E. P. MORSE.

Stovepipe Drum.

No. 53,029. Patented March 6, 1866.

Fig. 1.

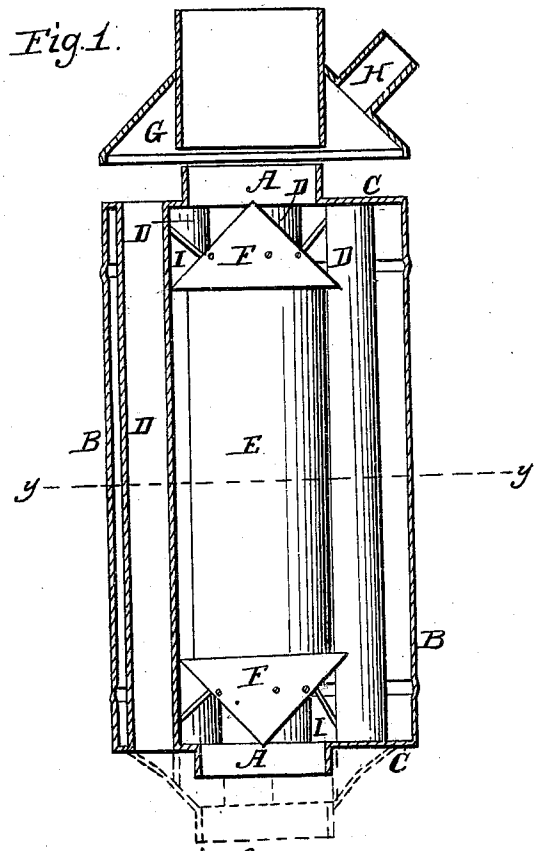
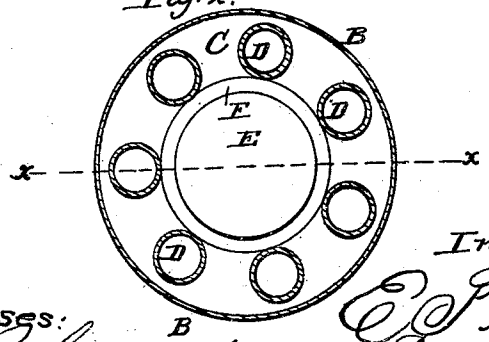


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

E. P. MORSE, OF BATAVIA, NEW YORK.

STOVE-PIPE DRUM.

Specification forming part of Letters Patent No. **53,029**, dated March 6, 1866.

To all whom it may concern:

Be it known that I, E. P. MORSE, of Batavia, Genesee county, State of New York, have invented a new and useful Improvement in Drums for Stove-Pipes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical longitudinal section through the line *x x*, Fig. 2. Fig. 2 is a horizontal cross-section through the line *y y*, Fig. 1.

Similar letters of reference indicate like parts.

My invention has for its object the utilizing the heat escaping through the smoke-pipe of a stove; and it consists of a drum constructed and arranged as hereinafter more fully described.

A are the necks of the drum, which connect with the stove-pipe both below and above the said drum. B is the outer case of the drum. C are the heads of the drum. D are pipes passing longitudinally through the drum, with their upper and lower ends terminating in the heads C.

E is a cylinder having conical ends F. This cylinder should be of such a size as to leave a space between it and the pipes D, as shown in the drawings; but the conical ends F should project beyond the cylinder E, so that the smoke may be thrown well among and around the pipes D. The pipes D will thus be surrounded by the heated smoke and gas throughout their whole length.

The upper and lower ends of the pipes D open directly into the room. Currents of air are thus established through the pipes D, the air passing in at their lower ends comparatively cold, and passing out at their upper ends heated.

If it is desired to convey the heated air from the drum to another room, either on the same floor or a floor above, there should be placed upon the top of the drum a cap, G, similar in shape to the frustum of a cone, and from which a pipe, H, leads to the room desired to be heated. This cap G is shown in Fig. 1 as slightly raised from the head of the drum upon which it fits. This drum must always stand in a vertical position, and it may be placed in the same room as the stove from which the heat is to be obtained; or if the heat is to be used on the floor above the stove, and the stove-pipe passes up through the ceiling, the drum may be placed in the upper room.

The cylinder E may be held in place by the points or braces I, one end of which rests against the heads G of the drum, and the other end against the conical ends F of the cylinder E.

For the purpose of diminishing the cost of manufacture, the ends or heads C of the drum may be cast. In this case they should be made dish-shaped, as represented in dotted lines in Fig. 1. This latter construction I prefer, as it gives an easier curve to the smoke on entering the drum, and also allows the ashes to fall out of said drum.

The air-pipes D are represented in the drawings as being made circular, but they may be made of any desired form. I prefer to make them oval or pear-shaped, so as to present the greatest heating-surface possible to the hot smoke and gas in the drum B.

I claim as new and desire to secure by Letters Patent—

A drum for stove-pipes, consisting of the exterior wall, B, air-pipes D D, flues A A, and deflectors F F, constructed and arranged substantially as described, and for the purpose set forth.

E. P. MORSE.

Witnesses:
JOSEPH VULLETT,
FOSTER SOPER.