UnitedStates Patent [19]

Tornvall

[11] **3,754,325**

[45] **Aug. 28, 1973**

[54] **HAIR TRIMMING DEVICE**

[76] Inventor: **Evert Anton Tornvall,** Granholmsgatan 11, Malmo, Sweden

[22] Filed: **May 24, 1972**

[21] Appl. No.: **256,433**

[52] **U.S. Cl.** **30/30,** 116/135

[51] **Int. Cl.** **B26b 21/14**

[58] **Field of Search** ..... 30/30, 31, 63, 64, 30/195; 116/135; 339/217 S, 341.18, 341.19

[56] **References Cited**

UNITED STATES PATENTS

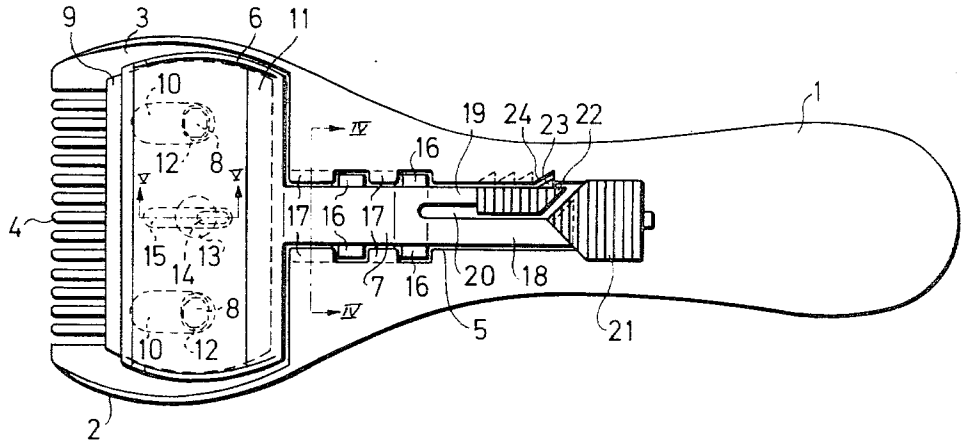
2,580,276	12/1951	Borgerding	30/30
2,611,951	9/1952	Tully	30/31
3,289,295	12/1966	Tornvall	30/30
3,485,204	12/1969	Christman	116/135

Primary Examiner—Othell M. Simpson
Assistant Examiner—Gary L. Smith
Attorney—Richard P. Alberi

[57] **ABSTRACT**

The cutting edge of a hair trimming device is engaged by a cover member slidable on a base member and provided with a resilient laterally and vertically movable means which upon movement of the cover member towards the toothed front edge of the base member laterally engages catch teeth on the base member to adjust the cutting edge in a plurality of operating positions at various distances from the toothed front edge whereas said means is vertically disengageable from the catch teeth to enable the cutting edge to be moved in the opposite direction.

2 Claims, 5 Drawing Figures



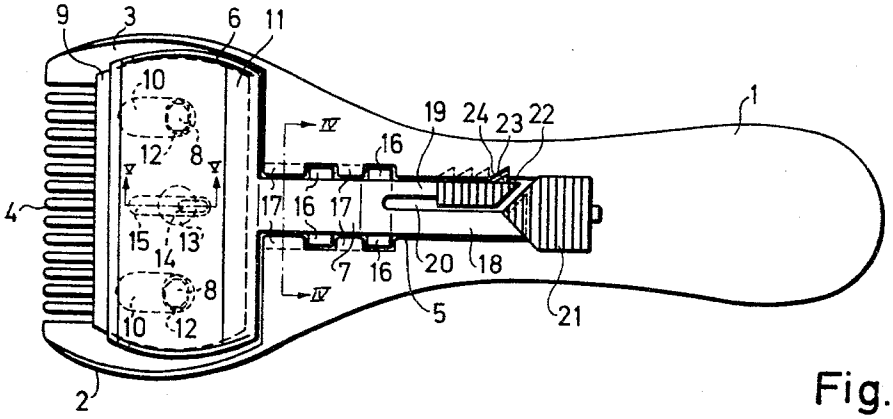


Fig. 1

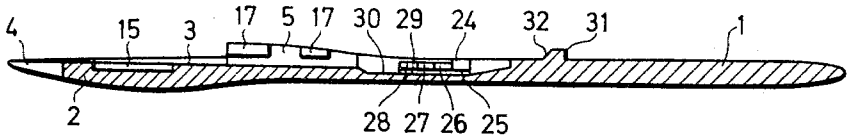


Fig. 2

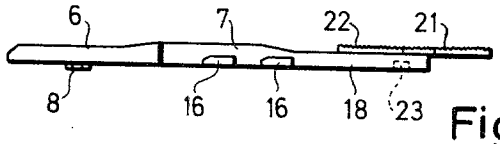


Fig. 3

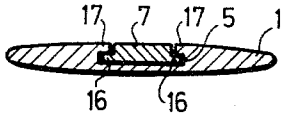


Fig. 4

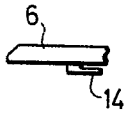


Fig. 5

HAIR TRIMMING DEVICE

BACKGROUND OF THE INVENTION

The invention relates to a hair-trimming device to trim away minor irregularities in one's coiffure, such as at the temples, at the back of one's head and at the hair-edge of the neck.

More exactly, the hair-trimming apparatus according to the invention provides an improvement of the hair-trimming device according to U.S. Pat. No. 3,289,295, patented Dec. 6, 1966, in that the means for adjusting the cutting edge in various operating positions is simpler and more easy to operate, and, moreover, the apparatus has a more convenient, flat shape.

BRIEF SUMMARY OF THE INVENTION

The invention relates to hair-trimming devices comprising a base plate, one end portion of which is handle-shaped, a channel formed in said handle-shaped portion, first spaced lips at the lateral top edges of said channel and extending into the channel, a cover plate adjustable along the base plate into a plurality of operating positions and having a bar slidable in said channel, second spaced lips on said bar at the forward portion thereof and adapted to engage under said first lips during the sliding movement of the bar and the cover plate into said operating positions, said second lips being sized to pass through the gaps between said first lips in an initial position of said bar relative to said channel.

In order to eliminate said disadvantates of the prior art the hair-trimming device according to the present invention in one of the side walls of said channel is provided with a longitudinal recess having catch teeth along the the interior wall thereof. The top surface of said handle is provided with an acute-angled notch aligned with the rearmost tooth gap of said catch teeth. A second recess is provided in the bottom of said channel adjacent said first recess and extending over at least the length of said catch teeth. Said bar at the rear portion thereof is branched into a pair of spaced legs, one of the legs being shorter than the other one and resiliently movable laterally and vertically relative to said longer leg. Said shorter leg is provided with an acute-angled projection the size of which is slightly smaller than said acute-angled notch. Due to the lateral resiliency of said shorter leg said projection engages said catch teeth to stop the movement from said initial position of said bar and said cover plate in a plurality of operating positions at various distances from the toothed front edge of the base plate and may be disengaged from said catch teeth upon vertical depression of said shorter leg into said second recess, said projection being positioned so as to be aligned with said notch when said second lips are aligned with the gaps between said first lips in said initial position.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING

FIG. 1 is a top plane view of the hair-trimming device.

FIG. 2 is a longitudinal sectional view of the base plate of the hair-trimming device.

FIG. 3 is a side elevation view of the removable cover plate member.

FIG. 4 is a cross sectional view taken along the line IV — IV in FIG. 1.

FIG. 5 is a longitudinal sectional view taken on the line V — V in FIG. 1.

DETAILED DESCRIPTION

The hair-trimming device is provided with an elongated base plate which is formed like a handle 1 by means of which the device is held during the operating. One end 2 of the base plate is enlarged and in the top surface provided with a shallow recess 3. At the front edge of the device the bottom of the recess 3 is provided with teeth 4 which are parallel to the longitudinal axis of the device. A channel 5 in the handle 1 extends into the rear part of the recess 3. In the recess 3 is mounted a cover plate 6 having a bar 7 integral therewith of resilient material such as plastic which is axially slidable in the channel 5. On the underside the cover plate 6 is provided with two polygonal bosses 8 which engage short tracks 10 in the bottom of the recess 3. In the drawing, 9 represents the one cutting edge of a razor blade 11 which is mounted between the cover plate 6 and the bottom of the recess 3 so that the bosses 8 engage the tracks 10 through the elongated side holes 12 of the razor blade 11. Thus, the razor blade participates in the axial movement within the recess 3 of the bar 7 and the cover plate 6.

On each side the bar 7 is provided with two spaced lips 16 which at the sliding movement of the bar 7 in the channel 5 with slight friction can be passed under corresponding spaced lips 17 at the top edge of the side walls of the channel 5.

The rear portion of the bar 7 in the longitudinal direction is divided into a long and wide leg 18 and a short and narrow leg 19, said legs being spaced by a longitudinal slot 20 of uniform width. At the rear end the long wide leg 18 on the top side is provided with a chamfered press plate 21 which extends over the width of the channel 5. The top surface of the press plate 21 is slightly inclined towards the rear end thereof (FIG. 3).

At the rear end the short narrow leg 19 on the top side is provided with a chamfered press plate 22. The short narrow leg 19 at its rear portion also is provided with a laterally projecting acute-angled tooth 23. The adjacent side wall of the channel 5 is provided with a longitudinally extending recess 29. A series of catch teeth and intermediate gaps 25, 26, 27 and 28 extends in parallel with the channel 5 along the interior wall of the recess 29 at a level above the level of the bottom of the channel. The bottom of the channel 5 adjacent said recess 29 is provided with a trough-shaped recess 30 extending over at least the length of said series of catch teeth and gaps. The top surface of the handle 1 is provided with an acute-angled notch 24 communicating with the recess 29 and aligned with the rearmost gap 25, said notch being of slightly larger dimensions than the laterally projecting acute-angled tooth 23.

The recess 3, the lips 16 and 17, the gaps between them, the tooth 23 and the notch 24 are so positioned and dimensioned relative to each other that the cover plate 6 and the bar 7 can be received by the recess 3 and the channel 5, respectively, only in the rearmost position of the bar 7 in which the tooth 23 is aligned with the notch 24 (FIG. 1). From this initial position the bar 7 in a manner described below may be stepwise moved towards the toothed front edge of the base plate at which the bevelled front edge of the lips 16 under slight friction is forced into the space between the un-

derside of the lips 17 and the bottom of the channel 5.

Spaced from the rear end of the channel 5 the handle portion 1 of the base plate on the top side is provided with a boss 31 having an inclined front surface 32 which at the backwards movement of the bar 7 engages the rear end of the plate 21 in order to raise the bar 7 out of the channel 5 when the tooth 23 and the lips 16 of the bar 7 are aligned with the notch 24 and the gaps between the lips 17, respectively.

The centrum hole 13 of the razor blade 11 is circular and the cover plate 6 on the underside is provided with a hook member 14 (FIG. 5) which engages the rear edge of the centrum hole 13 and a short track 15 disposed between and parallel with the tracks 10 in the bottom of the recess 3.

As previously mentioned, the bar 7 can be lodged into the channel 5 only in the initial position shown in FIG. 1 in which the tooth 23 can engage the rearmost gap 25 through the notch 24. When the bar 7 by means of finger pressure on the plate 21 from the initial position is pushed forwards and the lips 16 are forced under the lips 17, the tooth 23 due to the resiliency of the short leg 19 is moved slightly inwards and slides over the point of the rearmost catch tooth to engage the adjacent gap 26 which corresponds to a first operating position of the razor blade 11. Neither in this position nor in the other operating positions the cover plate 6 can be disengaged from the base plate or get loose therefrom. The cover plate 6 together with the razor blade 11 is firmly urged against the bottom of the recess 3 with the cutting edge 9 of the razor blade 11 adjusted at its greatest distance from the points of the teeth 4. In this operational position of the cover plate 6 the device may be used for course-trimming of the hair. When the cover plate 6 and the bar 7 is moved into a position in which the tooth 23 engages the next gap 27 the cover plate 6 and the razor blade 11 are adjusted in a second operating position in which the cutting edge 9 of the razor blade 11 is adjusted at a somewhat shorter distance from the points of the teeth 4 so that the device can be used for medium fine trimming of the hair. For fine-trimming of the hair the cover plate 6 then may be moved into a third operating position in which the tooth 23 engages the gap 28.

When it is desired to adjust the cutting edge 9 away from the front teeth 4 or to remove the cover plate 6 and the razor blade 11 from the base plate for cleaning purposes or to replace the razor blade, the resilient short leg 19 is depressed into the bottom recess 30 to disengage the tooth 23 from the catch teeth on the side wall of the channel 5 to permit the bar 7 together with the cover plate 6 and the razor blade 11 to be pushed back in the channel.

What I claim is:

1. A hair-trimming device which comprises a base plate, one end of which is an elongated handle and the other end of which is enlarged, the enlarged end having a recess in its upper surface with tracks along the interior edge and teeth along its front edge contiguous with the recess, a channel formed in the handle portion and extending to the rear portion of the recess, first lips at the lateral top edges of said channel and extending into the channel, a cover plate detachable from and adjustable along the base plate into a plurality of operating positions and having a bar extending therefrom and being slidable in said channel, second lips on said bar at the forward portion thereof and adapted to engage under said first lips during the sliding movement of the bar and the cover plate into said operating positions, said second lips being sized to freely pass between said first lips in an initial position of said bar relative to said channel, a cutting blade having holes therethrough sized to fit between the cover plate and the bottom of the recess, said cutting blade being adjustable with the cover plate at a plurality of distances with respect to the base plate teeth, and at least two bosses affixed to the underside of the cover plate for engagement in the tracks in the recess through the holes in the cutting blade, the improvement that comprises a first longitudinally extending recess in one of the side walls of said channel, a series of catch teeth extending in parallel with the channel along the interior wall of said first recess opposite the channel and being disposed at a higher level than the bottom of said channel, an acute-angled notch in the top surface of said handle and aligned with the rearmost tooth gap of said series of catch teeth and communicating with said first recess, a second recess in the bottom of said channel adjacent said first recess and extending over at least the length of said series of catch teeth, said bar at the rear portion thereof being divided into two parallel and spaced legs, the one of which being shorter than the other one and resiliently movable laterally and vertically relative to said longer leg, an acute-angled projection on the outwards facing side of said shorter leg and being sized slightly smaller than said acute-angled notch, said projection by means of the lateral resiliency of said shorter leg engaging said series of catch teeth in order to stop the movement from said initial position of the bar and the cover plate in a plurality of operating positions and to be disengaged from said series of catching teeth upon vertical pressure on said shorter leg to engage said second recess, said projection being positioned so as to be aligned with said notch when said second lips are aligned with the gaps between said first lips in said initial position.

2. The improvement of claim 1, wherein said bar at the rear end thereof is provided with a pressure plate sliding on the top surface of the handle, said top surface being provided with a boss adjacent the rear end of said channel and opposite the rear edge of said plate, the side of said boss facing the end plate being bevelled so as to engage said rear edge of said plate when the projection is aligned with said notch and to raise the plate and the bar in the channel in order to introduce said projection into the notch.

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