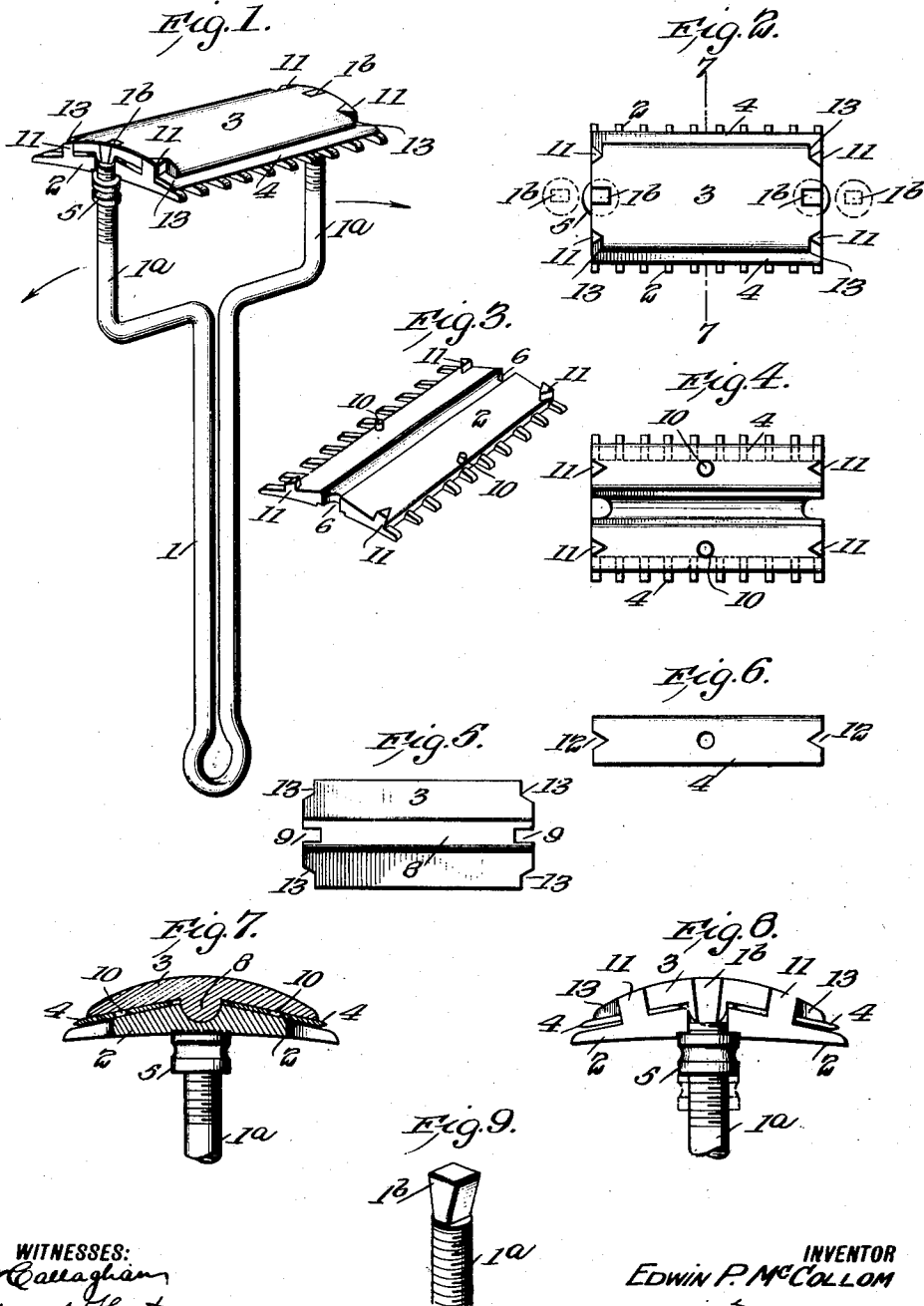


E. P. McCOLLOM.
SAFETY RAZOR.
APPLICATION FILED DEC. 28, 1910.

1,006,391.

Patented Oct. 17, 1911.



WITNESSES:
Edw. Callaghan
Amos W. Hart

INVENTOR
EDWIN P. McCOLLOM
BY Munn & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

EDWIN P. MCCOLLOM, OF ALLEGHENY, PENNSYLVANIA.

SAFETY-RAZOR.

1,006,391.

Specification of Letters Patent.

Patented Oct. 17, 1911.

Application filed December 28, 1910. Serial No. 599,677.

To all whom it may concern:

Be it known that I, EDWIN P. MCCOLLOM, a citizen of the United States, and a resident of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain Improvements in Safety-Razors, of which the following is a specification.

My invention is an improvement in that type of safety razors in which a reversible blade is secured detachably upon the toothed head or guard, and more particularly in such sub-type as includes a spring handle having the extremities so constructed that they are adapted to enter notches or open slots in the blade, and thus serve as a means for securing the latter.

In my invention the handle is provided with spring arms having wedge-shaped tips or terminals that enter dove-tailed slots in the clamping plate between which and the toothed guard the blades are secured. This engagement is made fast or secure by means of nuts applied to the spring arms. The blades are rigid and preferably double-edged, so that they may be reversed edge for edge when required. In order that the blade-clamping plate may have due strength and rigidity, it is provided on the under side with a lengthwise rib which enters a corresponding groove in the toothed head or guard, thus aiding in holding the clamping plate rigidly in the required position.

These and other features embodied in my invention are hereinafter described, and illustrated in the accompanying drawing, in which—

Figure 1 is a perspective view of my invention. Fig. 2 is a top or plan view of the head portion of the same. Fig. 3 is a perspective view of the toothed head or guard. Fig. 4 is a plan view of the guard with the blades in due position thereon. Fig. 5 is a plan view of the under side of the blade-clamping plate. Fig. 6 is a plan view of one of the blades. Fig. 7 is a transverse section on the line 7—7 of Fig. 2. Fig. 8 is an end or edge view of the top portion of the implement. Fig. 9 is a perspective view of the dove-tailed head or terminal of one of the spring arms.

The handle 1 is formed of spring wire, the shank being composed of parallel portions whose inner ends diverge and are bent at a right angle, thus forming a fork having spring arms 1^a, the tension of the spring handle causing the arms to tend to approxi-

mate each other, or, in other words, to spring inward. The terminal portions of the angular arms 1^a are screw-threaded and provided with heads 1^b—see Fig. 9—which are rectangular in cross section but dove-tailed or wedge-shaped in the direction of their length, the larger or thicker portion of the dove-tail being outermost.

Cylindrical nuts 5 are applied to the threaded portions of the arms 1^a and the function of the same will be presently described. The head or guard 2 which is provided on opposite sides with a series of teeth in the usual way is provided with central notches 6 at the ends to receive the threaded terminals of the arms 1^a—see Fig. 3.

A groove 7 extends centrally and lengthwise of the guard between the notches 6 and receives a central lengthwise rib 8 formed on the under side of the clamping plate 3. The latter has rectangular end notches or open slots 9—see Fig. 5—the same being dove-tailed in one direction and adapted to receive the dove-tailed heads 1^b of the spring arm 1^a. The blades 4 are arranged or located as indicated in Figs. 1, 2, and 4. That is to say, each blade is laid upon a flat inclined side portion or surface of the guard 2 and is held in place primarily by means of pins 10 and slotted lugs 11 which are formed as outward projections on the guard—see especially Fig. 3.

The pins 10 pass through holes formed in the center of the blades 4 and the lugs 11 which are triangular in cross section enter V-shaped notches 12 formed in the ends of the blades—see especially Fig. 6. The lugs 11 also enter angular notches 13 formed in the ends of the clamping plate 3 at points near their side edges—see Figs. 1 and 2.

It will now be understood that in assembling the parts of my improved safety razor, the blades 4 are first placed upon the guard 2 in the position indicated in Figs. 4, 7, and 8, and that the clamping plate 3 is then laid thereon, its ends being duly engaged with the lugs 11 of the guard. The arms of the spring fork are then spread apart, as indicated by arrows in Fig. 1 and dotted lines in Fig. 2, and when released the wedge heads 1^b enter the dove-tailed notches 9 formed in the ends of the plate 3, while the screw-threaded portions of said arms enter the end notches 6 of the guard. The nuts 5 are then screwed up tightly against the under side of the guard, as shown in Figs.

1 and 7, whereby the guard and clamp 3 are drawn and held firmly together, with a corresponding pressure on the blades 4 so that they are held perfectly rigid in place. The guard is recessed to receive the upper ends of nuts 5, whereby the spring arms 1^a are prevented from expanding laterally until the nuts have been screwed down thereon; thus, when the nuts are screwed up, the knives are clamped securely while the arms are held locked with the guard and the clamp plate. I thus form a most secure means for holding and clamping the blades and at the same time provide for conveniently detaching one or both when it is required to reverse them, or for other purpose.

As before indicated, the blades are preferably made sufficiently thick to be practically rigid, since, as is well known, a rigid blade cuts better and preserves its edge for a longer time than a flexible one. The blades being also double-edged, they may be reversed, which extends the time for which the razor is available in use.

Owing to the narrowness of the blades, two may be made from about the same quantity of material as required for ordinary single-edged blades, which lessens the cost of manufacture and consequently the cost to the purchaser.

I deem the provision of the central longitudinal rib of the clamping plate and the corresponding groove of the guard as of special importance, since it not only aids in assembling the parts, but imparts rigidity to the whole when clamped together.

By constructing the spring arms 1^a in right-angular form as shown, a clear space is left adjacent to the toothed edges of the guard, which facilitates use of the implement.

It will be understood that while I have shown the pins 10 as formed integrally with

the guard, they might be made integral with the clamping plate instead.

What I claim is:—

1. The improved safety razor, comprising a forked spring handle having the terminals of its arms screw-threaded and wedge-shaped, nuts applied to said arms, a toothed guard provided with end notches adapted to receive said arms, and a blade-clamping plate applied to the guard and having wedge-shaped notches adapted to receive the extremities of the arms, substantially as described.

2. In a safety razor of the type indicated, the combination with a toothed guard and a clamping plate applied thereon and provided with dove-tailed notches in its ends, of a spring handle constructed as a spring fork whose terminals are constructed in wedge-form and thus adapted to enter the notches of the plate, and means for drawing the plate and guard together, substantially as described.

3. In a safety-razor of the type indicated, the combination with a forked handle and a toothed guard having slotted lugs arranged at its ends and projecting inward, of a blade-clamping plate provided with notches opening outward and adapted to receive said lugs, and clamping means applied to the terminals of the handle beneath the guard, and serving to secure the latter and the blade together, as described.

4. In a safety razor of the type indicated, the combination with a toothed guard having a central longitudinal groove, of a blade-clamping plate having a corresponding central longitudinal rib on its under side, and means for securing the guard and plate together, substantially as described.

EDWIN P. McCOLLOM.

Witnesses:

E. L. GRIMES,

A. A. ADAMS.