This invention refers broadly to hair-curling and crimping means and it is intended to devise means of improving and facilitating the production of curls and of eliminating the sources of injury to the hair which was inevitable in the curling means as heretofore employed. With the usual method of curling or crimping of the hair by means of curling irons or curling tongs the hair was very highly heated and completely dried out and was deprived of its grease and lost its softness. Hair is known to be very hygroscopic, and in view thereof it will readily absorb the moisture of the atmosphere after the curling operation, and the more thoroughly and rapidly, the higher is the degree of desiccation and the relative percentage of moisture of the atmosphere. In view of these facts the curls and undulations obtained by the curling or burning process are more or less obliterated by the absorption of moisture. Far more efficient in the production of comparatively enduring curls is the well-known rolling-up of the previously moistened hairs over night, but the time necessitated by this method is not always at disposal.

Now, in view of avoiding these difficulties the present invention devises means of combining the advantages of the previous methods and of overcoming the drawbacks and inconveniences presented thereby. Broadly speaking, in accordance with the method of this invention the making of the hair-curls or crisps is effected by heated curling iron or curling tongs with the simultaneous admission of moist vapors, so that a sufficiency of moisture is admitted to the hair notwithstanding its high superheating. The invention will be further described with reference to the accompanying drawing, showing by way of example several modifications of an instrument, embodying the principles of my invention.

In the drawings:—Figure 1 is an elevation of curling tongs according to the invention—Figure 2 is a cross sectional view on the line 2—2 of Figure 1. In Figure 3 a modified construction is shown in cross sectional view. Figure 4 is a perspective view of another modification, and Figure 5 is a cross section of Figure 4.

In the form of construction of the curling tongs according to Figures 1 and 2 the tongs are provided with the pivotally connected arms or jaws 1 and 5, and the arm 1 of the tongs consists of corrugated sheet metal, and the thereby produced central longitudinal cavity of the arm is closed by a wall 2 at its outer side, and is adapted for the reception of a wick 3 of asbestos or the like, of clay, pumice stone or of any other suitable incombustible and bibulous material. From the cavity in which the wick is contained openings or ports lead to the two adjoining cavities of the inner side of the arm in which the hair is received. The arm 5 in this construction is shown as divided or composed of a pair of ironing prongs which, when the arms or jaws are closed about the hair, are received in the said hair receiving cavities of the arm 1 and compress the hair therein.

When the part 1 or parts 1 and 5 of the tongs or curling iron are heated in the usual manner as, for example, in a heating flame, and the hair is introduced between the arms of the tongs as shown in Figure 2, the heated surfaces of the arms with which the hair comes in contact will produce the curls in the ordinary manner. In consequence of the high heat, however, the water contained in the wick 3 is vaporized, and the wet vapors thereby developed pass through the openings into the curls of the hair, and prevent the injurious drying thereof. Inasmuch as the admission of the moist and warm vapors takes place during the curling operation, a very satisfactory combined total action is produced, and the singeing and burning and the destruction of the fat of the hairs are avoided. As shown in Figure 2, a cap 6 may be welded or otherwise secured to the bottom of the central portion of the sheet metal piece, so as to produce an insulated cavity which greatly assists the curling action. At the end of the arm 1 an auxiliary water container 8 may be provided from which any additional supply of water required may be introduced into the wick 3 during the curling operation by means of the conical screw 9 and valve 10. The filling of the container 8 is effected after removing the screw 11. The container 8 may also be dispensed with, if desired, and the filling material 8 may be wetted by merely dipping it in water.

In the modified construction according to Figure 3 the arm 12, corresponding to arm 1 of Figures 1 and 2, is provided with a jacket 13, and in the cavity thus provided a packing of asbestos or the like is introduced at 14. The member 12 is provided with openings 15.
upon its entire inner surface, so that the admission of the moist vapors is increased in this form of construction.

In Figures 4 and 5 a modification is shown in which the arm 16 is of corrugated form, similar to arm 1 of Figures 1 and 2, while the arm 16', which is of pronged type similar to arm 5 of Figures 1 and 2, has its prongs or members detachably and screw-threadedly mounted and provided with interior cavities for the reception of a wick 17 of asbestos or the like, holes 18 being provided for the escape of the moisture. In using this form of device the arm 16' is heated, or, if desired, both arms 16 and 16' may be heated, and the iron in the manner previously described, the heat generating vapors from the water held by the wick 17, which vapors pass through the holes 18 to the hair.

It should be understood that the principles of the invention may find expression in many embodiments different from those herein shown and described by way of example, and without deviating from the spirit and scope of the invention, as defined by the appended claims.

I claim:
1. A hair curling or crimping device comprising tongs adapted to be heated, and a vapor generator on one of the members of the tongs adapted for generating vapor under the heat of the tongs and having vapor outlets opening through its surface.
2. A hair curling or crimping device comprising tongs adapted to be heated, one of the members of the tongs having a vapor generating chamber provided with outlets opening through its surface, and an incombustible moisture holding material in said chamber, adapted for the generation of vapor under the heat of the tongs.
3. A hair curling or crimping device comprising tongs adapted to be heated, one of the tong members being channeled to receive the other tong member when the tongs are closed, said channel member being provided with a vapor generating chamber having vapor outlets opening into said channel, and an incombustible moisture holding material in said chamber adapted for the generation of vapor under the heat of the tongs.
4. A hair curling or crimping device comprising tongs adapted to be heated, one of the members of the tongs having a pair of channels and a vapor generating chamber between the channels having vapor outlets opening into the channels, and a filling of an incombustible moisture holding material in said chamber adapted for the generation of vapor under the heat of the tongs.
5. A hair curling device comprising tongs including curling members adapted to be heated, one of said members being channeled to receive the other member when the tongs are closed and one of said members at least being adapted to be heated and being provided with a vapor generator embodying a chamber containing an incombustible moisture holding material and having openings for the discharge of vapor therefrom, said generator being adapted for the generation of vapor when said member is heated, whereby when the device is in use hair clamped in the channel between the members will be subjected in an enclosed space to the combined action of the heat of the iron and vapor.
6. Curling device, comprising curling tongs, a corrugated perforated jacket on an operating arm of the tongs, and a moisture absorbing filling in said jacket.

In testimony whereof I affix my signature.

MAX ROGLER.