

No. 731,090.

PATENTED JUNE 16, 1903.

H. WILCOX.
SAFETY RAZOR.

APPLICATION FILED OCT. 13, 1902.

NO MODEL.

Fig. 1.

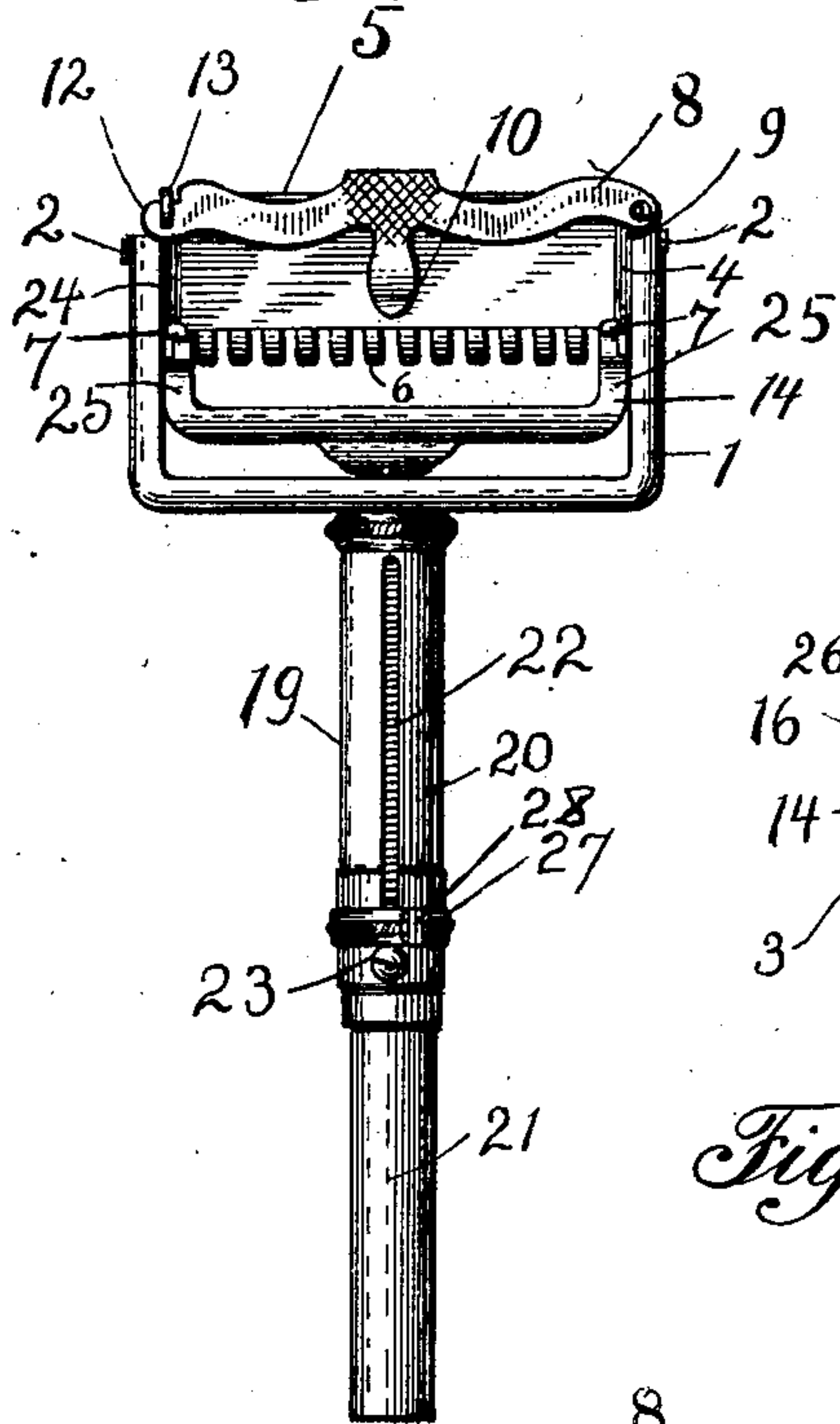


Fig. 2.

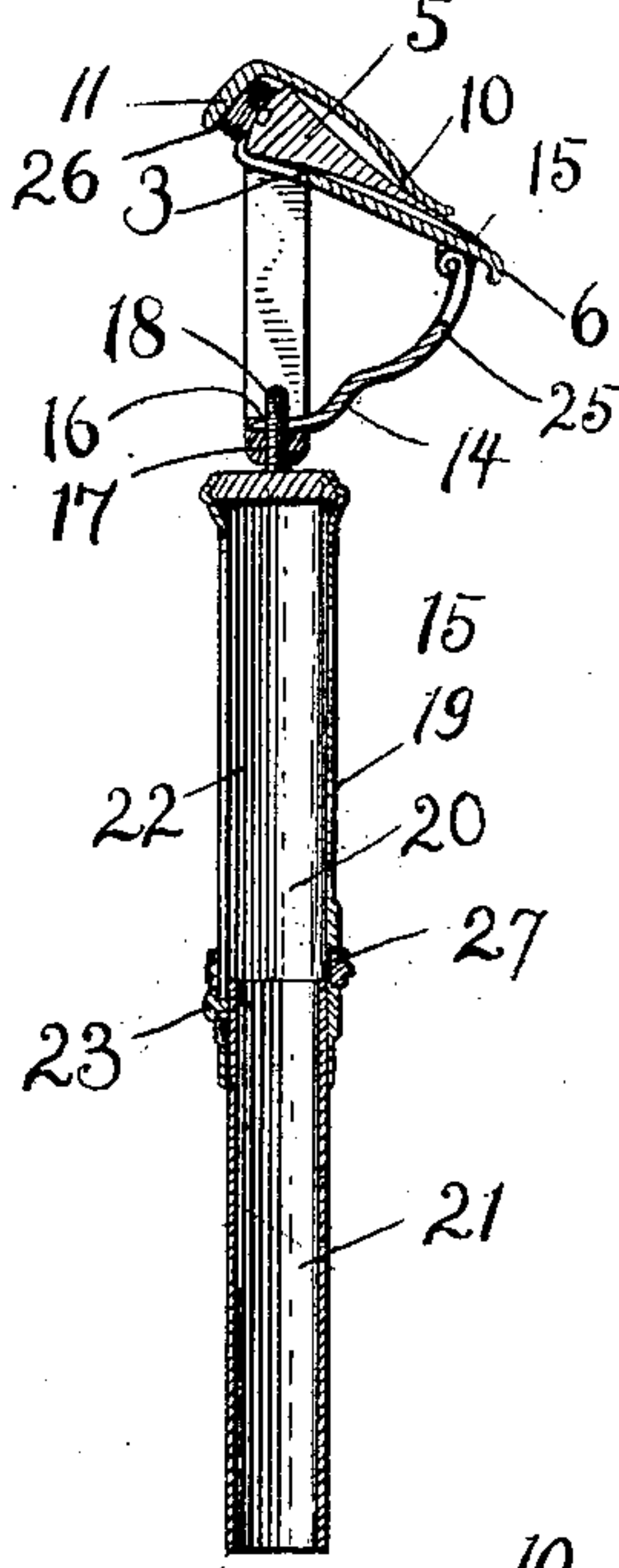


Fig. 4.

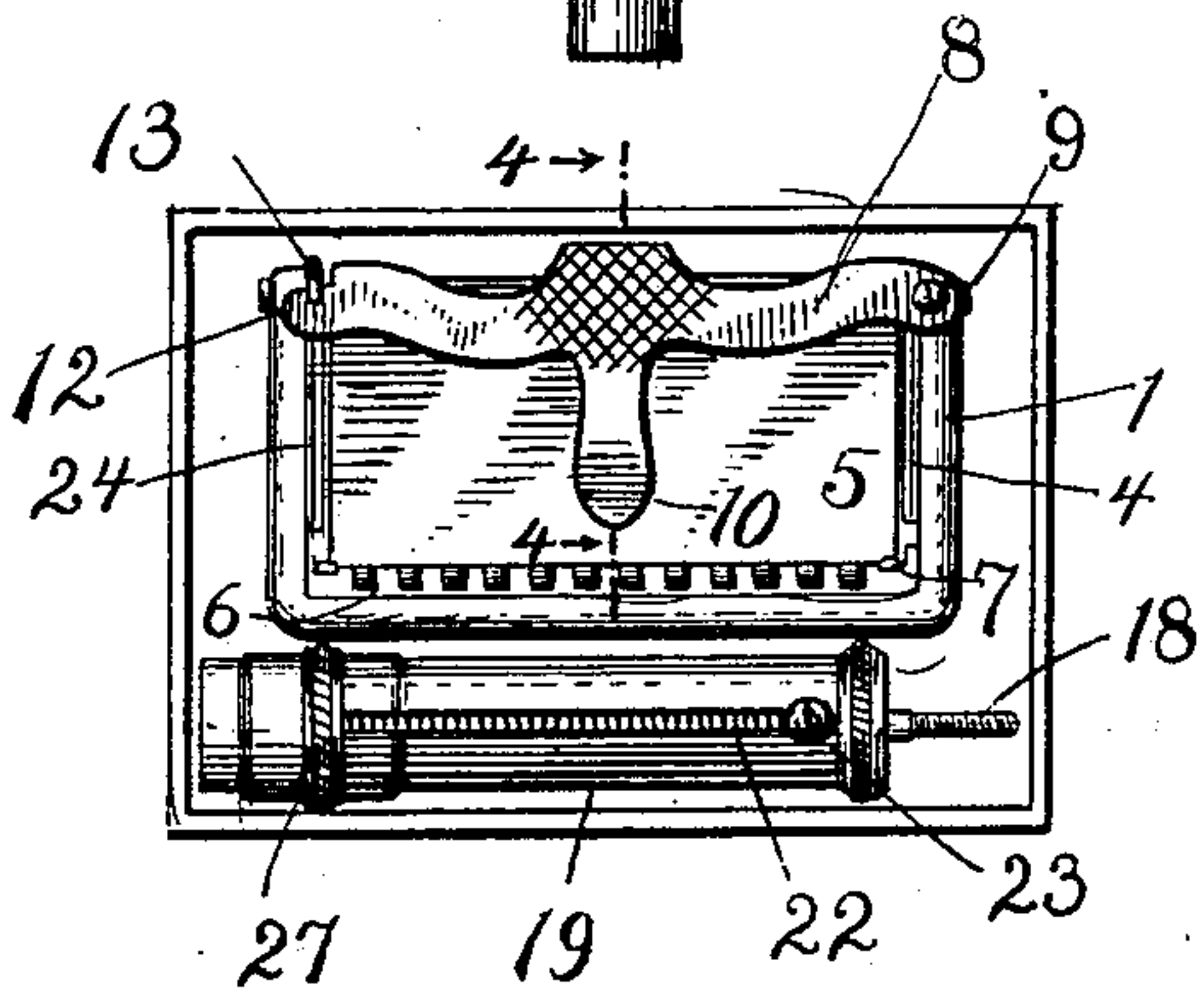
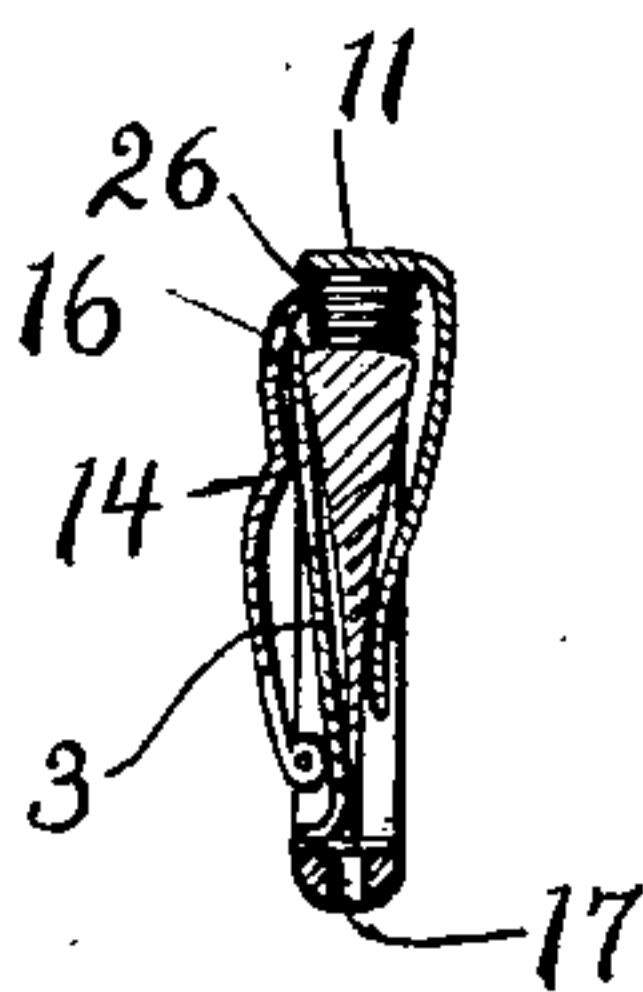


Fig. 3.

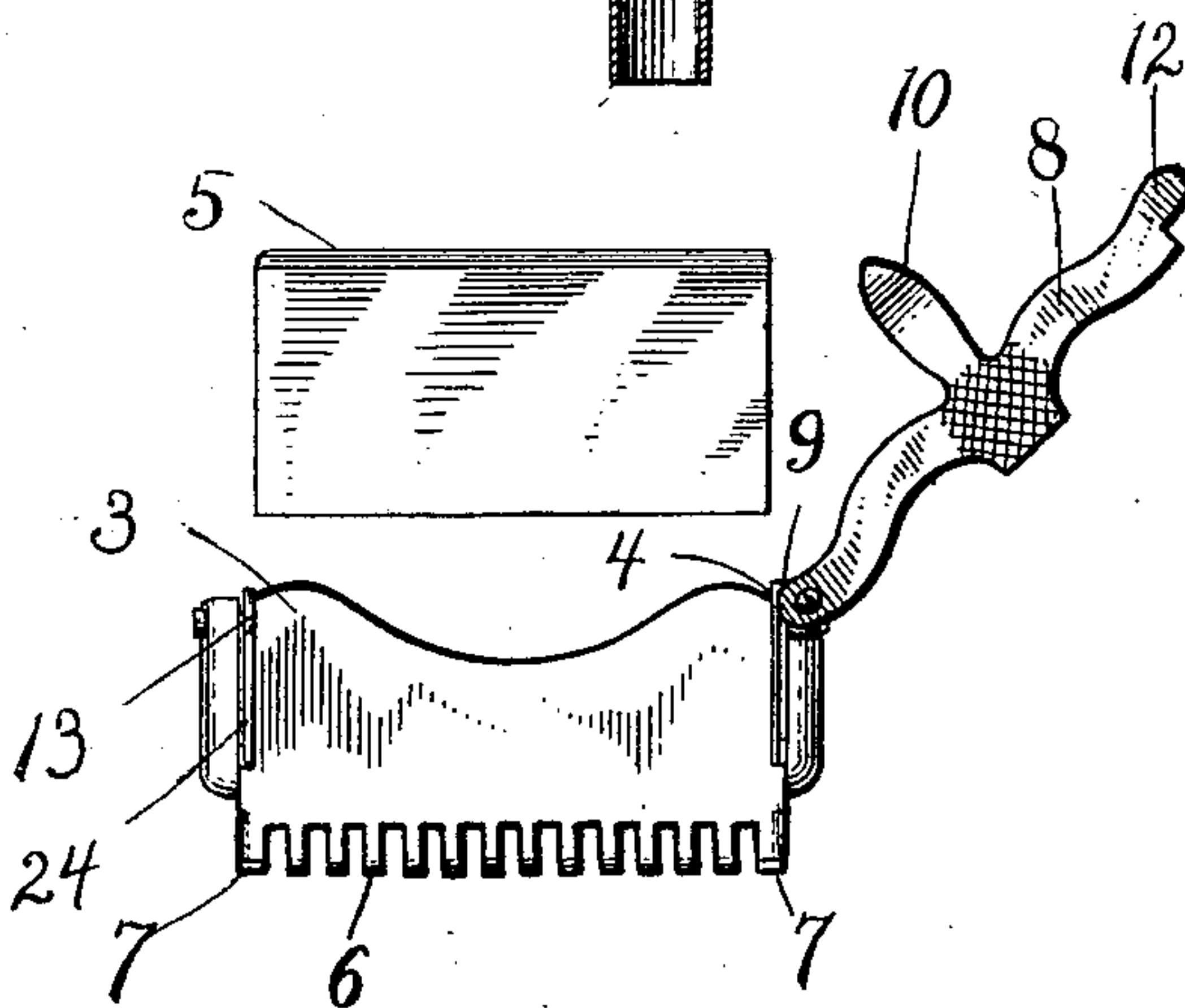


Fig. 5.

Witnesses:

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334
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UNITED STATES PATENT OFFICE.

HENRY WILCOX, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE WILCOX NOVELTY COMPANY, A CORPORATION OF NEW JERSEY.

SAFETY-RAZOR.

SPECIFICATION forming part of Letters Patent No. 731,090, dated June 16, 1903.

Application filed October 13, 1902. Serial No. 127,031. (No model.)

To all whom it may concern:

Be it known that I, HENRY WILCOX, a citizen of the United States, and a resident of Newark, New Jersey, have invented certain
5 new and useful Improvements in Safety-Razors, of which the following is a specification.

My invention relates to razors; and it has for its object to provide a means for automatically adjusting the blade of the razor
10 and also to provide a razor-frame which permits the blade to be readily removed and the frame opened or folded into a compact form.

The invention consists in providing a collapsible frame having a collapsible handle,
15 the frame being held opened when the handle is attached to the frame.

The invention also consists in providing hinged parts for the frame, whereby the parts of the frame may be folded one into the other
20 and made to occupy the least possible space.

The invention also consists in providing a spring actuating means for controlling the position of the blade with respect to the frame.

The invention also consists in providing a
25 spring located between the back of the frame and the back of the blade and also in providing stops which limit the operation of the said spring.

The invention also consists in other combinations of parts and features of construction hereinafter described, and set forth in the claims.

The invention is illustrated in the accompanying drawings, in which—

35 Figure 1 is a front view of the razor when open and ready for use. Fig. 2 is a side sectional view of the razor when open. Fig. 3 illustrates the razor-frame and its handle folded. Fig. 4 illustrates a sectional view of
40 the razor-frame, taken on line 4 4 shown in Fig. 4. Fig. 5 illustrates the razor-support with the back unclamped and open and the blade removed.

Referring to Fig. 1, 1 indicates a U-shaped
45 support having pivot-pins 2 located at the upper ends of its arms. A blade-holder 3 is pivotally supported on the pins 2 2 and is adapted to swing in the support 1. The blade-holder 3 has a pair of guiding-flanges 4 24,
50 located at opposite ends of the holder. The blade 5 is inserted between the flanges 4 24,

which prevents any longitudinal movement of the blade 5. The lower edge of the holder 3 is provided with guiding-teeth 6, which extend below the edge of the blade 5 and prevent the same from cutting when the razor is in use. The razor-teeth 6 are curved downward, so as to allow of free movement of the razor over the skin of the one using it. The ends of the holder 3, at its lower edge, are provided with upturned stops 7 7. The stops 7 7 are adapted to engage with the edge of the razor-blade and hold it in a proper cutting position relative to the guiding-teeth 6 of the holder. By means of the stops 7 7 the edge
65 of the blade will always have the same relative position to the guiding-teeth of the frame. When the razor-blade is ground so as to reduce its width, the blade will always have its cutting edge in the same position relative to the holder. By means of the stops all adjusting-screws and devices for adjusting the blade are entirely done away with. In order that the blade may be readily clasped in the razor-frame and at the same time pressed forward
75 against the stops 7 7, there is provided a clasp 8. The clasp 8 is hinged at one end to a lug 9, located on the flange 4. The clasp 8 is provided with a spring-tongue 10, which is adapted to press against the side of the blade
80 5 and retain it in a fixed position in the holder. The clasp 8 is also provided with a lug 11, which extends over the back of the blade. The lug 11 is provided with a spiral spring 26, which presses upon the back of
85 the blade 5 when the clasp 8 is closed. The spring holds the blade against the stops 7 7, so that the cutting edge of the blade 5 will always take the same position relative to the guiding-teeth 6. The clasp 8 is also provided
90 with a spring-clip 12, which is adapted to engage with the catch 13, located on the upturned flange 24 of the blade-holder 3. When the blade is placed in position in the blade-holder, the clasp 8 is swung around to the
95 rear of the blade and the blade 5 is forced against the stops 7 7 by means of the spring 26. The clasp is caught and held by the hook 13, and the blade is thus secured in the holder. The holder 3 is also provided with a
100 brace 14. The brace has two extending arms 25 25, which are hinged to the holder 3. The

brace 14 is adapted to be swung on the hinge 15, so as to be closed against the rear of the holder or to be opened, the arms permitting the brace to swing clear of the teeth. One
 5 end of the brace 14 is provided with a screw-threaded hole 16, adapted to register with a hole 17, located in the U-shaped support 1. When the holes register, a lug located on the handle may be inserted in the hole of the
 10 frame 1 and screwed into the brace 14. When the position of the brace and the frame is thus secured, the position of the blade-holder relative to the handle is also secured. By this means all looseness of the parts of the
 15 safety-razor is entirely obviated and the razor may be readily opened, handled, and cleaned. When the razor is to be cleaned, the handle may be easily unscrewed and removed and the parts of the razor may be easily opened.
 20 The back of the razor-frame may be unclashed and the razor-blade removed, and the parts of the razor-frame may be swung open on their respective pivots or hinges and the frame opened and cleaned. If the razor is to
 25 be closed, the parts of the razor-frame may be easily folded together. The blade-holder may be swung between the arms of the support 1, and the brace 14 may be closed against the rear of the blade-holder 3, and the frame
 30 may be made to occupy an exceedingly small space.

I have also provided a telescoping handle, which is adapted to be detachably secured to the frame. The handle is provided with the
 35 screw-threaded lug 18, which is adapted to be inserted in the holes of the support 1 and the brace 14. The telescoping handle 19 consists of two tubes 20 and 21, movable one within the other. The outer tube 20 is pro-
 40 vided with a slot 22, which is adapted to receive a lug 23, carried by the inner tube 21. When the tubes 20 and 21 are pushed together, so that they are caused to move one within the other, the lug 23 moves along the
 45 slot 22. The outer tube 20 is provided with a slotted ring 27 at one end of the said tube. The slot 28 of the ring 27 is adapted to permit the lug 23 to pass by the ring 27. When the handle is opened, the inner tube is pulled
 50 out, carrying the lug by the ring. The ring is then turned, and the lug is thus secured between the ring and the outer tube at the end of the slot 22. When the handle is to be closed, the ring is turned so that the slot 28
 55 registers with the slot 22, and the lug, together with the inner tube, may be pushed into the outer tube. The telescoping handle 19 may thus be retained in an opened or extended position when the razor is to be used.
 60 The razor-handle is of such a length that when it is telescoped it may be readily inserted in a box adapted to receive the folded razor-frame. By this arrangement of the parts of the razor-frame I have provided an ex-
 65 ceedingly simple and efficient safety-razor which may be folded so as to occupy a very

small space and may be placed in a very small box.

The parts of the device may be modified by those skilled in the art without in any way
 70 departing from the spirit of the invention. The blade may be supported in various ways, and the parts of the razor-frame may be hinged at different points and the handle at-
 75 tached thereto in different ways without in any way avoiding my invention.

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. In a safety-razor the combination of a frame consisting of a U-shaped support, a
 80 blade-holder pivoted to the arms of the said support at opposite ends of the said blade-holder, and means for holding the said blade-holder in a fixed position relative to the said support. 85

2. In a safety-razor the combination of a collapsible frame consisting of a U-shaped support, a blade-holder movably supported between the arms of the said support, and a
 90 brace, and a removable means adapted to hold the said holder in a fixed position relative to the said support.

3. In a safety-razor the combination of a collapsible frame consisting of a U-shaped support, a blade-holder pivotally supported
 95 between the arms of the said support, a brace hinged to the said holder, and means for holding the said brace in a fixed position relative to the said support.

4. In a safety-razor the combination of a
 100 frame consisting of a support, a blade-holder attached to the said support, a spring-clasp pivoted to the said holder, and a clip for retaining the said clasp in its closed position.

5. In a safety-razor the combination of a
 105 blade-support, a blade-holder carried by the said support, a removable clasp attached to the said holder and having a spring adapted to press the razor-blade against the holder, and means for retaining the said clasp in a
 110 closed position.

6. In a safety-razor the combination of a blade, a support, a blade-holder, a clasp, and a spring supported by the said clasp and adapted to press against the said blade. 115

7. In a safety-razor the combination of a blade, a support, a blade-holder having guiding-teeth, stops located on the said holder, a clasp, and a spring carried by the said clasp adapted to press the said blade against the
 120 said stops.

8. In a safety-razor the combination of a blade, a support, a blade-holder, a clasp for retaining the said blade, stops located on the said holder, and a spring supported by the
 125 said clasp and adapted to press the said blade against the said stops.

9. In a safety-razor the combination of a blade, a support, a blade-holder pivotally mounted on the said support, a brace con-
 130 nected to the said holder and to the said support, a removable spring-clasp adapted to re-

tain the said blade in the said holder, and means for retaining said clasp in a closed position.

10. In a safety-razor the combination of a blade, a frame, consisting of a support, a blade-holder hinged to the said support, and a brace hinged to the said holder, a clasp hinged to the said holder, a spring carried by the said clasp adapted to press upon the said blade, and stops for controlling the position of the edge of the said blade with respect to the said holder.

11. In a safety-razor the combination of a collapsible frame consisting of a support, a blade-holder pivoted to the said support, and a brace hinged to the said holder, a blade carried by the said holder, stops located on the said frame, and means for pressing the said razor-blade against said stops.

12. In a safety-razor the combination of a blade, a collapsible frame consisting of a support, a blade-holder pivoted to the said support, and a brace hinged to the said holder, removable means for connecting the said brace to the said support, stops located on the said holder, and a clasp for securing the said blade in the said holder and for pressing the said blade against the said stops.

13. In a safety-razor the combination of a collapsible frame consisting of a support, a blade-holder hinged to the said support, and a brace hinged to the said holder, and a removable means for securing the said frame open.

14. In a safety-razor the combination of a

blade, a collapsible frame consisting of a support, a blade-holder pivotally mounted on the said support, a clasp for retaining the said blade in the said holder, and a brace hinged to the said frame-back, a telescopic handle for securing the said frame open.

15. In a safety-razor the combination of a blade, a collapsible frame consisting of a support, a blade-holder pivoted to the said support, a clasp hinged to the said holder, a brace also hinged to the said holder, stops located on the said blade-holder adapted to control the position of the said blade, a spring carried by the said clasp and adapted to press the said blade against the said stops, a removable handle having a stud for securing the said brace to the said support and holding the said frame open.

16. In a razor the combination of a handle having telescoping parts, one of said parts having a slot, a ring fitted to the said one of the said parts, the said ring having a slot adapted to register with the slot of the said one of the said parts, a lug located on the other of the said parts, adapted to move through said slots, and to be locked by turning the said ring.

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

HENRY WILCOX.

Witnesses:

LOUIS E. BERGER,
EDWIN SEGER.