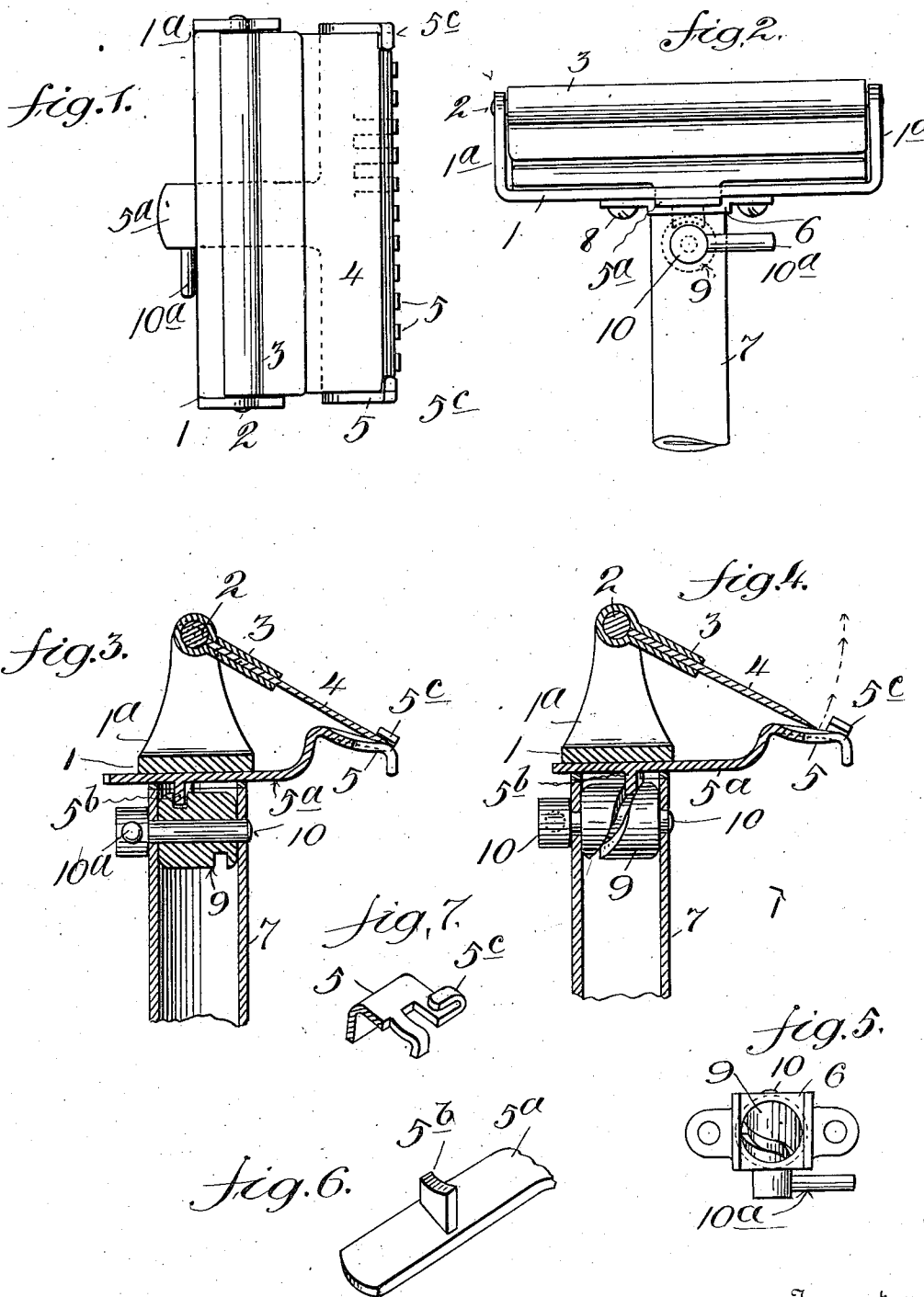


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SAFETY RAZOR.
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1,022,728.

Patented Apr. 9, 1912.



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UNITED STATES PATENT OFFICE.

HENRY J. GAISMAN, OF NEW YORK, N. Y., ASSIGNOR TO AUTO STROP COMPANY, OF
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SAFETY-RAZOR.

1,022,728.

Specification of Letters Patent.

Patented Apr. 9, 1912.

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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, borough of Manhattan, 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 improved means for holding a blade edge in shaving position with respect to a guard and for releasing the blade from the guard, whereby the blade may be applied and removed.

In carrying out my invention I provide a suitable frame or support, a guard for the blade edge provided with an extension slidably supported so that the guard may be adjusted with respect to the blade edge, means for holding the blade edge in position with respect to the guard, and a worm or screw co-acting with a complementary portion carried by said extension, whereby the guard may be adjusted by suitably rotating said worm or screw for holding and releasing the blade.

My invention also comprises the novel details of improvement and combinations of parts 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,

Figure 1 is a plan view of a safety razor embodying my invention; Fig. 2 is a side view thereof, looking from the left in Fig. 1; Figs. 3 and 4 are vertical sectional views of the razor, showing the parts in different positions of adjustment; Fig. 5 is a detail view of the upper end of the handle, the frame being removed; Fig. 6 is an inverted detail view of part of the extension of the guard, and Fig. 7 is a detail view, enlarged, of one corner of the guard.

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

The numeral 1 indicates a suitable frame shown provided with uprights 1^a carrying a shaft or rod 2 to which a suitable blade holder 3 is attached for properly holding blade 4.

At 5 is a guard of any well known or suitable construction to co-act with the blade edge, which guard is shown provided with an extension 5^a slidably guided to permit

the guard to be adjusted with respect to the blade edge. Extension 5^a is shown carried in a guideway 6 beneath the base of frame 1 and at the upper end of handle 7, which handle may be attached to frame 1 in any suitable manner, as by screws 8.

At 9 is a worm or screw shown carried by handle 7 and located within the bore of said handle, which worm may be attached to a shaft 10 journaled in handle 7 and provided with a suitable enlargement or finger-piece 10^a for use in rotating the worm. The extension 5^a is provided with a projection or nut-like piece 5^b meshing with the thread of worm or screw 9, whereby when said worm or screw is rotated to the right or left, the guard will be correspondingly adjusted in a direction transverse to the axis of the handle.

To hold the blade in shaving position with respect to the guard I provide the guard with hooks or lugs 5^c that are shown at the outer corners of the guard and are adapted to engage the blade at or near its corners. I have shown the hooks or lugs 5^c as bent inwardly in the direction of the length of the guard so that said hooks may slide in a direction parallel to the ends of the blade, whereby as said hooks slide along the upper surface of the blade, which is disposed at an angle to the plane of the guard, said hooks will serve to draw the blade more or less closely against the guard in accordance with the adjustment provided by rotating worm or screw 9.

When worm or screw 9 is rotated in one direction it will cause extension 5^a to slide outwardly by acting upon the projecting portion 5^b whereby hooks or lugs 5^c will be moved away from the blade, as in Fig. 4, thus permitting the blade to be released from its holder or applied thereto, and when worm or screw 9 is rotated in the reverse direction it will cause extension 5^a and guard 5 to be drawn toward the frame so that the hooks or lugs 5^c will engage the blade and hold it in proper position with respect to the guard, as in Fig. 3. By the arrangement shown the guard may be readily operated to release or retain the blade, and the blade will be held firmly upon the guard. The worm shown may be provided with a quick thread whereby by a relatively limited rotation of the worm the guard may be moved out-

wardly or inwardly sufficiently to enable the release or holding of the blade with respect to the guard.

Changes may be made in the arrangements set forth, within the scope of the appended claims, without departing from the spirit of my invention.

Having now described my invention what I claim is:

10 1. A safety razor comprising a support having means to support a blade, a guard provided with an extension slidably carried by said support, a worm rotatively mounted on said support, a complemental portion on
15 said extension co-acting with said worm, means on the guard for retaining a blade in co-action with said guard, and means for rotating said worm.

20 2. A safety razor comprising a frame provided with a handle and having means to support a blade, a guard provided with an extension, a guideway slidably supporting said extension, said guard having means to hold the blade, a worm rotatively supported
25 adjacent the extension, said extension having a complemental portion co-acting with the worm, and means for rotating said worm.

30 3. A safety razor comprising a frame provided with a handle and means to support a blade, a guard provided with an extension, a guideway slidably supporting said extension, and a worm journaled within the handle and having means exterior to the handle
35 for operating the worm, said extension having a complemental portion co-acting with the worm, said guard having lugs to engage the blade.

40 4. A safety razor comprising a frame provided with a handle and a blade holder, a guard provided with an extension extending transversely to the axis of the handle, a guideway supporting said extension, said guard having lugs to engage the blade, a
45 worm rotatively carried by the handle, said extension having a complemental portion

co-acting with the worm, and means for rotating the worm.

50 5. A safety razor comprising a frame provided with a handle and having a guideway, a guard having an extension carried in said guideway and movable transversely to the plane of the handle, a worm journaled within the handle and provided with a finger
55 piece exterior to the handle on the side opposite the guard, means on the extension co-acting with said worm, a blade holder, and lugs on the guard to engage a blade.

60 6. A safety razor comprising a frame, a handle below the frame, a blade holder pivotally supported on the frame, a guard having an extension slidably supported, a worm, said extension having a complemental portion co-acting with the worm, means for holding a blade with respect to said guard,
65 and means for rotating the worm.

70 7. A safety razor comprising a frame, a handle below the frame, a blade holder pivotally supported on the frame, a guard provided with lugs to engage and hold a blade, said guard having an extension slidably supported, a worm journaled within the handle and co-acting with a complemental portion on the extension, and means for rotating the
75 worm.

80 8. A safety razor comprising a blade support, a handle, a guard provided with an extension, a guideway slidably supporting said extension, means for retaining a blade in shaving position with respect to said guard, a worm, means for rotatively supporting the worm, and means connected with said extension and co-acting with said worm for operating the former by the latter.

Signed at New York city, in the county of New York and State of New York this 3rd day of September, A. D. 1909.

HENRY J. GAISMAN.

Witnesses:

J. I. BERNAT,
E. E. WARD.