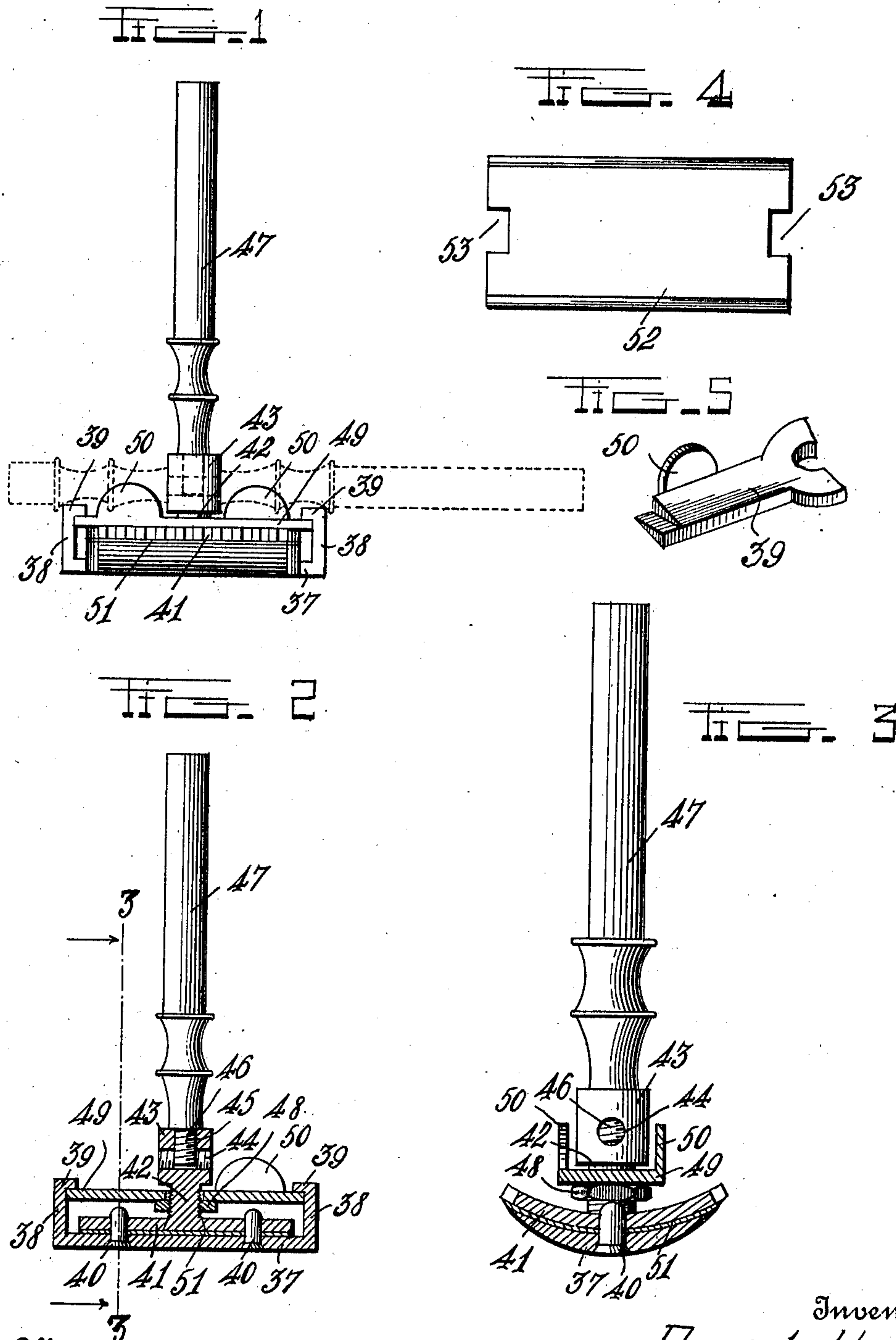


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SAFETY RAZOR.
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989,147.

Patented Apr. 11, 1911.



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UNITED STATES PATENT OFFICE.

DANIEL HEPP, OF CHICAGO, ILLINOIS.

SAFETY-RAZOR.

989,147.

Specification of Letters Patent.

Patented Apr. 11, 1911.

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To all whom it may concern:

Be it known that I, DANIEL HEPP, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Safety-Razors; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in safety razors.

One object of the invention is to provide a razor of this character having an improved fastening means whereby the separation and assembling of the parts is greatly facilitated, thus providing for a quick and easy removal and replacing of the blades.

Another object is to provide a safety razor having a detachable handle and means whereby the same may be secured in a vertical or horizontal position.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings:—Figure 1 is a side view of one form of this improved safety razor; Fig. 2 is a central vertical longitudinal sectional view; Fig. 3 is a transverse vertical sectional view of the frame on the line 3—3 of Fig. 2; Fig. 4 is a plan view of a modified form of blade; and Fig. 5 is a detail perspective view of the clamping bar.

The form of the invention shown in Figs. 1, 2 and 3 preferably comprises a concave convex base plate 37, provided on its opposite ends with upwardly extending ears 38 having on their upper ends inwardly projecting clamping lugs 39. In the base 37 on each side of the center thereof are arranged upwardly projecting guide studs 40, the lower ends of which are preferably upset or headed into suitable openings formed in the base plate as shown. With the guide studs 40 of the base portion is adapted to be adjustably engaged a guard comb 41 which is preferably of double construction or provided on its opposite edges with comb teeth as shown in Fig. 3. The guard comb 41 is curved to correspond with the curvature of the base, and said guard plate is rigidly se-

cured to the lower end of a handle post 42 having an enlarged upper end or head 43 in which is formed a horizontal transversely disposed threaded passage 44 which extends in the same direction as the length of the base portion and in the end of the head 43 is formed a second threaded passage 45 which communicates at its inner end with the passage 44. The passages 44 and 45 are provided to receive the reduced threaded inner end 46 of a handle 47 which is adapted to be screwed into either end of the passage 44 or into the passage 45 thereby providing for the adjustment of the handle to various positions, as indicated in full and in dotted lines in Fig. 1 of the drawings. The reduced portion of the post 42 between the head 43 and the guard plate 41 is threaded and on said threaded portion is screwed a clamping nut 48 between which and the shoulder formed by the head 43 is arranged a clamping bar 49, the ends of which are beveled in opposite directions to form wedge-shaped surfaces which when forced under the lugs 39 on the ears 38 will draw and clamp the guard and base plate together, thus holding the razor blade in operative position. The bar 49 is also provided with operating lugs 50 whereby the same may be turned into and out of engagement with the lugs 39. Arranged between the lower side of the guard plate or comb 41 and the inner side of the base 37 is a double edged flexible spring metal blade 51, said blade being adapted to be sprung down at the center and clamped into engagement with the base 37 to a greater or less degree by the comb and the action of the clamping bar. The pressure of the comb guard on the blade is regulated by means of the clamping nut 48 which may be screwed up or down on the threaded portion of the post 42 to increase or diminish the space between said clamping plate and guard plate so that when the nut 48 is screwed to bring the clamping bar farther from the guard comb, the latter will force the blade down into closer engagement with the comb plate and will project the edges of the blade nearer to the ends of the comb teeth, thus adjusting the edges of the razor for a very close shave. When the nut 48 is screwed in the opposite direction to increase the distance between the clamping bar and the comb guard, the pressure of the latter on the blade will be decreased so that the edges of the blade will not approach so

closely to the ends of the teeth. The spring pressure of the blade against the comb bar is sufficient to hold the parts in position after being adjusted in the manner described.

5 In Fig. 4 of the drawing is shown a modified form of razor blade 52 in the ends of which are formed recesses or notches 53 adapted to be engaged with the ears 38 on the ends of the base portion of the razor, 10 whereby the blade is held in position and the necessity of providing guide lugs and apertures in the blade is dispensed with.

From the foregoing description, taken in connection with the accompanying drawings, 15 the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be 20 resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claims.

Having thus described my invention, what 25 I claim is:—

1. In a safety razor, the combination with a transversely curved base, offset lugs at the ends of the base of a flexible blade adapted to be engaged with said base, a transversely 30 curved guard adapted to be engaged with said blade, a threaded handle post secured to said guard, a clamping bar on said post to engage said offset lugs and draw said guard toward the base thereby clamping the blade

between said parts, a supporting and adjust- 35 ing nut on said post in engagement with said clamping bar and adapted to position the clamping bar at a height to allow said guard and base to be drawn into more or less close relation, thus adjusting the edges of the 40 blade with respect to the edges of the guard.

2. In a safety razor, the combination with a transversely curved base, of a flexible double edged blade adapted to be engaged therewith, ears formed on the opposite ends 45 of said base, clamping lugs on the upper ends of said ears, a curved guard engaged with said blade, a handle post secured to said guard, said post having a head provided with right angularly disposed threaded sock- 50 ets, a handle having a threaded inner end adapted to be engaged with said threaded sockets whereby the socket may be secured at different angles, a clamping bar loosely 55 mounted on said post and adapted to be engaged with the clamping lugs on said base whereby the guard is drawn toward the base to clamp the blade thereon, and means to adjust said clamping bar on said handle 60 post whereby the pressure of the guard on said blade is regulated.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

DANIEL HEPP.

Witnesses:

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H. O. DIERSSEN.