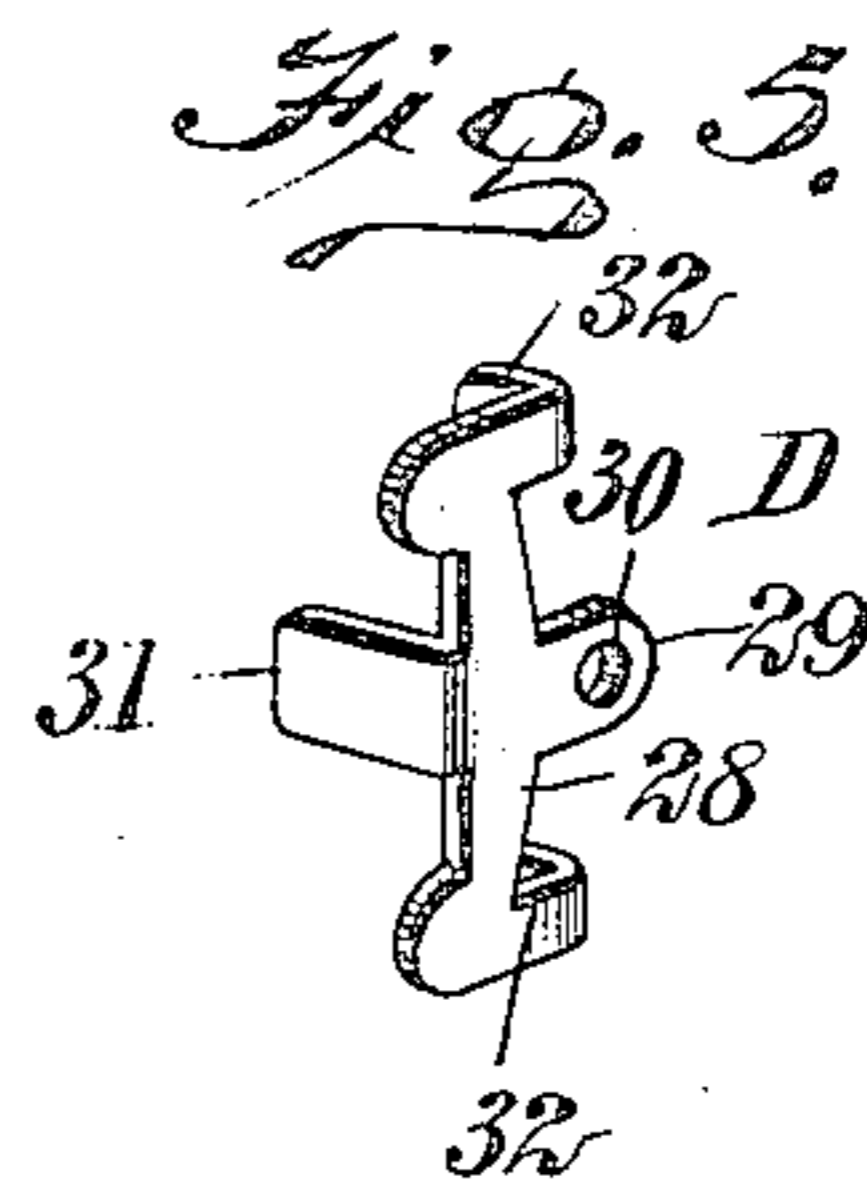
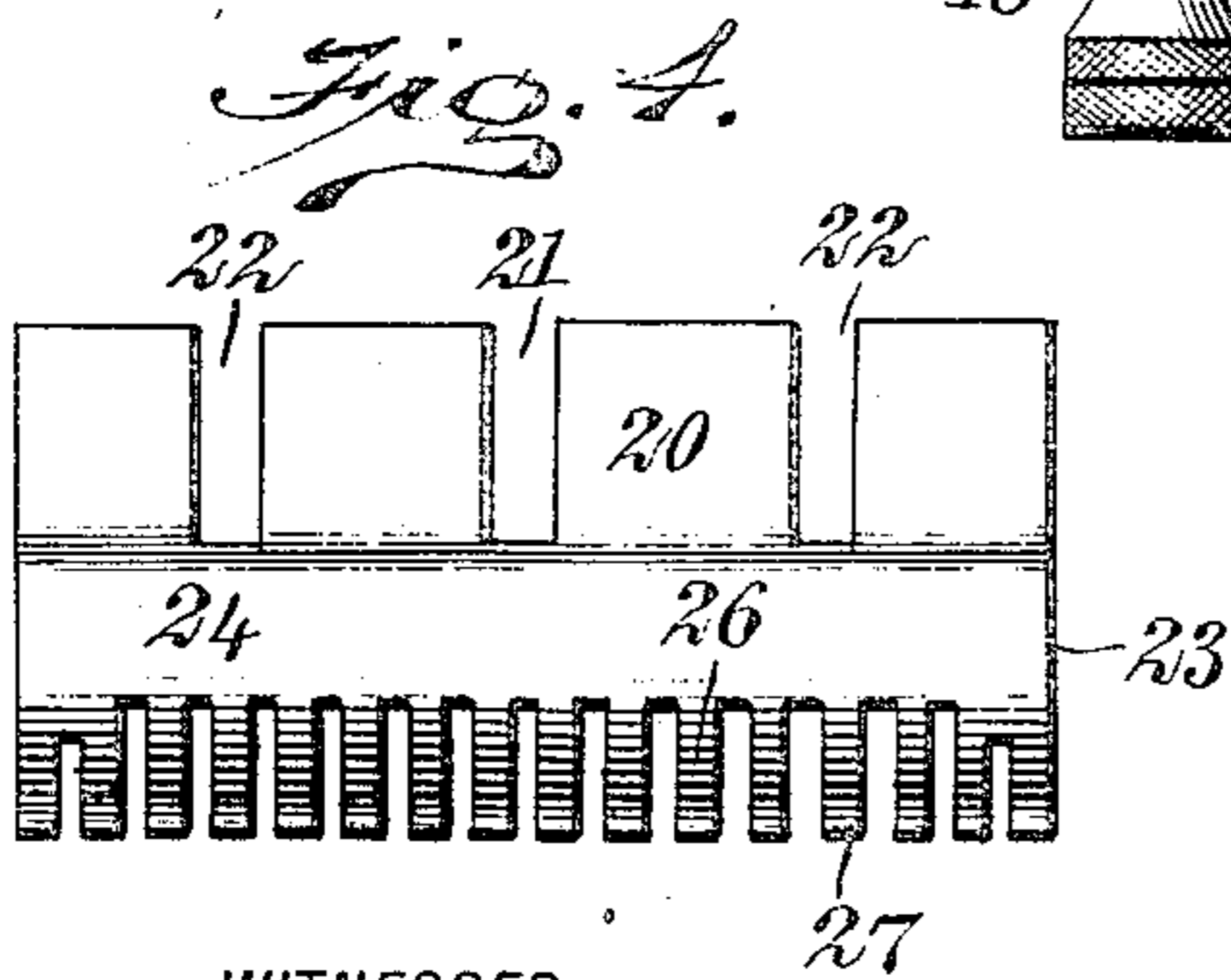
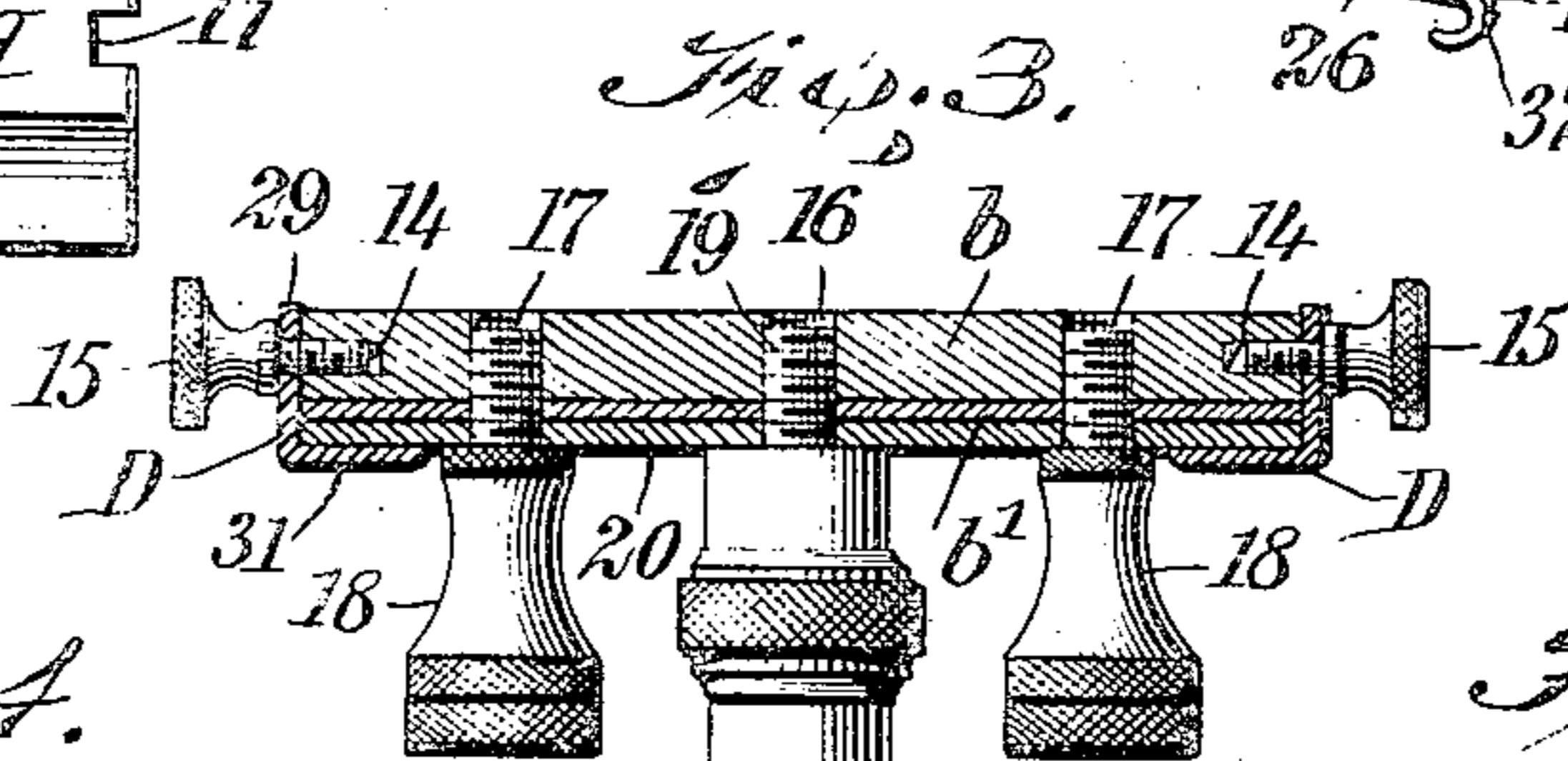
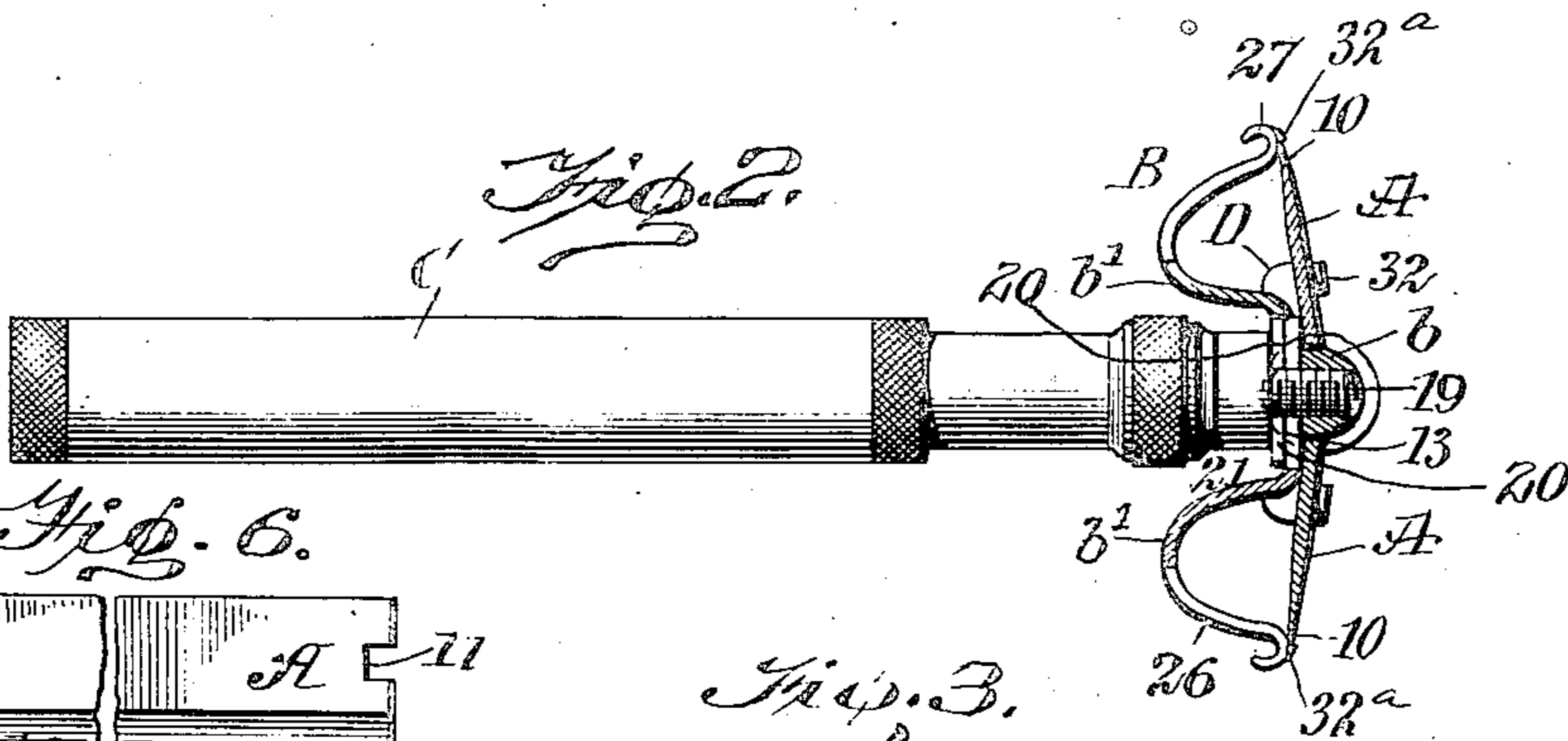
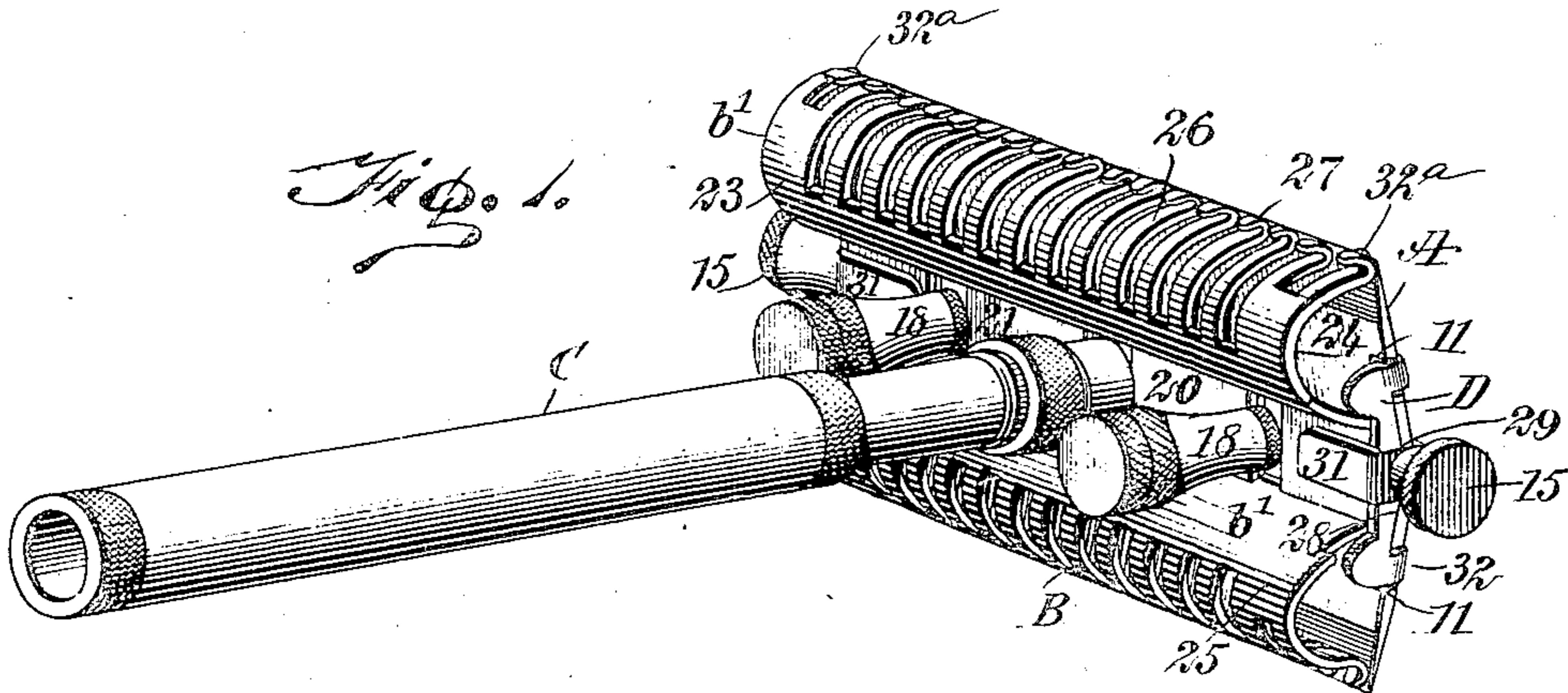


No. 816,299.

PATENTED MAR. 27, 1906.

F. A. CLAUBERG.
SAFETY RAZOR.

APPLICATION FILED MAY 26, 1905.



WITNESSES:

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FREDERICK A. CLAUBERG, OF WEEHAWKEN HEIGHTS, NEW JERSEY.

SAFETY-RAZOR.

No. 816,299.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed May 26, 1905. Serial No. 262,404.

To all whom it may concern:

Be it known that I, FREDERICK A. CLAUBERG, a citizen of the United States, and a resident of Weehawken Heights, in the county of Hudson and State of New Jersey, have invented a new and Improved Safety-Razor, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a very simple and effective type of safety-razor so constructed that two removable and interchangeable blades are employed which when placed in a body-frame back to back present two opposing cutting edges, the blades being primarily shaped for the purpose intended and made of sufficient thickness to admit of beveling their cutting edges, which bevel is so deep that the blades can be repeatedly honed, ground, and stropped with the best results.

Another purpose of the invention is to provide a frame constructed in detachable and adjustable sections and to provide simple and conveniently-operated fastening devices for the frame, whereby as the blades are lessened in width by reason of repeated sharpening the sections of the frame can be adjusted to maintain proper relation to the blades.

It is also a purpose of the invention to provide removable clamps for the blades and fastening devices for the clamps readily accessible and conveniently operated.

A further purpose of the invention is to so construct the razor in its entirety that all of its parts may be separated, enabling them to be readily and quickly cleaned and rapidly and conveniently assembled and secured in assembled position.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the improved razor, drawn upon an enlarged scale and viewed from the back. Fig. 2 is a central transverse section through the body-frame of the razor and the blades, the handle appearing in side elevation. Fig. 3 is a central longitudinal section through the body-frame of the razor, the handle and fastening

devices for the sections of the frame appearing in side elevation. Fig. 4 is a plan view of a section of the body-frame. Fig. 5 is a perspective view of one of the clamps for the blades, and Fig. 6 is a plan view of one of the blades.

The razor consists, primarily, of two blades A, a body B, and a handle C. The blades A are made of plate-steel and are sufficiently thick to prevent them from bending. Each blade is provided with a bevel-section upon both of its side faces at its cutting edge, as is particularly shown in Fig. 2, and between the said bevel-sections and the heel of each blade a slot 11 is produced in each end of a blade. In the construction of the blade the back edge or heel thereof is made perfectly straight.

The frame B is constructed in three sections—namely, a central bar-section *b* and two wing-sections *b'*, adapted to be located one at each side of the bar-section. The said bar-section *b* is provided at each side adjacent to its under face with flat surfaces 13, against which the rear edges or heels of the blades 10 abut when the said blades are in position on the frame. The bar-section *b* is provided at each end with a horizontal threaded aperture 14, and these apertures 14 are adapted to receive the threaded shanks of set-screws 15 for a purpose to be hereinafter mentioned. The bar-section *b* of the frame is further provided with a central threaded aperture 16, extending through from back to front, and with a similar aperture 17 at each side of the central aperture 16, as shown in Fig. 3. The apertures 17 receive the threaded shank portions of set-screws 18, and the central aperture 16 receives a threaded stud 19, extending from the outer end of the handle C, as is also best shown in Fig. 3. The set-screws 18, acting in conjunction with the handle C, serve to hold the sections of the frame B together.

Each wing-section *b'* is constructed as particularly shown in Figs. 2 and 4. The wing-sections are made of sheet metal—brass, for example—and each comprises a horizontal member 20, provided with a central slot 21 and with slots 22, one at each side of the central slot, the said slots being produced in the inner edge of the said member 20, extending quite close to its forward edge. A guard-section 23 is integral with the horizontal section 20, which may be termed the "body-section of a wing," and this guard-section 23

curves downwardly and more or less outwardly from the body-section and then upwardly, the outer longitudinal edge of the guard member being nearly in a plane with the outer edge of the body-section 20, as is shown in Fig. 2. The guard member 23 of a wing b' is transversely slotted, forming thereby a number of guard-fingers 26, the upper ends whereof are bent outwardly and downwardly, forming a series of hook-terminals 27.

In assembling the parts of the razor, supposing all of the parts to have been separated, the handle C is loosened and likewise the set-screws 18. Then the body portions of the wings b' are passed one over the other beneath the bar-section b' in such manner that the threaded shank of the handle C will enter the central slots 21 in the wings and the slots 22 of the said wings will receive the threaded shanks of the set-screws 18. The blades are then placed in position on the wings, the back or heel portions of the blades bearing firmly against the flat longitudinal faces of the bar-section b , while the cutting edges of the blades are adapted to be supported upon the upper end portions of the guard-fingers 26, as is shown in Figs. 1 and 2. After the wing-sections b' of the body-frame have been adjusted so as to be in proper relation to the cutting edges of the blades the handle C and set-screws 18 are screwed tightly to place, so as to clamp the body portions of the wing-sections b' firmly against the under face of the bar-section b . The blades A are now in position; but it is necessary that they should be held so while in use. To that end a clamp D is provided for the ends of the blades, two clamps only being necessary, as a clamp at each end of the body-frame will engage with both of the blades.

One of the clamps D is shown in detail in Fig. 5, and said clamps are preferably made of sheet metal, such as brass. A clamp D consists of a bar member 28, having an upwardly-extending ear 29 at the central portion of its upper edge, the said ear being provided with a smooth aperture 30. At the bottom central portion of the bar member 28 a horizontal inwardly-extending foot 31 is formed, while at each end of the bar member 28 an angular finger 32 is produced, the horizontal member whereof extends inwardly, so that when a clamp is in position on the body-frame the horizontal portions of the fingers 32 will extend over the upper faces of the blades at their edges. In applying these clamps one clamp is first placed at one end of the body-frame, and the horizontal portion of the angular fingers 32 are pressed over the outer faces of the blades A at that end of the razor-frame, the vertical portions of the said angular fingers 32 being received in the slots 11 at that end of the blades. When a clamp is thus applied, the aperture 30 in the ear 29 will

be opposite the threaded aperture 14 at the end of the bar-section b , and the clamp is held in place by the set-screw 15 at that end being passed through the aperture 30 in the clamp and screwed into the aperture 14 in the bar, as shown in Fig. 3 and likewise in Fig. 1, at which time the foot member 31 of the clamp will extend inward beneath and in engagement with the under face of the lowermost body member 20 of a wing-section b' . Finally, the clamp D for the opposite end of the body-frame is placed and screwed in position in the same manner as has been described with reference to the opposing clamp.

In order to enable the blades to be accurately and speedily set upon the wing-sections of the frame, lugs 32^a are formed upon the hook-terminals 27 of the end guard-fingers 26, against which lugs the cutting edges of the blades are made to bear at their end portions.

The safety-razor constructed as above is very simple, its parts are all firmly held together when assembled and locked, and it is possible at any time to expeditiously and conveniently separate all the parts for cleaning or remove one or both blades for sharpening purposes, and as the blades become narrow through wear the guard members of the wing-sections may be adjusted properly relative to the edges of the blades.

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

1. A safety-razor consisting of a body-frame constructed in two sections adjustable relative to each other, an intermediate connecting member for said sections, blades placed back to back and locked to the intermediate connecting member, being supported at their cutting edges by the two adjustable sections, means for locking the blades in position, and adjusting devices for the said frame-sections.

2. A safety-razor consisting of a central bar-section, slotted upwardly-curved wing-sections mounted upon the bar-section for movement to and from each other, blades placed back to back on the bar-section above said wing-sections, their cutting edges resting upon the wing-sections, and locking devices for the wing-sections and the said blades.

3. A safety-razor consisting of a central bar-section, slotted wing-sections adjustably mounted upon the bar-section, blades having retaining connection with the bar-section and supporting engagement with the wing-sections, locking-clamps for the ends of the blades, and a handle adapted for connection with the bar-section.

4. In safety-razors, a body-frame constructed in three sections, a bar-section and wing-sections, one at each side of the bar-section, the wing-sections comprising slotted horizontal body members and downwardly

and upwardly curved guard members, set-screws passed through sundry of the slots in the body members of the wing-sections and into the bar-section, a handle passed through
 5 other of the slots of the body members of the wings and into the bar-section, blades having opposing beveled surfaces at their cutting edges, which blades are placed back to back in engagement with the bar-section, their
 10 cutting edges resting upon the guard members of the wings, and clamps removably carried by the said frame, engaging with the said knives or blades, preventing them from having end movement and holding them like-
 15 wise against transverse movement.

5. A safety-razor consisting of a frame comprising a central bar-section and a wing-section at each side of the bar-section, each wing-section consisting of a horizontal body
 20 member having a series of slots therein and downwardly and upwardly curved guard members, slotted at their outer longitudinal portions, forming a series of guard-fingers, the body members of which wings slide one
 25 upon the other beneath the bar member, and set-screws passed through the slots in the body members of the wings and into the bar member, a handle removably attached to the bar member, blades placed back to back
 30 against the bar-section of the frame, said blades having slots at their ends, their cutting edges resting upon the guard-fingers,

and clamps removably attached to the ends of the bar-section of the frame, which clamps are provided with fingers extending into the
 35 slots of the blades and over the upper faces of the blades, the clamps being further provided with foot members which extend beneath and engage with the under faces of the body-frame at a point below the bar-section. 40

6. In safety-razors, a frame comprising guard-sections adjustable to and from one another, means for connecting the guard-sections, blades placed back to back and supported by the said guard-sections and their connecting medium, a handle for the frame, and
 45 locking devices for the blades and the guard-sections.

7. In safety-razors, a central bar-section, guards supported at opposite sides of the bar-section, adjustable to and from each other,
 50 independent blades having parallel relation to each other, which blades have bearing against the bar-section and are supported by said guards, locking devices for the blades,
 55 and means for adjusting the guards and locking them in adjusted position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK A. CLAUBERG.

Witnesses:

J. FRED. ACKER,
 JNO. M. RITTER.