W. A. FUSCH.

RAZOR.

APPLICATION FILED MAR. 20, 1915.

1,174,706.

Patented Mar. 7, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

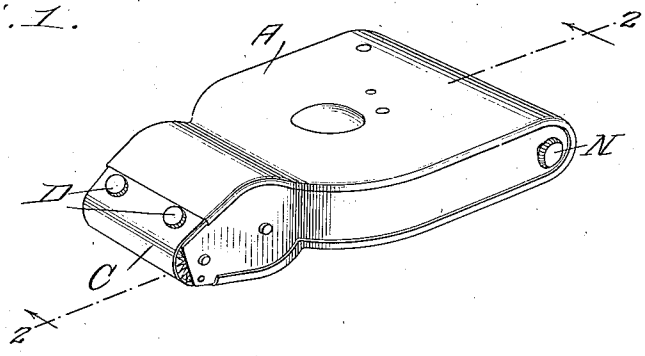
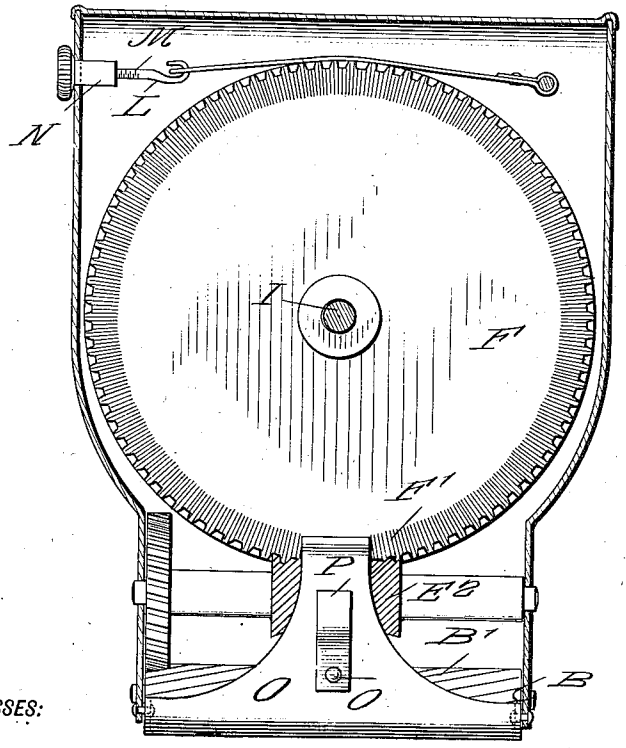


Fig. 4.



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2 SHEETS—SHEET 2.

Fig. 3.

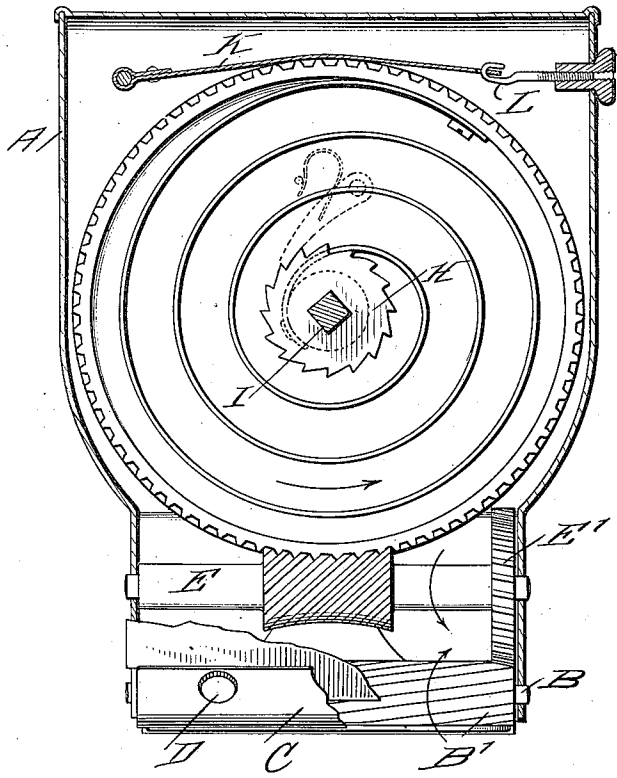


Fig. 2.

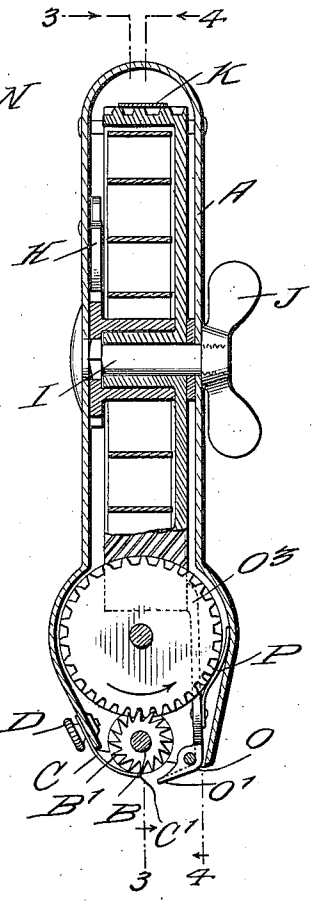


Fig. 5.

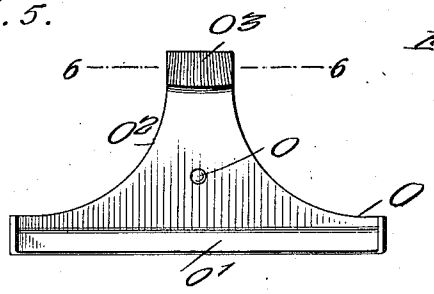
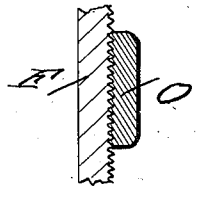


Fig. 6.



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UNITED STATES PATENT OFFICE.

WARNIE ALBERT FUSCH, OF DECATUR, ILLINOIS.

RAZOR.

1,174,706. Specification of Letters Patent. Patented Mar. 7, 1916.

Application filed March 20, 1915. Serial No. 15,834.

To all whom it may concern:

Be it known that I, WARNIE A. FUSCH, a citizen of the United States, and a resident of Decatur, in the county of Macon and State of Illinois, have made certain new and useful Improvements in Razors, of which the following is a specification.

My invention relates to razors, and especially to that class in which a motor is employed, and has for its object to simplify the present method of shaving or removing the beard from the face, avoiding the necessity of lathering the face, etc., as is required with the present type of razors: another object is to produce a small and compact device that may be carried in a vest pocket, and one which does not require sharpening, being self sharpening.

With these and other objects in view my invention consists essentially of a hard steel cutting roller, having spiral blades: it consists further in certain novel features of construction, arrangement and combination of parts, as will be hereinafter fully described and pointed out in the claims, reference being had to the accompanying drawings in which—

Figure 1 is a perspective view of my improved razor. Fig. 2 is a sectional view of same taken on line 2—2 of Fig. 1. Fig. 3 is a sectional view taken on line 3—3 of Fig. 2. Fig. 4 is a sectional view taken on line 4—4 of Fig. 2. Fig. 5 is an elevation of the guard. Fig. 6 is an enlarged section on line 6—6 of Fig. 5.

In carrying out my invention I prefer to use a casing or housing A, which is to contain and protect all of the operative parts of the device, and at the lower end of this casing is rotatably mounted a hard steel cutting roller or cylinder B having the spiral blades B′ which when rotating and in contact with the stationary blade C cause a shearing cut: this construction also prevents the blade C catching the blades B′ as several of the blades bear on the blade C at one and the same time; as stated the cutting cylinder B is mounted at the lower end of the casing. The stationary blade C is made of thin spring steel and is bent into a quarter curve of slightly greater radius than that of the cutting roller B; the upper end of this blade C is fastened to the casing by screws D while the lower or cutting edge C′ extends downwardly and bears against the lower face of the cutting cylinder B, being held snugly against said cylinder by virtue of the spring tension caused by curvature of the blade.

Slightly above the cylinder B is revolubly mounted the shaft E carrying adjacent one end the spirally toothed pinion E′ which meshes with the cutting cylinder B and imparts rotary motion to the same; said shaft E has at its central portion a worm gear or pinion E^2 which is driven by a large worm gear F which is in turn operated by a clock spring G equipped with the necessary ratchet wheel H, dog for the same, winding shaft I and key J. In the upper part of the casing, a flat spring K is mounted at end slightly below the level of the periphery of the spring actuated pinion F, and extending over the same, is fastened to a hook L made on the end of a threaded bolt M which fits within a headed nut N swiveled in the side wall of the casing; this flat spring acts as a drag or brake upon the spring actuated gear F so that the speed of the same can be regulated or entirely stopped if desired.

At the lower end of the casing opposite the blade C is the guard O pivotally mounted at each end in the sides of the casing in front of the cutting cylinder the lower edge O′ extending in front of and below the said cutting cylinder, and the upper portion diverging as at O^3 and extending inwardly as at O^3, the inner face of O^3 being knurled to engage the knurled part F′, of the spring rotated gear F, it being pressed against said knurled part by the plate spring P fastened to O by the pin *o* at its lower end and bearing at its upper end against the inner face of the casing.

In using my improved shaving apparatus or razor, the operation of the mechanism is as follows: The lower face of the cutting roller or cylinder B is pressed against the face and at the same time drawn forward, the lower end of the guard O being thereby pressed inward; this movement of the lower end of the guard throws the upper end of the guard outwardly and releases the same with its knurled face from the knurled portion of the spring driven gear: the drive gear then through the worm E^2 and the pinion E^1 on end of shaft E causes the cutting roller or cylinder to revolve and the spiral blades B^1 to shear off the hair on the face, the lower end of the guard O smoothing down the skin in front of the cylinder, so that danger to the face is avoided. When

pressure is removed from the lower end of the guard as in removing the device from the face, the spring P forces the upper and knurled end of the guard into contact with the knurled part of the spring actuated drive gear F and locks the same against rotation.

In shaving with the present keen edged razor the hair is generally cut diagonally thus requiring the necessity of going over the face several times, scraping the skin and rendering it sore: by the use of my improvements hair is cut off squarely which not only saves time but leaves the face in good condition. As my invention is small it can be conveniently carried in the vest pocket, being practically a self sharpener and requiring no lathering of the face, it is always ready and can be brought into use at any time or place.

I claim:

1. A power actuated razor consisting of a casing, a spirally bladed cutting cylinder rotatably mounted therein, an opposed stationary blade, motor mechanism mounted within the casing and operatively connected with said cutting cylinder, a guard opposite the stationary blade, and means actuated by said guard to release the motor mechanism and imparting rotary motion to the cutting cylinder, whenever pressure is applied to said guard.

2. A power actuated razor consisting of a casing, a spirally bladed cutting cylinder rotatably mounted in said casing, a spring actuated gear carried by said casing, an intermediate gear actuated by said said spring actuated gear and meshing with the cutting cylinder, a guard adjacent said cutting cylinder, and means carried by said guard for releasing the spring actuated drive gear by pressure of the guard upon the face.

3. A power actuated razor consisting of a casing, a spirally bladed cutting cylinder, an opposed stationary blade adjacent said cylinder, a movable guard opposite said stationary blade, and motor means controlled by the guard for imparting rotary motion to said cylinder.

4. A power actuated razor consisting of a casing, a rotary and spirally bladed cutting cylinder rotatably mounted therein, an opposing stationary blade, a guard opposite said blade and motor means controlled by the guard for imparting rotary motion to said cylinder.

5. A razor comprising in combination a casing, a spirally bladed cutting cylinder rotatably mounted at one end of said casing, power mechanism carried by said casing and operatively connected with said cutting cylinder for rotating same, a pivoted guard mounted adjacent said cylinder and means for releasing the power mechanism by pressure of the guard upon the face.

6. A safety razor comprising in combination a casing, a spirally bladed cutting cylinder rotatably mounted therein, power mechanism carried by said casing and operably connected to the cutting cylinder, and means carried by the casing for releasing the power mechanism for causing rotary motion of the cylinder by pressure upon the face.

7. A power actuated razor, consisting of a casing, a spirally bladed rotary cylinder, an opposed stationary blade, a guard, and means controlled by the guard for actuating said cylinder.

8. A safety razor comprising in combination, a casing, a spirally bladed cylinder rotatably mounted at one end of said casing, power mechanism carried by said casing to drive said cylinder, a guard located adjacent the lower face of said cylinder, and means carried by said guard for releasing and stopping the power mechanism.

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Witnesses:
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