No. 890,406. PATENTED JUNE 9, 1908.

L. H. COBB.

SAFETY RAZOR.

APPLICATION FILED OCT. 5, 1906.

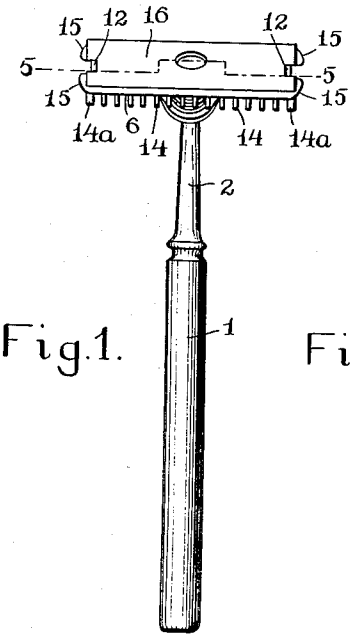

Fig. 1.

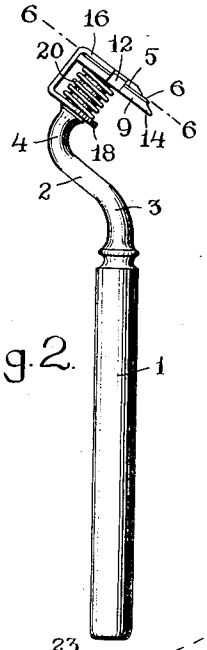

Fig. 2.

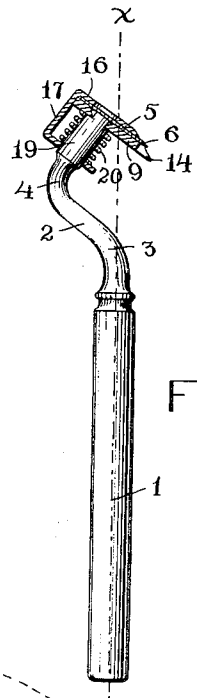

Fig. 3.

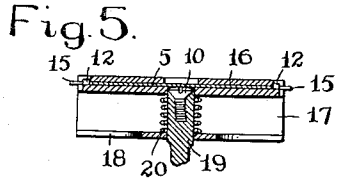

Fig. 5.

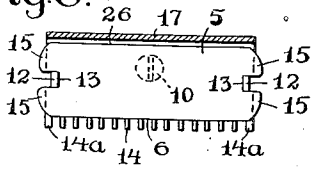

Fig. 6.

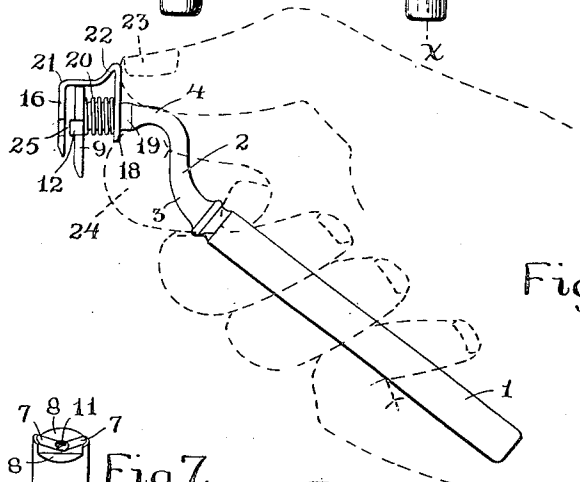

Fig. 4.

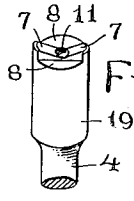

Fig. 7.

Witnesses

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SAFETY-RAZOR.

No. 890,406. Specification of Letters Patent. Patented June 9, 1908.

Application filed October 5, 1906. Serial No. 337,528.

To all whom it may concern:

Be it known that I, LYMAN H. COBB, a citizen of the United States, residing at Fitchburg, in the county of Worcester and Commonwealth of Massachusetts, have invented a new and useful Improvement in a Safety-Razor, of which the following is a specification, accompanied by drawings forming a part of the same, in which—

Figures 1 and 2 represent front and side views respectively of a safety razor embodying my invention. Fig. 3 is a side elevation of the same with the head shown in central sectional view. Fig. 4 is a side view of the razor with the clamping plate raised to release the cutting blade. Fig. 5 is a sectional view through the head of the razor on line 5—5, Fig. 1. Fig. 6 is a top view of the razor head with the clamping plate removed, on line 6—6, Fig. 2, in order to disclose the cutting blade, and Fig. 7 is a perspective view of the end of the handle upon which the razor head is supported.

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

My present invention relates to an improved means of holding the cutting blade in a safety razor by which the cutting blade may be instantaneously released, and I accomplish this result by the construction and arrangement of parts as hereinafter described and pointed out in the annexed claims.

Referring to the accompanying drawings 1 denotes the handle of the razor, having a neck 2 which is preferably provided with a rearward bend at 3 and a reverse or forward bend at 4, in order to bring the cutting blade 5 at an oblique angle to the axis of the handle, and with the cutting blade in a position in which the axis of the handle extended will pass through the cutting blade at a point between its exposed cutting edge 6 and the end of the handle, as represented in Fig. 3, in which the broken line x—x is drawn coincident with the axis of the handle.

The end of the handle is cut away on opposite sides as shown in perspective view in Fig. 7, forming prongs 7, 7, and shoulders 8, 8, to receive a bed plate 9 which is held in position by a screw 10 entering a screw hole 11 in the end of the handle. The bed plate 9 forms a support for the cutting blade 5 and is provided with upturned prongs 12, 12, which engages notches 13, 13, formed on the opposite ends of the cutting blade 5 in order to position the cutting blade, and bring its exposed cutting edge 6 in registration with a row of beveled guard teeth 14 formed on the front edge of the bed plate 9. The cutting blade 5 is provided at its ends with the rounded wing pieces 15 which project beyond the ends of the bed plate 9 to enable the cutting blade to be seized at its ends between the thumb and finger of the operator to facilitate its insertion and removal from the head of the razor. The cutting blade 5 is securely held in position by means of a clamping plate 16 which rests upon the top of the cutting blade 5 and is bent downward at 17 over the rear edge of the bed plate 9 and again forward parallel with the clamping plate 16 to form a lug 18 inclosing the cylindrical end 19 of the handle and adapted to slide thereon. Inserted between the lug 18 and bed plate 9 is a spiral spring 20, with its tension applied against the lug 18 to separate it from the bed plate 9 and draw the clamping plate 16 firmly against the cutting blade 5.

In Fig. 4 I have shown a modified form of the bent clamping plate 16 which consists in bending the plate at right angles at 21 and extending it past the rear edge of the bed plate 9, and then bending it outwardly at 22 in order to secure a broader bearing surface against the under side of the lug 18 to receive the pressure of the thumb in the operation of raising the clamping plate to release the cutting blade. The cutting blade is released by holding the razor in the position shown in Fig. 4, with the tip 23 of the thumb pressing against the under side of the lug 18, and with the fore finger 24 bent around the rearward bend 3 of the handle. This position of the razor in the hand allows a pressure to be exerted by the tip of the thumb, which is resisted by the embrace of the fore finger around the rearwardly bent section 3 of the handle, the thumb exerting a pushing, and the fore finger a pulling strain, resulting in the compression of the spiral spring 20 and the separation of the clamping plate 16 from the bed plate 9, as shown in Fig. 4, sufficiently to form a space 25 between the clamping plate and prongs 12 to allow the cutting blade to be removed.

In order to insert a cutting blade it is held by the wings 15 between the tip of the thumb and fore finger and inserted through the

space 25 between the clamping plate 16 and the prongs 12. The cutting blade is then pressed against the bed plate 9, bringing the prongs 12 into engagement with the notches 13 which brings the cutting edge 6 into proper registration with the guard teeth 14. The spiral spring 20 is then allowed to draw the clamping plate firmly against the cutting blade holding it securely in position on the bed plate 9. The cutting blade 5 is provided with a cutting edge 6 on one of its longitudinal sides which is slightly shorter than the length of the bed plate 9, in order to prevent the sharpened edge of the cutting blade from projecting beyond the outermost guard teeth 14^a. As the opposite edges 6 and 26 are duplicates of each other, the edge 26 may be sharpened forming a cutting blade with two cutting edges, either of which may be brought into use by reversing the blade end for end.

I claim,

1. In a safety razor, the combination with a handle, of a bed plate for supporting a cutting blade, a clamping plate for holding the cutting blade against the bed plate, said clamping plate being provided with a lug parallel with said bed plate, and a spring between said lug and said bed plate.

2. The combination in a safety razor, of a handle, a head supported on one end of said handle, and comprising a spring actuated clamping plate, and a bed plate for holding a cutting plate, said handle having a curved section between the body portion of the handle and the head.

3. The combination in a safety razor, of a handle, a bed plate attached to one end of said handle for supporting a cutting blade, said handle having a curved section adjacent to said head, whereby said head is held at an oblique angle to the axis of said handle, and with the axis of said handle extended passing through said head between the cutting edge of the blade and the end of the handle.

4. The combination, in a safety razor, of a handle, a bed plate attached to the end of said handle, a clamping plate, bent over one edge of said bed plate and having a lug parallel with said bed plate, and a spiral spring between said lug and said bed plate, with its tension applied to draw the clamping plate toward said bed plate.

5. In a safety razor, the combination of a bed plate for supporting a cutting blade, a clamping plate for holding the cutting blade against the bed plate, and a spring operatively connected with both of said plates and arranged to draw said plates together.

6. In a safety razor, the combination of a bed plate, a clamping plate on one side of said bed plate, a lug carried by said clamping plate and extending on the other side of said bed plate, and a spring interposed between said lug and said bed plate to draw the clamping plate toward the bed plate.

7. In a safety razor, the combination of a bed plate, a clamping plate bent downwardly over the rear edge of said bed plate, then rearwardly and forwardly to form a lug parallel with the clamping plate, and having an increased surface to receive pressure in releasing the cutting blade, and a spring interposed between said lug and said bed plate to draw the clamping plate toward the bed plate.

8. In a safety razor, the combination of a handle, a bed plate attached to said handle, guard teeth on one edge of said bed plate, prongs at the ends of said bed plate, a cutting blade having notched ends engaging said prongs to hold the edge of the blade in registration with said guard teeth, a clamping plate and a spring applied to hold said clamping plate against the cutting blade.

Dated this twenty sixth day of September 1906.

LYMAN H. COBB.

Witnesses:
C. A. BATCHELDER,
FRANK H. SIBLEY.