(No Model.)

M. CAMPBELL.

CRIMPING AND CURLING IRON.

No. 466,057. Patented Dec. 29, 1891.

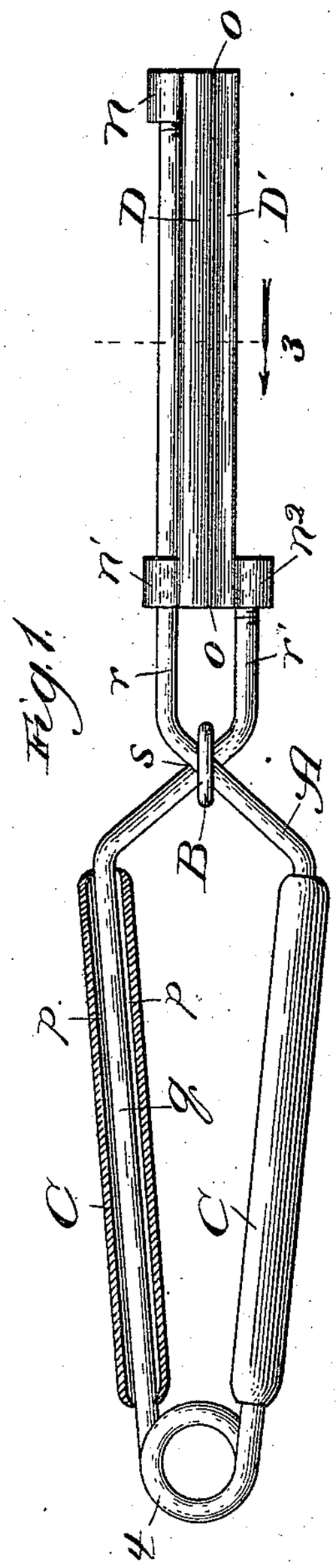

Fig. 1.

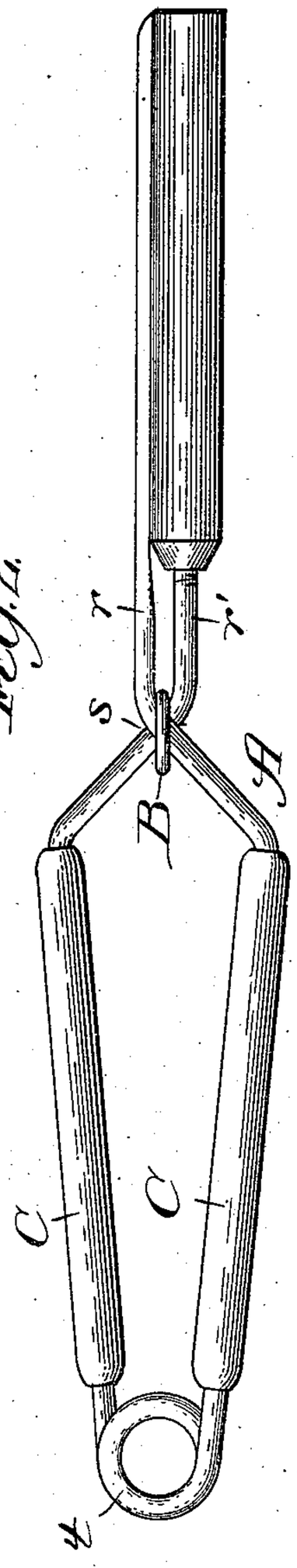

Fig. 2.

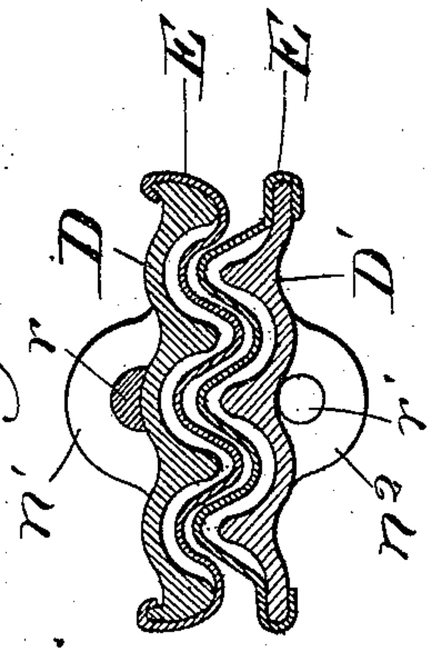

Fig. 3.

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UNITED STATES PATENT OFFICE.

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CRIMPING AND CURLING IRON.

SPECIFICATION forming part of Letters Patent No. 466,057, dated December 29, 1891.

Application filed June 27, 1891. Serial No. 397,692. (No model.)

To all whom it may concern:

Be it known that I, MARK CAMPBELL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Curling and Crimping Iron, of which the following is a specification.

My invention relates to an improvement in curling or crimping irons of the character in which a handle formed of a bent wire or in a similar manner carries on either or both of its jaws a curling-iron or a crimping-iron, the two jaws co-operating in the use of the device.

The object of my invention is to improve the construction of curling and crimping irons, to render the same lighter, stronger, and more convenient in use, and to provide an arrangement by which curlers or crimpers or other sizes of curlers may be attached to the same handle and be readily removable therefrom.

A further object of my invention is to improve the construction of crimping-irons, whereby they may be caused to retain the heat necessary for their use for a longer period, while permitting those parts to remain comparatively cool which are usually handled by the user.

To these ends my invention consists, primarily, in a curling or crimping iron comprising a spring-handle, the fingers of which cross and are provided at the extremity of either or both of them with means for the ready attachment of a curling or crimping iron and the curling or crimping iron attached thereto to be readily removable therefrom.

My invention consists, further, in a curling or crimping iron provided with a handle comprising two spring-connected crossing wires and a retaining-ring at the point of crossing, arranged to be parallel to or at right angles with the extending wires.

My invention consists, further, in a handle for curling or crimping irons, the hand-hold part of which is provided with a sleeve in the form of a tube mounted on each wire of the handle and presenting between the sleeves and the wire an air-space, thereby reducing the access of heat during the use of the curler or crimper.

My invention consists, further, in a crimping-iron comprising opposite convoluted jaws supported to co-operate, either or both of which is provided with a facing upon its inner side out of contact with the body of the crimper, thereby producing an air-space.

My invention consists, further, in the general and specific details of construction and combination of parts, all as hereinafter more fully set forth.

In the drawings, Figure 1 is a view in elevation of a crimping-iron constructed in accordance with my improvement, one part of the handle being shown in section to illustrate the mode of producing the air-space thereon. Fig. 2 is a similar view showing the mode of attaching a curling-iron in place of the crimper; and Fig. 3 is a cross-section through the pair of crimper-jaws, taken on the line 3 of Fig. 1 and viewed in the direction of the arrow.

A represents the handle, which is shown in the form of a continuous spring-wire bent at its middle to produce the spring *t* and crossed upon itself, as shown at *s*, to present the parallel extending fingers *r r'*. At the point where the two ends of the wire cross each other they are introduced from opposite directions through a wire ring B, the latter being shown as arranged to present a direction parallel with the wires *r r'*. As a result of this provision the wires forming the handle A are retained normally in the position indicated in the figures and are opened by pressure exerted at the handle part, under which pressure they move very easily and with very slight friction, and are caused uniformly to return to their proper position with relation to each other on the release of the handle under the retaining action of the ring B. The simplicity, lightness, and economy of this means of securing a true action in the wires *r r'* is an important result of my invention and one which in practice increases its value materially.

Surrounding the handle part *q* of the handle A are sleeves C, of metal, hard rubber, or other suitable material, and between the interior surface of the sleeves and the wires composing the handle a space *p* is left. A convenient mode of producing the air-space *p* is illustrated in Fig. 1, where the extremi-

ties of the tube are shown turned down upon the wire. As the use of a curler or crimper involves the heating of the iron, and as I prefer to make the handle also of metal for economy and other reasons, without the provision of some means to protect the user from the heat of the handle part the use of the device would involve serious discomfort. In previous devices similar in their character the protection against heat has been accomplished by inclosing the handle in a wooden protector or a protector of flexible material; but so far as I am aware this arrangement has uniformly involved the making of an iron more cumbersome and less graceful in appearance. By the arrangement that I have adopted the appearance of the handle is improved and it is not made materially heavier, while the presence of the air-space serves very effectually to prevent the heat of the wire ever being felt to an objectionable extent in the hand.

Either or both of the wires *r r'* are broken off and provided with a screw-thread, taper, or other suitable means to receive readily a curler or a crimper provided with corresponding screw-threads or tapering hole to receive the wire. If but one of the wires *r r'* is thus broken off to provide means for attaching the curler or crimper, it is desirable that the other wire shall be concavo-convex in cross-section. When used with a curling-iron, the rod or finger *r* thus serves to co-operate with the tubular surface in the accepted and most desirable manner, and when used with a crimper the finger *r* assumes somewhat of the configuration of the back of the convoluted crimper and produces a better-finished device. It will be apparent that the wires *r r'* may, however, both be extended to their full length, the hole in the crimping or curling iron being prolonged to receive it, and while I prefer the construction illustrated I do not intend to limit myself thereto. If desired, one of the fingers *r r'* may be permanently attached to one of the crimping-jaws through the medium of rivets or the like, while the other is made removable, and if the characteristic of removability is not desired at all both the fingers may be permanently secured to the device they carry.

The crimper shown in Figs. 1 and 3 is of peculiar construction and is not limited for its efficacy entirely to its use with a handle like that shown. It comprises two oppositely-convoluted jaws D D', of metal, the face of each of which is covered by a convoluted plate E E', preferably also of metal. The convolutions in the plate E E' are shallower than those in the jaws D D', and there is therefore presented between the plates and jaws a continuous air-space, serving very effectually to limit the heat directed upon the hair or fabric to prevent burning. I find it convenient to turn over the ends of the plate E E' to enable them to slip readily over the convulated jaws, and after they have thus been applied I find it desirable to turn them down at their opposite ends, as indicated at *o*, Fig. 1, thus to retain the heat between the plate and crimper-body. Under this construction burning of the hair or fabric in the use of the crimper may be easily avoided, and, on the other hand, if the protection offered by the plates E E' is not desired they may be withdrawn and the crimper used without them.

As illustrated in the figures, the jaws D D' are provided on their rear faces with perforated studs *n n' n²* to receive the wires *r r'*, the crimping-jaws being thus readily removable from the handle for the substitution of other jaws or to permit the adaptation of the device to use as curling-irons. It is apparent that the studs *n n' n²* may be omitted and a continuous hole provided for the same purpose. It is also apparent that if the feature of removability is not desired the jaws D D' may be permanently attached to the wires *r r'*.

As I have illustrated and described my invention in all its parts, a complete device is provided involving the use of the various features in their preferred combination; but the various involved features are not confined in their use to the co-ordination with the other parts described. Thus the air-space afforded by the sleeves C presents an equal advantage whether the curling or crimping irons are removable and interchangeable or not, and so also with the ring B, and obviously the interchangeable and removable character permitted in the curling and crimping iron is not confined to a device provided with the ring B. While I prefer the device involving a co-ordination of all the features, I do not limit myself thereto; but

What I claim as new, and desire to secure by Letters Patent, is—

1. A handle for a curling or a crimping iron, provided with the extending finger *r*, adapted for use as the gripping-finger of a curler, and also adapted to receive a crimper-jaw, and the finger *r'*, adapted to receive, removably, either a crimper-jaw or curling-iron, substantially as described.

2. The combination, with the crimping-jaw D, of a plate E, secured to the lateral edges of the jaw D and having convolutions similar to those on the jaw and caused to present the air-space on one side of the jaw, substantially as described.

3. The combination, with the crimping-jaw D, of a convolute plate E, having a sliding connection with the lateral edges of the jaw and a relative dimension to produce when applied the air-space, substantially as shown and described.

MARK CAMPBELL.

In presence of—
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