

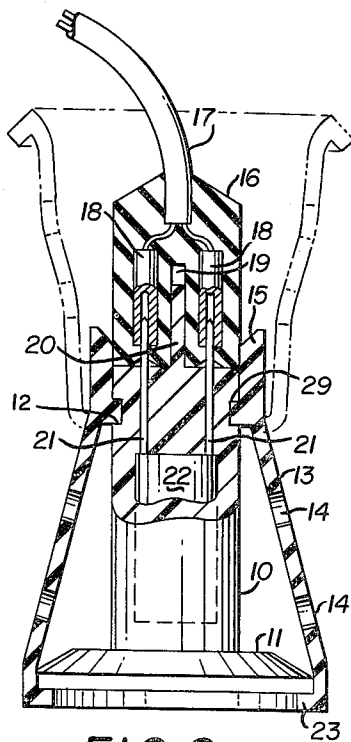
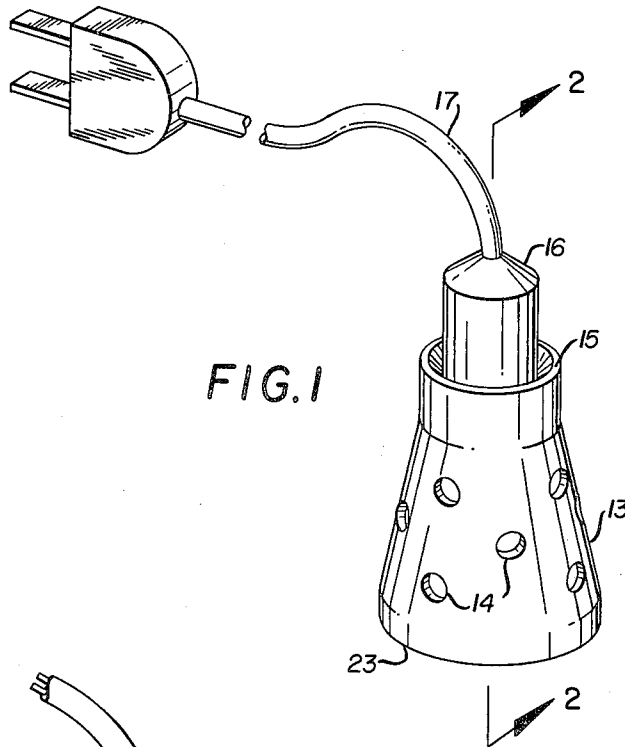
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HAIR CURLING DEVICE

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## HAIR CURLING DEVICE

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This application is a continuation-in-part of co-pending application, Serial No. 140,183 filed Sept. 20, 1961 on "Hair Curling," now abandoned.

This invention relates to a hair curling device and more particularly to an electrically heated device incorporating a flexible enveloping member for holding hair on the device.

The principal object of the invention is the provision of a hair curling device, a plurality of which may be used to curl human hair simultaneously and each of which devices is so formed as to hold the hair wrapped thereon during the curling operation.

A further object of the invention is the provision of a hair curling device incorporating a body member on which the hair may be wrapped, the body member having a heating element disposed therein and a resilient tubular jacket positioned thereabout for holding the hair in position thereon.

A further object of the invention is the provision of a hair curling device in which each unit is individually detachably connected to a power source by a double connection plug arranged to be partially held on the device by a flexible jacket positioned thereabout also employed for holding the hair wrapped thereon.

A still further object of the invention is the provision of a simple and efficient hair curling device of relatively small size, a plurality of which may be connected to a common conductor and employed simultaneously in curling the hair.

The hair curling device disclosed herein comprises an internally heated member of spool-like characteristics upon which the hair to be curled may be wrapped and a skirt-like resilient member positioned thereabout so as to hold a detachable electrical connection plug on one end thereof and so as to hold hair wrapped thereabout in position thereon.

The resilient skirt-like member is readily movable to inoperative disengaged position relative to the spool portion on which the hair is wrapped and just as readily moved back to hold the hair wrapped on the device. In actual practice twenty of the devices are attached to a common connector (not shown) and a power supply wire leads therefrom to a source of electrical energy. Thus, an entire head of hair may be easily and conveniently curled at one time with the device or any lesser number may be employed as desired.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being the intention to cover all changes and modifications of the example of the invention herein chosen for purposes of the disclosure, which do not constitute departures from the spirit and scope of the invention.

The invention is illustrated in the accompanying drawing, wherein:

FIGURE 1 is a perspective view of the hair curling device.

FIGURE 2 is a vertical section on line 2-2 of FIGURE 1.

By referring to the drawings, it will be seen that the hair curling device comprises a cylindrical body member or roller 10 having an annular flange 11 around its lower or outermost end and an annular groove 12 about

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its upper end. A conical resilient sleeve 13 having a plurality of apertures 14, 14 therein and an open upper end defined by a collar portion 15 is positioned about the cylindrical body member 10 so that an annular inturned rib 29 on the collar 15 registers with the annular groove 12 therein in moisture sealing relation. The collar portion 15 of the resilient sleeve 13 extends upwardly and beyond the upper or inner end of the body member 10 where it engages in moisture sealing relation the lowermost portion of a connection plug 16 which is a terminal for a pair of electrical conductors 17, which are connected to tubular sockets 18, 18 in the plug 16. A central opening 19 in the plug receives a transversely flattened projecting prong 20 formed on the upper or inner end of the body member 10 and the tubular sockets 18, 18 receive connection pins 21, 21 which extend downwardly into the body member 10 and establish connection with a heating element 22.

In FIGURE 2 of the drawings solid lines show the hair curling device in assembled relation with the conical sleeve 13 in hair curling position relative to the plug 16, body member 10 and the annular flange 11 thereof. It will be seen that there is an inturned annular flanged edge 23 about the open end of the sleeve-like member 13 which is adapted to register over the outer or lower side of the annular flange 11 on the body member 10. Thus, the device holds itself in assembly when in assembled position and securely holds the hair wrapped therearound. In using the device the resilient sleeve 13 is moved to the position shown in broken lines in FIGURE 2; the device is positioned closely to the head of the hair to be curled and a lock of hair wrapped around the cylindrical body member 10. When the hair has been wrapped the resilient sleeve 13 is moved downwardly so that it covers the wrapped hair holding it in position on the cylindrical body member 10 and at least a portion of the annular flange 23 thereof is engaged beneath the annular flange 11 of the cylindrical body member 10, thus insuring the retention of the curl on the device. As the hair has been slightly moistened prior to being wrapped on the device energization of the device results in a moderate heat being applied so as to form a warm vapor within the enclosure of the sleeve 13 which favorably acts on the hair to impart a curling action thereto. After a number of minutes the device is de-energized and the curling device left in position on the hair until any trace of vapor disappears whereupon the resilient sleeve 13 may be opened and the curled hair removed from the cylindrical body member 10. The devices are small in size and a number of closely formed curls may be formed on a human head of hair and after the several devices have been removed the hair may be combed to the desired style and be found to retain its desired characteristics.

It will thus be seen that the hair curling device meets the several objects of the invention and that it is so constructed so as to be completely safe in operation and capable of imparting the desired curl to human hair. The device is easily manipulated and so designed that the heating element 22 imparts only the necessary heat for the curling operation and avoids damage to the hair. Those skilled in the art will observe that the cylindrical body member 10 may be formed of any suitable material capable of being molded to the desired shape while the sleeve member 13 and plug 16 are preferably formed of rubber-like material so as to resiliently engage the cylindrical body member 10 and the flange 11 thereof as heretofore described.

It will thus be seen that a hair curling device has been disclosed which meets the several objects of the inven-

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tion, and having thus described my invention, what I claim is:

1. A hair curling device comprising a cylindrical body member having an annular flange about one end thereof, a heating element embedded in said cylindrical body member and connection pins extending outwardly of the opposite end thereof, a connection plug having sockets therein for registry with said connection pins, and a conical sleeve-like resilient member having a collar at its open upper end positioned about said opposite end of said cylindrical body member with said collar extending beyond the end thereof and engaging said connection plug in moisture-tight sealing relation, an annular rib on the inner surface of said collar engaged in an annular groove on the outer surface of said body member in moisture-tight sealing relation, an annular intumed flange on the other end of said conical sleeve and overlying and engaging said annular flange on said cylindrical body member, said conical resilient sleeve-like member having a plurality of apertures therein.

2. The hair curling device set forth in claim 1 and wherein said collar portion of said conical sleeve is of sufficient height when installed on said cylindrical body member to form an annular guide and retaining means for said plug.

3. A hair curling appliance comprising a plurality of hair curling devices each of which has a cylindrical body member forming a roller on which the hair to be curled may be rolled, a flanged end portion on said cylin-

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drical body member defining a guide and restraining means for said hair to be curled, a resilient conical apertured body member open at both ends and having its smaller end engaged on the opposite end of said cylindrical body member with respect to said flanged end so as to form a moisture-tight seal therebetween and forming means for guiding and holding the hair rolled thereon, the larger end of said resilient conical body member having a configuration arranged to overlie and engage said flange on the one end of said cylindrical body member so as to enclose the hair rolled on said body member, a heating element embedded in said body member and connection prongs extending out of the end of the body member opposite to said flanged end, a connection plug including sockets and conductors engaged on said pins, said conductors extending to a common power source for said plurality of devices.

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