

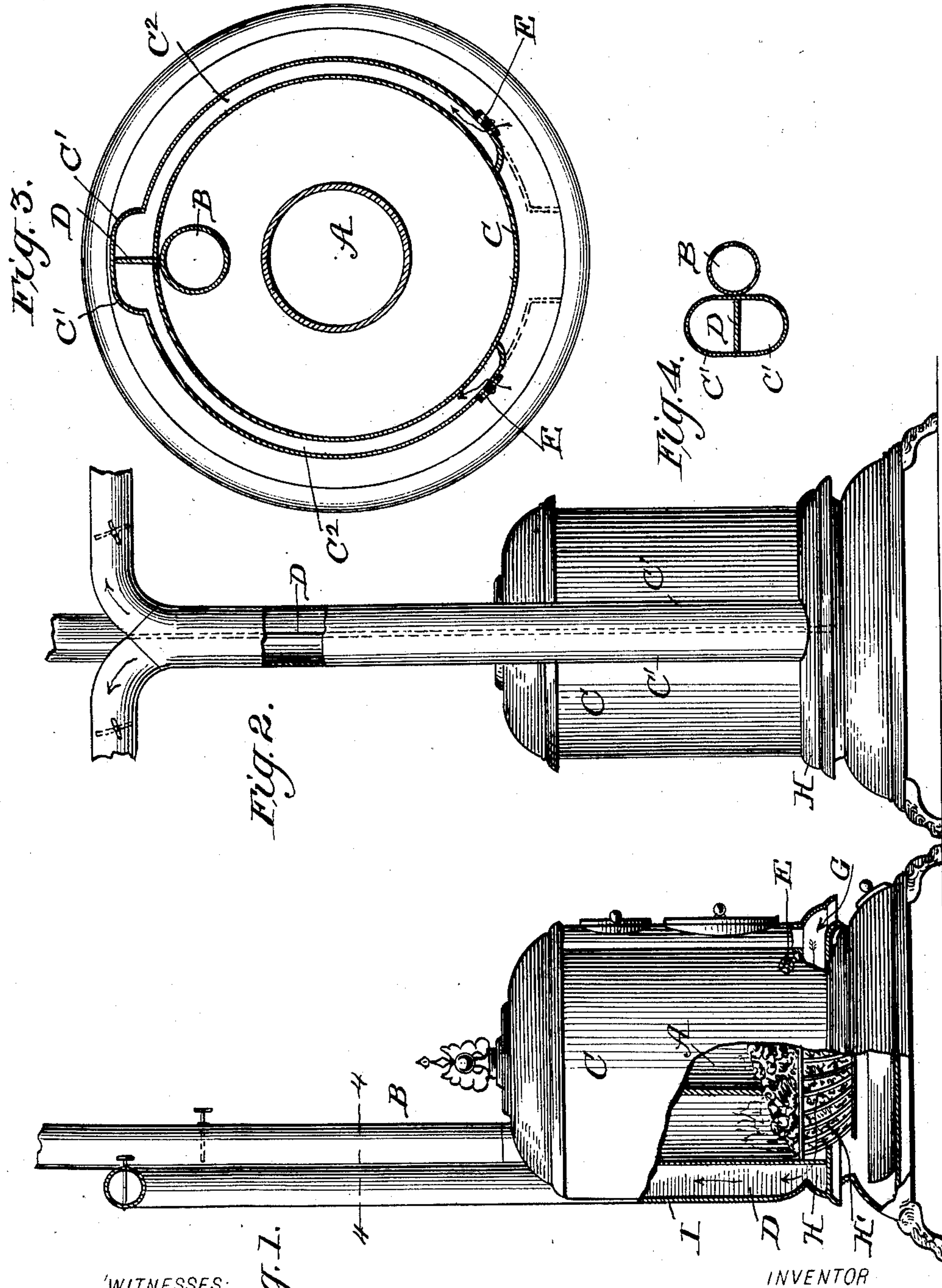
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PATENTED APR. 5, 1904.

J. COCKRELL.  
HEATING STOVE.

APPLICATION FILED JUNE 16, 1903.

NO MODEL.



WITNESSES:  
*Jos. A. Ryan*  
*Geo. Brock*

INVENTOR  
*Judson Cockrell.*  
BY *Munn & Co.*  
ATTORNEYS.



## UNITED STATES PATENT OFFICE.

JUDSON COCKRELL, OF FARGO, NORTH DAKOTA.

## HEATING-STOVE.

SPECIFICATION forming part of Letters Patent No. 756,587, dated April 5, 1904.

Application filed June 16, 1903. Serial No. 161,676. (No model.)

*To all whom it may concern:*

Be it known that I, JUDSON COCKRELL, of Fargo, in the county of Cass and State of North Dakota, have invented a new and useful Improvement in Heating-Stoves, of which the following is a specification.

My invention relates to heaters designed to both warm and ventilate rooms of buildings; and its object is to secure the greatest heating results and also economy of fuel.

My invention consists of the particular arrangement of the cold-air jackets, in which the cold air is heated and discharged into the hot-air pipe to be carried to the most remote parts of a house.

The invention consists, further, in certain novel features of construction and operation, as will be hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 is a side elevation partly in section. Fig. 2 is a rear elevation with part of the hot-air flue broken away. Fig. 3 is a horizontal section of the stove. Fig. 4 is a transverse horizontal section on line 4 4 of Fig. 1.

A is the fuel-magazine of the heater, which in this instance is one of the self-feeder type.

B is the smoke-pipe.

C is the upper jacket surrounding the combustion-chamber and has the enlargement C' at the rear portion thereof, which extends from the base upwardly to the floor above, where it divides and spreads in opposite directions or any direction desired. A central vertical partition D is placed within said enlargement, thus forming two separate and distinct vertical chambers C<sup>2</sup> C<sup>2</sup> on each side of the combustion-chamber. Said chambers do not extend entirely and around the combustion-chamber; but the jacket C, inclosing said chambers, is curved inwardly at each side of the front center of the stove and closes the chambers at these points. These chambers are provided with the inlets E E for the admission of cold air to each chamber C<sup>2</sup> C<sup>2</sup>. Said inlets are to be provided with a shutter arrangement in order that the air may be heated and controlled in either of the chambers of the jacket C independently of each other.

H represents the lower jacket, which sur-

rounds a lower chamber H', and said chamber is also divided by the vertical partition D into two divisions. The lower chamber is provided with the cold-air inlet G at the lower front central portion thereof. Each of these divisions or chambers augments or increases the volume of heated air carried by the hot-air pipe I from the divisions or chambers of the upper jacket C and the lower chamber.

The pipe I, as stated, has the branches at its upper end, and each branch pipe is provided with a damper, whereby the amount of heat carried to either part of the house is regulated independently of the other.

Cold air is admitted to the chambers C<sup>2</sup> C<sup>2</sup> of the upper jacket C through the inlets E E and carried around the outside of the combustion-chamber to the hot-air pipe I, while cold air is also admitted to the lower jacket and its inclosed chambers H' H' through the inlet G and after being carried clear around the fire-box is carried off by the hot-air pipe I on both sides of partition D.

By my improvement I provide a device by which the hot air from stoves may be utilized for heating the room in which the stove is placed as well as a number of rooms above, the same as is commonly done by hot-air furnaces.

It will be seen that I provide a simple, cheap, and practical means of heating and ventilating houses with a material economy of fuel, which may be of any desired character, and cost of construction.

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

1. In a heater and ventilator, the combination with the combustion-chamber of a stove, of a shell or jacket surrounding the combustion-chamber forming a hot-air space between the same and provided with cold-air inlets near its lower portion, a hot-air flue extending upwardly from said hot-air space, a vertical partition within said hot-air flue, dividing the hot-air space surrounding the combustion-chamber into two separate compartments, and branch flues extending from the hot-air flue of its upper portion on each side of its partition.

2. In a heater and ventilator, the combina-



tion with the combustion-chamber and fire-box of a stove, of upper and lower shells or jackets surrounding the same and forming hot-air spaces or compartments inclosing the combustion-chamber and fire-box, a hot-air flue extending from the base of the stove upwardly forming a section of the aforesaid hot-air spaces, a vertical partition within said hot-air flue dividing said hot-air spaces into separate and independent chambers, cold-air inlets at or near the lower portion of the upper and lower jackets or shells, branch flues extending from the upper portion of the hot-air flue, and means for controlling and regulating the amount of heat carried to each part of the house independently of every other part.

3. In a heater and ventilator, the combination with the combustion-chamber of a stove, of upper and lower shells or jackets secured to the body of said chamber on each side and surrounding the same at its rear forming hot-air spaces, a hot-air flue extending from the body of the stove and forming a portion of the hot-air spaces, a vertical partition within said flue forming two independent hot-air spaces on each side of the stove, the upper and lower jackets being provided with cold-air inlets at or near their lower portions, and branch flues extending from the upper portion of the hot-air flue.

4. In a heater and ventilator, the combination with the combustion-chamber and fire-box of a stove, of upper and lower shells or jackets surrounding the same and forming hot-air spaces or compartments inclosing the combustion-chamber and fire-box, the upper jacket being secured to the combustion-chamber at each side of its front and the lower jacket extending completely around the fire-box, the upper jacket provided with cold-air inlets at or near its lower portion on each side, and the lower jacket provided with a cold-air inlet at its center, a hot-air flue extending upwardly from the hot-air spaces and forming a part thereof, and a vertical dividing-partition extending within said flue extending from the base of the stove upwardly to branch pipes at the upper end of the flue.

5. In a heater and ventilator, the combination with the combustion-chamber of a stove, of a shell or jacket surrounding said combustion-chamber, and forming a hot-air space between the same and provided with cold-air inlets, a partition dividing said hot-air space into separate compartments, and flues extending from each compartment.

JUDSON COCKRELL.

Witnesses:

FRED SHOEMAKER,  
J. D. MOULDER.