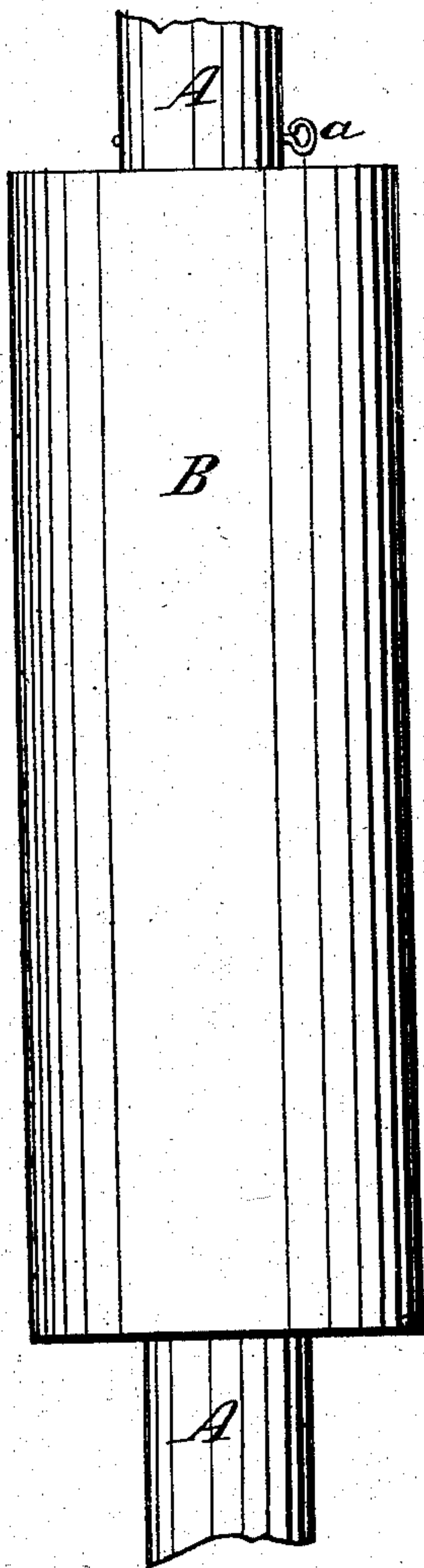


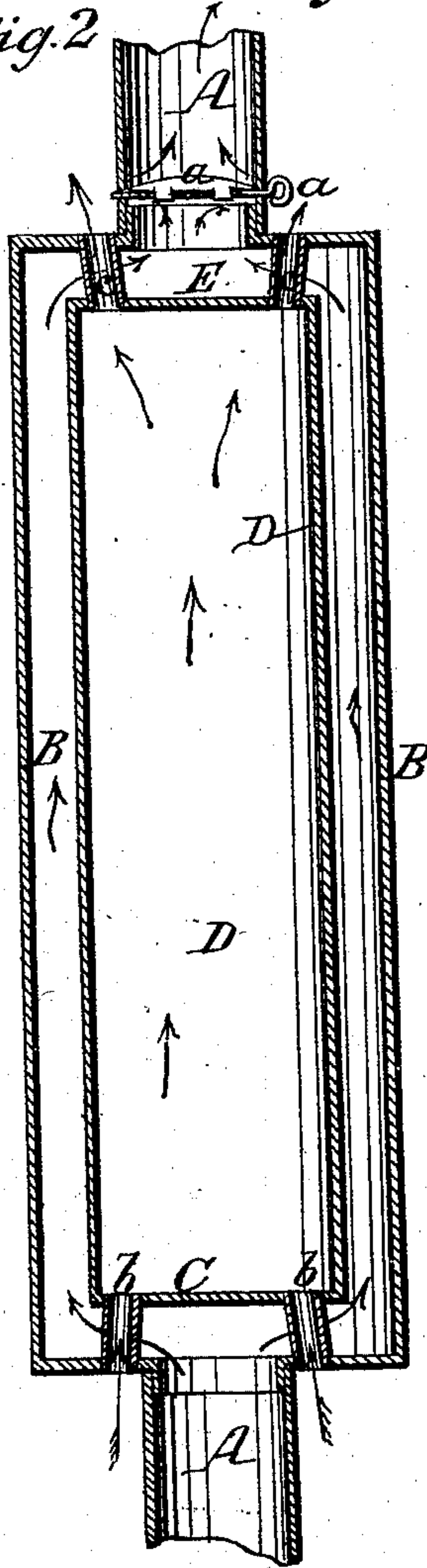
*A. Edwards.*

*Heating Drum.*

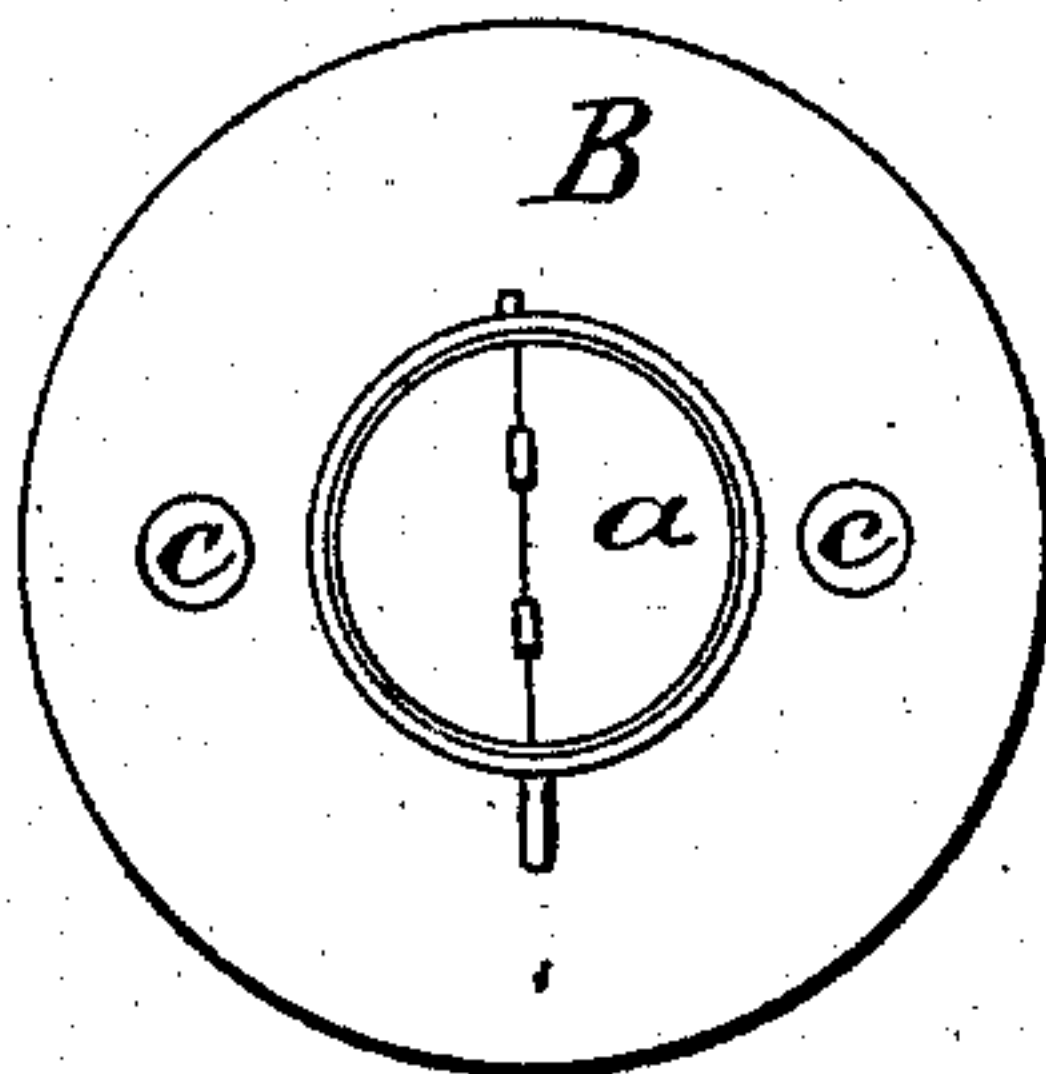
*No. 48,540.*  
*Fig. 1.*



*Patented July 4, 1865.*  
*Fig. 2.*



*Fig. 3.*



*Witnesses.*

*James Clark*  
*R. W. Boquer.*

*Inventor.*

*Alfred Edwards*  
*by*  
*Coburn & Harris.*  
*attys.*

# UNITED STATES PATENT OFFICE.

ALFRED EDWARDS, OF CHICAGO, ILLINOIS.

## HEAT-RADIATOR.

Specification forming part of Letters Patent No. 48,540, dated July 4, 1865.

*To all whom it may concern:*

Be it known that I, ALFRED EDWARDS, of the city of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Radiating Heat-Regulators; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and the letters and figures marked thereon, which form part of this specification.

The nature of my said invention consists in combining with a heat-controlling device arranged within the stove-pipe an air-heating chamber, wherein the air is heated and from which it is discharged into the room, thus producing a device whereby the heat passing up the stove-pipe is not only controlled and regulated at will, but also heats the air in said chamber, and thus greatly increases the amount of heat obtained from the stove.

To enable those skilled in the art to understand how to construct and use my invention, I will proceed to describe the same with particularity, reference being made in so doing to the aforesaid drawings, in which—

Figure 1 represents a side elevation of my invention; Fig. 2, a vertical central section of the same, and Fig. 3 a plan or top view thereof.

Similar letters of reference in the different figures indicate the same parts of my invention.

A represents an ordinary stove-pipe, B being a cylindrical enlargement in the same.

C represents a circular plate arranged di-

rectly over the end of the pipe opening into the cylinder from below, of such dimensions that the annular space between it and the cylinder B has the same superficial area as the stove-pipe, *a* representing a damper or valve at the top, as shown.

The construction thus far described is identical with the invention set forth in the Letters Patent granted to me on the 13th day of September, A. D. 1864. My present invention consists in constructing a close cylinder or chamber upon this plate C, the upright walls of said cylinder being marked D and its top E. At the bottom of said chamber D there are two tubes leading through the end of B, (marked *b b*,) and at the top are two similar tubes, (marked *c c*.) As the heat passes up through the annular space between B and D, as indicated by the dark arrows in Fig. 2, the air within the chamber D is heated and passes out at the top through *c c*, fresh air being admitted from below to supply the vacuum therein, as shown by the red arrows.

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

The combination of the heating-chamber D, provided with inlet and outlet tubes *b c*, with the cylinder B and circular plate C, arranged and operating as and for the purposes shown and specified.

ALFRED EDWARDS.

Witnesses:

W. E. MARRS,

L. L. COBURN.