F. W. GROSCHOPP.

LOCKING DEVICE FOR SAFETY RAZOR BLADES.

APPLICATION FILED JAN. 24, 1912.

1,046,179. Patented Dec. 3, 1912.

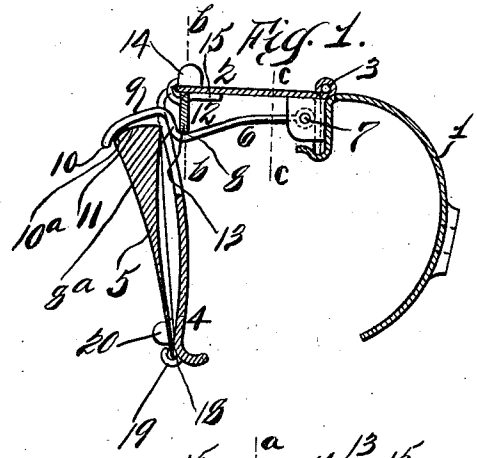

Fig. 1.

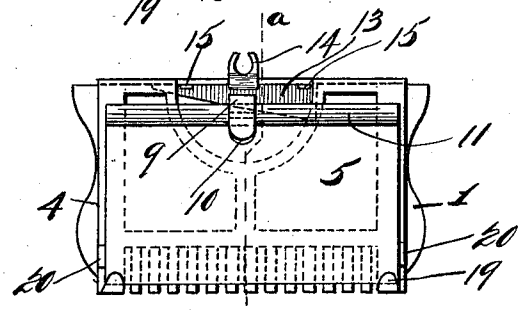

Fig. 2.

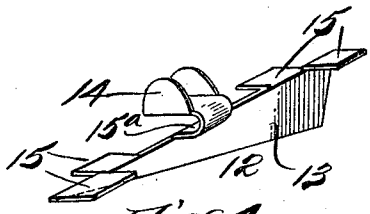

Fig. 4.

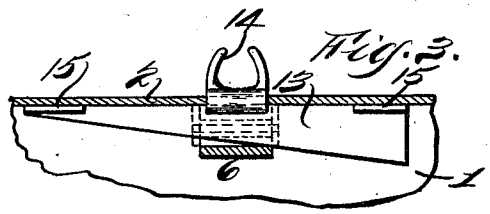

Fig. 3.

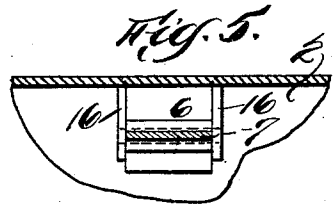

Fig. 5.

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UNITED STATES PATENT OFFICE.

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LOCKING DEVICE FOR SAFETY-RAZOR BLADES.

1,046,179. Specification of Letters Patent. Patented Dec. 3, 1912.

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To all whom it may concern:

Be it known that I, FRIEDRICH W. GROSCHOPP, a subject of the Emperor of Germany, residing at New York city, county of New York, in the State of New York, have invented certain new and useful Improvements in Locking Devices for Safety-Razor Blades, of which the following is a full, clear, and exact description.

This invention relates to an improvement in safety razors, but more especially to a blade clamping device by which means a cutting blade is held in position on the frame.

My improved blade holding device is adapted to clamp blades of different depths and is adapted to contact with the heel of the blade and to press the blade downwardly and inwardly at the heel portion thereof, special means being provided to prevent the cutting blade from shifting sidewise and also to prevent the cutting edge of the blade from getting out of contact with the adjacent portion of the guard of the frame.

I will now proceed to describe my invention in detail, the novel features of which will be pointed out in the claims, reference being had to the accompanying drawing, forming part hereof, wherein:

Figure 1 is a vertical sectional view of a safety razor frame embodying my improvement, the section being taken on a line *a*—*a* in Fig. 2; Fig. 2 is a front elevation of a safety-razor frame embodying my improvement; Fig. 3 is an enlarged sectional detail view, the section being taken on a line *b*—*b* in Fig. 1; Fig. 4 is a perspective detail view of one member of my improved blade clamping or locking device; and Fig. 5 is an enlarged sectional detail view, the section being taken on a line *c*—*c* in Fig. 1.

In the drawing 1 indicates one member of a safety razor frame, and 2 indicates the other member of the frame, which is pivotally connected to the member 1 as at 3.

The numeral 4 indicates the guard portion of the frame upon which the blade 5 is carried.

To clamp or lock the blade 5 in position on the guard 4, I employ a radially movable arm 6 pivotally connected, as at 7, to the frame member 2. The arm 6 is provided with a socket 8 produced by bending the arm 6 upwardly as at 8^a.

In order that the arm 6 can engage the heel of the blade 5, I provide the same with a finger 9, which, at its outer end, is curved downwardly to contact with the upper outer edge 10^a of the heel 11 of the blade. In order that the finger 9 will not lie flat upon or in contact with the heel of the blade, excepting at the aforesaid corner 10^a, I slightly incline the same as shown.

To force the arm 6 downwardly, and thus force the finger 9 against the blade, I employ a slidable lock 12 comprising a wedge portion 13, a manipulating device 14 and wings 15. As can be seen in Fig. 1, the lock 12 is held upon the frame member 2 by means of the manipulating device or handle 14 and wings 15. The wings 15 contact with a portion of the undersurface of the frame member 2, while the handle 14 contacts with the top surface thereof. The handle 14 is bent over to form a pocket 15^a to receive the overhanging edge of the frame member 2, as can be seen in Fig. 1. The heel of the arm 6 is pivotally supported in a bracket having wings 16, the said bracket being secured to the frame member 2. The function of the wedge shaped lock is to exert a downward pressure on the arm 6 when the wedge is forced to the left (see Fig. 3), whereby the finger 9 exerts a downward pressure upon the blade 5, forcing it into a pocket 18 formed by the turned over lips 19 of the guard 4. The lips 19 prevent the cutting edge of the blade from being pulled away from the guard 4, while the wings 20 prevent the blade from side lashing.

The locking device 12 is slidably mounted on the frame member 2 and can be moved longitudinally thereof.

It will be obvious that blades of different depths can be secured by means of my improved locking device, and it is also quite obvious that a movement toward the left, on the part of the locking device, secures the blade, and movement toward the right, loosens the blade so that it can be taken out.

Having now described my invention, what I claim and desire to secure by Letters Patent is:

1. In combination with a safety razor frame, a blade, a locking device comprising an arm pivotally connected at one end thereof to said frame, a slidable wedge contacting with said arm and adapted to force said arm downwardly against the upper rear edge of said blade, wings carried by said wedge con-

tacting with the inner surface of the back of said frame, and a handle carried by said wedge, provided with a pocket adapted to receive the upper back edge of said frame, said handle being adapted to retain said wedge in place on said frame.

2. In combination with a safety razor frame, a blade, a locking device comprising an arm pivotally connected at one end thereof to said frame, a slidable wedge contacting with said arm and adapted to force said arm downwardly against the upper rear edge of said blade, and a handle carried by said wedge adapted to retain said wedge in position on said frame.

Signed at New York city, N. Y. this 22nd day of January 1912.

FRIEDRICH W. GROSCHOPP.

Witnesses:
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