

C. A. EVANS.
REVOLVING SIGN.

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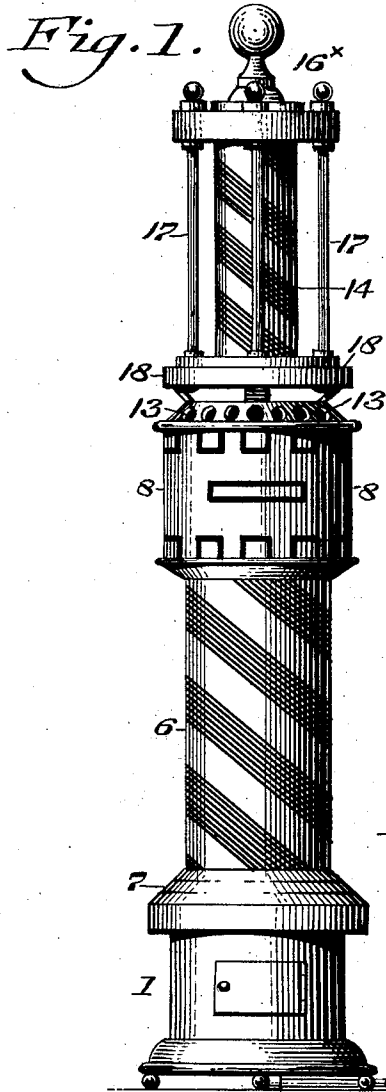
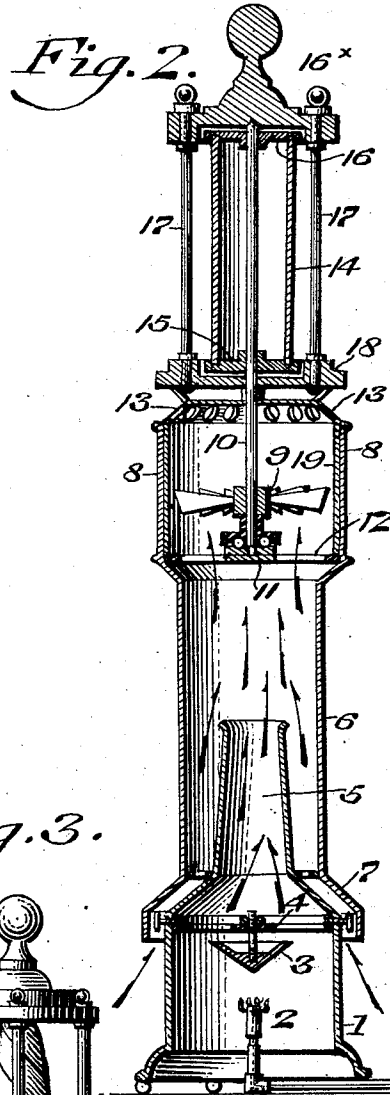
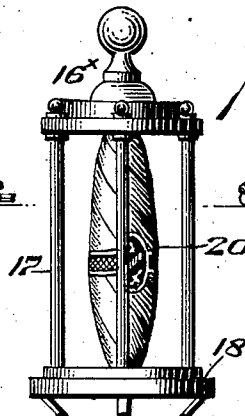


Fig. 3.



WITNESSES

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REVOLVING SIGN.

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To all whom it may concern:

Be it known that I, CLARENCE A. EVANS, a citizen of the United States, residing at Chester, in the county of Delaware, State of Pennsylvania, have invented a new and useful Revolving Sign, of which the following is a specification:

My invention relates to a sign which is adapted to be revolved and so direct attention thereto, and consists of means for automatically causing the revolution of the sign, said means involving a wind-wheel and a heating member, which latter is adapted to actuate the former, and next, an intake for atmospheric air which is adapted to be mingled with the products of combustion or heat in the casing employed, and cause said elements to produce a current of greater volume to be impacted against said wind-wheel, thus more powerfully and effectively rotating the same.

The invention consists also of details of construction as will be hereinafter fully set forth.

The invention is satisfactorily illustrated in the accompanying drawing, but the important instrumentalities thereof may be varied, and so it is to be understood that the invention is not limited to the specific arrangement and organization shown and described except as set forth in the appended claims.

Figure 1 represents a side elevation of a revolving sign embodying my invention. Fig. 2 represents a central vertical section thereof. Fig. 3 represents a side elevation of a portion of a modification.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—1 designates the base or bottom casing of the device the same being hollow and containing a heating device 2 which in the present case is of the form of a gas burner to which, however, I do not limit myself as a lamp or other heat-producing medium may be employed for my purpose. Within said base is the deflector 3 which is of the form of an inverted cone, it being located above the heating device 2 and suspended from the cross head 4 which latter is connected with the wall of said base in any suitable manner. Rising from said base is the flue 5, and surrounding the same and separated therefrom is the casing or cylinder

6 whose lower end has connected with it the communicating hood or jacket 7 which surrounds the upper portion of the base 1, the lower end of said hood being open so as to admit atmospheric air into said cylinder, it being noticed that as hot air also is admitted into said cylinder, the latter comprises a mixing chamber for the hot and cold air directed into the same.

On the upper portion of the cylinder 6 is the cylinder or upper section 8 of the casing forming a chamber to contain the wind wheel 9 which is connected with the shaft 10 whose lower end is mounted on the step 11 which is secured to the spider or cross head 12 which latter is connected with the interior of the cylinder 8, said step having ball-bearings for said shaft 10, so that the latter is adapted to revolve with the least friction and consequently with ease. The shaft 10 passes centrally through the closed top of the cylinder 8, the rim around said top having openings or ports 13 therein for the escape of the products of combustion and air after leaving the wind-wheel 9. The portion of the shaft 10 above the cylinder 8 has connected with it the sign 14 which in the present case is of the form of a barber's pole it being sustained on the foot plate 15 and clamped thereon by the head plate 16, said plates being adjustably fitted on the shaft at opposite ends of the sign. The upper end of the shaft 10 is mounted in the cap 16 which is supported by the rods 17 on the plate 18 on the bottom thereof, said plate being sustained on the top of the cylinder 8, it being noticed that said plate, rods and cap form an open-sided frame through which the sign 14 is visible, said rods being provided with nuts whereby the members of said frame may be firmly connected.

It will be seen that when the device 2 is ignited, the resultant heat of the products of combustion thereof rises in the base 1 and impinging against the deflector 3 is spread laterally thereby in the base 1 and so uniformly distributed therein in which condition it is directed into the flue 5 and forcibly discharged therefrom into the cylinder 6. Owing to the partial vacuum created in said cylinder by said flue 5 atmospheric air is drawn into said cylinder by the open end of the hood or jacket 7 as an air intake, the heated air and atmospheric air

being intermixed in said cylinder forming an ascending current of air acting upon the blades or vanes of the wind-wheel 9 more powerfully than simply hot rarefied air thus imparting efficiency and force to the wheel whereby the shaft 10 and sign 14 are rotated with corresponding effect, this being accomplished at a minimum expenditure of the heating medium and with diminished temperature while the upper structure of the device, especially the sign and its frame, is not unduly heated, nor owing to the ports 13 liable to be smoked by the products of combustion. The deflector 3 while preventing the direct central current of heat into the flue 5 deflects or spreads it laterally as has been stated also serving as a shade to avoid illumination of the top of the cylinder 8 at the ports therein. The cylinder or casing 8 has a lining 19 of non-conducting material so that the interior of said cylinder and the wind-wheel will not be subjected to atmospheric influence to which the exterior of the cylinder may be subjected.

The sign may be changed as desired. For instance, in Fig. 3, it is of the form of a cigar 20, in lieu of the barber's pole of the other figures, but it is evident that many other forms may be adopted, without changing the essential features of the invention involved.

Having thus described my invention what I claim as new and desire to secure by Letters Patent, is:—

1. A base, a heating device therein, a jacket surrounding the upper portion of said base with an intervening air space, a casing rising from said jacket, a windwheel, a casing therefor supported upon the first-mentioned casing, a sign mounted on the windwheel shaft, and a stationary frame within which said sign is received.

2. A base, a heating device therein, a flue rising from said base, a jacket surrounding said flue with an air space intervening, a casing rising from said jacket, a windwheel,

a casing therefor supported upon the first-mentioned casing, a sign mounted on the windwheel shaft, and a stationary frame within which said sign is received, said flue and jacket being conical to increase the upward draft of the products of combustion into the lowermost casing.

3. A base, a heating device therein, a deflector depending within the base, a flue rising from said base, a casing surrounding the flue, a windwheel casing, a windwheel therein, a frame supported above the windwheel casing, the windwheel shaft having a bearing in said frame, and a sign within the frame carried by the windwheel shaft and revoluble therewith.

4. A base, a heating device therein, a flue rising from said base, a casing surrounding the flue, a windwheel casing, a lining of non-conducting material within said windwheel casing, an open frame supported above the casing, a windwheel shaft supported in said frame and windwheel casing, a windwheel on said shaft within the windwheel casing and a revoluble sign mounted on said shaft within said frame.

5. A base, a heating device therein, a jacket surrounding the upper portion of said base with an intervening air space, a casing rising from said base, a shaft mounted in said casing, a windwheel on said shaft within said casing, said shaft being extended above said casing, and a sign on said shaft revoluble therewith.

6. A base, a heating device therein, a casing rising from said base, a sign-carrying shaft mounted in said casing, a windwheel on said shaft within said casing, and a flue in the portion of said casing below said windwheel, said flue being in communication with said base.

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Witnesses:

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