Nov. 20, 1962 W. C. SHOLIN 3,064,360

HAIR DRYING ATTACHMENT FOR CLOTHES DRYER

Filed May 9, 1958 2 Sheets-Sheet 1

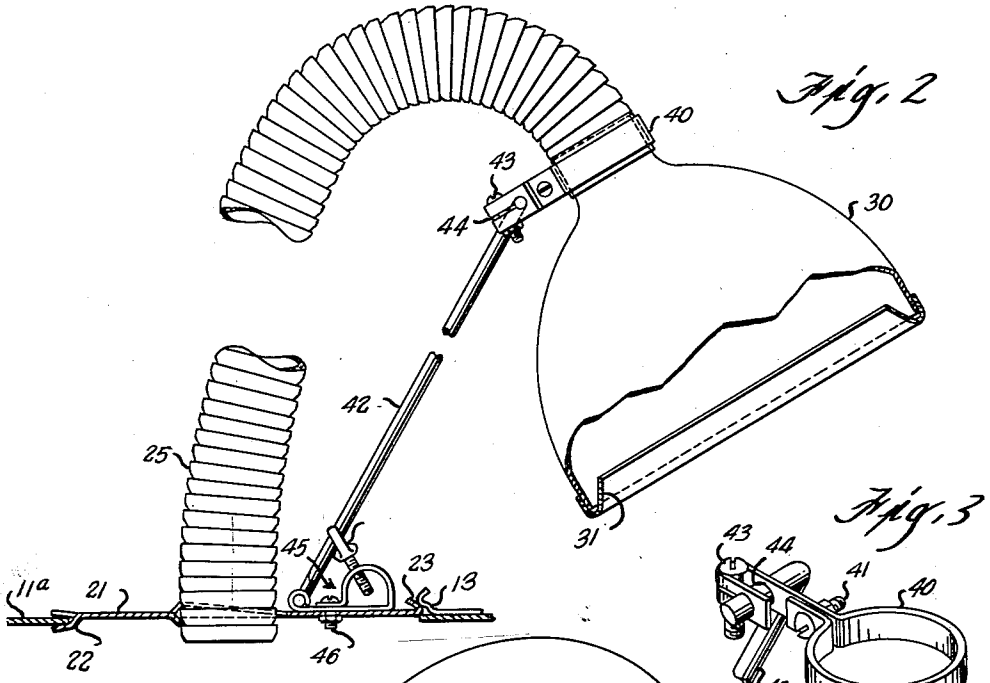


Fig. 2

Fig. 3

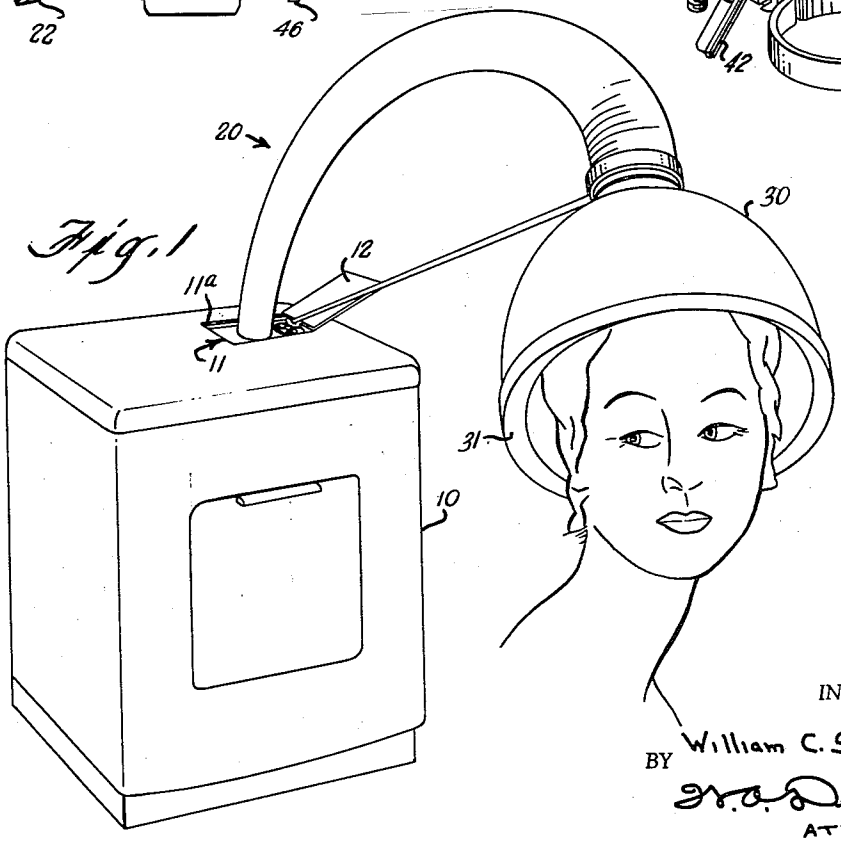


Fig. 1

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Fig. 4

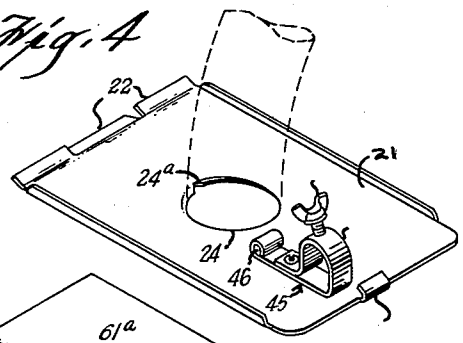


Fig. 6

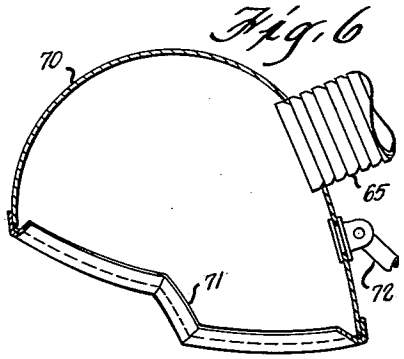


Fig. 7

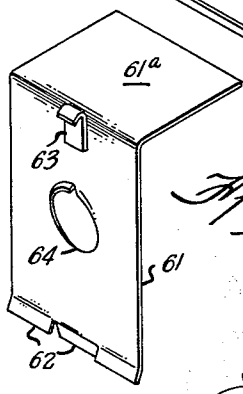
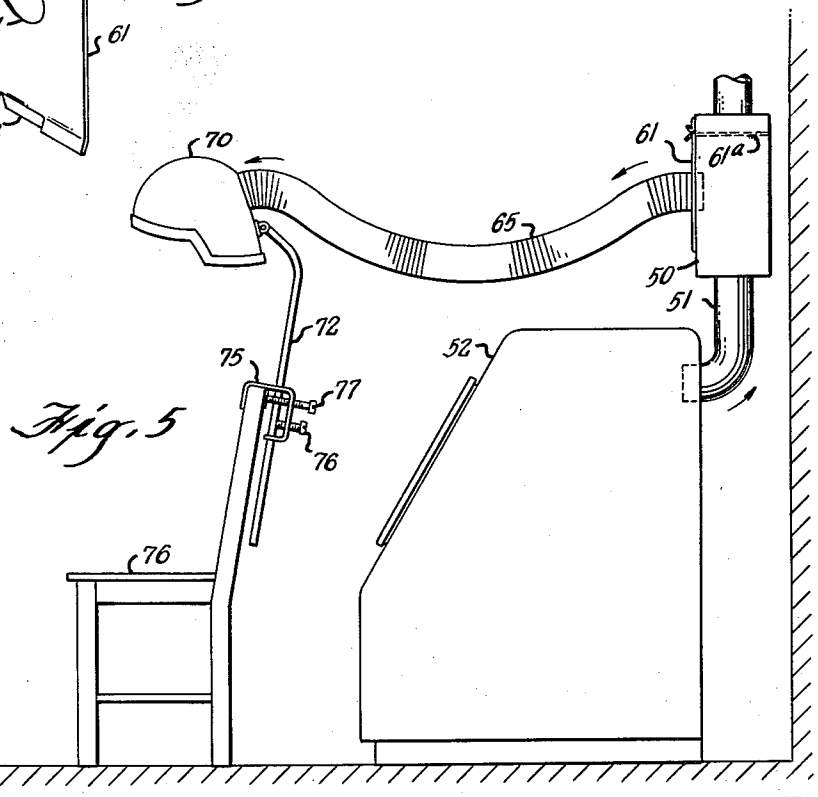


Fig. 5



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3,064,360
HAIR DRYING ATTACHMENT FOR CLOTHES DRYER

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1 Claim. (Cl. 34—91)

The advantages of drying human hair, particularly women's hair, by forced heated air have long been recognized. For this purpose a wide variety of hair drying appliances are commercially available. However, of all those available I have observed that there is none which satisfies the needs and desires of the vast majority of those wishing to use this type of hair drying. The hair drying appliances which will effectively dry in a reasonably short time are far too expensive for the average housewife. The inexpensive household type hair drying appliances are far too slow because of their limited capacity and don't do a very good job.

Accordingly, an object of my invention is to provide a household type hair drying appliance which performance-wise is superior to the common household types and which is far less expensive.

More specifically, having observed the widespread use in homes of clothes drying machines which dry clothes with large volumes of heated air, it is an object of my invention to provide an inexpensive attachment which will readily adapt said machines for the secondary purpose of hair drying.

Other objects and the advantages of my invention will hereinafter appear.

In the drawings it will be seen that

FIG. 1 is a perspective view of a clothes dryer to which has been attached an embodiment of my invention,

FIG. 2 is a partly-sectioned, partly-fragmentary, elevational view of the hair drying attachment shown in use in FIG. 1,

FIG. 3 is a perspective view of a portion of the attachment shown in FIG. 2,

FIG. 4 is a perspective view of another portion of the attachment shown in FIG. 2,

FIG. 5 shows in elevation another embodiment of my invention which is particularly useful with clothes dryers not having a top vent opening like that shown in FIG. 1,

FIG. 6 is an enlarged detail view of a portion of the attachment illustrated in FIG. 5, and

FIG. 7 is a perspective view of another portion of the attachment illustrated in FIG. 5.

Referring to the drawings in detail and particularly FIG. 1, the clothes dryer 10 includes a clothes tumbling drum, a high capacity fan for blowing air through the drum, and means for heating the air, all of which elements are not shown because the construction of such dryers is well known. Typical of these would be the current Westinghouse Model No. 110. At the top of the dryer 10 is an opening 11 which is in communication with the hot air discharge ducting in the dryer and is surrounded by a flange 11a. The hinged door 12 normally closes the opening 11. However it can be opened to effect clean-out of the discharge duct or to permit discharge of heated air directly into the room. Thus by running the dryer without damp clothes in it I can use it as a source of heated forced air for my hair drying attachment 20 which will now be described.

Now also referring to FIGS. 2, 3 and 4 it will be seen that my invention includes an attachment plate or base 21 which is formed of sheet metal and is of sufficient size to overlie and close the duct opening 11. One end of the plate 21 is split and bent to provide wing portions 22 for engaging and receiving therebetween the flange 11a. The opposite end of plate 21 is provided with means

in the form of a projection 23 adapted for engagement with a catch 13 for holding the plate securely in place.

The plate 21 is also provided with an opening for receiving an end of the flexible tubing 25. The edge 24 surrounding the opening is split and formed to provide a screw thread 24a for engaging and securing the tubing 25. This is best seen in FIG. 4.

The tubing 25 should be light weight and flexible. A commercially available tubing formed of a spiral wound spring wire to which are secured spiral wound ribbons of translucent polyethylene film has been found particularly suitable for use with my invention. It is inexpensive, yet attractive, and is not adversely affected by the hot air. It also permits my making an economical thread-type connection to the plate 21.

The upper end of the tubing 25 is secured to a head encircling bonnet 30 by means of a clamp 40. The bonnet is preferably formed of a high impact plastic material such as polystyrene. At its outer end there is provided an inwardly extending lip or rim 31 the function of which is hereinafter described. The inner end of the bonnet is reduced to provide a neck portion of a diameter which permits its encirclement by the upper end of the tubing 25.

After the tubing 25 and the clamp 40 have been slipped onto the bonnet the clamp bolt 41 is tightened as necessary to secure the assembly. Because the clamp is adjustably secured to the upper end of a rod 42 by using the bolt 43 to clamp the sidewalls of openings 44 into engagement therewith, the angular position of the bonnet may be easily adjusted.

The lower end of the rod 42 is adjustably secured to the plate 21 by means of a clamp 45 which provides for both horizontal and vertical adjustment of the bonnet 30. Horizontal adjustment is effected by pivotally securing the clamp 45 to the plate 21 by means of a bolt 46 which passes through an opening in the medial portion of the clamp and through an opening in the plate. Vertical adjustment is effected by the novel means for holding the rod 42. One end of the clamp 45 is formed to provide a socket portion 46 for reception and retention of the lower end of bonnet support rod 42. The other end of clamp 45 is provided with an upraised portion 47 into which is threadably secured a wing bolt 48. This wing bolt is so positioned that its medial portion is in line with the rod 42 and will engage and retain the shank portion thereof. Thus there is provided a simple, yet effective, means for adjusting the angular position of rod 42 and consequently the elevation of the bonnet 30.

Having described in detail the construction of a preferred embodiment of my invention, I will now explain its operation. Referring again to FIG. 1 of the drawings, it will be seen that my novel hair drying appliance is easily attached to the top vent opening of a clothes dryer. After uncovering the vent opening 11 the attachment or base plate 21 is secured thereto by means of the clevis or wing portions 22 and the catch projection 23. Thereafter proper positioning of the bonnet is obtained by adjusting the wing bolt 48 as necessary to obtain the desired elevation, and by moving the clamp 45 about its pivotal connection with base plate 21 to obtain the desired horizontal position. Proper tilt of the bonnet is obtained by adjustment of the clamp member 40.

The dryer 10 is then turned on to effect operation of its blower and air heating element, and if it has a temperature regulator the desired temperature is selected. The ensuing blast of warmed air which passes out of its vent system is then lead through the flexible tube 25 to the bonnet 30 wherein it may be directly applied to one's hair. At this point the bonnet lip 31 comes into play. It reflects a portion of the head-encircling warm air blast

rearwardly and inwardly to effect a desirable swirling of the air which considerably helps the drying process.

From the foregoing it is apparent that my invention provides for the household a novel, inexpensive, yet highly efficient, apparatus for hair drying. By using air which is remotely heated I do not have to use the expensive high temperature resistant materials which would be necessary if the air heating element were mounted in or near the tubing **25** or bonnet **30**. This also permits my providing a hair dryer appliance of much lighter weight and construction.

An alternative embodiment of my invention is shown in FIGS. 5, 6 and 7. It is primarily intended for use with dryers which do not permit the securement of an attachment plate directly thereto. In this embodiment the appliance comprises a rectangular attachment box **50** which is inserted into the vent line **51** of the dryer **52**. The front face of the box **50** is provided with an opening which is kept normally closed by means of a door or plate (not shown). However, when the clothes dryer **52** is to be used for hair drying the box **50** is closed by an attachment plate **61** illustrated in detail in FIG. 7.

The attachment plate is similar to that illustrated in FIG. 4 in that it has securing means such as the wing portions **62** and catch projection **63**, and has a threaded tube receiving opening **64**. However, it also has at one end there of an extension **61a** which functions, as shown in FIG. 5, to block the normal flow of air through the adapter box **50** and to direct it through the flexible tubing **65** to the bonnet **70** which is connected to the outer end of the tubing **65**.

In this embodiment the bonnet **70**, shaped to more closely conform to the human hair line and also provided with an air deflecting lip **71**, is supported by the rod **72**. At its upper end the rod **72** is pivotally secured to the bonnet. At its lower end the rod passes through upper and lower openings in a clamp **75** which is adapted to fit over the top of a chair **76** and be held thereon by threaded bolt **77**. The bolt **78** which is threadably mounted on the clamp serves to hold the rod **72** in any desired position relative to the clamp by pressing the rod against a side of the upper and lower clamp openings (not shown).

The operation of the alternative embodiment of my invention would be substantially the same as that described for the first embodiment, and for that reason will not be described.

Changes may be made in the combination and arrangement of parts as heretofore set forth in the specification and shown in the drawings, it being understood that any modification in the precise embodiment of the invention may be made within the scope of the following claim without departing from the spirit of the invention.

I claim:

A hair drying appliance comprising, in combination, a clothes dryer machine having a vent opening and means for discharging heated air therethrough; a head encircling bonnet having at its top a heated air inlet and at its bottom an annular angularly extending rim for deflecting air away from the bonnet side wall of said bonnet; an attachment plate positioned to effect an air connection with said dryer vent opening; a flexible tube connected for conducting heated air from said attachment plate to said bonnet heated air inlet; a rigid support rod; means pivotally mounting one end of said support rod on said attachment plate; and means pivotally connecting the other end of said support rod to said bonnet whereby said bonnet may be supported in any desired position laterally of said attachment plate and said clothes drying machine.

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