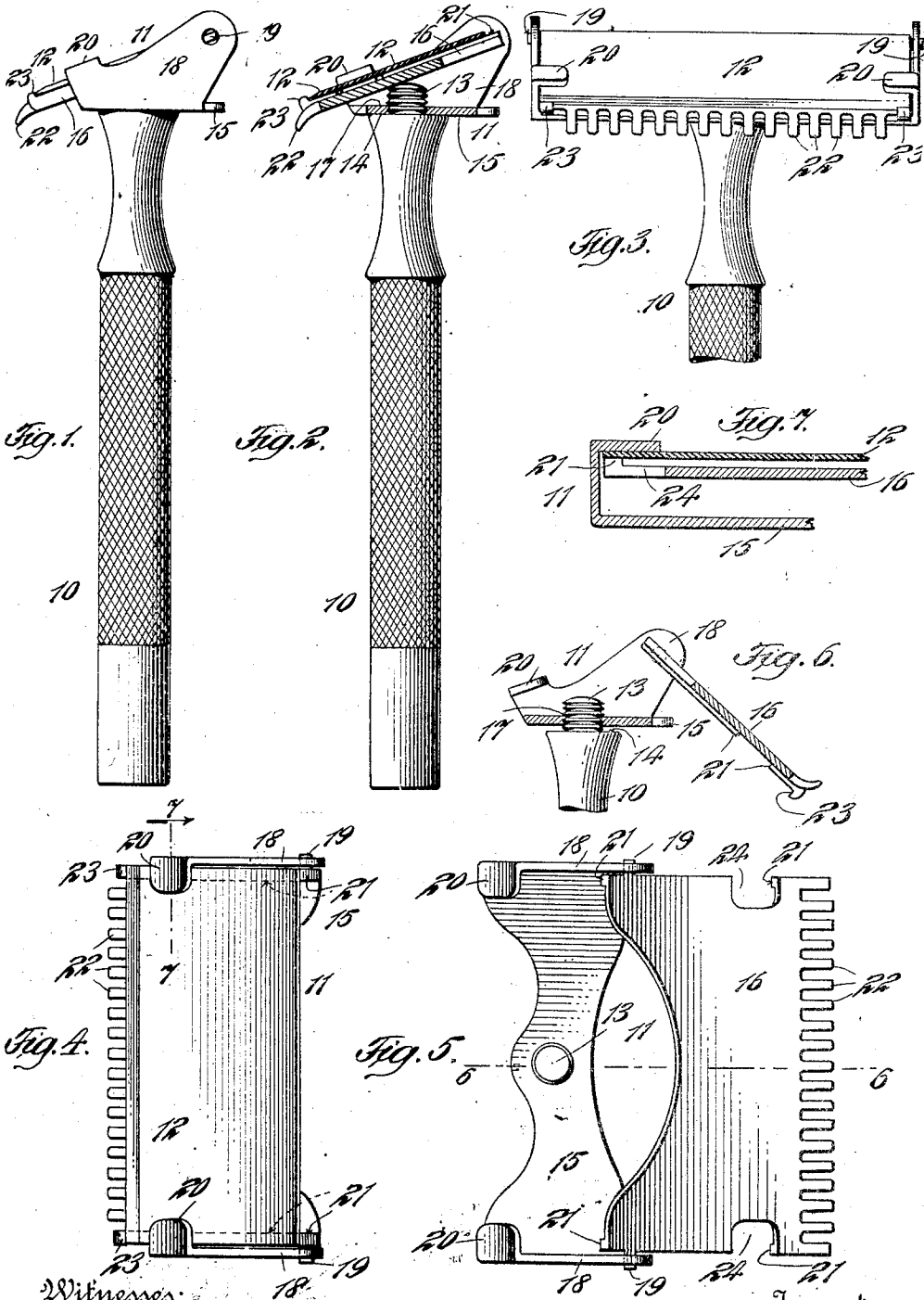


C. A. HUBBS.
SAFETY RAZOR.
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994,642.

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UNITED STATES PATENT OFFICE

CHARLES A. HUBBS, OF BROOKLYN, NEW YORK.

SAFETY-RAZOR.

994,642.

specification of Letters Patent.

Patented June 6, 1911.

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To all whom it may concern:

Be it known that I, CHARLES A. HUBBS, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Safety-Razors, of which the following is a specification.

The invention relates to improvements in safety razors, and it consists in the novel features, structure and combinations of parts hereinafter described, and particularly pointed out in the claims.

The object of the invention is to provide a safety-razor of extreme simplicity and durability and capable of ready manipulation in the matter of applying and removing the blades.

A further purpose of the invention is to provide a safety-razor whose frame may be freely opened up and cleansed with the least amount of trouble and delay, and a further object of the invention is to provide a safety-razor composed of a minimum number of parts and capable of ready manufacture at small expense.

The safety-razor of my invention, aside from the blade, preferably comprises but two separable parts, one being the handle and the other the frame for holding the blade, which frame I form of two hinged parts.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which:

Figure 1 is an edge view of a safety-razor embodying my invention; Fig. 2 is a like view of the same with the blade and its holding-frame shown in central vertical transverse section; Fig. 3 is a front view of the same, with the handle partly broken away; Fig. 4 is a view taken from the top of Figs. 1, 2 and 3; Fig. 5 is a corresponding view omitting the blade and showing the hinged guard-plate as swung from operative relation to the back or base-plate; Fig. 6 is a section of the same on the dotted line 6-6 of Fig. 5, and Fig. 7 is a detached section through a portion of the back or base-plate, guard-plate and blade on the dotted line 7-7 of Fig. 4.

In the drawings, 10 designates the handle of the safety-razor, 11 the frame to which said handle is applied, and 12 the blade held by said frame. The handle 10 is an ordinary rod of metal having on its inner end

a threaded stem or screw 13 and shoulder 14. The blade 12 is an ordinary thin steel blade having a sharpened edge and will be understood without special description. The frame 11 is of novel construction and comprises a base or back-plate 15 and a guard-plate 16, said plates being hinged together. The base or back-plate 15 contains a threaded aperture 17 to receive the screw 13 on the inner end of the handle, and at its ends said base or back-plate 15 is formed with the right-angular flanges or lugs 18 whose upper ends constitute ears which are apertured to receive and form bearings for the pins or studs 19 formed on the upper outer end portions of the plate 16, said plate 16 being hinged to the plate 15 by means of said pins or studs and said bearing apertures. The plate 15 is also formed with the inwardly extending lips 20 which lips are preferably at the lower end portions of the plate 15 and extend inwardly toward each other over the body of said plate but suitably spaced therefrom.

The plate 16 is formed on its outer surface adjacent to its ends with slight shoulders 21 upon which the blade 12 is placed, the ends of the blade finding a bearing or seat on said shoulders and being by them held slightly spaced from the main surface of the plate 16. One purpose of the shoulders 21 is to keep the edge of the blade from scraping along the plate 16 during its application to or removal from said plate, thus lessening the tendency of the edge of the blade to become dulled or injured.

The lower edge of the plate 16 is formed with the guard or comb 22 whose teeth curve from the body of the plate inwardly toward the handle 10 and may be of any suitable or usual configuration.

The plate 13 at its lower corners, at the base of the shoulders 21, is provided with shoulders 23 against which the extreme end portions of the edge of the blade abut and which arrest the blade during its application to the holder at the correct position for the same. In applying the blade to the plate 16, said blade will be placed on the shoulders 21 and then slid downwardly upon the same until the lower corners of the blade become arrested by the shoulders 23 and thereupon the blade will be secured in position, as hereinafter explained.

The plate 16 is formed in its side edges with the recesses 24, and these recesses cor-

respond with the shape of the lips 20 forming integral parts of or connected with the base plate 15. When the lower portion of the plate 16 is folded against the base-plate 15, the recesses 24 will pass inwardly over and beyond the lips 20 and leave said lips extending outwardly beyond and substantially parallel with the main surface of the plate 16, said lips being spaced from said plate 16 to a sufficient extent to enable the blade 12 to be placed on said plate 16 and slid behind said lips, so that finally the lips 20 become disposed at the outer side of said blade. The base or back-plate 15 and hinged plate 16 stand at an angle to each other, the plate 16 being inclined downwardly and inwardly toward said base or back-plate. When the plate 16 is folded inwardly toward the plate 15 and the blade 12 is applied to the plate 16 and slid behind the lips 20, the blade will take the angle of the plate 16 and may be firmly secured in position by simply screwing up on the handle 10 until its threaded inner end or screw 13 engages and presses against the inner side of the plate 16 and forces said plate outwardly in a direction from the plate 15 to an adequate degree to effect the pinching of the ends of the blade 12 against the inner surfaces of the lips 20. When the blade has been thus secured in position, the safety-razor is ready for use, all of its parts being firmly bound together by the pressure of the screw 13 against the inner face of the plate 16 and the resistance offered by the lips 20 against the outer face of the ends of the blade. The blade when secured in position is perfectly flat, even though it is only held at its ends between the shoulders 21 and lips 20, since the pressure of the screw 13 is against the plate 16 and only acts on the blade through the shoulders at the ends of said plate 16. The blade acts as a key between the lips 20 on the back or base-plate 15 and the freely hinged plate 16 and prevents said plate 16 from moving unduly outwardly when the parts of the device are tightened up by the handle.

When it is desired to remove the blade from the frame holding it, the handle 10 will be slightly unscrewed so as to relieve its pressure from the inner face of the plate 16, and thereupon the blade may be slipped outwardly from below the lips 20 and in that way removed from the frame. Upon the removal of the blade 12 from the holding-frame 11, the plate 16 is left free to be swung on its hinges or pivot pins 19 outwardly from operative relation to the back or base-plate 15, so as to thereby fully expose the surfaces of both plates and enable said plates to be very readily cleaned. The plate 16 in length in line with the lips 20 is shorter than the open space between the facing edges of said lips and hence may

when desired be swung from over the base-plate and to the full outward position in which it is shown in Fig. 6.

It will thus be seen that the safety razor of my invention is composed of but a few simple parts, capable of ready manufacture; and that the blade may with great convenience be applied to and removed from the holding-frame, which after the blade has been removed, is free to become exposed on all sides so as to be capable of being readily cleaned.

I do not limit myself to the precise details hereinbefore described otherwise than may be indicated in the claims.

What I claim as my invention and desire to secure by Letters Patent, is:

1. A safety-razor comprising a handle, a frame having a base-plate, end flanges and inwardly extending lips, a plate pivoted to the upper outer ends of said flanges and inclining downwardly and frontwardly and its front portion normally bearing against said base-plate and its ends having recesses to pass over said lips, and a blade applied on said pivoted plate under said lips and over said recesses, said base-plate having a threaded aperture behind said pivoted plate, and said handle having a screw to enter said aperture and force said pivoted plate outwardly to bind said blade against said lips; substantially as set forth.

2. A safety-razor comprising a handle, a base-plate having inwardly extending lips, a guard-plate standing at an angle to said base-plate and at its upper portion hingedly connected therewith so as to be swung upwardly and outwardly from over the same when desired and its ends having recesses to pass over said lips, and a blade applied on said guard-plate under said lips and over said recesses, said base-plate having a threaded aperture behind said guard-plate, and said handle having a screw to enter said aperture and force said guard-plate outwardly to bind said blade against said lips; substantially as set forth.

3. A safety-razor comprising a handle, a base-plate having inwardly extending lips at its ends, a plate standing at an angle to said base-plate and at its upper portion hingedly connected therewith and in length in line with said lips being shorter than the open space between the facing edges of said lips, so that said hinged plate may lie on a plane below said lips and also be swung upwardly and outwardly from over said base-plate when desired, and a blade applied on said hinged plate with its ends under said lips, said base-plate having a threaded aperture behind said hinged plate, and said handle having a screw to enter said aperture and force said hinged plate outwardly to bind said blade against said lips; substantially as set forth.

4. A safety-razor comprising a handle, a frame having a base-plate, end flanges and inwardly extending lips, a plate pivoted to the upper outer ends of said flanges and at its front portion normally bearing against the front portion of said base-plate and in its ends having recesses to pass over said lips and at its lower corners blade-stops, and a blade applied on said pivoted plate under said lips and against said stops, said base-plate having a threaded aperture behind said pivoted plate, and said handle having a screw to enter said aperture and force said pivoted plate outwardly to bind said blade against said lips; substantially as set forth.

5. A safety-razor comprising a handle, a back or base-plate having end flanges affording ears and inwardly extending lips, a guard-plate hinged at its upper portion to said ears and having recesses in its ends to pass over said lips, and a blade applied on said guard-plate under said lips and over said recesses, said base-plate having a threaded aperture behind said guard-plate, and said handle having on its inner end a

screw to enter said aperture and force said guard-plate outwardly to secure the blade against said lips; substantially as set forth.

6. A safety-razor comprising a handle, a back or base-plate having at its ends inwardly extending lips, a guard-plate hingedly connected at its upper portion with said base-plate and having recesses in its ends to pass over said lips and raised shoulders at its ends and blade-stops at its lower corners, and a blade applied on said guard-plate under said lips and bearing on said shoulders and its lower corners engaging said stops, said base-plate having a threaded aperture behind said guard-plate, and said handle having on its inner end a screw to enter said aperture and force said guard-plate outwardly to secure the blade against said lips; substantially as set forth.

Signed at New York city, in the county of New York and State of New York, this 7th day of January A. D. 1910.

CHARLES A. HUBBS.

Witnesses:

ARTHUR MARION,
CHAS. C. GILL.