L. BRUNACCI.

SAFETY RAZOR.

APPLICATION FILED OCT. 12, 1908.

933,415. Patented Sept. 7, 1909.

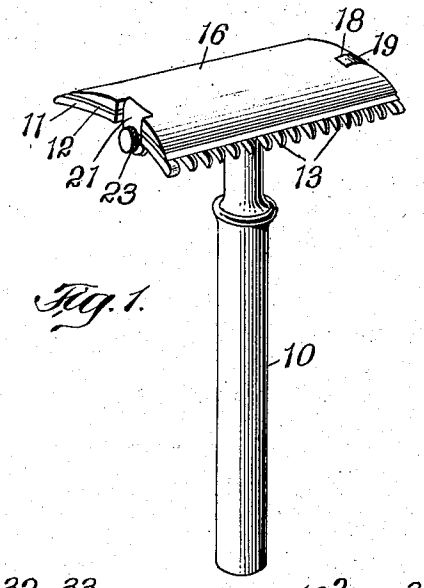

Fig. 1.

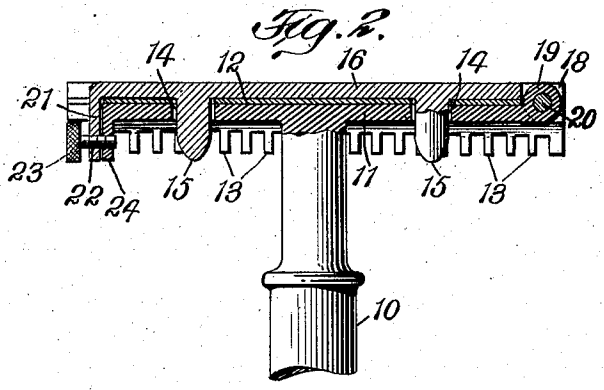

Fig. 2.

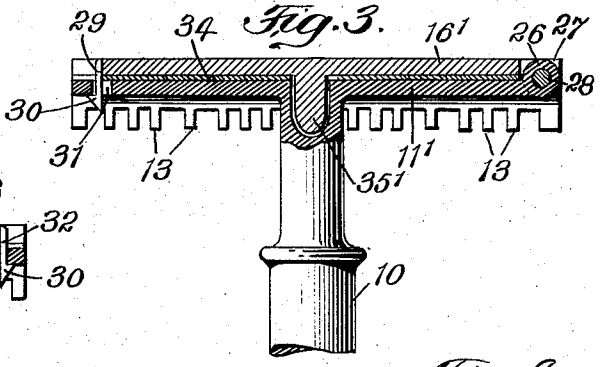

Fig. 3.

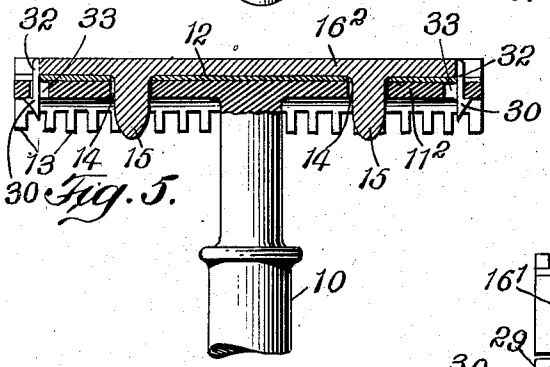

Fig. 5.

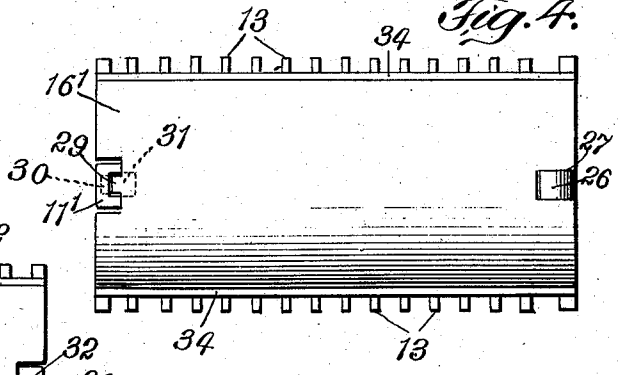

Fig. 4.

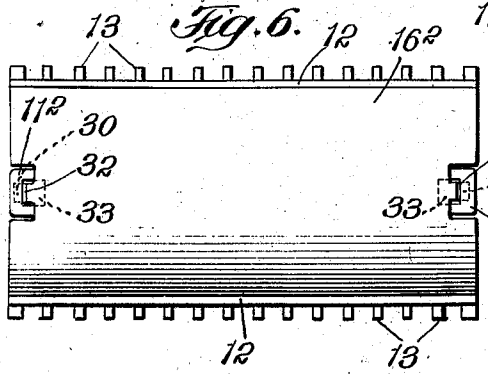

Fig. 6.

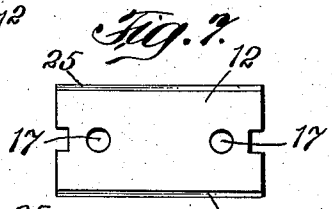

Fig. 7.

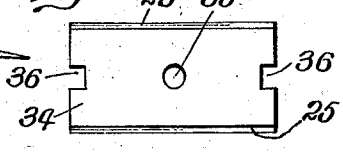

Fig. 8.

WITNESSES

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SAFETY-RAZOR.

933,415. Specification of Letters Patent. Patented Sept. 7, 1909.

Application filed October 12, 1908. Serial No. 457,396.

To all whom it may concern:

Be is known that I, LUIGI BRUNACCI, a subject of the King of Italy, and a resident of New York, county and State of New York, have invented certain new and useful Improvements in Safety-Razors, of which the following is a full, clear, and exact description.

This invention has special reference to the means for detachably clamping the razor blade in the holder of a safety razor.

The primary object of the invention is to provide simple and efficient means whereby a safety razor blade having one or more cutting edges may be effectually held and secured between the two clamping members of the blade holder, and the clamping members readily separated in order that the blade may be quickly and easily inserted or removed from the holder.

A further object of the invention is to provide a holder for a safety razor blade in which the holder is so constructed, arranged and connected together that the clamping members may be efficiently operated to open and close them in securing and removing the razor blade, and may be readily fastened together and interlocked and separated from each other.

The invention consists of an improved safety razor, and in the clamping holder thereof the several parts being constructed and arranged as hereinafter set forth in the specification and drawings, and specified in the claims.

In the drawings, Figure 1 is a perspective view of one form of device embodying my invention. Fig. 2 is a longitudinal section, partly in elevation of the device. Fig. 3 is a longitudinal section, partly in elevation, showing a modification of the means for connecting and fastening the members of the holder together. Fig. 4 is a plan view of the device shown in Fig. 3. Fig. 5 is a longitudinal section, partly in elevation of the device showing another modification of the means for connecting and fastening the clamping members together. Fig. 6 is a plan view of the device shown in Fig. 5. Fig. 7 is a detail view of the blade; and Fig. 8 is a modified form of the construction of the blade.

The numeral 10 indicates the handle of the holder on the outer end of which is a head 11 which may be integral therewith as shown or separably connected thereto, said head forming a guard for the cutting edge of the razor blade 12 and provided with a number of teeth 13 forming a comb-like edge which serves as a guard for the razor blade to prevent the same from cutting the skin while shaving, and is of the usual construction in devices of this character.

The head 11 forming the guard may be curved or convex, and its outer surface is preferably provided with apertures or openings 14 in which are adapted to be located the projections or alining teats or devices 15 projecting from the backing member 16. The backing member 16 is concave at its inner surface and is adapted to clamp the razor blade 12 against the head 11, said razor blade being provided with apertures 17 through which the projections 15 are adapted to pass to properly aline said razor blade with respect to the guard member or head 11, and which prevents movement of the blade while in use when it is clamped between the members 16 and 11.

To separably clamp and detachably fasten the backing member 16 to the guard member 11, various means may be employed which will adapt the razor blade to be quickly removed as well as to be properly held when clamped between the backing member and the guard member of the holder. One form thereof is shown in Figs. 1 and 2 in which the backing member 16 is provided at one end with a recess 18 forming an opening in which is fitted a lug 19 projecting from the guard member 11, said lug being connected to the member 16 by means of a pin or pintle 20 passing through said lug and member 16 whereby the two clamping members are hinged together at one end so as to permit the member 16 to be quickly swung open and the razor blade removed and replaced.

The clamping members 16 and 11 may be fastened together in any suitable manner, and as shown in Figs. 1 and 2, are fastened together as follows: The end of the clamping member 16 opposite the hinge is provided with a projecting lug or bracket 21 having a threaded opening through which extends a screw 22 or other fastening device, the said screw 22 having a burred head 23 by means of which it may be operated. The screw 22 engages a threaded hole in a lug or projection 24 extending downwardly from the guard member 11, or the said screw may

have its inner end somewhat tapering so as to engage an opening in the lug 24 which is so positioned with respect to the end of the screw 22, that it will tend to draw the two members 16 and 11 toward each other.

In the construction thus described, it will be seen that the holder is formed with a fixed clamping member 11 and a member 16 separable therefrom, said members being separably connected at each end, a connection at one end being a hinge and at the other end a separable fastening device, such as the screw 22 and the lugs 21 and 24.

The razor blade 12 may be substantially rectangular as shown with a cutting edge 25 on the two sides thereof and may be made of thin steel so that when the two clamping members are forced together, the said razor blade will be flexed so as to conform to the shape of the clamping members of the holder.

In Figs. 3 and 4, the two members 16′ and 11′ are hinged together as in Figs. 1 and 2, by means of a lug 26 on one end of the member 11′, and located in a recess 27 in one end of the member 16′ and a pin or pintle 28 extending through an opening in the end of the member 16′ and through lug 26. Instead of the screw 22, the clamping members are fastened together by means of a spring catch 29 which is located at one end of the member 16′, and has a shouldered head 30 which is adapted to pass through an opening 31 in the guard member 11′, said head 30 being adapted to engage the under surface of the member 11′ when forced inwardly through the opening 31. By pushing or forcing the catch 29 inward so as to release it from the member 11′, the member 16′ may be quickly unfastened and swung open from the guard member 11′ permitting the razor blade to be removed or one substituted for it.

In Figs. 5 and 6 is shown a modification of the means for separably connecting and fastening the clamping members 16^2 and 11^2 of the holder together, the clamping member 16^2 having a spring catch 32 at each end similar to the catch 29 shown in Fig. 3. By means of this construction the clamping member 16^2 may be unfastened and separated from the clamping member 11^2, the catches 32 being released therefrom by forcing them back. Each catch 32 is adapted to pass through a slot 33 formed in the end of the guard member 11^2, and is adapted to engage the under surface of said guard member 11^2. It will be seen that by this construction set forth in the last modification, the clamping members are separably connected at their ends, and are also detachably fastened together just as in the case set forth in Figs. 1 and 2, detachably interlocking the clamping members together.

While the device has been shown as provided with the projections 15 on one of the clamping members extending through openings 14 in the other for the purpose of properly alining the razor blade, the projections and openings 14 may be dispensed with and other suitable means for holding the blade in alinement may be provided, as for example, as shown in Fig. 8, in which a razor blade 34 is provided having a central opening 35 which is adapted to receive a central teat or projection 35′ on the separable member to engage it with the fixed member 11′, and recesses 36 at its ends which engage the fastening and connecting devices at the ends of the holder.

From the foregoing description, it will be seen that simple and efficient means are provided whereby a safety blade may be securely held in the holder against displacement, and in which one of the clamping members may be quickly and readily unfastened and separated from the fixed member, and the razor blade quickly removed and another placed in its stead. Also that the parts of the holder may be easily manipulated and assembled, and when held fastened in place will properly and rigidly support and retain the razor blade in position.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. A safety razor comprising a guard, a clamping member hinged thereto at one end and provided with a recess in the other end, and a depending member located in said recess, and a locking screw carried by said depending member and constructed to engage said guard.

2. A safety razor comprising a guard, a clamping member hinged thereto at one end, said clamping member and guard being each provided with a depending lug and a locking screw carried by the depending lug of said clamping member and adapted to engage the depending lug of the guard.

3. A safety razor comprising a guard, a clamping member hinged thereto at one end, said guard and clamping member being each provided with a depending lug, and locking means carried by one lug for engaging the other lug for locking the clamping member and guard together.

This specification signed and witnessed this ninth day of October A. D. 1908.

LUIGI BRUNACCI.

Witnesses:
M. TURNER,
E. KRANCER.