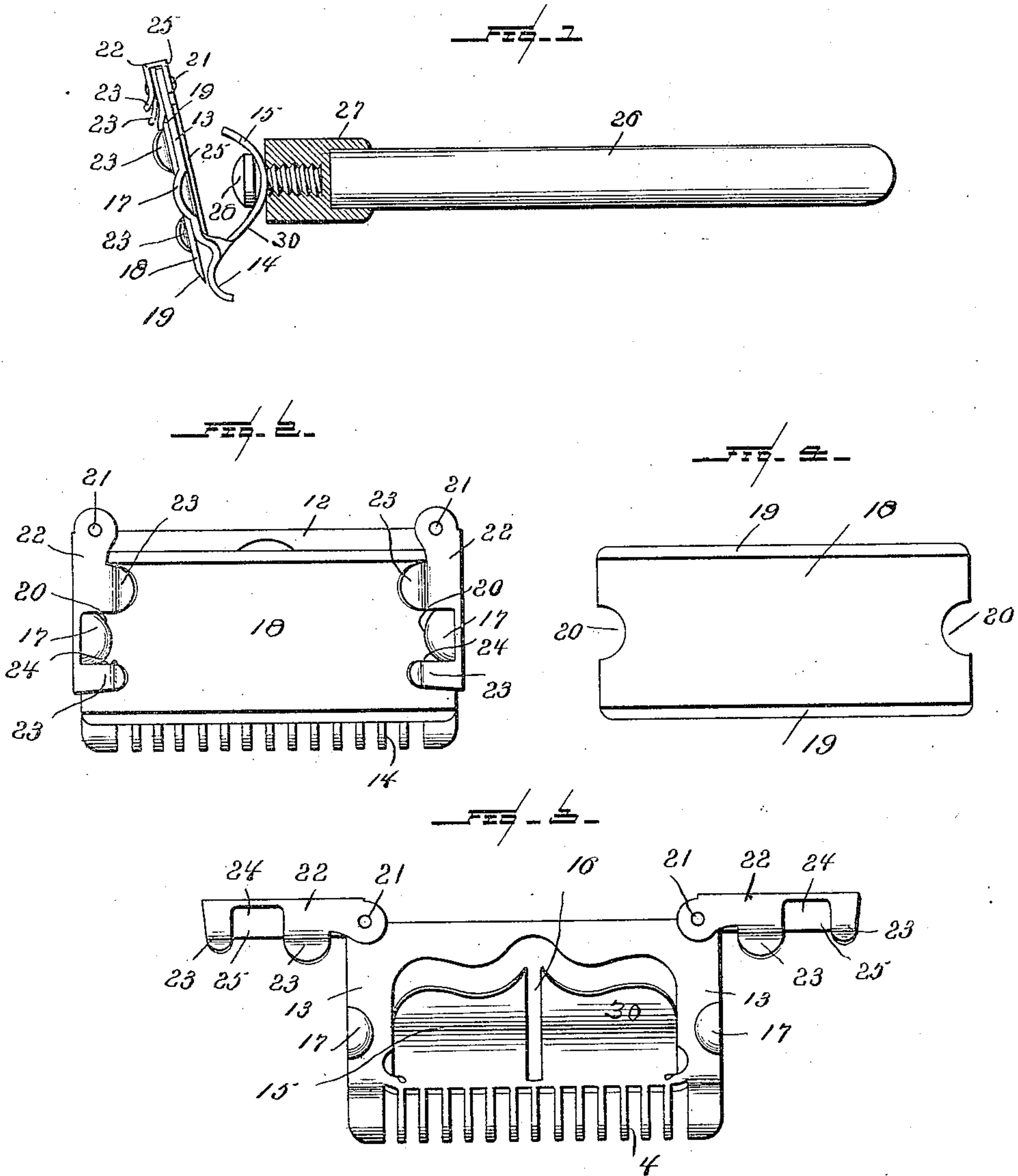


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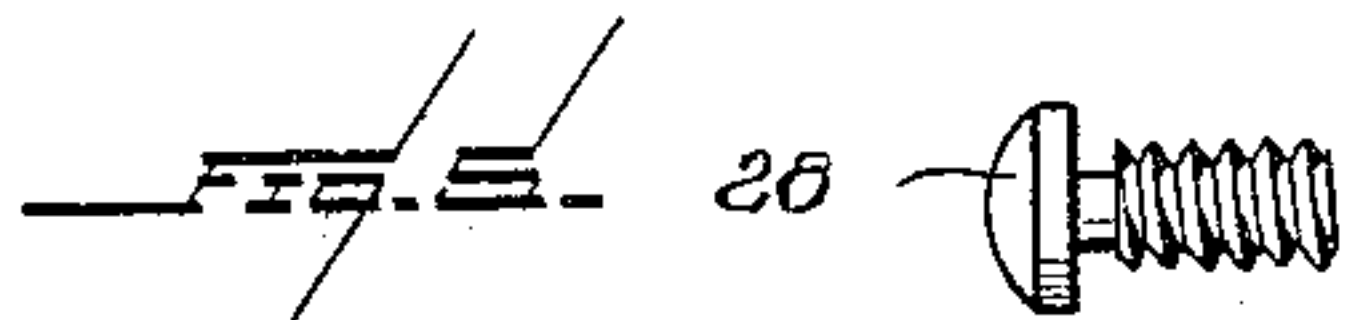
J. TURNER.  
SAFETY RAZOR.

APPLICATION FILED JULY 1, 1905.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOSEPH TURNER, OF WORCESTER, MASSACHUSETTS.

## SAFETY-RAZOR.

No. 816,195.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed July 1, 1905. Serial No. 267,961.

*To all whom it may concern:*

Be it known that I, JOSEPH TURNER, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented or discovered certain new and useful Improvements in Safety-Razors, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to safety-razors, and has for its object to provide a razor of this class which may be easily manufactured, but which is of such construction as to be efficient and convenient in use.

15 To this end the improved safety-razor comprises a frame or blade-holder formed from sheet metal and provided at one edge with a comb or guard, and the blade of the razor is preferably a double-edged one and is removably secured to the frame or holder by swinging clamps which when in operative position overlap the ends of the blade, and thus retain it in place. The blade-holder is preferably provided with a removable handle attached 25 to the blade-holder in such a manner that the latter may be adjusted to different inclined positions relative to the longitudinal axis of the handle.

Referring to the drawings, Figure 1 is a sectional side view of the improved razor with handle attached and with one of the blade-holding clamps swung upward. Fig. 2 is a front view of the same with the blade in operative position. Fig. 3 is a detail front view of the 35 blade-holder or frame with the blade and handle removed. Fig. 4 is a detail view of the blade removed from the holder. Fig. 5 is a detail view of the screw by which the handle is attached to the frame or blade-holder.

40 Referring to the drawings, the frame or blade-holder is preferably formed from a single piece of sheet metal and comprises in the construction herein shown the top bar 12, the side bars 13, the comb or guard 14, and the curved back-plate 15, provided with the slot 16. The side bars 13 are provided on their front faces with blade-holding projections or lugs 17, preferably struck up from the sheet metal, and the curved back-plate 15 is also struck out from the piece of sheet metal forming the frame and is thus integral with the other parts of the frame. The thin but practically rigid steel blade 18 is preferably provided with two longitudinal cutting edges 5 19 and is constructed at its ends with central notches 20 of proper shape and form to receive

the projections or lugs 17 on the frame or blade-holder, so that when the blade is placed in position with said lugs registering with said notches a cutting edge of the blade will be in proper position relative to the guard or comb 14.

Pivotaly attached by rivets 21 to the upper corners of the frame or blade-holder are swinging clamps or catches 22, each of which 65 is preferably provided with two fingers 23, between which is a notch 24 to register with a blade-holding projection 17, each of the said clamps having a lip or flange 25 opposite the said fingers to engage the rear side of the blade-holder and between which flanges and fingers is an opening of suitable width to receive a side bar 13 and an end of the blade 18. In other words, each clamp 22 consists of a single piece of sheet metal folded over to form 75 the fingers 23 and the flange 25 with an intervening groove or recess to receive an end portion of the blade-holder and blade.

The handle 26 consists of a piece of hard rubber, wood, or other suitable material, preferably provided with a metal ferrule 27, 80 tapped for the reception of an attaching-screw 28, the latter having adjacent to its head a flattened neck portion of a suitable size to fit somewhat closely in the slot 16 in the curved back-plate 15, so that by engaging the head of the screw with the said back-plate and then by turning the handle to tighten the screw the said handle will be securely and readily attached to the frame or blade-holder 90 in such a manner as to permit of its ready removal when required simply by turning the handle slightly, and thus loosening the said screw. Owing to the curvature of the back-plate, to which the handle is attached, it will 95 be obvious that the inclination of the main portion of the blade-holder and of the blade secured thereto may be varied as may be desired relative to the longitudinal axis of the handle. In other words, the blade of the razor may be set at such an inclination relative to the longitudinal axis of the handle as will suit the individual preferences of different users. This is due to the fact that by changing the position of the handle in the slot 16 in the curved back-plate 15 the angular position of the handle relative to the body of the blade will be varied. 100

From the foregoing it will be apparent that the improved razor, being of simple construction, can be very cheaply manufactured, while the blade may be readily placed in position 105



or removed, and the handle may likewise be conveniently detached when it is desired to pack the apparatus in compact form when not in use or when it is to be carried in traveling.

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

1. A safety-razor comprising the combination with a suitable frame or blade-holder provided at one edge with a guard and comprising end bars provided on their front faces with blade-holding lugs, of a thin blade having apertures to register with the said lugs, and swinging clamps pivoted to said frame and by which said blade may be removably attached to the said frame or blade-holder.

2. A safety-razor comprising the combination with a suitable frame or blade-holder provided at one edge with a guard and comprising end bars provided on their front faces with blade-holding lugs, of a thin blade having apertures to register with the said lugs, and swinging clamps pivoted to said frame and by which said blade may be removably attached to the said frame or blade-holder, each of said swinging clamps comprising one or more fingers, to overlap the blade, and a flange to engage the rear side of the frame or blade-holder.

3. A safety-razor comprising the combination with a suitable frame or blade-holder provided at one edge with a guard and comprising end bars provided on their front faces with blade-holding lugs, of a thin blade having apertures to register with the said lugs, and swinging clamps pivoted to said frame and by which said blade may be removably attached to the said frame or blade-holder, said frame or blade-holder comprising a curved back-plate to which a handle is removably attached.

4. A safety-razor frame or blade-holder formed from a single piece of sheet metal and comprising a top bar, side bars with blade-holding lugs or projections on their front faces, a comb or guard, and a curved and slotted back-plate, combined with a thin

blade having notches to receive said lugs or projections, swinging clamps, pivoted to said frame, to removably hold said blade in place, and a handle removably attached to said back-plate.

5. A safety-razor frame or blade-holder formed from a single piece of sheet metal and comprising a top bar, side bars with blade-holding lugs or projections on their front faces, a comb or guard, and a curved and slotted back-plate, combined with a thin blade having notches to receive said lugs or projections, pivoted clamps at the ends of said frame, to removably hold said blade in place, and a handle adjustably and removably attached to said back-plate.

6. In a safety-razor, the combination with a sheet-metal frame comprising the top bar 12, the side bars 13 having lugs on their front faces, the comb or guard 14 and the curved and slotted back-plate 15, of a thin blade having notches at its ends registering with said lugs; the swinging clamps 22 pivoted to the upper corners of said frame and having fingers to overlap said blade and recessed to receive said lugs, and a handle adjustably secured to said curved and slotted back-plate.

7. In a safety-razor, the combination with a sheet-metal frame comprising the top bar 12, the side bars 13 having the integral struck-up lugs 17 on their front faces, the comb or guard 14 and the integral, curved back-plate 15 provided with the slot 16, of a blade having notches registering with said lugs, swinging clamps 22 pivoted to said frame and having flanges 25 to engage the back of said frame, fingers 23 to overlap the front of the blade and notches to receive said lugs 17, and a handle 26 clamped to said back-plate 15 and angularly adjustable relative to said blade in the slot 16 of said back-plate.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH TURNER.

Witnesses:

CHAS. S. HALE,  
JOHN J. TURNER.