(No Model.)

J. R. SHIRLEY

VENTILATION.

No. 261,488. Patented July 18, 1882.

Fig. 1.

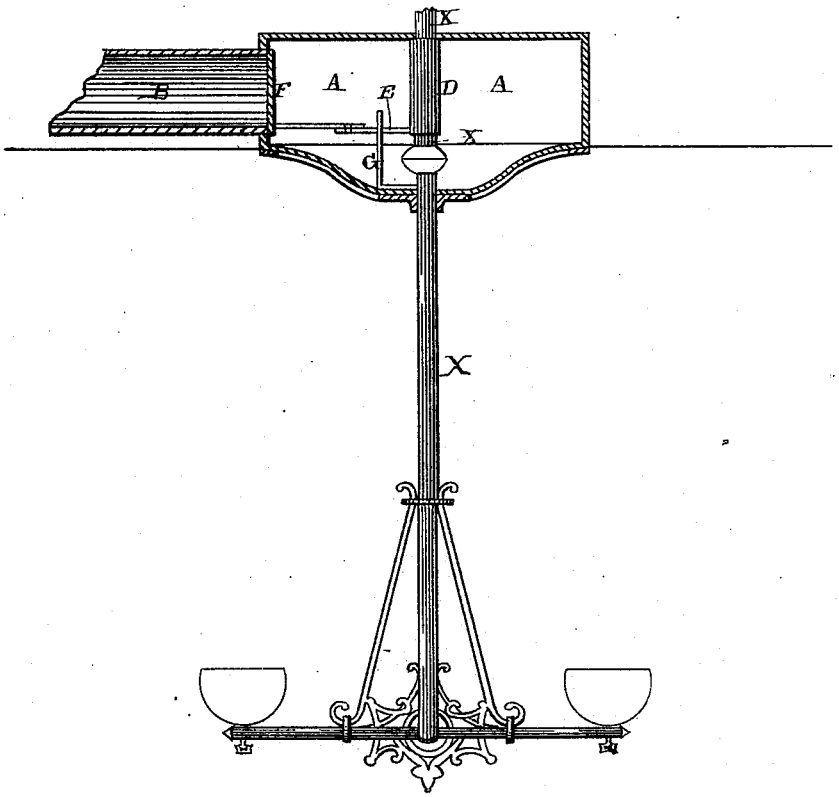
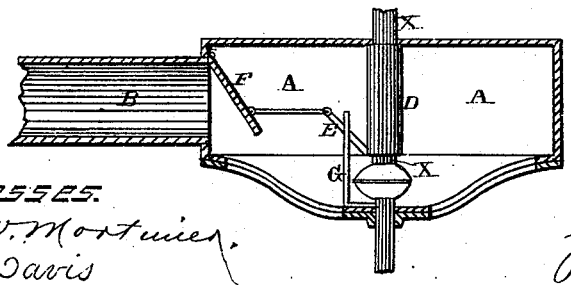


Fig. 2.



Witnesses.
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Inventor.
Jno. R. Shirley
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UNITED STATES PATENT OFFICE.

JOHN R. SHIRLEY, OF PROVIDENCE, RHODE ISLAND.

VENTILATION.

SPECIFICATION forming part of Letters Patent No. 261,488, dated July 18, 1882.

Application filed March 6, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. SHIRLEY, gas-engineer, and a citizen of the United States of America, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Ventilation and the Appliances Therefor; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in the ventilation of houses; and it consists, first, in the combination of a partially-rotating gas-fixture with a center-piece that is made in two parts, one of which is secured to the fixture so as to be rotated by it; second, in the combination of the recess which is formed in the ceiling, the flue for carrying off the foul air, and two center-pieces which have the openings through them, made to register with each other, and which can be so turned that the outer one will act as a cut-off to prevent the passage of air through it, all of which will be more fully described hereinafter.

The object of my invention is to ventilate the room by having the foul air pass off through a flue placed above the ceiling, which flue is provided with a valve, whereby the flow of air through it may be controlled at will.

Figure 1 is a vertical section of my invention. Fig. 2 is a vertical detail view, showing the parts in a different position.

A represents a chamber or recess which is formed in the ceiling, and from which the flue B extends outward for the purpose of carrying off foul air, and for the introduction of fresh air from the outside of the house. Passing down through the center of this chamber or recess A is the usual pipe-drop, X, for supporting the gas-fixtures in position. Upon this drop is placed the revolving sleeve D, which has an arm, E, extending outward at a suitable angle from it, and which arm is connected in any suitable manner to the valve F, which closes the mouth of the flue. This valve may be hinged to the flue so that the movement of the arm E will cause the valve to open either by sliding past the mouth of the flue, by being drawn back from the flue, or by turning upon the hinge or pivot. The manner of operating this valve, so far as the movement of the valve itself is concerned, may be varied at will, and I do not therefore limit my invention to any precise method of operating it. The gas-fixture which is attached to the lower part of the pipe-drop, instead of being made stationary, as has generally been the case, is here made to partially rotate, and fastened to this rotating gas-fixture is the arm G, which extends upward so as to bear against the arm E, which projects out from the sleeve D. When the gas-fixture is made to partially revolve, the arm G forces the sleeve D around, and the valve F is thus caused to open, either as shown in Fig. 2 or in any other suitable manner. Of course the center-piece will be made of open-work, so as to allow the foul air in the room to escape through the flue B and to allow fresh air to descend into the room. The center-piece may be made stationary, or it may be made to operate in connection with the valve, as may be preferred. Where it is desired to use the center-piece either in the place of the valve F or in conjunction with the valve, the center-piece will be made of two parts, one of which fits inside of the other, and which have openings made through them so as to register. The outer piece will then be attached either to the chandelier, so as to revolve with it, or it may be operated by a rod or key, or in any other way which may be preferred. When the outer piece is turned it will operate as a cut-off, and thus close all of the openings through the inner piece, and thus prevent the passage of air through them.

It being objectionable to attach too much weight to the ceiling, I propose making my center piece or pieces of shell metal produced preferably by deposition of metal on suitable forms of wood, wax, plaster, or other suitable material. By this means I can obtain deep reliefs having all the appearance of heavy castings at much less cost, at the same time divested of their weight, thus rendering them specially suitable for inlaid ceilings or wall-panels, either for decoration as wall-panels or as ventilators. I do not limit myself to the

shell center or panel, as any other suitable material will effect the same end when operated as described.

My invention can also be used without the gas-fixture by having a center rod with sleeve as above described, and having a suitable removable key that can be applied to operate the same as the fixture would in like position, and by this means the cords and pulleys heretofore used can be dispensed with and a much neater appearance obtained with more effective workings.

Having thus described my invention, I claim—

1. The combination of a partially-rotating gas-fixture with a center-piece that is made in two pieces, one of which is secured to the fixture, substantially as shown.

2. The combination of a partially-rotating gas-fixture with a center-piece made in two parts, one of which is secured to the fixture so as to be operated by it, a connecting rod or arm, a valve, flue, and an arm attached to the fixture for operating the valve, whereby when the fixture is turned both the center-piece and valve will be opened or closed, substantially as set forth.

3. The combination of the pipe-drop and partially-rotating gas-fixture with the chamber, air-flue leading from chamber, sleeve D, arm E, valve F, and arm G, substantially as specified.

4. A center-piece formed of two pieces, each one of which has holes through it, one of the pieces being made movable, substantially as set forth.

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

JOHN R. SHIRLEY.

Witnesses:

CLARKE H. JOHNSON,

C. FRANK PARKHURST.