H. NATKIEL AND I. FREEDMAN.

HAIR WAVER.

APPLICATION FILED OCT. 30, 1919.

1,353,781. Patented Sept. 21, 1920.

Fig. 1



Fig. 2

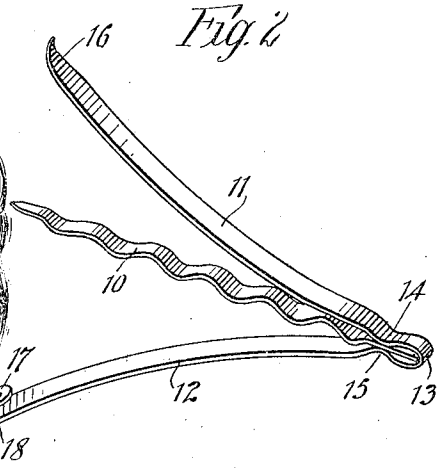


Fig. 3.

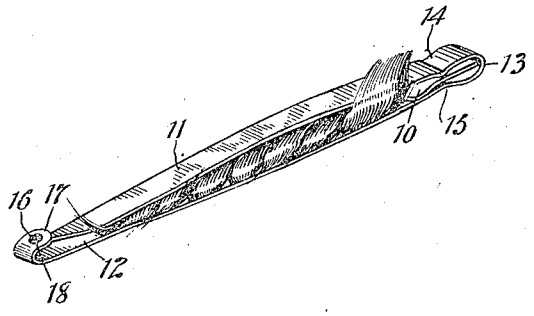
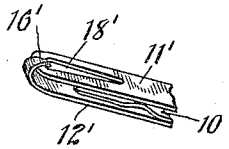


Fig. 4.



WITNESSES

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HAIR-WAVER.

1,353,781. Specification of Letters Patent. Patented Sept. 21, 1920.

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To all whom it may concern:

Be it known that we, HARRY NATKIEL and ISADORE FREEDMAN, citizens of the United States, and residents of the city of New York, (borough of Manhattan,) in the county and State of New York, have invented a new and Improved Hair-Waver, of which the following is a full, clear, and exact description.

This invention relates to ladies' toilet articles and has particular reference to hair dressing facilities.

Among the objects of the invention is to provide a simple and easily manipulated device for curling or waving the hair.

Another object of the invention is to provide means for accomplishing the general objects stated with the least danger of damaging or injuring the hair.

With the foregoing and other objects in view the invention consists in the arrangement and combination of parts hereinafter described and claimed, and while the invention is not restricted to the exact details of construction disclosed or suggested herein, still for the purpose of illustrating a practical embodiment thereof reference is had to the accompanying drawings, in which like reference characters designate the same parts in the several views, and in which—

Figure 1 is a perspective view indicating the manner of use of the improvement.

Fig. 2 is a perspective view of one of our wavers open and in the form for receiving the hair.

Fig. 3 is a similar view of the waver closed; and

Fig. 4 is a detail view of a modified form of interlocking ends or points.

As will be noted by reference especially to Figs. 2 and 3, the device consists of a single piece of spring material, such as flat steel or its equivalent bent upon itself and curved in a peculiar manner to accomplish the ends aimed at.

The device comprises essentially three arms or bars 10, 11 and 12 approximately of equal length, although the inner part 10 is necessarily slightly shorter than the others.

In the formation of the device the strip of spring material is bent upon itself at 13 in the form of a rather sharp loop practically at the middle. Adjacent to the bend or loop 13 the bars 11 and 12 are provided with concave bends 14 and 15 between which the adjacent end of the bar 10 is fastened by any suitable means such as by spot welding, riveting or the equivalent. The main portions of the bars 11 and 12 are essentially flat between the ends or points thereof and the concavities just referred to although each of them has an inherent tendency to curve outward away from the other when open, as shown in Fig. 2.

The point 16 of the bar 11 is relatively sharp and outwardly turned in a direction approximating a right angle to the general plane of the bar.

The bar 12 has its end 17 bent inward parallel to the main portion thereof and provided with a hole 18. The end 17 is spaced far enough from the body of the bar to permit the point 16 of the other bar to pass laterally beneath the end 17 so that the point may project outward into or through the hole when the device is locked as shown in Fig. 3.

The central bar 10 may be of any suitable construction, but preferably wavy or sinuous as indicated in Fig. 2 whereby the hair is given a more pronounced wavy or curly effect in the practice of the invention.

With the device formed and open as shown in Fig. 2 the operator or hair dresser will apply it by wrapping a strand of hair around the central arm or rib practically from one end to the other, but with only a moderate degree of tightness. This wrapping takes place between the free arms 11 and 12 and independently thereof. After this wrapping is completed the spaced ends of the arms 11 and 12 are sprung toward each other and the point 16 is sprung beneath the end 17, due to the flexibility of the device, and springs outward and interlocks in the hole 18. This action of the arms 11 and 12 puts the hair wrapped around the central bar under compression and the device is so left for the desired length to effect the waving or crimping of the hair. Obviously the strand of hair is so gripped that it cannot unwind or become disarranged with respect to the waver until the interlocked ends of the outer arms are manually unlocked. The bends at 14 and 15 accommodate the outer bars to the sinuous form of the central rib. When the arms or bars 11 and 12 are straightened into binding action over the outside of the coil of hair several important functions are accomplished: First, this straightening is in opposition to

the normal tendency of these arms to curve apart, hence the tension of these arms serves to place the hair under tension or compression to provide for the waving thereof. Secondly the expansive tendency of the outer arms insures the permanency of the interlocking connection between the ends thereof. To remove the device from the hair the interlocked ends are simply disconnected by first forcing the point downward through the hole and then giving the adjacent ends a relative side movement, when the arms will spring apart and release the hair from the central rib.

The modification of Fig. 4 differs from that previously described in that the arm 11′ is provided with a long slot 18′ in its end for coöperation with a hook shaped point 16′ of the other arm 12. The slot 18′ in addition to a hole for the point of the other member to project inward through it affords a very effective thumb grip for the manipulation of the two ends for locking and unlocking, that is to say by the application of the thumb to the slotted portion of the arm 11′ enough friction is established immediately to insure lateral movements that are necessary. The operation of the device so far as the curling or waving of the hair is concerned is the same as that above set forth.

We claim:

1. The herein described hair waver comprising a plurality of bars, the outermost two of which are formed from the same piece of spring material bent sharply upon itself at about the middle and said two arms having an inherent tendency to spring outward from each other at their free ends, another of the bars lying between the two aforesaid bars having one end fastened rigidly within said sharp bend at the point of connection of the first two mentioned bars, the last mentioned bar being of a sinuous form, and means to interlock the two free ends of the first mentioned bars together over the end of the sinuous bar.

2. In a hair waver, the combination of two outer reversely bent bow-shaped bars, means connecting these bars together rigidly at one end while the other or free ends thereof are provided with interlocking hook and hole features, and a third bar located between the first two mentioned bars and having one end fixed rigidly at the point of connection between the first two bars, the third bar being essentially straight but having a sinuous form and upon which the hair is adapted to be wound between the first two mentioned bars.

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