July 14, 1925. 1,546,046

N. D. THOMPSON, JR

COMBINED CURLING AND WAVING IRON

Filed Aug. 9, 1924

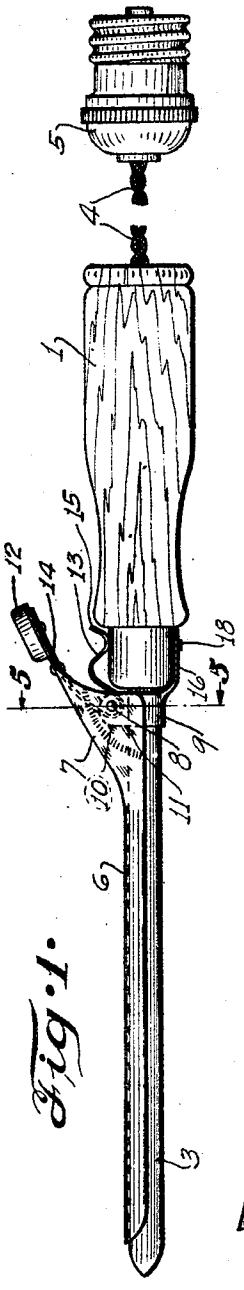


Fig. 1.

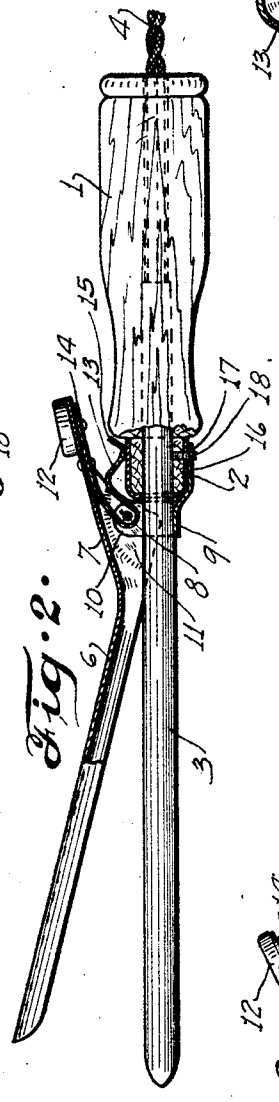


Fig. 2.

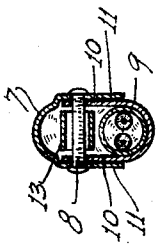


Fig. 5.

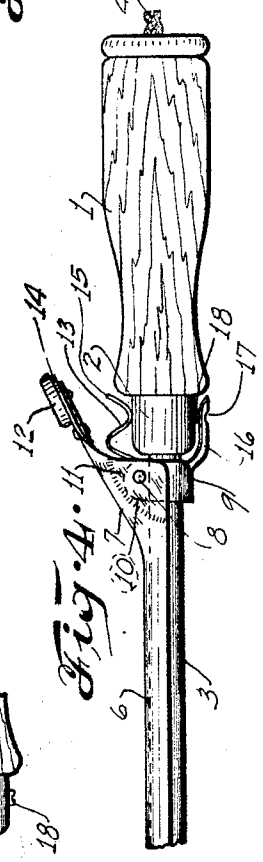


Fig. 4.

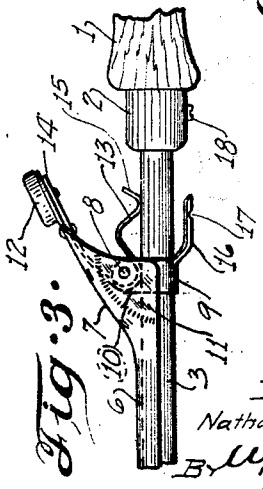


Fig. 3.

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UNITED STATES PATENT OFFICE.

NATHAN D. THOMPSON, JR., OF ST. LOUIS, MISSOURI, ASSIGNOR TO EDMUND L. HAAS, OF ST. LOUIS, MISSOURI.

COMBINED CURLING AND WAVING IRON.

Application filed August 9, 1924. Serial No. 731,219.

To all whom it may concern:

Be it known that I, NATHAN D. THOMPSON, JR., a citizen of the United States, residing in the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in a Combined Curling and Waving Iron, of which the following is an exact, clear, and full specification.

My invention relates to combined hair curlers and hair wavers and specifically to a mechanism for changing from one form to the other.

The principal object of my invention is to provide a mechanism for changing from a curling rod to a hair waver, or vice versa, that is positive in action, sturdy and rigid when combined and very durable and dependable in use.

Another object of my invention is the production of a combined hair curling rod and hair waver that may be produced at a low manufacturing cost and sold at a reasonable price.

Other objects and advantages of my invention will be pointed out in the description and claims to follow.

Referring now to the drawings made a part of this specification:

Fig. 1 is a side elevation.

Fig. 2 is a side elevation partly broken away.

Fig. 3 is a section of a side elevation.

Fig. 4 is a side elevation having one end broken off.

Fig. 5 is a cross section of Fig. 1. at 5—5.

Women skilled in the art of personal adornment have learned that a harmonious and artistic blending of waves and curls can be wrought into a type of beauty and enchantment that cannot be secured by simple waves or a cluster of curls. Therefore, there is a demand for a simple and convenient device that may be easily and quickly transformed into either a simple curling rod or a hair waver.

Attempts to meet this requirement have not been entirely successful, because the mechanism devised for making the transformation from a simple heated curling rod to a hair waver has been either too frail and delicate, or has been lacking in positive action and durable and dependable qualities.

To overcome these objections, I have devised a mechanism that is positive in action, sturdy, dependable and of great durability, that may be manufactured at a very low cost and hence sold at a reasonable price.

In Fig. 1, I have indicated my preferred method of construction of my invention.

A handle 1 is provided equipped with a ferrule 2, having a hollow barrel 3, adapted to be heated by an electrical heating element to which current is conducted by wires 4, to which is attached a standard plug 5, adapted to be screwed into any convenient current carrying socket.

A movable clamping jaw 6 is in hinged relation at its inner end 7 with the heatable barrel 3. The hinge pin 8 is positioned at some distance from the radial center of the barrel 3, so that when the jaw is opened to insert the barrel in the hair, the inner end of the jaw 6 leaves the barrel a sufficient distance to permit the inserting of practically the entire length of the barrel.

It is evident that if it be desired to use my improved combined curler and waver as a simple curling rod, the movable jaw 6 must be bodily removed with its hinged mechanism, so that the barrel 3 presents a plane, smooth surface to the hair. It is, also, apparent that when the removable jaw 6 is in place to be used as a hair waver, it must have sufficient spring strength to clamp the hair firmly, and since the spring must yield to the strength of the thumb, often of a delicate woman, it is important that the downward pressure of the thumb cause direct vertical movement of the inner end of the jaw 6, and that a like direct upward vertical movement of the opposite end of the jaw 6, without either longitudinal or torsional movement thereof.

To make certain the above outlined results, I have provided a U-shaped hinge clip 9, formed of sheet metal, so that the bottom of the U fits the barrel 3 closely and snugly, thus preventing lateral or torsional movement of the upwardly extending ears 10 of the hinge clip 9, the said side ears forming one-half of the hinge, the opposite half of the hinge being formed by the straight downwardly turned embossed sides 11 of the heel or inner end of the movable jaw 6. Thus, it will be seen that any pressure exerted upon the button 12 can only produce a vertical movement, or rotation about the hinge pin 8 in a vertical plane.

To further insure the positive and direct vertical action of the opening and closing

of the jaw, or clamp, 6, I have provided a relatively strong, flat spring 13, disposed parallel to the longitudinal axis of the jaw 6, securely attached to the upwardly extended pressure arm 14, from where it extends forwardly and downwardly convoluting about the hinge pin 8. It is then extended diagonally upward and again bent in an easy curve to give it pressure contact with the ferrule 2. The end 15 is turned upwardly to facilitate attaching the clamping jaw 6.

The hinge clip 9 is provided with a rearwardly extending tail piece 16 made integral with the hinge clip 9 and slightly depressed therefrom to fit the contour of the front end of the ferrule 2, and made curvilinear in cross section to conform to the curvature of a cross section of the ferrule 2. Adjacent the end of the tail piece 16, an aperture 17 engages a pin 18, radially projecting outwardly from the ferrule 2. The function of the pin is to securely hold the hinge clip 9 in position against either longitudinal or torsional movement. The spring 13 has a two-fold function, in addition to holding the jaw 6 in parallel contact with the barrel 3, it holds the tail piece 16 in firm contact with the ferrule 2.

By this method of construction it is seen that when the jaw 6 is in place, it is as firmly held as if rigidly attached to the handle or barrel and at the same time it may be quickly and easily attached and detached.

When it is desired to detach the movable clamping jaw 6 to convert the waver into a simple curling rod, the combined curler and waver handle is firmly held in the right hand with the clamping jaw downwardly positioned in the palm of the left hand, holding it firmly with the thumb and fingers. A slight downward pressure of the handle in the right hand causes the tail piece 16 to be disengaged from the pin 17 when the handle is rearward, leaving the clamping jaw in the left hand. The reverse movements are necessary to put the clamping jaw in place.

Having fully described my invention and the method of its operation, what I claim as new and useful and desire to secure by Letters Patent is:

1. In a curling iron the combination of a heating rod and a clamping jaw attachable and detachable thereto by means of a hinge clip encircling the lower half of said heating rod, said hinge clip having flat lugs, or ears, projecting upwardly some distance above the top of said heating rod, said ears having perforations therein adapted to engage opposite ends of a hinge pin laterally disposed above the said heating rod, co-operating in hinged relations with similar perforated ears depending from each side of the inner end of the said clamping jaw and engaging the said hinge pin in such a manner that pressure applied to the upwardly and backwardly extended inner end of said clamping jaw causes the said jaw to rotate in a vertical plane about the said hinge pin.

2. In a curling iron the combination of a heating rod with a clamping jaw pivotally attached thereto by means of a hinge clip encircling the lower half of said rod and having flat, upwardly projecting ears, on each side of said rod, parallel to the longitudinal axis of said heating rod, spaced apart and perforated to engage a hinge pin in co-operation with similar perforated ears depending from said clamping jaw and engaging the outer ends of said pin, said hinge clip having a rearwardly extending tail piece, depressed a distance below the bottom of said heating rod to conform to the contour of the front end of a ferruled handle, said tail piece being perforated near its end to engage a pin radially projecting from a ferrule upon the inner end of the handle of said heating rod in such a manner that said perforation will disengage said radially disposed pin when vertical pressure is applied to the inner end of said clamping jaw.

3. In a curling iron the combination of a heating rod with a clamping jaw semi-circular in cross section and adapted to conform to the contour of said rod when longitudinally imposed thereon, said clamping jaw being in hinged relation with said heating rod by means of a removable hinge clip into which said heating rod is inserted, said hinge clip co-operating with a flat spring having one end rigidly affixed to the inner end of said clamping jaw from which said spring depends in a forwardly direction to a hinged pin about which it is convoluted in such a manner that the bottom of the said convoluted portion contact with the upper surface of the said heating rod, thereby yieldably holding said heating rod between said spring and said hinge clip, said spring having its opposite end reverse curved or S-shaped so that the end thereby readily engages and yieldably clamps the ferrule upon the handle of said heating rod between said flat curved spring and the tail piece of said hinge clip.

In witness whereof I have hereunto affixed my signature this 4th day of August, 1924, in the presence of two witnesses.

NATHAN D. THOMPSON, JR.

Witnesses:
RURT VON REPPERT,
JOSEPHINE VON REPPERT.