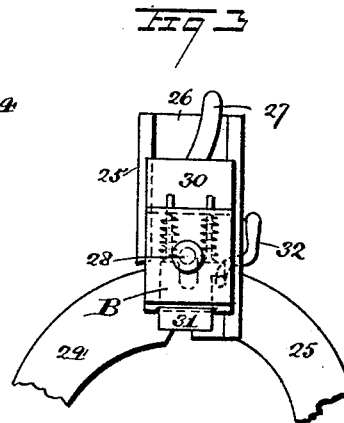
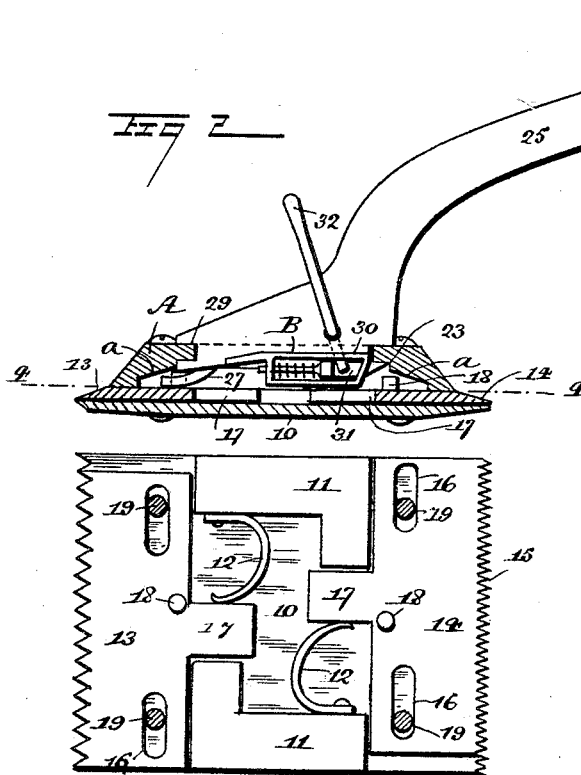
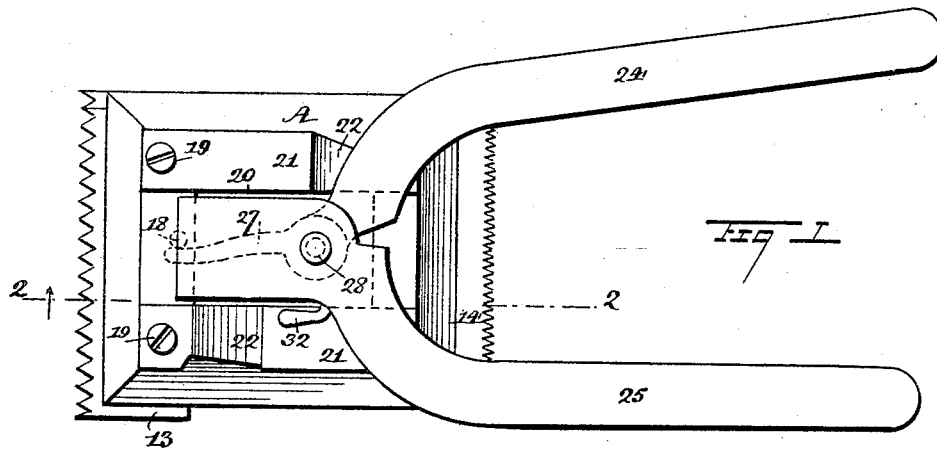


(No Model.)

W. R. BONHAM.
HAIR CLIPPER.

No. 458,940.

Patented Sept. 1, 1891.



WITNESSES:

H. Walker
C. Sedgwick

Fig 4

INVENTOR:

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UNITED STATES PATENT OFFICE.

WALTER R. BONHAM, OF ST. PAUL, MINNESOTA.

HAIR-CLIPPER.

SPECIFICATION forming part of Letters Patent No. 458,940, dated September 1, 1891.

Application filed March 6, 1891. Serial No. 383,997. (No model.)

To all whom it may concern:

Be it known that I, WALTER R. BONHAM, of St. Paul, in the county of Ramsey and State of Minnesota, have invented a new and useful Improvement in Hair-Clippers, of which the following is a full, clear, and exact description.

My invention relates to an improvement in hair-clippers, and has for its object to provide such an implement with graded cutters located at opposite ends, and with a reversible handle, whereby a No. 1 and a No. 0 clipper are combined in a single implement; and a further object of the invention is to provide a means whereby the handle may be conveniently and expeditiously attached to or detached from the body of the implement.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the implement. Fig. 2 is a longitudinal section on the line 2 2 of Fig. 1. Fig. 3 is a bottom plan view of the handle detached, and Fig. 4 is a horizontal section taken on the line 4 4 of Fig. 2.

The bottom plate 10 of the implement is upwardly beveled upon its lower face at each end, but the beveled surface at one end is thicker than that of the opposite end, as is shown in Fig. 2, and in each end of the bottom plate 10 the usual guard-teeth are constructed.

At each side of the bottom plate upon its upper surface an angular or L-shaped stop-lug 11 is located. The lugs are preferably formed integral with the plate at the longitudinal center thereof, the outer edges of the lugs being flush with the outer side edges of the plate, and the said lugs are oppositely placed, as illustrated in Fig. 4—that is to say, the end of the short member of one lug faces the inner side of the long member of the opposite lug—and to the inner side of the longer member of each lug, near the end of the said member, one end of a spring 12 is rigidly secured.

The cutters 13 and 14 are of like construction

and comprise a body-section essentially rectangular in general contour, having cutting-teeth 15, formed in the outer side edge and elongated openings 16, produced longitudinally near the inner side edge. The cutters are completed by the addition of a horizontal tongue 17, which is integral with the central portion of the inner edge of the body-section, the tongue being located at a right angle to the body-section and the top and bottom surfaces of the tongue being flush with the corresponding faces of the said body-section. A pin 18 is secured in the upper face of the body-section of each cutter 13 and 14, the said pins being adjacent to the tongues; but the pin of the cutter 13 is located upon one side of its tongue, and the pin of the cutter 14 upon the opposite side of the tongue integral therewith, as is best shown in Fig. 4. The tongues of the cutters extend longitudinally across the bottom plate, between the lugs 11 thereof, and the free ends of the springs 12 have a bearing against the sides of the tongues. The body-sections of the cutters correspond in size to the sections of the bottom plate between the toothed ends and the opposing edges of the lugs 11, whereby the cutting-teeth of the cutters, when the latter are reciprocated, move over the guard-teeth of the bottom plate, and the cutters are guided in their lateral movements by bolts or pins 19, which pass through the elongated openings 16 of the cutters and engage with the bottom plate.

A cap A is made to cover the lugs 11 and the solid portions of the cutters. The cap is rectangular in general contour and is provided with a central rectangular opening 20, and at the sides of the opening 20, upon the upper face of the cap, ribs 21 are produced, the said ribs being provided with recesses 22 in opposite ends, as best shown in Fig. 1. In the bottom surface of the cap, at each end of the opening 20, a recess 23 is formed, producing thereby shoulders *a*, as is best shown in Fig. 2. The cap is secured in position by the bolts 19, which extend downward through apertures at the corners. The lugs 11 serve to prevent the cap from bearing upon the cutters, and thus the movements of the latter are not interfered with.

The handle comprises two pivoted members

24 and 25. The upper member 25 is provided in its under face at its lower end with a longitudinal channel 26, and the lower member 24 has integral with its lower end a horizontal finger 27. The finger of the lower member 24 has lateral movement in the channel 26 of the handle member 25, and the two members are connected by a pivot-bolt 28 or its equivalent. The finger 27 extends beyond the lower end of the member 25, and the said lower end of the member 25 of the handle has a transverse groove or recess 29 formed therein.

A latch B is secured upon the under face of the channeled section of the handle member 25. This latch comprises a casing 30, which is neatly fitted to the member 25, as shown in Fig. 2, and in the said casing a spring-pressed bolt 31 is located, the head of the bolt being beveled upon its under side and extending through the casing below the heel of the handle. The bolt is manipulated through the medium of a lever 32, fulcrumed in the upper section of the handle, the lower end of which lever engages a projection upon the bolt-head, as is illustrated in Figs. 2 and 3. The handle being removed from the body of the implement, it is expeditiously placed in position to use either the No. 0 or the No. 1 cutter by causing the recess or groove 29 in the toe of the handle to receive one end wall of the cap-opening 20. When the lower portion of the handle-toe engages with one of the shoulders *a* in the cap, the heel of the handle is pressed downward, whereupon the spring-controlled bolt will pass beneath the opposite end wall of the opening 20 and engage with the opposite shoulder *a*, as illustrated in Fig. 2. To remove the handle for the purpose of reversing it or for other purposes, the lever 32 is manipulated to force inward the bolt 31, and when said bolt is freed from engagement with the cap the heel of the handle may be lifted and the toe portion withdrawn from the body. The upper section of the member 25 of the handle is stationary when in position on the body, as it neatly fits between the ribs 21 of the cap, and the opposite member 24 of the handle may be pushed outward to manipulate the finger 27, by reason of the recesses 22 formed in the ribs 21.

In the operation of the implement when the right-hand member 24 of the handle is pressed in the direction of the stationary member 25 the finger 27, which normally engages with one of the cutter-pins 18, will move one cutter laterally against the tongue of its spring 12, and the teeth of the cutter passing over the guard-teeth of the bottom plate will cut the hair. Upon releasing the movable member 24 of the handle the spring

12 will return the cutter to its normal position, and the hair is severed upon the return movement also.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A hair-clipper comprising a bottom plate provided with parallel toothed edges, two separate and independent oppositely-reciprocating toothed cutters mounted on top of said bottom plate, and one of said cutters remaining stationary when the other is operated, and means for separately operating said cutters, substantially as set forth.

2. In a hair-clipper, the combination, with the body portion thereof, provided with guard teeth or fingers at opposite ends, the said teeth being of different thicknesses, and two separate and independent laterally-reciprocating cutters located over the guard-teeth, and springs pressing the two cutters in opposite directions, of a reversible handle, one member whereof is fixed and the other movable, the movable member being provided with a finger adapted to engage with either one of the cutters and impart movement thereto against the action of its spring, as and for the purpose specified.

3. In a hair-clipper, the combination, with a bottom plate having guard-teeth at each end, said teeth being of different thicknesses, two separate and independent spring-pressed cutters located above the guard-teeth, and a cap connected with the bottom plate covering the springs and partially covering the cutters, of a handle comprising a fixed and a movable member, pins projected upward from the cutters, and a finger extending horizontally from the movable handle member, the said finger being adapted for engagement with the pins of the cutters to operate either one of them, as and for the purpose specified.

4. In a hair-clipper, the combination, with a body-section provided with graded cutters at opposite ends, of a handle carrying the operative mechanism, and a latch mechanism for reversibly securing the handle to the body, as and for the purpose specified.

5. In a hair-clipper, the combination, with a cap-plate of the body-section, said cap-plate being provided with a central opening, and shoulders formed upon the under side of the cap at the ends of the opening, of a reversible handle provided with a groove at one end, a spring-latch upon its under surface, and a lever fulcrumed in the handle adapted to trip the bolt of the latch, as and for the purpose specified.

WALTER R. BONHAM.

Witnesses

C. J. HUMASON,
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