

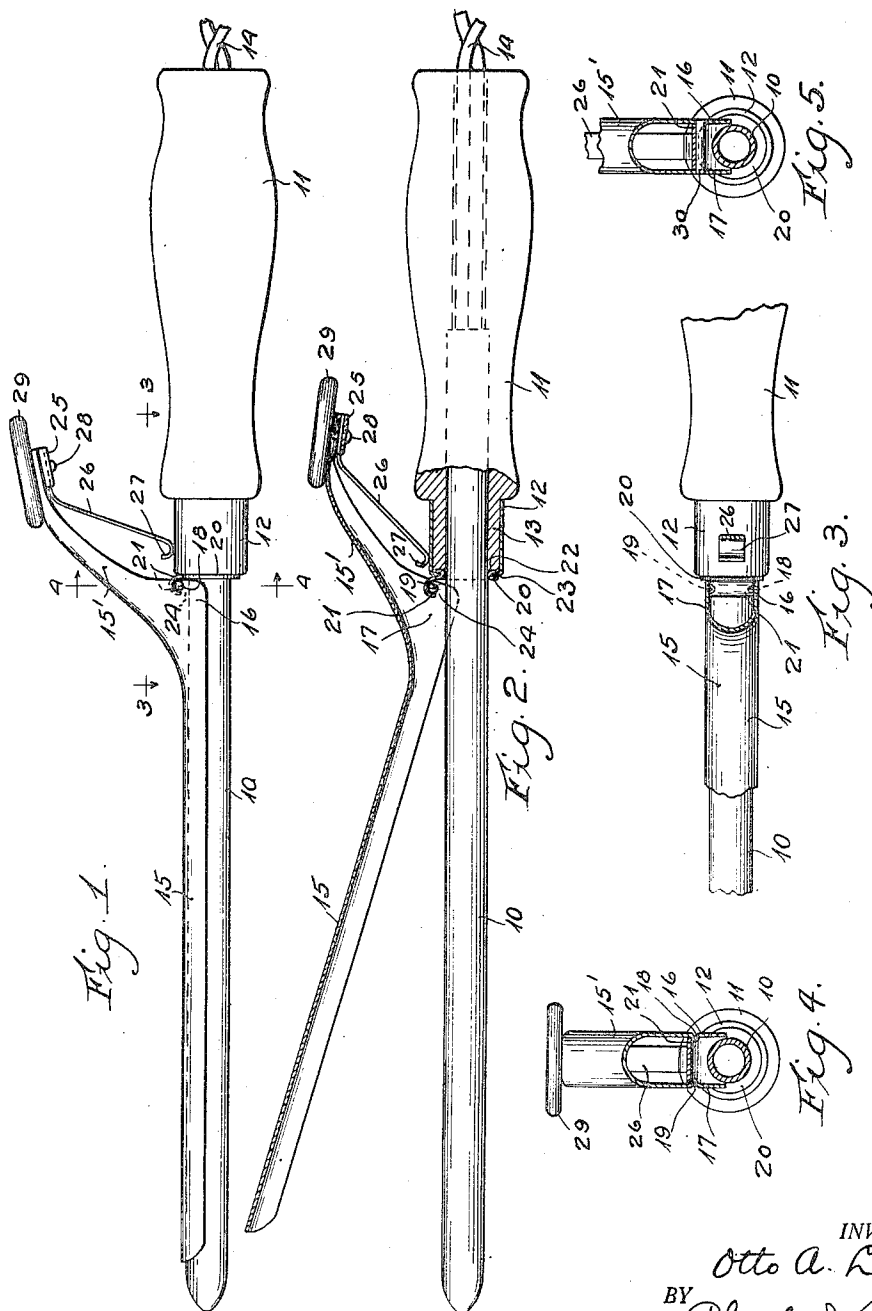
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CURLING IRON

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UNITED STATES PATENT OFFICE.

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CURLING IRON.

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To all whom it may concern:

Be it known that I, OTTO A. LANGOS, a citizen of the United States, and a resident of Evanston, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Curling Irons, of which the following is a specification.

My invention relates to curling irons and particularly to that type in which the heating rod is provided with a detachable hair clamping jaw so that the rod may be used alone or with the clamping jaw for different styles of hairdressing.

The object of the invention is to provide a more practical and more simple separable hinge connection between the heating rod and the clamping jaw so that the jaw can be readily applied or removed. The object is also to have the construction and arrangement such that the cost of manufacture can be materially reduced.

The various features of my invention are embodied in the structure shown on the accompanying drawing, in which—

Fig. 1 is a side elevational view of a curling iron,

Fig. 2 is a side elevational view partly in vertical diametral section and with the clamping jaw raised,

Fig. 3 is a sectional view on plane 3—3, Fig. 1,

Fig. 4 is a sectional view on plane 4—4, Fig. 1, and

Fig. 5 is a sectional view similar to Fig. 4 showing a modified arrangement.

The heating rod 10 of the iron shown is inserted in the handle 11, a ferrule 12 being secured around the neck 13 of the handle. The rod may be solid to be heated over a flame, or it may be hollow to receive an electric heating element (not shown) to which current is supplied by conductors 14 in the well known manner. The clamping jaw comprises the body part 15 of semi-circular cross section and the tail piece 15' extending at an angle therefrom, the jaw being formed integral out of sheet metal. At the base of the body part the opposite sides 16 and 17 are deflected inwardly to form hinge projections 18 and 19, these hinge projections being a distance above the top of the heating rod 10 when the clamping jaw is closed. Surrounding the rod inwardly of the hinge projections is a hinge fitting comprising the annular body part 20 encircling the heating

rod, and the flange part 21 bent to hook form to receive at its ends the hinge projections 18 and 19 to thus hinge the clamping jaw to the heating rod. The hinge fitting is preferably formed of sheet metal and the inner section 22 of the body part 20 is turned rearwardly and seamed to the radial flange 23 at the outer end of the ferrule 12, the fitting being thus rigidly secured to the ferrule. The hook flange 21 extends transversely across the top of the heating rod with its ends a sufficient distance away from the rod to leave the space 24 through which the hinge projections may pass to or from their hinge positions in the ends of the hook flange.

At its end the tail part 15' of the clamping jaw is deflected downwardly to form a rectangular pocket 25 for the upper end of a spring 26 whose curved lower end 27 bears on the ferrule 12. The spring is secured in its pocket by a rivet 28, this rivet also supporting a finger plate 29 preferably of heat insulating material such as wood or fibre. The spring tends to hold the hinge projections up in the ends of the hook flange, and the clamping jaw body 15 against the heating rod as shown in Fig. 1. Pressure on the plate 29 will cause the clamping jaw to swing with its body 15 away from the heating rod so that the rod can be inserted underneath the hair to be curled or waved. The spring will tend to keep the clamping jaw in hinged connection with the heating rod but by exerting downward and forward pressure on the tail part 15' the hinge projections can be readily disconnected from the hook flange and the clamping jaw removed, downward pressure bringing the hinge projections into alignment with the space 24 and forward pressure carrying the projections through this space. To re-apply the clamping jaw it is placed on the heating rod in front of the hook flange and pressure is exerted to overcome the spring and to bring the hinge projections into line with the space 24 whereafter a slight rearward movement will bring the hinge projections into hinged position in the hook flange.

In Fig. 5 a modified arrangement is shown, a hinge pin being secured to and extending between the walls 16 and 17, this hinge pin fitting in the hook flange 21 to hinge the clamping jaw to the heating rod. The passageway 24 is of sufficient height to

permit of passage therethrough by the pin during removal or application of the clamping jaw.

The locationing of the hinge projections or pin to be above the top of the heating rod will permit comparatively wide separation between the jaw and rod at the base of the jaw, and when the jaw is closing the hair will not be shifted forwardly on the rod but will retain its uniform distribution.

My improved hinge connection is very simple and efficient. The hinge projections are provided by a simple die operation and the hinge fitting can also be formed by means of simple dies and rigidly jointed to the ferrules to be thus firmly supported. The improved construction materially reduces the cost of manufacture besides permitting the clamping jaw to be more readily removed or applied.

I do not desire to be limited to the exact construction and arrangement shown and described as modifications are possible which will still come within the scope of the appended claims.

I claim as follows:

1. In a curling iron, the combination of a heating rod, a clamping jaw, a hinge hook extending transversely and above the heating rod at the inner end thereof, cooperating hinge structure on said clamping jaw detachably received by said hinge hook, and a spring for yieldably holding said hinge hook and structure in hinged relationship and for resisting swing of said clamping jaw.

2. In a curling iron, the combination of a heating rod, a clamping jaw, a hinge hook extending transversely and above the heating rod at the inner end thereof, hinge projections on said jaw having detachable engagement in said hinge hook whereby said jaw may be swung, and a spring yieldably holding said hinge projections in said hook and resisting swing of said jaw.

3. In a curling iron, the combination of a heating rod, a clamping jaw, a hinge hook extending transversely above said heating rod at the inner end thereof, hinge projections on said jaw engaged by said hinge hook to hinge the jaw to said rod, and a spring yieldably holding said projections in said hook and resisting swing of said jaw, there being space below the hinge hook for the passage of said projections into or out of engagement with said hook.

4. In a curling iron, the combination of a cylindrical heating rod, a clamping jaw of semi-circular cross section for said rod, a hinge hook extending transversely of said rod at the inner end thereof, hinge projections deflected inwardly from the opposite walls of said jaw at the inner end thereof, there being space between said hinge hook and rod for permitting said projections to be inserted in the ends of said hook or to be

withdrawn therefrom, and a spring for yieldably holding said projections and hook in hinged relationship and for resisting swing of said jaw.

5. In a curling iron of the class described, the combination of a heating rod, a clamping jaw for said rod, a hinge fitting encircling said rod at the inner end thereof and having a hinge hook flange extending across said rod, hinge pin structure at the inner end of said jaw for engaging with said hook flange to hinge said jaw to said rod, and a spring for holding said hinge pin structure and hook in hinged connection and for resisting swing of said jaw.

6. In a curling iron of the class described, the combination of a heating rod, a handle therefor, a ferrule secured to said handle and said rod, a hinge hook secured to said ferrule and extending transversely over the rod, a clamping jaw having projections for engaging with said hook to hinge the jaw with reference to the rod, and a spring for resisting swing of said jaw.

7. In a curling iron of the class described, the combination of a handle, a heating rod extending therefrom, a ferrule on said handle surrounding said rod, a hinge hook supported on said ferrule above said rod, a hair clamping jaw provided with opposite hinge projections for engaging in the ends of said hook to hinge the jaw with reference to the rod, there being passageway between said hook and rod for said projections for permitting removal of said jaw from said rod, and a spring for holding said projections and hook in hinged relationship and for resisting swing of said jaw during such hinge connection.

8. In a curling iron of the class described, the combination of a handle, a heating rod supported in said handle, a ferrule on said handle surrounding said rod, a hinge fitting surrounding said rod and secured to said ferrule and having a hinge hook extending across and above said rod, a clamping jaw transversely bent to receive the rod, projections from the opposite walls of said jaw at the inner end thereof for engaging in the ends of said hook to thereby hinge the jaw with reference to the rod, and means for yieldably holding said projections in said hook.

9. In a curling iron of the class described, the combination of a handle, a heating rod extending therefrom, a ferrule on said handle receiving said rod, a hinge fitting encircling said rod and secured to said ferrule, a flange on said fitting extending forwardly and downwardly over said rod to form a hinge hook, a clamping jaw having opposed walls at its inner end, inward extensions on said walls for engaging in the ends of the hook to hinge the jaw with reference to the rod, and a spring for holding said

extension and hook in hinged connection and for resisting swing of said jaw, there being a passageway between said rod and hook flange for said projections whereby 5 said jaw may be detached from said rod. 10. In a curling iron, the combination of a handle, a ferrule thereon, a heating rod extending through said ferrule into said handle, a clamping jaw transversely bent to 10 receive said rod, a hinge fitting at the front end of said ferrule having a hinge hook flange thereon extending above and transversely of the rod, hinge projections on the opposite walls of said jaw at the inner end thereof for engaging in the ends of said 15 hook flange to hinge the jaw with reference to the rod, and a spring between said jaw and ferrule for holding said projections and hook flange in hinged relationship and for resisting swing of said jaw. 20

In witness whereof, I hereunto subscribe my name this 13th day of September, A. D., 1922.

OTTO A. LANGOS.