Jan. 7, 1947. J. W. LOMAX 2,413,877

SAFETY RAZOR

Filed Oct. 9, 1945

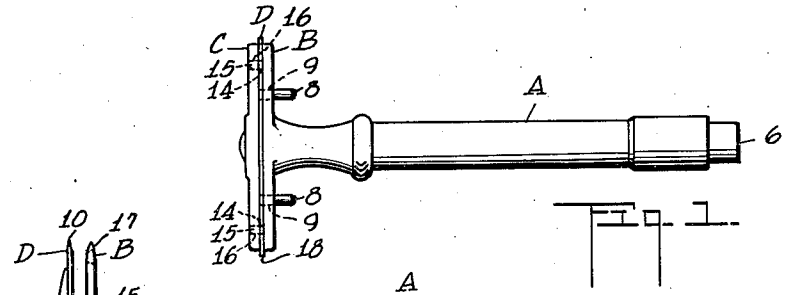


FIG. 1.

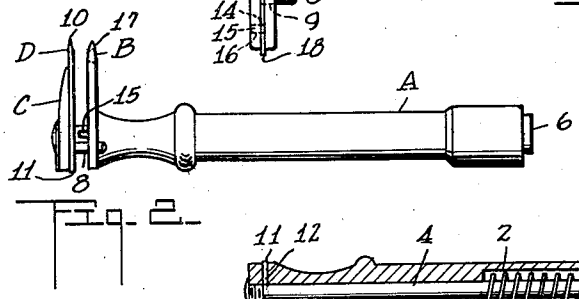


FIG. 2.

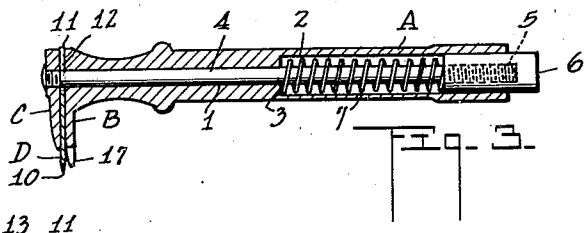


FIG. 3.

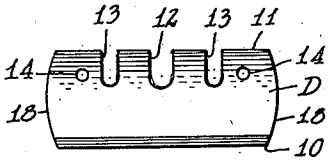


FIG. 4.

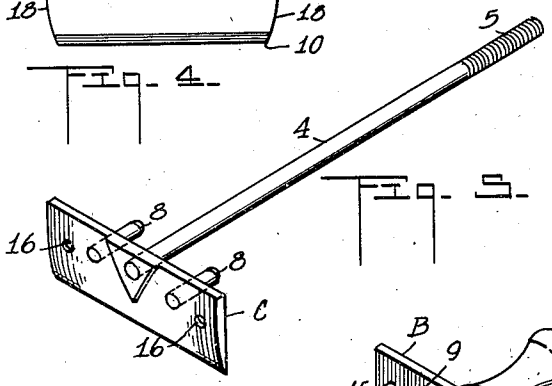


FIG. 5.

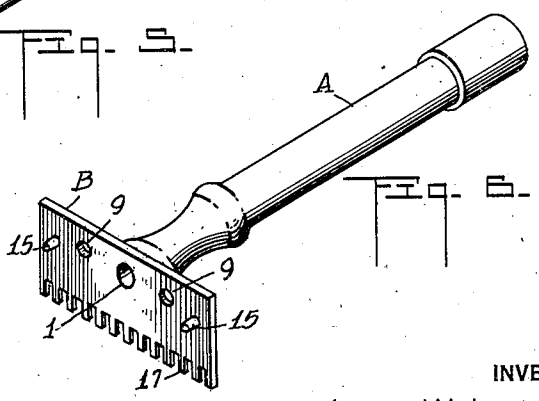


FIG. 6.

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SAFETY RAZOR

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Application October 9, 1945, Serial No. 621,207

4 Claims. (Cl. 30—64)

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An object of my invention is to provide a safety razor in which novel spring-actuated means is provided for gripping a blade between the comb and head of the razor for shaving purposes.

A further object of my invention is to provide a safety razor in which manually actuated means is used for moving the head away from the comb for freeing the blade and permitting a new one to be substituted. Novel means is provided for holding the head from rotating with respect to the comb while the head is held in spaced relation with respect to the comb.

Other objects and advantages will appear in the following specification, and the novel features of the device will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawing forming a part of this application, in which:

Figure 1 is a plan view of the device;

Figure 2 is a side elevation of the device;

Figure 3 is a longitudinal section through the safety razor, portions being shown in elevation;

Figure 4 is a plan view of a blade used with the razor;

Figure 5 is an isometric view of the head and actuating plunger, and

Figure 6 is an isometric view of the comb and handle.

While I have shown only the preferred forms of my invention, it should be understood that various changes or modifications may be made within the scope of the appended claims without departing from the spirit and scope of the invention.

In carrying out my invention, I provide a handle indicated at A and this handle is permanently connected to a comb indicated at B. The comb and handle may be permanently connected together as by welding. The handle has a longitudinally extending bore 1 therein, see Figure 3, and the bore extends from the comb end of the handle and communicates with an enlarged recess 2 disposed at the other end of the handle. The shoulder 3 is formed between the recess 2 and bore 1.

I show a safety razor head at C in Figure 5 and this head has a plunger rod 4 rigidly connected thereto and extending perpendicularly to the undersurface of the head. Figure 3 shows the rod 4 slidably received in the bore 1 and having a threaded portion 5 for receiving a push button 6 that is threaded thereon. A coil spring 7 has one end bearing against the shoulder 3 and its other end bearing against the push button 6.

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The spring receives the plunger rod 1 and acts upon the push button 6 for moving the head C toward the comb B.

I provide novel means for guiding the head C in its movement away from and toward the comb. Figure 5 shows the head carrying guide pins 8 and these pins are slidably received in openings 9 provided in the comb B. The guide pins 8 are long enough to still be received in openings 9 when the push button 6 is depressed so that its outer end will lie flush with the end of the handle. The guide pins prevent any relative rotation between the head C and comb B.

I provide a novel safety razor blade D of the shape shown in Figure 4. The blade has a cutting edge 10 and has three recesses extending inwardly from its rear edge 11. A central recess 12 is designed to receive the plunger rod 4 and two side recesses 13 are designed to receive the two guide pins 8. In addition to the recesses, I provide openings 14 in the blade which will receive blade anchoring pins 15 carried by the comb B and shown in Figure 6. The head C has openings 16 for receiving the pins 15 when the head clamps the blade to the comb.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood.

The complete safety razor is shown in Figures 1, 2 and 3. Figure 2 illustrates how the razor is held when placing the blade D in proper position between the head C and the comb B. The push button 6 is held depressed for keeping the head spaced away from the comb a sufficient distance for the head to clear the pins 15. The blade is moved into place and the curved ends of the recesses 12 and 13 will abut the rod 4 and pins 8, respectively, so that the blade will be held in proper position preparatory to being clamped in place. The push button 6 is now freed and the spring 7 will move the head C toward the comb B. The openings 14 of the razor blade will be held in proper registry with the pins 15, so that the pins will enter the blade openings and then enter the opening 16 in the head for anchoring the blade in position. The blade is clamped in place and is held against rotation with respect to the head and comb by the pins 15.

The comb has the usual comb teeth 17 which will prevent the sharpened edge 10 of the blade from cutting the face while permitting the blade to shave the hair from the face. The device can be used in the same manner as the usual safety razor. When it is desired to free the blade from the razor for cleaning purposes or for the sub-

stitution of a new blade for the old one, the safety razor is turned into the position shown in Figure 3 and then the push button **6** is depressed for moving the head away from the comb. The blade can now be free from the pins **15** and will drop from the safety razor by gravity or the blade may be manually removed.

In order to aid in the placing of the blade in position in the safety razor or for removing the blade from the razor, I provide the ends of the blade with convex edges **18** that will project beyond the ends of the head and comb as shown in Figure 1. This will permit the operator to grip the blade without any chance of being cut.

I claim:

1. A safety razor comprising a comb having a hollow handle, a head having a rod slidable in the handle, a push button connected to the rod and normally projecting beyond the handle, said push button when depressed spacing the head from the comb, spring means yieldingly engaging with the push button for moving the head into clamping position with the comb when the button is freed, and a razor blade adapted to be clamped between the head and comb.

2. A safety razor comprising a comb having a hollow handle, a head having a rod slidable in the handle, a push button connected to the rod and normally projecting beyond the handle, said push button when depressed spacing the head from the comb, spring means yieldingly engaging with the push button for moving the head into clamping position with the comb when the button is freed, and a razor blade adapted to be clamped between the head and comb, guide pins carried by the head, said comb having openings for receiving the pins for stopping relative rotation between the head and comb whether the head is in clamping position or spaced relation with respect to the comb, and said blade having recesses for receiving the rod and pins, the inner ends of the recesses contacting with the rod and pins and correctly positioning the blade prior to its being clamped.

3. A safety razor comprising a comb having a hollow handle, a head having a rod slidable in the handle, a push button connected to the rod and normally projecting beyond the handle, said push button when depressed spacing the head from the comb, spring means yieldingly engaging with the push button for moving the head into clamping position with the comb when the button is freed, and a razor blade adapted to be clamped between the head and comb, guide pins carried by the head, said comb having openings for receiving the pins for stopping relative rotation between the head and comb whether the head is in clamping position or spaced relation with respect to the comb, and said blade having recesses for receiving the rod and pins, the inner ends of the recesses contacting with the rod and pins and correctly positioning the blade prior to its being clamped and blade anchoring pins carried by the comb, said blade and head having registering openings adapted to receive the anchoring pins when the blade is clamped, said anchoring pins freeing the blade when the head is moved into open position.

4. A safety razor comprising a comb having a hollow handle, a head having a rod slidable in the handle, a push button connected to the rod and normally projecting beyond the handle, said psuh button when depressed spacing the head from the comb, spring means yieldingly engaging with the push button for moving the head into clamping position with the comb when the button is freed, and a razor blade adapted to be clamped between the head and comb and blade anchoring pins carried by the comb, said blade and head hving registering openings for receiving the pins when the head is moved into clamping position.

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