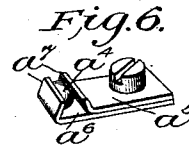
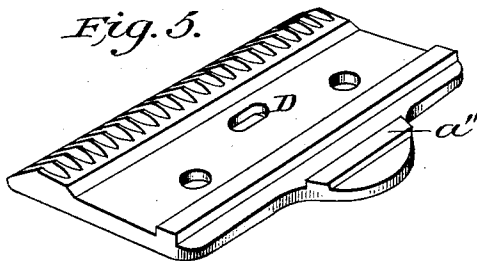
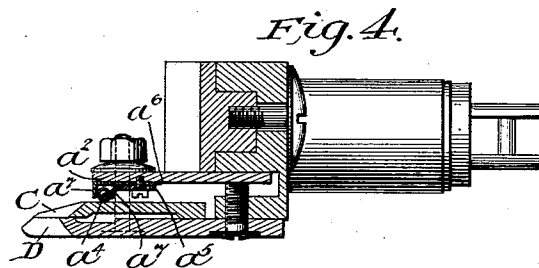
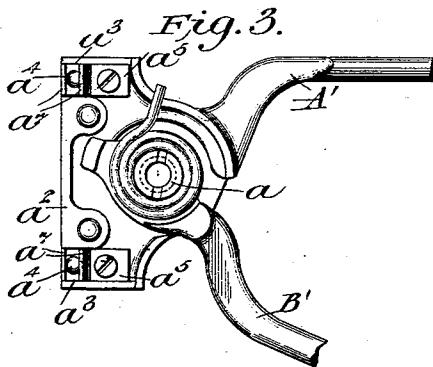
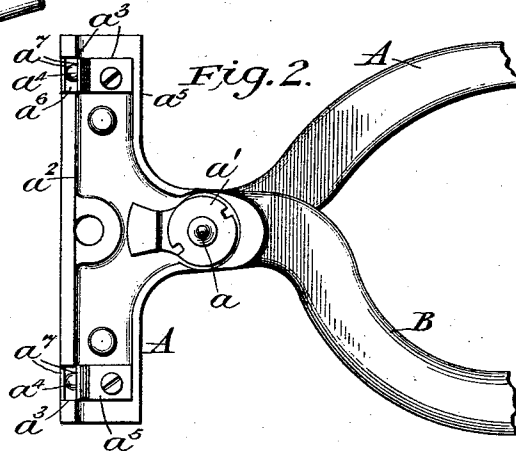
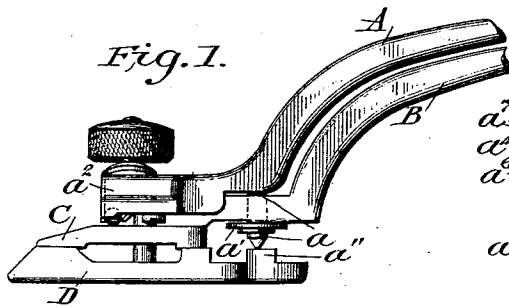


(No Model.)

J. K. PRIEST.
HAIR CLIPPER.

No. 572,027.

Patented Nov. 24, 1896.



Witnesses.
Gloverance
J. R. Clift

Inventor.
Joseph K. Priest
by his Atty
Mason Fennick & Lawrence

UNITED STATES PATENT OFFICE.

JOSEPH K. PRIEST, OF NASHUA, NEW HAMPSHIRE.

HAIR-CLIPPER.

SPECIFICATION forming part of Letters Patent No. 572,027, dated November 24, 1896.

Application filed March 17, 1896. Serial No. 583,609. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH K. PRIEST, a citizen of the United States, residing at Nashua, in the county of Hillsborough and State of New Hampshire, have invented certain new and useful Improvements in Hair-Clippers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in hair-clippers; and it consists of the combination, with a cutter-plate, of a comb-plate and a pressure-plate provided with ball-bearings comprising two guide-plates having flanges at their ends that form, when together, a ball-retaining run and a ball in said run.

It also consists of the combination, with comb, cutter, and pressure plates, of a stationary handle having an integral pendent stud whose lower end engages and is braced against the top of the comb-plate, and a movable handle journaled on said stud and adapted to operate the cutter-plate.

It also consists of certain other novel constructions, combinations, and arrangements of parts, all of which will be hereinafter more particularly set forth and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 represents a side elevation of a hand-operated horse-clipper embodying my invention. Fig. 2 represents a bottom plan view of said horse-clipper, the comb and cutter plates being removed. Fig. 3 represents a bottom plan view, similar to Fig. 2, of a barber's clipper. Fig. 4 represents a vertical section through a power horse-clipper on the line of one of the ball-bearings. Fig. 5 represents a detail perspective view of the comb-plate of the hand-operated horse-clipper, and Fig. 6 represents a detail perspective view of the antifriction-bearings.

A A' in the drawings represent, respectively, the stationary handles of the hand-operated horse and barber's clippers; B B', the movable handles of the same; C, the cutter-plate, and D the comb-plate.

The hand-operated horse-clipper in construction and operation is substantially like that patented to me February 6, 1894, and

numbered 514,273, with the following exceptions: The stationary handle A is provided with an integral pendent stud *a*, upon which the movable handle B is journaled, a nut *a'* securing said handle in position. The lower end of the stud *a*, which is pointed, presses firmly against a projection *a''*, formed on the upper surface of the comb-plate near its rear edge. The object of this pointed construction of the pendent stud is to provide for its becoming firmly seated on the projection *a''* no matter what the position of the pressure-plate *a* may be, and thereby fully balance the said pressure-plate at all times. The forward portion of the pressure-plate *a'* of the stationary handle is provided with lateral grooves *a³*, in which the antifriction or ball-bearing devices are secured by screws or the like. These bearings comprise balls *a⁴* and plates *a⁵* *a⁶*, that lap one over the other when in position, said plates being provided at their outer ends with oppositely-inclined flanges *a⁷*, that form, when the two plates are applied together, a V-shaped ball-run. The balls project sufficiently below the lower edges of the flanges *a⁷* to engage the top of the cutter-plate C and thus press the latter down firmly against the comb-plate with a minimum amount of friction. The balls are limited in their travel by the sides of the grooves *a³*, in which the plates *a⁵* *a⁶* are mounted. The forward edge of the comb-plate is thickened for the usual purpose by extending the additional thickness of the metal up from the upper surface of the comb instead of forming it on the under surface. This formation of the extra thickness of the comb upon the upper side prevents uneven cutting of the hair by the tipping of the comb-plate up and down. The forward edge of the cutter-plate rests firmly upon the upper surface of said raised portion of the comb-plate and is held down to working position by the aforesaid antifriction devices.

The antifriction devices are applied in the barber's clipper shown in Fig. 3 in substantially the same manner as they are applied in the horse-clipper shown in Fig. 1. This form of clipper has not the pendent integral pivot-stud, but is constructed substantially as shown and described in my Reissued Letters Patent No. 11,411, dated April 10, 1894. In

Fig. 4 I have shown my antifriction devices applied to a horse-clipper operated by power through suitable flexible shafting. In all the applications of my invention the ball-bearing or antifriction devices are applied on the under side of the pressure-plate, so as to engage the top of the cutter-plate and hold it down firmly in position to its work with the least amount of friction.

10 If so desired, I may extend the flange of one or the other of the plates $a^5 a^6$ at right angles, so that when placed in position it will be flush with the edge of the pressure-plate. In this case the run formed by the two plates 15 will be triangular instead of V-shaped.

By constructing the ball-runs out of separate pieces I am enabled to furnish well-finished surfaces of good steel without constructing the entire pressure-plate of steel. In fact, 20 the pressure-plate may be constructed of cast metal and I would yet have hard-steel bearing-surfaces for the balls. By making the steel pieces separable they can be readily ground and dressed to the desired degree before being applied in their grooves.

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

1. In a hair-clipper, the combination with 30 a cutter-plate, of a comb-plate, a pressure-plate provided with ball-bearings; the latter, each, comprising two separable removable guide-plates having straight flanges at their ends that form, when together, straight walls for a ball-retaining run, and a ball in said 35 run, and means for securing said plates in position, substantially as described.

2. In a hair-clipper, the combination of a stationary handle, a movable handle journaled on the same, a comb-plate, a cutter-plate, ball-bearings between the outer end of

the stationary handle and the top of the cutter-plate; said bearings, each, comprising a pair of plates applied one over the other and provided with oppositely-inclined flanges 45 forming a V-shaped groove and balls in said grooves, and means for securing the flanged plates in position, substantially as described.

3. In a hair-clipper, the combination with cutter and pressure plates, of a stationary 50 handle provided with an integral pendent stud having a lower pointed end that engages and is braced against the comb-plate and thereby balances the pressure-plate no matter what its position is, and a movable handle 55 journaled on said stud, substantially as described.

4. In a hair-clipper, the combination with a cutter-plate, of a comb-plate, pressure-plates, and means for keeping the pressure-plates in position to produce cutting-pressure, 60 ball-bearings on the pressure-plates each comprising two separable removable guide-plates having straight flanges at their ends that form, when together, straight walls for a ball-retaining run, and a ball in said run, and means 65 for securing said plates in position, substantially as described.

5. In a hair-clipper, the combination with a cutter-plate, of a comb-plate, and pressure-plates, balls and holders for the same applied 70 on the pressure-plates, a stationary handle provided with an integral pendent stud, and a movable handle journaled on said stud, substantially as described. 75

In testimony whereof I hereunto affix my signature in presence of two witnesses.

JOSEPH K. PRIEST.

Witnesses:

GEO. B. FRENCH,
HECTOR W. KELLEY.