

No. 708,464.

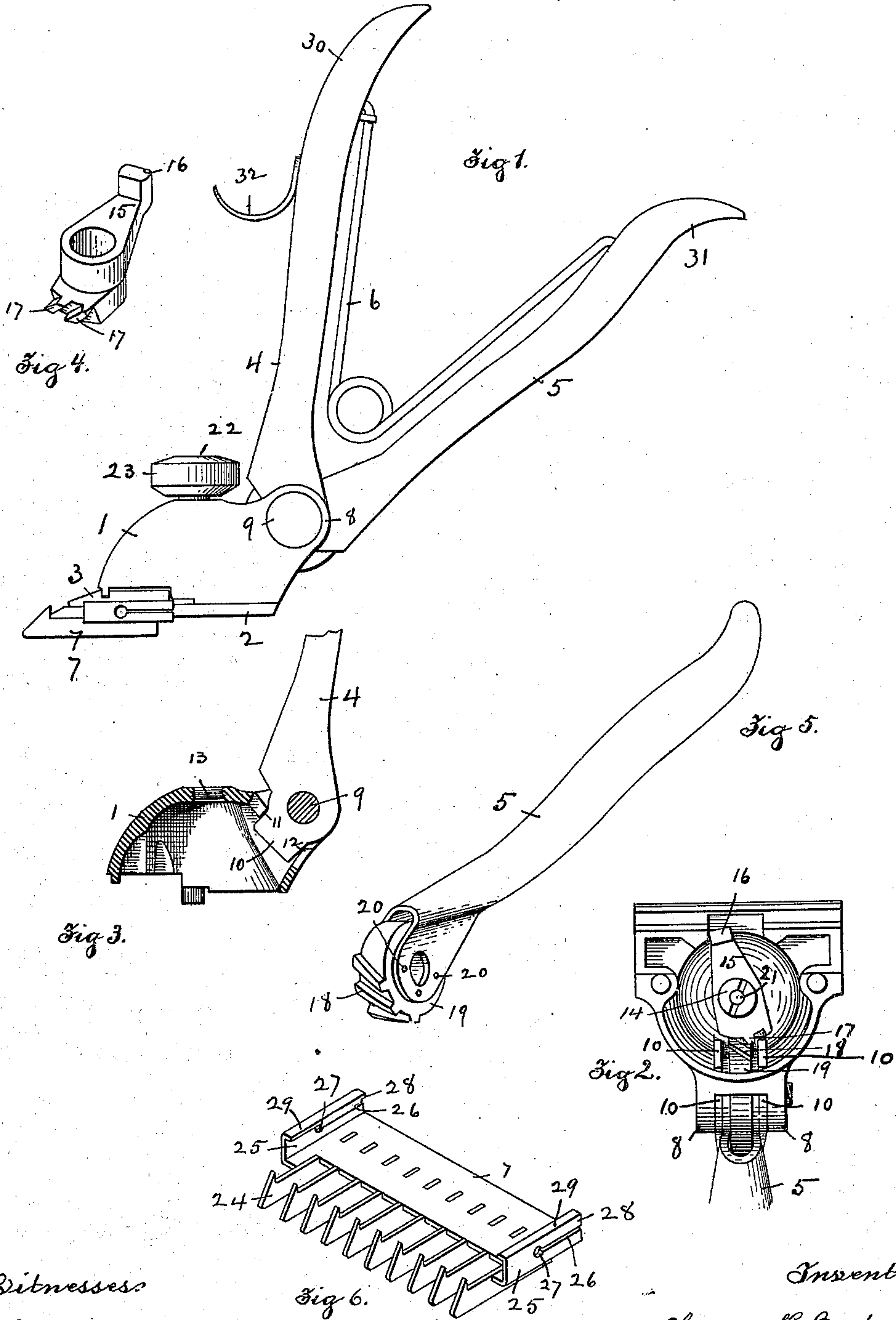
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G. H. COATES.

HAIR CLIPPER.

(Application filed Jan. 11, 1901.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE HENRY COATES, OF WORCESTER, MASSACHUSETTS.

HAIR-CLIPPER.

SPECIFICATION forming part of Letters Patent No. 708,464, dated September 2, 1902.

Application filed January 11, 1901. Serial No. 42,935. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HENRY COATES, a citizen of the United States, residing at Worcester, in the county of Worcester and Commonwealth of Massachusetts, have invented a new and useful Improvement in Hair-Clippers, of which the following is a specification, accompanied by drawings forming a part of the same, in which—

Figure 1 represents a side view of a hair-clipper embodying my invention. Fig. 2 is a bottom view with the cutting-plates removed. Fig. 3 is a vertical sectional view through the head of the clipper and showing the fixed handle and its mode of attachment to the head. Fig. 4 is a perspective detached view of the vibrating lever by which the movable cutting-plate is reciprocated. Fig. 5 is a perspective and detached view of the movable or actuating handle, and Fig. 6 is a perspective view of the comb-plate.

Similar reference-figures refer to similar parts in the different views.

My invention relates to that class of hair-clippers which comprise a head, stationary and movable cutting-plates, a stationary handle, and a movable handle by which the movable cutting-plate is reciprocated; and especially to that class of hair-clippers in which the handles are placed one over the other in a plane at right angles to the plane of the cutting-plates; and it has for its object to provide an intermediate connecting mechanism between the actuating-handle and the reciprocating cutting-plate, to provide an improved means of connecting the stationary handle to the head, and to provide means for attaching the comb-plate to the stationary cutting-plate; and it consists in the construction and arrangement of parts as hereinafter described, and set forth in the annexed claims.

Referring to the drawings, 1 denotes the head of a hair-clipper of the ordinary and well-known form of construction; 2, the stationary cutting-plate; 3, the movable cutting-plate; 4, the stationary handle; 5, the movable handle; 6, a spring applied between the handles to hold them normally apart, and 7 a comb-plate attached to the stationary cutting-plate.

The head 1 is provided with rearwardly-projecting lugs 8, between which are held the

stationary and movable handles upon a bolt 9, which is held in the lugs 8. The stationary handle 4 is provided with a pair of projecting prongs 10, extending beyond the bolt 9 and filling the space between the surfaces 11 and 12 on the head 1, thereby holding the stationary handle 4 from rocking on the bolt 9.

The head 1 is provided with a screw-threaded hole 13 to receive a stud 14, upon which is pivoted a vibrating lever 15, provided with a toe 16, adapted to engage the movable cutting-plate 3 in the manner well known in instruments of this class. The rear end of the vibrating lever 15 is provided with one or more spiral gear-teeth 17, which are adapted to engage similar spiral gear-teeth 18, formed on the periphery of a disk 19, attached to the movable handle 5 by means of rivets or pins 20, so that as the movable handle is rocked on the bolt 9 the oscillating motion of the disk 19 will be imparted, through the spiral gear-teeth 17 and 18, to the vibrating lever 15. The handles 4 and 5 are normally held separated by the spring 6 and the vibrating lever 15 is held at one end of its throw; but by bringing the handles together by the pressure of the hand the vibrating lever 15 is carried to the other end of its throw and again returned when the movable handle is released by the tension of the spring 6.

The stud 14 is provided with a hole 21, through which passes a bolt 22, carrying a clamping-nut 23, as is common in clippers of this class, for the purpose of securing a pressure between the contacting sides of the cutting-plates.

The comb-plate 7 is provided with teeth 24 and is turned up at its opposite ends to form clasps 25, adapted to embrace the ends of the stationary cutting-plate 2. Each of the clasps 25 is provided with a slit 26, extending about half its length and terminating in an opening 27, thereby forming elastic jaws 28, provided with flanged edges 29, and as the vertical walls of the clasps 25 are weakened by the openings 27 the elasticity of the flanged jaws 28 is exerted in both a vertical and a horizontal plane, thereby applying a pressure to the ends of the stationary cutting-plate and also to its upper surface.

The handles 4 and 5 are operated by being seized in the hand like the handles of a pair

of pliers, with the convex portion 30 of the stationary handle resting in the palm of the hand and with the little finger in the concave portion 31 of the movable handle. Attached
5 to the stationary handle near the convex portion 30 is a semicircular or curved horn 32, which extends upward between the thumb and forefinger to prevent the hand from slipping forward on the stationary handle.

10 What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination with the head of a hair-clipper of a pair of lugs to receive the handles, a bolt held by said lugs, a stationary
15 handle removably attached to said head by said bolt and having a projecting prong engaging the head, whereby said handle is held from turning on said bolt, substantially as described.

20 2. The combination with a pivoted handle and a reciprocating cutting-plate, of a lever intermediate between said plate and said handle, said handle and said lever having co-

acting surfaces placed obliquely to the axis of said plate and said handle, whereby the
25 rocking motion of said handle is communicated to said lever, substantially as described.

3. The combination with the movable plate of a hair-clipper of a lever provided with spiral teeth, a pivoted handle having spiral teeth
30 engaging the teeth on said lever, substantially as described.

4. The combination with the stationary cutting-plate of a hair-clipper, of a comb-plate provided at its ends with upturned clasps
35 adapted to embrace the ends of the stationary cutting-plate, said clasps having flanges 25 overlapping the cutting-plate and having slits 26 and openings 27 forming elastic jaws, substantially as described.

Dated this 5th day of January, 1901.

GEORGE HENRY COATES.

Witnesses:

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