Feb. 14, 1939. J. L. WHALEN 2,146,783

SHAVING IMPLEMENT

Filed July 17, 1936

Fig. 1

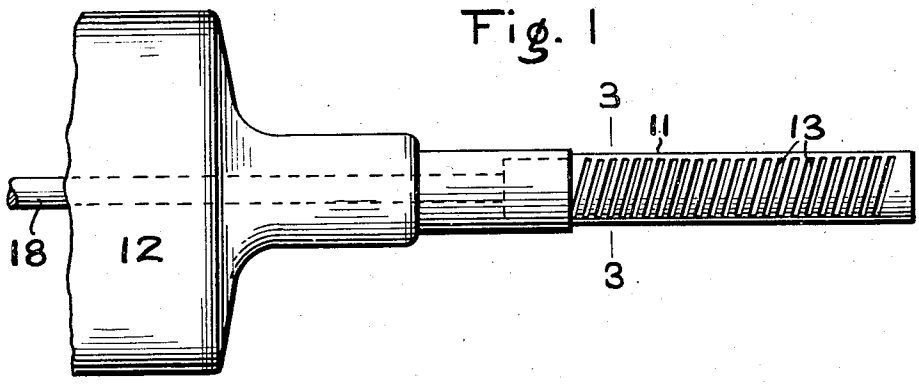


Fig. 2

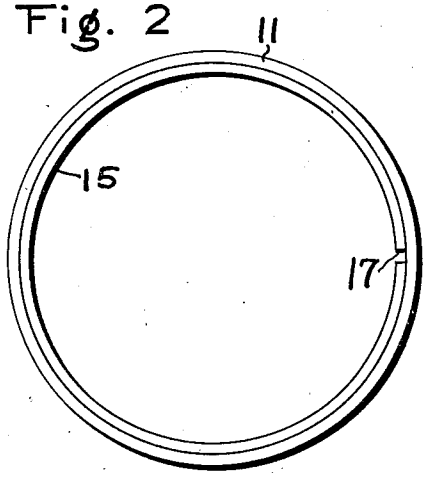


Fig. 3

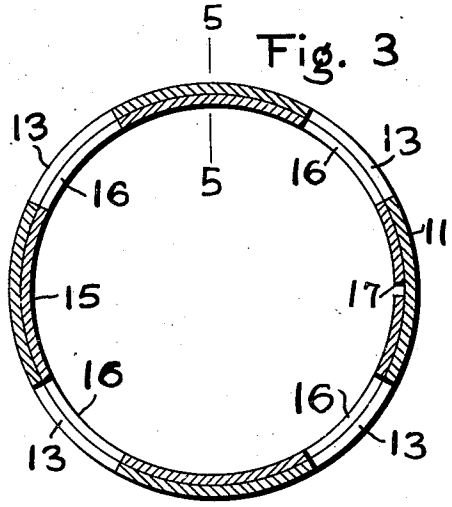
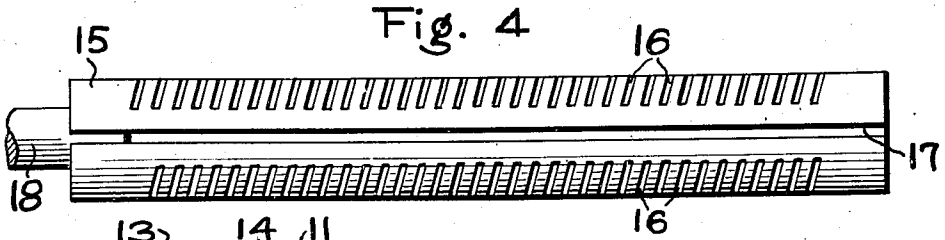


Fig. 4



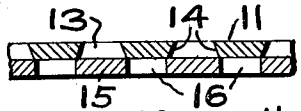


Fig. 5

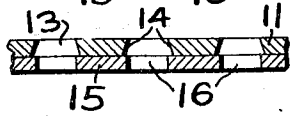


Fig. 6

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SHAVING IMPLEMENT

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Application July 17, 1936, Serial No. 91,086

3 Claims. (Cl. 30—43)

This invention relates to shaving implements of the type adapted to be used without lather and having a shear element that engages the face and a cutting element disposed within the shear element to cut the hair.

An object of the invention is to provide an improved shaving implement in which the shear element is in the form of a tube provided with a series of diagonally disposed slots to receive hair and the cutting element is also in the form of a rotatable tube which fits snugly within the shear element and has slots formed similarly to the slots in the shear element for cutting the hair.

Another object of the invention is to provide an improved shaving implement of the character mentioned, which is simple in construction, and reliable and exact in function under all conditions of service.

The invention also comprises certain new and useful improvements in the construction, arrangement and combination of the several parts of which it is composed, as will be hereinafter more fully described and claimed.

In the accompanying drawing:

Figure 1 is plan of a shaving implement embodying the present invention;

Figure 2 is an enlarged end view of the shaving implement;

Figure 3 is a transverse section taken on the line 3—3 of Figure 1;

Figure 4 is a side view of the cutting element removed from the shear element; and

Figures 5 and 6 are sections taken on the line 5—5 of Figure 3, Figure 5 showing the slots of the cutting element out of registration with the slots of the shear element, and Figure 6 showing the slots of both elements registered.

Referring to the drawing, the device is constructed to shear close to the skin to accomplish a close shave very quickly, and in order to do this the shear member is in the form of a shell or tube 11 constructed from relatively thin metal.

The outer end of the tube 11 is open as shown in Fig. 2, and the inner end of said tube is secured to a handle 12 of any desired form or configuration, only a portion of which is shown in Fig. 1.

The device is adapted to be moved over the face and the strokes imparted to the device can be in directions which will carry the tube 11 over the portions of the face to be shaved.

In order that the shaving operation will be accomplished in the shortest possible time and with the fewest number of strokes, the tubular shear element has formed therein a series of diagonally disposed slots 13.

The angular disposition of the slots 13 should be such that when the implement is moved over the face in a direction crosswise to the longitudinal edge of the tube 11 the path of the slotted portion of the tube will be such that the slots overlap one another, thereby preventing the cutting of the hairs in a series of separated zones. In actual practice I have found that when the slots 13 are disposed at an angle of approximately 15°, as shown in Fig. 1, a good clean shave can be accomplished in a minimum time, due to the fact that only a single stroke is necessary over a specific area of the face in order to cleanly cut the hairs. The device can then, on the next stroke, be shifted to an adjacent unshaven portion or area of the face, and therefore, only a comparatively few strokes are required to complete the shaving operation.

Rotatably mounted within the tube 11 and having an exterior bearing against the interior of the tube 11, is a second tube 15, constituting the cutting member of the device.

The tube 15 is formed with a series of slots 16 which are formed in said tube in a manner similar to formation of the slots 13 of the tube 11. That is to say, the slots 16 are disposed similarly to the slots 11, so that when the tube 15 is rotated, its slots 16 will aline with the slots 13 of the tube 11, as shown in Fig. 6, during a portion of each revolution and said slots 16 will overlap the slots 13 during the balance of the revolution of the tube 15.

If so desired the side edges of the slots may be formed inclined or bevelled with respect to the walls of the tubes. As indicated at 14, Figs. 5 and 6, the side edges of slots 13 are shown bevelled, while the side edges of the slots 16 are shown perpendicular. It will be understood that the side edges of the slots of both tubular members can be bevelled or perpendicular without departing from the invention.

It has been described that the tube 11 is preferably constructed from relatively thin material. As shown in the enlarged views of the drawing, tube 16 is also constructed of thin material.

The outer end of tube 16 is open, as shown in Fig. 2. The severed hairs which may accumulate within the tube 16 can be easily removed therefrom by tilting the open end of the tubes downwardly and shaking the device.

In the drawing, both tubes are shown as having two series of slots 13 and 16, respectively. One series of slots is on the upper portion of

the tubes as viewed in Fig. 1 and the other series is on the lower portion of the tubes.

The length of the slots 13 and 16 should be such that a small gap is left between the ends of the slots for reinforcing purposes. However, it will be understood that if so desired the tubes can be constructed with but a single series of slots. Also the diagonal disposition of the slots can be altered to suit varying conditions, and when so desired the slots can be inclined in any other direction than the direction illustrated, without departing from the invention.

In order that the cutting tube 15 will always bear properly against the interior of the shear tube 11, I have shown the tube 15 formed with a slit 17 lengthwise thereof, said slit being coextensive with the length of the tube. With the wall of the tube 15 thus slitted, the resiliency of the metal used in constructing the tube 15 tends to force the tube outwardly so that the same will always fit snugly within the shear tube 11.

Any suitable mechanism may be employed for rotating the tube 15. I have not deemed it necessary to show any particular mechanism since such mechanism is well known in the art. The inner end of the tube 15 has fixed thereto in any suitable manner, a rod or shaft 18 which extends through the handle 12 and may be connected to suitable driving mechanism (not shown) capable of rotating the tube 15 at the desired speed.

It will be understood that modifications can be made in the construction of the implement without departing from the scope of the invention.

Having thus described my invention, what I claim is:

1. A shaving implement comprising a thin walled cylindrical face engaging member with a plurality of hair receiving diagonally disposed slots formed therein, said slots terminating at a distance from the ends of said face engaging member, and an inner rotatable cylindrical cutter member within the face engaging member, the outer cylindrical surface of the inner member snugly engaging the inner cylindrical surface of the face engaging member, said inner member having a thin wall and slots formed therein corresponding substantially in number and form to the slots in said outer member, said inner member being adapted to be rotated continuously in one direction thereby periodically registering the slots of the face engaging member with the slots of the inner member whereby to produce a shearing action.

2. A shaving implement comprising a non-rotatable tubular outer member having a thin wall of uniform thickness and diameter with a plurality of hair receiving diagonally disposed slots formed therein, said slots terminating at a distance from the ends of said member, and an inner rotatable tubular cutter member within the outer member, said inner cutter member having a thin wall of uniform thickness and diameter, the outer surface of said inner member snugly engaging the inner surface of the outer member, slots formed in the wall of the inner member corresponding substantially in number and form to the slots in said outer member, said inner member being adapted to be rotated continuously in one direction thereby periodically registering the slots of the outer member with the slots of the inner member whereby to produce a shearing action.

3. A shaving implement comprising an outer thin walled tubular face engaging member with a plurality of hair receiving diagonally disposed slots formed therein, said slots terminating at a distance from the end of said face engaging member, and an inner rotatable thin walled tubular cutter member within the face engaging member and having a slit coextensive with the length of the wall thereof so that the outer surface of said inner member will snugly bear against the inner surface of said face engaging member, said inner member having slots formed therein corresponding substantially in number and form to the slots in said face engaging member, said inner member being adapted to be rotated continuously in one direction thereby periodically registering the slots of the face engaging member with the slots of the inner member whereby to produce a shearing action.

JOSEPH L. WHALEN.