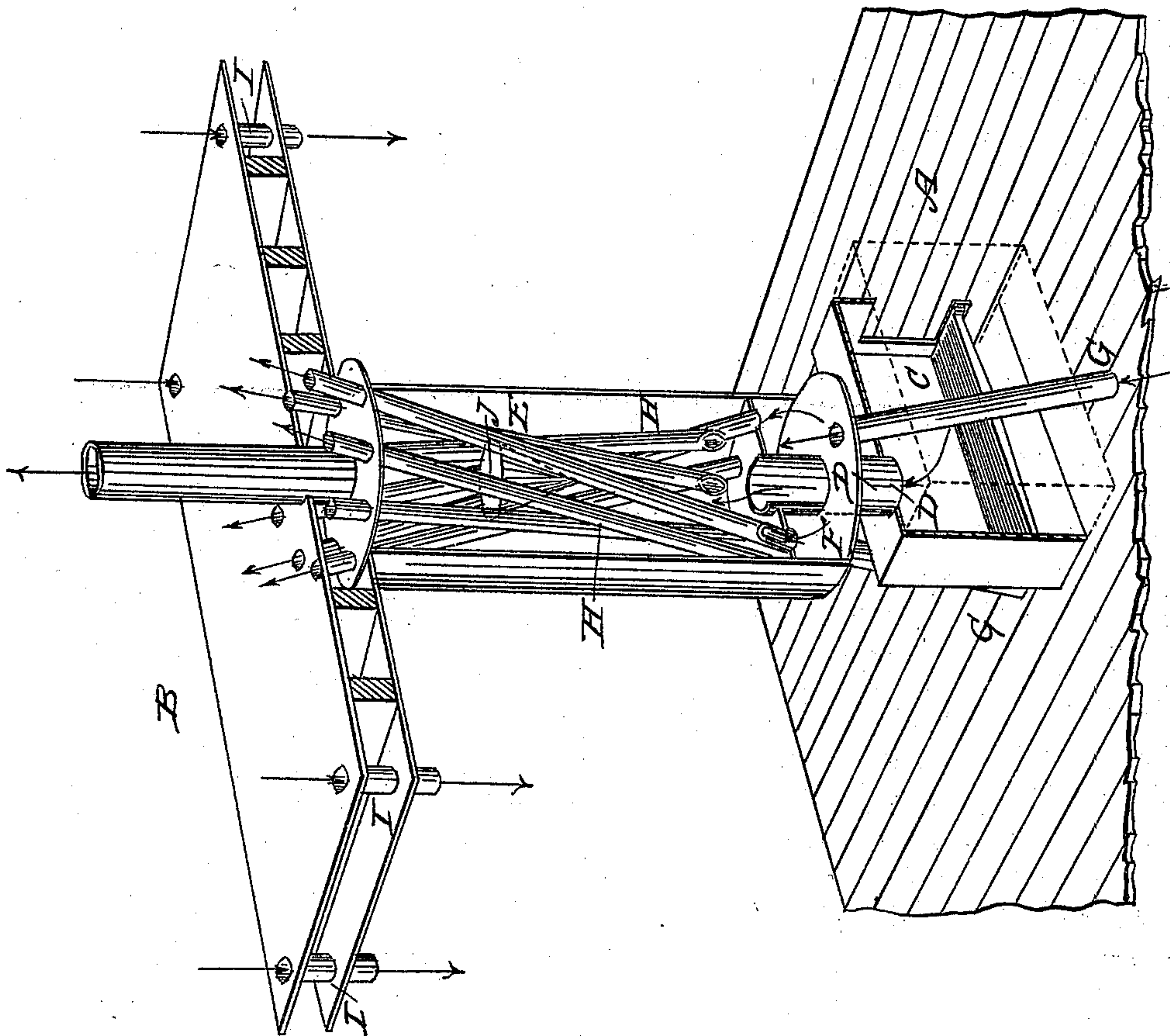


J. S. REID.  
Heating Drum.

No. 42,225.

Patented April 5, 1864.



Witnesses:  
Charles L. Fisher  
Lyman Walker

Inventor  
J. S. Reid  
per Hugh B. B.  
attys.

# UNITED STATES PATENT OFFICE.

JOHN S. REID, OF MUNCIE, INDIANA.

## IMPROVEMENT IN HEATERS.

Specification forming part of Letters Patent No. 42,225, dated April 5, 1864.

*To all whom it may concern:*

Be it known that I, JOHN S. REID, of Muncie, Delaware county, Indiana, have invented a new and useful air heating and ventilating attachment to stoves; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, making part of this specification.

My invention relates to a new and effective arrangement of passages and chambers to be used in connection with a common stove for supplying warm, fresh air to one or more apartments, and for withdrawing the foul or spent air.

My invention is represented by a perspective view, partly in section.

A may represent the basement of a building, and B an apartment or room above the same. C is a common heating-stove. The smoke-pipe D is a little above the stove enlarged to form a heat-reservoir, E, whose floor forms the top plate of an air-chamber, F, which, receiving external air through inlets G, discharges the same into a number of pipes, H, which, traversing the heated-chamber E in the oblique manner represented, discharge their contents, in the form of fresh, warm air,

through the floor B' of and into the apartment B. The ventages of the pipes H may be controlled by means of a register-ventiduct, I, near the skirts of the floor B', conduct spent-air from the apartment B into the stove-room A, and, entering the stove, pass through the fire thereof and escape in form of smoke. The oblique or slanting position of the pipes or hot-air ducts H compels a vortical or spiral motion of the smoke, which, protracting its contact with the said pipes, enables the latter to extract all the available heat. This action upon the smoke is further aided by the introduction of the inverted conical deflector J, which is also useful for keeping the pipes H in their proper relative position.

I claim as my invention herein—

In the described combination, the heat-reservoir E, air-chamber F, air-inlets G, oblique air-ducts H, and conical deflector J, as described.

In testimony of which invention I hereunto set my hand.

JOHN S. REID.

Witnesses:

SAM. W. HARLAN,  
D. M. DENETT.