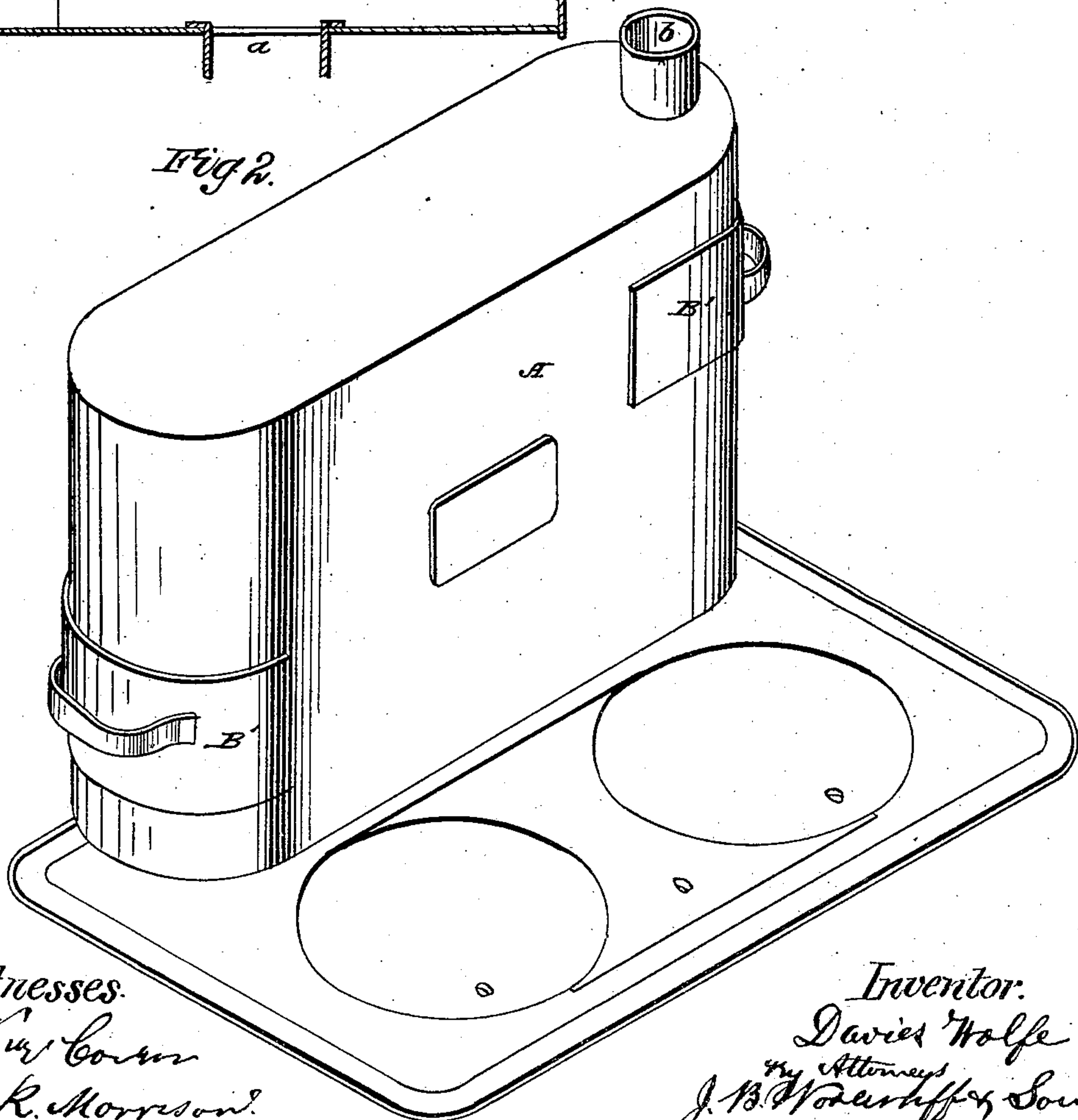
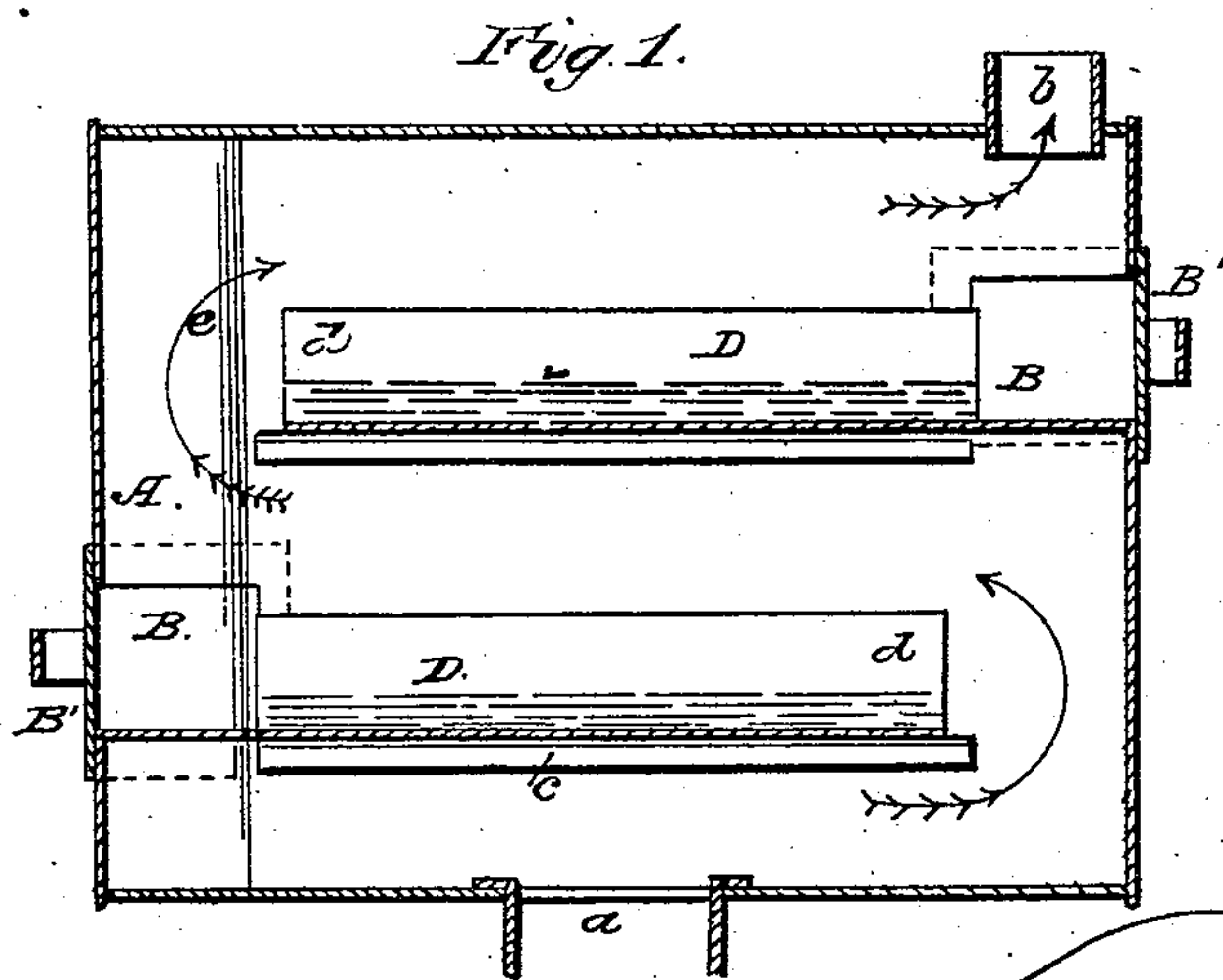


D. WOLF.  
Heating Drum.

No. 81,236.

Patented Aug. 18, 1868.



Witnesses.  
Wm. Cochrane  
C. R. Morrison.

Inventor.  
Davies Wolfe  
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J. B. Woodruff & Sons

# UNITED STATES PATENT OFFICE.

DAVID WOLF, OF EASTON, KANSAS.

## DRUM-EVAPORATOR.

Specification forming part of Letters Patent No. **81,236**, dated August 18, 1868.

*To all whom it may concern:*

Be it known that I, DAVID WOLF, of Easton, in the county of Leavenworth and State of Kansas, have invented certain new and useful Improvements in Safety-Boilers for Stoves, or an apparatus for the prevention of fires from sparks or heated stove-pipes or flues; and the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a section through the drum or case, in which are fitted two or more drawers or receptacles for containing water. Fig. 2 shows a perspective view of the exterior of the safety-boiler or fire-preventive as connected with a cook-stove. Fig. 3 is a section through, and a plan view of, a stove-pipe thimble, showing a water-space surrounding it.

The object of my invention is to temper the atmosphere in rooms where close stoves are used.

My invention consists in the construction of a vertical oblong sheet-iron drum or case, into which are fitted two or more drawers, one above the other, leaving a space for fire, sparks, and smoke to pass under, around the ends, between, and over the drawers, and up the stove-pipe, or into the flue, the drawers being so constructed as to hold water, and so arranged as to be drawn out, one at each end, for filling, and also for regulating the draft of the fire in the fire-box, and when closed form a zigzag flue between and over the drawers for radiating heat, as well as for arresting the sparks, and forming a condensed vapor from the water in the drawers, to temper the dry atmosphere in the room.

To enable others to make and use my invention, I will describe it more in detail, referring to the drawings, and to the letters marked thereon.

I make a narrow oblong case or drum, A, of any suitable sheet metal, somewhat in the form of a common stove wash-boiler, of any desired height, it being closed at both the top and bottom, with the exception of the opening *a* for the induction and the eduction pipe *b*.

At suitable distances from the bottom, and between it and the top, are placed parallel horizontal ribs or ledges *c c*, which form sup-

ports and slides for the drawers D D to rest on and be drawn out, one from each end, when only two are used. If more of the drawers are used, they will be placed alternately in the same position, so as to form a flue, as indicated by the arrows *e e e*.

The drawers may be made of any desired height, so as to contain a larger or smaller quantity of water, the inner ends *d d* falling short of the length of the drum A, to give a sufficient space for the draft and smoke to pass freely round, under, and over the drawers D, the outer ends B of the drawers being provided with a plate of metal, B', to overlap the opening in the case or drum, so as to make the joint tolerably tight, to prevent the admission of air from the outside when a strong draft is required.

When desirable to check or lessen the draft of the stove or furnace, one or more of the drawers may be started out, so as to admit the air above the fire-place, so as to regulate or entirely stop the draft.

The drum or case A may be placed on the top of a stove over the pipe-opening, as seen in Fig. 2, or it may be made of any desired form or configuration and highly ornamented, and placed above or away from the stove or furnace in an adjoining room, or room above, on the next floor, and will answer every purpose of a drum or cylinder for heating adjoining or other apartments.

I do not claim, broadly, forming a vapor from condensing water in a drum, flue, or stove-pipe to arrest sparks, for that has been done before me; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

A safety-boiler as constructed, when the same is provided with two or more pans or troughs for holding water, so arranged as to be drawn out, one from either side of the drum or case, whereby the treble function of tempering the atmosphere in the room, arresting the sparks, and regulating the draft is accomplished, substantially as and for the purposes set forth.

In testimony whereof I hereunto subscribe my name.

DAVID WOLF.

Witnesses:

HENRY J. ADAMS,  
J. W. TAYLOR.