

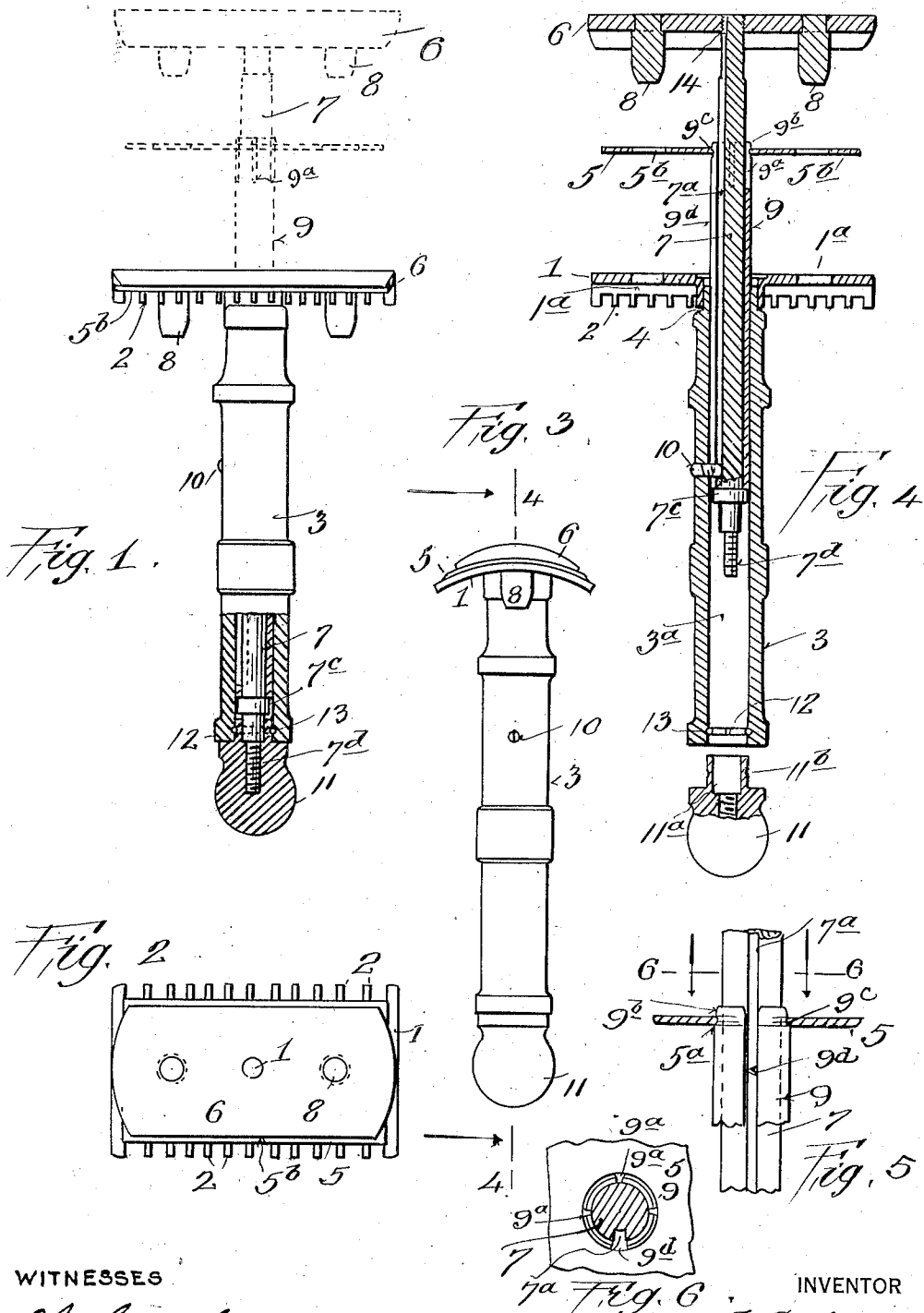
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SAFETY RAZOR

Filed May 21, 1921



WITNESSES

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HENRY J. GAISMAN, OF NEW YORK, N. Y.

SAFETY RAZOR.

Application filed May 21, 1921. Serial No. 471,333.

To all whom it may concern:

Be it known that I, HENRY J. GAISMAN, a citizen of the United States, and resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Safety Razors, of which the following is a specification.

The object of my invention is to provide a safety razor whereby parts of the holder and the blade may be separated to enable ready cleaning of the parts, and may be restored to operative relation, without requiring said parts and blade to be detached from one another.

In the form of invention illustrated in the accompanying drawings I have shown a type of safety razor comprising a holder having a handle, a guard, a blade and a backing member for the blade to clamp the latter over the guard, with means to temporarily support the blade and backing member spaced from the guard and from each other, to permit ready washing and wiping of the parts, and their ready reassembling for use.

My invention also comprises novel details of improvement that will be more fully hereinafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings forming part hereof, wherein—

Fig. 1 is a partly sectional side view of my improved razor; Fig. 2 is a plan view; Fig. 3 is an edge view; Fig. 4 is a vertical section on line 4, 4 in Fig. 3; Fig. 5 is a fragmentary detail view, and Fig. 6 is a section on line 6, 6 in Fig. 5.

Similar numerals of reference indicate corresponding parts in the several views.

The numeral 1 indicates a guard member or plate having guard teeth 2 and provided with a tubular handle 3, which may be attached to the guard member in any suitable manner, as by means of a hub 4 on member 1 frictionally receiving the end of the handle. The blade is indicated at 5, shown of the two-edge variety, adapted to be clamped upon member 1 with its cutting edges in shaving relation to the guard teeth. A backing plate or member 6 for the blade is adapted to clamp the latter on the guard member. The backing 6 is shown provided with rod 7 to pass through a hole 5^a in the blade and

with pins 8 to pass through spaced holes 5^b in the blades. The rod 7 passes through a central hole in member 1 and into handle 3, and the pins 8 pass through holes 1^a. The parts 1, 3, 6 and 7 comprise a holder for the blade. The blade is detachably secured to a slidable support 9, shown in the form of a tube, adapted to enter and to be partly pulled out of the handle. Rod 7 is slidable within blade support 9 and is longer than the latter. The outer end of support 9 is shown provided with an annular groove 9^c to receive hole 5^a of the blade, and said end is split longitudinally in one or more places, as at 9^a, for the material to expand elastically within hole 5^a to detachably retain the blade on said support. The outer end of support 9 is shown beveled or rounded at 9^b to readily enter hole 5^a of the blade. Means are provided to limit the outward movement of rod 7 and blade support 9 from the holder parts 1, 3. I have shown support 9 provided with a longitudinal slot 9^d and rod 7 with a longitudinal groove 7^a which register to receive a stop 10 on handle 3, shown in the form of a screw or pin extending from the wall of the handle into its bore 3ⁱ to enter slot 9^d and groove 7^a. The metal at the bottom of said slot and groove engages stop 10 to limit the outward sliding of rod 7 and supporting tube 9, and said stop also serves to resist rotation of said rod and tube within the handle. The relative proportions of rod 7 and support 9 are such that when they are pulled out of the handle to their limit the blade will be spaced between the guard member 1 and the backing 6 (Fig. 4).

Rod 7 is shown provided with a projection or shoulder 7^c to engage support 9 to push the latter outwardly with the blade.

Any suitable means may be provided to retain rod 7 to press on blade 5 to clamp the latter on guard member 1. I have shown a nut 11 to screw on the inner threaded end 7^a of rod 7 when the parts are assembled for use, (Fig. 1). Said nut is shown provided with a hub 11^a having an annular groove 11^b to receive a retaining spring member 12 in handle 3. Member 12 is shown in the form of a split wire ring received in a recess 13 in the wall of the handle and projecting inwardly sufficiently to rotatively retain nut 11 on the handle.

The spring ring member 12 will expand to permit hub 11^a to be pushed into and removed from said member.

When the parts are assembled, as illustrated, a blade may be applied by unscrewing backing 6 from rod 7 at the threads 14, when the rod has been pulled out, (Fig. 4), placing a blade 5 upon the rod, re-attaching backing 6 to the rod, and pushing said backing toward the guard, the rod sliding in the handle, the blade being held to receive the pins 8, the backing pushing the blade to the guard. The nut 11 will be screwed on the end 7^d of rod 7, whereby the backing and blade will be clamped on the guard member. When the backing is thus clamped upon the blade it will force the blade, at its hole 5^a, upon the end of support 7 to be there retained. Adjustment of the blade edge to the guard teeth may be made by operating nut 11 to press the backing more or less against the thin flexible blade, in a manner well known with safety razors of the variety referred to. When it is desired to clean the razor the nut is unscrewed from rod 7, the backing 6 and rod 7 are pulled outwardly and with them the support 9 is advanced to raise the blade from the guard, such as illustrated in Fig. 4, the blade remaining fixed on said support. With the parts in such position, retained collected but spaced apart, the blade and other parts are free and exposed to be washed and wiped, overcoming the objection to separately handling razor blades for cleaning purposes, and reducing the liability of cutting the fingers of the user. After cleaning the parts it is merely necessary to push the backing toward the guard to restore the blade against the latter and screw the nut upon rod 7, the latter and support 9 sliding within the handle. When it is desired to renew a blade the backing 6 is pulled out, causing rod 7 to push out support 9 and the attached blade, the backing is unscrewed from the rod, and the blade removed, a new blade is placed upon the rod, the backing is screwed back upon the rod, and the said parts are pushed toward the guard, and the nut is screwed on the rod, as previously described.

The advantage of being able to clean the parts of the razor without requiring the blade to be removed from the holder and replaced will be apparent, the only time the blade need be manipulated being when renewing it.

My invention is not limited to the details of construction set forth, as the same may be varied, within the scope of the appended claims, without departing from the spirit of my invention.

Having now described my invention what I claim is:—

1. A safety razor comprising a guard, a

backing for a blade, a support for the blade, a handle slidably supporting said support respecting the guard, means movably supporting the backing respecting the guard, the handle and said support, the backing being detachably connected to its supporting means, and means to prevent detachment of the support and the backing from the handle.

2. A safety razor comprising a guard, a tubular support for a blade movable relatively to the guard, a backing, a rod detachably connected with the backing and slidable in said support, means to retain the backing clamped upon the blade on the guard, and means to prevent detachment of the support and the backing from the handle.

3. A safety razor comprising a guard, a tubular support for a blade movable relatively to the guard means to retain a blade on the support, a backing, a rod connected with the backing and slidable in said support, means to limit outward movement of said support and rod relatively to the guard to retain the blade and backing spaced from the guard and from each other, and means to retain the backing clamped upon the blade on the guard.

4. A safety razor comprising a guard, a handle, a blade support movable relatively to the guard, a backing having a rod longer than said support and movable relatively thereto and to the handle, and means to limit outward movement of said support and rod relatively to the guard and the handle with the backing spaced from a blade on said support.

5. A safety razor comprising a guard, a blade support movable relatively to the guard, a backing having a rod longer than said support and movable relatively thereto, means to limit outward movement of said support and rod relatively to the guard with the backing spaced from a blade on said support, and the blade spaced from the guard, and means to retain said rod to keep the backing pressed upon the blade on the guard.

6. A safety razor comprising a guard having a tubular handle, a tubular blade support slidable in said handle and through said guard, means to detachably secure the blade to said support, a rod slidable in said support and handle, a backing detachably carried by said rod, and means to cause said rod to move said support outwardly to retain the blade and backing spaced from each other and from the guard.

7. A safety razor comprising a guard having a tubular handle, a tubular blade support slidable in said handle and through said guard, a rod slidable in said support and handle, a backing carried by said rod, and means to limit outward movement of

the rod and support to retain a blade on said support spaced from the backing and the blade and backing spaced from the guard.

8. A safety razor comprising a guard
5 having a tubular handle, a tubular blade support slidable in said handle and through said guard, a rod slidable in said support and handle, a backing carried by said rod, means to limit outward movement of the
10 rod and support to retain the backing and blade spaced from each other and from the guard, and a nut operative with the rod and handle to retain the backing pressing the blade against the guard.

15 9. A safety razor comprising a guard having a tubular handle, a tubular blade support slidable in said handle and through said guard, a rod slidable in said support and handle, a backing carried by said rod,
20 said support having a slot, the rod having a groove, and stop means on the handle operative in said slot and groove to limit movement of said support and rod.

10. A safety razor comprising a guard
25 having a tubular handle, a tubular blade support slidable in said handle and through said guard, a rod slidable in said support and handle, a backing carried by said rod, means to limit outward movement of the
30 rod and support to retain a blade on said support spaced from the backing, said back-

ing having detachable connection with the rod to permit application of a blade to and its removal from said support.

11. A safety razor comprising a guard 35 having a tubular handle, a tubular blade support slidable in said handle and through said guard, a rod slidable in said support and handle, a backing carried by said rod, means to limit outward movement of the
40 rod and support to retain a blade on said support spaced from the backing, said backing having detachable connection with the rod to permit application of a blade to and its removal from said support, and means 45 cooperative with the handle and rod to retain the backing clamped upon the blade on the guard.

12. A safety razor having a guard provided with a tubular handle, a tubular blade 50 support having a spring-like outer end to receive and retain a blade, a backing having a rod slidable in said support, means to cause the rod to advance the support and blade from the guard, and means operative 55 with the rod to retain the backing clamped upon the blade on the guard.

Signed at New York city, in the county of New York, and State of New York, this 19th day of May, A. D. 1921.

HENRY J. GAISMAN.