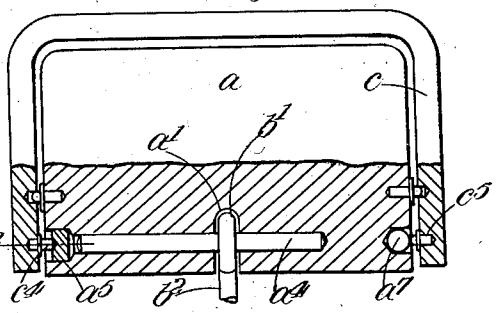


Fig. 16.

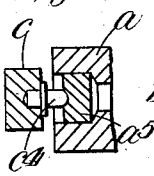


Fig. 17.

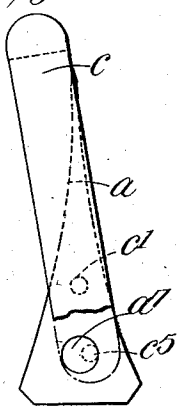


Fig. 18.

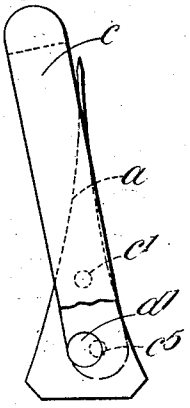


Fig. 19

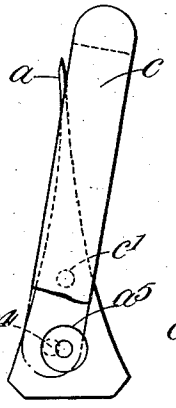
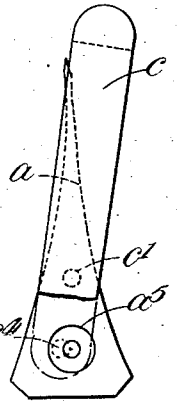


Fig. 20.

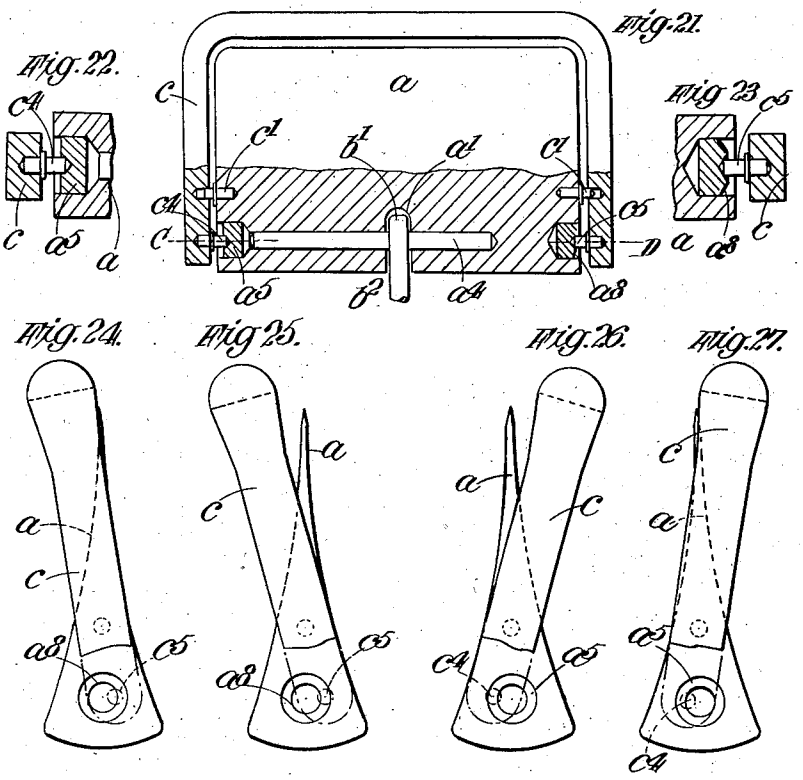


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SAFETY RAZOR

Filed July 16, 1926 3 Sheets-Sheet 3



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Patented July 22, 1930 1,771,235

UNITED STATES PATENT OFFICE

PIERO MARIANO SALERNI, OF WESTMINSTER, LONDON, ENGLAND

SAFETY RAZOR

Application filed July 16, 1926, Serial No. 122,969, and in Great Britain July 30, 1925.

The present invention relates to devices, means, or provisions, for facilitating the sharpening (honing and/or stropping) of safety razor blades of the comparatively rigid type and approximately wedge-shaped in cross section in distinction to blades of the flexible or wafer type. The said invention also relates in some degree to safety razors. By the term "wedge-shaped" it is to be understood are included all blades which are thicker at the back than at and near the cutting edge so that when they lie on a flat surface an imaginary straight line passing through the middle of the thickness of the back to the cutting edge would be at an angle to that surface and whether the blade be made entirely in one piece or the additional thickness at the back be made by securing a part or parts thereto. In both honing and stropping blades of the comparatively rigid type referred to, and particularly in honing them, it is necessary or very desirable that the angle at which the edge of the blade is presented to the whetting or sharpening surface be always the same, and that this angle shall be as small as possible. The main object of the present invention is to enable this to be conveniently attained by hand control, that is, with blades which are reversed by manipulation in distinction to sharpening devices in which the blade is automatically rocked at the end of each stroke to reverse it. A further object of the invention is to provide an improved safety razor embodying such devices as aforesaid.

According to the present invention there is provided a member, serving as a handle, permanently or removably connected to the blade near its back in a pivoted or hinged manner and which may be angularly turned relatively to the blade and towards either face thereof, whereby the blade may be readily adjusted on the sharpening surface so that both its back part and edge part bear thereon and may be moved over the said surface with appropriate pressure applied by the hand to sharpen the edge without any danger of variation of the sharpening angle of the edge with the whetting surface during the stroke and ensuring also that the angle is the least feasible. A further feature is that the blade may be used for shaving on either side of the handle. At the end of each stroke the blade is reversed by the user turning it over by means of the handle and again presenting the blade to the sharpening surface so as to adjust it thereon at the beginning of the new stroke for sharpening from the other side of the edge. The arrangement may be such that when the handle is in position for sharpening the blade it is either free to move relatively to the blade irrespectively of which side of the blade is next to the sharpening surface, or the handle is temporarily and mechanically retained in position, in which latter case the handle partakes exactly of the movement of the blade. In either case the axis of the connection between the handle and the blade is preferably a little distance from the back of the blade towards the edge in order that pressure may be applied through the handle to the blade at an appropriate point and it is preferred that the arrangement be such that the handle is caused to assume its appropriate angular position on either side of the blade against resilient resistance operative throughout the whole or part only of the turning movement so that there is a tendency for the handle to assume a mid-position relatively to the blade or for the blade to assume a mid-position relatively to the handle as such an arrangement facilitates the reversal of the blade on the sharpening surface. It is preferred that the inner end of the handle should be pivoted or hinged in a gap or recess extending an appropriate distance from the back of the blade towards its edge. The connection between the handle and the blade may conveniently be such that the body of the handle is displaceable axially against the resilience relatively to an inner portion of the handle which is directly pivoted to the blade, so that the inner end of the body portion bears against the blade. The angular shape of the back of the blade therefore retains or tends to retain the handle either in about its mid-position or in a position on either side of the blade. In the latter position the handle is disposed at an angle somewhat less than 90° between itself and the nearer face of the blade and in this position the handle is suitably disposed for

use in shaving so that the handle and the blade with a suitable guard constitute a safety razor. In cases where the arrangement is such that in sharpening the blade the handle is free to move relatively to the blade provision is preferably made for disposing the handle relatively to the blade in position to serve as the handle in shaving and for temporarily retaining it in that position, as for instance against some resilient resistance. Where a movable guard is provided for use in shaving, a device may be provided whereby when the handle and blade are in proper relative position for shaving the guard is automatically retained in appropriate position to one side of the edge of the blade and released when the handle is turned towards its mid-position.

In order that the invention may be fully understood and carried into practice it is hereinafter described with reference to the accompanying drawings which illustrate several suitable embodiments of the invention.

Figures 1–10 illustrate one embodiment of the invention, Figures 1 and 2 being views at right angles to one another of a safety razor blade with handle and guard. Figure 3 is a side view indicating the manner in which the blade is sharpened. Figure 4 is a face view partly in section better illustrating certain details only part of the handle being shown. Figure 5 is a side view showing the relative positions of the blade and guard when the blade is neither in use nor being sharpened. Figures 6 and 7 are side views showing the blade arranged relatively to the handle in position for use in shaving. Figure 8 is a side view showing the relative positions of the blade and guard when the blade is being sharpened and Figures 9 and 10 are fragmentary views at right angles to one another of the inner end of the body part of the handle. Figures 11–14 illustrate another embodiment of the invention, Figure 11 being a face view of the blade partly in section, Figure 12 a fragmentary sectional view on the line A Figure 11 and Figures 13 and 14 being views of the right hand end of the blade and guard Figure 11 showing two different relative positions of those elements as hereinafter described. Figures 15–20 illustrate another embodiment of the invention, Figure 15 being a view similar to Figure 11. Figure 16 is a fragmentary sectional view taken on the line B Figure 15. Figures 17 and 18 are views, similar to Figures 13 and 14, of the right hand end of the blade and guard Figure 15 and Figures 19 and 20 are similar views of the left hand end. Figures 21–27 illustrate another embodiment of the invention and the views are similar to those of Figures 15–20 but Figures 22 and 23 are fragmentary sectional views taken respectively on the lines C and D Figure 21. The various figures of the drawings are on different scales as will be readily appreciated. For instance, Figures 4, 11, 15 and 21 are on a larger scale than Figures 1–3 and Figures 5–10, 12–14, 16–20, and 22–27 are on a still larger scale.

In all the embodiments shown the handle is adapted and arranged for use also as the handle in shaving and a guard is provided so that each embodiment constitutes a safety razor.

In the following description the parts of the said drawings are referred to by the letters and numerals marked thereon and the same letters and numerals indicate the same or equivalent parts in all the figures.

In all the figures a is the razor blade, b the body part of the handle and c the guard which is pivoted to the blade at c', c'. Referring to Figures 1–10—the handle is connected to the blade by means of an inner part b' which works in a gap a' in the back part of the blade and is fitted on a squared part of the shaft a^2 working in the blade. The axis of the pivoted or hinged connection is therefore a little distance from the back of the blade and the blade is made rather deeper from back to edge than usual. The part b' is resiliently connected to the body part of handle b through the medium of the stem b^2 and coil spring b^3 so that the body part of the handle b may be moved axially in an outward direction against the resilience of the said spring. The chamber in the handle in which the said spring is situated may conveniently be filled with grease or thick oil to lubricate the parts in the chamber and steady their relative movement. The spring b^3 causes the inner end of the body part of the handle b to bear against the blade and in consequence of the angular shape of the blade at that part (which is very much the ordinary shape in cross section of wedge-shaped razor blade) the handle tends to assume a position in line with the blade and the turning of the handle is resiliently resisted by compression of the spring until the inner end of the body part of the handle passes over one or other of the edges of the back of the blade and thereupon the spring tends to cause the handle and the blade to be brought into the relative position shown in Figures 6 and 7 and in broken lines in Figure 2 in which the inner end of the body part of the handle bears against one or other face of the blade near its back part. In these relative positions the device is suitable for use in shaving so that the blade may be used for shaving on either side of the handle, that is, on either side of an imaginary plane containing the axis of the handle. To prevent the edge of the blade striking or bearing on the sharpening surface before the back part does so the guard c is caused normally to be in mid-position over the blade edge by means of the spring controlled sphere d arranged in one end of the blade co-operating with a circular recess c^2 in the adjacent arm

of the guard so that when the blade is addressed to the sharpening surface x its back part and the front of the guard may bear thereon with some pressure due to the turning up of the handle on the axis between the handle and blade which is some little distance from the back of the blade towards the edge and then by the application of more pressure applied preferably by the forefinger to the upper face of the blade as illustrated in Figure 3 the edge of the blade is caused to bear on the sharpening surface against the resilient resistance as between the blade and guard whereupon the blade may be caused to pass over the sharpening surface with both its edge part and back part bearing thereon. In honing the blade it is moved edge foremost and in stropping the blade it is drawn along with its back foremost. In the sharpening operation the handle is conveniently held at about the angle shown in Figure 3 but subject to the control of the spring b^3 the angle may varied as may occur while the hand is grasping the handle and the stroke is being performed and during the stroke the guard c bears at its fore-part on the sharpening surface in consequence of the effect of the spring controlled sphere d co-operating with the edge of the recess c^2. After a stroke the pressure on the blade is released and the blade lifted from the sharpening surface, whereupon both the blade and the guard assume a mid-position relatively to the handle, the handle is then turned round to reverse the blade which is again addressed to the sharpening surface as before described in order that the other side of the edge may be caused to bear on the sharpening surface. The handle is therefore free to be held during sharpening, at the same convenient angle when one side of the blade is next to the sharpening surface as when the other side of the blade is next to the said surface. At all angles of the handle to the guard convenient for sharpening the movement of the guard on its pivots is not controlled by the handle but when the handle and blade are turned relatively to each other near the limit of their relative movement in the one or other direction the position of the guard is controlled thereby and at the limit of the relative movement the guard is held in a suitable position for shaving. This is provided for by a plane shoulder a^3 on an enlargement at the outer end of the shaft a^2 co-operating with a pin c^3 on the guard. The plane shoulder is normal to the axis of the handle. As the blade is turned relatively to the handle there is of course relative rotary movement between the blade and shaft a^2. Consequently as the handle and blade are being turned relatively to one another towards the limit of position which is that for shaving, the shoulder a^3 bears against the pin c^3 and turns the guard to one side of the blade and retains it in that position (Figures 6 and 7) against the resilient action of the sphere d. These devices however do not prevent independent relative movement of the guard and blade through a considerable portion of the earlier part of the angular relative movement between the blade and handle as will be appreciated on examining Figure 8. The handle has to be turned almost 90° from its mid-position before the shoulder a^3 abuts against the pin c^3 on the guard, when the guard is in its normal mid-position relatively to the blade. This will be appreciated by examining Figure 8, in which the line y indicates the axis of the handle in midway position, although in examining this figure it must be borne in mind that the pin c^3 has already been displaced somewhat from its mid-position. The blade may therefore be turned down so that its edge bears on the sharpening surface while the guard rests thereon, free from control of the handle while it is at an angle to the sharpening surface convenient for sharpening the blade. The inner end of the body part of the handle is inclined to its axis as best shown in Figures 5, 9 and 10 to provide for two shaving positions of the guard relatively to the blade one position (Figure 6) providing for a closer shave than the other (Figure 7). This is brought about by the inclined end of the body part of the handle governing the angle between it and the blade when in shaving position according to whether the handle has been turned towards one or the other face of the blade and the variation of the said angle through the co-operation of the shoulder a^3 and pin c^3 varies and determines the angular relationship between the guard and blade and consequently the distance of the fore part of the guard from the edge of the blade as well illustrated in Figures 6 and 7 and also in broken lines in Figure 2. The middle slightly projecting rib b^4 on the inner end of the body part of the handle is provided to engage in the gap a' and so prevent the body part of the handle freely turning on its axis relatively to the blade when in shaving position. Or either of the adjustments may be obtained by turning the body part of the handle on its axis relatively to the blade against the resilient resistance provided by the spring b^3 and the rib b^4 the edges of which may be somewhat rounded so that it co-acts with the gap a' as a kind of click. The inner end of the body part of the handle may be inclined in more than one plane whereby more than two adjustment of the guard relatively to the handle may be obtained according as the body part of the handle is appropriately turned on its axis suitable angular projections or teats being provided to act as clicks with the gap a' and retain the body part of the handle and blade in relative position for any of the

adjustments of the guard so provided for. Or two adjustments of the guard may be provided for although the inner end of the body part of the handle be not inclined as aforesaid, by disposing the centres of the pivots at c', c' or the axis of the shaft a^2 a little to one side of the thickness of the blade whereby according to which face of the blade is uppermost, so the guard is disposed and retained by the devices a^3, c^3 nearer or farther from the edge of the blade. Or a similar result may be obtained by forming the guard itself so that when in its position over the edge of the blade it projects more on one side of the edge than the other so that although turned an equal angle across the edge in either direction the effective edge of the guard will be nearer the edge of the blade in the one case than it will be in the other.

The pivots at c', c' are suitably secured in the blade by the medium of mild steel plugs first forced into holes in the blade and then bored to receive the pivot pins which are forced thereinto. The guard c in the embodiment Figures 1 to 10 may conveniently be made of case hardened steel.

In the embodiments illustrated in Figures 11–27 the handle does not control the shaving position of the guard and the handle is pivoted to the blade by means of a short dummy shaft or rod a^4 but otherwise the handle is of the same construction as shown in Figures 1–10. In each embodiment there is at one end of the blade a device to enable the guard to tend to take up a mid-position relatively to the blade and to be displaced therefrom against resilience and at the other end of the blade there is a device to retain the guard in shaving position relatively to the blade until a little force is exercised to displace it and allow the resilience provided to return the guard to mid-position. In the embodiment Figures 11–14 the resilient control is a spring pressed sphere d in the blade and co-operating recess c^2 in the guard. In the embodiments Figures 15–20 and 21–27 the resilient control consists of a pin c^4 on the guard engaging in a conical recess in a plug a^5 in the blade the resilience being provided by the guard itself as the arms thereof may be sprung outwards a little. To provide for this the guard may conveniently be made of steel. In the embodiment Figures 11–14 the retaining device consists of a pin c^5 on the guard and an annular recess around a circular plane projection a^6 on a plug in the blade on which the pin c^5 is caused to bear by the resilience of the arms of the guard. When the blade is displaced relatively to the guard when the edge of the blade is pressed on the sharpening surface the pin c^5 merely works over the plane face of the projection at a^6 so that the resilient control is not interfered with and when pressure is released from the blade its edge is raised from the sharpening surface by the co-operation of the sphere d and recess c^2. When however the guard is pushed by hand to a degree when the pin c^5 springs or clicks into the annular depression around the projection a^6 the guard is retained in position for shaving notwithstanding the spring control unless and until a little force is exercised on the guard in a contrary direction to force the pin c^5 on to the plane projection a^6 whereupon the spring control causes the guard to assume its mid-position. Figure 13 illustrates the position of the guard at the limit of its movement when the spring control is still free to return it to mid-position merely if the guard is left uncontrolled and Figure 14 illustrates the position when the guard has been angularly moved so far that the pin c^5 has sprung into the annular recess and retains the guard in position for shaving. In the embodiment Figures 15–20 the pin c^5 works over a sphere a^7 and when the guard has been moved angularly into its far position for shaving (Figures 18, 19) the pin has sprung unto the annular recess between the sphere and the wall of the hole in which it is located and so retains the guard in that position. In this arrangement the conical recess in the plug a^5 is of such diameter that the pin c^4 is bearing on the plane surface surrounding the recess so that there is no tendency to cause the pin c^5 to ride up over the sphere. The recess in the plug a^5 and the pin c^4 must however be of such diameters that while the guard and blade are relatively displaced only sufficiently to allow the edge of the blade to bear on the sharpening surface as shown in Figures 17 and 20 the pin c^4 and recess are still inter-engaged to provide for automatic return of the blade to mid-position relatively to the guard when pressure is removed from the blade. In the embodiment Figures 21–27 the pin c^5 bears on and over a double conical formation a^8 so that when the guard is at its position for shaving (Figures 25–26) the pin c^5 has sprung into the annular outer recess of the formation a^8 and until it does so the central conical recess tends to aid the resilient control at the other end of the blade to return the guard to mid-position. In this arrangement the conical recess in the plug a^5 and the pin c^4 are of such diameters that the pin still bears on the conical side of the recess until the centre of the pin c^5 has passed over the annular top of the double conical formation a^8 and the annular top of the formation a^8 is of such diameter that this cannot take place until the guard has been angularly turned beyond its position relatively to the blade when the latter is being sharpened as shown in Figures 24, 27 so that when pressure is removed from the blade both the recess in the plug a^5 and the central recess of the formation a^8 causes the

blade automatically to assume its mid-position relatively to the guard.

Although in the embodiments described the handle is free to be moved angularly during the sharpening operation the arrangement may be such that during a sharpening stroke the handle is retained in one position relatively to the blade in which case the handle partakes exactly of the movement of the blade over the sharpening surface. For instance with the embodiments Figures 11–27 the handle may be turned to the limit of its movement not only for shaving but for each sharpening stroke in which case the whole of the pressure on the blade may be applied through the handle the blade being displaced relatively to the guard as the blade is with a little pressure tilted on its back at the beginning of a stroke to bring its edge in contact with the sharpening surface. It is more convenient however to sharpen the blade in the manner shown in Figure 3.

Furthermore it is not essential that the handle for use in sharpening the blade should be suitable for use as the handle in shaving. For instance the handle provided according to the invention might only form a portion of or a foundation for the handle for use in shaving which could be removably secured thereto.

What I claim and desire to secure by Letters Patent of the United States is:—

1. In combination, a safety razor blade of the type which is thicker at the back part than at its edge part, and a member adapted to serve as a handle in sharpening the blade, connected with the thicker part of the blade through a joint admitting of said member being turned toward either face of the blade, the blade being free for application to the sharpening surface with either face of the blade next thereto and with both the back part and edge part of the blade bearing on said surface, and the said joint being adapted to permit the said member to be turned thereon to an extent to enable the blade to have a position relatively to the member, suitable for use in shaving, on either side of an imaginary plane containing the axis of said member.

2. In combination, a safety razor blade of the type which is thicker at the back part than at its edge part, a handle comprising a body part and an inner part which inner part is connected to the blade to turn thereon, and a coil spring operating between the two parts of the handle to cause the inner end of the body part to bear resiliently against the blade.

3. In combination, a safety razor blade of the type which is thicker at the back part than at its edge part, a handle comprising a body part and an inner part which inner part is connected to the blade to turn thereon, and a coil spring in a chamber within the said body part and arranged around a stem on the said inner part the said coil spring operating to cause the inner end of the body part to bear resiliently against the blade, the said chamber being adaptel to receive lubricant.

4. In combination, a safety razor blade of the type which is thicker at the back part than at its edge part, a member serving as a handle connected with the said blade at its thicker part in a manner admitting of the said member being turned towards a face of the blade in position relatively to the blade to enable the member to serve as a handle when using the blade for shaving, a guard pivoted to the blade, and means controlled by the handle when in shaving position to retain the guard in shaving position relatively to the blade.

5. In combination, a safety razor blade of the type which is thicker at the back part than at its edge part, a handle, a shaft on which the inner end of the handle is secured, the said shaft having a shoulder, the said handle being capable of being angularly turned towards either face of the blade in position relatively to the blade to enable the handle to serve as a handle when using the blade for shaving, a guard pivoted to the blade, and a pin on the said guard abutting against said shoulder on the said shaft when the handle is in shaving position, to retain the guard in shaving position relatively to the blade while the handle is in shaving position.

6. A safety razor blade of the type which is thicker at the back part than at its edge part, having a gap in its back part adapted to receive a part of a member serving as a handle to be connected to the blade in a hinged maner in said gap.

7. A safety razor blade of the type which is thicker at the back part than at its edge part, having a gap in its back part adapted to receive part of a member serving as a handle and a hole extending from the said gap and substantially parallel to the back of the blade and adapted to receive a member to which the member serving as a handle may be connected.

8. In combination a safety razor blade of the type which is thicker at the back part than at its edge part, a member serving as a handle connected with the said blade in a manner admitting of said member being turned toward a face of the blade in a position relatively thereto to enable the handle to serve as a handle when using the blade for shaving, and a guard displaceable towards either side of the blade against resilience and means controlled by the handle when in shaving position to retain the guard in shaving position relatively to the blade the said means being uncontrolled while the handle is being turned through angles substantially less than

that through which the handle is turned into shaving position.

9. In combination, a safety razor blade of the type which is thicker at the back part than at its edge part, a member serving as a handle, a shaft on which the inner end of the handle is secured, the said shaft having a shoulder, the said handle being capable of being turned towards either face of the blade in position relatively to the blade to enable the handle to serve as a handle when using the blade for shaving, a guard pivoted to the blade and a pin on the said guard, the said shoulder being shaped and positioned relatively to the pin to abut against the said pin when the handle has been turned into shaving position but free from such abutment when the handle is turned through angles substantially less than that through which it is turned into shaving position.

10. In combination, a safety razor blade of the type which is thicker at the back part than at its edge part, a handle connected with the said blade at its thicker part in a hinged manner and capable of being turned towards either face of the blade to such a degree as to serve as a handle when using the blade for shaving, a guard pivoted to the blade and means controlled by the handle when in shaving position to retain the guard in shaving position relatively to the blade the said handle having a surface bearing on a face of the blade when the handle is in shaving position, the said surface being inclined to the axis of the handle to afford different adjustments of the guard according to the direction of the incline relatively to the edge of the blade.

11. In combination, a safety razor blade of the type which is thicker at the back part than at its cutting edge, a handle connected with the said blade at its thicker part in a hinged manner and capable of being turned towards either face of the blade to such a degree as to serve as a handle when using the blade for shaving, a guard pivoted to the blade, and means controlled by the handle when in shaving position to retain the guard in shaving position relatively to the blade, the said handle having a surface bearing on a face of the blade when the handle is in shaving position, the said surface being inclined to the axis of the handle to afford different adjustments of the guard relatively to the blade edge according to the direction in which the blade and handle are turned towards each other for shaving position.

12. In combination, a safety razor blade of the type which is thicker at the back part than at its edge part, a handle comprising a body part and an inner part the said inner part being connected to the blade in a hinged manner and the said body part being capable of being turned on the said inner part the inner end of the said body part having a surface inclined to its axis and resiliently bearing against the blade, the handle being capable of being turned towards either face of the blade to such a degree as to serve as a handle when using the blade for shaving, a guard pivoted to the blade, and means controlled by the handle when in shaving position to retain the guard in shaving position relatively to the blade, the direction of the inclination of the inner end of the body part relatively to the blade determining the angle between the blade and handle when in shaving position, and also the position of the guard relatively to the blade, variation of adjustment being obtained by turning the body part of the handle on its axis.

13. In combination a safety razor blade of the type which is thicker at the back part than at its edge part, a handle comprising a body part and an inner part the said inner part being connected to the blade in a hinged manner and the said body part being capable of being turned on the said inner part, the inner end of the said body part being inclined at different angles at various parts around its axis and resiliently bearing against the blade, the handle being capable of being turned towards either face of the blade to such a degree as to serve as a handle when using the blade for shaving, a guard pivoted to the blade, and means controlled by the handle when in shaving position to retain the guard in shaving position relatively to the blade, the angle of the particular part of the inner end of the body part of the handle bearing for the time being against the blade determining the angle between the blade and the handle when in shaving position and the position of the guard relatively to the blade, variation of adjustment being obtained by turning the body part of the handle on its axis to change the part thereof bearing on the blade.

14. In combination, a safety razor blade of the type which is thicker at the back part than at its edge part, a handle comprising a body part and an inner part the said inner part being connected to the blade in a hinged manner and the said body part being capable of being turned on the said inner part, the inner end of the said body part having a surface inclined to its axis and resiliently bearing against the blade, the handle being capable of being turned towards either face of the blade to such a degree as to serve as a handle when using the blade for shaving, a guard pivoted to the blade, means controlled by the handle when in shaving position to retain the guard in shaving position relatively to the blade, the inclination of the said surface determining the angle between the blade and handle when in shaving position and the position of the guard relatively to the blade, variation of adjustment being obtained by turning the body part of the handle on its

axis, and co-acting projection and recess adjacent to said inclined surface to prevent accidental turning of the body part of the handle and inadvertent variation of adjustment.

15. In combination, a safety razor blade of the type which is thicker at the back part than at its edge part, and a member adapted to serve as a handle in sharpening the blade connected therewith through a joint admitting of the handle being turned from a mid position towards either face of the blade and of the blade being sharpened from either side with both its back part and edge part bearing on the sharpening surface, without restraint to the handle being used at about the same angle to the sharpening surface when one face of the blade is next to the sharpening surface as when the other face of the blade is next to the sharpening surface.

16. In combination, a safety razor blade of the type which is thicker at the back part than at its edge part, and a member adapted to serve as a handle in sharpening the blade connected therewith through a joint admitting of the said member being turned towards either face of the blade, the blade being free for application to the sharpening surface with either face of the blade next thereto and with both the back part and edge part of the blade bearing on said surface, the said joint also permitting the said member to turn angularly relatively to the blade during a sharpening stroke irrespectively of which face of the blade is next to the sharpening surface.

17. In combination, a safety razor blade of the type which is thicker at the back part than at its edge part, and a member adapted to serve as a handle in sharpening the blade connected therewith through a joint admitting of the said member being turned towards either face of the blade, the blade being free for application to the sharpening surface with either face of the blade next thereto and with both the back part and edge part of the blade bearing on said surface, the face of the blade which is the upper face for the time being during a sharpening stroke being free to receive a finger of the hand to press the blade against the sharpening surface.

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