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T. HOWIE.

UMBRELLA ATTACHMENT.

(Application filed June 5, 1899.)

(No Model.)

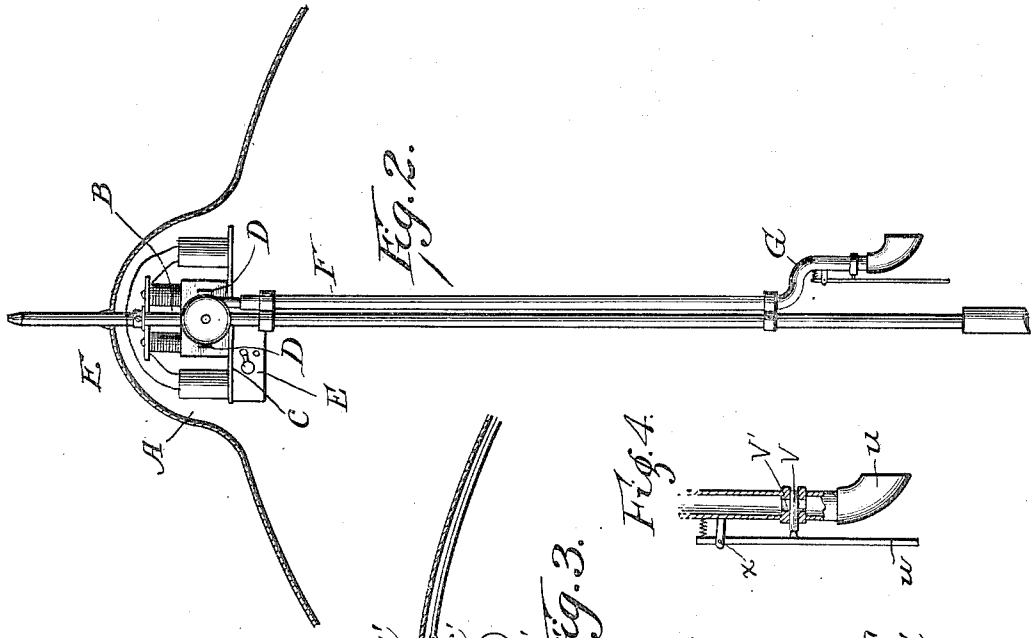


Fig. 2.

Fig. 4.

Fig. 3.

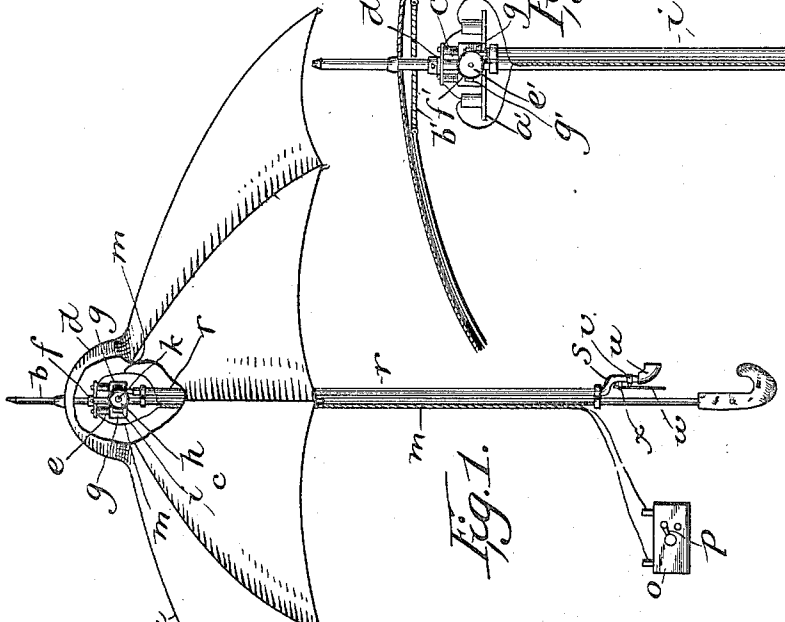


Fig. 1.

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UNITED STATES PATENT OFFICE.

THOMAS HOWIE, OF VINITA, INDIAN TERRITORY.

UMBRELLA ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 660,111, dated October 23, 1900.

Application filed June 5, 1899. Serial No. 719,473. (No model.)

To all whom it may concern:

Be it known that I, THOMAS HOWIE, a citizen of the United States, residing at Vinita, Indian Territory, have invented certain new and useful Improvements in Umbrella Attachments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to umbrellas in general, and more particularly to ventilating attachments therefor, and has for its object to provide in connection with an umbrella a blower carried upon the upper portion of the umbrella and having a tube extending downwardly therefrom and along the stick of the umbrella and provided at its lower end with a flared discharge-pipe having a spring-pressed valve which normally holds the pipe closed against egress of air. This pipe has its discharge end rotatively connected with the shank thereof to be turned to deliver the current of air in any direction, said pipe being slidably connected with the umbrella-stick, so that it may be adjusted vertically to deliver the air at the desired point vertically.

In the drawings forming a portion of this specification, and in which like letters of reference indicate similar parts in the several views, Figure 1 is an elevation showing an umbrella constructed and equipped in accordance with one form of my invention. Fig. 2 is an elevation of an umbrella constructed and equipped in accordance with a different form of my invention. Fig. 3 is an elevation of an umbrella in which my apparatus is located within the usual cover. Fig. 4 is a sectional view showing the vent and the valve connected therewith.

Referring now to the drawings, in operating in accordance with my invention, as shown in Fig. 1 of the drawings, I form an umbrella *a*, having its stick *b* projected above the usual cover *c* thereof, the projecting portion supporting a supplemental cover *d*, attached at its edges to or formed integral with the main cover. This supplemental cover incloses a chamber in which is located any simple form of electric motor *e*, supported upon the stick of the umbrella by clamps *f* and having attached to its pole-pieces *g* the shell of a blower *h* by means of brackets *i*. This blower is arranged concentric with the armature-shaft *k*, which latter is passed centrally of the blower and has mounted thereon within the blower the blower-wheel, of usual form.

Extending from the motor *e* downwardly along the stick of the umbrella are the circuit-wires *m*, which may be embedded flush with the surface of the stick, may be passed through perforations therein, or may be carried upon the outer surface. From the handle of the umbrella-stick the wires are continued free from the stick and are flexible and have metallic end pieces of usual construction for engagement with a suitable, preferably dry, battery *o*, which is adapted to be carried in the pocket of the person carrying the umbrella. A suitable switch *p* is arranged in the circuit of the motor and battery, and I have shown it in this instance upon the casing of the battery, through the medium of which the circuit through the motor may be closed to cause the blower to operate.

Extending from the mouth of the blower and attached to the stick of the umbrella is a flexible tube *r*, attached at its lower end over the end of a metallic tube *s*, which is bent outwardly and then parallel with the stick of the umbrella. Secured to the lower end of this metallic tube by means of a union or other pivotal connection is an outwardly curved and flared bell *u*, serving to direct the air from said flexible tube wherever wished.

A gate-valve seat *v'* is located in the metallic tube *s* intermediate the flexible tube and the bell, and in this seat is adapted to fall a gate *v*, which is raised from the seat by means of a lever *w*, pivotally connected with the tube *s* through the medium of ears *x*, carried thereby, a helical spring being arranged between the lever and the tube *s* to raise that end of the lever projecting beyond its fulcrum, as shown, and thus seat the gate. The connection of the gate with the lever being between the fulcrum and the power end of the latter it is then only necessary to raise the lever to raise the gate and allow the flow of air through the tube *s* and connected bell. The bell being connected pivotally with the tube *s* it may be rotated with relation thereto to direct the air therefrom in any desired direction.

In Fig. 2 of the drawings I have shown a

modification in which the batteries are carried by a platform within the blower-chamber, which chamber A contains a motor B, having the blower arranged concentric with its shaft, said shaft having mounted thereon, within the blower-casing, a blower-wheel of usual construction. Upon said platform C the motor is supported, the blower-frame being attached to the pole-pieces of the motor through the medium of non-magnetic brackets D and said blower being entirely of non-magnetic material. A switch E upon the platform of the motor permits the circuit through the motor to be closed or opened, as desired, to start or stop the blower. Leading from the mouth of the blower is a flexible tube F, which extends down the handle of the umbrella and is attached to the end of a metal tube G, formed and equipped in the same manner as tube *s* above described.

In Fig. 3 of the drawings I have shown a platform *a'*, which is arranged within the usual cover of an umbrella, the ribs of the umbrella being pivotally connected with a disk *b'* near the upper end of the stick, and which disk has a sufficient diameter to cause the ribs when the umbrella is folded to lie against the platform *a'* and against the stick of the umbrella. Upon the platform is arranged a motor *c'*, having also an attachment *d'*, extending from the motor and engaging the stick of the umbrella to hold the motor more securely in place. A blower *e'* has its wheel mounted upon the shaft of the motor, the casing *f'* thereof being securely held to the pole-pieces of the motor by means of brackets *g'* of non-magnetic material. A dry battery (indicated in dotted lines) is also mounted upon the platform and included in the circuit of the motor, the wires of said circuit extending downwardly of the umbrella-stick and to a push-button *h'*, carried by the latter, and through the medium of which said circuit may be closed to cause rotation of the motor-shaft and the operation of the blower. A flexible tube *i'* extends from the blower downwardly of the umbrella-stick and connects with the metallic tube *l'*, constructed and equipped in a manner similar to that shown in Figs. 1 and 2 of the drawings.

The band *m'*, which holds the metallic tube to the umbrella-stick, is in each instance rotatably connected with the stick in order that said tube and the bell carried thereby may be adjusted about the periphery of the stick, as may be desired.

It will be readily understood that I may vary the specific construction and arrangement herein shown and described without departing from the spirit of my invention and that I may employ whatever material may be deemed expedient for any part thereof and also that I may employ my mechanism to whatever use it is applicable.

It will be noted that in Fig. 3 of the drawings I have shown the shaft of the motor passed through an eye formed in the umbrella-stick. This is to enable the location of the motor at one side of the stick and the blower at the other, thus reducing the space required for the mechanism.

Having thus described my invention, what I claim is—

1. The combination of an umbrella, a motor supported thereon, a blower mounted upon the shaft of said motor, a source of electricity in circuit with the motor and a tube leading from said blower and extending downwardly of the stick of the umbrella and having a discharge-piece rotatably connected with the stick.

2. The combination with an umbrella and the stick thereof, of a motor supported upon the stick, a blower mounted upon the shaft of said motor, a source of electricity in circuit with the motor a push-button at the lower end of the stick and in the motor-circuit, a flexible tube connected with the blower and leading downwardly of the umbrella-stick, a discharge-piece connected with said tube and mounted revolubly with respect to the umbrella-stick, and a valve in the discharge-piece and adapted to regulate the discharge therefrom.

3. The combination with an umbrella and the stick thereof, of a motor supported upon the stick, a blower mounted upon the shaft and having its casing connected with the pole-pieces of the motor, a source of electricity in circuit with the motor a push-button mounted adjacent the lower end of the stick and in the motor-circuit, a flexible tube connected with the blower and leading downwardly of the umbrella-stick, a discharge-piece connected with the lower end of the tube and having a bell rotatably connected therewith, a valve in the discharge-piece adapted to regulate the discharge therefrom, and a clamp connected with the discharge-piece and revolubly connected with the umbrella-stick.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS HOWIE.

Witnesses:
W. S. STANFIELD,
M. M. EDMISTON.