Sept. 15, 1931. F. F. REICH 1,823,764

HAIR CLIPPER

Filed Jan. 27, 1931

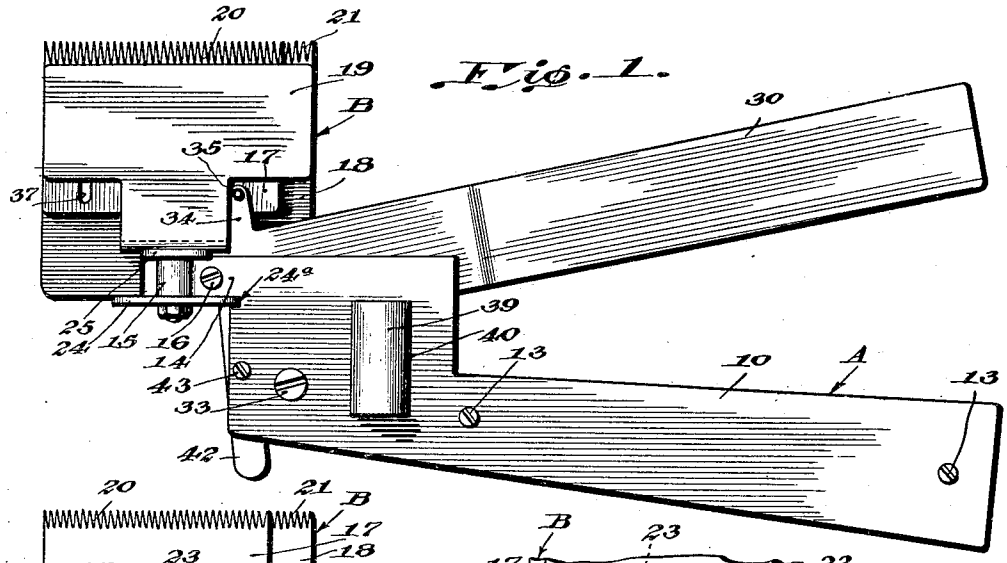


Fig. 1.

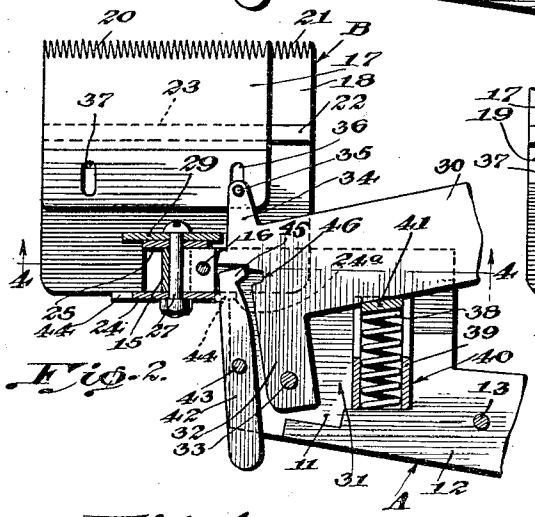


Fig. 2.

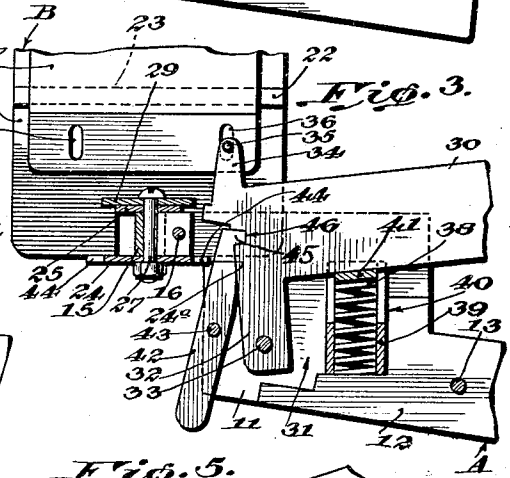


Fig. 3.

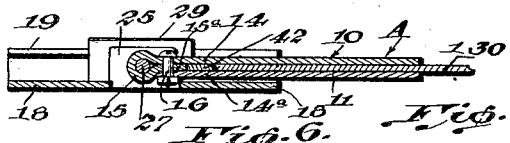


Fig. 4.

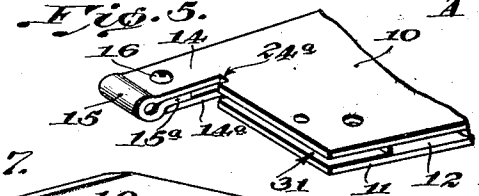


Fig. 5.



Fig. 6.



Fig. 7.

Fig. 8.

Fig. 9.

WITNESS

Laurence O. Hankin

INVENTOR

Frank F. Reich,

BY

Munn & Co.

ATTORNEY

Patented Sept. 15, 1931 1,823,764

UNITED STATES PATENT OFFICE

FRANK F. REICH, OF RAPID CITY, SOUTH DAKOTA

HAIR CLIPPER

Application filed January 27, 1931. Serial No. 511,599.

My invention relates to improvements in hair clippers and an important object of the invention is to provide a clipper which is equally well adapted for use by a person in trimming his own hair as well as for use by a person in trimming the hair of another.

It is another object of the invention to provide a clipper which will be well adapted and which may be conveniently used in either hand for trimming hair from the back of the neck, around the ears, or under the arms of the user.

It is also a very important object of the invention to provide a hair clipper which may be assembled almost entirely from metal stampings without sacrificing in any degree the strength, efficiency or durability of the device, thereby permitting the same to be manufactured at a very low cost.

A further important object of the invention is to provide a clipper in which the operating handles extend laterally of rather than rearwardly of the clipper body as is now the custom.

A still further object is to provide a clipper with means by which the operating handles may be adjusted relative to the body of the clipper so that the clipper may be used with equal facility in either the right or left hand of the operator or if used in only one hand will be readily adapted to cutting in different directions and at different angles without requiring the assumption by the user of any uncomfortable or tiring positions.

A still further object of the invention is to provide a clipper carrying into effect all of the objects and advantages aforesaid and which will still be exceedingly simple in operation and composed of a minimum number of relatively movable parts and one which, therefore, is not likely to become easily broken or out of order.

Other objects and advantages, not specifically mentioned, will become apparent during the course of the following detailed description of the invention when read in conjunction with the accompanying drawings which form a part of this specification and in which;

Figure 1 is a top plan view of my invention;

Fig. 2 is a partial view similar to Fig. 1 with some of the parts removed and others in section and showing the handle locked in one position and ready for operation;

Fig. 3 is a view similar to Fig. 2, showing the handle unlocked and the operating lever locked in position preparatory to a reversal of the position of the handle;

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 1;

Fig. 5 is a perspective view of the forward portion of the handle;

Fig. 6 is a perspective view of the guard shoe;

Fig. 7 is a perspective view of the guard plate;

Fig. 8 is a perspective view of the forward portion of the operating lever; and

Fig. 9 is a perspective view of a modified form of cutter operating connection.

Referring now to the drawings in detail, wherein like numerals refer to like parts throughout the same, A indicates the main handle portion of the device. The handle A is preferable comprised of two substantially identical plates 10 and 11 and a spacer plate 12, the three plates being bound together by suitable fastenings 13. The plate 10 at one end is provided with a longitudinally extending projection or extension 14, the end of which is bent back upon itself to form a cylindrical bearing sleeve or bead 15 and the plate 11 is also provided with an extension 14*a* alined with the extension 14. The bent back portion 15*a* which is left after the formation of the sleeve 15 acts as a spacer plate which combines with the plate 12 in maintaining the plates 10 and 11 in spaced relation. A suitable fastening 16 secures the parts 14, 14*a*, and 15*a* together.

The clipper body B is comprised of a reciprocating cutter blade 17, a guard shoe or main body portion 18 and a top guard plate 19. The reciprocating cutter blade 17 is disposed between the guard shoe 18 and the guard plate 19 and the blade 17 and

shoe 18 are provided with cooperating serrated cutting edges 20 and 21 respectively, such cutting edges being common and well known in the art. The upper surface of the body portion 18 is provided with an upstanding rib or tongue 22 which extends parallel to the cutting edge 21 thereof. The blade 17 is provided with an alined groove or channel 23 for the reception of said tongue thereby forming a guide for said blade during its reciprocal motion.

The guard shoe or body portion 18 extends rearwardly beyond the rear edge of the blade 17 and has the central portion of the rear edge thereof turned up to produce an upstanding lip or projection 24. A second lip or projection 25 is formed spaced from and parallel with the lip 25. The lips 24 and 25 are spaced apart approximately the length of the sleeve 15 and are provided with alined openings 26. The sleeve 15 is disposed between the lips 24 and 25 with the bore of said sleeve in alinement with the openings 26 and a headed pivot bolt 27 is passed through the openings and sleeve, thereby pivotally connecting the handle A to the body B.

In order to brace the handle A against lateral strains during the clipping operation, the forward edge thereof is provided with a recess 24*a* at the base of the extension 14. The ends of the flange 24 are adapted to be received within this recess when the clipper body and handle are locked in operative relation.

The guard plate 19 terminates in a rearwardly extending portion 28 of reduced width and which in turn terminates in a downwardly extending slotted flange 29. As shown in Figs. 2 and 3, the bolt 27 passes through the slot in the flange 29 and the head of said bolt serves to clamp the flange against the lip 25 thereby securing the guard plate in position.

For the purpose of reciprocating the cutter blade 17, a pivoted lever 30 is mounted upon the main handle portion A. The forward portion of the spacer plate 12 is cut away as clearly shown in Figs. 2 and 3 to produce a clear space 31 between the plates 10 and 11. The forward end of the lever 30 is disposed in the space 31 between the plates 10 and 11 and is provided with a laterally offset portion 32 through which the pivot bolt 33 for said lever passes. The forward end of the lever 30 is also provided with a second laterally offset portion 34 opposite the portion 32 and which extends over the path of the cutter 17. The portion 34 is provided with a pin 35 which extends above and below the surfaces of said extension. The pin 35 is normally disposed in one of a pair of slots 36 and 37 in the cutter blade and located one adjacent either side edge thereof. A compression spring 38, carried within a cylindrical housing 39 disposed in a recess 40 in the plates 10 and 11 serves to normally force the free end of the lever 30 away from the handle A. One end of the spring bears against the bottom wall of the recess 40 and the other end of the spring bears against a disk 41 which has a sliding engagement against the adjacent edge of the lever 30.

It will be readily understood that a reciprocation of the free end of the lever 30 toward and from the handle A will result in oscillation of the pin 35 about the pivot 33. The pin 35 being disposed in the slot 36, the cutter blade 17 would thus be reciprocated back and forth to effect the clipping operation.

As before stated, means are provided whereby the handle may be locked in operative position to either side of the clipper body B. That is the handle may be swung in an arc of 180 degrees from the position shown in Figs. 1, 2 and 3 so as to dispose the pin 35 in the slot 37 and permit operation of the clipper with the handle so disposed. In order to lock the handle A and lever 30 in either operative position, a pivoted locking lever 42 is pivoted between the plates 10 and 11 adjacent the forward edge thereof by means of a bolt 43. In Fig. 2 the locking lever 42 is shown with its forward end disposed in one of a pair of horizontal slots 44 in either side edge of the flange 24, thereby locking the handle and clipper body in operative relation to each other. It will be understood that when the handle is swung to operative position on the opposite side the locking lever 42 will engage in the other recess 44.

Means are also provided for locking the lever 30 in partially depressed position during the flopping over operation of the handle 30. To accomplish this, the locking lever 42 is provided at its inner end with a laterally offset trigger portion or projection 45 which is adapted to be received in a recess 46 in the forward edge of the lever 30, as shown in Fig. 3, when it is desired to lock the lever against outward movement.

In the modification shown in Fig. 9, the blade 17 is provided with open ended slots 47 in place of the slots 36 and 37 shown in the other figures. The slot 47 cooperates with a rounded bearing head 48 formed on the end of the lateral extension 34 of the handle 30 in accomplishing reciprocation of the cutter blade.

Although a preferred embodiment of the invention has been shown and described, it will be understood that various changes in the details of construction may be made without departing from the spirit of the invention as defined by the appended claims.

I claim:

1. In a clipper, a handle having a sleeve

carried at the forward end thereof, a clipper head including a guard shoe, spaced upstanding flanges formed rearwardly of said shoe, a pivot bolt extending between said flanges and through said sleeve whereby to pivotally secure said head to said handle, horizontal slots formed at either side of one of said flanges, and a locking detent carried by said handle to engage in a selected one of said recesses whereby to lock said head in fixed relation to said handle.

2. In a clipper, a handle, a reversible cutter head mounted on said handle, means for locking said cutter head in reverse positions relative to said handle, a reciprocating cutter blade carried by said head and having a slot formed adjacent either end thereof, said handle including an operating lever having a portion adapted to rest in one of said slots when said head is locked in either of said reverse positions, and operative to effect reciprocation of said blade upon operation of said lever when said head is locked in either reverse position.

3. In a clipper, a handle including a main portion and a pivoted operating lever mounted thereon, a cutter head pivotally mounted on the forward end of said main portion, means for locking said head in reverse positions and in substantially the same plane as said main portion, said head including a reciprocating cutter blade having a pin slot adjacent either end thereof, said operating lever being provided with a pin having a portion extending from either face of said lever and adapted to engage in one of said slots when said cutter is locked in either reverse position whereby to effect reciprocation of said blade upon operation of said lever.

4. In a clipper, a handle including a main portion and a pivoted operating lever mounted thereon, a cutter head pivotally mounted on the forward end of said main portion, means for locking said head in reverse positions and in substantially the same plane as said main portion, said head including a reciprocating cutter blade having a pin slot adjacent either end thereof, said operating lever being provided with a pin having a portion extending from either face of said lever and adapted to engage in one of said slots when said cutter is locked in either reverse position whereby to effect reciprocation of said blade upon operation of said lever and means for locking said operating lever against movement in one direction during reversal of said cutter head.

5. In a clipper, a handle including a main portion and a pivoted operating lever mounted thereon, a cutter head pivotally mounted on the forward end of said main portion, means for locking said head in reverse positions and in substantially the same plane as said main portion, said head including a reciprocating cutter blade having a pin slot adjacent either end thereof, said operating lever being provided with a pin having a portion extending from either face of said lever and adapted to engage in one of said slots when said cutter is locked in either reverse position whereby to effect reciprocation of said blade upon operation of said lever and means for locking said operating lever against movement in one direction during reversal of said cutter head, said means including a pivoted trigger member mounted forwardly of said operating lever on said main handle portion, said operating lever having a recess in its forward face for the reception of said trigger member.

6. In a clipper, a handle including a main body portion and a pivoted operating lever, a spring carried by said body portion and normally urging said lever to spread position, a sleeve formed with said body portion at the forward end thereof, a clipper head including a guard shoe, spaced upstanding flanges formed rearwardly of said shoe and receiving said sleeve between them, a pivot bolt extending between said flanges and through said sleeve whereby to pivotally secure said head to said handle, horizontal slots formed in either edge of one of said flanges, a locking detent carried by said handle to engage in a selected one of said slots whereby to lock said head in fixed relation to said handle, a reciprocating cutter blade carried by said head and having a slot adjacent either end thereof, a cooperating portion on said operating lever to engage in one of said slots when said cutter is locked in either reverse position, the forward edge of said operating lever having a recess formed therein and said detent having a trigger portion adapted to engage in said recess upon unlocking of said head, whereby to lock said lever in partially depressed position during the reversal of said head.

7. In a clipper, a handle including a main portion and a pivoted operating lever mounted thereon, a cutter head pivotally mounted on the forward end of said main portion, means for locking said head in reverse positions relative to said main portion, said head including a reciprocating cutter blade having a recess adjacent either end thereof, said operating lever being provided with a projection adapted to engage in one of said recesses when said cutter is locked in either reverse position whereby to effect reciprocation of said blade upon operation of said lever.

8. In a clipper, a handle including a main portion and a pivoted operating lever mounted thereon, a cutter head pivotally mounted on the forward end of said main portion, means for locking said head in re-

verse positions relative to said main portion, said head including a reciprocating cutter blade having a recess adjacent either end thereof, said operating lever being provided with a projection adapted to engage in one of said recesses when said cutter is locked in either reverse position whereby to effect reciprocation of said blade upon operation of said lever, and means for locking said operating lever against movement in one direction during reversal of said cutter head.

9. In a clipper, a handle including a main portion and a pivoted operating lever mounted thereon, a cutter head pivotally mounted on the forward end of said main portion, means for locking said head in reverse positions relative to said main portion, said head including a reciprocating cutter blade having a recess adjacent either end thereof, said operating lever being provided with a projection adapted to engage in one of said recesses when said cutter is locked in either reverse position whereby to effect reciprocation of said blade upon operation of said lever and means for locking said operating lever against movement in one direction during reversal of said cutter head, said means including a pivoted trigger member mounted forwardly of said operating lever on said main handle portion, said operating lever having a recess in its forward face for the reception of said trigger member.

10. In a clipper, a handle including a main body portion and a pivoted operating lever, a spring carried by said body portion and normally urging said lever to spread position, a sleeve formed with said body portion at the forward end thereof, a clipper head including a guard shoe, spaced upstanding flanges formed rearwardly of said shoe and receiving said sleeve between them, a pivot bolt extending between said flanges and through said sleeve whereby to pivotally secure said head to said handle, horizontal slots formed in either edge of one of said flanges, a locking detent carried by said handle to engage in a selected one of said slots whereby to lock said head in fixed relation to said handle, a reciprocating cutter blade carried by said head, a connection between said blade and said operating lever, the forward edge of said operating lever having a recess formed therein and said detent having a trigger portion adapted to engage in said recess upon unlocking of said head, whereby to lock said lever in partially depressed position during the reversal of said head.

11. In a clipper, a handle including a main portion and a pivoted operating lever mounted thereon, a cutter head pivotally mounted on the forward end of the main portion, means for locking said head in reverse positions relative to said main portion, said head including a reciprocating cutter blade, an operating connection between said operating lever and said reciprocating blade for effecting reciprocation of said blade upon operation of said lever, and means for locking said operating lever against movement in one direction during reversal of said cutter head, said means including a pivoted trigger member mounted forwardly of said operating lever on said main handle portion, said operating lever having a recess in its forward face for the reception of said trigger member.

12. In a clipper, a handle, including a main handle portion and an operating lever, a clipper head pivotally carried by said main handle portion, means for adjusting said clipper head and locking the same in a plurality of fixed positions relative to said handle, said head including a reciprocating cutter blade having a pin slot adjacent either end thereof, said operating lever being provided with a pin extended from either face thereof and adapted to engage in one of said slots when said head is locked in one of its positions of adjustment whereby to effect reciprocation of said blade upon operation of said lever.

FRANK F. REICH.