No. 800,681. PATENTED OCT. 3, 1905.

W. E. ROBERTS.

HYGIENIC HAIR DRYING APPARATUS.

APPLICATION FILED NOV. 8, 1904.

2 SHEETS—SHEET 1.

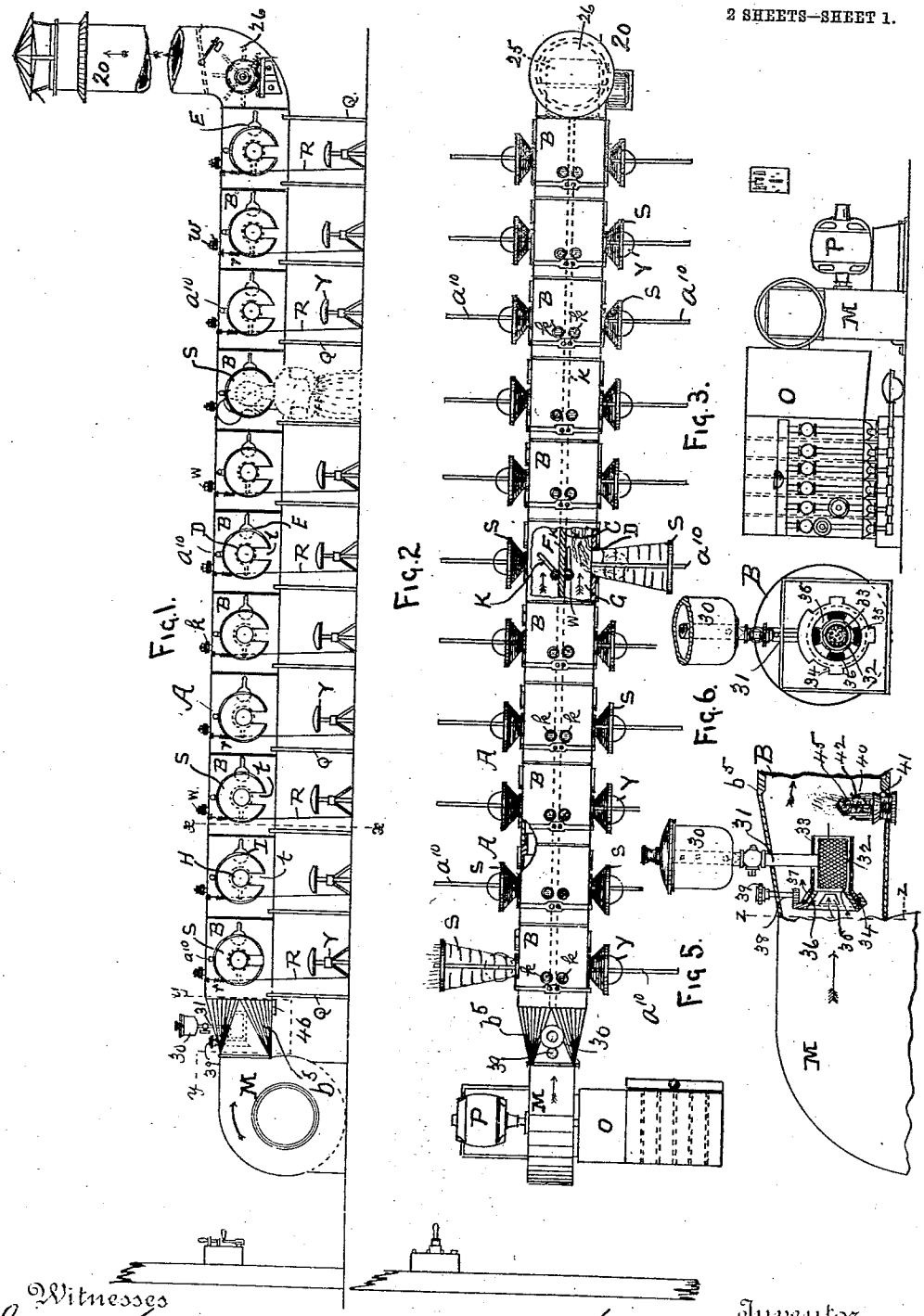


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 5.

Fig. 6.

Witnesses

James H. Lancaster

Franklin Barrett

Inventor

William E. Roberts

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2 SHEETS—SHEET 2.

Fig. 4.

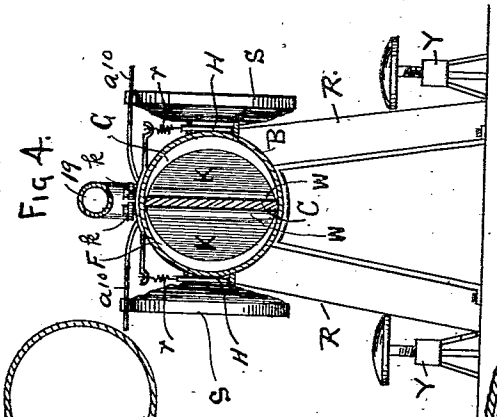


Fig. 7.

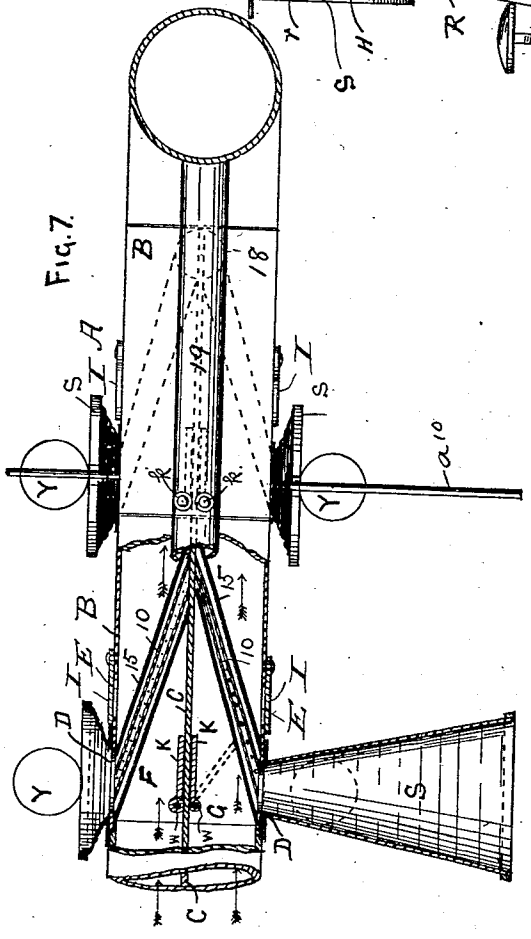
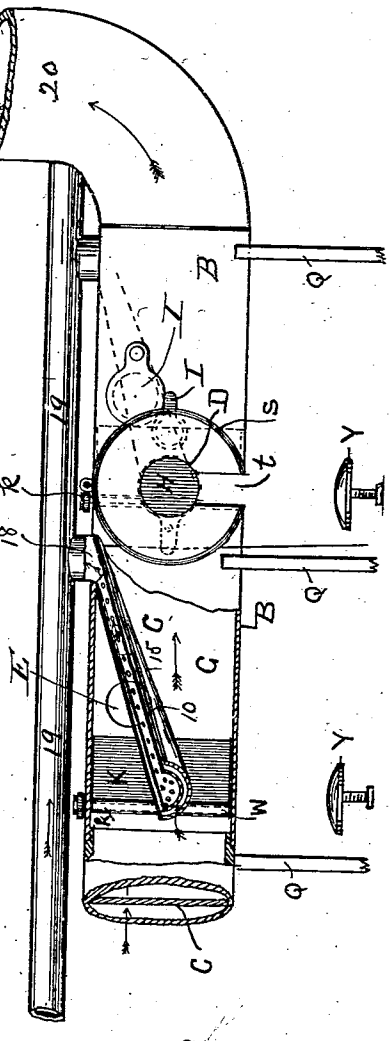


Fig. 8.



Witnesses

James K. Lancaster.

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UNITED STATES PATENT OFFICE.

WILLIAM E. ROBERTS, OF NEW YORK, N. Y.

HYGIENIC HAIR-DRYING APPARATUS.

No. 800,681. Specification of Letters Patent. Patented Oct. 3, 1905.

Application filed November 8, 1904. Serial No. 231,377.

To all whom it may concern:

Be it known that I, WILLIAM E. ROBERTS, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Hygienic Hair-Drying Apparatus, of which the following is a specification.

My invention relates to hygienic hair-driers; and the object is to produce an apparatus for drying, purifying, and medicating human hair, such being chiefly intended for the treatment and rapid drying and cleansing of ladies' hair after bathing or shampooing.

My invention consists of one or more cylinders suitably connected, deflectors, flexible head-coverings or hoods, holders for containing disinfectants, antiseptics, and insecticides, the combination and operation of which will be hereinafter more fully described.

Referring to the drawings, Figure 1 is a side elevation of my improved hair-drying apparatus. Fig. 2 is a top or plan view of the same, part of one of the sections of the tube being broken away to show its interior. This figure also shows two of the hoods extended. Fig. 3 is an end view of Fig. 1. Fig. 4 is a sectional view on line x x, Fig. 1. Fig. 5 is a longitudinal enlarged section on line Y Y, Fig. 1. Fig. 6 is a cross-sectional view on line Z Z, Fig. 5. Fig. 7 is an enlarged plan view in section of one construction of the apparatus. Fig. 8 is a side elevation of Fig. 7, partly in section.

Similar letters and figures refer to similar parts throughout the several views.

The longitudinal cylinder or tube A is built up in sections B, suitably joined together. This construction permits the lengthening or shortening of the apparatus, as desired. Each section B of the tube A is divided internally by a partition C, forming compartments F and G. The sections on each side are usually provided with two holes D and E, leading into the compartments F and G. Holes D on each side of the sections are intended for the hair to pass through and into the compartments, where it is duly treated by the heated and medicated air. Holes E are intended for inserting the hand for the purpose of drawing in and adjusting the hair. The openings D and E have externally-pivoted gates H and covers I, respectively. The gates H are automatically opened by the tilting stool Y, to which it is connected by a cord or wire R, fastened, respectively, to the arm of gate and the leg of the stool. (See Figs. 1 and 4.) When the seat is unoccupied, the gate is closed by the spring r and its own weight. The cover I is kept closed by its own weight and opened simply by raising the lever-arm of said cover. The compartments F and G are each pivoted with an adjustable deflector K, operated and locked independently from outside the tube by a hand-wheel k, mounted on the end of the pivot-stem W. These deflectors regulate the current of the passing air and also apportion the required current for the opening D for treating the hair. A blower M is applied to the inlet end and is in direct connection with the heater O, and an exhaust-fan 26 is usually operated in the outlet end of the apparatus and driven by an electric motor P or any other available power.

The apparatus is supported by standards Q, and the terminal section either connects with the chimney 20 or with a chamber for drying clothing or bathing-suits.

Each opening D has attached to it an extensible hood S, made collapsible and cone-shaped. (See Figs. 1 and 2.) The hoods are supported when extended or compressed by rods a^{10}, fastened to the tube A and on a line with and above the hoods.

The operation is as follows: The individual being seated upon one of the adjustable stools, the hand is passed through the opening I for drawing the hair into the compartment. The current of heated and medicated air going through the tube suitably and automatically treats the flowing hair, and thus quickly dries and purifies it. When the hair has become sufficiently dried and treated, the hood S is drawn out its full length (see Fig. 2) and the opening t allows the hood to pass the neck. The deflector is then turned to direct the current toward and through the opening D. The current then passes through the funnel-shaped hood and is discharged freely into the room. To hygienically treat the hair in separate and individual receptacles or hoods S and allow the used air to immediately escape therefrom, the air is deflected into these hoods, and therefore will not be discharged through the chimney 20. (See Fig. 1.)

To automatically disinfect medically and purify the heated air in the apparatus, I preferably use the device shown in Figs. 5 and 6, consisting of the automatic sight-feed drip-cup 30, containing "pineoline" or other fluid, the stem or tube 31 of which is attached to a

wire-gauze basket 32, containing asbestos or other absorbent. This basket is surrounded by a perforated cylinder 33, with sufficient space between the two for the passage of the antiseptically-charged heated air. One end of this perforated cylinder 33 is made with a flaring end 34, having one or more openings 35, adjustably closable for regulating the register-disk 36, operated from outside the apparatus by a cog-wheel 37, stem 38, and hand-wheel 39. The basket containing the asbestos or other absorbent of a liquid antiseptic, such as pineoline or any other suitable substance, drops from the cup and saturates it. As the heated air passes through the saturated asbestos it vaporizes and carries with it a sufficient and controlled supply of disinfectant or other medium for treating all hair and scalps exposed thereto. To regulate the current of air through the absorbent, the register-plate is suitably turned to open or close the disk inlets as needed. To further disinfect or purify and insure absolute cleanliness in the interior of the apparatus and to neutralize any impurities arising from the hair during the drying process, I use the device shown at 40, Fig. 5. This device simply consists of a threaded cup-shaped holder 41, which is screwed in a suitable hole in the square portion b^5 of the apparatus. This holder and its arm 42 support a fumigator or sulfur candle 45 or a pastil. By lighting this candle or pastil the fumes mix with the heated air to instantly deodorize and kill or destroy all insects, germs, or other possible impurities in the human hair or scalp without its subsequent contact with other exposed heads in the tube.

To effectually prevent any germs or other impurities adhering to the inside of the sections, the division-plates and the deflectors and inside surfaces are enameled. As the heated air now rushes through the tube it will by reason of their smoothness carry away all impurities otherwise likely to adhere thereto.

By placing in each compartment of each section two semicircle troughs 10 and 15, Figs. 7 and 8, one within the other, each operation is individualized to receive the hair and is thus separated from the inner or perforated trough 10. The trough 15 and the space between the two allows the free passage and exit of the heated air thus used and is conveyed through the opening 18 to the supplemental tube 19, preferably having its outlet to the chimney 20. By this arrangement the current of air used for drying and purifying one's head does not come into contact with another throughout the entire series. The hair can be dried and treated in the hoods S by deflecting the current of air through the extended hood and separately discharged therefrom.

What I claim, and desire to secure by Letters Patent, is—

1. In a hair-drying apparatus of the class described, and in combination, a plurality of circular sections, the side walls of which provided with openings as described, and for the purpose set forth, division-plates separating each section into two compartments, means of entering the compartments as described, means for uniting said sections, means for supporting said sections and means for forcing heated air through the compartments.

2. In a hair-drying apparatus of the class described, and in combination, a plurality of circular sections, division-plates separating each section into compartments, the shell or wall of the sections being provided with openings as described entering into the said compartments for the purpose described, means for regulating the current of heated air in the compartments, consisting of swinging deflectors, one pivoted in each compartment, means for operating and locking said deflectors outside the sections, means for closing the hair and hand openings of the compartments of each section, means for uniting the sections, means for supporting the sections and means for forcing the current of heated air through the compartments of the sections.

3. In a hair-drying apparatus of the class described, a plurality of circular sections the shell or wall of which provided with hair and hand openings, as described and for the purpose set forth, each having division-walls, means for uniting the said sections, the deflectors placed in each compartment, means for operating and locking said deflectors outside the sections, means for closing the side hand and hair openings of the sections consisting of pivoted gates or lids, means for automatically lifting the lids of the hair-opening consisting of a cord or chain attached at one end to a cross-bar fastened at the section, and at the other end to a leg of a tilting stool suitably hinged to the floor, means for uniting said sections, means for supporting said sections, and means for forcing heated air through the compartments of each section.

4. In a hair-drying apparatus of the class described, and in combination, a plurality of circular sections, means of uniting said sections, means of dividing said sections into two compartments, consisting of a division-wall, means by which the hair is passed into and withdrawn from said compartments, as described, means for passing in and withdrawing the hand for adjusting the hair in the compartments consisting of an opening cut in the side of the section, means for connecting the said openings, means for automatically opening one of the side lids, the deflectors pivoted in each compartment as shown, means for operating said deflectors outside said sections, the extensible hood attached on the outside of the section and surrounding the hair-opening, means for supporting the hoods when extended, means for forcing the heated air through

the said compartments, means for conveying the used heated air off, consisting of a chimney, provided with a damper.

5. In a hair-drying apparatus of the class described, and in combination, a plurality of cylindrical sections means of uniting said sections, said sections having communicating openings as described, means for disinfecting said sections, consisting of a drip-cup supported above a section, a tube extending therefrom into said section, a wire-basket holder containing asbestos or a similar substance attached to said tube as shown, an encirculating perforated shell with flaring end having openings, means for opening and closing said openings, consisting of a register-disk, and means for operating said disk outside the section, means for forcing heated air into the sections, consisting of a blower suitably operated and supplied with heated air, means for conveying the used air out of the sections consisting of a chimney, and means for supporting said sections.

6. In a hair-drying apparatus of the class described, the herein-described disinfectant apparatus, consisting of a disinfectant candle-holder comprising of a cup-shaped disk with suitable arms attached thereto and extending upward for supporting the disinfectant candle within, the cup portion of the disk, and means for supporting the holder to and within the section in combination with a plurality of cylindrical sections, suitably united, each section divided into two compartments by a vertical wall, each compartment provided with two communicating openings, one for the admission of the hair, and one for the passage of the hand, each compartment having a deflector provided with suitable means for operating them outside the sections, the exit tube or chimney attached to a section for carrying off the used heated air from the compartments, means for forcing heated air through the compartments, and means for supporting the sections.

7. In a hair-drying apparatus of the class described, and in combination, a plurality of cylindrical sections, means for uniting said sections, each section divided into two compartments by a vertical wall, each compartment provided with communicating openings, as described, and for the purpose set forth, means for opening and closing said compartment-openings, each compartment containing swinging deflectors, means for operating said deflectors outside the sections, means for forcing heated air into and through the compartments, consisting of a blower, means for uniting the sections to the blower, means for conveying the heated air out of the sections, consisting of a chimney suitably attached to the last section, and provided with a revolving fan as described and for the purpose set forth, means for disinfecting the heated air, consisting of a drip-cup device as described and operated as set forth, and also of a disinfecting-candle holder, as described, and supported and constructed as set forth, and means for supporting the sections, consisting of standards, all arranged and operated as described and for the purpose set forth.

Signed at New York city, in the county of New York and State of New York, this 3d day of November, A. D. 1904.

WILLIAM E. ROBERTS.

Witnesses:
JAMES H. LANCASTER,
FRANKLIN BARRITT.