April 11, 1967 R. ULLMAN 3,313,037

HAIR DRYER HOOD

Original Filed Jan. 19, 1962 3 Sheets-Sheet 1

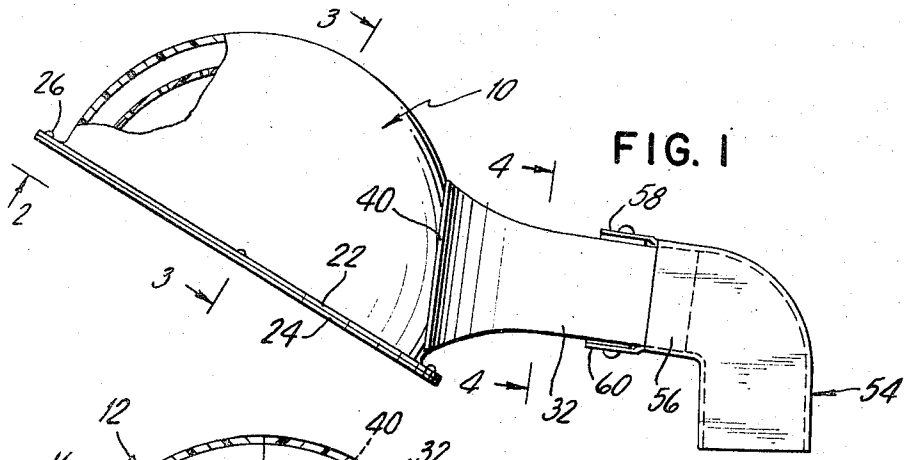


FIG. 1

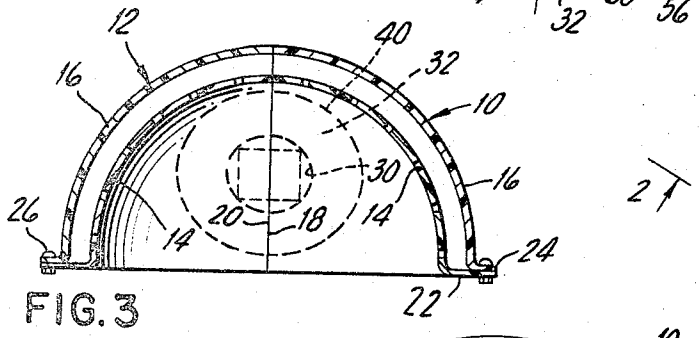


FIG. 3

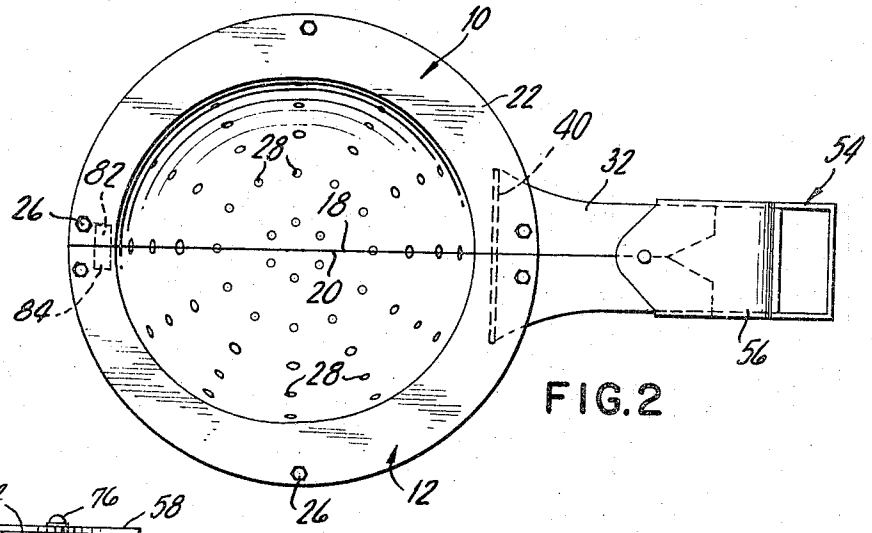


FIG. 2

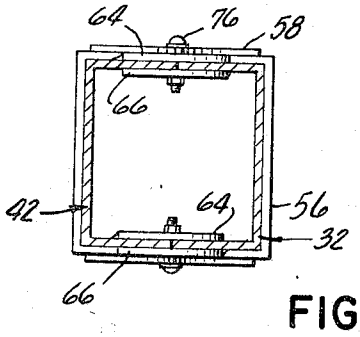


FIG. 4

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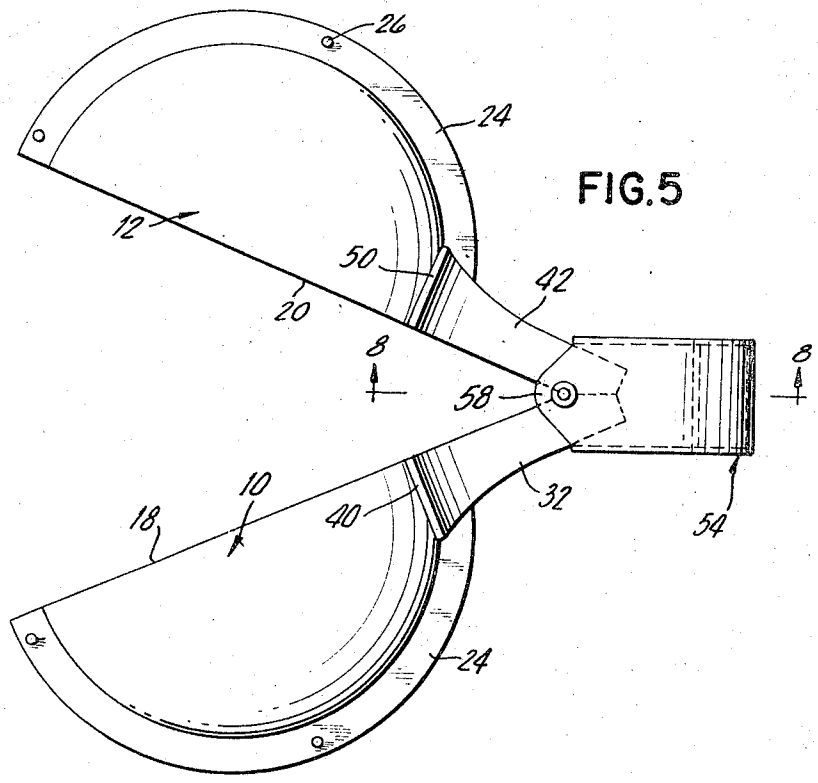


FIG.5

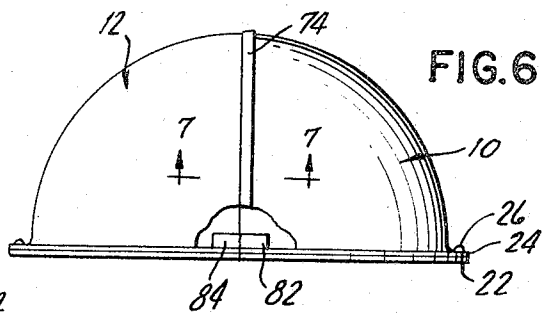


FIG.6

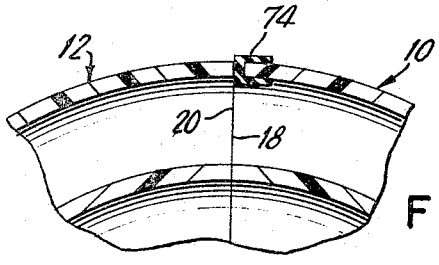


FIG.7

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FIG. 8

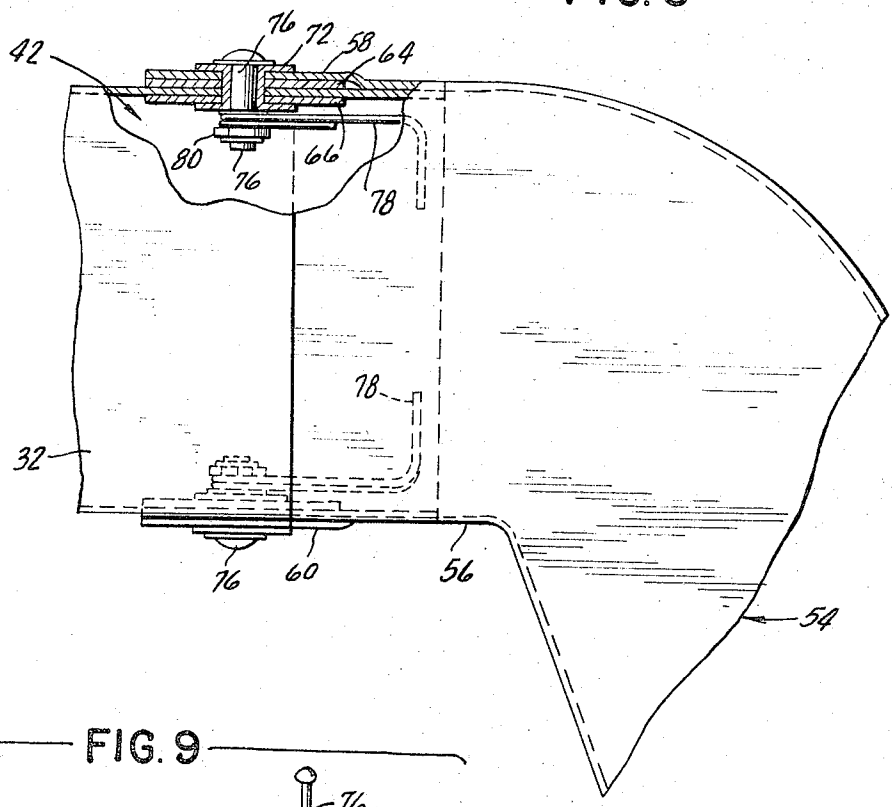
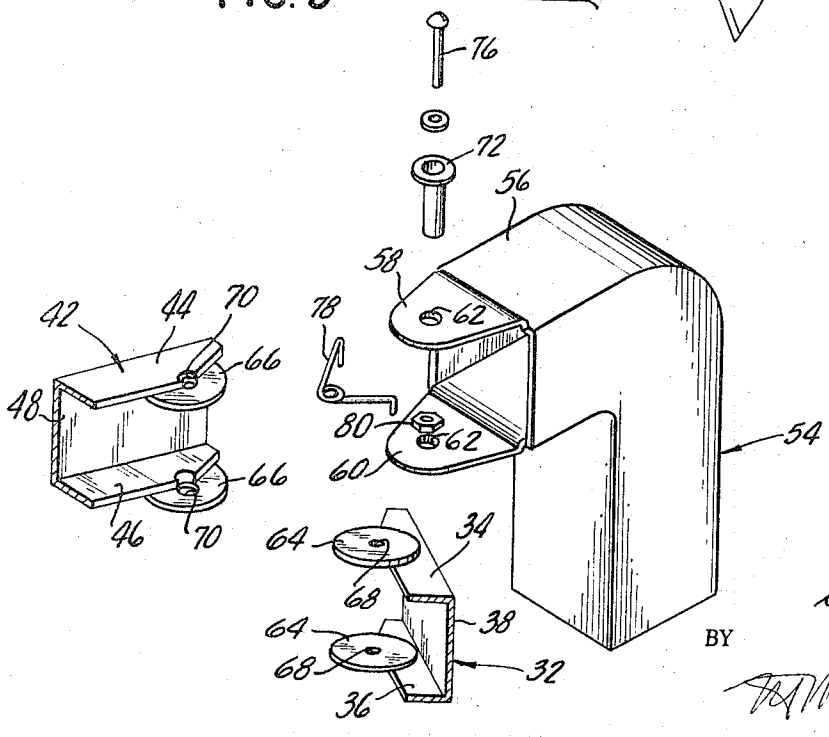


FIG. 9



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3,313,037

HAIR DRYER HOOD

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Continuation of application Ser. No. 168,317, Jan. 19, 1962. This application Sept. 16, 1965, Ser. No. 490,159
14 Claims. (Cl. 34—99)

This is a continuation of application Ser. No. 168,317, filed Jan. 19, 1962.

The present invention relates to a hair dryer and, more particularly, to a hood for a hair dryer, and especially to a hair dryer hood adapted for use in hair drying apparatus of the type in which the air-heating and air-blowing mechanism is remote from the hood and is connected thereto by conduits.

It is the primary object of the present invention to provide a hair dryer hood, of the character described, that may be most easily, conveniently and comfortably fitted about a head and as easily, conveniently and comfortably removed from the head.

More specifically, it is an object of the present invention to provide a hair dryer hood, of the character described, which may be fitted over the head of the user, rather than require the head of the user to be fitted thereinto, as is generally required with hair dryer hoods of the prior art.

It is another object of the present invention to provide a hair dryer hood that is of light weight and compact and easy and convenient to install.

It is still another object of the present invention to provide a hair dryer hood, of the character described, that will avoid giving the user a feeling of confinement, such as might cause unease and discomfort to the user.

It is a further object of the present invention to provide a hair dryer hood, of the character described, which, though light of weight, is strong and durable.

It is a still further object of the present invention to provide a hair dryer, of the character described, which is of relatively simple construction, yet efficient for its purpose and may be relatively easily and economically mass-produced for use in the home.

The foregoing and other objects and advantages of the hair dryer hood of the present invention will become more readily apparent to those skilled in the art from the embodiment thereof shown in the accompanying drawings and from the description following. It is to be understood however, that such embodiment is shown by way of illlustration only, to make the principle and practice of the invention more readily comprehensible, and without any intent of limiting the invention to the specific details therein shown.

In the drawings:

FIG. 1 is a side elevation of a hair dryer hood embodying the invention and of the mounting means therefor; FIG. 2 is a view of the hair dryer hood of FIG. 1, as viewed in the plane of line 2—2 of FIG. 1, with the hood shown in closed position;

FIG. 3 is a section taken on line 3—3 of FIG. 1;

FIG. 4 is a section taken on line 4—4 of FIG. 1;

FIG. 5 is a top plan view of the hood of FIG. 1, shown with the hood section in open position;

FIG. 6 is a front elevation of the hood, partly broken away to show detail;

FIG. 7 is an enlarged section taken on line 7—7 of FIG. 6;

FIG. 8 is an enlarged fragmentary side elevation of the hood mounting and connecting means; and

FIG. 9 is a fragmentary exploded perspective view of the hood mounting assembly of the invention.

Generally stated, the present invention consists in the provision of a hair dryer hood, of overall dome or hemi-

spherical shape, which is formed of two separate, substantially equal complementary halves, each half comprising an outer wall and a perforated inner wall spaced from the outer wall; and each half individually hingedly supported at one end for movement into juxtaposition with and away from the other half, and each having the space between its walls connected to a source of blown air.

More specifically stated, the hood of the present invention, which, overall, has a generally dome-like configuration of any conventional shape used in the art, is divided along a substantially central, vertical plane into two sections, 10 and 12, each approximating in shape and form a hollow, spherical quadrant. Each of the sections 10 and 12 is formed with an inner wall, 14, and outer wall, 16, spaced from the inner wall and somewhat larger than the inner wall, so that the bottom edges of the inner and outer walls 14 and 16 lie in a plane substantially perpendicular to the plane in which the vertically-disposed edges, 18 and 20, of these sections lie.

The space between the vertically-disposed edges 18 and 20 of the walls 14 and 16 is preferably left open, whereas the space between the bottom edges of the walls 13 and 16 is closed off; such closure preferably also serving to space and maintain the two walls of each section in spaced relation. In the illustrated embodiment of the invention, this double purpose is shown to be effected by means of a relatively wide flange, 22, extending outwardly from the bottom edge of the inner wall 14 and a relatively narrow flange, 24, extending outwardly from the bottom edge of the outer wall, 16; the flange 24 being superposed upon and secured edge-to-edge, to the flange 22, as by means of bolts, 26.

The walls 14 and 16 of the hood sections 10 and 12 are preferably formed of a light weight transparent synthetic plastic material, to give the user of the hood a sense of lightness and lack of a sense of confinement, and also to afford the user the ability to examine her hair, in the course of drying, by the use of a reflecting mirror. As the space between the walls 14 and 16 is intended for the passage of heated air to the hair, the inner wall 14 is formed with a plurality of spaced holes, 28, through which blown air is distributed over the hair.

Each of the hood sections 10 and 12 is pivotally supported at one end in a manner to be spread apart at the other end, for receiving a head between them and for being moved together about the head to form a complete, operative hood. Each of the hood sections 10 and 12 is also provided with conduit means to connect the space between its inner and outer walls with a source of driven air. While the pivotal mounting means and the air conduit means into the hood sections may be of any desired suitable type and made structurally distinct from one another, it is preferable to have the air conduit means also serve as a pivotal mounting means for the hood sections. One such arrangement is illustrated in the drawings, wherein the rear end portion of the outer wall 16 of each of sections 10 and 12 is formed with a cut-out section, 30, in register with the cut-out section of the other of the hood sections, so that when the hood sections are in juxtaposed position the cut-outs 30 form a unitary opening.

A channel member forming a hemi-conduit is secured by one end to each of the hood sections 10 and 12 around the opening portion 30 formed therein with the opening in the channel means of each hood section facing the opening of the channel member in the other section, and with their longitudinal edges in register so that when the two hood sections are juxtaposed, the edges of the channel members are likewise juxtaposed to form a complete conduit. Thus, hood section 10 is provided with a chan-

nel member, 32, having side walls, 34 and 36, and a connecting wall, 38, is connected, as by flange, 40, at one end thereof, to the outer wall 16 of section 10, the free end portion of channel member 32 being of rectangular cross-section, with the side walls 34 and 36 parallel and horizontal. Likewise, a channel member, 42, having side walls, 44 and 46, and a connecting wall, 48, is connected by a flange or flare, 50, at one end thereof, to the wall 16 of the hood section 12, the outer end of channel member 42 being of substantially rectangular cross-section with its side walls 44 and 46 parallel and horizontal. Preferably, the channel members or hemi-conduits 32 and 42 are formed of metal and their free ends of their respective top and bottom walls 34 and 36 and 44 and 46 are cut away at an angle to their longitudinal edges for a distance near their free ends to taper such walls.

The hemi-conduits 32 and 42 are each pivotally supported on the end of a conduit, generally designated as 54, preferably formed of metal, which maybe connected or connectable directly to a source of blown heated air, or may be telescopically connected to a second conduit, with the latter connected to a source of blown heated air, in a manner that is well known in the art and does not constitute any part of the present invention and is, therefore, not specifically illustrated in the drawings.

Preferably, the conduit 54 is of L-shape, and the hemi-conduits 32 and 42 are mounted on one of the conduit legs, 56, at least the end portion of which is of rectangular shape and of a size to snugly accommodate therewithin the ends of the two hemi-conduits 32 and 42, when they are juxtaposed edge to edge.

In order to provide a firm pivot between the conduit leg 56 and the hemi-conduits 32 and 42, the top and bottom walls of the conduit leg 56 are formed with extensions, 58 and 60, respectively, which are slightly offset outwardly from their base walls and lie in planes parallel to one another and to the walls from which they extend. Each of the extensions 58 and 60 is provided with a circular pivot opening, 62, that centers on an extension of the longitudinal center line of their connected conduit wall, and at a distance from the end of the conduit leg less than the length of the tapered end portions of the hemi-conduits 32 and 42.

In order to provide a steady and rigid pivot of the hemi-conduits on the conduit leg 56, so as to avoid vertical displacement of the hood sections 10 and 12, relative to one another, a washer is secured to the top and bottom wall of each of the hemi-conduits 32 and 42. These washers are preferably round and center on the apex formed between the longitudinal edge of each wall and the edge of the cut-away portion thereof; the washers secured to the top and bottom walls of one of the hemi-conduits being secured to different faces of such walls than the washers secured on the corresponding walls of the other hemi-conduit. Thus, in the illustrated embodiment of FIG. 8, washers 64 are secured to the top face of walls 34 and 36 of hemi-conduit 32; whereas washers 66 are secured to the under face of walls 44 and 46, respectively, of conduit 42. By this arrangement, when the hemi-conduits 32 and 42 are juxtaposed, the top and bottom washers of each overlap the top and bottom walls of the other and do not interfere with the juxtapositioning.

A round pivot hole, 68, is formed in each of walls 34 and 36 of hemi-conduit 32, centering on the apex formed between the longitudinal edge of each of said walls and the edge of the cut-away portion thereof; such opening 68 extending through the respective washers 64 and lying only partly in the wall. Similarly, a pivot opening, 70, is formed in each of walls 44 and 46 of hemi-conduit 42, centering on the apex of said wall formed by its longitudinal edge and by the edges of its tapered portion. Holes, 64, 66 and 68 and 70 are preferably equal in size to one another. It will be apparent that when hemi-conduits 32 and 42 are placed edge to edge and in longitudinal register, the openings 64 and 66 will overlap and register, and that, when in such position, these registering openings are brought into register with the openings 68 and 70, the ends of the hemi-conduits will extend into the end of the end of the conduit leg 56.

When in the last described position, the hemi-conduits 32 and 42 may be pivotally assembled with the conduit extensions 58 and 60 by means, preferably, of eyelets as 72, that may be inserted through each of openings 62 in the extensions 58 and 60 and through the registering openings 68 and 70 formed in the washers 64 and 66, respectively, attached to the top and bottom walls of hemi-conduits 32 and 42, respectively. The ends of the eyelets 72 may be held in place by swaging, in the conventional manner.

It will be apparent that the hemi-conduits 32 and 42 may be rotated on the pivot 72 into divergent position, as made possible by the cut-away ends of walls 34 and 36 and 44 and 46; the angle of the cut-away portions determining the extent of divergence, to thereby spread the two hood sections 10 and 12 apart sufficiently to be fitted around a head. It will also be apparent that the two hemi-conduits 32 and 42 may be moved into edge-to-edge position to thereby bring the edges of the hood sections 10 and 12 together to form a complete, head-enclosing hood and at the same time forming a complete conduit connecting the space between the hood walls with the conduit 54 for direct blown air from conduit 43 into the said space.

If desired, means may be provided to inhibit leakage of air between the juxtaposed edges of the hood sections. While various means may be provided for the purpose, one means has been illustrated in the drawings, consisting of a U-shaped gasket, 74, formed of a resilient material such as rubber, which may be fitted on the edge of the outer wall 16 of a hood section, as 10, as shown in FIGS. 6 and 7 of the drawings.

Means may be provided for normally urging the two hood sections 10 and 12 into juxtaposed position. Such means may comprise a bolt, 76, extended inwardly and through opening 62 of extensions 58 and 60 of the conduit 54, and through registering openings 68 and 70 of the hemi-conduits 32 and 42. The bolt 76 mounts a torsion spring, 78, on its projecting end, the spring ends pressing against the upright walls 38 and 48, respectively, of said hemi-conduits 32 and 42, adjacent their ends, to thereby press the portions of the hemi-conduits to the other side of the pivot towards one another. A lock-nut, 80, is engaged upon the threaded end of the bolt 76 to maintain it and the spring in position.

Additional means may be provided for maintaining the free ends of the hood sections 10 and 12 in closed position and also in vertical alinement. Such means may comprise magnets, 82 and 84, positioned respectively in hood sections 10 and 12 adjacent their edges 18 and 19, preferably resting between the walls 14 and 16 of each upon the flange 22. The magnets 82 and 84 may be secured in place in any suitable manner with opposite poles facing and in horizontal alinement, whereby the magnets will tend to attract one another when the hood is closed, and to adjust themselves in axial alinement, to thereby, both, maintain the free ends of the hood sections 10 and 12 in juxtaposed position, as well as in vertically alined relation.

This completes the description of the hair dryer hood of the present invention. It will be readily apparent that such hair dryer hood provides increased comfort and convenience to the user by facilitating the fitting thereof about and removal of the same from the head; that it is light weight and transparent, to thereby make it additionally comfortable for the use by eliminating any sense of confinement as well as easing any contact of the parts with the head. It will also be apparent that the hair dryer hood of the present invention is convenient to use and highly suitable and efficient for its purposes.

It will likewise be apparent that the hair dryer hood of the present invention is of relatively simple construction

and relatively easy and economical to construct and assemble and highly suitable for utilization in noncommercial as well as commercial hair dryer installations.

It will further be apparent that numerous modifications and variations of the hair dryer hood of the present invention may be made by anyone skilled in the art, in accordance with the principles of the invention hereinabove set forth, and without the exercise of any inventive ingenuity. I desire, therefore, to be protected for any and all such modifications and variations that may be made within the spirit of the invention and the scope of the claims hereto appended.

What I claim is:

1. In a hair dryer, a head-receiving hood comprising a dome-shaped body formed of a pair of approximately equal sections, each said section comprising a perforated inner wall and an outer wall spaced from said inner wall, the outer wall of each of said hood sections formed with an air-admitting opening therethrough, a conduit for air connectable to a source of air under pressure, means pivotally supporting each said hood section on said conduit for movement laterally into edge-to-edge relation with the other and divergently away from the other comprising a conduit section secured by one end to each one of said hood sections around the air-admitting opening therein and pivotally connected by its other end to said conduit.

2. In a hair dryer, a head-receiving hood comprising a dome-shaped body formed of a pair of approximately equal sections, each section comprising a perforated inner wall and an outer wall spaced from said inner wall, the outer wall of each of said hood sections formed with an air-admitting opening therethrough, a conduit for air connectable to a source of air under pressure, means pivotally supporting each said hood section on said conduit for movement into edge-to-edge relation with the other and divergently away from the other comprising a conduit section secured by one end to each one of said hood sections around the air-admitting opening therein and pivotally connected by its other end to said conduit.

3. The hair dryer of claim **2**, wherein said conduit is formed with an end portion of rectangular cross-section and each said conduit section comprises a channel member having its end pivotally connected to said conduit of rectangular cross-section.

4. The hair dryer of claim **2**, wherein the air-admitting opening in each of said hood sections comprises a cut-out portion in the outer wall thereof extending inwardly from its edge at a point adjacent its rear end and each said conduit section comprises a channel member connected by one end to the outer wall of a hood section along the marginal edge portion of said cut-out, with the longitudinal edges of said channel member lying in a plane parallel to the plane of said edge of said hood section, said channel member having its other end of rectangular cross-section, said conduit having an end portion of rectangular cross-section, said channel member pivotally connected by its rectangular end to said rectangular end of said conduit.

5. The hair dryer of claim **2**, wherein the air-admitting opening in each said hood section comprises a cut-out portion in the outer wall thereof extending inwardly from its edge at a point adjacent its rear end and each said conduit section comprises a channel member connected by one end thereof to the outer wall of said hood section around said cut-out portion, the channel members of the two hood sections forming a complementary portion of a conduit when juxtaposed edge-to-edge, each said channel member pivotally connected by its other end on said first-named conduit in position for movement into conduit-forming position with the other end into divergent position from the other whereby said dome sections are moved into and out of hood-forming position.

6. A hair dryer, comprising a tubular upright standard portion adapted to serve as a conduit for air under pressure, a head-receiving hood, and means mounting said hood on said standard portion; said hood comprising an outer substantially hemispherical shell and an inner hemispherical shell and a wall section connecting the edges of said inner and outer shell and maintaining them in spaced relation, said inner shell having a plurality of air passage openings formed therein, said hood disposed with its head receiving opening downwardly facing and divided into two substantially equal hood sections along a vertical plane passing therethrough; said means mounting said hood comprising an elongated mounting member connected by one end to each of said hood sections and projecting a distance beyond its periphery at the hood opening and pivotally supported by its other end on said standard portion, in spaced relation to said hood section, for movement of said hood sections toward one another to bring the vertical edges of said hood sections into contact with one another, and divergently away from one another for admitting a head between said hood sections.

7. The hair dryer of claim **6**, wherein each said mounting element comprises a conduit, and wherein an opening is formed in the outer shell of each said hood section, said conduit connected by one end to said hood section over said opening and its other end connecting with the interior of said standard portion.

8. The hair dryer of claim **7**, wherein said opening is formed in a corner defined between its vertical edge and the edge defining its portion of the head receiving opening.

9. A hair dryer, comprising a hollow, substantially hemispherical hood having a head receiving opening, an upright support for said hood, and means mounting said hood on said support with its head receiving opening facing downwardly; said hood comprising an inner and an outer shell and a wall connecting the edges of said shells and spacing them from one another to provide an air space between them, said inner shell having a plurality of air passage openings formed therein, said hood divided into two substantially equal sections along a vertical plane; said means mounting said hood comprising a mounting element connected to each of said hood sections by one end, said mounting elements projecting beyond the edge of said head receiving opening of said hood and connected by their other ends on said upright support for pivotal movement toward and away from one another, to thereby move said hood sections to bring their vertical edges into contact with one another and divergently away from one another for admitting a head between them.

10. In a hair dryer, a head-receiving hood comprising a dome-shaped body formed of a pair of approximately equal complementary dome sections, each said section comprising a perforated inner wall and an outer wall spaced from said inner wall, means connecting the bottom edges of said inner and outer walls of said dome sections to seal the bottom opening between them, an opening in the outer wall of each of said dome sections extending inwardly from an edge thereof in substantial register with the opening formed in the other, a channel member connected by an edge portion of one end thereof to the outer wall of each of said hood sections around said opening, said channel member forming a complementary conduit portion with the other when their longitudinal edges are juxtaposed, each said channel member having its other end of rectangular cross-section, a conduit connectable to a source of air, said conduit having an end portion of rectangular cross-section, said channel members each pivotally supported by its said rectangular end portion on said rectangular end portion of said conduit in position for movement to bring its edges into juxtaposed position and into divergent position with the edges of the other channel member, whereby said dome sections are brought into and out of juxtaposed, hood-forming position.

11. The hood of claim **10**, wherein said channel mem-

bers have the end portions of their side walls of their rectangular end portions cut away to taper, and are pivotally supported on said conduit with their tapered end portions disposed within said conduit.

12. The hair dryer hood of claim 10, wherein each said channel member has the end portions of its side walls cut away to taper, and wherein a washer is secured to each side wall thereof in position to overlap the apex formed at the inner end of said cut-away portion, with the washer of each wall of each channel member secured to a face thereof opposite to the washer secured to the registering wall of the other channel member, and wherein a pivot opening is formed through each said washer and said side walls centering and extending through the adjacent apex, and wherein opposed walls of said rectangular end of said conduit are formed each with an outwardly offset extension lying in a plane parallel to the wall thereof, each said extension formed with an opening therethrough arranged to register with the openings formed through said washers when the ends of said channel members are disposed between said extensions, said openings in said extensions formed at a distance from said conduit less than the length of said tapered portions of said channel members, said tapered portions of said channel members disposed between said extensions with the holes through their said washers registering with the holes in said extensions, and pivot means extending through said

holes in said extensions and the registering holes of said washers for pivotally supporting said channel members on said conduit.

13. The hood of claim 12, wherein means are provided at said pivot end of said channel members for normally, resiliently maintaining said channel members in juxtaposed, conduit-forming position.

14. The hood of claim 12, wherein means are provided at each said pivot end of said channel member for normally resiliently maintaining said channel members in juxtaposed, conduit-forming position, said means comprising a torsion spring, and means on said pivot means mounting said torison spring with its ends engaging the ends of the connecting walls of said channel members at a point opposite the tapered portions of the side walls thereof.

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