

No. 620,870.

Patented Mar. 7, 1899.

J. W. LAPE.  
SMOKE AND ODOR CONSUMER.

(Application filed June 21, 1897.)

(No Model.)

Fig. I.

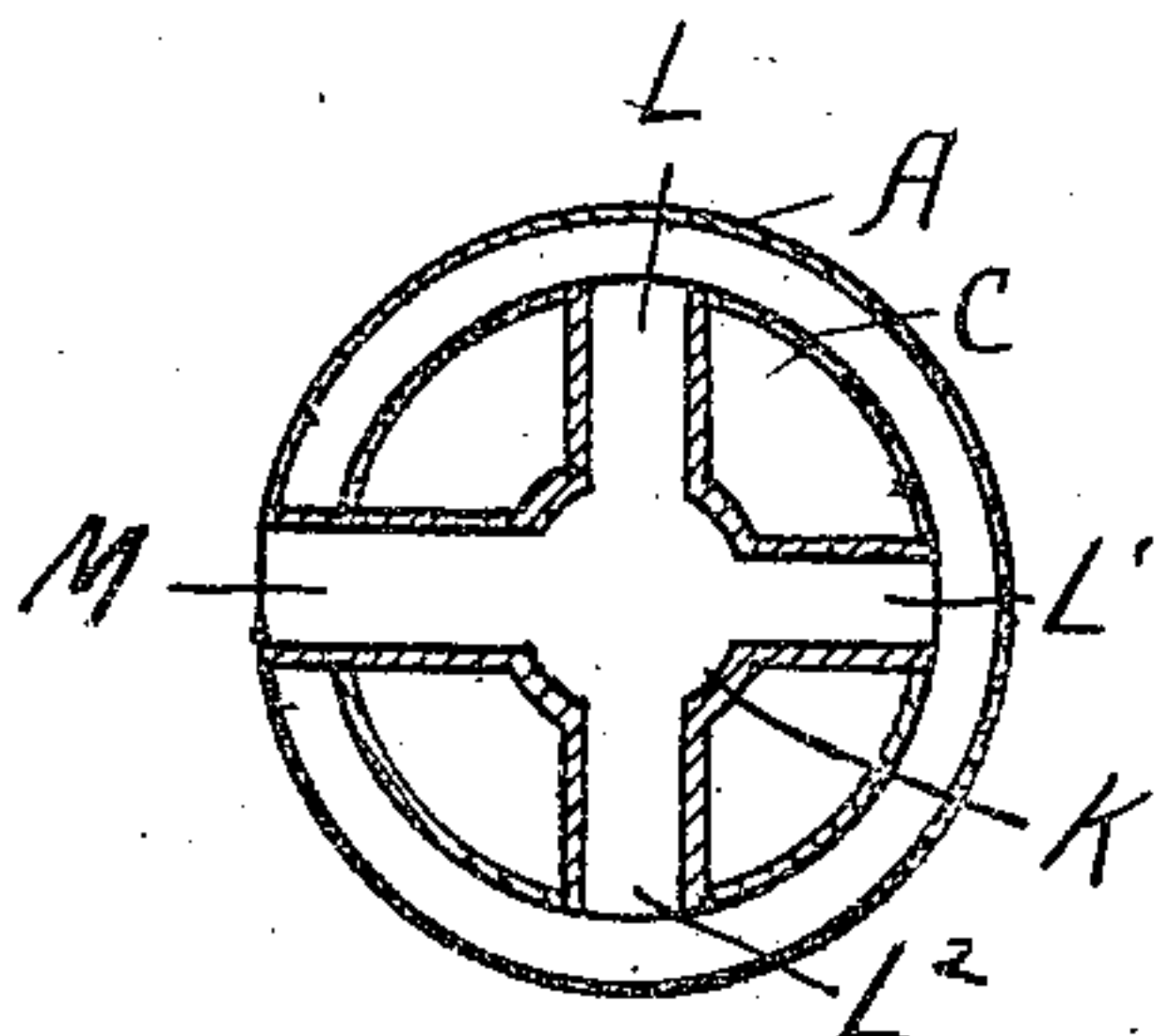
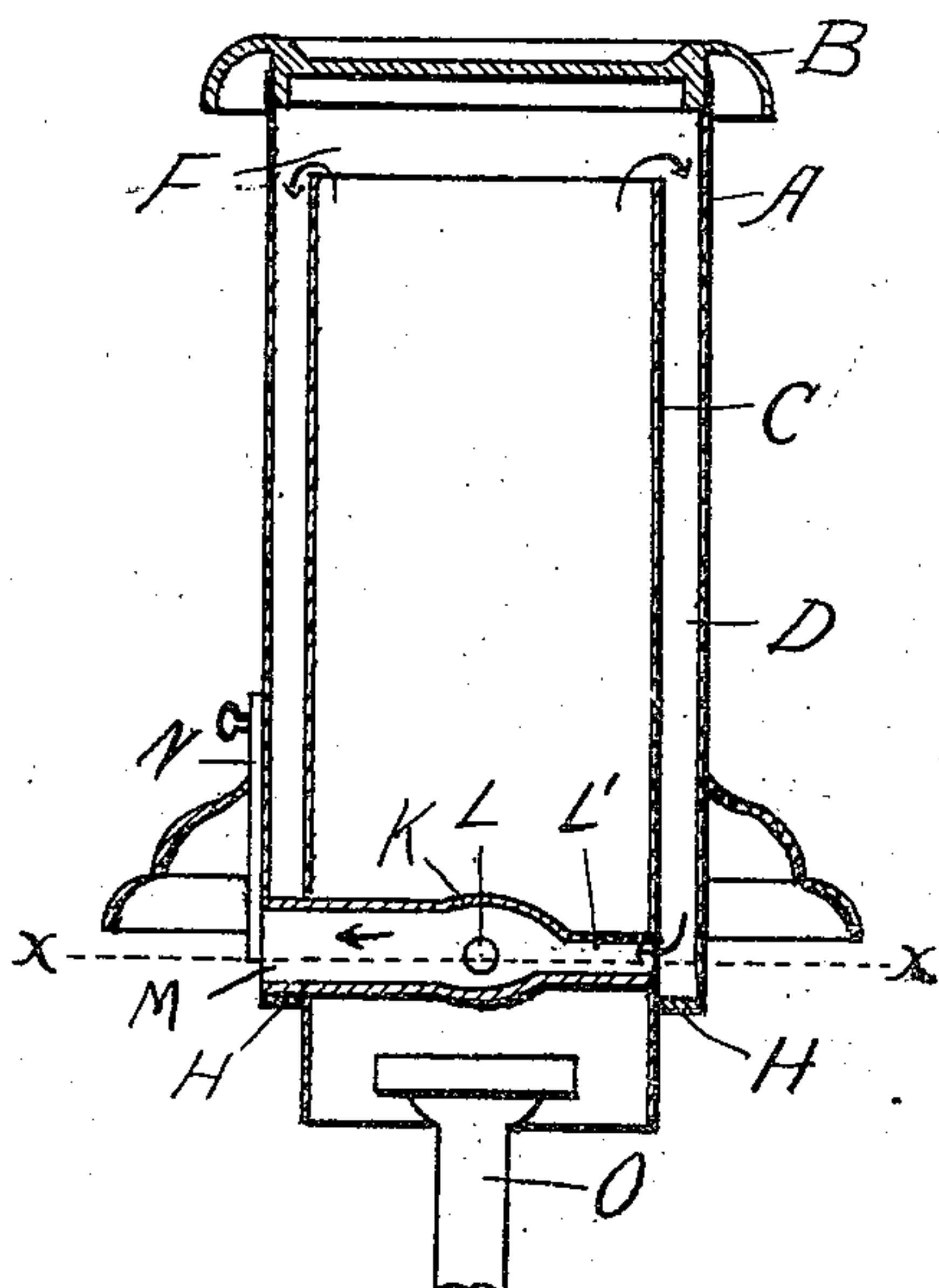


Fig. III

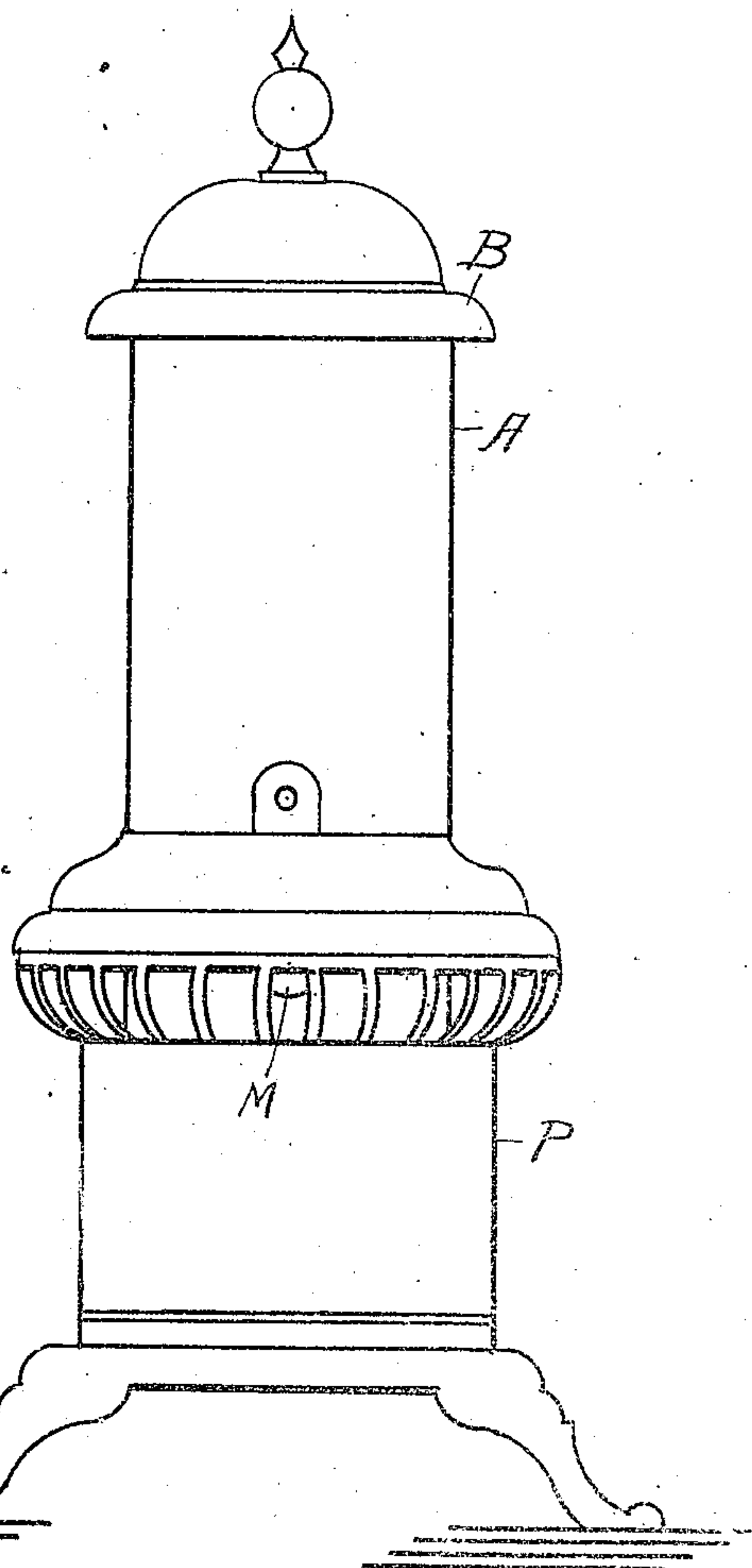


Fig. II

Witnesses  
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# UNITED STATES PATENT OFFICE.

JOHN W. LAPE, OF MANSFIELD, OHIO, ASSIGNOR OF ONE-HALF TO WADE  
H. RINEHART, OF SAME PLACE.

## SMOKE AND ODOR CONSUMER.

SPECIFICATION forming part of Letters Patent No. 620,870, dated March 7, 1899.

Application filed June 21, 1897. Serial No. 641,736. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN W. LAPE, a citizen of the United States, and a resident of Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Smoke and Odor Consumers, of which the following is a specification.

My invention has for its object to subject the smoke and waste gases of a stove or other heating apparatus to such a high temperature that they will be consumed, thereby rendering them harmless and increasing the efficiency of the stove.

With this and other objects in view my invention further consists in the novel details of construction and combination of parts, to be more fully described in the following specification and clearly set forth in the appended claims.

Referring to the accompanying drawings, forming part of this specification, in which like characters of reference indicate like parts, Figure 1 is a central vertical section of the upper part of my invention. Fig. 2 is a front elevation of the entire apparatus, and Fig. 3 is a horizontal section on the line  $xx$  of Fig. 1.

In the drawings, A represents a cylindrical casing mounted on a suitable base P and having its upper end closed by a cap B. A cylinder C, of smaller diameter than the casing, is suspended centrally therein, with its upper end some distance below the cap, leaving the upper space F and the surrounding space D. The lower end of the cylinder C projects below the lower end of the casing and is provided with the flange H, which fits against the edge of the casing to close the bottom of space D.

In the lower part of the cylinder C is a consuming-chamber formed of an enlarged circular central portion K, with four or more radial pipes L L' L<sup>2</sup> M leading therefrom. Three of said pipes L L' L<sup>2</sup> pass through the cylinder C and communicate with the space D, while the fourth pipe M is considerably larger than the others and passes through the cylinder and casing to discharge into the atmosphere. Directly beneath the consuming-chamber and above the lower edge of the cylinder is a burner O of any desired form.

N indicates a damper or slide to regulate

the opening in pipe M and is principally used in starting the stove to confine the contents until the desired temperature is attained.

From the foregoing it will be seen that when the burner O is lighted the escaping smoke and gases pass upward through the cylinder C to the space F, where they are deflected by the cap B to travel downward through the space D. Near the bottom of this space they are gathered by the pipes L L' L<sup>2</sup> and brought to the enlarged central portion of the consuming-chamber, where they are intensely heated by the burner below to complete their combustion, and finally they are discharged in their harmless condition through pipe M.

While my invention is particularly adapted for use with gas, gasolene, or coal-oil burners, it is obvious that it can be used to a great advantage with any other form of heat-producer giving off gas or smoke.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device of the character described, a cylindrical casing, a hollow cylinder supported therein forming an upper and a surrounding space, a flange closing the bottom of the surrounding space, a consuming-chamber in the lower part of the cylinder composed of a circular central portion with a number of radial pipes connecting it with the surrounding space and a discharge-pipe of greater diameter than the first-named pipes and connecting the central portion with the atmosphere and a burner beneath the consuming-chamber, substantially as described.

2. In a device of the character described, a consuming-chamber composed of a circular central portion, a number of radial pipes leading thereto adapted to admit the gases to be consumed, and a discharge-pipe, of greater diameter than the first-named pipes, connected to the central portion, in combination with a burner therebeneath, substantially as described.

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

JOHN W. LAPE.

Witnesses:

LOUIS MCCRAY,  
WM. M. HAWK.