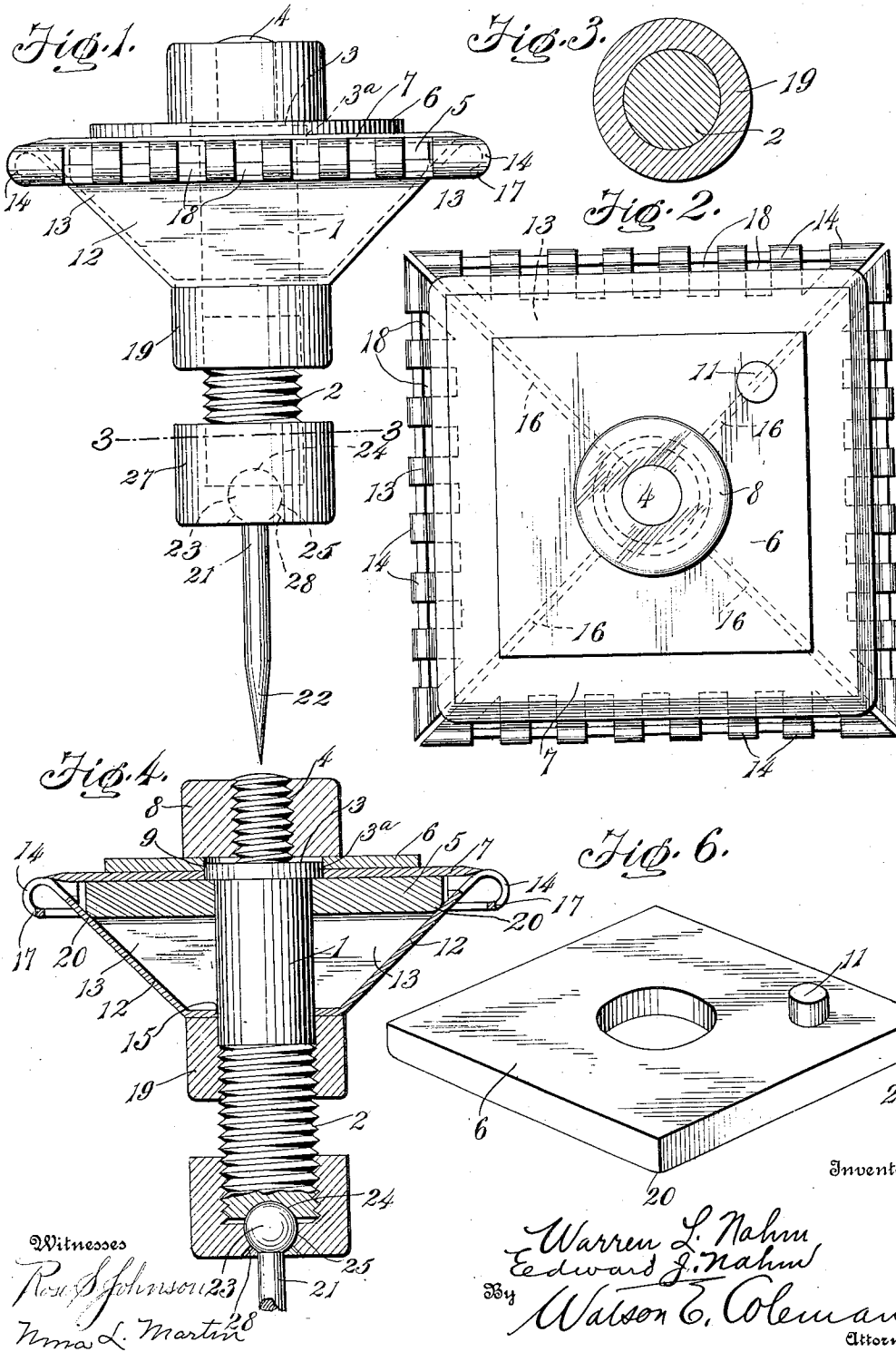


W. L. & E. J. NAHM.
SAFETY RAZOR.
APPLICATION FILED NOV. 19, 1908.

938,396.

Patented Oct. 26, 1909.
2 SHEETS—SHEET 1.

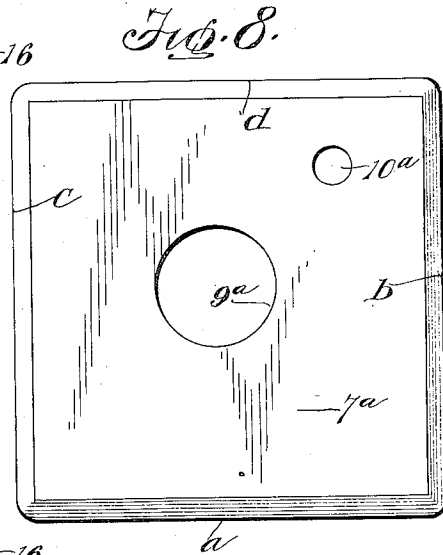
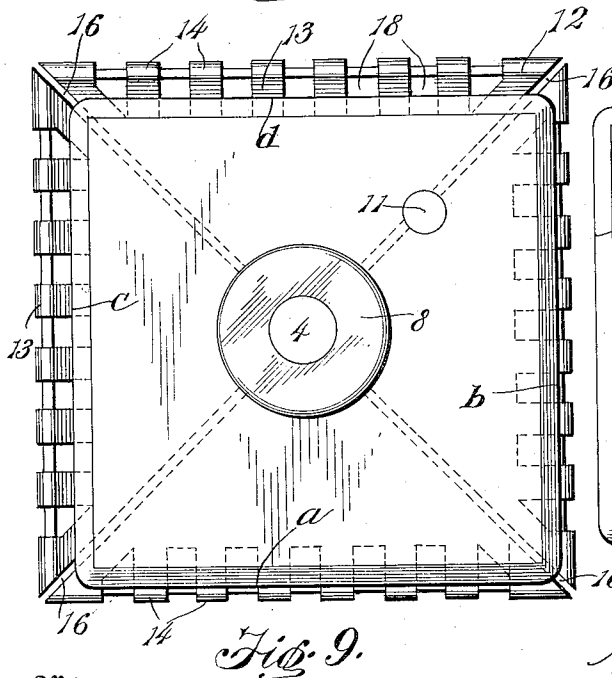
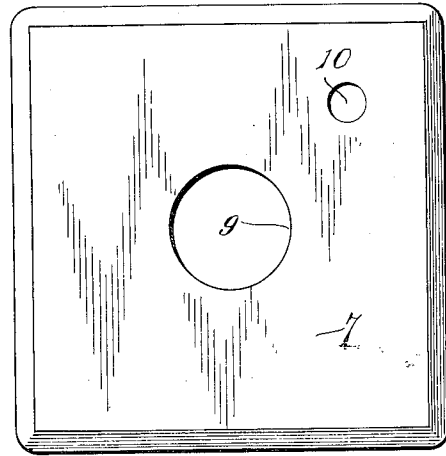
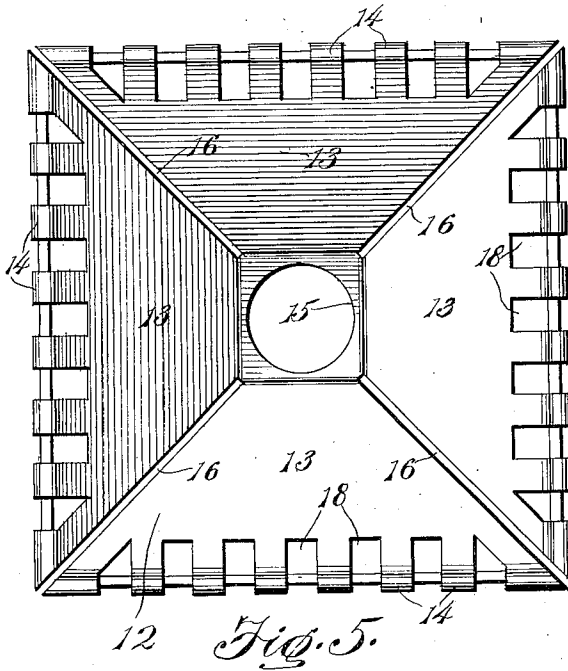


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UNITED STATES PATENT OFFICE.

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SAFETY-RAZOR.

938,396.

Specification of Letters Patent.

Patented Oct. 26, 1909.

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To all whom it may concern:

Be it known that we, WARREN L. NAHM and EDWARD J. NAHM, citizens of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Safety-Razors, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in safety razors and consists of the novel constructions and combinations of parts herein-after described and claimed.

The object of the invention is to improve and simplify the construction and operation of devices of this character and thereby render the same less expensive, more effective in operation and more convenient to adjust according to the requirements of the user.

The above and other objects of the invention are attained in its preferred embodiment illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the improved safety razor; Fig. 2 is a view of the outer end of the same; Fig. 3 is a transverse section taken on the plane indicated by the line 3—3 in Fig. 1; Fig. 4 is a longitudinal section; Fig. 5 is a plan view of the guard; Fig. 6 is a detail perspective of the inner blade clamping member or plate; Fig. 7 is a detail view of the blade; Fig. 8 is a similar view of a modified form of the blade; and Fig. 9 is a view similar to Fig. 2 with the blade shown in Fig. 8 in position in the razor.

The invention comprises a body member 1 preferably in the form of a cylindrical post having its inner end externally screw threaded, as shown at 2, and its outer end reduced to provide a shoulder 3 and externally screw threaded, as indicated at 4. Adjacent to the shoulder 3 is formed a radially projecting annular flange 3^a. Said body is adapted to receive inner and outer clamping plates 5, 6 which receive a blade 7 between them, and a knurled nut 8 which clamps said parts together. The blade 7 is here shown of square or quadrangular form and has all four of its edges beveled or sharpened to provide cutting edges, but it may be of other polygonal shape and have a greater or less number of cutting edges. It is formed with a large central opening 9 to receive the flange 3^a and it is also provided with a smaller opening 10 to receive a pin

or stud 11 projecting from the top of the lower clamping plate 5. The latter is also preferably of square or quadrangular shape and is of less size than the blade 7 so that the edges of the latter project a suitable distance beyond the edges of said plate, as shown in Figs. 1 and 4 of the drawings. The outer clamping plate 6 is also square or quadrangular and of less size than the blade 7, and it is formed with a central opening to receive the flange 3^a and with an opening to receive the stud 11.

12 denotes a guard member which corresponds in shape to the blade and which has a plurality of resilient arms 13 shaped to provide guard combs 14 which bear against the under face of the blade 7 at its cutting edges and also against the inner clamping plate 5 which has a central opening to receive the body member beneath the flange 3^a. Said guard member is preferably formed from a rectangular piece of resilient metal sheet by forming it with a central opening 15 to receive the inner end of the body, with diagonal slits 16 extending from its four corners inwardly to points suitably distant from its opening 15, and then bending the arms 13 formed by the slits 16 upwardly so that said member 12 is of pyramidal form. The outer ends of the arms 13 are bent or curved outwardly, downwardly and inwardly, as shown at 17, and then notched or recessed, as shown at 18, to form the guard portions or combs 14 which limit the cut of the edges of the blade 7. The resilient guard or comb arms 13 of the member 12 are adjusted upon the blade to vary the closeness of the shave, by means of a knurled nut 19 arranged on the threaded end or portion 2 of the body and adapted to engage the flat central portion of said member 12, as clearly shown in the drawings. When said nut 19 is adjusted the comb portions 14 of the resilient arms 13 will be moved outwardly or inwardly upon the cutting edges of the blade. In order to permit said resilient arms 13 to slide freely the lower or inner edges of the inner clamping plate 5 are rounded, as shown at 20. The corners of the blade 7 are also preferably rounded to render shaving easier and to lessen the liability of the user cutting himself. When the opening 9 in the blade is centrally arranged, all of the guard combs 14 will be adjusted to the same extent when the nut 19 is adjusted and owing to their

uniformity of adjustment all of the cutting edges will give a shave of the same degree of closeness. If desired, the openings 9^a and 10^a in the blade 7^a shown in Fig. 8 of the drawings, may be arranged eccentrically or off of the center of the blade and its diagonal so that when said blade is arranged in the razor, as shown in Fig. 9 of the drawings, the two edges *a*, *b* which are closest to the opening 9^a will give a closer relative shave than the other edges *c*, *d*, without regard to the adjustment of the nut 19.

The device may be provided with any suitable handle but I preferably provide the adjustable one indicated at 21. This handle comprises a member or shank having one end pointed, as shown at 22, to enter a suitable hand grip and its other end formed with a circular head or ball 23 to engage a concaved or substantially semi-spherical recess 24 in the inner end of the body 1 and a similar recess or seat 25 formed in a knurled cap nut 27 screwed upon the threaded extremity 2 of the body. The opening in the nut 27 through which the handle shank 21 projects is flared, as shown at 28, so that when the nut 27 is loosened the handle may be swung to any angle with respect to the body and clamped in such angular position by tightening the nut.

Having thus described the invention what is claimed is:

1. A safety razor comprising a body member, a polygonal blade having a plurality of cutting edges, polygonal-shaped clamping plates to receive the blade between them, said blade and one of the clamping plates being formed with registering openings, a stud carried by the other clamping plate to enter said openings, a nut upon the body to engage one of the clamping plates, a guard upon the body to engage the other clamping plate and formed with resilient arms having comb portions to co-act with the cutting edges of said blade and a nut upon the body for adjusting said guard member.

2. A safety razor comprising a body member, a polygonal blade having a plurality of cutting edge and an opening to receive the body, polygonal-shaped clamping plates to receive the blade between them and formed with concentrically arranged openings to receive the body, said blade and one of the clamping plates being formed with registering openings, a stud carried by the other clamping plate to enter said openings, a nut upon the body to engage one of the clamping plates, a guard upon the body to engage the other clamping plate and formed with resilient arms having comb portions to engage the cutting edges of said blade and a nut upon the body for adjusting said guard member.

3. A safety razor comprising a cylindrical body member formed adjacent to one end

with an annular flange and beyond said flange with a reduced screw threaded end, said cylindrical body being formed adjacent to its opposite end with a threaded portion, an inner clamping plate having an opening to receive the body and arranged thereon in engagement with said flange, a blade having an opening to receive said flange and arranged upon the top of the inner clamping plate, an outer clamping plate having an opening to receive said flange and arranged on top of the blade, a nut arranged upon the reduced threaded outer end of the body and engaged with the outer clamping plate, means for holding the clamping plates and blades against shifting movement with respect to each other, a guard arranged upon the body and engaged with the inner clamping plate, said guard having a resilient arm formed with a comb portion to co-act with the cutting edge of the blade and a nut upon the lower threaded portion of the body and engaged with the guard for adjusting the latter.

4. A safety razor comprising a body member, a polygonal-shaped blade having a plurality of cutting edges, means for clamping the blade upon the body, a guard member constructed of resilient material and of pyramidal-form, said guard member having a centrally apertured base portion to receive the body member, whereby the guard may slide thereon, and also formed with upwardly and outwardly projecting resilient arms engaged with said blade clamping means and having their outer edges rolled upon themselves and slotted to form comb portions which co-act with the cutting edges of the blade and means for adjusting the guard member longitudinally upon the body member, for the purpose specified.

5. A safety razor comprising a body member having means upon its outer end for supporting and adjusting a blade and a co-acting guard, the inner end of said body member being externally screw threaded and formed with a centrally arranged, substantially semi-spherical seat, a handle formed with a spherical head to engage said seat and a cap nut arranged upon said threaded end of the body member and having in its bottom a substantially semi-spherical seat to receive the spherical head on the handle and thereby clamp the handle to the body member at any desired angle.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

WARREN L. NAHM.
EDWARD J. NAHM.

Witnesses:

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JAS. R. McNICOL.