No. 693,022. Patented Feb. 11, 1902.

J. HORSFIELD.

VENTILATOR.

(Application filed Jan. 18, 1901.)

(No Model.)

Fig. 1

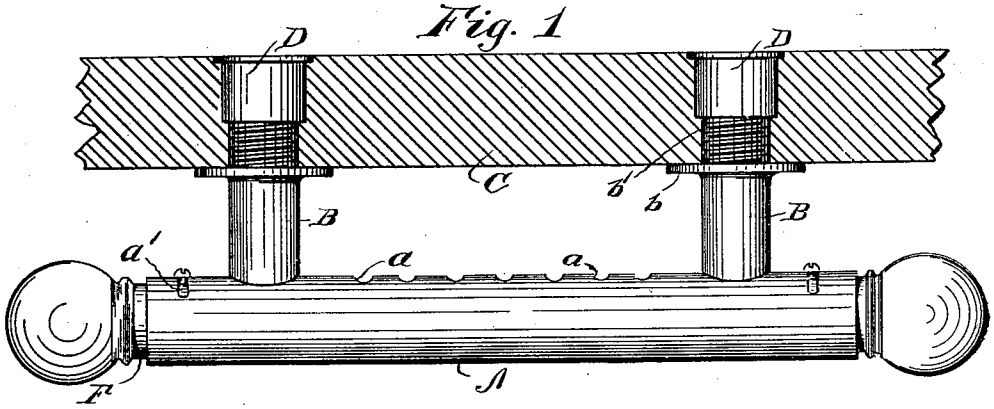


Fig. 2

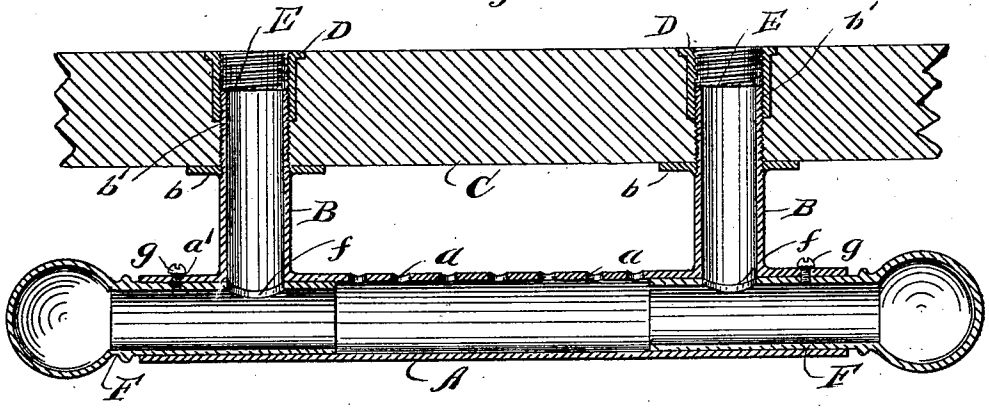
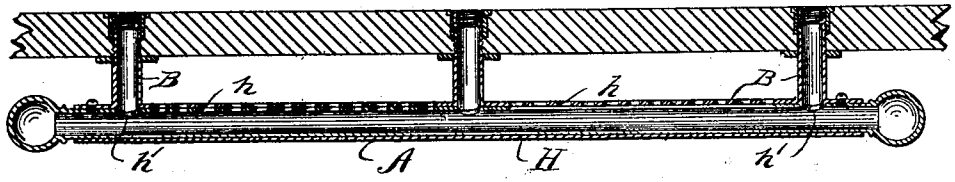


Fig. 3



Witnesses:

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Inventor,

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By Glenn B. Noble

Att'y.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

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VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 693,022, dated February 11, 1902.

Application filed January 18, 1901. Serial No. 43,803. (No model.)

To all whom it may concern:

Be it known that I, JOHN HORSFIELD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Ventilators, of which the following is a specification.

This invention relates to furnishing means for the admission of fresh air only or for the admission of fresh air and the egress of the contaminated atmosphere.

Its objects are to provide means for the above purposes that will be effective in operation, pleasing and unobtrusive in appearance, readily controlled, and in certain instances adapted to be used for other purposes.

It consists in the combination of a perforated ventilating-tube with lateral tubes adapted to furnish communication with the outer air, a tube or tubes inserted in said ventilating-tube adapted to regulate or cut off the supply of air, and such other features and details as will be more specifically pointed out hereinafter.

In the drawings accompanying this application, Figure 1 is a plan view of device embodying my invention as applied in the form of a window-lift. Fig. 2 is a sectional view of such device. Fig. 3 is a modified form of construction shown in section.

A is a tube of any suitable material having therein perforations *a*. At either end of the tube A are attached tubes B, opening therein and adapted to pass out through the sash-strip C to the outer air. Flanges *b* on the tubes B furnish shoulders to fit against the sash member, and the tapped nipples D are provided to engage with the threaded ends *b'* of the tubes, and when screwed in hold the tubes rigidly in place. The whole forms a convenient handle or lift for the window. In order to prevent the admission of cinders, dust, and the like, the ends of the tubes B are supplied with screens E. Any convenient means may be provided to regulate the admission of air; but I have shown two short tubes F inserted in the ends of the tube A and having their outer ends closed. They extend in a sufficient distance to cover the openings at the ends of the lateral tubes B, but are provided with holes *f* in the sides adapted to register with said openings. Screws or pins *g* in the cap-tubes F, working in slots *a'* in the tube A, prevent the withdrawal of said tubes and allow sufficient rotation to bring the holes *f* to register with the openings or to entirely close them, as desired.

A modified form of this invention and one showing its adaptability for various positions and larger capacity is shown in Fig. 3. In this instance the tube A is connected in a similar manner to a plurality of outwardly-extending tubes B. It may be perforated or slotted and is provided with an inner tube H, extending its full length, provided with perforations or slots *h*, adapted to engage with the similar ones of the outer tube and openings *h'* to register with the openings into the lateral tubes B. Slotted holes and pins allow for suitable rotation. It is readily seen that this form may be applied in any desired manner or position to a window or in a room, car, or the like, and if placed in a vertical position the lower tubes B will allow the admission of cold air and the upper ones the egress of the heated air.

I do not limit the invention to the exact construction shown, as other methods of attachment or regulation will readily suggest themselves as coming within the scope of this invention; but

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

1. In combination, a ventilating tubular member provided with lateral connecting-tubes, flanges on said lateral tubes, nipples adapted to engage the ends of said lateral tubes, short tubes with outwardly-closed ends inserted in the end of said ventilating-tube provided with lateral openings to register with the openings in the lateral tubes, screws or pins in said short tubes engaging with slots in said ventilating-tube substantially as described.

2. In combination, a perforated ventilating-tube, supply-tubes connected therewith furnishing communication with the outer air, a tube inserted in said ventilating-tube provided with lateral slots or perforations adapted to register with the perforations in said ventilating-tube and openings adapted to register with the openings into the supply-tubes, and means for rotating said inner tube substantially as described.

JOHN HORSFIELD.

Witnesses:
T. D. MCMAHON,
E. HOFFMAN.