Sept. 1, 1953 H. L. WIETZEL 2,650,421

TRIMMING COMB

Filed Nov. 1, 1948

FIG. 1

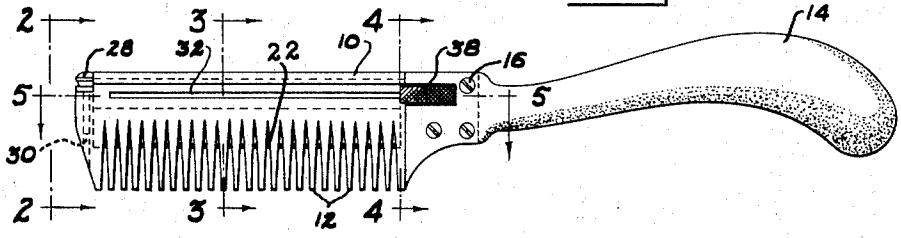



FIG. 2

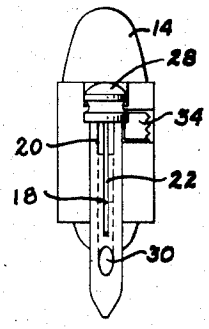



FIG. 3

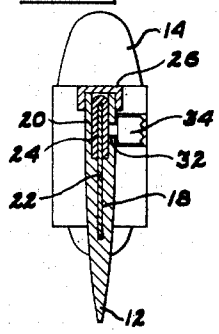



FIG. 4

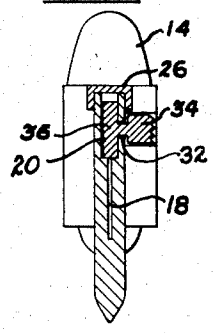



FIG. 5

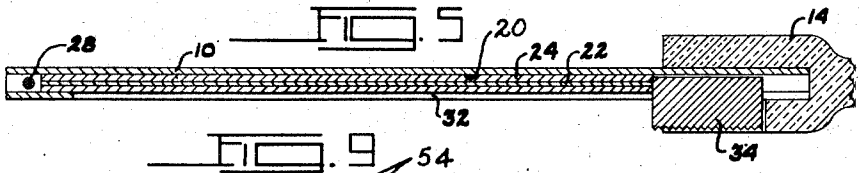



FIG. 9

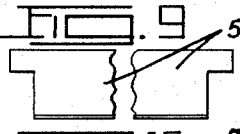



FIG. 7

FIG. 6

FIG. 10

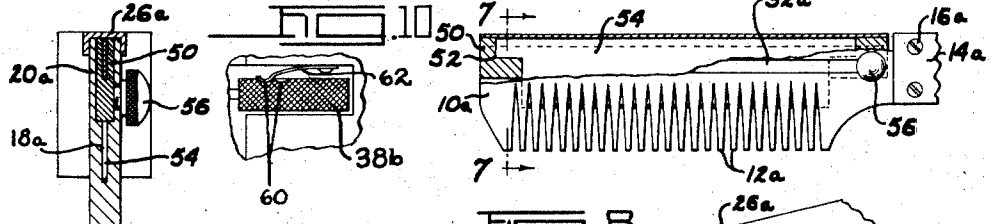
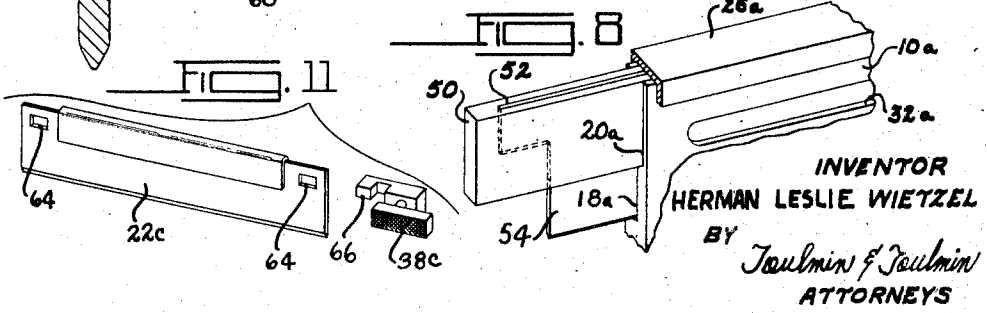



FIG. 8

FIG. 11




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## TRIMMING COMB

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1 Claim. (Cl. 30—30)

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This invention relates to combs, and particularly to hair trimming or hair cutting combs.

The particular object of this invention is to provide a new and improved construction for hair cutting combs embodying the fewest number of parts thereby resulting in an inexpensive article of manufacture which can readily be cast or molded and which requires a minimum of machine work after being so cast or molded.

Another object is to provide a hair cutting comb or trimming comb having a cutting blade therein in which the blade is entirely surrounded by the body of the comb and thus is protected at all times, access being had to the blade only in between the teeth of the comb.

A still further object of this invention is to provide a hair cutting or trimming comb having means for ejecting the blade therefrom so that the used blade need not be handled but can be ejected directly from the comb into a suitable waste container and without any difficulty.

Another object of this invention is to provide a hair cutting or trimming comb so constructed that it can selectively be used with or without the trimming blade and in which insertion or removal of the blade can readily be accomplished.

These and other objects and advantages will become more apparent upon reference to the following description taken in connection with the accompanying drawings in which:

Figure 1 is an elevational view showing a hair cutting or trimming comb constructed according to my invention;

Figure 2 is an end view thereof looking in the direction of the arrow 2—2 on Figure 1;

Figures 3 and 4 are vertical sections taken through the device of Figure 1 and indicated by the lines 3—3 and 4—4 on Figure 1;

Figure 5 is a plan section indicated by the line 5—5 on Figure 1;

Figure 6 is a view similar to Figure 1 but showing a modified construction and as partly broken away in order to show the various parts of the device;

Figure 7 is a vertical section indicated by the line 7—7 on Figure 6;

Figure 8 is a perspective view of the construction of Figures 6 and 7;

Figure 9 is a view showing the form of blade which is adapted for use in the device shown in Figures 6 and 8;

Figure 10 is a fragmentary view showing a detent device for use with the ejector member; and

Figure 11 is a perspective view showing still another form of blade and ejector member therefor.

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Referring to the drawings more in detail, and particularly to the modification of Figures 1 through 5, the device shown therein comprises a comb part having a back 10 with teeth 12 extending therefrom in the usual manner.

The comb is preferably secured to a handle 14 in any suitable manner, and it will be understood that the comb and handle could be integrally molded from plastic material, cast of metal as by die casting, or otherwise formed by any suitable and well known manufacturing process, although, as shown, the handle 14 is secured to the comb by means of the screws 16.

Extending lengthwise of the comb there is a cavity consisting of a relatively thin part 18 and which extends part way down into the teeth 12, and the enlarged part 20 extending along the back part 10 of the comb.

The configuration of this cavity is best seen in Figure 3, and it will be seen to form a shouldered cavity adapted for receiving a cutting blade 22 having a clip 24 clamped to the back edge thereof. The blade part of the blade 22 is receivable in the part 18 of the cavity and the enlarged back part is receivable in the enlarged part 20 of the cavity.

The enlarged back part of the blade in being received in the large part of the cavity is operable to support the blade so that the sharpened edge thereof is spaced from the bottom part of the smaller part of the cavity. This prevents the edge of the blade from being dulled by engagement with any part of the comb.

As shown the upper part of the cavity is closed by a cover member 26, but it will be understood that for the purposes of this invention the cavity is to be considered open at one end only, and that suitable molding and casting processes could be followed which would result in the cover member 26 being formed integrally with the back part of the comb.

For retaining the blade 22 in the cavity there may be provided a pin 28 which is positioned in a bore 30 in the end of the comb adjacent the open end of the cavity, so that after the blade is placed in the cavity the pin 28 can be placed in the bore 30 and positively prevent the blade from coming out.

According to this invention there is preferably a slot 32 in the back part 10 of the comb which opens into the enlarged part 20 of the blade receiving cavity. Slidably mounted in this slot 32 is an ejector member 34 having a part 36 lying

in the enlarged part **20** of the blade cavity. The outer part of the ejector member **34** may be knurled as at **38**, and it will be evident that when the pin **28** is removed from its bore **30**, the said ejector member can be moved as by the thumb and the blade **22** ejected from its cavity. Upon retraction of the ejector member **34** a new blade can be inserted in the cavity and the pin replaced to lock it in position.

It will also be evident that if so desired the ejector member **34** could include a pin, hook, or other engaging device for positively engaging an aperture or notch in the blade to be used and be employed for drawing the blade into the cavity.

Furthermore, rather than employing the pin **28** for retaining the blade in position, the ejector member **34** could include detent means for retaining it in its retracted position, and this, in combination with the aforementioned blade engaging means would suffice for retaining the blade in position in the comb.

Turning now to the embodiment of this invention shown in Figures 6 through 9, this form of the trimming comb is for the purpose of permitting the use of a flat blade rather than one having a thickened back part. The blade to be used in this modification, due to its simpler construction, is less expensive than the blade employed in connection with the first modification.

In general, the comb construction of Figures 6 through 9 is the same as that shown in Figures 1 through 5, and similar numerals are employed but with the addition of a subscript "*a*."

In these figures the part which is slidable in the enlarged part **20***a* of the blade cavity is a block **50** which has a shouldered slot **52** extending therethrough and adapted for registration with the smaller portion **18** of the blade receiving slot.

Receivable in the shouldered slot **52** is a shouldered blade **54**. It will be apparent that the block **50** is a carrier for the flat shouldered blade. Insertion of the block **50** and blade **54** in the blade receiving cavity is identical with the insertion of the blade **22** of the first modification of this invention. This modification, however, employs a different locking means for retaining the block and blade in position.

As shown the end of the block **50** which is nearest the handle of the comb has a shoulder screw **56** therein that extends through the slot **32***a* in the back of the comb. When this screw **56** is tightened the block **50** is clamped in position in the comb and thus retains the blade in position. Loosening of the screw permits the block to be moved lengthwise of the comb to a position where the blade can be removed therefrom. At this time the screw **56** performs a function corresponding to that of the ejector **34** of Figures 1 through 5.

It will be evident that all of the advantages set forth in connection with the modification of Figures 1 through 5 obtain for the modification of Figures 6 through 9, including the fact that the blade is fully protected at all times and will cut only articles introduced between the teeth of the comb, the ejecting means for the blade, and the fact that the comb can be used in a normal manner when the blade is removed therefrom.

As was explained in connection with the modification of Figures 1 through 5, the blade retaining means of the second modification, which takes the form of the shouldered clamping screw **56**, could be any other suitable sort of detent means desired without departing from the spirit of this invention.

In Figure 10 there is shown an arrangement wherein the ejector member **38***b* has a pair of notches on one side as at **60** and adapted for engagement with these notches is a detent spring **62**. This arrangement provides for means for retaining the ejector **38***b* in position on the comb and, when the said ejector is fastened to a blade, provides for two axially spaced positions for the said blade. This permits adjustment of the blade along its length to bring the part thereof normally surrounded by the teeth of the comb into the space between the said teeth so as to be effective. This materally increases the life of the blade by utilizing all of the cutting edge thereof rather than only a part.

Figure 11 illustrates a modified arrangement wherein the blade **22***c* has an aperture as at **64** in one or both ends thereof. The ejector member **38***c* for use with the blade **22***c* includes a hook part **66** adapted for engagement with one of the apertures **64** so that the blade can be moved by the ejector in both directions.

It will be understood that this invention is susceptible to modification in order to adapt it to different usages and conditions and, accordingly, it is desired to comprehend such modifications within this invention as may fall within the scope of the appended claim.

I claim:

A hair-trimming comb, comprising a comb body having an integral one-piece back part with teeth extending from one edge thereof, an elongated handle extending outwardly from one end of said back part and having a recessed portion therein, said one end of said back part being releasably secured in said recess, said back part having a first channel extending inwardly thereof from the edge opposite to that having said teeth, said channel being open along the said opposite edge the full length of said channel, a second channel in said back part of narrower width than said first channel and extending inwardly of said back part from the bottom of said first channel whereby to form a shoulder at the bottom of said first channel and extending into said teeth partially through the length thereof, a channel-shaped cap member positioned on the said opposite edge of said back part and extending substantially along the full length thereof for closing the open side of said first channel, said channels receiving a trimming blade having a wide portion positioned in said first channel and a narrow cutting blade positioned in said second channel, a longitudinally extending slot in one side of said back part parallel to the said opposite edge, said slot connecting with said first channel and said recess and extending substantially along the full length of said channel, an ejector member slidably positioned in said slot and comprising a neck portion in said slot, a first enlargement at one end of said neck portion and being positioned in said first channel, said enlargement abutting against one end of said trimming blade positioned therein and slidable in the said first channel to fully eject the trimming blade from said channels, a second enlargement at the opposite end of said neck portion positioned on the outside of said back part and manually engageable for slidably operating said ejector member, said ejector member resting in said recessed portion when said blade is positioned in said channels, and a locking pin removably posi-

tioned in an opening in said back part at the opposite end of said first channel to retain a trimming blade in the said channels.

HERMAN LESLIE WIETZEL.


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