

L. KNASTER.
SAFETY RAZOR.
APPLICATION FILED JAN. 19, 1910.

975,535.

Patented Nov. 15, 1910.

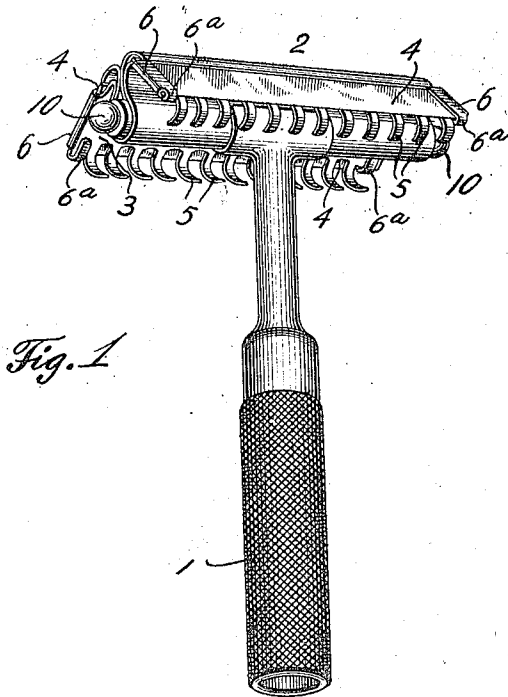


Fig. 1

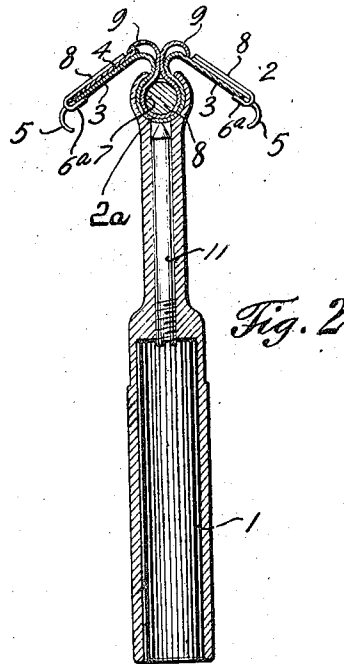


Fig. 2

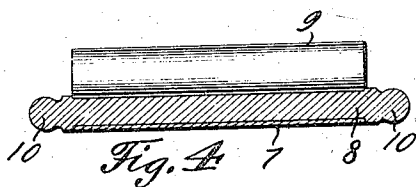


Fig. 4

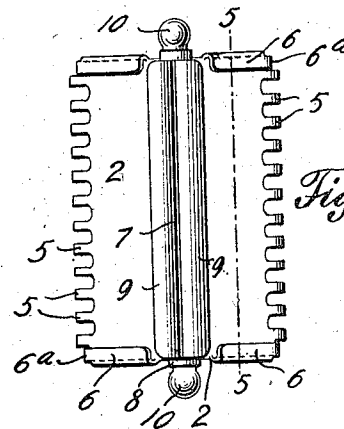


Fig. 3

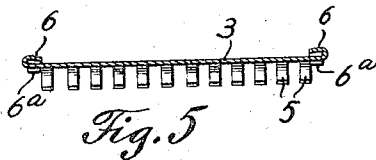


Fig. 5

Witnesses

E. Larson
M. J. Taylor

Inventor
L. Knaster
By *Beeler & Co.*
Attorney

UNITED STATES PATENT OFFICE.

LEON KNASTER, OF HOBOKEN, NEW JERSEY.

SAFETY-RAZOR.

975,535.

Specification of Letters Patent. Patented Nov. 15, 1910.

Application filed January 19, 1910. Serial No. 538,871.

To all whom it may concern:

Be it known that I, LEON KNASTER, a subject of the Czar of Russia, residing at Hoboken, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Safety-Razors, of which the following is a specification.

This invention comprises certain novel improvements in the construction of the safety razor covered by my Letters Patent No. 935,032, dated September 28, 1909.

The essential object of the present improvements is to provide a razor of the type described in the above Letters Patent, but in which the specific construction of the parts of the tool is modified to afford certain practical advantages that will appear more fully hereinafter.

For a full understanding of this invention and the merits thereof, reference is to be had to the accompanying drawings, in which—

Figure 1 is a perspective view of a razor embodying the essential features of the invention; Fig. 2 is a vertical longitudinal section; Fig. 3 is a plan view of the head with blades removed; Fig. 4 is a longitudinal section of the key, and Fig. 5 is a section on the line 5—5 of Fig. 3.

Throughout the following detail description, and on the several figures of the drawings, similar parts are referred to by like reference characters.

A safety razor embodying the improvements of this invention comprises a suitable handle 1, an end of which is bifurcated and the bifurcated portions formed so as to receive and grip the head 2 of the device. Said head 2 consists of a central body portion and oppositely extending blade supporting members 3 on the surfaces of which the blades 4 are supported. The blade supporting members 3 preferably incline in opposite directions and it is contemplated that the inclination of said members may be varied according as is found best to facilitate the use of the invention in shaving. At their outer edges the blade supporting members 3 are formed with a plurality of curved guards 5 and the opposite end portions of the said members are formed with blade guides 6 which assist in positioning and holding the blades when adjusted for shaving. The guides 6 constitute end flanges on the members 3 and which flanges are bent upwardly so as to overlap said members 3,

the lower extremities of the flanges being extended and bent downwardly beneath the blade supporting members, as shown at 6^a and thus provide stops limiting the downward movement of the blades when the latter are placed on the blade supporting surfaces.

The blades 4 are locked from displacement from the supporting members 3 by means of a locking key 7, somewhat similar to that described in my previous patent, said key consisting of a body portion made from spring metal which is rolled about a core 8, the opposite ends of the metal being curved outwardly and downwardly to form the locking clips 9, adapted to overstand the upper edges of the blades 4 and hold the latter in place by direct pressure thereagainst.

The head 2 of the razor is made from a piece of sheet metal, the central portion of which is rolled to form the somewhat circular-shaped body to which the handle 1 is secured, the metal being then bent outwardly and downwardly from the body to provide the oppositely arranged blade supporting members 3 hereinbefore described. The space inclosed by the body portion of the head 2 constitutes a longitudinal seat for the key 7 and said seat tapers slightly toward one end of the head. In like manner the key 7 is slightly tapering so that as it is moved or slid longitudinally into the seat 2^a aforesaid from the larger end of the latter, the key will bind and thus be held firmly from displacement. As the key 7 is forced into place by the slight pressure required and which is exerted against a suitable finger piece 10, one of which is provided at each end of the core 8, the clips 9 engage over the upper ends of the blades 4 and firmly hold the same against the blade supporting members in the manner clearly shown in the drawings.

In Fig. 2 of the drawings, one of the blades 4 is omitted to bring out more clearly the construction of the head, but it will be understood that the clips 9, being made from spring metal are adapted to yield upwardly as they are engaged with the blades and in the operation of assembling the parts of the razor for use. The frictional engagement of the key 7 in its seat 2^a and the engagement of the clips 9 with the blades 4, prevents likelihood of accidental displacement of the key.

It will be apparent from the foregoing that the head and locking key of the razor are especially advantageous in form by reason of the cheapness with which they may be manufactured as well as by reason of the simplicity of structure afforded. The body of the key 7 is countersunk in the core 8, the latter having a reduced body portion for this purpose. The finger pieces 10 facilitate the operation of introducing the key 7 into its seat and removing it therefrom.

The handle 1 is detachable from the head 2 by reason of the provision of a screw pin 11 adapted to engage the head and carried by the handle, said pin being removable by introducing a suitable tool in the hollow portion of the handle.

The blade locking key above described may be inserted into the seat in the head of the razor from either end of said seat and by reason of the flexibility of the metal from which the head is made. Furthermore, the clips 9 overstand the blades 4 in a manner as to not only hold the same in position but said clips permit of use of small blades and afford extra strength when the latter are used, making the action of the razor very effective whether small or large blades are employed. The curving of the guards 5 is advantageous in that the razor slides smoothly over the face in the shaving operation.

Having thus fully described my invention, what is claimed as new is:

35 1. A safety razor comprising a head consisting of a piece of metal bent upon itself between its ends to form a longitudinal seat, having its ends extended in opposite directions from the seat to constitute blade supporting members, blades thereon, said blade supporting members being provided with means for positioning the blade thereon, a key consisting of a piece of metal bent between its ends to provide a body movable in the seat of the head, and the ends of the key being extended to form clips to engage the blades and prevent displacement thereof.

2. A safety razor comprising a blade supporting head made from a piece of sheet metal folded to form a longitudinal seat

and having an end portion extending from the seat and forming a blade supporting member, a blade thereon, said blade supporting member being provided with means for positioning the blade thereon, and a locking key movable in the seat of the head and consisting of a piece of metal bent to form a body received by said seat and from which body extends a yieldable clip for engaging the blade to prevent displacement thereof.

3. A safety razor comprising a clip made of a piece of sheet metal folded intermediate of its ends to provide a hollow seat tapering toward one end thereof, opposite end portions of the piece of metal being projected in opposite directions from the head to form blade supporting members, blades carried by said members, guides at the ends of the blade supporting members for positioning the blades thereon, and a key slidable longitudinally in the seat of the head and consisting of a piece of metal folded between its ends to provide a body portion movable in the seat, the ends of the key being curved outwardly to provide oppositely extending clips for engagement with the blades to prevent displacement thereof.

4. As a new article of manufacture, a safety razor comprising a head made from a single piece of sheet metal, bent centrally thereof to provide a hollow tapering seat and the opposite ends of the metal being projected in opposite directions to form blade supporting members, said blade supporting members having end flanges constituting guides, and also having guards at their outer edges and a locking key for the blades consisting of a core provided with finger pieces at its opposite ends and a piece of sheet metal bent about the core and having its ends bent outwardly in opposite directions to form clips overstanding the blades and preventing displacement thereof.

In testimony whereof I affix my signature in presence of two witnesses.

LEON KNASTER.

Witnesses:

ADOLPH GRIUNDER,
ADOLPH MUSSOLINO.