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RAZOR BLADE EDGE STRAIGHTENER

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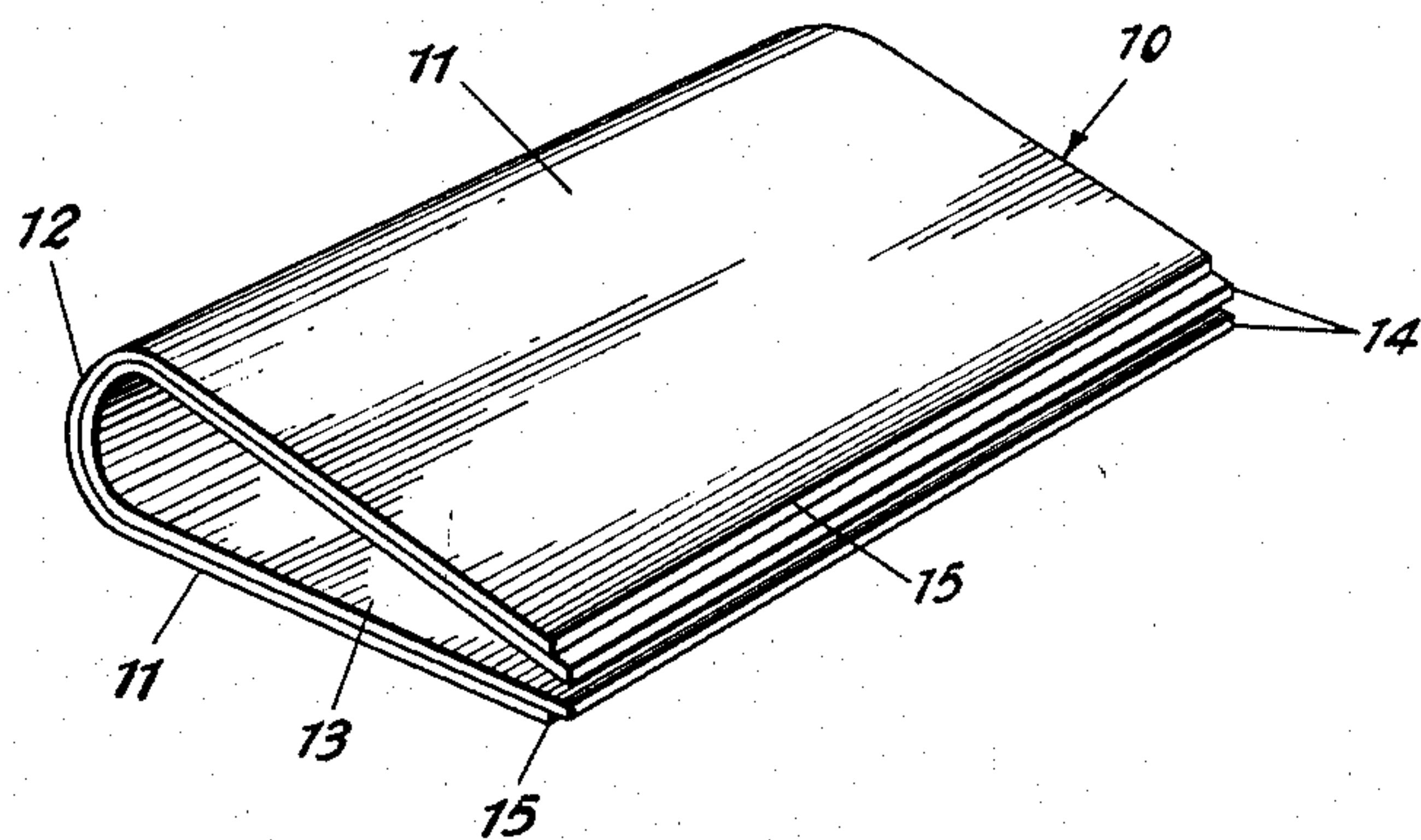


FIG. 1.

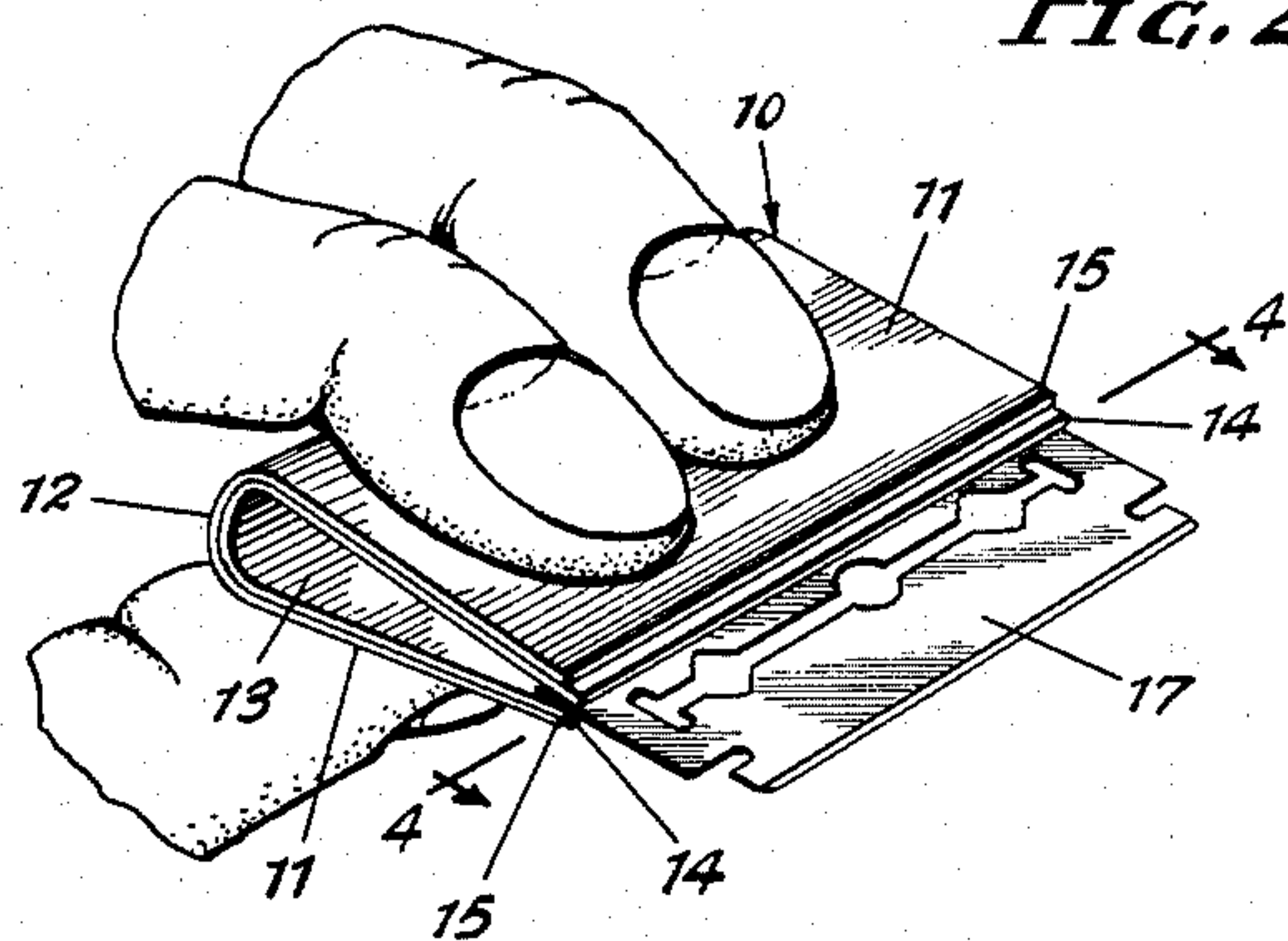


FIG. 2.

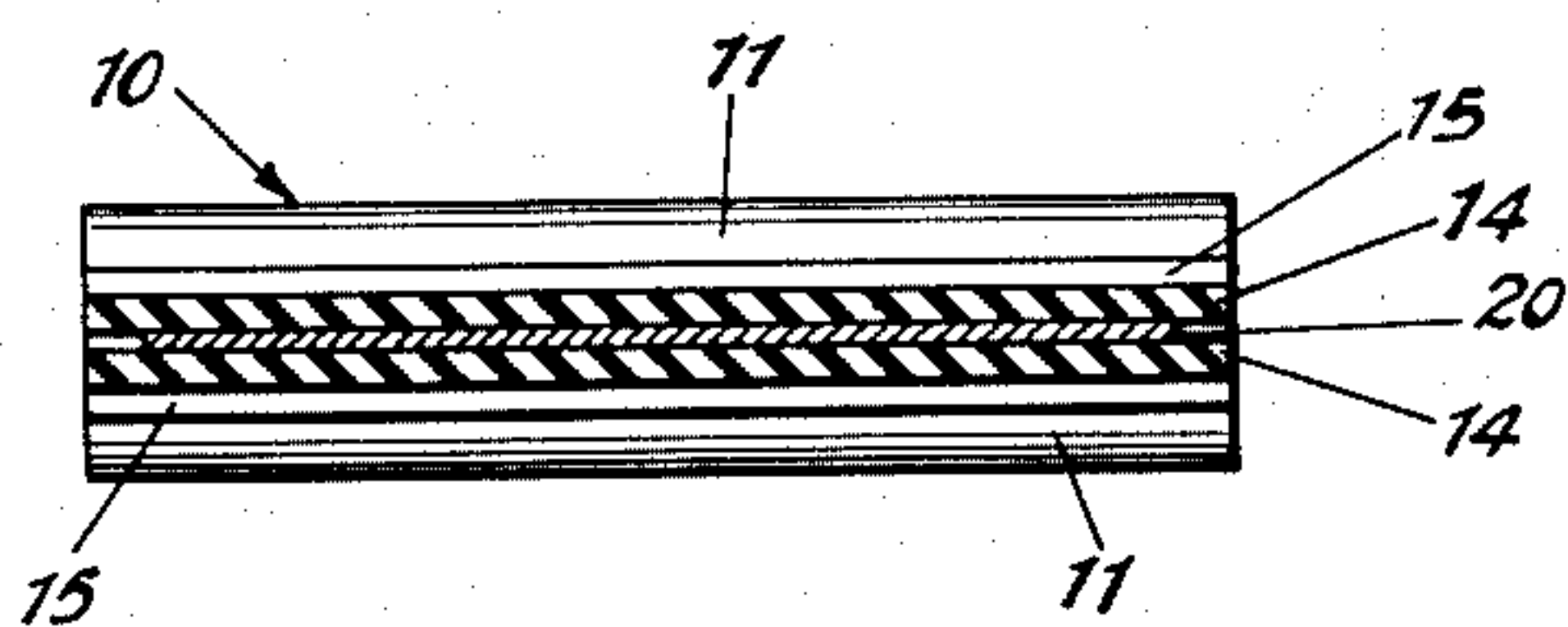


FIG. 4.

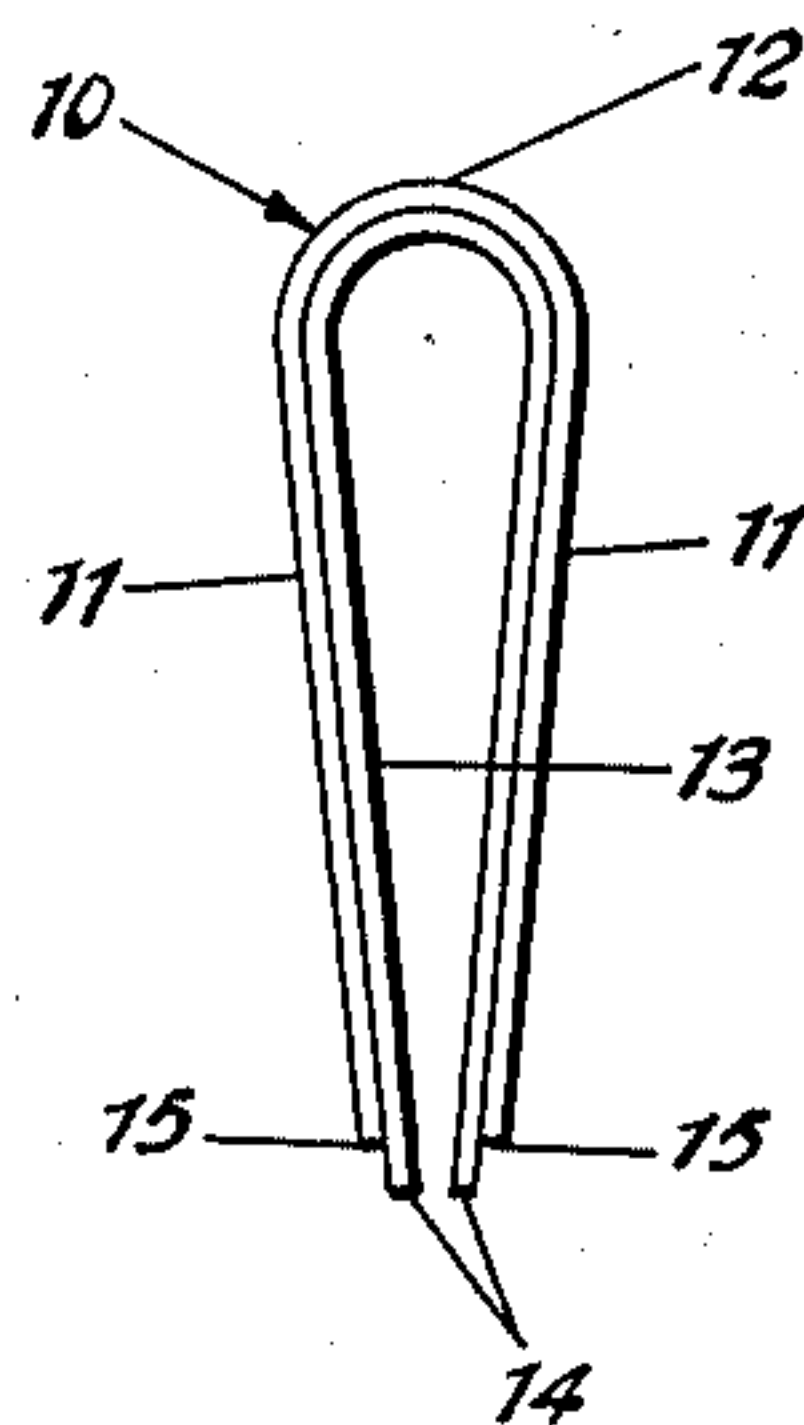


FIG. 3.

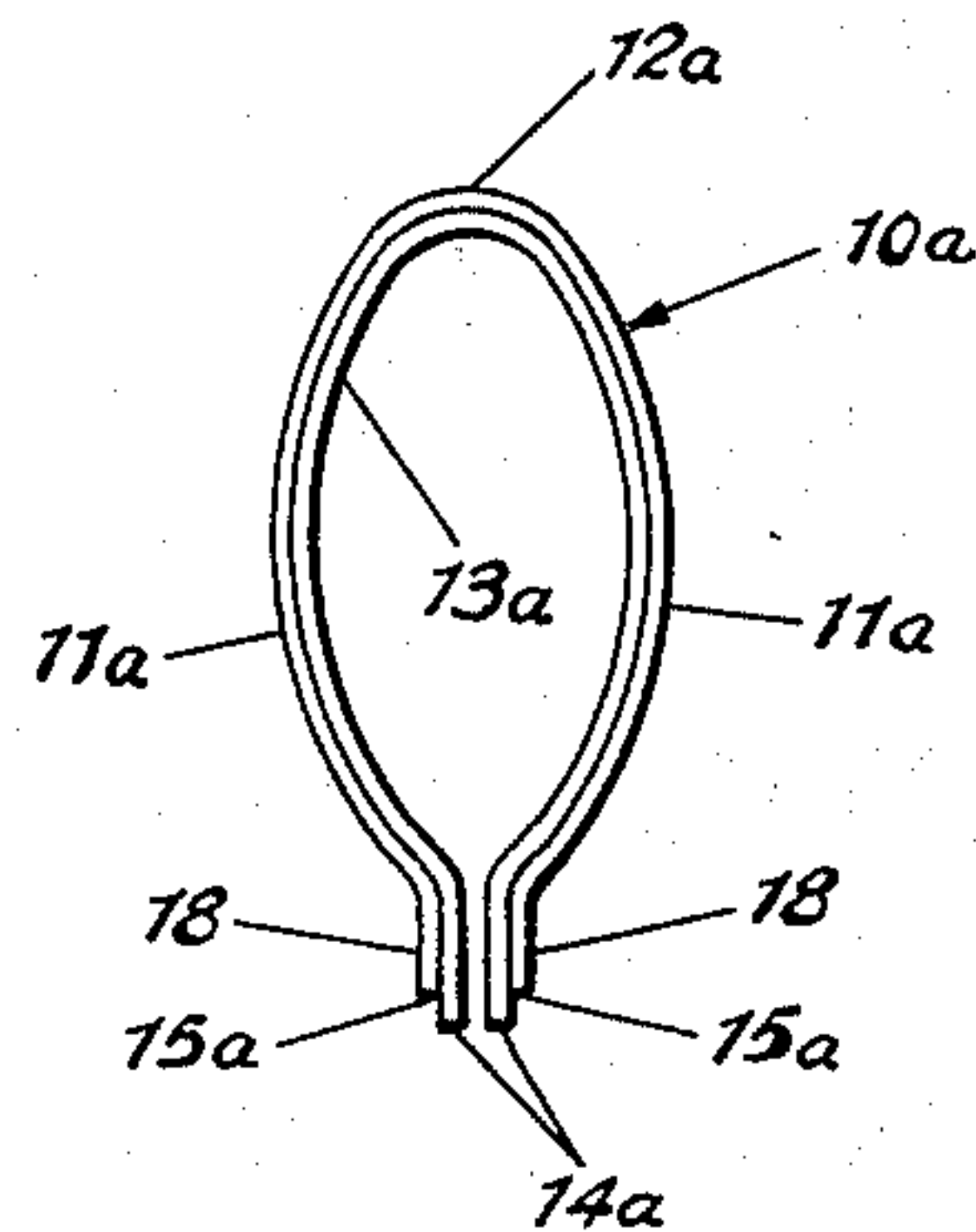


FIG. 5.

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## UNITED STATES PATENT OFFICE

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## RAZOR BLADE EDGE STRAIGHTENER

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2 Claims. (Cl. 51—186)

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The present invention relates to improvements in a razor blade edge straightener and has for an object the provision of a device of this kind by which the edges of used razor blades may be restored to their original condition.

It is well known that after use the edge of a razor blade is turned or curled to one side of the plane of the main body portion of the blade. The cutting edge of the razor blade is made up of a number of minute teeth which during the shaving operation are displaced laterally of the blade. This curling or displacement of the cutting edge of the blade will impair the cutting efficiency of the blade.

It is one of the objects of the present invention to provide an improved razor blade edge straightener which will straighten the teeth of the edge of the blade.

A further object of the present invention is to provide an improved device of this character by which razor blades may be quickly and easily reconditioned.

A still further object of the present invention is to provide an improved straightener which is simple in construction, economical to manufacture and which occupies relatively small space so that it can conveniently be carried with the razor.

With the foregoing and other objects in view, the invention will be hereinafter more fully described and more particularly pointed out in the appended claims.

In the drawings, in which the same parts are denoted by the same reference numerals throughout the several views,

Figure 1 is a perspective view of the improved device constructed in accordance with the present invention,

Figure 2 is a perspective view of the improved device in operation illustrating a razor blade therein,

Figure 3 is an end elevational view of the improved device,

Figure 4 is a sectional view taken on the line 4—4 of Figure 2, and

Figure 5 is an end elevational view of a modified form of the invention.

Referring more particularly to the drawings, 10 indicates a holder which may be made from a single piece of material such as metal, plastic or the like, and is bent over into a substantially U-shaped form comprising a pair of jaws 11 connected by the bent-over portion 12. The bent-over portion 12 possesses sufficient natural inherent resiliency to spring the jaws 11 apart.

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The same effect could be obtained by a hinge with a spring to force the jaws apart. The holder 10 may be made from any suitable rust-proof material, such as plastic, aluminum, brass, stainless steel or cadmium plated.

A layer 13 of resilient material is secured to the inner faces of the jaws 11 and the bent-over portion 12 in any suitable manner, such as by waterproof cement or the like. The layer 13 may be made of vulcanized natural gum rubber or synthetic rubber of the proper consistency. It will be noted that the layer of material 13 covers the entire inner surfaces of the jaws 11 and the portion 12 of the holder 10 and that the free edge portions 14 extend outwardly beyond the free edges 15 of the jaws 11. The jaws 11 are substantially straight throughout their entire length and converge from their points of connection to the portion 12 towards their outer free ends which are normally slightly spaced apart.

In the use of the device the shaver will first immerse the razor blade 17 to be conditioned and the improved straightener in either hot or cold water until both the blade and the straightener are completely wet. The cutting edge portion of the razor blade is then inserted between the jaws 11 and the layer of material 13 is placed into firm clamping engagement with the cutting edge portion of the blade by pressing with the thumb and fingers upon the jaws 11, as illustrated in Figure 2 of the drawings. While still pressing upon the jaws 11 the user will draw out the blade from between the opposed faces of the material 13. This will assure an intimate contact of the material 13 with the cutting edge of the blade throughout the entire length of the blade. The rubber material 13 will cling sufficiently to the metal of the blade so as to exert a drag on the teeth of the cutting edge of the blade and thereby straighten the teeth without dulling the cutting edge. This operation may be repeated several times with each cutting edge of the blade.

The fact that the portions 14 of the rubber layer 13 extend outwardly beyond the free edges 15 of the jaws 11 will prevent the cutting edge of the blade from coming into contact with the holder 10 to eliminate any possibility of nicking or dulling the cutting edge of the blade. These extended portions 14 of the flexible layer 13 will also protect the thumb and fingers of the user from accidental contact with the cutting edge of the blade in the event that the fingers slip while exerting pressure on the jaws 11.



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In the modified form of the invention illustrated in Figure 5 of the drawings, 10a generally indicates a holder which may be made of material similar to that of the form of the invention shown in Figures 1 through 4. The holder 10a comprises a pair of jaws 11a and a bent-over portion 12a connecting said jaws. A layer 13a which is made of material similar to that from which the layer 13 is made is secured in a similar manner to the jaws 11a and portion 12a. The jaws 11a are substantially arcuate throughout the major portion of their length and their free end portions 18 are substantially straight and parallel to one another. The layer 13a conforms substantially in shape to the holder 10a and has its free end portions 14a extending beyond the edges 15a of the free end portions 17 of the holder 10a.

The operation of this form of the invention is substantially the same as that described in connection with the form of the invention illustrated in Figures 1 through 4 of the drawings, except that the free end portions 18 of the jaws 11a will constitute finger engaging portions for the hand of the user.

It will be noted that by the use of this improved device the life of razor blades will be materially prolonged and a number of used blades can be accumulated and straightened in a relative short space of time.

It is obvious that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of this invention without departing from the spirit thereof, such changes and modifications being restricted only by the scope of the following claims.

What I claim is:

1. An improved razor blade edge straightener capable of being completely wet with water or the like without suffering deterioration comprising a substantially U-shaped integral holder of rust-proof material comprising a pair of jaws and a bent-over portion for connecting said jaws and for normally holding their free edges in spaced apart relation, a layer of rubber secured directly to the inner faces of said jaws and said bent-over portion, and a water-proof adhesive

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for securing said layer to said jaws and bent-over portion, said jaws and bent-over portion being integral and their inner faces being uninterrupted throughout their entire areas, said layer of rubber being of substantially the same shape as said jaws and bent-over portion and having a width substantially the same as that of the holder and having a length slightly greater than that of the holder, whereby the layer is formed into a main body portion lying within the confines of the holder and free edge portions extending outwardly beyond the free edges of the jaws of the holder, the inner and outer surfaces of the main body portion of the layer being uninterrupted, whereby the inner surface of the main body portion of the layer of rubber and the inner surface of the holder intimately engage one another throughout their entire areas so as to present to the water a minimum amount of exposed joint area for loosening attack by the water, the extended free edge portions of the layer being unattached to said jaws to be free to be bent over the free edges of the jaws by the razor blade during the use of the device to protect the blade from the free edges of the jaws.

2. An improved razor blade edge straightener as claimed in claim 1 characterized by the fact that each of said jaws is substantially arcuate throughout the major portion of its length and has a substantially straight free end portion.

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