June 5, 1934. R. M. BRYAN 1,962,100

VAPOR PROJECTOR

Filed Aug. 6, 1932

Fig. 1.

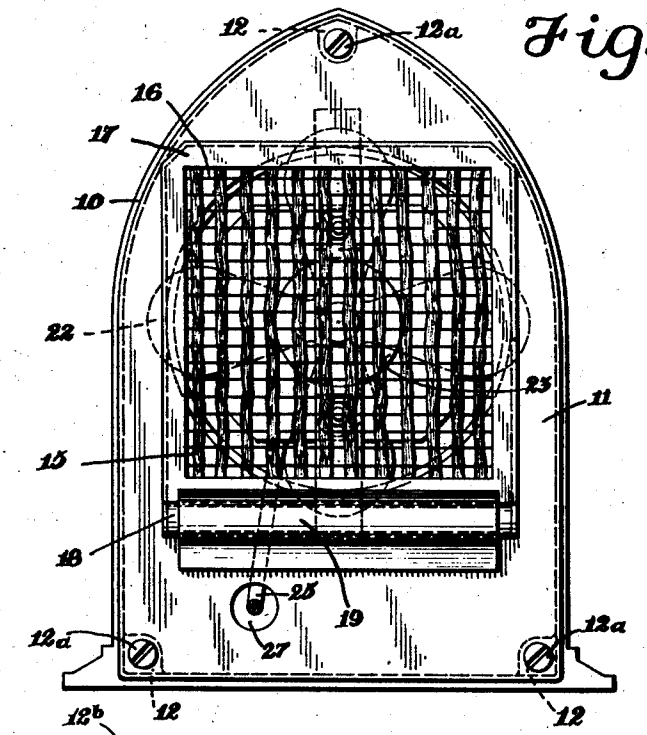
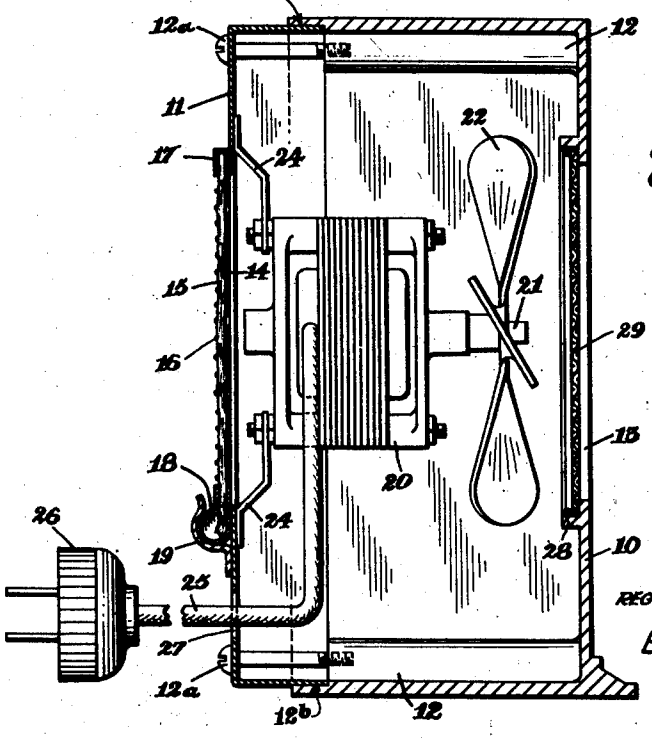


Fig. 2.



REGINALD M. BRYAN INVENTOR

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Patented June 5, 1934

1,962,100

UNITED STATES PATENT OFFICE

1,962,100

VAPOR PROJECTOR

Reginald M. Bryan, New York, N. Y.

Application August 6, 1932, Serial No. 627,710

3 Claims. (Cl. 261—30)

This invention relates generally to projectors for the diffusion of fluids through vapors from large body surfaces, and more specifically to apparatus embodying a diffusor and other structures to be hereinafter mentioned whereby diffusion of medicinal and perfume fluids, is both accelerated and disseminated throughout a large space. The specific structure of the diffusor per se is embodied in a United States application for patent filed December 26th, 1931, bearing Serial No. 583,367 and in the name of the applicant herein.

Broadly, an object of the invention is provision of a vapor projector whereby an intimate mixture of any desired vapor and air is effectuated preparatory to the dissemination of the said mixture in any air space.

Another object of the invention is provision of a vapor projector whereby any volatile fluid is adaptable for purposes of mixture and dissemination with and through air.

A further object of the invention is provision of a vapor projector which comprises a minimum number of parts, which is compact, light in weight, economical to manufacture and has as typical but not exclusive such uses as clearing air of a particular room of any offensive odors or germs; driving off mosquitoes or other insects or vermin; charging the air with additional vapors to be breathed by individuals, giving them relief from nasal, bronchial and other ills and in general to serve both as a therapeutic and purifying agent.

These objects and other incidental ends and advantages will appear hereinafter in the process of the disclosure.

Referring to the drawing, wherein corresponding reference characters designate corresponding parts throughout the several views, Fig. 1 is a preferred embodiment of the invention shown in elevation from the rear;

Fig. 2 is a vertical central longitudinal sectional view of the device, showing the motor and fan in elevation.

In accordance with the preferred embodiment of the invention and in accordance with the accompanying drawing thereof, 10 and 11 represent the outer and inner sections, respectively comprising the casing for the invention. The said casing may be of any suitable shape, and as shown is in a form having a vaulted crown. The outer section 10 of the said casing on its front face is provided with a central aperture while at the lower corners and upper portion thereof, the said section 10 is provided with horizontal integral dowels 12. The outer section 10 is provided at the outer ends of dowels 12, in its inner face, with section-receiving-socket 12*b*, Fig. 2. The open end of inner section 11 is slid upon the outer section and is seated in socket 12*b*. Screws 12*a* extend horizontally through the back of section 11 and are threaded into the outer end of dowels 12. The rear face of section 11 is preferably provided with a central aperture 14 for purposes to be hereinafter described.

The present invention properly described as a vapor projector has as an element thereof a diffusor which has been specifically described in my co-pending U. S. application for patent, filed as heretofore mentioned December 26th, 1931, bearing Serial No. 583,367, but for purposes of this disclosure comprises a fabric of warp 16 with weft 15, the said weft having a high absorption power, preferably of jute. 17 is the ordinary frame work for the fabric of the diffusor and reenforces the upper longitudinal edge thereof and the transverse edges. At the lower longitudinal edge of the said fabric 17 takes the form of a reservoir designated by numeral 18 in Fig. 2 of the accompanying drawing. The said strands of jute 15 penetrate the said reservoir 18 so as to be constantly immersed in the fluid that is adapted to be vaporized and projected from the vapor projector.

19 is an open top elongated clamping bracket having a rounded portion at the upper part thereof especially adapted to support the above described diffusor against the outer surface of section 11 of the casing, the said bracket being affixed at its bottom along the outer face of the said section 11 in the lower end as best shown in Fig. 1 of the accompanying drawing; the brackets 19 is also provided with open ends, to allow easy insertion of the diffusor.

Within the casing of sections 10 and 11 is provided the ordinary and known motor 20 having a spindle 21 on which is affixed blades 22 making up a fan. Motor 20 is affixed to the inner face only of section 11 by means of angle brackets 24 as shown in Fig. 2 of the accompanying drawing. The inner end of each bracket 24 is secured to section 11, while its outer spaced end is fastened to the motor 20. Therefore, the motor 20 and fan 22 are removed from within outer section 10 when the inner section 11 is removed.

25 represents wiring issuing from plug 26 connected to an electrical supply to furnish electric current for the operation of motor 20.

27 is an aperture through the facing of section 11 of the enclosure while 23 as shown in Fig. 1

is merely representative of the armature of the motor.

Section 10 of the casing as heretofore has been mentioned is provided with central aperture 13 and at the same time is preferably provided with a flange 28 issuing from the inner face of 10 to provide a mounting for screen 29 from which screen issues the projected vapors hereinafter to be described.

From the foregoing disclosure the invention comprises a mechanism which is designed to mix air with any diffusible or volatile vapor such that the said mixture is capable of being projected from the source of supply which in the present case is the enclosure for the motor.

When motor 20 is set into operation the natural suction created thereby draws in air from the atmosphere, and as heretofore described draws in the air through the interstices of the diffusor thereby causing contemporaneously volatilization of the fluid on the diffusor and admixture of the air drawn therethrough.

It should be borne in mind that the aperture 14 which is covered by the diffusor 15 is not restricted to the position shown on the drawing, the location thereof being a matter of choice and expediency.

In accordance with the present structure as shown on the accompanying drawing, the vapor projector may be disassembled in the simplest fashion. By unscrewing screws 12*a*, section 11 of the enclosure disconnects from section 10 thereby affording the total withdrawal of section 11 together with the motor affixed thereto.

Relevant to the allocation of the several parts of the vapor projector above described, I wish it understood that minor variations may be resorted to without departing from the spirit of the invention nor enlarging the scope of the appended claims. I also wish it understood that minor variations and changes in the size, composition and attachment of parts may also be resorted to without departing from the spirit of the invention or enlarging the scope of the appended claims.

I claim:

1. As a new article of manufacture, a vapor projector comprising an outer section provided with an outlet, an inner section provided with an inlet slid upon said outer section, means fastening said sections together, a vapor diffusor over said inlet, and means supported only upon said inner section and between both inlet and outlet for drawing air and vapors through said sections and discharging same through said outlet.

2. As a new article of manufacture a vapor projector comprising an outer section provided with an outlet, an inner section provided with an inlet in alignment with said outlet, said inner section slid upon said outer section, means fastening said sections together, a vapor diffusor over said inlet, angle brackets secured at their inner ends to the inner face of said inner section and at opposite points of its inlet, the outer spaced ends of said angle brackets overhanging said inlet, and a motor and fan supported only upon the outer ends of said brackets in alignment with said inlet and outlet, substantially as shown and described.

3. As a new article of manufacture, a vapor projector comprising an outer section provided with an outlet, said outer section provided with a section-receiving-socket and with horizontal integral dowels, the outer ends of said dowels terminating at the inner end or edge of said socket, an inner section provided with an inlet, the inner end of said inner section seated within said section-receiving-socket and having its extreme inner edge contiguous to the outer ends of said dowels, a vapor diffusor over said inlet, means extending through said inner section and into said dowels for fastening the sections together, and means supported only upon said inner section for drawing air and vapors through said sections and discharging same through said outlet.

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