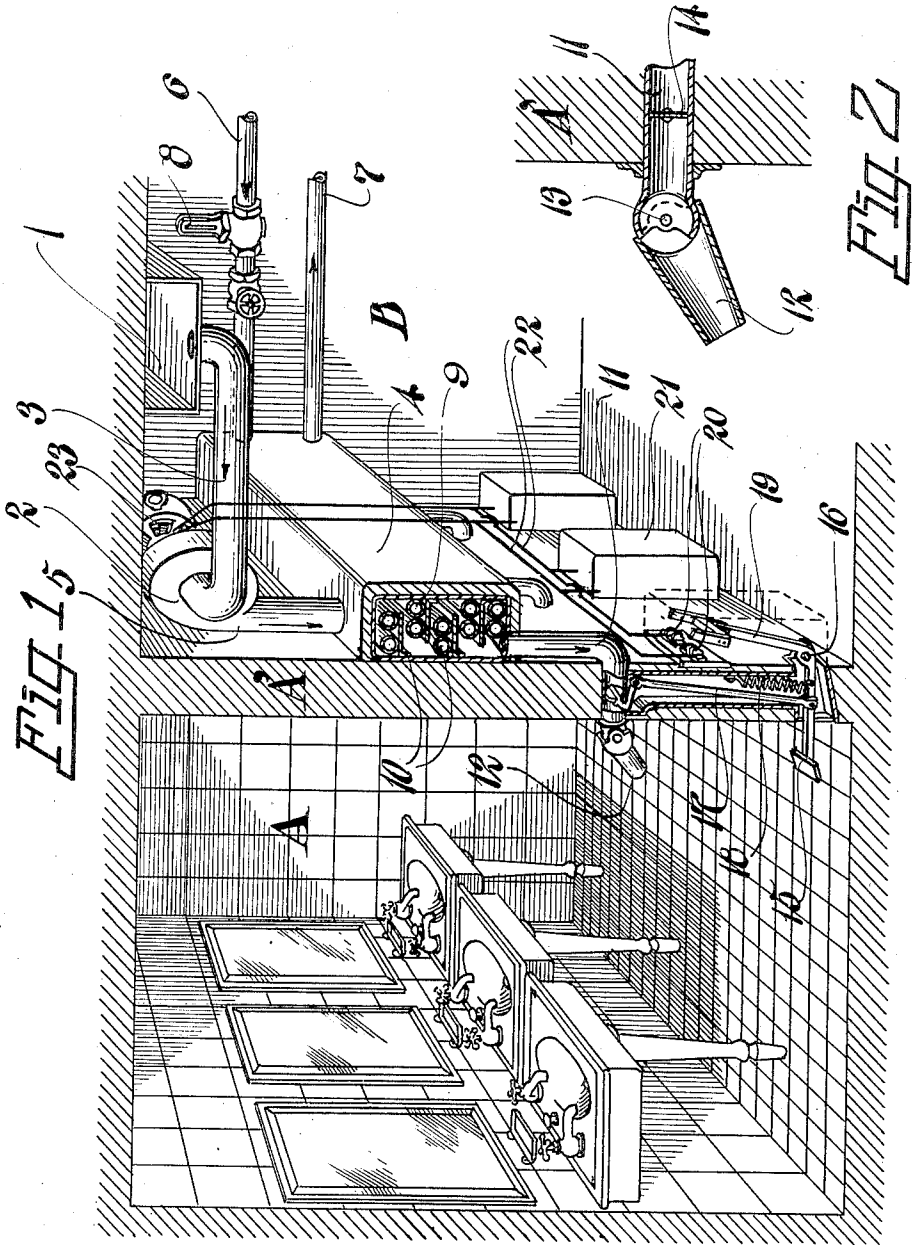
J. H. WOODARD.

AIR DRYING APPARATUS.

APPLICATION FILED DEC. 20, 1919.

1,341,405.

Patented May 25, 1920.



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JOHN H. WOODARD, OF SPOKANE, WASHINGTON.

AIR-DRYING APPARATUS.

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Application filed December 20, 1919. Serial No. 346,242.

To all whom it may concern:

Be it known that I, JOHN H. WOODARD, a citizen of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Air-Drying Apparatus, of which the following is a specification.

The present invention relates to an improved air drying apparatus designed particularly for use in lavatories, toilet rooms, barber shops and similar places, as a facile means for drying the face and hands after ablution, and adapted for the convenience of a number of persons at the same time, the apparatus including individual hot air nozzles with independent operating means for each nozzle. In the utilization of my invention I contemplate an equipment employing numerous hot air nozzles receiving heated currents of air from a common source or heater, and each nozzle is provided with actuating means for a motor by means of which air to be heated is impelled through the heater. Thus an automatically controlled apparatus is provided which is operable by the user or users, and is rendered inoperative, automatically, when the user ceases or relinquishes control of the operating mechanism. To this end the invention consists in certain novel combinations and arrangements of parts as will be hereinafter described and claimed.

In the accompanying drawings I have illustrated one complete example of the physical embodiment of my invention in which the parts are combined and arranged according to the best mode I have so far devised for the practical application of the principles of my invention, but it will be understood that changes and alterations may be made in the apparatus within the scope of my claims without departing from the spirit of my invention.

Figure 1 is a perspective view, partly in section, showing my apparatus installed in connection with a wash room or lavatory, disclosing the air heater and impeller, the electric motor and connections for operating the motor to impel the air currents through the heater and to the nozzles, and one of the nozzles ready for use with the individual operating or actuating devices.

Fig. 2 is an enlarged detail sectional view of one of the swiveled nozzles and showing also the valve for control of the hot air currents to the nozzle.

In the preferred form of my invention I have illustrated a lavatory or wash room designated A and equipped with the usual wash stands, faucets, and other conveniences, and the wall A′ of the room divides the lavatory from the work room B in which is contained the equipment for the apparatus, only a row of drying devices appearing in the lavatory alined at a suitable height to be convenient for use along the wall A′ and each device equipped with a simple operating element that is automatically returnable to normal position after use.

Fresh air from a suitable source is received in the work room, near its ceiling through the air duct 1, shown in section in Fig. 1, and a fan blower 2 supported near the ceiling is provided to draw air from the duct through the suction pipe 3 between the duct and blower, and impel the air currents into the heater 4, which is a closed casing of suitable construction and size and connected with the blower by the supply pipe 5, the direction of the air currents being indicated by arrows in Fig. 1.

For the purpose of heating the air in its passage through the casing I employ a steam pipe 6 receiving steam from a suitable supply, which may well be the exhaust from a main steam line, and the return pipe or steam outlet pipe 7 carries off the used steam from the heater, a thermostatic valve 8 being provided in the steam inlet pipe for automatically controlling the supply and pressure of steam passing to the heater 4. The heat from the steam in the heater casing is radiated from the pipes or steam coil 9 to equally distribute the heat in all parts of the casing 4, and to insure an equable and uniform heat to the air currents they are retarded in their passage through the casing by a series of horizontal baffle plates 10 arranged in staggered fashion to project from the opposite side walls of the casing, which cause the currents of air to pass through a tortuous way around and over the steam heating coil 9. Thus when the air currents have passed thruogh the heater casing and reach the branch pipes 11 the currents have been heated to the desired, predetermined temperature and are ready for use for the purpose of drying the hands, face, hair, or for other uses as desired.

As will be apparent these branch pipes for the hot air pass through the wall A', and on the lavatory side of the wall they are each equipped with a nozzle 12, preferably jointed to the branch pipe by a swivel joint 13 in order that the nozzle may be moved as desired to direct the blast of hot air issuing therefrom. Each of the hot air pipes 11 is provided with a controlling device illustrated as a butterfly valve or pivoted disk 14 fitting closely and neatly within its inner bore, and each valve is independently operable by the user through the instrumentality of a simple device in the nature of a pedal 15 conveniently located beneath the nozzle, at the floor, for actuating by the foot of the user.

The pedals are arranged in a row, near the floor line at regular and suitable intervals for the convenience of the patrons, and pivotally supported in a slot or opening in the wall as at 16, and the pivoted link 17 connects the pedal in an operative manner to the valve 14 in the hot air discharge pipe. The apparatus is operated by depressing the pedal, and the return spring 18 attached at one end to the pedal and at its other end anchored to a suitable stationary part or member, returns the pedal to normal position after pressure is released from the pedal, and thus closes the valve in the discharge pipe. It will therefore be evident that the apparatus is economically operated without waste, and no currents pass through the discharge pipe and nozzle except during the time that the patron has his foot on the pedal and holds it depressed.

The action of the depressed pedal also performs the function of starting the fan blower, and to this end an integral lever arm 19 on the pedal is utilized as the movable element of contact member of an electric switch, the fixed contact member of the switch being indicated as 20, and the whole inclosed in the switch box 21 attached to the wall of the work room B. From the switch box conductor wires 22 lead to the electric motor 23, and this motor is directly and operatively connected to the fan blower 2, located, as before stated near the ceiling of the work room B.

From the above description taken in connection with my drawings it is apparent that I have provided a compactly arranged apparatus, selectively operatable, and efficient in performing its functions, by means of which the patron or patrons may with facility and convenience utilize the blast or currents of heated air from the several nozzles for the desired purposes. Such an apparatus is economical in first cost of production and inexpensive in maintenance, presents a neat and attractive appearance in that the working parts are invisible although compactly arranged, and affords sanitary and convenient means for completing the ablutions of the patrons. The apparatus is capable of installation for use by an attendant rather than by patrons, and may be utilized by the barbers in a tonsorial parlor or by attendants in a "beauty" parlor with slight and colorable changes in arrangement, and I therefore do not desire to be limited to the installation and exemplification of the invention as depicted in the drawings.

What I claim is—

1. The combination in an apparatus as described with a heating appliance, a fan blower connected thereto and discharge pipes connected with the heating appliance, a valve in each discharge pipe and a nozzle to the pipe, an electric motor for actuating the blower, independent operating means for each valve, an electric switch controlled by said operating means, and electrical connections from each switch to the motor, for the purpose described.

2. The combination with a heating appliance, a fan blower and its electric motor and air discharge pipes leading from the heating appliance, means for controlling the passage of heated air currents through said discharge pipes, means for operating said controlling means, and electrical connections controlled by said operating means for controlling the electric motor.

3. The combination with the heating appliance, a fan blower connected thereto and discharge pipes from said appliance, a valve in each pipe and a swiveled nozzle for each pipe, an independent pedal mechanism for actuating each valve, an electric switch adapted to be closed by the actuating of each pedal mechanism, an electric motor for the fan blower, and electrical connections from each switch to the motor.

In testimony whereof I affix my signature.

JOHN H. WOODARD.