No. 689,739. Patented Dec. 24, 1901.

P. MORILL.

VENTILATING APPARATUS.

(Application filed Sept. 24, 1900.)

(No Model.)

Fig. 1.

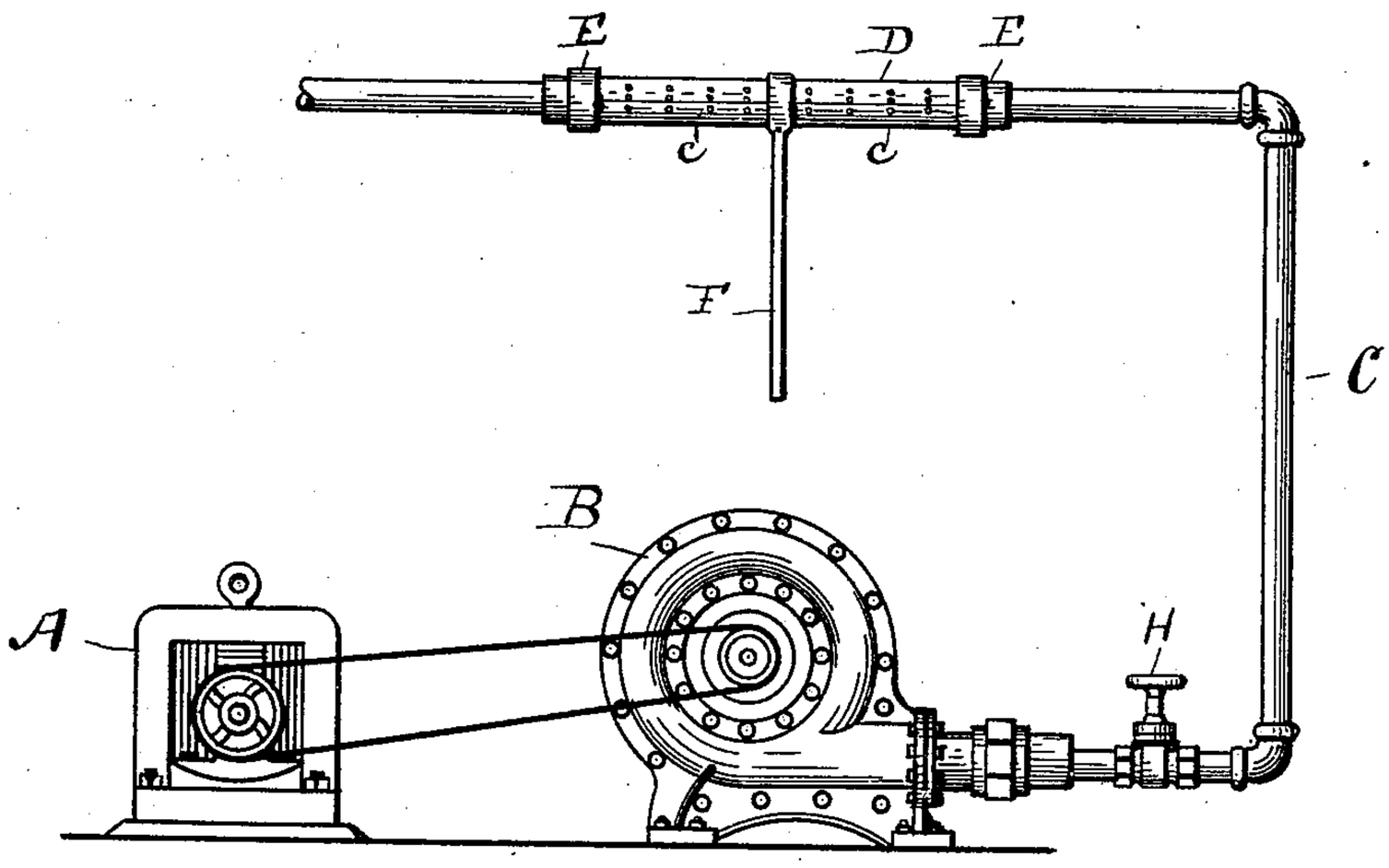


Fig. 2.

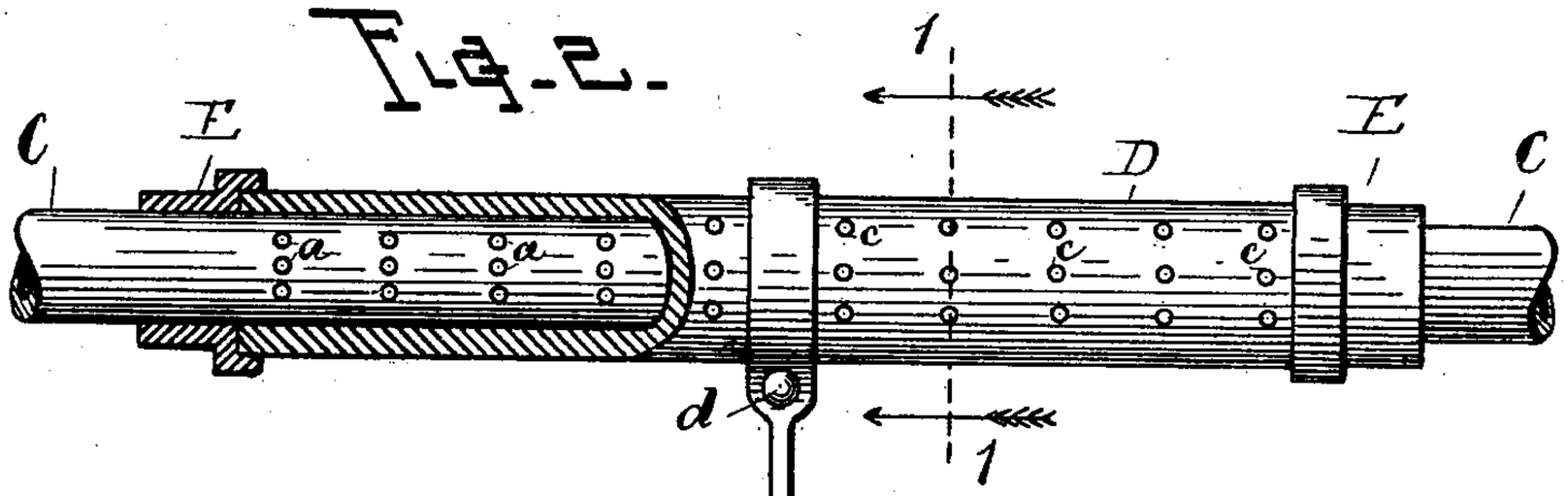
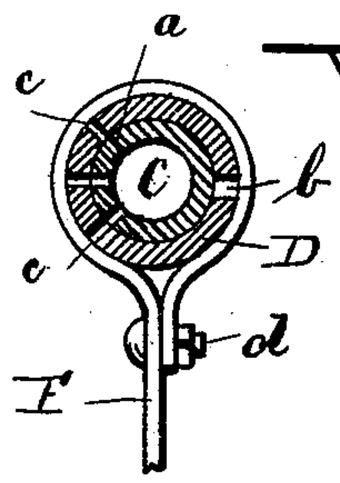


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

PAUL MORILL, OF ELMHURST, CALIFORNIA.

VENTILATING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 689,739, dated December 24, 1901.

Application filed September 24, 1900. Serial No. 30,995. (No model.)

To all whom it may concern:

Be it known that I, PAUL MORILL, a citizen of the United States, residing in Elmhurst, county of Alameda, in the State of California, have invented certain new and useful Improvements in Ventilating Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improved means for producing currents of air; and it consists in the construction and arrangement of the various elements composing the same, as will be more fully described hereinafter and pointed out in the claims.

The object of my invention is to construct a cheap and effective ventilating apparatus that can be conveniently adapted to railway-cars, public halls, private residences, &c.

Referring to the drawings which form a part of this specification, Figure 1 is a front elevation of my invention as it appears in practice. Fig. 2 is a detailed view, partly broken, showing a part of my invention; and Fig. 3 is a transverse section taken from dotted line 1 to 1 of Fig. 2 looking in the direction of the arrows.

Similar letters of reference indicate corresponding parts throughout the several views.

A represents a dynamo used as a motive power to carry out the object I have in view; but it will be seen from the following description that any other motors will answer my purpose as well, such as water or steam, &c., and may be more conveniently used in some cases with equally as good result as a dynamo.

B is an ordinary fan connected to and controlled by the motor above mentioned, and has for its object to produce a current of air and force it through the conduit C, which is connected to the fan by suitable means. This conduit may be of any suitable material, preferably of gas-pipes, joined together by fittings and placed either on the floor or against the ceiling, wherever the best result can be obtained. However, for the purpose of this application I have shown in the drawings the conduit projecting vertically and rectangularly above the fan and broken away, indicating thereby that the same could be extended, if necessary. One of the pipes (or more, if desired) has the perforations *a*, which form the outlet and is provided with an outer cylindrical tube D, split on one side, as at *b*, Fig. 3, and of sufficient temper to form a tight fit around the pipe when in place. This tube is adjustably held in position between two flanged collars E, secured to the pipe, and has also the perforations *c*, corresponding with the perforations *a* of the pipe, which serve to regulate the size of the outlet or to close it altogether, if desired.

To enable me to properly control the movements of tube D, I provide the same with lever F, which is secured around its body by means of a bolt or thumb-screw *d*, as particularly shown in Fig. 3. Thus the lever secured in this manner forms additional means to tighten the tube around the pipe if the same has not sufficient temper.

In order to regulate the flow of air passing through the conduit C, I provide the gate-valve H, which is secured to the pipe, preferably near the fan. Constructed in this manner, when the air is forced through the conduit C its flow can be regulated at will by the gate-valve H, while lever F regulates the outlet, thereby increasing or decreasing the force of the current passing through the perforations *a*.

Various changes in the operation and arrangements of the several parts can be made without altering the scope of my invention. For instance, in some cases the well-known foot or hand power blower may be substituted in place of the fan and motor herein described with good results.

Believing I have produced a new and effective means of ventilation and having fully described the same, what I claim as my invention, and desire to secure by United States Letters Patent, is—

1. In a ventilating apparatus, an air-conduit having outlet consisting of perforations made in the conduit, in combination with adjustable means to regulate the current of air passing through the outlet, consisting of a split perforated tube adjusted around the conduit and having inward spring-pressure and means for adjusting conveniently said tube, consisting of a lever suitably secured thereon, and provided with suitable means for tightening the tube around the conduit,

substantially as set forth and for the purpose specified.

2. In a ventilating apparatus having an air-conduit, provided with outlet consisting of perforations made in the conduit, means to regulate the passage of air through the perforations, consisting of a correspondingly-perforated split tube movably adjusted around the conduit, and held in place by means of rings permanently secured to the conduit, means for tightening and adjusting the tube, consisting of a lever having a clamping end secured annularly around the tube and provided with tightening-bolt, substantially as set forth and for the purpose specified.

In testimony whereof I have affixed my signature, in presence of two witnesses, this 14th day of June, A. D. 1900.

PAUL MORILL.

In presence of—
FRED. MADDEN,
JOHN BIEVI.