Nov. 2, 1937. J. W. DILKS 2,098,180

HAIR CLIPPER

Filed Dec. 14, 1936

Fig. 1

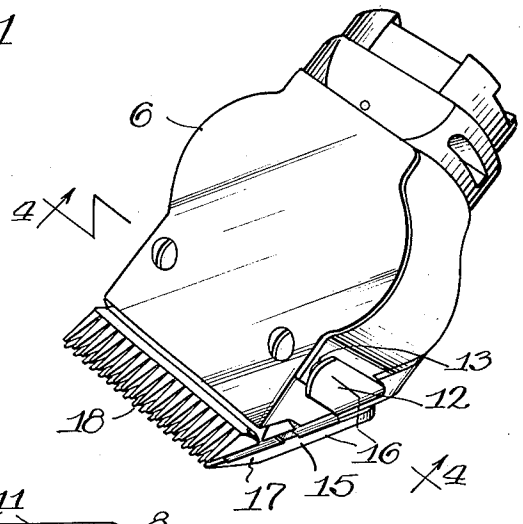


Fig. 5

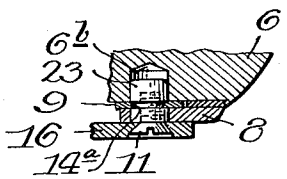
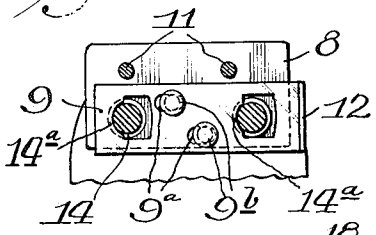


Fig. 6



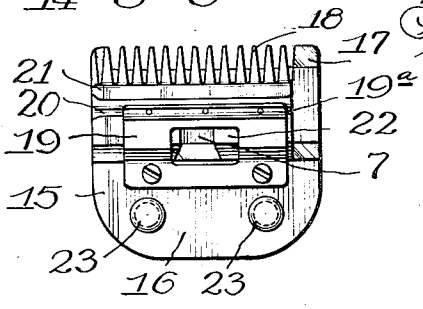


Fig. 3

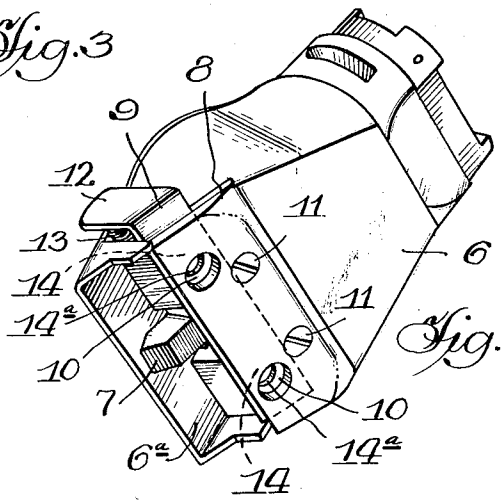
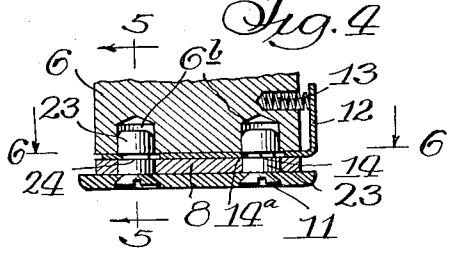


Fig. 2

Fig. 4



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UNITED STATES PATENT OFFICE

2,098,180

HAIR CLIPPER

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Application December 14, 1936, Serial No. 115,655

9 Claims. (Cl. 30—221)

This invention relates to hair clippers and more particularly to a motor-driven hair clipping assembly in which the cutting mechanism consists of a fixed cutting blade and a movable blade vibrating rapidly across the fixed blade.

The improved assembly comprises a clipper head housing, a motor, a cutting blade vibrating shaft, and cutting mechanism detachably secured to the clipper head. A feature of the invention is that the cutting mechanism may be readily detached from the clipper head for cleansing and sterilizing purposes. In clipping devices wherein the clipping mechanism and the casing containing the motor are integrally formed, it frequently happens that the motor is disabled during the cleansing operation. This possibility is eliminated in the improved assembly.

A further advantage of this device is that the movable cutting blade may be readily removed from the cutting mechanism. It is necessary for a well equipped barber shop to maintain a stock of clippers having movable blades of various sizes. This improvement eliminates the necessity of having more than one clipper, since movable blades of various sizes may be readily inserted in the cutting mechanism.

A further feature is that the movable cutting blade may be easily removed for sharpening.

An object of the invention is to devise a clipper assembly in which the clipping mechanism can be readily detached from the clipper casing.

A further object of this invention is to devise an assembly in which the movable cutting blade may be readily removed from the cutting mechanism.

A further object of this invention is to devise an assembly for carrying out the above objects in a simple manner, said assembly to be cheap, easily detached, having but few parts and susceptible to convenient and precise manipulation.

My invention will be readily understood from the following description in conjunction with the accompanying drawing, wherein a preferred embodiment of my invention is shown, in which:

Figure 1 is a perspective view of the improved hair clipper assembly;

Fig. 2 is a rear perspective view of the assembly with the clipping mechanism removed;

Fig. 3 is a rear elevation of the cutting mechanism;

Fig. 4 is a fragmentary horizontal sectional view along lines 4—4 of Figure 1;

Fig. 5 is a fragmentary vertical sectional view along lines 5—5 of Fig. 4; and

Fig. 6 is a fragmentary sectional view along lines 6—6 of Fig. 4.

Referring to the drawing, the numeral 6 indicates a clipper casing of substantially conventional outline having a face 6a provided with bores 6b adapted to support clipping mechanism hereinafter described. The casing 6 houses a motor (not shown) adapted to rapidly vibrate a bar 7, centrally disposed within said casing and protruding forwardly therefrom. A pair of plates 8 and 9 are disposed one above the other across a portion of the front face of the clipper head 6. The uppermost plate 8 is provided with a pair of spaced apertures 10 and is fixedly secured to the head 6, in any suitable manner, for example by screws 11. The underlying plate 9 has a right angled portion 12 extending laterally along one side of the casing 6. A spring 13 disposed within the side of the casing and extending outwardly therefrom bears against the flange-portion 12, yieldingly urging said flange-portion away from the side wall of the casing. The plate 9 is provided with slots 9a longitudinal thereto housing rivets 9b slidably uniting plates 8 and 9 and permitting limited movement of plate 9 across the face 6a of the casing. Portions of the plate 9 are cut away forming rounded apertures 14 and shoulders 14a. The openings 14 are spaced to be in alignment with the apertures 11 of plate 8 when flange 12 is pressed inwardly and plate 9 is in its innermost position.

Detachably secured to the face of the head 6 is a cutting lip 15 comprising a body portion 16 terminating in a cutting blade 17 having a number of sharpened cutting teeth 18. Fixedly secured to the upper side of the body portion 16 is a strong steel clip 19 having a ridged portion 19a adapted to engage a groove 20 extending longitudinally along the entire length of a movable cutting blade 21 and to retain the movable blade in operative relationship to the blade 17. The movable clipper blade 21 is shorter in length than the fixed blade 17 and is provided with a cut-out portion 22 along the rear thereof and having a greater cross section than the bar 7. A central portion 19a of the clip 19 is likewise cut away to permit the bar to pass therethrough.

It is readily apparent that when the cutting mechanism is secured to the head, the bar 7 fits into the cut-out portion 22 of the movable clipper blade and is adapted to rapidly move the blade 21 back and forth across the fixed blade 17 upon vibration of the bar 7. The movable blade 21 may be easily removed from the clip by detaching the clipping mechanism from its head, as

hereinafter described, and forcibly sliding the movable blade away from the clip 19.

Disposed on the upper face of the body portion 16 of the cutting lip are a pair of spaced lugs 23 having annular grooves 24. The lugs 23 are positioned to fit loosely into the apertures 10 and 14 of the plates 8 and 9, respectively, and the bores 6b in the face of the casing when the movable plate 9 is pressed inwardly. Upon removal of the tension on the spring 13, plate 9 is urged outwardly, and the shoulders 14a adjoining apertures 14 engage the annular grooves 24 of the lugs, firmly retaining the cutting mechanism 15 in an operative position. Thus it will be seen that the cutting mechanism may readily be removed from the head by pressing the flange 12 inwardly thereby disengaging the shoulders 14a from the grooves 24.

Having thus described my invention and illustrated its use, what I claim as new and desire to secure by Letters Patent is:

1. A clipper assembly comprising a clipper head, clipper driving mechanism carried in said head, a cutting lip including a clipper blade forming a part thereof and a movable blade cooperating with the first mentioned blade, and means for detachably securing said head and lip comprising grooved members depending from said lip, an apertured member on said head to receive said lugs and a manually operable spring pressed member slidably mounted on said head yieldingly engaging said grooved members.

2. A hair clipper assembly comprising a clipper head, clipper driving mechanism carried in said head, a spring pressed plate movably mounted on said head having a plurality of spaced apertures, a second plate rigidly mounted above said first mentioned plate and having a plurality of apertures in alignment with the first mentioned apertures, a cutting lip terminating in a fixed blade having cutting teeth, a movable blade slidable back and forth across said fixed blade, means secured to said fixed blade to hold said movable blade in operable relation to said fixed blade, and a plurality of lugs extending upwardly from the rear of said lip equipped with circumferential grooves adapted to be engaged by said spring pressed plate to secure said lip to said head.

3. A clipper assembly comprising a casing, cutting driving mechanism carried by said head, cutting means including a fixed blade and a movable blade cooperating with said fixed blade, and means for detachably uniting said casing and cutting means comprising grooved members secured to said cutting means and a manually operable spring pressed member slidably mounted on said casing yieldingly engaging said members.

4. A hair clipper assembly comprising a clipper head, cutting driving mechanism carried by said head, cutting means including a fixed blade, a movable blade and spring means detachably retaining said fixed blade and said movable blade in operative relationship, and means for detachably uniting said clipper head and cutting means comprising grooved members on said cutting means, a member slidably mounted on said clipper head to engage said grooved members, and spring means carried in said clipper head yieldingly urging said slidably mounted member away from said clipper head.

5. A hair clipper assembly comprising a clipper head, cutting driving mechanism carried by said head, cutting means including a fixed blade and a movable blade cooperating therewith, and means for detachably securing said head and cutting means comprising a plurality of spaced lugs extending upwardly from said cutting means provided with annular grooves, a member slidably mounted on said head having centrally disposed shoulders adapted to engage said annular grooves and terminating in an angled portion extending along a side of said head, and spring means disposed in said head bearing against said angled portion and yieldingly holding said shoulder portions in engagement with said annular grooves.

6. A clipper assembly comprising a casing head, cutting driving mechanism carried by said casing head, cutting means including a fixed blade and a movable blade cooperating with said fixed blade, and means for detachably uniting said casing and said cutting means comprising a pair of lugs on said cutting means having annular grooves, a member secured to said head and having openings to receive said lugs, a second member slidably mounted below said first mentioned member having portions adapted to engage said annular grooves and terminating in an angled portion extending along the side of said casing, and spring means disposed in said casing bearing against said angled portion and yieldingly urging said angled portion away from said casing.

7. A clipper assembly comprising a casing, cutting driving mechanism carried by said head, cutting means including a fixed blade, a movable blade and means detachably retaining said fixed blade and movable blade in operative position, and means for detachably uniting said casing and said cutting means comprising a plurality of lugs extending upwardly from said cutting means, and a manually operable spring pressed member slidably mounted on said casing adapted to releasably engage said lugs.

8. A hair clipper comprising a clipper head, a cutter assembly, driving mechanism carried by said body adapted to actuate said cutter assembly, and means for detachably securing said head and cutter assembly, comprising a plurality of spaced lugs extending from said assembly, a member slidably mounted on said head having shoulder portions adapted to engage said lugs, said member terminating in an angled portion extending along a side of said head, and spring means disposed in said head bearing against said angled portion and yieldingly holding said shoulder portions in engagement with said lugs.

9. A hair clipper comprising a head, a cutter assembly, driving mechanism carried by said head adapted to actuate said cutter assembly, and means for detachably uniting said head and said cutter assembly comprising lugs carried on said assembly, a member secured to said head and having openings to receive said lugs, a second member slidably mounted below said first mentioned member having portions adapted to engage said lugs, and spring means disposed in said casing engaging said second mentioned member and yieldingly urging said member into engagement with said lugs.

JAMES W. DILKS.