

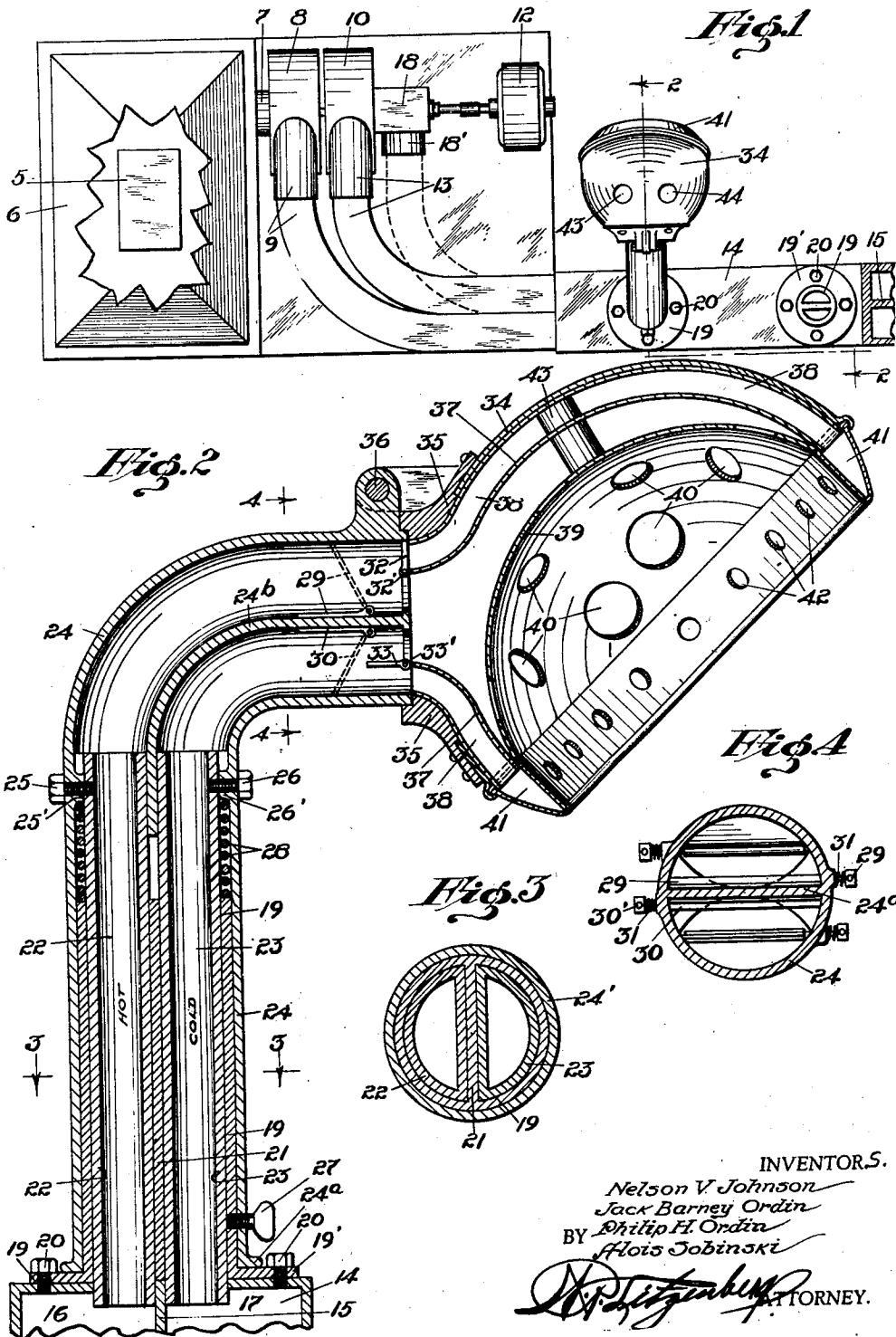
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HAIR DRYING APPARATUS

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HAIR DRYING APPARATUS

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Our invention relates to hair drying apparatus of the type used for rapidly and effectively drying the human hair after it has been washed or otherwise treated, and it has among its salient objects to provide a number of individual drying units all connected with and operated from a common heating plant, whereby a minimum cost of operation can be secured, and whereby individual control can be had with ease and convenience.

Other objects of our invention are: to provide a drying apparatus in which hot and cold air can be delivered together in mixed condition around the head of the person whose hair is being dried, with means for regulating the temperature of said air and with means for delivering cool air around the face of said person, whereby to make the process more comfortable; to provide an apparatus of the character referred to in which warm air can be delivered in the hood of the apparatus from one position and sucked out from another position, thus not only circulating warm air within the hood and around the head of the person, but also drawing in atmospheric air around the face and head of said person and discharging it in the room or elsewhere, as may be desired; to provide a hood within which the human head is positioned during the drying operation, which hood has around its lower edge an annular chamber member with outlets in its inner face for the passage of air around the face and head of the person receiving the treatment; to provide a hood of the character referred to which can be adjusted as to its height so as to be more accurately positioned and adjusted to the head; to provide a hood in which two air conduits are connected therewith side by side, and which hood can be hingedly moved or raised, or which can be turned; and, in general, to provide a simple, practical and effective drying apparatus of the character referred to.

In order to fully explain our invention, we have illustrated one practical embodiment thereof on the accompanying sheet of drawings, which we will now describe.

Figure 1 is a plan view of an apparatus embodying our invention;

Figure 2 is an enlarged sectional view of one of the hoods, taken on line 2—2 of Fig. 1;

Figure 3 is a cross sectional view thereof taken on line 3—3 of Fig. 2; and Figure 4 is a sectional view taken on the line 4—4 of Fig. 2.

Referring now in detail to the drawing, our invention as here shown for purposes of explanation, includes an oven or heating plant, des-

ignated 5, for furnishing heated air. This may be of any suitable type which will furnish the desired amount of hot air. The housing 6, is connected at 7, to a fan casing 8, having the usual discharge pipe 9. A second fan casing 10, is mounted in axial alinement with said first fan casing whereby both fans can be driven from a common shaft 11, from a motor 12. Said second fan casing 10 has a discharge pipe 13, and both of said discharge pipes 9 and 13, connect side by side with a conduit casing 14, having therein a partition 15 forming two air conduits 16 and 17, which are connected, respectively, with said pipes 9 and 13 from said fans. The outer fan casing 10 is provided with an intake box 18, with provision at 18' to connect a pipe thereto for suction purposes. It is intended that the pipe 13 be adapted to be transferred to connect with said intake box 18, for a purpose hereinafter again referred to.

Upon said conduit casing 14, it is intended to mount a series of drying units or hoods, which I will now describe, one of these being shown in enlarged sectional form in Fig. 2, and consisting of a tubular standard 19, having a flange 19' at its lower end by means of which it is secured to the casing 14, as by means of bolts 20, 20, said tubular standards 19 having a middle partition 21, and terminating in straight end formation to receive therein two semi-circular pipes, 22 and 23, shown in section in Fig. 3, said pipes 22 and 23 connecting at their lower ends with the two chambers or conduits 16 and 17, as seen in Fig. 2. Around said standard 19, and said semi-circular pipes 22 and 23 is the straight tubular portion 24' of an elbow 24, with set screws at 25 and 26 for securing the upper ends of the inner pipes 22 and 23 thereto. The lower end of said elbow 24' is provided with a flange portion 24^a, shown resting upon the flange portion 19' of the standard 19, while a set screw 27 is shown in said elbow 24' for holding it in its down position, as indicated. A coiled spring 28 is shown interposed around the two semi-circular pipes 22 and 23, within the elbow section 24' and bearing at its lower end upon the upper end of the standard 19, and at its upper end against the bosses 25' and 26' in which the set screws 25 and 26 are placed. This spring is for the purpose of raising the elbow 24, when the set screw 27 is released, for the purpose of adjusting the drying hoods up and down to better accommodate the customer whose hair is being treated. The elbow 24, in its upper portion, is also provided with a partition, as 24^b, with two wing damper members 29 and 30,

hingedly connected thereto, and provided with operating heads, as 29' and 30', Fig. 4, for turning said wing dampers to close one or the other or both of the passageways or conduits through said elbow, as will be clear from the drawing. Each of said operating heads is provided with a small coiled spring, as at 31, for yieldingly holding them in opened or closed position, as will be readily understood from the showing.

In the end of said elbow 24, are also mounted two damper or valve members, 32 and 33, on pivot rods 32' and 33' across said pipe or elbow and said upper and lower air ways, as clearly illustrated, whereby said damper members can be turned up or down or straight back for controlling the flow of air from the two conduits or passageways into the hood, now to be described.

The hood, as here shown, comprises an outer body member 34, provided on its top side with a heavy portion 35, by means of which it is hingedly connected with the elbow, as at 36, said heavy portion 35 being shown of annular form and fitting against the end of the elbow substantially as indicated. An intermediate shell 37, spaced from the body 34, is shown forming an air chamber 38, registering and connecting with the outer, annular portion of the open end of the elbow, as indicated, said intermediate shell registering with the hinge rods 32' and 33', as shown. An innermost shell 39 is shown, secured around its edge with the intermediate shell 37, said innermost shell being provided with a series of openings 40, for the purpose of admitting air to said hood and the drying chamber thereof. Around the edge of said hood is provided an annular chamber member 41, communicating with the air chamber 38, between the body 34 and the intermediate shell 37, said annular chamber member 41 having outlets 42 in its inner face, substantially as shown. Said annular chamber or member 41, forms a finishing, tapering edge for the hood, and provides means for discharging cool air inwardly around the face of the customer, as will be again referred to. In order to provide suitable vents from said hood, we have shown two vent tubes, as 43 and 44, which connect through the different shells, as clearly indicated.

The use and operation of our invention may be briefly described as follows:

Assuming that the parts are adjusted as shown in full lines in the drawing and that hot air is being forced up through pipe 22, and cold air is being forced up through pipe 23, of the elbow 24, the hot air will be discharged into the inner chamber of the head or hood, between shells 37 and 39, and also cold air will be forced into this chamber, the damper 33 being shown open, and part of the cold air will pass into the chamber 38 and thence into the annular member and chamber 41, and be discharged through the openings 42 around the face of the customer, while the mixed hot and cold air is being discharged through the larger openings 40 and into the hair of the customer.

By turning the valve or damper 32 down, hot air can be discharged into the chamber 38 and into the annular chamber 41, and out through the holes 42, and then, if the pipe 13 is disconnected from the fan case 10, and connected to the intake box 18', as indicated in light broken lines, there will be set up a suction through the cold air conduit 23, which is applied to the hood and through the larger openings 40, and if the valve 33 is also turned down, it is possible to discharge hot or warm air through chamber 38 and

through the annular member 41, and to cause suction within the hood through pipe 23, to draw said hot air down to the intake box 18, and discharge it at the fan case at 13, from which the pipe has been removed to connect with the intake at 18. Thus by adjusting the dampers or valves 29 and 30, 32 and 33, it will be seen that many combinations can be had and that cold and hot air can be mixed and discharged into the hood, or the air can be discharged around the annular chamber 41 and sucked in through the hood openings 40 and drawn off, and that the temperature of the air can be regulated by means of these valve adjustments and as desired to suit the comfort of the user. It will also be noted that each hood can be adjusted as to its height and separately controlled as to the amount and temperature of the air, and also that the hood can be rotated to different positions, if desired. All hot, or all cold air can be forced into the hood by raising either of the larger damper or valve members 29 or 30, as the case may be.

We do not limit our invention, however, to the details of construction and arrangement shown for descriptive purposes, realizing that many changes can be made without departing from the spirit thereof, except as we may be limited by the hereto appended claims.

We claim:

1. In a hair drying apparatus, in combination with a source of hot and cold air and conduits therefrom, of a hood having therein two chambers of hemispherical form, one within the other, one of said chambers discharging inwardly around the edge of said hood and the other discharging through the dome portion of said hood inwardly, two pipes connecting said conduits, respectively, with said two chambers in said hood, and damper means for selectively controlling the air flow and mixture to the different chambers of said hood.

2. In a hair drying apparatus, an air conduit for hot and cold air with partition therebetween, a hood of hemispherical form having shells therein forming outer, intermediate and inner chambers within said hood, with openings therefrom inwardly into the inner chamber, means connecting said chambers, respectively, with said hot and cold air conduits, and damper means for selectively controlling and directing said hot and cold air to said chambers for delivery into the inner chamber of said hood, for the purpose referred to.

3. In a hair drying apparatus, a hood of hemispherical form with two chambers therein, one within the other, one having openings around its edge and the edge of said hood to discharge inwardly and the other having openings into the dome portion of said hood, an elbow supporting structure for said hood, said elbow having a partition dividing it into two air passageways and connected, respectively, with the chambers of said hood, and valve means for controlling the flow of air through said passageways into said hood chambers.

4. In a hair drying apparatus, a source of hot and cold air under pressure, a hood of hemispherical form with one chamber within another, the outer chamber having outlet openings around the edge of said hood and discharging inwardly and the inner chamber having openings into the dome portion of said hood, and pipe means connecting said hot and cold air with said hood chambers, respectively, and vent means from the interior dome portion of said hood through said chambers to the atmosphere, and valve means

for directing and controlling the flow of hot and cold air to said hood chambers and to said openings into said hood.

5 5. A hair drying hood consisting of an outer shell, an intermediate shell and an innermost shell, one within the other to form chambers, one of said chambers terminating in an annular chamber around the edge of said hood with openings inwardly therefrom, and means for connecting a supply of air under pressure to said
10 chambers, with dampers for selectively directing said air thereto.

6. The combination with a source of hot and cold air, of two conduits extending side by side
15 therefrom for separately conveying said hot and cold air to places for use, a plurality of dryer hoods connected at intervals along said conduits to receive hot and cold air therefrom, and valve means at the hood for selectively cutting off
20 either hot or cold air from said hood, whereby

hot air or cold air or a mixture of hot and cold air can be discharged simultaneously and in mixed condition into said hood.

7. In hair drying apparatus the combination with a source of hot and cold air, of two conduits therefrom side by side for separately conveying
5 hot air and cold air to places for use, a plurality of dryer hoods adapted to be placed over the head, telescoping conduit means adjustably connecting each of said hoods with both of said conduits for the discharge of hot and cold air simultaneously into said hood, and valve means at
10 the juncture of each hood with said conduits for cutting off at will either the hot air or the cold air, whereby the temperature of the air in each
15 hood can be independently changed at will.

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