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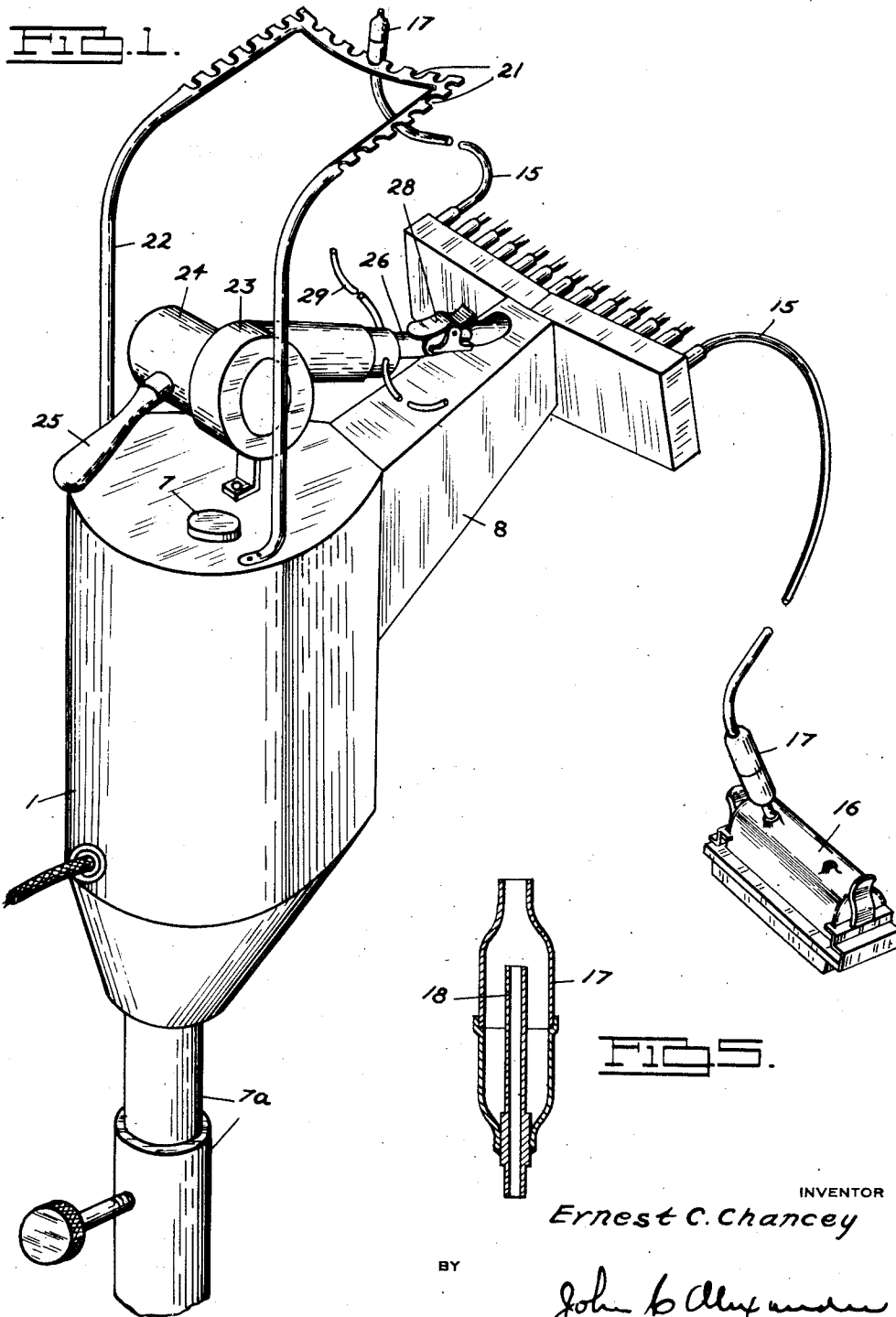
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HAIR TREATING APPARATUS

Filed Oct. 13, 1934

2 Sheets-Sheet 1



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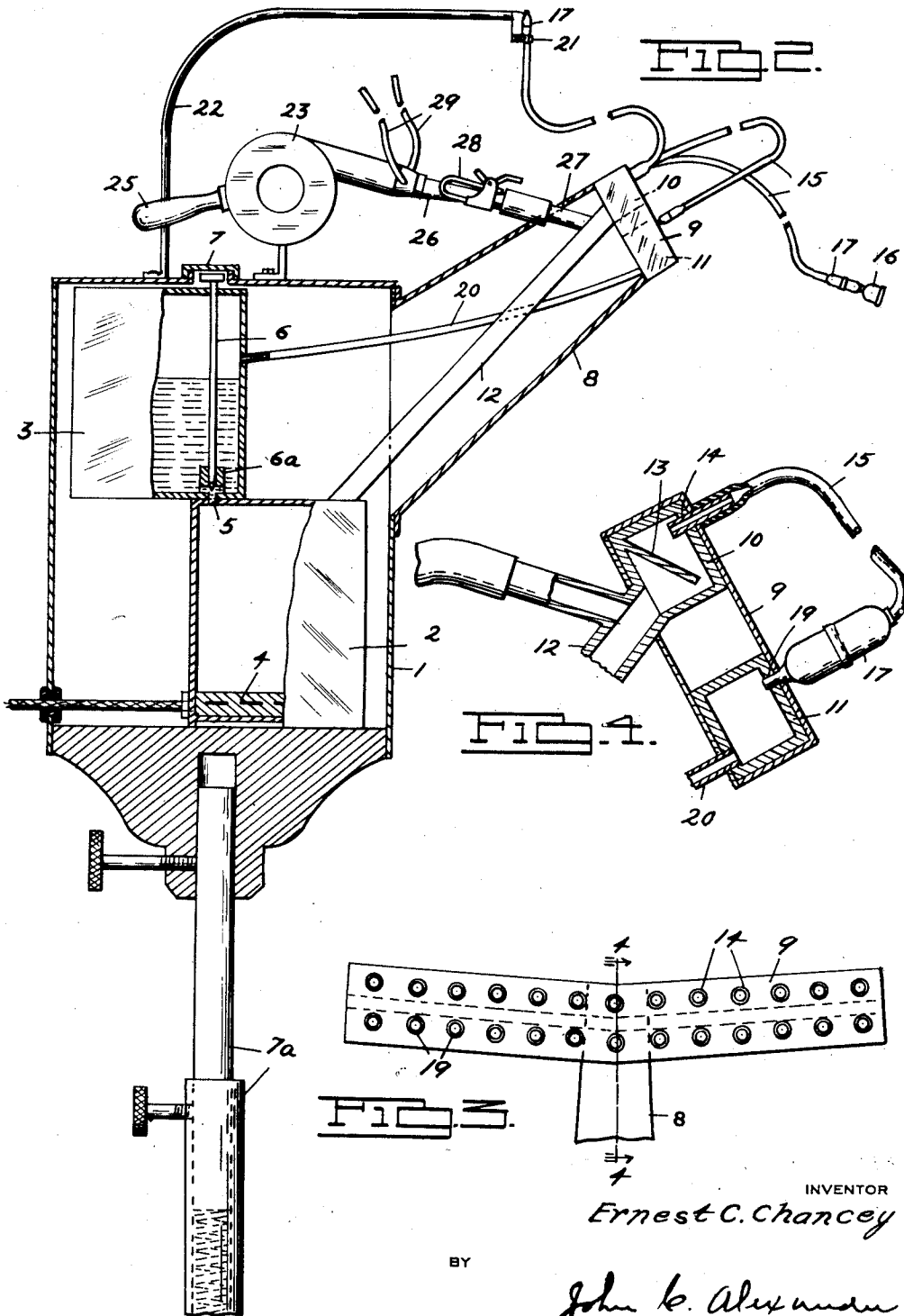
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2,217,729

HAIR TREATING APPARATUS

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Application October 13, 1934, Serial No. 748,161

2 Claims. (Cl. 132—36)

This invention relates to hair-treating apparatus, and particularly to apparatus for treating hair with steam or other vapor to give it a permanent wave or other ornamental form.

5 An object of the invention is to provide for a delivery of steam from a generator to a manifold from which flexible tubes lead to hair-treating ovens, and to arrange in the manifold a baffle that will effectually prevent delivery to the tubes of any particles of liquid.

10 Another object is to provide in a single assembly a manifold for delivering steam or vapor to distributing tubes, and a manifold in which the outlet ends of said tubes may be inserted when disconnected from the hair-treating ovens.

15 A further object is to provide for feeding water (or other liquid) at a regulable rate from a reservoir to a steam generator, and to provide for the return to said reservoir of any condensate accumulating in a manifold to which steam is supplied from the generator.

20 A further object is to equip each of a plurality of flexible tubes, serving to deliver a vapor to hair-treating ovens from a manifold, with a trap for eliminating from the delivered steam any liquid particles.

25 A further object is to equip an apparatus for treating hair with vapor delivered through numerous flexible tubes with an improved bracket for retaining the discharge ends of said tubes when not in use.

30 A further object is to equip an apparatus of the described character with means for delivering a blast of air through the manifold, distributing tubes, and ovens, to remove any accumulation of moisture in said parts.

35 These and various other objects the invention attains by the construction hereinafter described, and illustrated in the accompanying drawings, wherein:

40 Fig. 1 is a perspective view of the improved apparatus.

Fig. 2 is an axial vertical sectional view thereof.

45 Fig. 3 is a front view of an assembly comprising steam delivery and steam return manifolds.

Fig. 4 is a vertical sectional view thereof, taken upon the line 4—4 of Fig. 3 and showing certain additional parts.

50 Fig. 5 is an axial sectional view of a water trap, a number of which are employed in the apparatus.

In these views, the reference character 1 designates a substantially cylindrical sheet metal casing within which are disposed a steam generating chamber 2 and an overlying reservoir 3

for supplying water to said chamber. A hot plate 4 is suitably disposed in the chamber 2, preferably on the bottom thereof, and is adapted to be heated electrically or in other suitable manner. A restricted communication is established 5 between the reservoir and steam chamber through a passage 5, through which a regulable supply of water may be delivered upon the hot plate. To regulate the supply, the passage 5 is suitably 10 valved, and as illustrated, a stem 6 rising through the reservoir and engaging a threaded support 6a on the bottom thereof forms at its lower end a valve controlling said passage. Said stem extends through the top of the reservoir and is 15 normally covered by a cap 7 screw threaded on the casing 1. As illustrated, the casing 1 surmounts a pillar 7a formed in telescopically engaged sections which may be rotatively adjusted to position the casing at a convenient elevation. Any other suitably mounting may, however, be 20 employed.

Communicating with the upper portion of the casing 1 and projecting forwardly therefrom at an upward inclination is a tubular extension 8, which terminally rigidly carries a substantially 25 rectangular sheet metal housing 9. Within said housing are disposed spaced upper and lower, substantially rectangular manifolds 10 and 11, which are elongated at opposite sides of the extension 8, and which, together with the housing 30 9, are preferably slightly V-shaped, so as to incline slightly downward toward said extension. Within the extension 8 there arises from the chamber 2 a steam delivery pipe 12, which opens into the upper manifold 10 midway of its ends, 35 and within said manifold a baffle plate 13 extends diagonally downward from the upper rear edge of the manifold, terminating adjacent the manifold bottom so as to intercept any liquid particles that may be carried with the steam up 40 through the pipe 12. Forwardly opening through the front upper portion of the manifold 10 is a row of steam outlets 14 to each of which may be connected one end of a distributing tube 15 45 formed preferably of rubber. The other end of each tube 15 is adapted for detachable connection and communication with a hair-treating oven 16, to which is directed my copending application, Serial No. 748,162, filed October 13, 1934.

50 It is preferred to interpose between each tube 15 and the corresponding oven 16 a trap 17 consisting of an elongated tubular casing formed in separable halves, for engagement respectively with the tube and oven, as best appears in Fig. 55

4, said trap having an axial interior tubular extension 18 from its outlet end, through which the steam discharges. Any particles of liquid that may either form in the tube through condensation or be carried thereinto from the generator will accumulate in the outlet end portion of the trap 17 surrounding the extension 18.

When any tube 15 and its corresponding oven are not in use, it is preferred to detach the tube from the oven and engage its trap-carrying outlet end with any one of a row of apertures 19 formed in the upper front portion of the manifold 11, and opening through the housing 9. Thus the steam entering such tube will discharge into the manifold 11, from which it may escape to the reservoir 3 through a delivery tube 20 disposed within the extension 8. Within said reservoir, such steam will be quickly condensed by contact with the relatively cold liquid in the reservoir.

When no steam is being generated, it is preferred to engage the outlet ends of the tubes 15 in suitable notches 21 formed for that purpose in an angular arched bracket 22 surmounting the casing 1.

For the purpose of dyeing hair and of blowing out any moisture that may remain in the manifold, tubes, or ovens after use of the apparatus, there is detachably surmounted on the casing 1 a unit comprising a blower 23 and a motor 24 driving the blower, said unit being equipped with a handle 25 by which it may be manipulated when removed from the casement. A rubber tube 26 or other suitable flexible duct serves to establish a detachable air delivery connection from the blower to a pipe 27 opening into the pipe 12 toward and adjacent to the manifold 10. To prevent access of steam to the blower when the latter is not in use, a spring clamp 28

may be arranged to compress and close the duct 26.

If desired, a plurality of flexible tubes 29 may be also connected to the outlet of the blower 23, for use in delivering small currents of air to any desired portion of the hair.

The described apparatus permits the delivery of steam at an accurately regulated pressure (determined by adjustment of the valve 6) to the hair-treating ovens 16, and conveniently provides for a return to the water reservoir of the steam flowing through any of the tubes which are not in use.

Said apparatus also provides very positively for separation from the steam of any liquid particles, so as to prevent delivery of such particles to the ovens.

While it is apparent that the illustrated embodiment of the invention is well calculated to adequately fulfill the objects and advantages primarily stated, it is to be understood that the invention is susceptible to variation, modification and change within the spirit and scope of the subjoined claims.

What I claim is:

1. In a hair treating apparatus, a hair treating oven, a flexible tube for delivering vapor to the oven and means establishing a delivery connection between the tube and the oven, forming a trap for liquid entering the connection.
2. In a machine of the character described, wherein steam is applied to waving devices through flexible tubes, a steam trap comprising a hollow body, one end of the body having provision for connecting the same to an aforesaid flexible tube, a steam discharge tube extending into the other end of the body, there being a space around the inner end of said steam discharge tube for accumulation of condensate.

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