

J. K. PRIEST.
HAIR CLIPPERS.

Patented Jan. 20, 1891.

Fig 1.

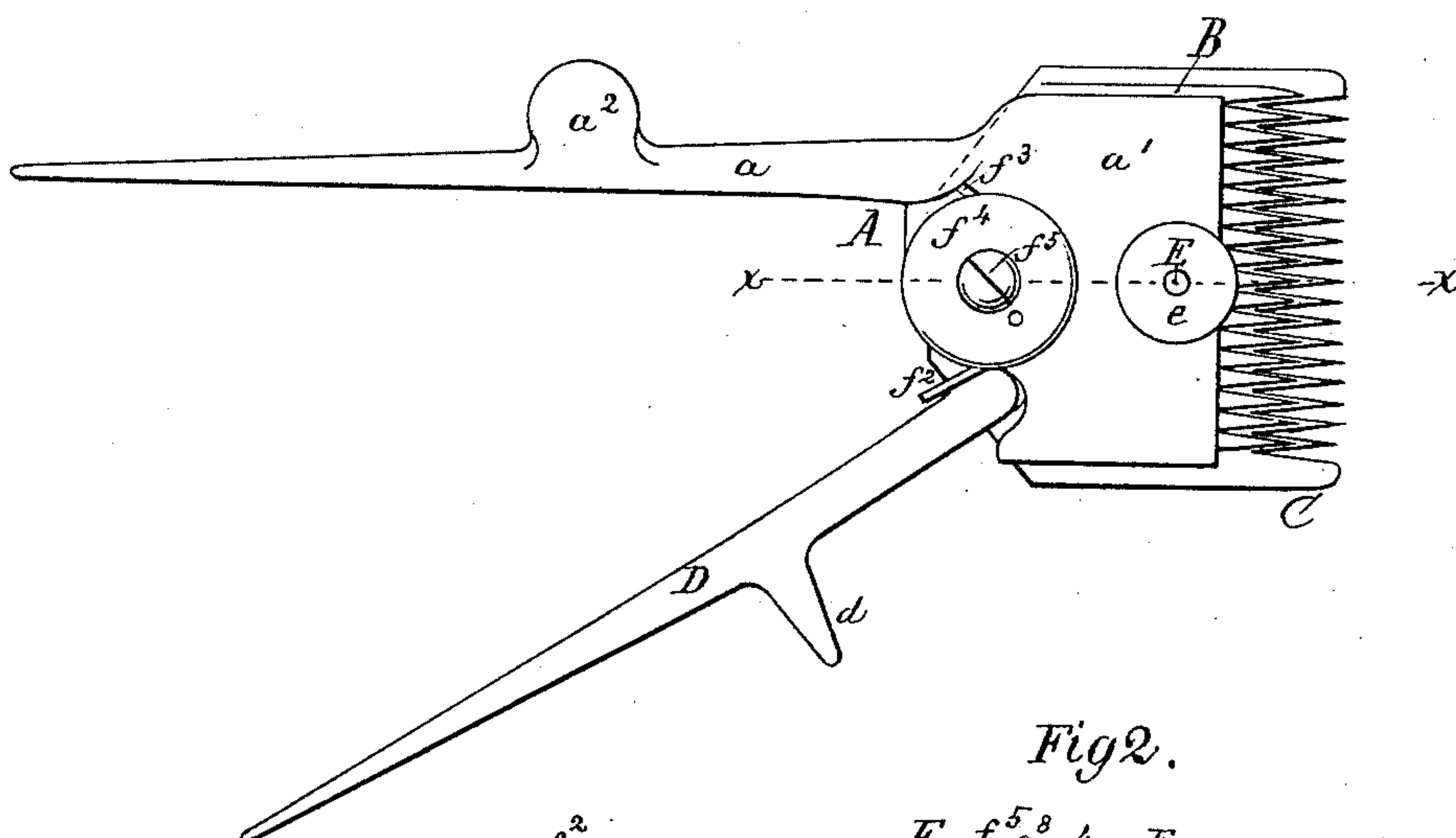


Fig 2.

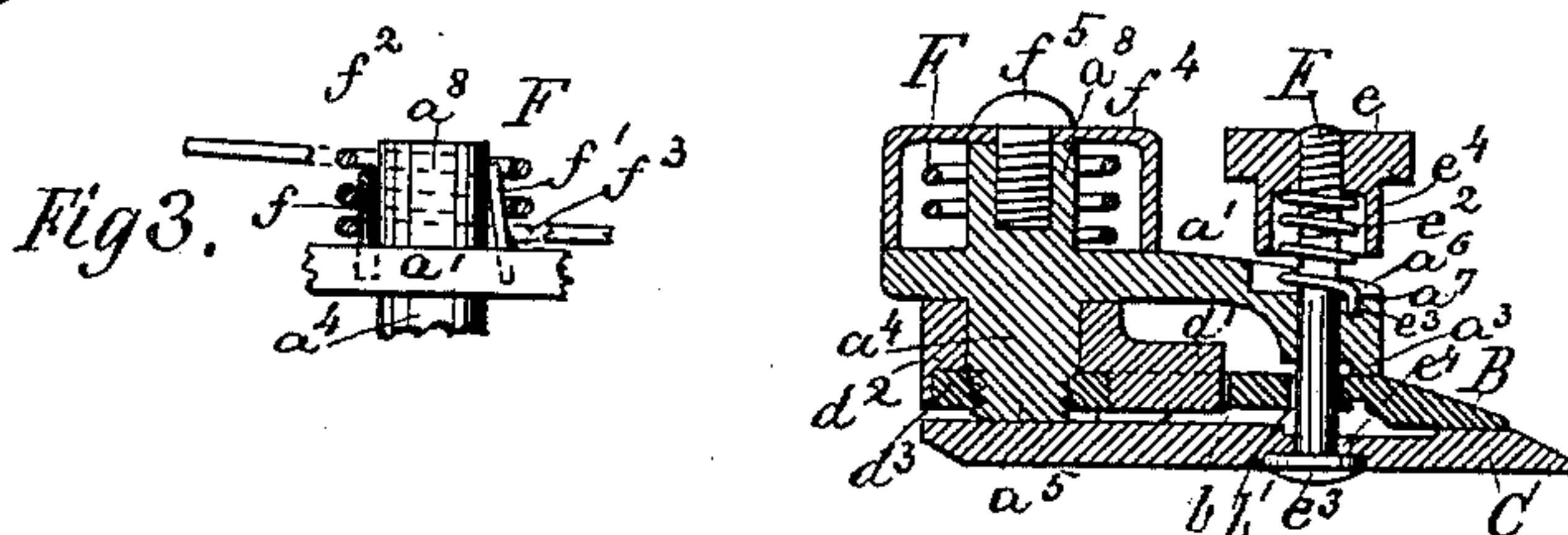


Fig4.

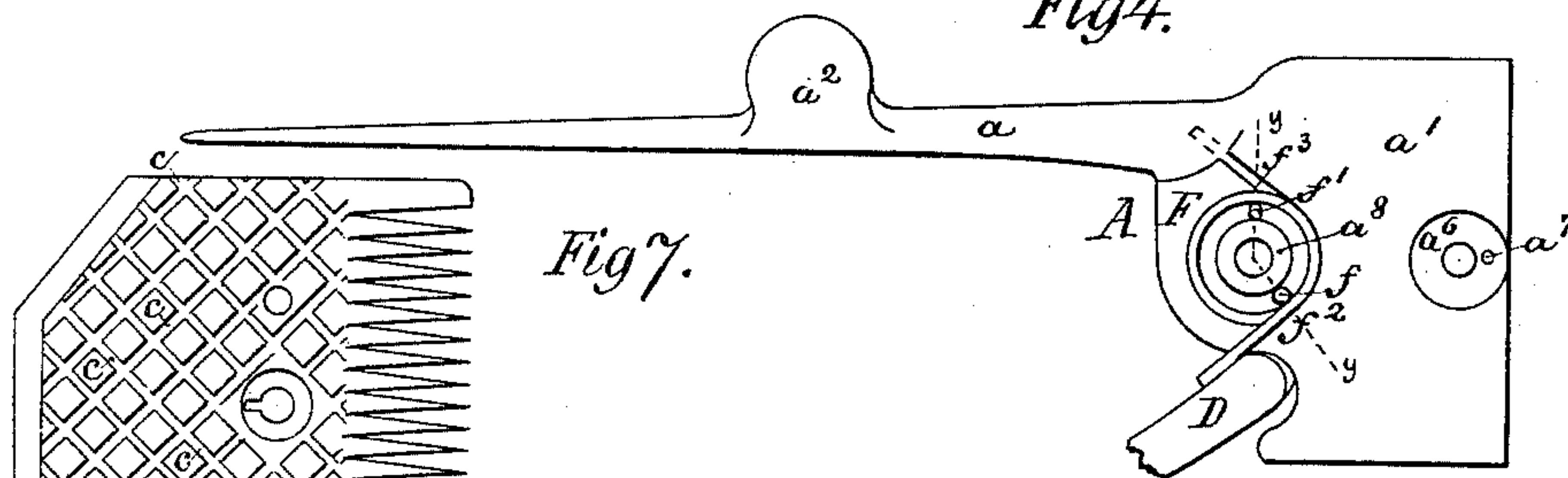


Fig 7.

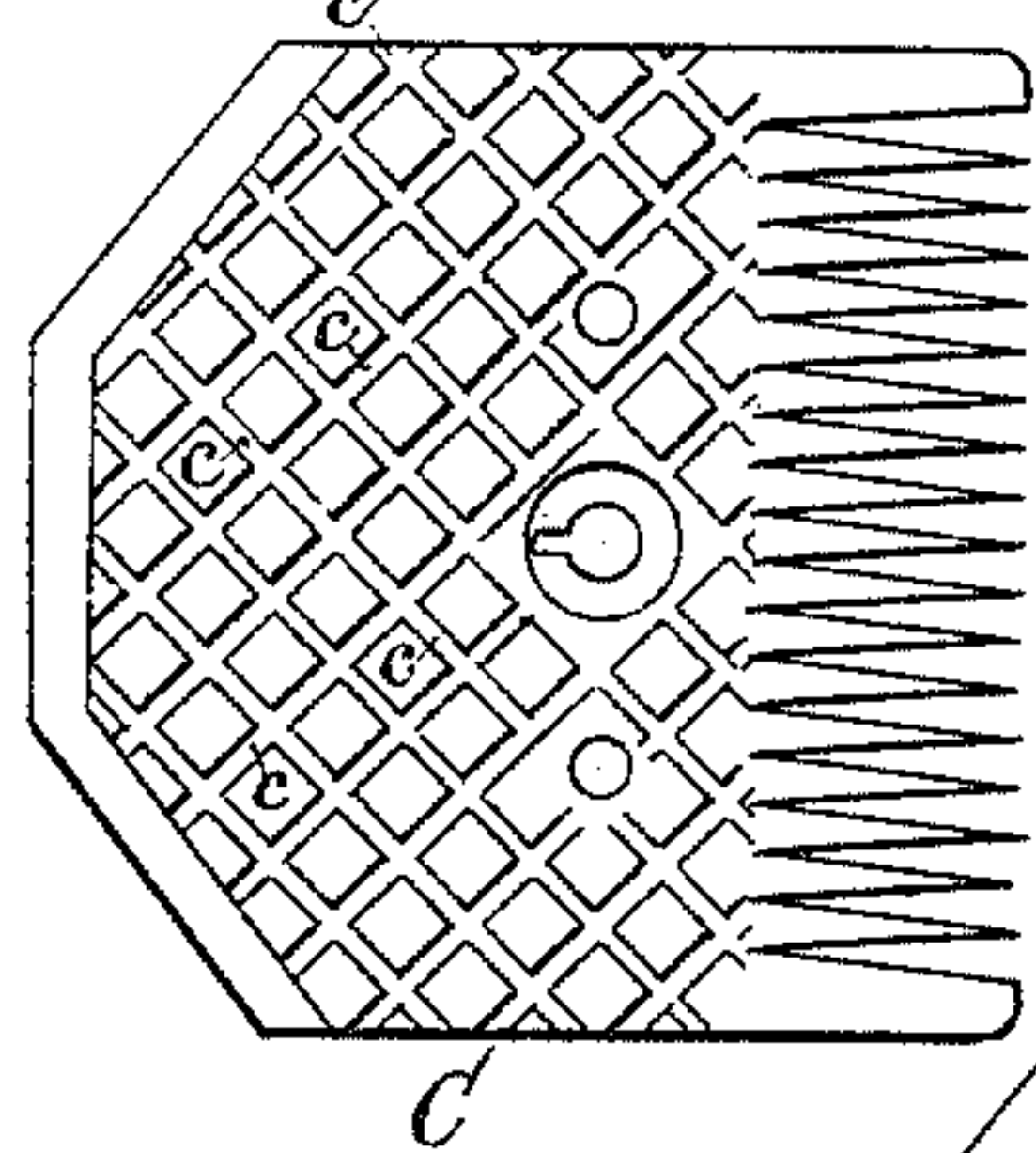


Fig 6.

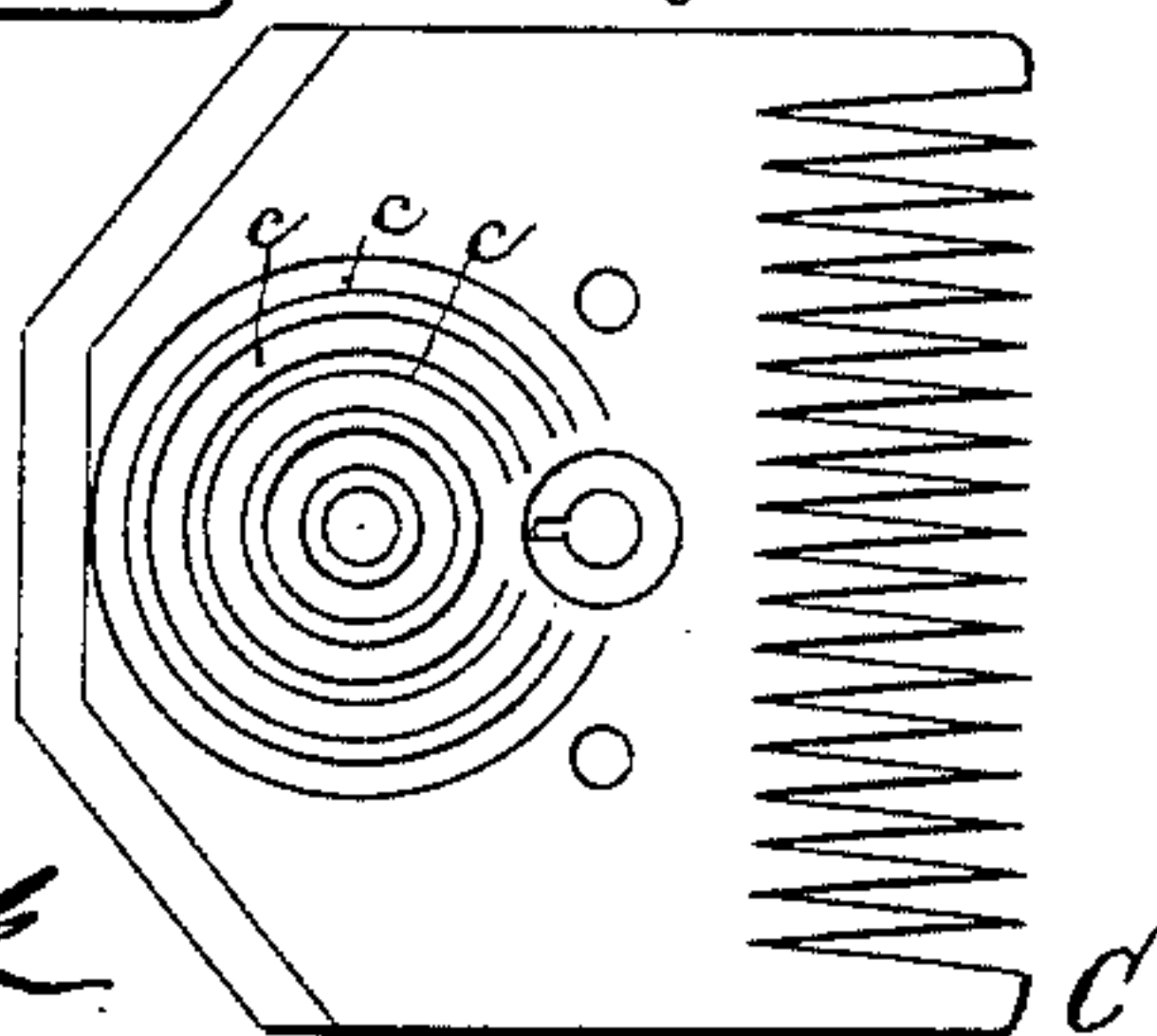
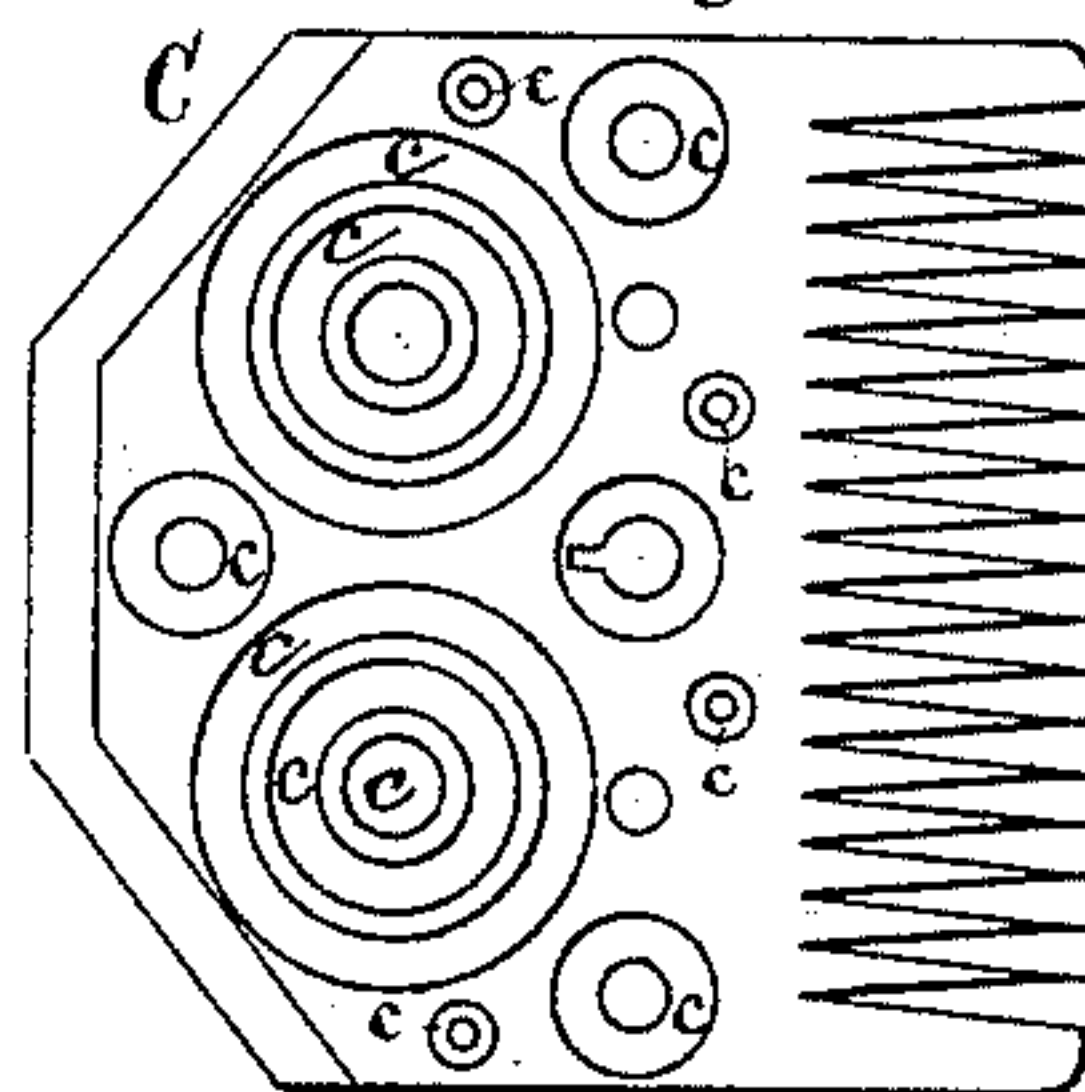


Fig 5.



Witnesses:
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Inventor:
Joseph K. Priest
by his Attorneys
Mason, Farnock
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UNITED STATES PATENT OFFICE.

JOSEPH K. PRIEST, OF NASHUA, NEW HAMPSHIRE.

HAIR-CLIPPER.

SPECIFICATION forming part of Letters Patent No. 445,081, dated January 20, 1891.

Application filed October 30, 1890. Serial No. 369,833. (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 hair-clippers; and it consists in certain improvements in the construction of the same, as will be hereinafter fully described, whereby their operation is greatly facilitated, the wear and tear of the moving parts diminished, and at the same time the work performed by them is greatly enhanced, and also annoyance to those upon whom the implement is used avoided.

In hair-clippers of the most approved known construction the lower cutter or comb-plate has been found to have the disadvantage of adhering to the skin when pressed down and forced over it in the act of cutting the hair short, this adherence being especially annoying during warm weather, when the skin is more or less moist. The tendency of the comb-plate to adhere to the skin greatly interferes with the operation of the clipper, it preventing it sliding readily over the skin and causing the skin to be crowded or forced into folds ahead of it.

Comb-plates have heretofore been provided with longitudinal corrugations with the object of preventing them from taking a hold by adhesion on the skin; but this construction has not proved satisfactory, because the tendency to adhesion between the comb-plate and the skin is only slightly overcome and not effectually prevented. By practice it is found that straight undivided corrugations, in whatever direction they may be arranged upon the bottom of the comb-plate do not prevent adhesion of the skin to the comb-plate; but by providing the bottom of the comb-plate with a comminuted surface or a surface with a great number of depressions between surface, or bearing-elevations which are separated and of either curved, circular, diamond, or rectangular formation, the skin will not be caused to form bunches and to

readily enter the depressions between the said elevations in such manner as to fasten itself by adhesion to the comb-plate, and hence comb-plates constructed on my improved plan work with great ease and without annoyance to those upon whom the clippers are used.

In the accompanying drawings, Figure 1 is a top view of my improved hair-clipper. Fig. 2 is a vertical section in the line xx of Fig. 1. Fig. 3 is a section through the main spring in the line yy of Fig. 4, showing other co-operating parts in elevation. Fig. 4 is a top view of the hair-clipper, the housing of the main spring, the cutter, tension-screw, and spring, the comb-plate and the cutter-plate being omitted. Figs. 5, 6, and 7 are bottom views of comb-plates with my improved depressions of different designs on their under surface, the same being equivalents of one another.

The letter A in the drawings represents the stationary part of the hair-clipper. It consists of an arm a and a top plate a' . The arm a is provided with a thumb-lug a^2 , of usual construction, and is formed with the plate a' . The plate a' has a projecting bearing a^3 , whereby it holds the cutter-plate B down upon the comb-plate C. A cylindrical bearing a^4 is provided on the lower portion of plate a' , to which bearing an arm D is fitted. This arm is provided with an ordinary finger-guard d and a short lever d' , which latter is laterally inclosed by the walls of a notch b in the cutter-plate B, as means whereby to operate the cutter-plate. The fulcrum portion d^2 of the arm D is held to the plate a' by means of a nut d^3 , screwed to a threaded end portion a^5 of the same. This end portion a^5 is made long enough to serve as an abutment to the rear portion of the comb-plate C and to hold it away from the arm D. The comb-plate is drawn to the cutter-plate by means of a bolt E, nut e' , and spring e^2 . The bolt E is provided with a flat head e^3 and lug e^4 , which are both fitted into the lower side of the comb-plate C. It is passed through a slot b' in the cutter-plate B and through the plate a' , in the upper side of which a suitable seat a^6 for the spring e^2 is provided, said seat having a socket a^7 for steadying the angular end portion e^3 of the spring. The nut e' is provided with a

lower cylindrical housing e^4 for the reception of the upper portion of the spring.

The main spring F is placed quite loosely around a projection a^8 of and upon the rear portion of the plate a' , between the arms a and D, and is held in place by two pins f and f' , fastened to or cast with the plate a' and the stud a^8 . The pin f stands perpendicularly to the plate a' and abuts on the lower coils of the spring F, while the uppermost coil f^2 is situated above the top of the pin f and is free and unstrained in its movements. The pin f' stands about diametrically opposite the pin d and inclined toward the same, so that the lowest coil f^3 of the spring F bears on its base, whereby the upper coils are left free to contract and expand when the hair-clipper is operated.

Heretofore in hair-clippers the main spring has been fitted upon the projection a^8 , and no allowance for uniform contraction afforded. This construction has proved unsatisfactory, for the reason that the contraction is not always uniform, but greatest near the movable arm, and therefore the upper spring-coils while contracted have been forced to assume an unnatural shape around the projection a^8 and bind against it, causing unnecessary friction and strain upon the upper coils of the spring. The coils of the spring F are housed in a cap f^4 , which is fastened to the projection a^8 by a screw f^5 .

The comb-plate C is of ordinary construction, except that its lower surface is provided with depression c , which may be, as in Figs. 5 and 6, circular, or, as in Fig. 7, straight linear and arranged in two sets crossing each other and standing at inclinations to the longitudinal side of the comb-plate. By these respective constructions lines parallel with the longitudinal sides of the comb-plate are avoided, and in moving the hair-clipper for-

ward over the skin the broken or comminuted surface of the comb-plate will prevent the immediate entering of the skin into its irregular depressions, a result which cannot be accomplished when such depressions are straight and continuous or without lateral or transverse interruptions or intersections. The same result will be accomplished by using annular depressions intersecting each other like links of a chain linked together, and an approximation to the result might be accomplished by providing zigzag-shaped depressions in the under surface of the comb-plate.

By constructing the under surface of the comb-plate in the manner hereinbefore described, while its operation is greatly improved in the manner set forth the comb-plate is much stronger and will not spring away at the outer edges from the cutter, the circular ribs or the diagonal ribs tending to resist any such liability of the plate springing in the manner stated, they giving stiffness to the plate transversely of its length.

What I claim as my invention is—

1. In a hair-clipper, in combination, the arms a and D, the spring F, perpendicular pin f , bearing against the lower coils of the spring, and inclined pin f' , bearing against the bottom coil of said spring, substantially as described.

2. In a hair-clipper, the comb-plate having its under surface provided with depression c between its comminuted bearing-surface portions, said depressions being cut across the path of movement of the hair-clipper, substantially as described.

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

JOSEPH K. PRIEST.

Witnesses:

E. B. GOULD,
T. H. ROGERS.