Jan. 3, 1967 W. L. CHAMBERS ET AL 3,295,869

HAIR DRIER

Original Filed April 6, 1961 3 Sheets-Sheet 1

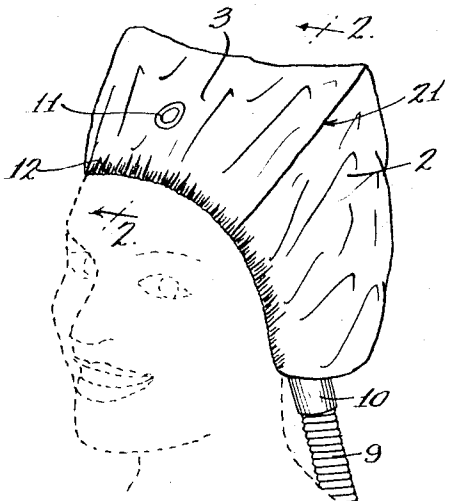



Fig. 1.

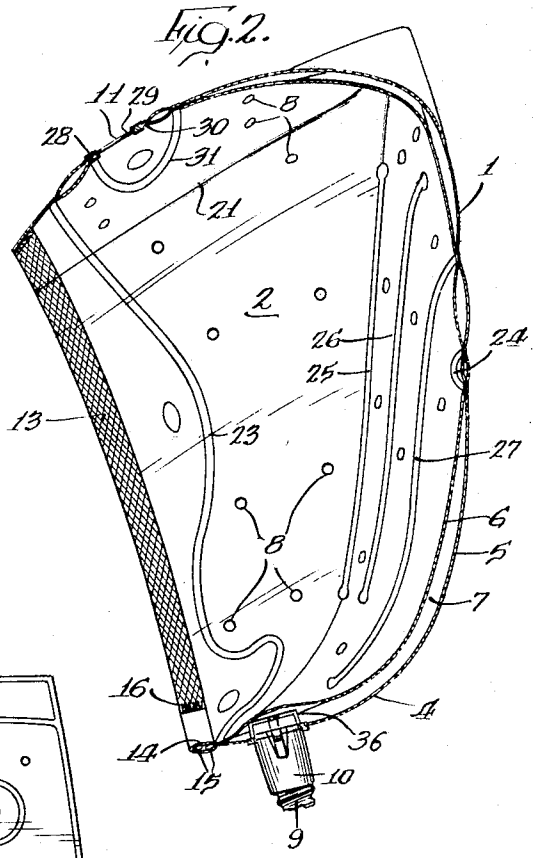



Fig. 2.

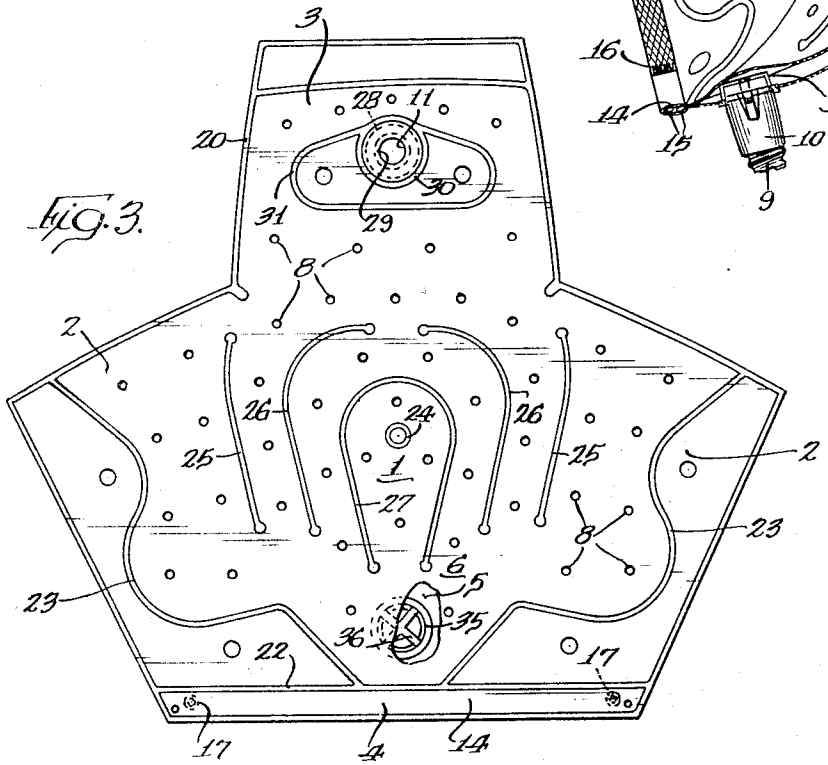



Fig. 3.

By

Jan. 3, 1967 W. L. CHAMBERS ET AL 3,295,869

HAIR DRIER

Original Filed April 6, 1961 3 Sheets-Sheet 2

Fig. 4.

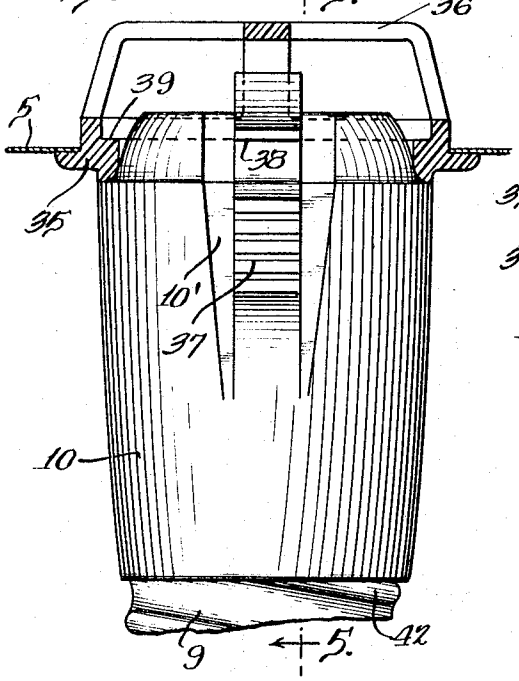



Fig. 5.

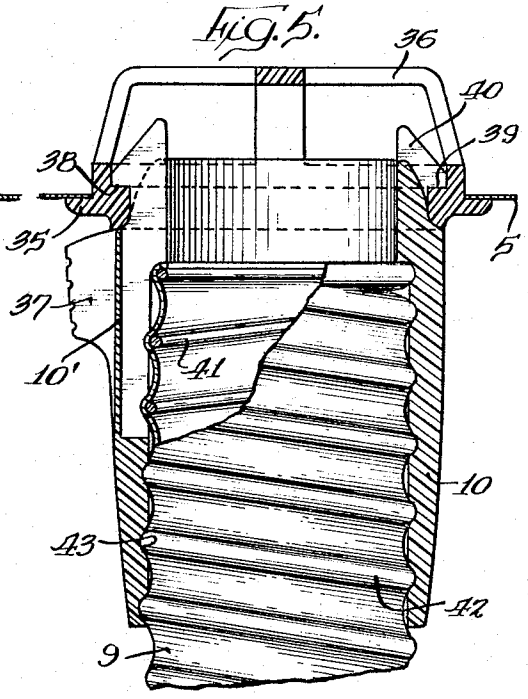



Fig. 6.

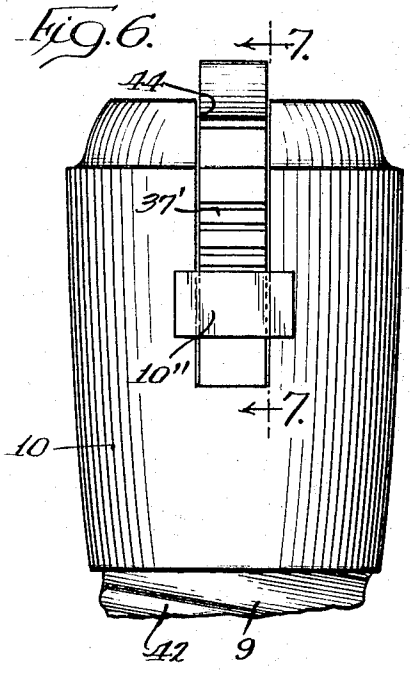
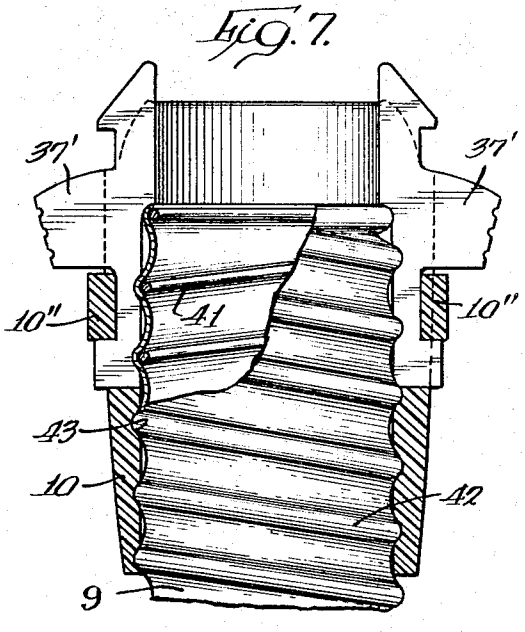



Fig. 7.

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Jan. 3, 1967 W. L. CHAMBERS ET AL 3,295,869

HAIR DRIER

Original Filed April 6, 1961 3 Sheets-Sheet 3

Fig. 8.

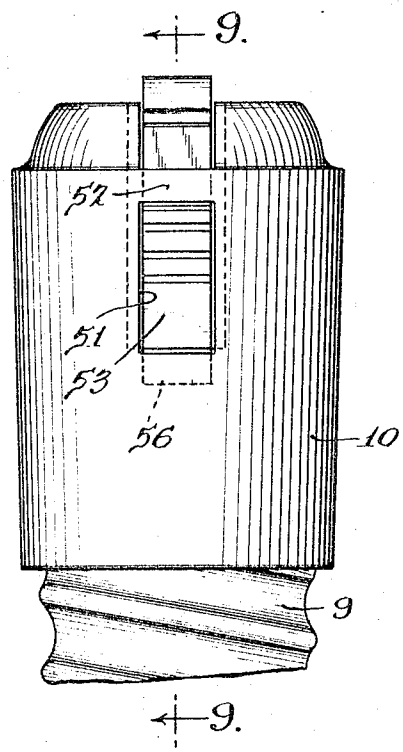
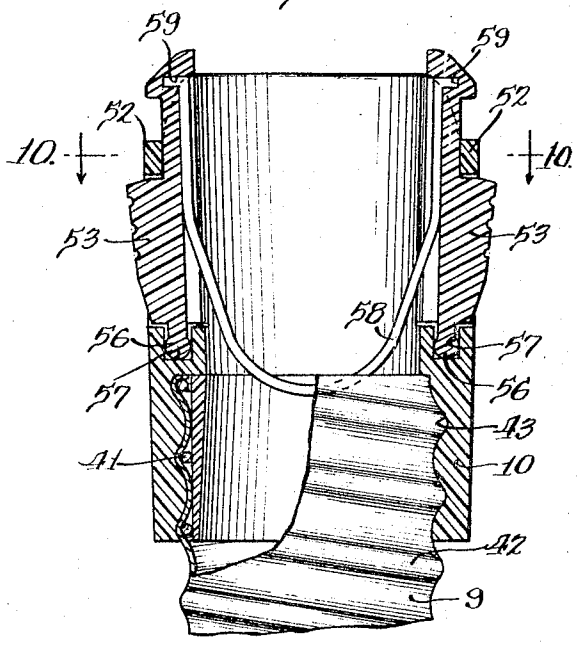



Fig. 9.



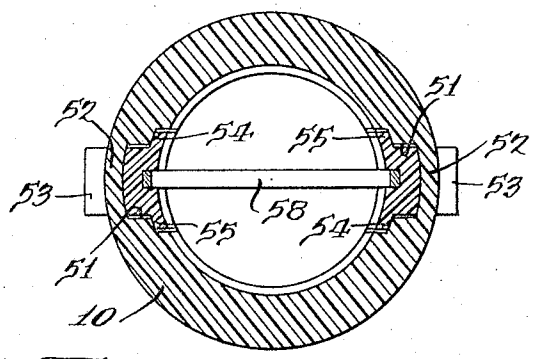




Fig. 10.

United States Patent Office 3,295,869
Patented Jan. 3, 1967



3,295,869

# HAIR DRIER

Worthy L. Chambers, Wilmette, and Gilbert R. Wolter, Elmhurst, Ill., assignors to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois

Application Mar. 20, 1964, Ser. No. 353,479, which is a division of application Ser. No. 101,241, Apr. 6, 1961, now Patent No. 3,168,382, dated Feb. 2, 1965. Divided and this application May 27, 1965, Ser. No. 459,227

4 Claims. (Cl. 285—200)

This invention relates to improvements in hair driers, and more particularly, to an improved hair drier cap and methods of making the same and an improved air hose connector for hair driers. This application is a division of our copending divisional patent application Serial No. 353,479 filed March 20, 1964 which in turn was a division of our parent application Serial No. 101,241 filed April 6, 1961, now Patent No. 3,168,382.

The cap of the instant invention is an improvement over caps of the type illustrated in copending "Hair Drier" patent application Serial No. 653,336, filed April 17, 1957 by Ivar Jepson, now Patent No. 3,006,079, issued October 31, 1961, and assigned to the same assignee as the instant invention. Since its introduction into the commercial market the cap of said copending patent application has performed its purposes admirably. At the time the cap was introduced the hair styling or coiffures then in vogue were of the feather cut type which were not very voluminous. The cap was generally conical-shaped and facilitated the drying of such coiffures. The cap size was adjustable by adjusting means disposed along the apex of the cone shape. Since the coiffures then in vogue were not very voluminous and did not require relatively large hair setting instruments it was not necessary for the cap to be very wide and deep.

Hair stylings have radically changed recently and now the bouffant type of hairdo which occupies a relatively large volume and requires larger hair setting instruments is considered to be fashionable. This new type of hair styling and its necessary larger hair setting instruments require a cap which is larger than those of the prior art. Therefore, it would be desirable to provide a hair drier cap which is wider and deeper and better suited to the new hair fashions.

Home hair drier devices conventionally comprise a cap and a heater-blower unit which are interconnected by an air hose. The heater-blower unit can be positioned on a convenient surface such as a table or the like and preferably the hose is made relatively long and flexible so that the housewife is afforded a limited amount of freedom or movement to perform other tasks while she is sitting at the table. However, it may be necessary for the housewife to momentarily leave the table, as for instance to answer the telephone or the like. For this reason, it would be desirable to provide a connector for quickly disconnecting and connecting the air hose with respect to either the cap or the heater-blower unit.

Some prior art hair drier caps and air hose connectors have the disadvantage that they comprise a relatively large number of separate and distinct parts which increase their material and manufacturing costs. For instance, some prior art caps comprise several separate pieces of cap material which must be individually fabricated and then assembled into a cap shape by a plurality of distinct operations such as several stitching operations. Likewise, some prior art air hose connectors comprise a plurality of separate parts which must be individually fabricated and then asssembled by a plurality of assemblying operations. Therefore, it would be desirable to provide a hair drier cap and air hose connector which require a minimum number



of separate parts and manufacturing operations whereby they are low cost and easy to fabricate. Also, since some air hoses are difficult to connect to the cap while it is on the user's head, it would be desirable to provide an air inlet opening structure in the cap which would make it easy for the user to connect the air hose thereto while the cap is on the user's head.

It is one object of the invention to provide an improved hair drier cap and air hose connector and methods of manufacturing the same.

It is a further object of the invention to provide an improved air hose connector in hair driers which can be quickly disconnected and connected with respect to either the hair drier cap or the heater-blower unit, and preferably the cap.

It is a further object of the invention to provide improved methods of manufacturing hair drier caps which require a minimum number of parts and fabricating operations whereby the cap and the cost of manufacturing the same is reduced.

It is a further object of the invention to provide an improved air hose connector which has a minimum number of parts and can be readily fabricated with a minimum number of manufacturing operations.

It is a further object of the invention to provide an improved air inlet opening structure in a hair drier cap so that the user can easily connect an air hose thereto while the cap is on the user's head.

Briefly, in the preferred form of the invention the cap is formed from two nested sheets of flexible impervious material which have integral forward and side flaps which correspond to the forward and side portions of the cap, with the remainder of the sheets comprising the crown and rear portions of the cap. Preferably the sheets are formed from plastic material and the sheets and flaps are seamed or sealed to each other by heat joining their edges together to form an air manifold therebetween. The hose connector is likewise a plastic part which has integral portions which provide latch means, latch biasing means or latch retaining means which can be formed by molding. Additionally, the cap is provided with an air inlet opening structure so that the hose connector can be easily connected to the cap while it is on the user's head.

The features of the invention which are believed to be novel are set forth with particularity in the appended claims. The invention itself, however, both as to its organization and operation, together with further objects and advantages thereof, may best be understood by reference to the following description taken in connection with the accompanying drawings.

In the drawings:

FIG. 1 is a perspective view of one form of improved hair drier cap;

FIG. 2 is a sectional view of the cap illustrated in FIG. 1 taken along the section line **2—2** of FIG. 1;

FIG. 3 is a view of the material of the hair drier cap laid out flat to illustrate the method of manufacturing the cap;

FIG. 4 is a broken-away side elevational view of one form of improved air hose connector;

FIG. 5 is a sectional view taken along the section line **5—5** of FIG. 4;

FIG. 6 is a side elevation view of another form of air hose connector;

FIG. 7 is a sectional view taken along the section line **7—7** of FIG. 6;

FIG. 8 is a side elevation view of another form of air hose connector;

FIG. 9 is a sectional view along line **9—9** of FIG. 8; and

FIG. 10 is a sectional view along line **10—10** of FIG. 9.

Referring first to FIGS. 1 and 2, in one form of the invention the improved hair drier cap comprises a crown portion **1**, two opposite side portions **2**, a forward por-

tion 3, and a rear portion 4. The cap is fabricated from two nested sheets 5 and 6 of impervious flexible material. The sheets 5 and 6 are spaced with respect to each other to define a manifold 7 therebetween. The sheets 5 and 6 are preferably coextensive with each other and are sealed to each other in a manner to be described hereinafter so that the manifold 7 extends throughout the crown portion 1, the side portions 2, the forward portion 3, and the rear portion 4.

The inner sheet 6 has a plurality of air distributing apertures 8 formed therein to direct drying air from the manifold 7 onto the cap user's hair. The drying air enters the manifold 7 from an air hose 9 by a connector 10 connected to the rear portion 4 of the cap. The improved connector 10 will be described hereinafter. The drying air is exhausted from inside the cap after it has picked up moisture from the hair by way of an outlet or exhaust opening 11 formed in the forward portion 3 of the cap. The exhaust opening 11 is formed in both sheets 5 and 6 of the cap, whereas an inlet opening for the connector 10 is formed only in the outer sheet 5 of the cap.

The bottom edge of the cap has adjusting means to fit the cap snugly on the cap user's head so that none of the drying air will escape from beneath the bottom edge and blow on the cap user's face or neck to cause discomfort. The adjusting means comprises a plurality of pleats 12 formed in the bottom edges of the side and forward portions 2 and 3, respectively. These pleated edges have an inner elastic band 13 stitched or otherwise connected thereto. Preferably the inner surface of band 13 is lined or surfaced with a soft material so as to cause no discomfort when the bottom edge of the cap is drawn tightly about the cap user's head.

The adjusting means also comprises drawstring means for the bottom edge of the rear portion 4. The drawstring means comprises a drawstring passageway 14 formed in the bottom edge of the rear portion 4 in a manner to be described hereinafter. A pair of drawstrings 15 are disposed in the passageway 14. When the drawstrings are loosened the bottom of the cap can be fully opened. Tightening of the drawstrings will draw the bottom edge of the cap snugly about the cap user's head. When the cap is fully opened it will very easily pass the large bouffant type of hairdos which are currently popular as well as the relatively large hair setting instruments which are required for this type of hairdo. Additionally, since the cap is relatively wide and deep it is admirably suited to the drying of current hair stylings and provides sufficient space for the same and their larger hair setting instruments. The drawstrings 15 extend throughout the length of passageway 14. One end of one drawstring is anchored adjacent the corresponding end of the passageway by means such as stitching 16, and the opposite end of the other drawstring is similarly anchored at the other end of the passageway 14. The stitching 16 is preferably disposed through the opposite ends of the elastic band 13 so that when the free ends of the drawstrings are pulled to shorten the passageway 14 to tighten the cap about the cap user's head the elastic band 13 is also simultaneously tensioned. The free ends of the drawstrings extend out of their corresponding ends to the passageway 14 through suitable means such as eyelet openings 17 formed at the opposite ends of the passageway 14 in the outer sheet 5. The eyelet openings 17 are illustrated in FIG. 3, and FIG. 3 should now be referred to in connection with a description of the methods of manufacturing the cap.

FIG. 3 shows the two sheets 5 and 6 of the cap laid out flat during one stage of the cap manufacturing process. Parts which correspond to those parts illustrated in FIGS. 1 and 2 are given identical reference numerals. The sheets 5 and 6 are preferably coextensive with each other and are superimposed. Both sheets are preferably precut into an octagonal shape. That is to say, both



sheets have generally isosceles trapezoidal-shaped forward flaps which correspond to the forward portion 3 of the cap. The generally isosceles trapezoidal-shaped forward flaps are tapered in a forward direction. Both sheets also have a pair of opposite side flaps which correspond to the sides 2 of the cap. The side flaps are generally triangular shaped and right angled. They extend from the rear portions of the forward flaps and taper rearwardly into merged relationship with the rear of the sheets which corresponds to the rear portion 4 of the cap. The sheets are placed one upon the other and then their corresponding outer edges are sealed to each other by applying heat thereto. The heat-sealed edges provide a heat-formed seam 20 which extends continuously about the eight sides of the octagonal-shaped sheets. The two sheets which are thus sealed with respect to each other provide the manifold 7 therebetween which extends throughout the central or crown portion 1 of the two sheets, the forward portion 3, the side portions 2, and the rear portion 4. Inasmuch as the central portion 1, the rear portion 4, the forward flaps 3 and the side flaps 2 are integral with each other the number of separate pieces required to fabricate the cap is held to a minimum and the manufacturing process is greatly simplified over those of the prior art.

The forward and side flaps have their adjacent seamed edges heat sealed to each other to form the seams 21 shown in FIGS. 1 and 2. Preferably the opposite sides of the forward flaps and the adjacent sides of the side flaps are disposed with respect to each other at an obtuse angle as illustrated in FIG. 3. This provides a cap which is greatly enlarged over some of those of the prior art. In particular, the cap has a substantially increased volume in the front top and side areas thereof to receive the currently popular bouffant type hair styles.

The drawstring passageway 14 is provided by forming a heat seam 22 between the sheets 5 and 6 adjacent to the rear edge 20 of the two sheets in slightly spaced relationship with respect thereto. Additionally, the side portions 2 of the cap have their lower parts isolated from the manifold 7 so that drying air is not blown directly on the cap user's ears. This is accomplished by forming a pair of heat seams 23 between the two sheets 5 and 6 in the side portions 2. The heat-formed seams 23 extend from the seams 21 across the triangular-shaped side flaps to the heat-formed seam 22. The heat-formed seams 23 thereby prevent any air in the manifold 7 from entering the lower part of the side portions 2 where they might be directed against the cap user's ears and possibly cause discomfort. For this reason also, the apertures 8 in the side portions 2 are spaced slightly above the seams 23.

An inlet aperture which is bounded by an annular member 35 is formed in the rear portion 4 for receiving the connector 10 slightly above the seam 22. In this position of the connector 10 the hose 9 will hang downwardly and rearwardly from the cap without having any tendency to pull the cap off the user's head. The two sheets 5and 6 which define manifold 7 will become inflated when a not shown blower unit which is connected to the opposite end of hose 9 is turned on. In order to prevent the two sheets 5 and 6 from ballooning to too great a degree the central portions of the two sheets are joined together by a heat-formed connection indicated generally by reference numeral 24.

The particular disposition of the inlet and exhaust openings for the cap could be reversed or be placed in still other positions. However, the illustrated arrangement is preferred inasmuch as it is believed to provide maximum user convenience and freedom of movement without interference from the hanging hose 9. Inasmuch as the inlet opening is disposed in the rear portion of the manifold 7 a plurality of air passageways or conduits are formed in the cap to insure equal distribution of air to the various portions of the cap. The passageways or

conduits are provided in the crown portion of the cap by heat forming a plurality of laterally spaced and forwardly extending seams **25**, **26** and **27** between the sheets **5** and **6**. These seams **25** to **27** also assist in preventing exaggerated inflation or ballooning of the various cap portions.

Although heat-formed seals or seams are utilized in fabricating the cap, it will be appreciated by those skilled in the art that stitchings can be utilized in practicing the invention. However, the heat-formed seals or seams provide an easy method of manufacture and, therefore, are preferred. For this reason in the preferred form of the invention the sheets **5** and **6** are constructed from plastic material which can be readily sealed with respect to each other by the application of heat. Although in the preferred method the sheets **5** and **6** are precut into octagonal shape, it will be obvious to those skilled in the art that the invention does not necessarily have to be practiced in this manner. That is to say, the octagonal seam **20** could be formed in superposed sheets which are not precut into octagonal shape and then the excess material could be trimmed off. Also, the two nested sheets do not necessarily have to be octagonally shaped or coextensive with each other in all respects. For instance, the bottom part of the inner sheet **6** which is disposed in the side portions **2** below the seams **23** could be omitted. However, they are not omitted for the reason that they contribute to the strength of the cap and using identical sheets may provide manufacturing cost advantages inasmuch as they can then be simultaneously precut in a single cutting operation.

The exhaust opening **11** formed in the forward portion **3** through the two sheets **5** and **6** is preferably bounded by a washer **28** which is captive between the two sheets by virtue of two heat-formed seams **29** and **30** formed about the washer **28**. Additionally, the washered exhaust opening **11** is bounded by a spaced heat-formed seam **31** which traverses the forward portion **3**. The seam **31** prevents undue ballooning of the forward portion **3**.

The heat-formed seams or seals **20**, **22** to **27**, and **29** to **31** can be formed in a single operation by positioning the two superposed sheets **5** and **6** and the sandwiched washer **28** between closing dies which have heated raised portions formed thereon which correspond in contour to the heat-formed seals or seams. The seams **21** can be formed with these seams but it is more convenient to do this after these seams are formed since the portions **2** and **3** must be turned towards each other to form seams **21**. The manifold to hair air distributing apertures **8** will have been preformed in the inner sheet, and the same is true for the aperture **11** in both sheets and the inlet aperture in the outer sheet **5** although aperture **11** could be cut out after the sheets are joined together.

The inlet aperture in outer sheet **5** is bounded by an annular member **35** having an apertured frame or cage **36** formed thereon. Frame or cage **36** extends from adjacent the outer sheet **5** into manifold **7** towards the sheet **6** to retain the two sheets in spaced relationship in the area of the inlet aperture. The annular member **35** may be cemented to the outer sheet **5**. However, preferably member **35** is formed from a plastic material which can be heat seamed to the outer sheet **5** simultaneously with the formation of the heat seams or seals **20**, **22** to **27**, and **29** to **31**. Protrusion of the frame or cage **36** between the superposed sheets **5** and **6** will not interfere with formation of heat-formed seams or seals inasmuch as the plastic material of the two sheets has a limited amount of elasticity. The apertured frame or case **36** performs the function of spacing the air inlet opening in the outer sheet **5** from the cap user's head so that an air hose can be easily connected thereto while the cap is on the user's head.

Turning now to FIGS. 4 and 5, one form of improved hose connector of the instant invention will now be described. The connector comprises a collar **10** having a movable thumb actuated latching member **37** formed integrally therewith. Latching member **37** is generally elongated and extends lengthwise of collar **10**. The inner end of latch member **37** has a stepped or catch portion **38** formed thereon which will latch itself on a shoulder **39** formed on annular member **35** when the inner end of collar **10** is inserted into annular member **35**. A similar catch portion **40** is integrally formed on collar **10** opposite to catch portion **38**. The catch portion **38** is intended to be movable whereas this does not have to be true with the catch portion **40** although two diametrical latches **37** could be provided. Additionally, the shoulder **39** extends continuously about the annular member **35** so that the collar **10** is free to rotate within annular member **35** even in latched position.

Portions **10'** of collar **10** contiguous to the latch member **37** are grooved or notched to have a reduced thickness. The collar **10** is constructed from a plastic molding compound and the integral reduced portions or webs **10'** thereby provide means for biasing the latch member **37** in a radially outward direction into latched position when collar **10** is inserted into annular member **35**. That is to say, the reduced portions **10'** will permit inward flexing of the latch member **37** by finger pressure, and when the finger pressure is released, the reduced portions **10'** due to their natural resiliency will return the latch member **37** to its position illustrated in FIG. 5.

The hose **9** is also preferably constructed from a plastic molding compound. It is preferably reinforced throughout the length thereof by a spiral spring **41** so that when the hose is bent the air supply will not be cut off. The spring **41** is positioned in a spiral internal groove formed in a spiral external ridge **42** formed on hose **9**. The internal surface of collar **10** has a spiral groove **43** formed therein so that hose **9** can be positioned in collar **10** by threading the ridges **42** in the grooves **43**. The plastic hose **9** provides additional biasing means for the latch member **37** and this additional biasing means is reinforced by the resiliency of spring **41**. Although not so illustrated, it will be appreciated by those skilled in the art that the spring **41** could be encapsulated in plastic and joined to the plastic hose **9** by heat sealing the two plastics together. In view of the biasing action of hose **9** on the latch member **37**, it is clear that the reduced portions **10'** could be cut away. This would leave the latch member **37** disposed in a lengthwise through notch in collar **10** with the latch member **37** being connected to collar **10** solely at its rear portion. However, reduced portions **10'** are preferred for the additional reason that they serve as retaining means for the latch member **37** with respect to its collar **10**.

It will now be obvious from the foregoing description that the connector of FIGS. 4 and 5 is provided by a unitary member having integral molded latch means and latch biasing means whereby the number of parts are reduced over those required by connectors of the prior art. Apertured cage or frame **36** is provided for several reasons. It serves as a means for spacing the inner sheet **6** from the inner edges of the connector **10** so that there is no danger of tearing of the inner sheet **6** by connector **10** when it is inserted into the apertured member **35**. Additionally, it provides means for spacing the apertured member **35** from a support surface or the cap user's head so as to facilitate snap action movement of collar **10** into the apertured member **35**. If cage or frame **36** were not provided then the annular member **35** would have to be carefully held away from the support surface or cap user's head in order to snap connector **10** into closed position. However, with the illustrated structure, the frame **36** can be bottomed against a support surface or the cap user's head and the connector **10** merely snapped into the annular member **35**. Spacing of the inner sheet **6** from the outer sheet **5** also insures that the

air supply is not cut off by the inner sheet blocking off the inlet opening in the outer sheet.

Referring now to FIGS. 6 and 7, illustrated therein is another form of connector of the instant invention. Parts which correspond to those illustrated in FIGS. 4 and 5 will be given similar reference numerals. In this form of connector, the collar **10** has two latch members **37'** which are intended to be movable. Opposite sides of collar **10** are cut away to provide a pair of lengthwise extending elongated through notches **44**. The latch members **37'** are disposed in notches **44** and retained therein by integral members **10''** which extend across the notches **44**. Thus, members **10''** form a latch retaining function similar to that provided by the reduced portion **10'** in the other form of connector. However, in the second form of connector the radially outward biasing means for the latches **37'** is provided solely by the hose **9**. Although both latch members **37'** are shown as being movable, it will be obvious to those skilled in the art that one of them could be relatively fixed similar to the latch **40** of the other form of connector.

Referring now to FIGS. 8 to 10, illustrated therein is a third form of hose connector. It is similar to the second connector except that it employs a spring to bias the latches radially outward instead of relying on the bias of the hose **9** and additional latch retaining means are provided. More particularly, the opposite sides of the collar **10** have lengthwise extending notches **51**. Integral portions **52** of collar **10** retain the latches **53** in position. However, they are assisted in this by cooperative lengthwise extending shoulders **54** and **55** formed on the opposite sides of the notches **51** and latches **53** respectively. Also, the inner ends of the latches have tabs or the like **56** which enter grooves **57** formed in the blind ends of the notches **51** to provide the hinged connections between the latches **53** and the collar. The latches **53** are biased radially outward by a spring **58**. The spring **58** is generally U-shaped and its opposite ends are bent over and inserted into grooves **59** formed on the inner faces of the latches so as to retain the spring in operative position.

While there has been shown and described several embodiments of the invention, it will be obvious to those skilled in the art that changes and modifications may be made without departing from the invention, and that it is intended by the appended claims to cover all such changes and modifications as fall within the true spirit and scope of the invention.

What is claimed as new and desired to be secured by Letters Patent of the United States is:

**1.** A hose connector for an air manifold of a hair dryer cap, said manifold comprising two superposed sheets of flexible plastic material, said sheets being free to move away from each other when said manifold is inflated and free to contact each other when said manifold is deflated, one of said sheets having an aperture formed therein, a first annular member connected to the edges of said one sheet bounding said aperture, a hose, a second annular member connected to one end of said hose, said second annular member being insertable into said first annular member to connect said hose to said manifold, cooperative latch means on said annular members to retain said hose connected to said manifold, portions of said second annular member protruding for a short distance beyond said first annular member into said manifold and towards the other sheet, and means formed on said first annular member for spacing said other sheet from said portions, said means comprising integral formations on said first annular member, said integral formations extending across said aperture and being positioned inside said manifold between said portions and said other sheet.

**2.** A connector for connecting an air hose to an opening, said connector comprising a collar of molded plastic material, said collar being connected to one end of said hose, a lengthwise extending groove formed in diametrically opposite outer end portions of said collar, an elongated molded plastic material latch member positioned in each of said grooves, said latch members having hinged connections at their inner ends with said collar at the inner ends of said notches, said hinged connections comprising molded plastic material hinge means integrally formed on the inner ends of said latch members and on said collar at the inner ends of said notches, means at the outer ends of said latch members for limiting radially outward hinged movement of said latch members, said last-mentioned means comprising molded plastic material shoulders integrally formed on the opposite inside edges of the outer ends of said latch members, said shoulders having an overhanging relationship with the opposite inside edges of the outer ends of said notches for limiting radially outward hinged movement of said latch members, resilient means positioned inside said collar behind said latch members for limiting radially inward hinged movement of said latch members and for biasing the same to radially outward latching position, a radially outer facing hook-shaped molded plastic material latch element integrally formed on the outer ends of said latch members, and means for manually hinging said latch members to radially inward unlatching position, said last-mentioned means comprising a radially outer facing molded plastic material finger grip portion integrally formed on each of said latch members, the finger grip portion of each latch member being located between its respective latch element and hinged connection to the collar, said finger grip portions extending radially outward beyond their respective latch elements for radially inward movement of said latch elements upon manual depression of said finger grip portions in opposition to said resilient means.

**3.** A connector for connecting an air hose to an opening, said connector comprising a collar of resilient molded plastic material, said collar being connected to one end of said hose, a lengthwise extending grooved portion formed in diametrically opposite outer end portions of said collar, an elongated resilient molded plastic material latch member positioned in each of said grooved portions, said latch members having integral hinged connections with said collar, said integral hinged connections comprising a thin web of said resilient molded plastic material integrally connected to said latch members and collar, resilient means positioned inside said collar behind said latch members for limiting radially inward hinged movement of said latch members and for biasing the same to radially outward latching position, a radially outer facing hook-shaped latch element integrally formed on the outer ends of said latch members, and means for manually moving said latch members to radially inward unlatching position, said last-mentioned means comprising a radially outer facing finger grip portion integrally formed on each of said latch members, said finger grip portions extending radially outward beyond their respective latch elements for radially inward movement of said latch elements upon manual depression of said finger grip portions in opposition to said resilient means.

**4.** In a connector for connecting an air hose to an air inlet opening, said connector comprising an annular collar, a hose extending into said collar, and a movable latch element on said collar, said hose telescopically mounted in said collar and underlying a substantial portion of said latch element, said hose having a tight fit in said collar and comprising a cylindrical conduit of deformable synthetic resinous plastic material, said deformable plastic material being reinforced along at least that portion of the length of said conduit which underlies said latch by a spiral resilient filament to cause said conduit to recover to its cylindrical shape after deformation thereof, said conduit directly engaging said latch

element and bearing thereagainst in a radially outward direction whereby radially inward movement of said latch element by finger pressure causes deformation of said conduit and then automatic radially outward movement of said latch element after release of said finger pressure by recovery of the shape of said conduit by its resilient filament.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