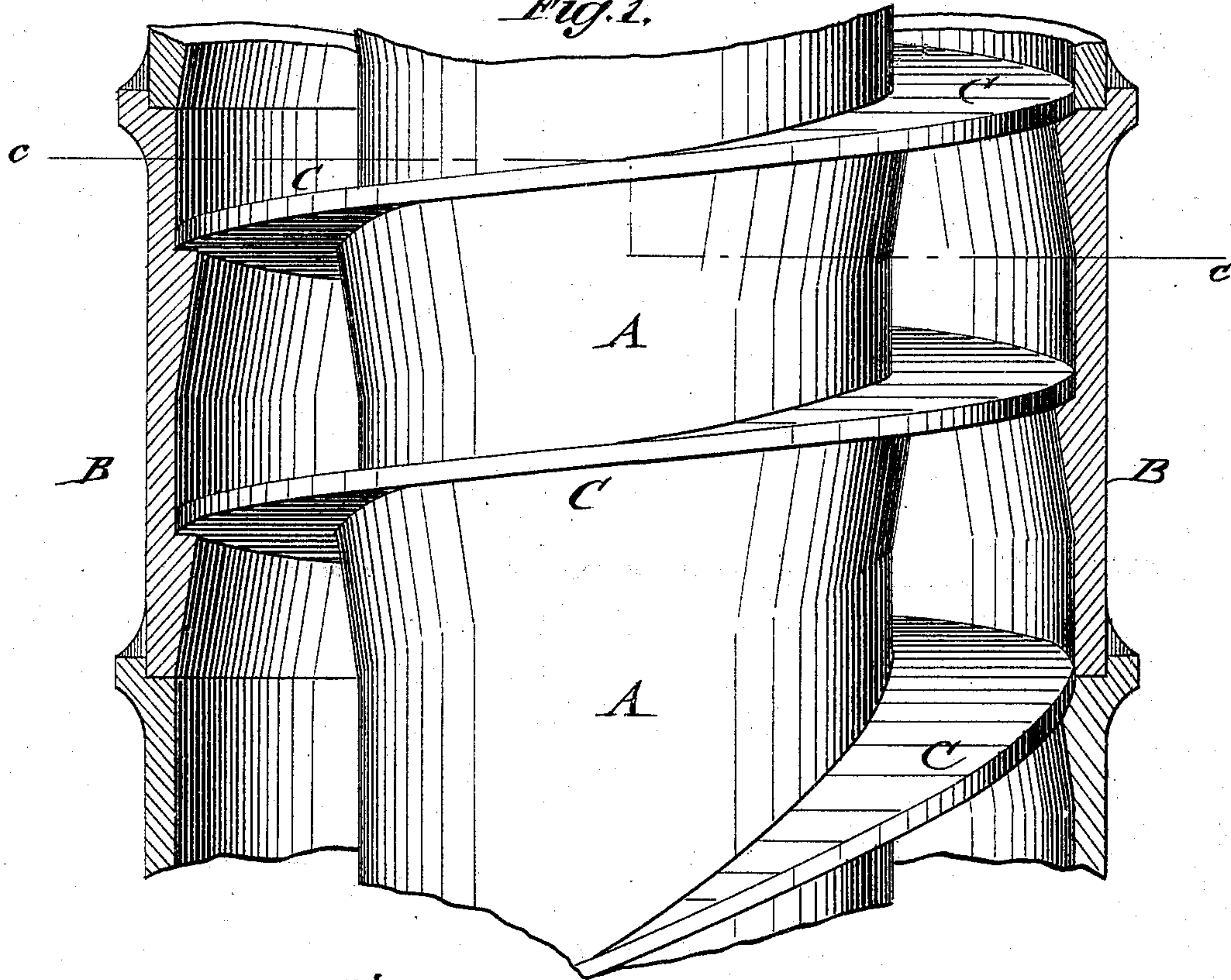


M. C. HALSTED.  
CHIMNEY.

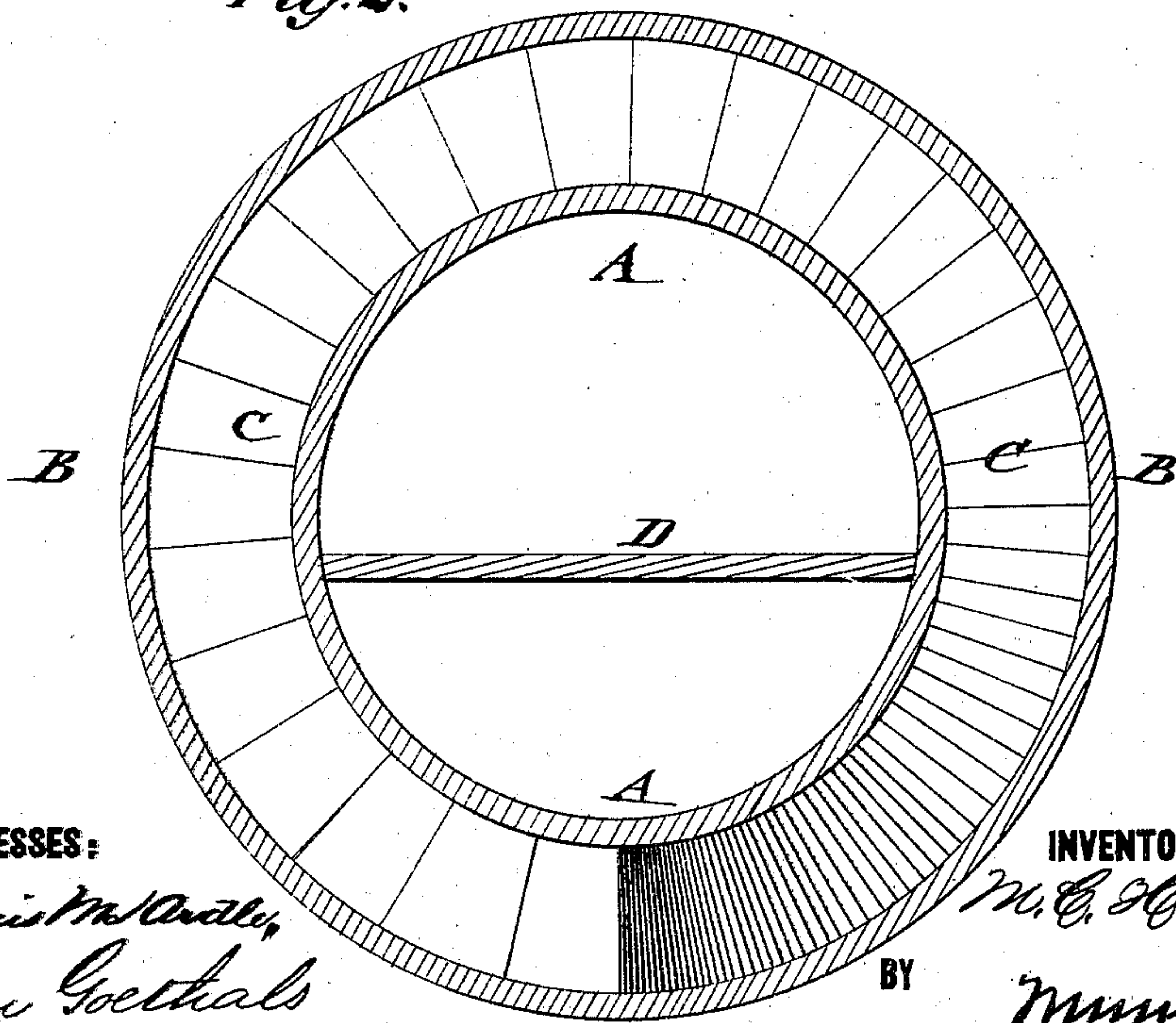
No. 182,575.

Patented Sept. 26, 1876.

*Fig. 1.*



*Fig. 2.*



WITNESSES:

*Francis McAuley,*  
*John Goethals*

INVENTOR:

*M. C. Halsted*

BY

*Munn & Co.*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

MERCY C. HALSTED, OF ST. LOUIS, MISSOURI.

## IMPROVEMENT IN CHIMNEYS.

Specification forming part of Letters Patent No. **182,575**, dated September 26, 1876; application filed June 20, 1876.

*To all whom it may concern:*

Be it known that I, MERCY COMSTOCK HALSTED, of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and Improved Chimney, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a sectional side elevation of my improved chimney; and Fig. 2, a horizontal section of the same on line *c c*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of my invention is to supply a uniform heat and establish an effective ventilation in houses, and buildings generally, by an improved chimney-flue, so that a less quantity of fuel is consumed than in the present styles of heating appliances, and the atmosphere at the same time kept pure and healthy.

The invention consists of a chimney with spiral exterior smoke-flue and interior heating and ventilating passages.

In the drawing, A represents the interior and B the exterior cylinder of my improved heating and ventilating chimney. The smoke is conveyed upward from the furnace at the cellar of the building, between the inner surface of the exterior cylinder and the outer surface of the interior cylinder, by a spiral or helical flue, C, of greater or less pitch, that extends throughout the length of the cylinders, so as to form a radiating smoke-flue between the same. The smoke is conducted to the top of the house or building through a suitable cowl at the outside, the heating capacity of the same being entirely utilized during its

passage through the winding of the smoke-flue. The interior cylinder is divided by a vertical partition-wall, D, into two passages, of which the larger one is designed, by means of suitable connections, for supplying fresh heated air to, and the other for carrying off the effete air from, the apartments, which is accomplished by suitable registers of the heating and ventilating passages or flues, placed respectively near the bottom or top of the rooms. A damper will be arranged in the chimney near the top, by means of which the smoke and the heated products of combustion may be retained in the chimney, and thus a still greater economy effected in the quantity of fuel used.

The same principle may be also applied to boiler-flues and other appliances in which the economic combustion of fuel is to be accomplished.

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

1. A chimney having exterior smoke-flue and interior heating and ventilating passages or flues, substantially in the manner and for the purpose set forth.

2. A chimney made of an outer and inner cylinder, and having a vertical partition-wall in the inner cylinder, forming heating and ventilating passages, substantially as set forth.

MERCY C. HALSTED.

Witnesses:

A. H. BLAISDELL,  
JNO. C. ORRICK.