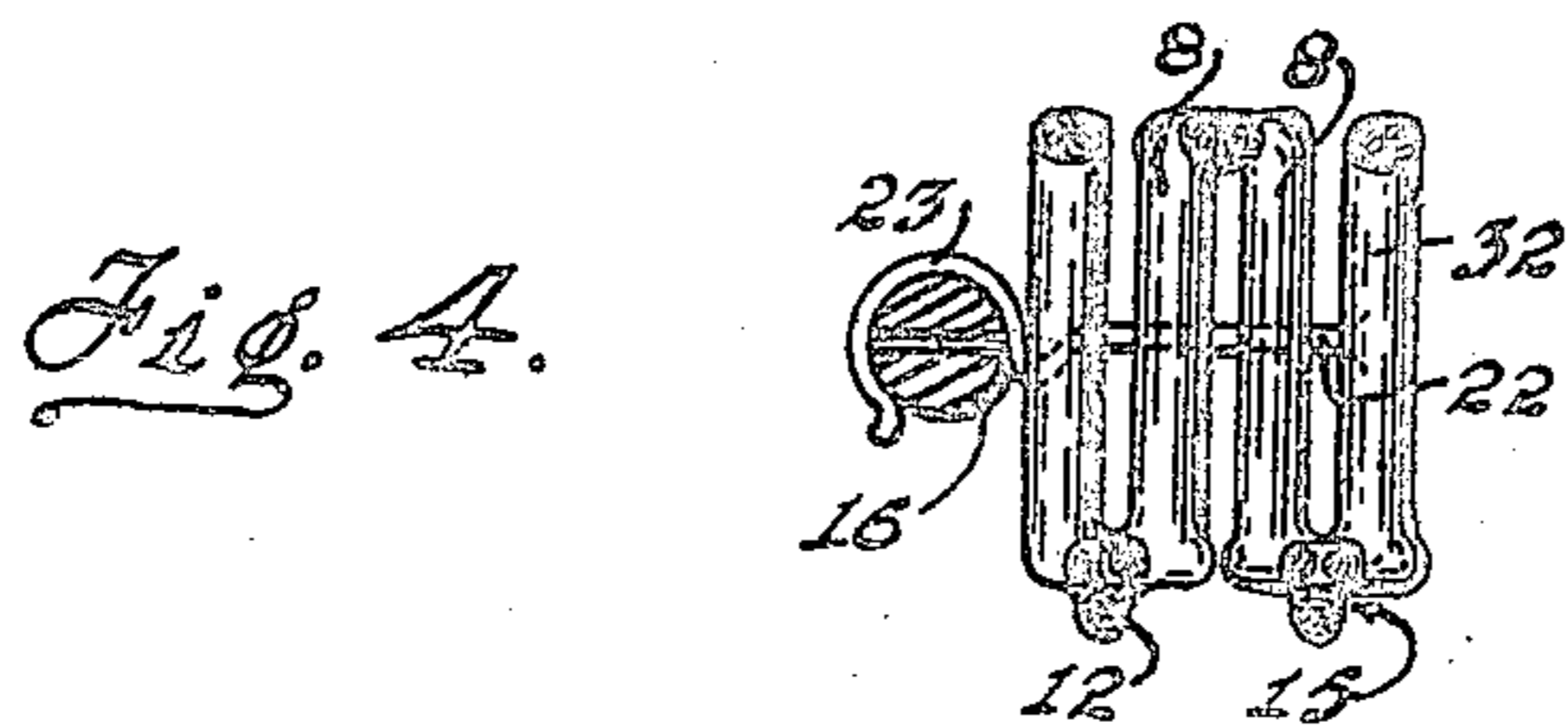
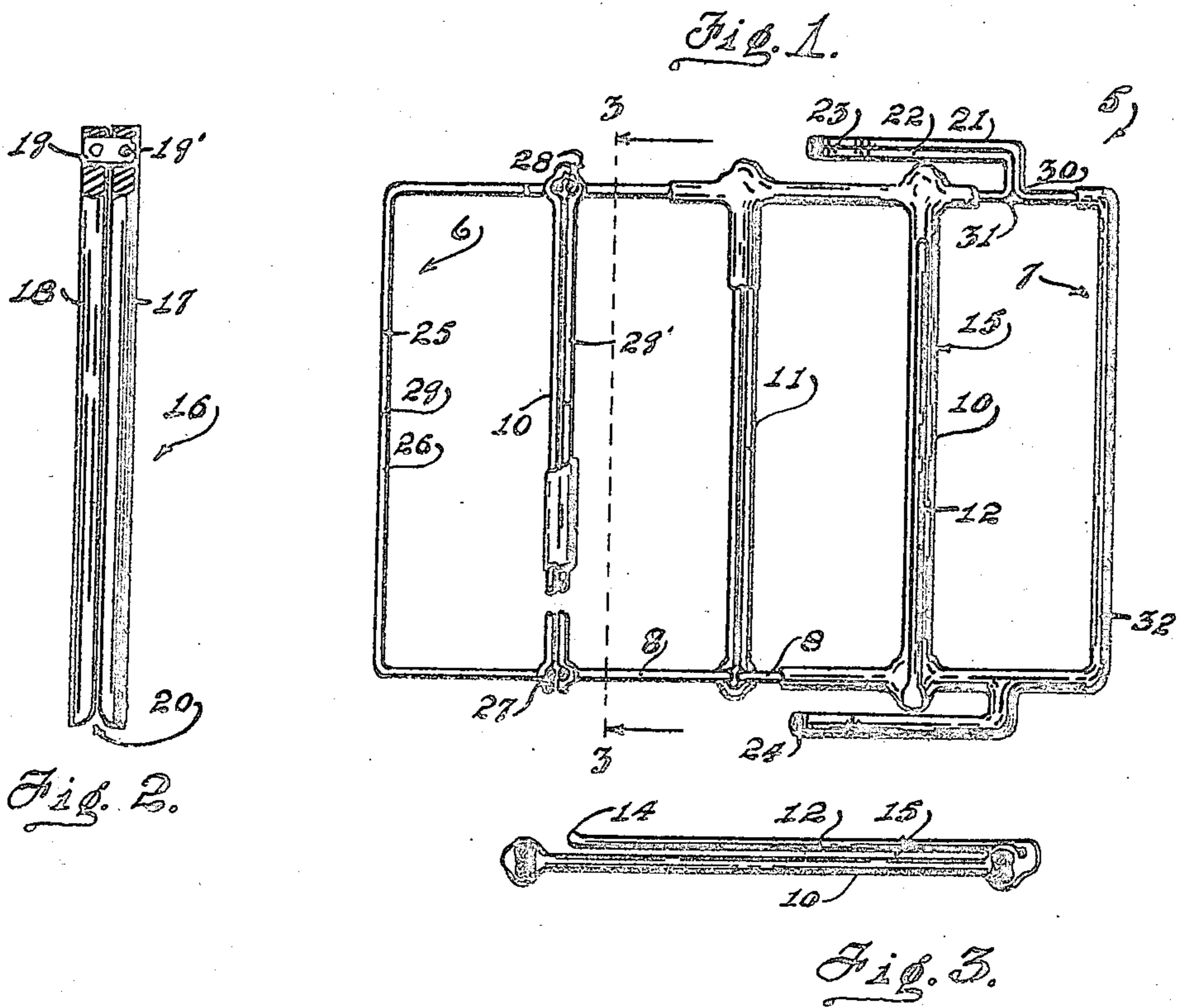


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L. SMITHSON.  
HAIR CURLING AND WAVING DEVICE.  
FILED JULY 17, 1922.



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## HAIR CURLING AND WAVING DEVICE.

Application filed July 17, 1922. Serial No. 575,500.

*To all whom it may concern:*

Be it known that I, LOTTIE SMITHSON, a citizen of the United States, and a resident of Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Hair Curling and Waving Devices, of which the following is a specification.

This invention relates to devices for curling and waving the hair and has for its principal object to provide a device capable of forming both curls and waves together without the aid of heat; particular consideration being given to curling and waving short or bobbed hair, which is ordinarily difficult to so treat.

Another object of the invention is to provide a device of this character which does not require particular skill to apply, and which may be applied upon retiring, as in the case of usual hair curling devices.

Another object of the invention is to provide a device of the above character and for the above purpose that will not prove uncomfortable to the user.

Another object of the invention is to provide a device of the above character that is light in weight and of open construction so that the particular portion of the hair to which the device is attached is well exposed to the air; it being understood that under such condition the human hair more readily takes on semi-permanent arrangement.

Another object of the invention is to provide such a device that is free from sharp corners and edges and not liable to become entangled in the hair, as well as having sufficient resiliency to provide for comfort to the wearer.

Other objects of the invention include the provision of a device of the above character that may be manufactured on wire working machines without having the objectionable features incident to wire hair curling devices.

Still other objects and advantages will appear hereinafter.

I have illustrated by the accompanying drawings a preferred embodiment of the invention, but it is understood that other constructions and arrangements of parts may be employed without enlarging the scope of my invention, within the appended claims.

In the drawings;

Figure 1, is a view in bottom elevation of a preferred form of a part of the device.

Figure 2, is a view in elevation of a preferred form of another part of the device.

Figure 3, is a view in section seen on a line 3—3 of Fig. 1.

Figure 4, is a view in vertical section of all parts assembled and arranged in operative position.

More specifically, 5 indicates a part of the device which is termed the waver, and has for its object to hold the hair to which it is applied in "fan-fold" form. Said waver is made up of a plurality of sections 6 and 7, and links 8, which are each linked to an adjacent section or link by means of transverse link elements 10 and 11, respectively of suitable rigidity. Each section is of rectangular form, and it will be seen that by having the sections linked to one another as shown, the entire waver may be "fan-folded" to assume the arrangement of parts shown in Fig. 4. Link elements 10 are each formed with a spring finger 12, extending in parallel spaced relation with the link of which it is preferably an integral part. The outer end of each finger is turned upward slightly as at 14, so that a strand of hair (not shown) may be introduced readily to space 15, or in other words the waver may thus be easily slipped over a strand of hair.

A curler 16 is provided which may be of any suitable form and is here shown as comprising two parallel members 17 and 18, pivotally connected to a single connecting element 19 which normally holds them spaced slightly apart to provide a space 20. Members 17 and 18 are of semi-circular cross section so the curler as a whole presents a substantially circular cross section. In applying the curler to the hair the respective members are spread apart as far as required to insert the hair in space 20, and are then pressed together. The curler is then turned, as in the case of usual curlers, to roll the hair upon it. I have found that a curler of this type is best adapted to short or bobbed hair where the ends are evenly trimmed, and it will be seen that the construction shown is well adapted for use in conjunction with the waver illustrated.

The waver is provided with a pair of spring clips 21, which are shown as forming an integral part of section 7. Said clips include a straight portion 22 of sufficient length to extend beyond the waver when folded, and a hook 23 at the termination of each straight portion. An end of each hook

is turned outward slightly as at 24. It will be seen now that by folding the waver and subsequently inserting respective ends of the curler in respective hooks, a rigid assembly of curler and waver is provided, as shown particularly in Fig. 4, and said curler holds the waver locked in folded position.

Any suitable construction may be employed for the waver, sections, links and transverse members, and in the construction illustrated wire is employed, which may be of fine guage, inasmuch as in each case the wire is doubled back upon itself to provide rigidity and to facilitate manufacture and assembly of parts.

Each of sections 6 and 7 are formed of a single length of wire 25, which begins as at 26, passes through a loop 27 in the adjacent transverse member, and thence extends backward over itself around three sides of a rectangle, thence through another loop 28 on the adjacent transverse element back over itself to end as at 29.

In the transverse links a single length 29' of wire is also used, and the spring finger is formed by properly arranging and bending said wire. In forming section 7 a longer length of wire is employed than in forming section 6, and said wire is bent as at 30, and arranged to form the spring clip and returns to bend 31, from whence it continues through the loop in the adjacent transverse link, and extends straight past bends 30 and 31.

By virtue of the construction of the parts, sharp corners and exposed ends of wire are eliminated, and light guage wire may be used while rigidity is maintained. To render the waver even more finished in appearance, and to enclose all metal, it is preferable to provide a complete coating 32 of rubber or the like over the entire curler. This may be done by dipping the device in gum of proper consistency and allowing a thin coating to cover all parts. It will be seen that by virtue of the linked arrangement of the relatively moving parts the coating of gum will not materially affect the free movement thereof.

In the application of the device, the waver is held in the position reverse to that shown in Fig. 1. The curler may be applied to the hair first if desired, and upon the strand of hair being drawn taut the waver is slipped in place. The waver is subsequently folded, thereupon the curler is rolled toward the waver until it can be snapped into place within the hooks. Now it will be seen that the strand of hair to which the device is ap-

plied extends in convolutions around the curler, thence upward over the first section, downward and under the first transverse link, and thence similarly over successive links and sections. The device may be applied to the hair upon retiring, and it will be apparent that inasmuch as the hair is held firmly in curl and wave arrangement and is exposed to the air, the removal of the device in the morning will find the hair semi-permanently arranged in a curl and wave form and capable of remaining in such form for an appreciable time.

While I have shown and described specific constructions and arrangement of parts to illustrate my invention, I do not limit myself thereto, but may alter the construction and arrangement of parts as occasion requires, without enlarging the scope of my invention, within the appended claims.

I claim;

1. A device of the character described, including a hair waver, a hair curler, and means on one of the aforesaid whereby it may be detachably secured to the other to hold the two operatively connected.

2. A device of the character described, including a hair waver, a hair curler, and means on said waver to which said curler may be detachably secured; whereby both waver and curler act to hold the other in operative position.

3. A device of the character described, including a waver capable of being "fan-folded," a curler, and means on said waver capable of detachably holding said curler; whereby said curler upon being secured to said waver will hold same in folded position.

4. A device of the character described, including a plurality of sections linked together and capable of being arranged in "fan-fold" form, means for attaching the device to a strand of hair, and means for locking the device in folded arrangement.

5. A device of the character described, including a foldable waver capable of arranging a strand of hair to which it is attached in "fan-fold" arrangement, and provided with means whereby a hair curler may be detachably secured thereto to hold said waver in operative position.

6. In combination with a hair curler upon which a strand of hair may be wound, a waver capable of being adjusted to hold the strand of hair in "fan-fold" arrangement, and means on said waver whereby the curler may be secured thereto to hold each other in respective operative positions.

LOTTIE SMITHSON.