

(No Model.)

I. W. HEYSINGER.
HAIR CRIMPER OR CURLER.

No. 360,438.

Patented Apr. 5, 1887.

Fig. 1.

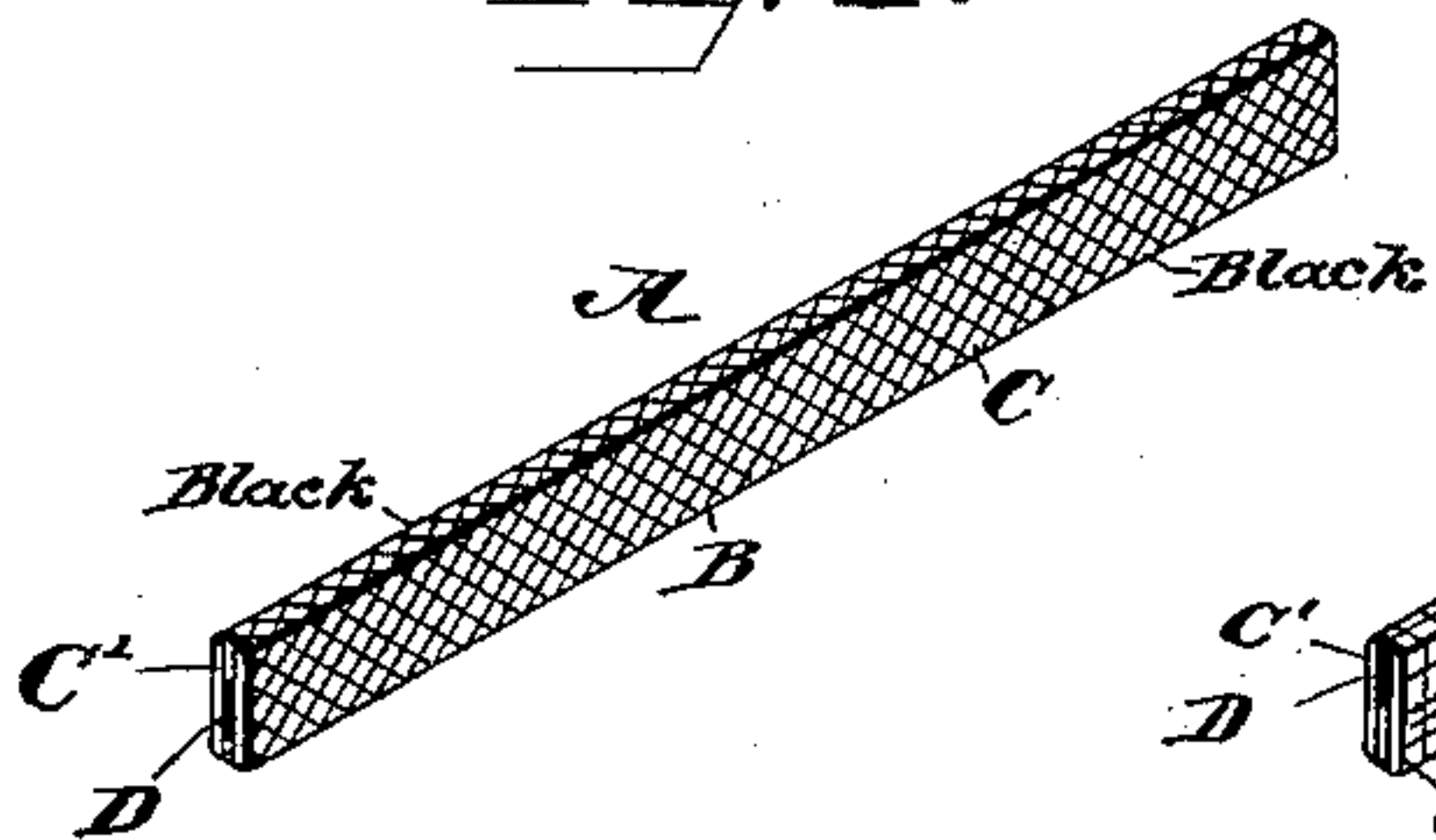


Fig. 4.

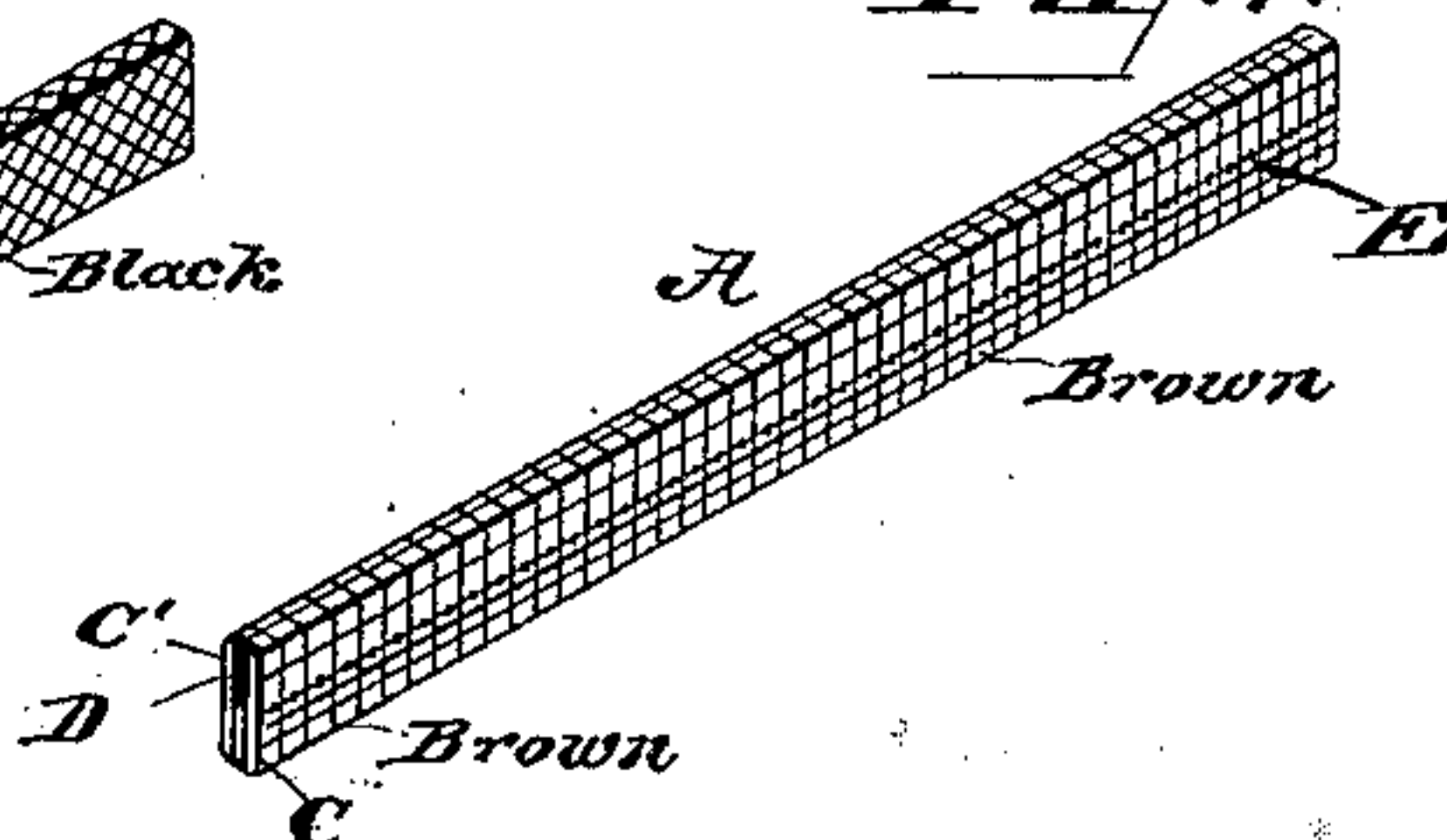


Fig. 2.

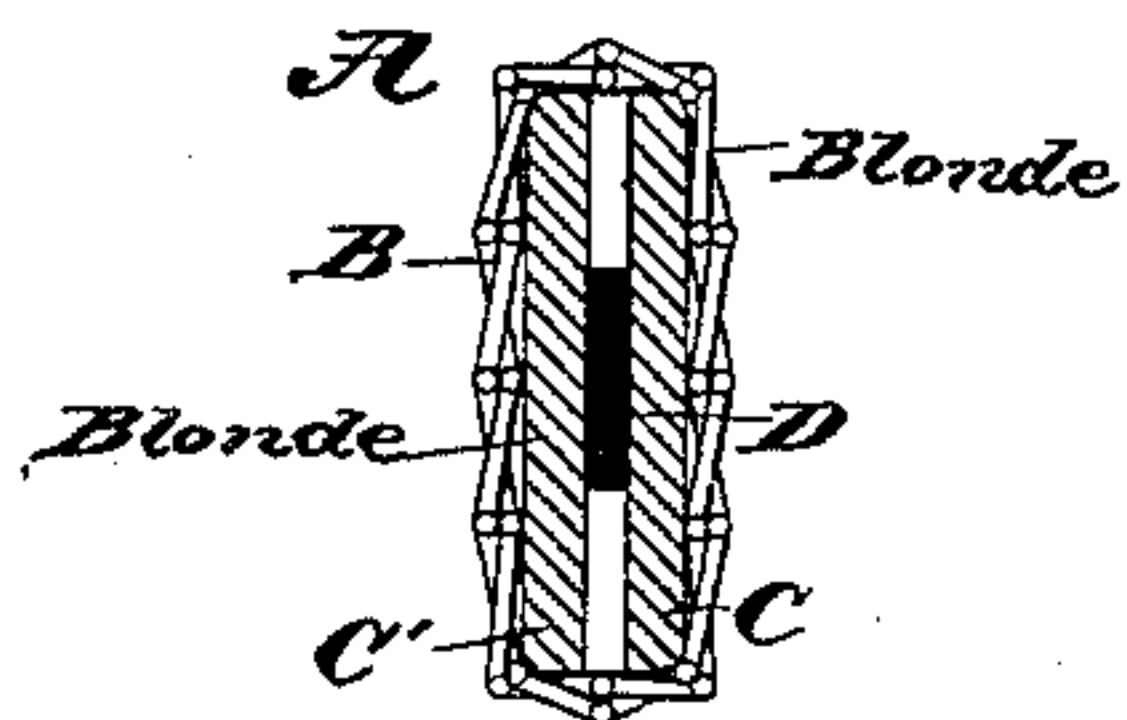


Fig. 3.

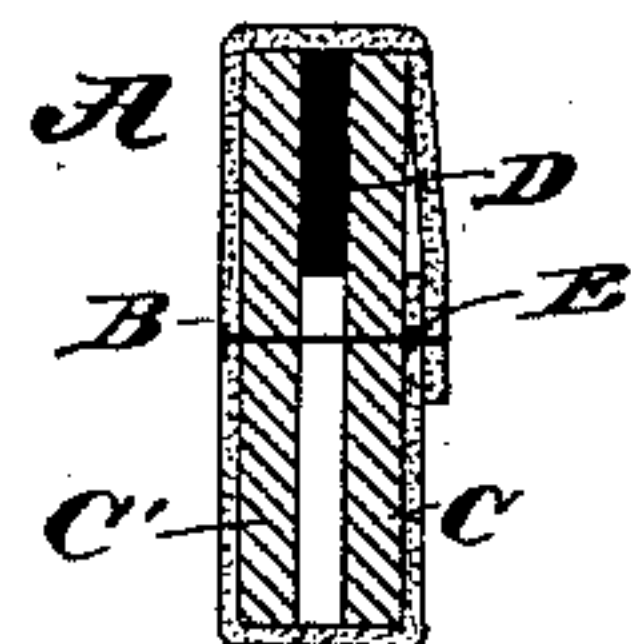
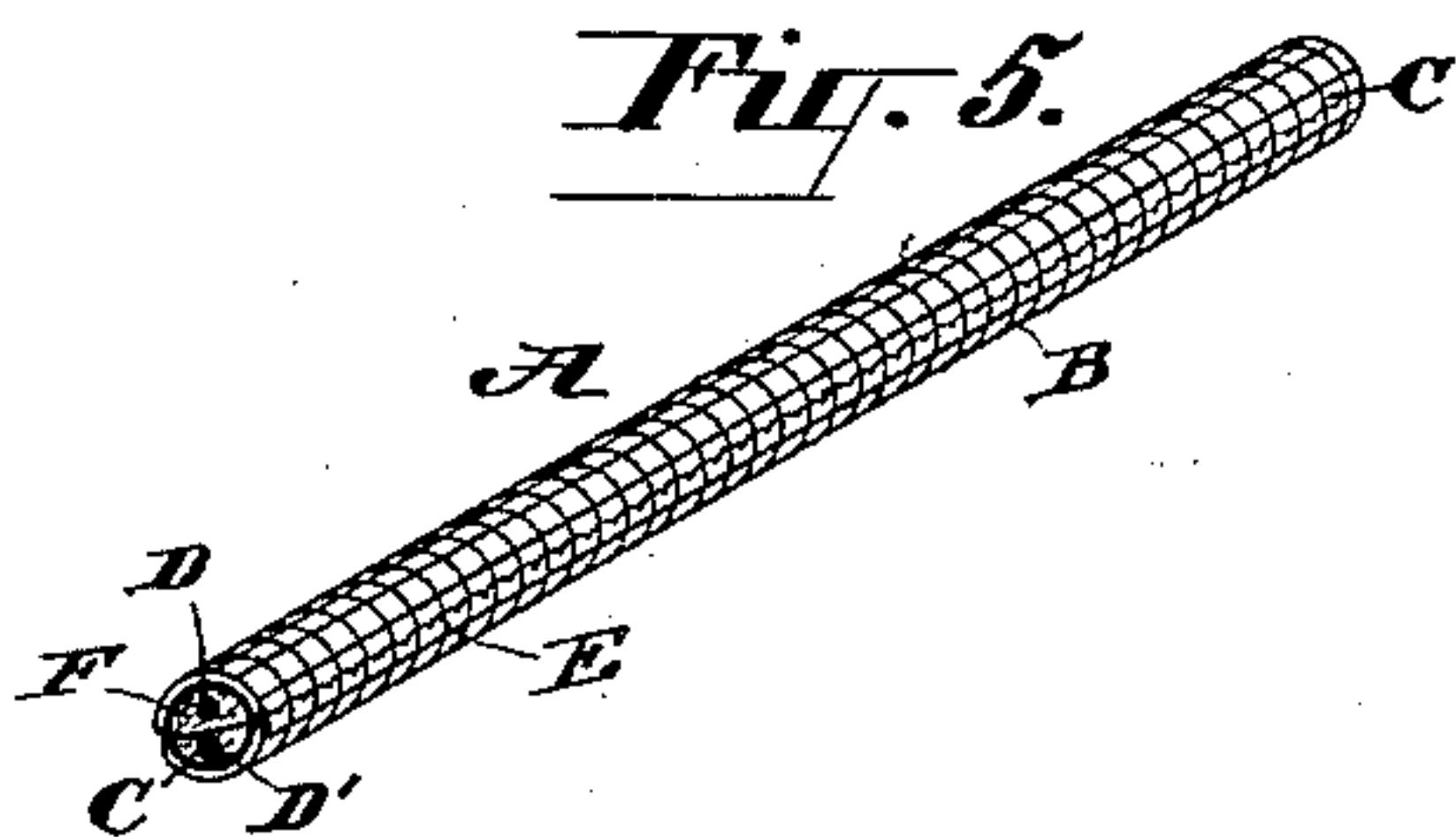


Fig. 5.



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HAIR CRIMPER OR CURLER.

SPECIFICATION forming part of Letters Patent No. 360,438, dated April 5, 1887.

Application filed December 3, 1886. Serial No. 220,561. (No model.)

To all whom it may concern:

Be it known that I, ISAAC W. HEYSINGER, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have made a certain new and useful Improvement in Hair Crimpers or Curlers, of which the following is a full, clear, and exact description, reference being made to the accompanying drawings, which form a part of this specification, in
10 which—

Figure 1 is a perspective view of a flat hair-crimper embodying my invention, in which the core or body of the crimper is covered with a fabric braided over the same. Fig. 2 is an
15 end view of Fig. 1 enlarged. Fig. 3 is an end view of a hair-crimper embodying my invention, in which the covering fabric is applied in a strip folded around the body of the crimper and secured by a row of stitches along the
20 seam thereof. Fig. 4 is a perspective view of Fig. 3 reduced in size; and Fig. 5 is a view of a crimper or curler embodying my invention, of a cylindrical form, and having two internal wires, the strip of covering fabric being stitched
25 down to the body between the same.

The lettering in all the figures is uniform.

My invention relates to that class of hair crimpers or curlers in which a covering of fabric is applied to an internal body of paper,
30 felt, or other suitable material, and one or more soft-metal wires or strips, so that the strand of hair to be crimped or curled being folded around the said crimper and the ends thereof bent down or pinched in under the
35 same may be worn unperceived by others until such time as the crimper or curler may be moved and the hair left in a crimped or curled condition. To secure these crimpers or curlers in place, and to render them invisible when
40 in use, the covering fabric is made of suitable colors to match the hair with which the crimper or curler is to be used. For instance, with black hair a crimper having a cover of black fabric is to be used, with brown hair one of a
45 brown-hair color, and for blonde-colored hair a blonde-colored covering. These covers are sometimes braided or otherwise attached to a core or body consisting of a simple strip of soft metal of a size suitable for the purpose,
50 and sometimes of a compound core consisting of a strip of wire and an additional bulk of

hemp, or of one or more strips of wire and one or more layers of paper, all of which are inclosed within the covering of fabric, which is permanently attached to the inclosed body. 55
In order to cover this inclosed body, so as to prevent the contained material from showing through the interstices of the covering, and so defeat the prime object of having the crimper match the hair in color so that it may be worn
60 equally as well in public as in private, and by day as well as night, (in which it is an improvement upon the curl or crimping papers formerly in use and which it has largely superseded,) it is necessary to use a very 65
close fabric and one of considerable bulk when flexed. This added bulk is not only quite costly, compared with the material contained within, which is of simple wire and packing material, but the flexing of the cover be- 70
comes more difficult in use, and at the ends where bent the flexure opens the strands of the fabric, and just at the points where it should not show at all the internal bulk is most visible. The ends, also, of the crimper or curler 75
where cut off show the color of the contained body and render the article unsightly, and if the cover strips back from the ends at all, as it is quite likely to do in use, the inclosed body exposed at the ends disfigures the crimper 80
and renders it objectionable in use. To avoid these defects, even partially, such crimpers are often embroidered over the ends or have their extremities fastened and covered by metal tips, which not only add to the expense 85
of the crimper or curler, but when metal tips are used catch in the hair when drawn out from the twisted strands, and are otherwise objectionable.

The object of my invention is to produce a 90
hair crimper or curler composed of a soft-metal wire or strip surrounded with a cover of hemp, paper, or other unwoven fabric, the whole covered with an outer covering of woven or braided fabric, in which the unwoven fab- 95
ric and the braided or woven covering are dyed throughout, either together or separately, of substantially the same color to match the color of the hair with which the crimper is to be used, so that when cut into lengths suitable 100
for crimpers the ends thus cut shall exhibit a section substantially uniform in color without

the use of metal tips or embroidery; and also, in a crimper so formed, of a compound core of soft metal with a paper covering and an outer cover of braided fabric to braid the outer covering with open meshes or reticulations, so that the paper beneath shall be exposed through the said open work, both the braided covering and the paper beneath being stained or dyed substantially of the same color to correspond with the color of the hair, the whole being continuously cemented together from end to end, and compressed, preferably, between feed-rolls, so that the surface of the paper shall be relatively embossed or raised into the reticulations of the braided covering, and thus increase the mutual adhesion of the cemented surfaces and also produce a figured surface of braid and paper of a uniform color.

Referring to the drawings, in Figs. 1 and 2 is shown one of my flat crimpers covered with a fabric of braid, such as is applied in an ordinary braiding-machine. The crimper shown in these figures has a flat cross-section, and is composed of a central strip of soft non-elastic metal, D, to the sides of which are applied two strips of paper, C and C', over which is braided the cover B. These crimpers are made in long lengths, and are cut off in sizes to suit, either before being prepared for market or as may be desired in use. To prevent the braided cover B from unrolling, the various parts are cemented together within the covering B, and the covering is cemented to the body, all of which is usually accomplished by passing the body or the paper strips thereof through a pan of adhesive material and applying the braid immediately afterward. The strips of paper C C', being of a color not corresponding to that of the braided cover B, and not corresponding to the different colors of the hair with which it is to be used, require the braided cover B to be braided quite closely to prevent the said body from showing through the interstices of the braided covering, thus requiring a heavy coating of thread, and interfering to a considerable extent with the bending of the crimper around the various small strands of hair of which each crimp or curl is formed.

As the sole object of the covering B in these crimpers is to hold the different parts of the body together, the paper body furnishing a soft body to bend the hair around, and prevent breaking the same, instead of braiding the cover B closely and concealing the paper body C and C' and the wire D of the same, I form the braiding-covering B quite open, so as to leave meshes between the various strands of braid, through which the paper C C' of the body is clearly visible, and I use a paper dyed or colored to conform to the color of the covering. When rolled down by the feed-rolls of the braiding-machine, the reticulated covering thus applied makes a very pretty pattern on the crimper, and merges itself into the general color of the body, so that a crimper uniform in color and more easily bent in use is produced at a considerable saving of cost

of material, as, instead of using braided thread triple in strand, I can now use one of double or single strand, and increase the rapidity of my feed-rolls in the braiding-machine, so that greater effectiveness is secured with one-half the quantity of thread. The paper of the body, when rolled down in the feed-rolls, also becomes embossed between the open strands of the braid, and the cement holds more securely than if adhesion is only secured upon the under-surface of a closely-braided fabric. As I use paper dyed throughout, the ends of the crimper cut off at any point will also show the same color of body and cover, and if the braided cover strips back to some extent the utility of the crimper will not be impaired, and the necessity for the use of metal or embroidered tips is done away with. In Fig. 1 the color shown is black, and the names of the color for the braided cover B and the paper of the body C are both written in the figure. In Fig. 2 the corresponding color is blonde. In Fig. 4 the color of both parts is brown.

The open spaces above or below the metal strip in Fig. 2 and Fig. 3, and between the layers of paper, disappear when rolled together between the feed-rolls during the further process of manufacture, and the metal strips are rolled into the body of the paper in great part or altogether, so that the ends of crimper show a solid section, or one substantially so.

The crimper shown in Figs. 3 and 4 only differs from that hereinabove described, in that, instead of having a covering, B, braided on, it is made of a strip of woven fabric folded around the body or core C C' D, and the seam thus formed is attached to the body by a longitudinal row of stitches, E, passing entirely through the crimper, as shown, Fig. 3. In this form of crimper the use of cement is dispensed with. Two wires, D, may be used, and the row of stitches pass between them; or a broader strip of lead or other soft metal may have the stitched seam sewed directly through the metal; or a light metal core may have its edges folded over and seamed down so as to hold the covering fabric. I in this form use a woven fabric of exceedingly light and open texture and of the cheapest kind, and produce an excellent, slightly, and durable crimper, the interstices allowing the body to show through and give the requisite quality and uniformity of color both at the sides and at the ends.

The curler shown in Fig. 5 is made substantially like the crimper, Fig. 4, except that, instead of being flat in cross-section, so as to produce a crimper-joint at each fold of hair around the edges of the same, it is approximately cylindrical, and is stitched through between two wires, D and D', and has a body of hemp, paper, or other material of a color to correspond to that of the cover B, and shows through the meshes or interstices of the same. The fabric which covers it is made open, and may be braided over the body, as in Fig. 1, instead of folded and stitched. Instead of the

body composed in part of paper, I sometimes use a soft-metal body to secure both bulk and stiffness when bent, and in such cases I cover the metal with a covering of japan or other suitable coloring material to make the same match in color the cover B, but I prefer to use the paper, as shown; and I sometimes dispense with the cover of fabric B, and allow the dyed paper to form the external surface of the crimper, all the parts being firmly secured to each other. The forms shown, however, will be found preferable, unless economy of expense is of the very first moment.

The paper which I prefer to use is a tough brown or blonde colored paper made especially for trunk-linings, calendering-paper, and other purposes where toughness is necessary, and appears almost like a smooth leather, and is produced very cheap, which I have dyed in the mill before being formed into sheets or rolls. The strips are cut from the rolls of a proper width, and are then fed into the machine and covered, as hereinabove described, the wire or wires D D' passing through with the paper. Strong Manila paper, however, may be used, stained or dyed of the proper color either before being sent from the paper-mill or afterward, as may be desired.

I am aware that ordinary Manila or other natural-colored paper has been used with a braided covering in hair-crimpers, and that this paper has been visible through the braided covering when not made sufficiently close, and at the ends when not protected by tips, and also that hemp has been used in like manner, and that hair crimpers and curlers have been made with two, three, or more coverings of braided fabric, closely woven and of a scarlet color, to insure bulk and softness, and I do not broadly claim the use of hemp or

paper in a hair crimper or curler, with a more or less open covering of fabric, or duplicate layers or coverings of similarly-applied fabric, but confine myself to the invention as herein shown, described, and claimed.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A hair crimper or curler having a body composed of a soft-metal wire and a covering of hemp, paper, or other unwoven fabric, dyed throughout its entire thickness to correspond with the different colors of hair with which it is to be worn, and a covering of woven or braided fabric secured to the said body and corresponding in color with the same, the ends of the said crimper when cut off exhibiting a section substantially uniform in color without the use of metal tips or embroidery, substantially as and for the purposes described.

2. A hair-crimper having a compound body composed of a soft-metal center, one or more layers of paper, and a braided covering cemented to the said paper from end to end, said covering being braided open so as to expose the paper beneath, both braided covering and paper being stained or dyed of the same color to correspond with the color of the hair with which it is to be used, the said crimper being compressed and having the surface of the paper embossed or raised into the reticulations of the said open-work braided covering, and exhibiting a figured surface of paper and braid of uniform color, and increased adhesion of the said cement, substantially as described.

ISAAC W. HEYSINGER.

Witnesses:

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J. L. HEYSINGER.