

No. 698,054.

Patented Apr. 22, 1902.

C. H. REDMAN.
HAIR CLIPPER.

Application filed Aug. 10, 1901.)

(No Model.)

Fig: 1.

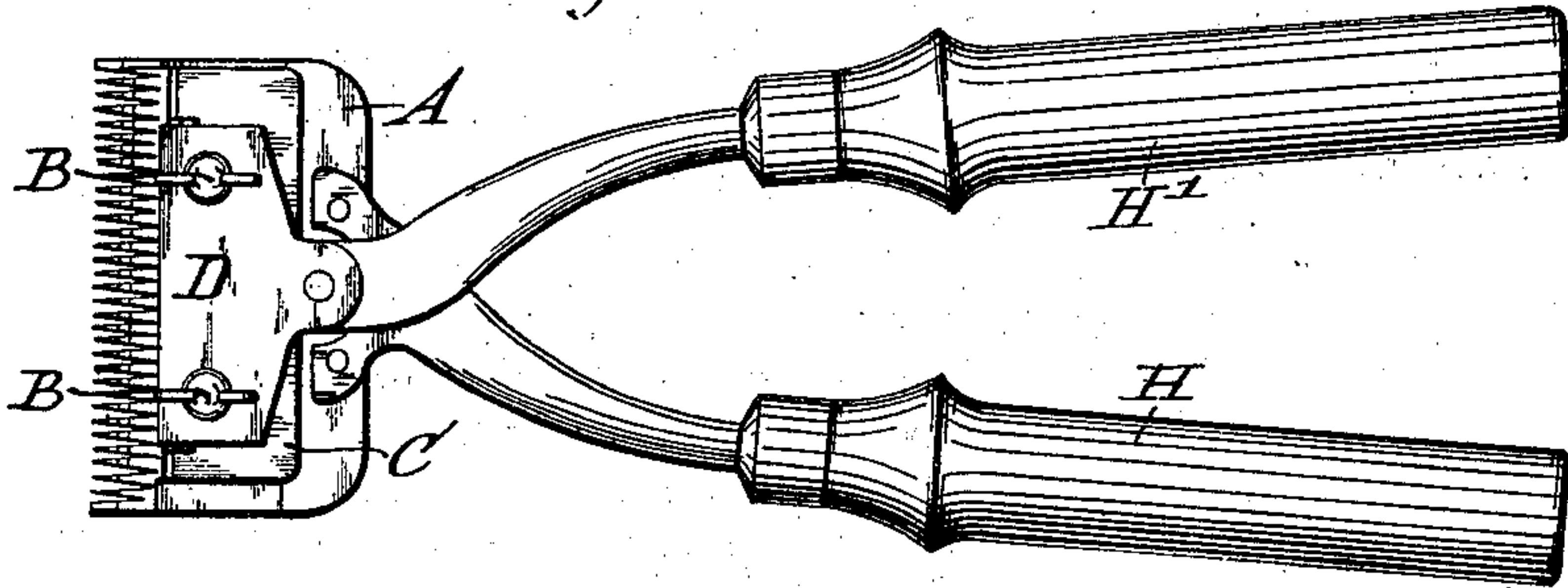


Fig: 2.

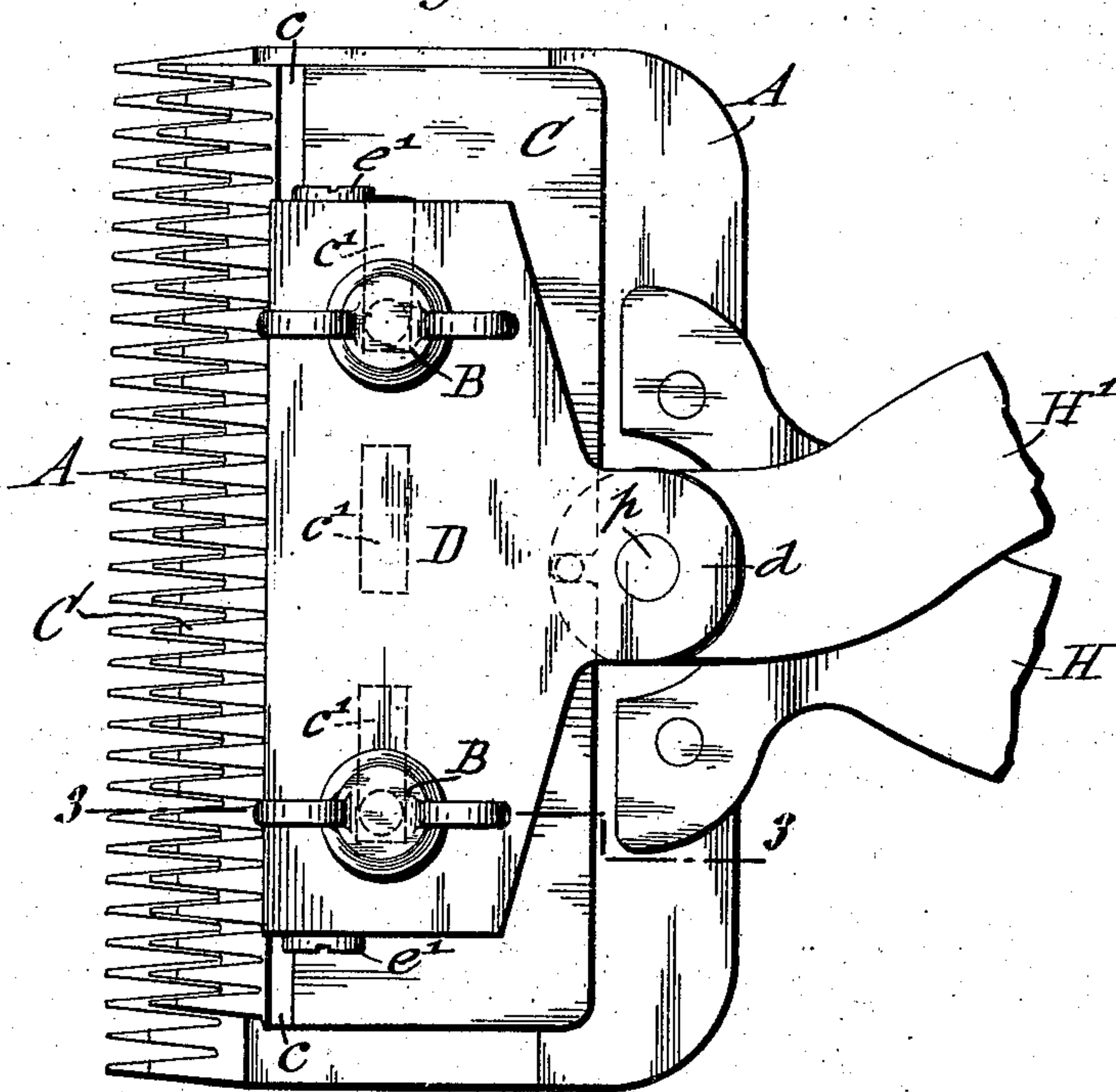
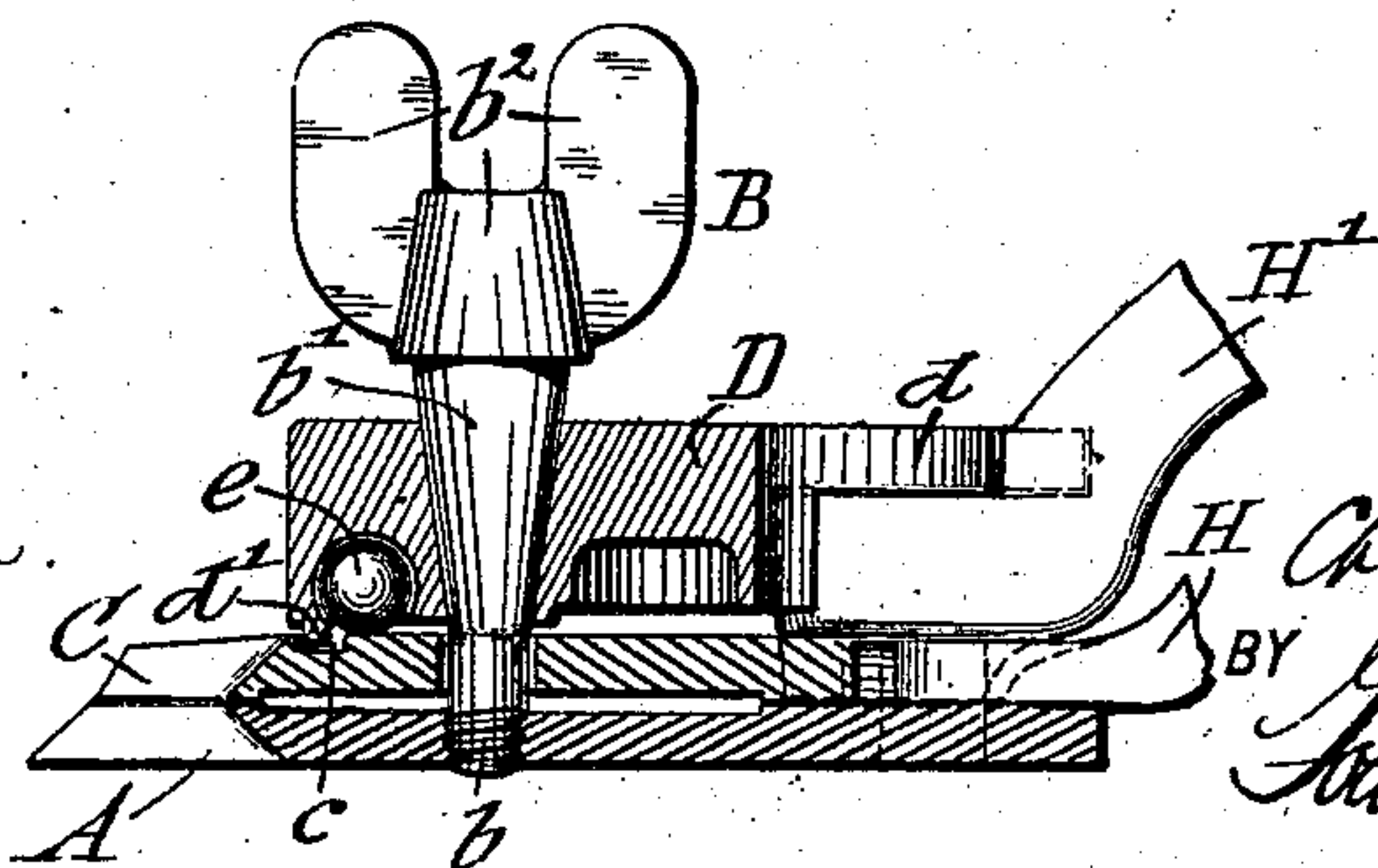


Fig: 3.



WITNESSES:

Walter Wallheim.
Joseph H. Niles.

INVENTOR

Charles H. Redman

BY

Samuel W. Hale
ATTORNEYS

UNITED STATES PATENT OFFICE.

CHARLES H. REDMAN, OF NEWARK, NEW JERSEY.

HAIR-CLIPPER.

SPECIFICATION forming part of Letters Patent No. 698,054, dated April 22, 1902.

Application filed August 10, 1901. Serial No. 71,553. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. REDMAN, a citizen of the United States, residing in Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Hair-Clippers, of which the following is a specification.

This invention relates to certain improvements in hair-clippers, and more particularly to an improved means of securing the upper comb-plate upon the lower comb-plate. These comb-plates have heretofore been connected by screws or other connecting devices, and the clippers possessed the disadvantage that the reciprocation of the movable comb-plate caused the screws to gradually unscrew during use, whereby the plates were permitted to separate, and as even the slightest separation or looseness seriously impairs the effectiveness of the clippers the screws required constant attendance and were a source of annoyance. On the other hand, when a fixed means of connection was employed taking up the play between the plates when they became loose one upon the other, due to wear, was precluded.

The object of this invention is to provide a means of connection between the plates which is easily adjustable, so that looseness due to any cause can be easily and conveniently and at once taken up and which will not be affected in the slightest by the continued operation of the clipper, so that a perfectly secure and at the same time easily-adjustable means of connection between the parts is afforded. For accomplishing this result a cap-plate, located above the upper comb-plate and having tapering openings, is employed and clamping-screws having correspondingly-tapered shanks and passing through slots of the upper comb-plate into the lower comb-plate and engaging the latter by their screw-threaded lower ends, the heads of the screws being provided with thumb-pieces for conveniently turning the same.

In the accompanying drawings, Figure 1 represents a top view of my improved hair-clipper. Fig. 2 is a top view of the operating end of the same, drawn on a larger scale; and Fig. 3 is a vertical transverse section on line 3 3, Fig. 2.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the lower comb-plate of my improved hair-clipper, which comb-plate is provided, back of the comb-teeth, with a longitudinal recess and with threaded holes at said recessed portion for receiving the lower ends *b* of the clamping-screws B. To the comb-plate A is attached a fork-shaped end of a stationary handle H. The upper comb-plate C is provided at its lower side with a recess corresponding with the recess in the upper surface of the lower plate, by which recesses frictional contact between the plates is reduced. The upper comb-plate is provided at its upper surface, near the teeth, with a longitudinal guide-groove *c* and back of the same with oblong slots *c'* for the lower ends *b* of the clamping-screws. In the rear part of the upper comb-plate is located a recess, that is engaged by the rounded end of the shank of a movable handle H', by which the upper comb-plate is reciprocated to and fro on the lower comb-plate. The shank of the handle H' is provided with an opening for a pivot *p*, secured to a lug *d* on the rear part of the cap-plate D, said pivot passing through the shank of the handle H' and forming a fulcrum for the same. The cap-plate D is provided at its lower front edge with a rib *d'*, which is guided in the groove *c* of the upper comb-plate, whereby the comb-plate is guided in a straight line, and with longitudinal sockets extending from the opposite ends of the comb-plate, into which the antifriction-balls *e* are inserted, said balls being retained in the usual manner by plugs *e'*, screwed into the ends of the sockets. The cap-plate is provided vertically above the screw-threaded holes in the lower comb-plate with conically-tapering holes. The clamping-screws B are provided each with a conically-tapering shank *b'* below the thumb-head *b²* of the same, which shanks are seated in the conical holes of the cap-plate when the parts are assembled and connected together.

The novel feature of my improved hair-clipper consists in the connection of the comb-plates and cap-plate by the clamping-screws, the shanks of which are conically tapered, while the lower ends are made cylindrical and

provided with a screw-thread. The tapering shanks have a wedge action, whereby the friction between the same and the cap-plate is increased according to the degree of taper
5 without increased pressure of one comb-plate upon the other. The taper of the shanks is a gradual one, whereby sufficient friction is produced to securely lock the screw in the cap-plate when screwed up to any degree within
10 the practical limits of operating the clipper.

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

1. A hair-clipper, consisting of a lower comb-plate, an upper comb-plate, a cap-plate, said
15 upper comb-plate being guided between the lower comb-plate and cap-plate, and clamping-screws passing through the cap-plate and upper comb-plate into the lower comb-plate,
20 said clamping-screws being provided with conical shanks engaging tapering holes in the cap-plate, and lower threaded ends engaging threaded openings in the lower comb-plate, substantially as set forth.

25 2. A hair-clipper, consisting of a lower comb-plate provided with threaded holes, an upper comb-plate guided on said lower comb-plate

and provided with elongated slots, a cap-plate provided with tapering holes in alignment with the threaded holes of the bottom
30 plate, and clamping-screws, the shanks of which are conically tapering and threaded at their lower cylindrical ends, so as to fit into the tapering openings of the cap-plate and threaded openings of the lower comb-plate, 35 substantially as set forth.

3. A hair-clipper, consisting of a lower comb-plate, an upper comb-plate, means for reciprocating the same on the lower comb-plate, a
40 cap-plate bearing on the upper comb-plate, and provided with openings, and clamping-screws passing through said cap-plate and screwing at their lower ends into the lower
comb-plate, said openings and the shanks of
45 said screws having a gradual taper outwardly through said cap-plate, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

CHAS. H. REDMAN.

Witnesses:

PAUL GOEPEL,
JOSEPH H. NILES.