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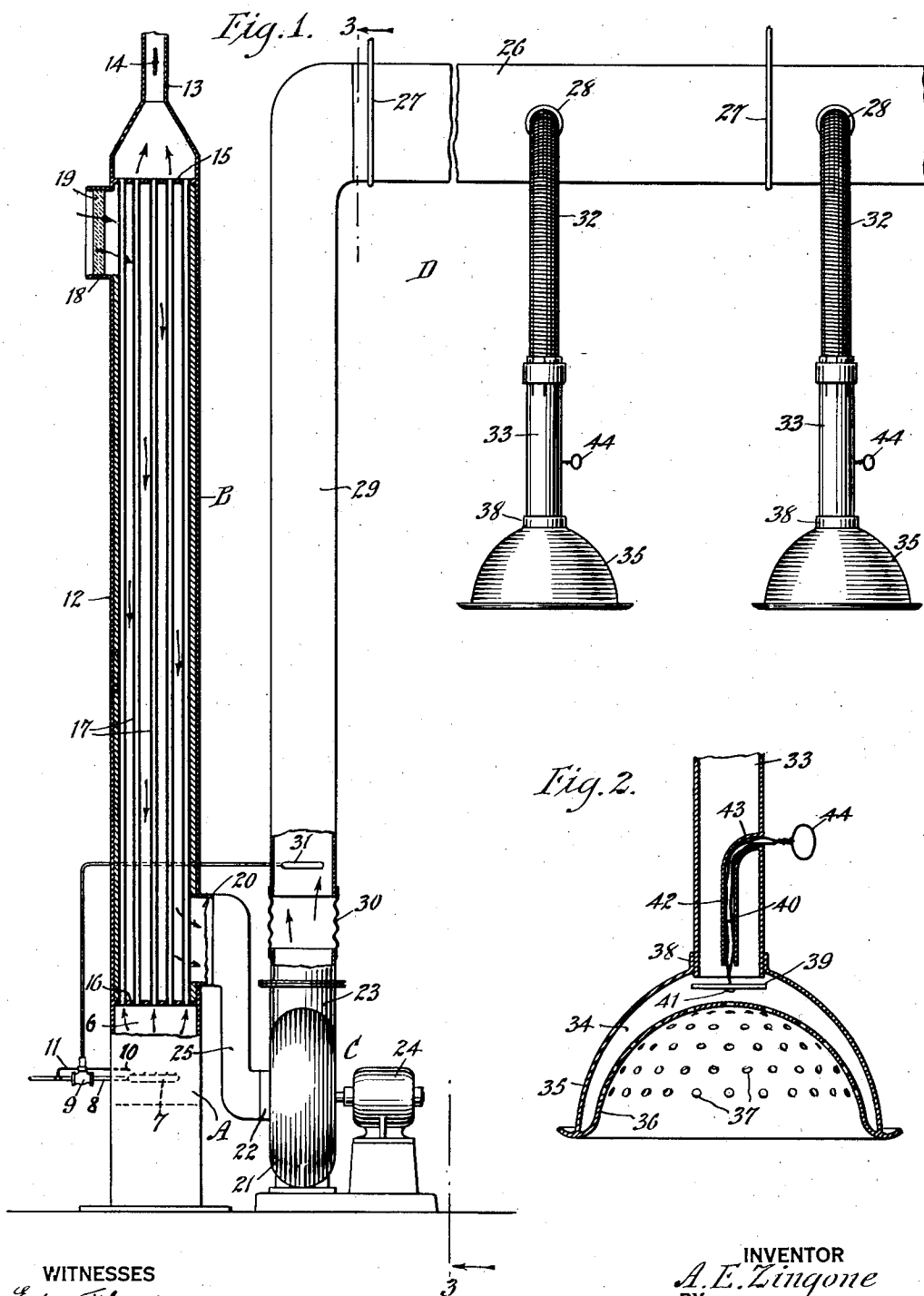
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MULTIPLE HAIR DRYING APPARATUS

Filed June 4, 1932

2 Sheets-Sheet 1



WITNESSES
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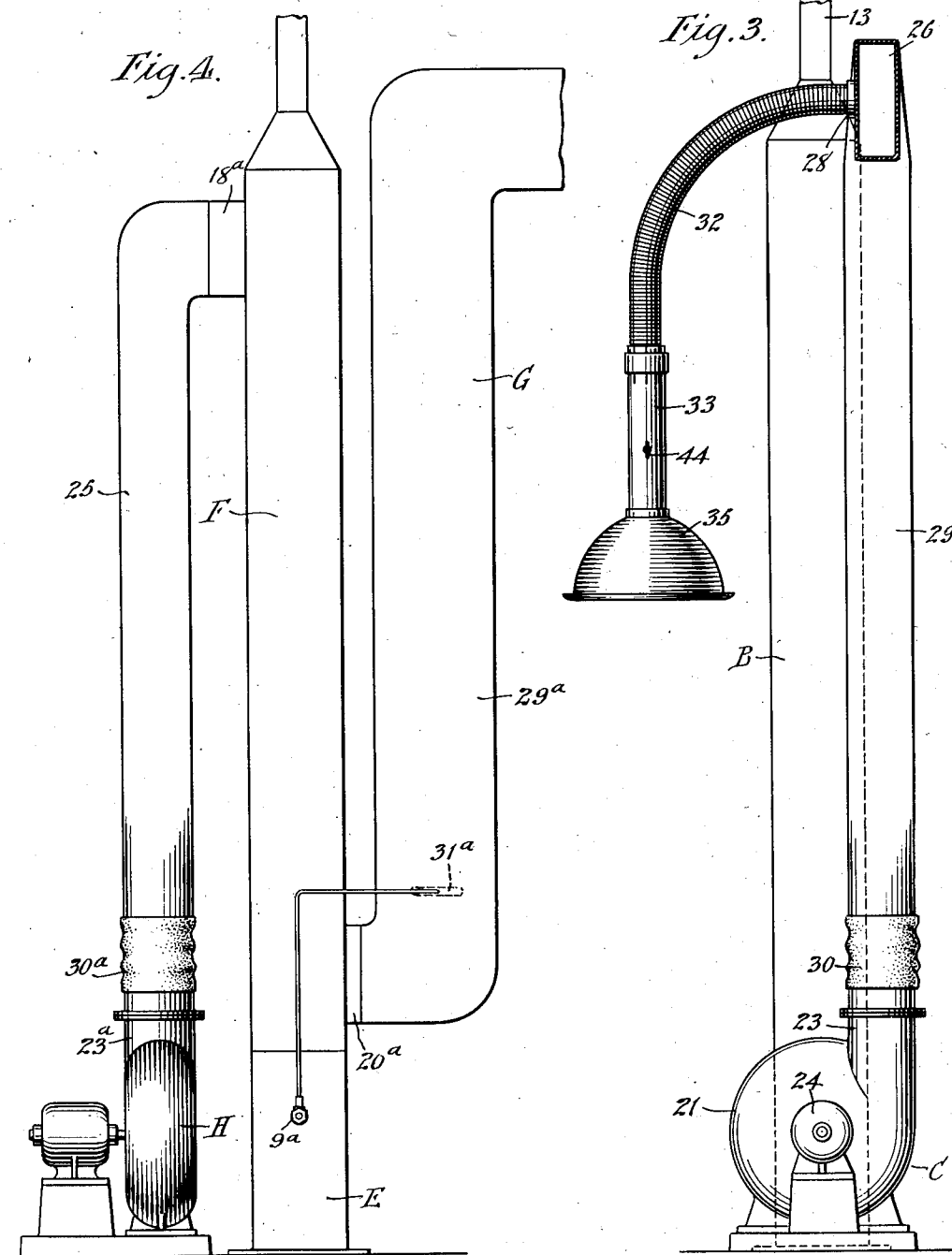
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MULTIPLE HAIR DRYING APPARATUS

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Application June 4, 1932. Serial No. 615,435

1 Claim. (Cl. 34—26)

This invention relates to a hair drying device or apparatus which is especially designed for use in hair dressing establishments, beauty parlors, barber shops or the like where it is necessary to provide for drying the hair of a number of patrons simultaneously.

One of the principal objects of the invention is to provide an improved hair drying device or apparatus which employs a single unit for the generation of a current of heated air to serve as a common supply for a multiplicity of separately controlled outlet units, whereby to effect a substantial economy over the present practice of employing a separate generating and heating unit for each device.

The invention further aims to provide an improved hair drying apparatus of the indicated character, by virtue of which a maximum thermal efficiency is obtained from the heat generating means while a substantial saving is effected through the medium of means for automatically regulating the heating means by thermostatic control therefor which is located in the main outlet of the heat generator, and which arrangement additionally operates to insure against overheating of the air current with the resultant possibility of scorching, discoloring or otherwise damaging the hair.

The invention further contemplates an improved device of the character set forth which is comparatively simple in its construction and mode of operation, which may be inexpensively produced, installed and maintained in working condition, which is not unduly noisy in its operation, and which may be so constructed and arranged as to permit of the concealing of all of the parts except the outlet units and the conduits leading therefrom to the manifold.

With the above recited and other objects in view, reference is had to the following specification and accompanying drawings, in which there are disclosed several preferred embodiments of the invention, while the claim defines the actual scope thereof.

In the drawings:

Figure 1 is a front view of the apparatus, parts being broken away and shown in section to disclose the underlying structure.

Figure 2 is an enlarged fragmentary longitudinal sectional view through one of the dryer hood outlet units.

Figure 3 is a vertical sectional view taken approximately on a plane indicated by the line 3—3 of Figure 1.

Figure 4 is a fragmentary front view of a modified form of the invention.

Referring to the drawings by characters of reference, and particularly to the form of the invention illustrated in Figures 1 to 3, inclusive, A designates a suitable heating unit which includes a combustion chamber 6 which has located therein a burner head 7, to which a fuel supply conduit 8 leads. The heater unit member consumes gas, oil, coal, or in fact, any fuel desired, but in the present instance, for the purposes of illustration, a gas or oil burner is disclosed and a valve 9 is arranged in and controls the fuel supply conduit. In this instance also, a pilot burner 10 is located adjacent the burner head and is supplied by a pilot conduit 11 which is tapped into the fuel conduit 8 at a point beyond the control valve 9.

A heat exchanger, designated generally by the reference character B, is superposed upon the heating unit A and includes a tubular casing 12 which extends upwardly from the top of the heating unit and is provided at its upper end with a flue 13 which may be controlled, as shown, by any suitable form of damper 14 for regulating the draft in the heating unit. The casing 12 is provided with vertically spaced upper and lower horizontal partitions or tube sheets 15 and 16, between and through which extend a plurality of spaced parallel tubes 17 which serve as conduits or passages for the products of combustion and heat units to convey the same from the combustion chamber 6 to the flue 13. The heat exchanger casing 12 is provided at one side adjacent its upper end and below the upper tube sheet 15, with an air inlet or intake 18, within which is located an air filter 19 of any approved form, and said inlet or intake communicates with the interior of the casing 12 around the tubes 17. The casing 12 is provided adjacent its lower end, and preferably on the opposite side, with an outlet 20 which also communicates with the interior of the heat exchanger casing.

A blower unit, designated generally by the reference character C, includes a blower casing 21 having an intake 22 and an exhaust 23. The blower may be of any approved type and, in the present instance, said blower is disclosed as of the rotary type driven by a suitable motor 24. The heat exchanger outlet 20 is connected to and communicates with the blower intake 22 through a conduit 25. From the foregoing, it is obvious that when the burner head 7 is lighted, and the blower C is in operation, the heat developed in the combustion chamber passes upwardly

through the tubes 17 to the flue while the blower draws filtered air through the filter 19 in the intake 18 of the heat exchanger, which air passes downwardly around the tubes 17 and is thus
 5 heated and drawn through the outlet 20, thence through the conduit 25, the blower intake 22, the blower casing 21 and exhausted through the exhaust 23.

The apparatus further includes a distributing means, designated generally by the reference character D, which embodies a manifold conduit or duct 26 which is preferably disposed horizontally and suitably supported by hangers or other supports 27. The manifold conduit or duct
 15 26 is provided with a plurality of outlets 28, only two of which are disclosed, while, obviously, any number may be employed. The manifold is provided at one end with a feed conduit or duct 29 which leads downwardly therefrom and connects and communicates with the blower exhaust 23
 20 through a flexible tubular coupling 30, which flexible coupling serves to prevent the transmission of vibration from the blower to the distributing means D. The thermostat 31 of a
 25 thermostatic control means for the fuel supply valve 9 is located within and adjacent the lower end of the conduit 29 and functions to regulate and maintain the heated air draft at a predetermined uniform temperature. The distributing means further includes a flexible conduit 32
 30 communicating with and leading from each outlet 28, and said flexible conduit carries at its outer free end a rigid tubular member or pipe section 33, which member 33 in turn has attached thereto
 35 a dryer hood 34 composed of outer and inner dome shaped walls 35 and 36, the inner wall 36 having a plurality of distributor perforations 37 and the outer wall having a collar or boss 38 through which the member or pipe section 33
 40 extends to communicate with the space defined between the inner and outer walls of the hood. In order to provide means for establishing or cutting off communication between the hood and the member or pipe section 33 or for regulating
 45 the flow of the heated air draft to the hood, a combined valve and baffle disk 39 is provided which is located within the hood between the outer and inner walls 35 and 36, and said disk 39 is attached to a flexible resilient stem 40
 50 which in the present instance is composed of a doubled length of resilient wire, the leads or strands of which are anchored at 41 to the center of the disk and extend upwardly therefrom through a tube 42, the major portion of which

extends axially of the member or pipe section 33 and the upper extremity 43 of which extends laterally and is attached to and opens through the side of the member or pipe section 33 so that the protruding portion of the stem is exposed and formed into a loop 44 which constitutes a manipulating handle, by virtue of which the disk 39 may be moved to fully opened, fully closed or various intermediate positions to establish communication, regulate the flow of the heated air draft to the hood or completely cut off said flow to the hood. Due to the resiliency of the stem, its frictional engagement with the tube 42 functions to maintain the valve disk 39 in any adjusted position.

In the modified form of the invention illustrated in Figure 4 of the drawings, the heating unit, which is designated generally by the reference character E, and the heat exchanger unit F, as well as the distributing means G, are of substantially the same construction as that set forth in the preferred form of the invention, but in this instance, the blower H has its exhaust 23a connected by a flexible tubular coupling 30a to a conduit 25a, which conduit 25a leads to the air intake 18a of the heat exchanger F while the feed conduit or duct 29a is directly connected at its lower end with the heat exchanger outlet 20a. In this instance also, the thermostat 31a of the thermostatic control for the fuel valve 9a is located in the lower part of the feed conduit or duct 29a. In all other respects, the mode of use and operation of the device are identical with that described in the preferred form, and the modified form is merely to demonstrate another arrangement which falls within the scope of the present invention.

What is claimed is:

A multiple hair drying apparatus including a manifold having an inlet and a plurality of separately controlled outlet units and a common means for generating and supplying a current of heated air to said manifold, said outlet units each including a flexible conduit communicating with and leading from the manifold and a terminal drying hood at the free end of said conduit and a valve for cutting off, establishing and regulating communication between the hood and conduit, said valve consisting of a valve disk, a flexible resilient valve stem and a valve stem guide with which the valve stem frictionally coacts to retain the valve disk in adjusted positions.

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