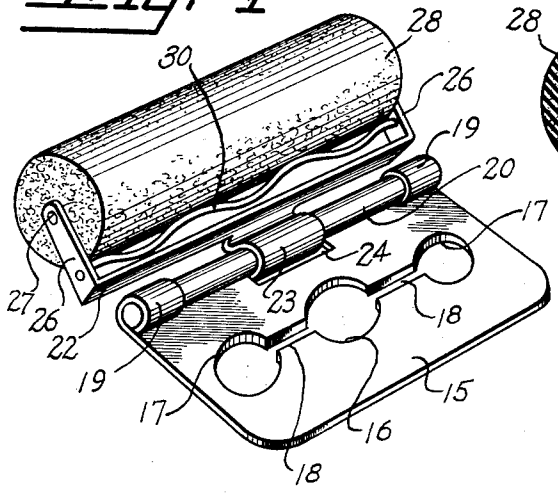
May 11, 1954 F. SCHALLGRUBER 2,677,883

LATHER APPLYING RAZOR

Filed Feb. 8, 1949

2 Sheets-Sheet 1

Fig. 1



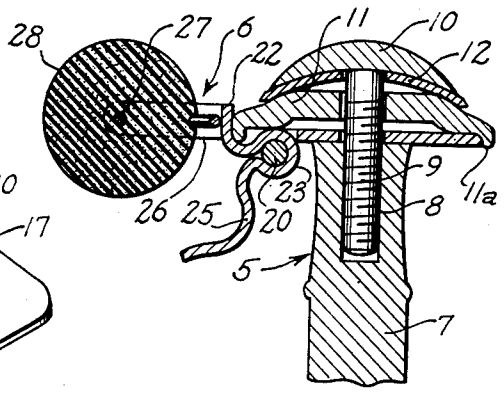


Fig. 2

Fig. 4

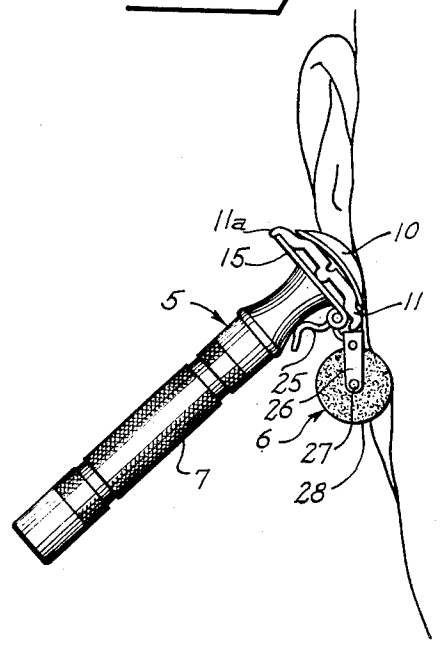


Fig. 3

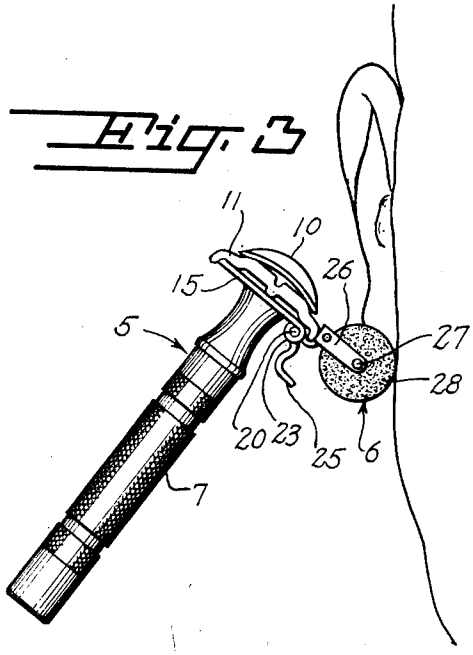


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Fig. 5

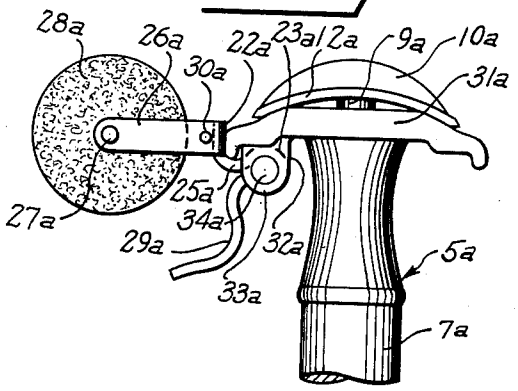


Fig. 6

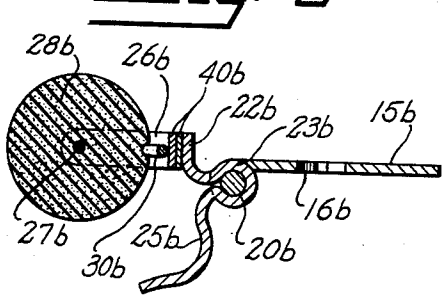


Fig. 7

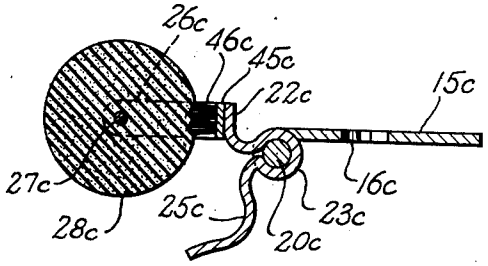


Fig. 8

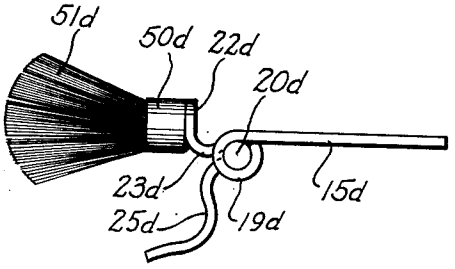
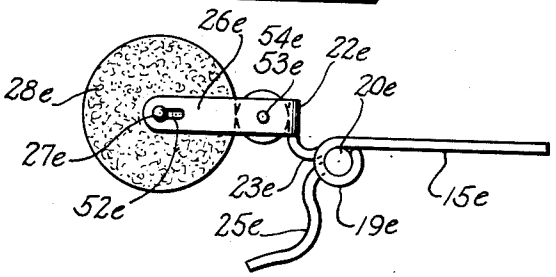


Fig. 9



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LATHER APPLYING RAZOR

Fredrick Schallgruber, Bogota, Colombia

Application February 8, 1949, Serial No. 75,191

12 Claims. (Cl. 30—41)

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The present invention relates to shaving devices, and in particular to an attachment for conventional safety razors to apply lather to the skin surface of the face before and during the shaving operation.

The primary object of the invention resides in the provision of a roller applicator for applying lather to the skin surface of the face which can be quickly and easily attached to a conventional safety razor without altering or changing the construction of the safety razor.

Another object is to provide a roller applicator for applying lather before and during the shaving operation which will insure a closer shave by reason of the fact that the roller of the lather applicator travels in advance of the cutting edge of the razor and maintains the skin in a semi-stretched condition.

Another object is to provide a lather applicator attachment for safety razors which can be optionally used prior to the shaving operation or simultaneously during the shaving operation.

Another object is to provide a lather applicator for attachment to conventional safety razors which will not interfere with shaving or the normal use of the safety razor.

Another object is to provide a lather applicator attachment for conventional safety razors in which means is provided for creating lather foam on the applicator such that a film of lather will be applied to the skin surface of the face.

Another object is to provide a roller applicator for applying lather to the skin surface of the face which can be conveniently attached to a conventional safety razor in such a manner that the roller applicator can be moved with respect to the razor to a position to facilitate lathering before shaving and to a second position to apply lather to the face during shaving.

Another object is to provide a lather applicator attachment for conventional safety razors which comprises a base plate adapted to be interposed between the guard and handle of a safety razor to support the roller or the like of the applicator in either one of two positions with respect to the cutting edge of the razor so that the roller can be used for normal lathering purposes prior to shaving and simultaneously during the shaving operation.

Another object is to provide a lather applicator attachment for conventional safety razors which includes an applicator roller of flexible yielding sponge-like material mounted on the safety razor, and to provide said roller with agitating means engageable with the peripheral surface of the

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roller to create lather foam during rotation of said roller induced by traction engagement with the skin surface.

Another object is to provide a lather applicator attachment for conventional safety razors including a roller applicator which, when used during the shaving operation, will cause the skin surface to undulate and enable the cutting edge of the safety razor to be presented to the hairs in a position relatively close to the skin surface.

Another object is to provide an applicator attachment for conventional safety razors in which the applicator roller produces a kneading and massaging action on the skin which enhances the appearance of the user and produces an invigorating and stimulating action.

Another object is to provide an applicator attachment for conventional safety razors of the type having a guard and cap held together by a screw affixed handle for clampingly retaining the razor blade in place which can be conveniently removed and cleaned simultaneously with the cleaning of the razor cap and guard.

Another object is to provide an applicator attachment for conventional safety razors in which the applicator is formed of a yielding resilient material capable of conforming to the uneven and irregular surfaces of the skin surface of the face, thus insuring an even distribution of the lather film to all parts to be shaved.

Other objects and advantages of the invention will become apparent during the course of the following description of the accompanying drawings wherein:

Figure 1 is a perspective view of a preferred form of the invention showing the applicator device removed from the safety razor and the manner in which the roller applicator is hingedly connected to the base plate, with the roller mounted for free rotational movement about its axis.

Figure 2 is a vertical cross sectional view of the lather applicator showing the manner in which the same is affixed and attached to a conventional safety razor and illustrating various details of construction.

Figure 3 is an end elevational view of the roller applicator showing the position of the roller when the device is employed as a lathering device prior to the shaving operation.

Figure 4 is an end elevational view of the roller applicator similar to Figure 3, but showing the position of the applicator roller during the shaving operation to further apply lather to the face after the initial lathering.

Figure 5 is an end elevational view of a modi-

fied form of the invention showing the applicator hingedly connected to the safety razor guard.

Figure 6 is a transverse cross sectional view of another modified form of the invention similar to Figures 1 to 4 showing a slightly different foaming arrangement.

Figure 7 is a transverse cross sectional view of another modified form of the invention which is similar to the form shown in Figures 1 to 4 inclusive, and shows the use of a bristle brush to create foam on the surface of the lathering roller in lieu of the sinuous wire or rod.

Figure 8 is an end elevational view of a still further modified form of the invention in which a bristle brush is substituted for the applicator roller shown in the previously described figures, and

Figure 9 is an end elevational view of still another modified form of the invention which is similar to the form shown in Figures 1 to 4 inclusive with the substitution of an agitator roller for the sinuous or helical wire agitator employed in connection with the form of the invention shown in Figures 1 to 4 inclusive.

In the drawings, and more in detail, attention is first directed to the form of the invention illustrated in Figures 1 to 4 inclusive wherein for the purpose of convenience of illustration there is shown a safety razor of conventional design generally designated **5** upon which the lather applicator generally designated **6** is adapted to be removably attached. The safety razor **5** may be of any well known make and the type illustrated includes a handle **7** having a knurled hand grip portion and an internally threaded bore **8** at one end thereof for receiving the correspondingly threaded stud **9** of the blade clamping cap **10**. A guard **11** is received on the stud **9** and the comb edges or ends **11***a* of the guard are directed away from the cap **10** to provide a rounded surface on the ends of the guard teeth and eliminate sharp points. The blade **12** likewise of conventional design is held between the cap **10** and guard **11** by the clamping action of the handle **7** and stud **9**.

The lather applicator **6** includes a base plate **15** of a size and shape to be received beneath the guard **11** with the side edges thereof abutting the downwardly turned guard teeth **11***a*. The base plate **15** is of a length substantially equal to the length of the guard **11**, and is provided with a central opening **16** adapted to accommodate the stud **9** when the plate **15** is in position as shown in Figure 2. In addition, openings **17** are formed in the plate one on each side of the opening **16** to accommodate correspondingly positioned blade centering pins usually carried by the cap **10** on certain types of safety razors.

The openings **16** and **17** are connected by longitudinal slots **18** which are arranged such as to adapt the device to various other types of safety razors now on the market. Formed integral with the base plate **15** on one edge thereof adjacent each end is a bearing loop **19**, between which is supported a pintle **20** which extends along the underside of the base plate when the assembly is in position as shown in Figures 2 and 5.

Hingedly connected to the supporting plate **15** is an applicator roller frame **22** having formed intermediate its ends a pintle loop **23** which projects into a cut-away portion **24** of the base plate **15** and encircles the pintle **20**. The loop **23** terminates in a curved extension **25** which is adapted to be engaged by the finger of the user when the lather applicator is being manipulated to

apply lather to the face and said curved projection is also adapted to form a stop for the hinged frame **22** when the device is used for applying lather and simultaneously shaving.

Formed on the frame **22** is a pair of roller supporting arms **26** arranged one adjacent each end of said frame, and the free ends of each of the roller supporting arms **26** are provided with bearing openings for receiving the ends of a roller supporting shaft **27**. An applicator roller **28** is supported by the shaft **27**, and said roller is preferably formed of a resilient yielding sponge-like material such as sponge rubber.

Also mounted on the hinged frame **22** and supported between the arms **26** is a sinuous or helical bar **30** which has its ends received in openings in the roller supporting arms **26** and affixed thereto. The bar **30** is adapted to contactually engage spaced apart portions on the peripheral surface of the roller **28** to create foam by the frictional engagement of said bar. As illustrated in Figure 1 the bar **30** is of undulating shape and arranged so that spaced apart portions will frictionally engage the peripheral surface of the roller **28** during rotation thereof and create a foaming action so that an ample supply of lather will be formed on the peripheral surface of the roller for being applied to the face of the user.

In operation, the base plate **15** is affixed to a conventional safety razor by being attached as shown in Figure 2 such that the finger projection **25** extends in a direction beneath the guard and cap of the safety razor. After the lather applicator has been thus applied to the safety razor a lather solution formed of soap and water is applied to the roller **28** either by immersing the roller in the solution or coating the same in any suitable convenient manner. The handle of the safety razor is then grasped by the user and the razor and applicator are manipulated as shown in Figure 3 to apply a film of lather to the user's face. The device is moved to and fro with the roller in facial contact so that the undulating rod **30** will produce a sufficient amount of foamy lather to soften the beard.

During the lathering operation the forefinger of the user is pressed against the finger projection **25** to hold the applicator roller **28** in its extended position as shown in Figure 3. When the beard has been sufficiently wetted and lathered, the roller supporting frame **22** is swung to the position shown in Figure 4 so that the finger projection **25** engages the neck of the handle **7**. In this position, the safety razor **5** can be used for the shaving operation with the roller **28** moving in advance of the cutting blade **12** so as to apply lather additionally and simultaneously cause the skin surface in advance of the razor blade to be maintained in a semi-stretched or taut position. Thus, the razor will cut the hair in closer relationship to the skin surface and produce a smooth and close shave. It is to be noted, that during the shaving action, the roller **28** also produces a massaging effect and kneading action which enhances the appearance of the user and creates a stimulating effect upon the user's face.

When the user has finished shaving, the various parts of the razor may be removed and the roller applicator likewise removed to facilitate cleaning by rinsing the roller in much the same manner in which the safety razor parts are rinsed after use.

It is to be noted that when the applicator roller **28** is in the position shown in Figure 2, the frame **22** engages the guard bar **11***a* of the guard **11**

so as to limit swinging movement of the frame 22 and roller 28 in an upward direction. In this position, the user simply exerts pressure against the finger extension 25 to maintain the frame 22 in contactual engagement with the end of the guard bar 11a. In the other position as shown in Figure 4 wherein the applicator roller travels in advance of the safety razor during shaving, the finger projection 25 engages the necked-in portion of the handle and provides a stop for limiting swinging movement of the frame and roller in an opposite direction.

In the modified form of the invention shown in Figure 5, the safety razor 5a includes a handle 7a as well as a cap 10a and guard 31a of a slightly modified construction. The blade 12a is clamped between the guard 31a and the cap by the threaded stud 9a in much the same manner as described in connection with the form of the invention shown in Figures 1 to 4 inclusive. The guard 31a is provided adjacent its ends with depending lugs 32a having bearing openings 33a for receiving a pintle pin 34a. The applicator is identical to the applicator 6 shown in Figures 1 to 4 and includes a frame 22a having a central projection 25a which is curved and looped as at 23a to surround the pintle pin 34a. An extension 29a is formed on the hinge pintle loop 23a and terminates in a finger engaging stop similar to the stop 25, Figures 1 to 4 inclusive.

The frame 22a is provided with roller supporting arms 26a having a shaft 27a for supporting the yielding sponge-like applicator roller 28a which as pointed out in Figures 1 to 4 is formed of sponge rubber or similar porous material. Also supported between the arms 26a is a sinuous or spiral rod 30a which is similar to the sinuous agitator rod 30 shown in Figures 1 to 4, and produces the same agitating action to create foam on the peripheral surface of the applicator roller.

In the modified form of the invention shown in Figure 6, there is provided a base plate 15b having a central opening 16b which is similar to the base plate shown in Figures 1 to 4, and is provided with bearing loops adjacent each end (not shown) for accommodating the ends of a pintle pin 20b. The applicator is likewise similar to that shown in Figures 1 to 4 and includes a frame 22b having a central projection bent as at 23b to form a pintle pin encircling portion. The free end of said portion is extended as at 25b to provide a finger engaging projection to enable the frame 22b to be manipulated as previously described. Roller supporting arms 26b are formed on the frame and are provided adjacent their ends with bearing openings for supporting a shaft 27b upon which the sponge rubber applicator roller 28b is mounted. Also mounted between the arms 26b is a sinuous or helical rod 30b similar to the rod 30 in Figures 1 to 4, and said bar is backed by a pair of plates 40b to exert pressure on the sinuous rod 30b and produce a frictioning effect thereon. The backing plates 40b are attached to the frame 22b by suitable means (not shown), and engage the sinuous or helical agitator 30b to exert pressure thereon.

In the modified form of the invention shown in Figure 7, the base plate 15c is substantially the same as shown in Figures 1 to 6 inclusive and is provided with a central opening 16c to receive the safety razor cap stud as previously described. A pintle pin 20c is supported on one edge of the base plate to which is hingedly connected the applicator frame 22c. The applicator frame 22c is provided with a central extension

which is looped as at 23c to encircle the pintle pin 20c. The extension projects beneath the plate 15c to provide a finger engaging portion 25c. Roller supporting arms 26c are formed on the frame for supporting the applicator roller 28c through the medium of the shaft 27c. Mounted on the frame 22c is a brush having a backing plate 45c which is affixed to the frame by suitable means (not shown), and the backing plate is provided with a plurality of bristles 46c which extend forwardly and frictionally engage the peripheral surface of the applicator roller 28c. Thus, the bristle brush 46c creates foam on the peripheral surface of the roller in much the same manner as the sinuous or helical bar roller 30 in Figures 1 to 4 inclusive.

In the modified form of the invention shown in Figure 8 the base plate 15d is formed with pintle supporting loops 19d for supporting a pintle pin 20d. The base plate is adapted to support a frame 22d which is provided with a central extension 23d, which is looped about the pintle pin 20d and is provided with a finger engaging extension 25d. The structure is identical to the previous devices except that the frame 22d is not provided with roller supporting arms, but simply comprises a flat plate to which is affixed the backing 50d of a bristle brush 51d. The device shown in Figure 8 is used in identically the same manner as the roller applicator for lathering the skin surface before and during shaving.

In the still further modified form of the invention shown in Figure 9, the base plate 15e is similar in design and shape to that previously described and is provided along one side edge adjacent each end with pintle supporting eyes 19e for supporting a pintle pin 20e. An applicator frame 22e is provided with a central projection 23e which encircles the pintle pin 20e and terminates in a finger engaging projection 25e. Roller supporting arms 26e are formed on the frame and are provided adjacent their ends with slots 52e for receiving a roller supporting shaft 27e. The applicator roller 28e is mounted on the shaft and is capable of being moved with respect to the frame by reason of the shaft and slot connection 27e—52e.

Also mounted between the roller supporting arms 26e is a shaft 53e for supporting an agitator roller 54e which has its peripheral surface in contactual engagement with the peripheral surface of the sponge rubber applicator roller 28e to create foam and agitate the applicator roller during its rotation through its to and fro movement when in facial contact. The roller 54e may be formed of rubber relatively harder than the applicator roller 28e to cause the surface of said roller at the point of roller contact to be continually moved in and out when the roller 28e is rotated. The lather applicator and producing device shown in Figure 9 is used in identically the same manner as pointed out and described in connection with the other forms of the invention.

It is to be understood that the forms of the invention herewith shown and described are to be taken as preferred embodiments, and that various changes in the shape, size and arrangement of parts may be made without departing from the spirit of the invention or the scope of the subjoined claims.

I claim:

1. In combination with a safety razor having a cap and guard assembly separately connected by a handle having threaded connection with the cap to hold a razor blade clamped in position, a

lather applicator comprising support means clamped between the guard and handle, a hinged frame connected to said support means, an applicator member carried by the frame, and a curved extension on the frame adapted to be engaged by the forefinger to retain said applicator in one of two positions and said extension engaging the handle below the guarded assembly for holding said applicator in the other of two positions of movement.

2. In combination with a safety razor having a cap and guard assembly separably connected by a handle, a lather applicator comprising support means adapted to be clamped in position between the guard and handle of said razor, an applicator movably carried by the supporting means and a curved extension means adapted to be engaged by the forefinger to retain said applicator in one of two positions and said curved extension means engaging the handle below the guard assembly for limiting the movement of the applicator in relation to the supporting means to hold said applicator in the other of two positions of use.

3. In combination with a safety razor having a cap and guard assembly separably connected by a detachable handle, a lathering device comprising support means clamped in position between said guard and handle, a hinged frame connected to said support means, a yielding resilient applicator roller journaled in said frame, and means supported by said frame to engage the peripheral surface of said roller and create lather foam during rotation of said roller applicator, said last named means consisting of a sinuous rod having portions arranged to frictionally engage said roller.

4. In combination with a safety razor having a cap and guard assembly separably connected by a detachable handle, a lathering device comprising support means clamped in position between said guard and handle, a hinged frame connected to said support means, a yielding resilient applicator roller journaled in said frame, and means supported by said frame to engage the peripheral surface of said roller and create lather foam during rotation of said roller applicator, said last named means consisting of a roller of a harder material than the applicator roller.

5. In combination with a safety razor having a cap and guard assembly separably connected by a detachable handle, a lathering device comprising support means clamped in position between said guard and handle, a hinged frame connected to said support means, a yielding resilient applicator roller journaled in said frame, and means supported by said frame to engage the peripheral surface of said roller and create lather foam during rotation of said roller applicator, said last named means consisting of a spiral rod.

6. In a lather applicator for safety razors having separably connected cap, guard and handle assemblies, a base plate of substantially the same dimensions as the razor guard adapted to be affixed to the safety razor and clamped in position between the guard and handle, a frame hingedly connected to said base plate having a projection thereon extending below said cap and said projection adapted to engage said handle below the base plate to limit the inward movement of said frame, and guard assembly adapted to be engaged by the forefinger to retain the frame in extended position, and a lather applicator supported by said frame and arranged to supply a film of lather to the skin surface of the user.

7. In a lather applicator for safety razors having a cap and guard assembly fastened together by a threaded handle and stud connection, a base plate of the same dimensions as the razor guard adapted to be clamped in position between the guard and handle of said safety razor, a frame hingedly connected to said plate to swing from a position in which the frame engages the guard to a position in which the frame is below the guard, a projection on said frame adapted to engage said handle to retain said frame in said last mentioned position, and said projection adapted to be engaged by the forefinger to retain the frame in the former position and a lather applicator carried by said frame adapted to apply lather to the skin surface of the user.

8. In a lather applicator for safety razors having a cap and guard assembly separably connected by a detachable handle, a base plate clamped between said guard and handle, a frame hingedly connected to said base plate, an applicator roller of yielding resilient sponge-like material supported by said frame, means engageable with said roller to create foam lather on the peripheral surface of said roller and stop means for limiting the hinged movement of said frame.

9. In a lather applicator for safety razors having a cap and guard assembly separably connected by a detachable handle, a base plate clamped between said handle and guard, a frame hingedly connected to said base plate, stop means on said frame to alternately engage the handle and guard and limit swinging movement of said frame to two positions of use, a yielding sponge rubber applicator roller supported by said frame and arranged for facial contact, and means on said frame engageable with the peripheral surface of said roller to agitate said yielding surface and create lather foam.

10. In a lather applicator for safety razors having a cap and guard assembly separably connected by a detachable handle, a base plate clamped between said handle and guard, a frame hingedly connected to said base plate, stop means on said frame to alternately engage the handle and guard and limit swinging movement of said frame to two positions of use, a yielding sponge rubber applicator roller supported by said frame and arranged for facial contact, and means on said frame engageable with the peripheral surface of said roller to agitate said yielding surface and create lather foam, said last named means comprising a sinuous rod.

11. In a lather applicator for safety razors having a cap and guard assembly separably connected by a detachable handle, a base plate clamped between said handle and guard, a frame hingedly connected to said base plate, stop means on said frame to alternately engage the handle and guard and limit swinging movement of said frame to two positions of use, a yielding sponge rubber applicator roller supported by said frame and arranged for facial contact, and means on said frame engageable with the peripheral surface of said roller to agitate said yielding surface and create lather foam, said last named means comprising a roller of a harder material than said applicator roller.

12. In a lather applicator for safety razors having a cap and guard assembly separably connected by a detachable handle, a base plate clamped between said handle and guard, a frame hingedly connected to said base plate, stop means on said frame to alternately engage the handle and guard and limit swinging movement of said frame to two positions of use, a yielding sponge rubber applicator roller supported by said frame and arranged

for facial contact, and means on said frame engageable with the peripheral surface of said roller to agitate said yielding surface and create lather foam, said last named means comprising a bristle brush with the bristles in frictional engagement with said yielding applicator roller.

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