

A. YOST.  
Refrigerator.

No. 23,803.

Patented April 26, 1859.

Fig. 2,

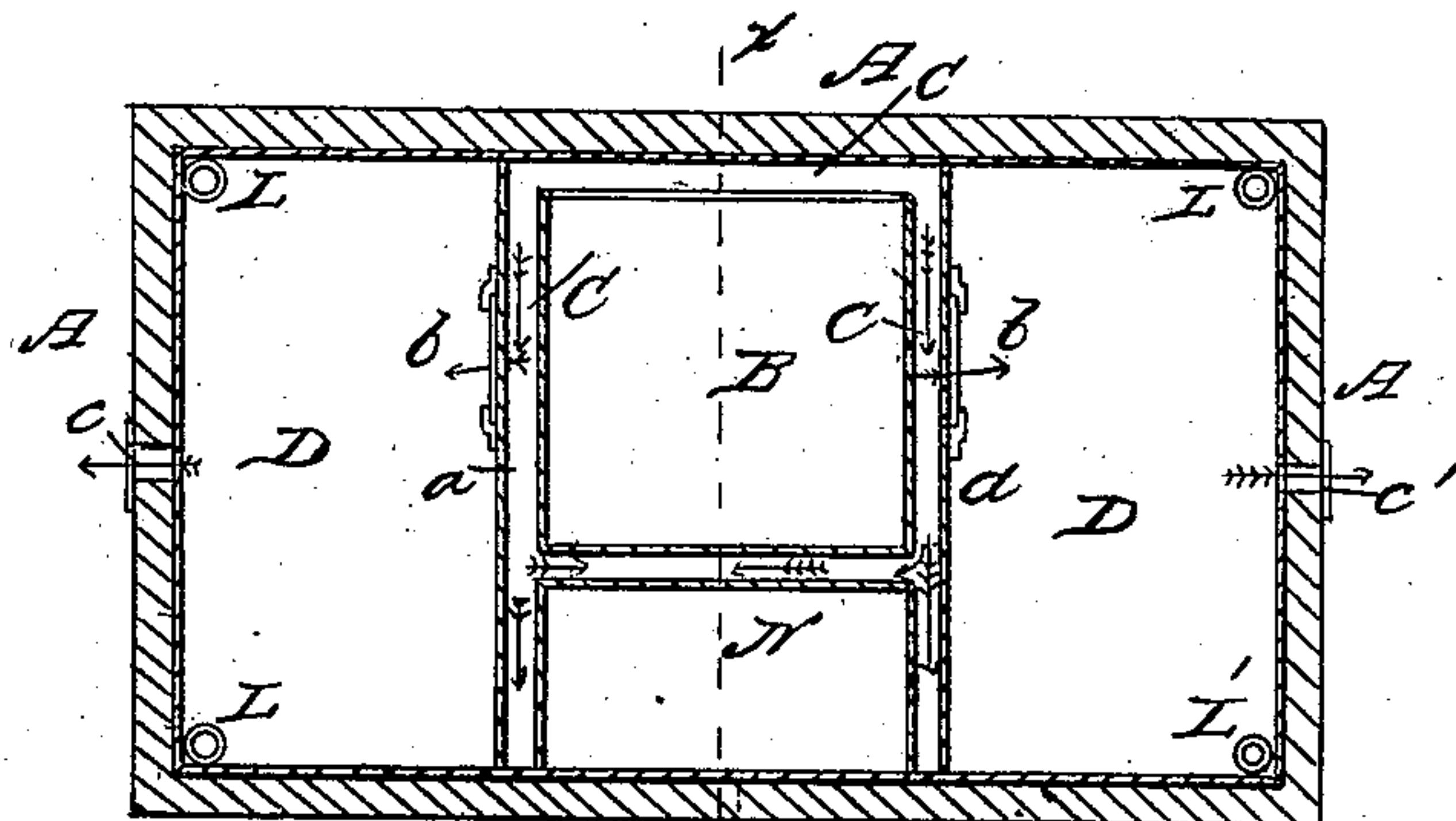


Fig. 1,

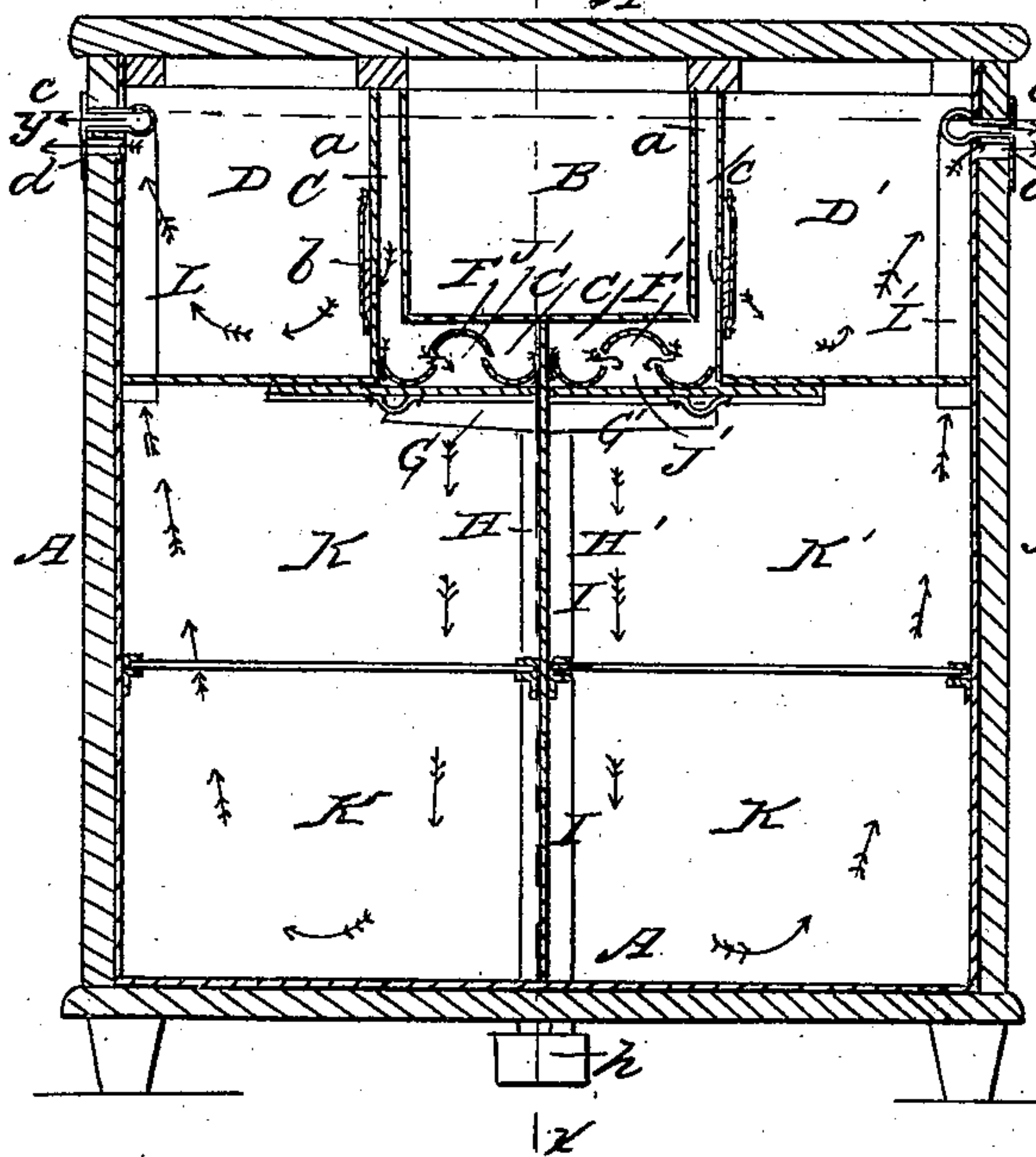
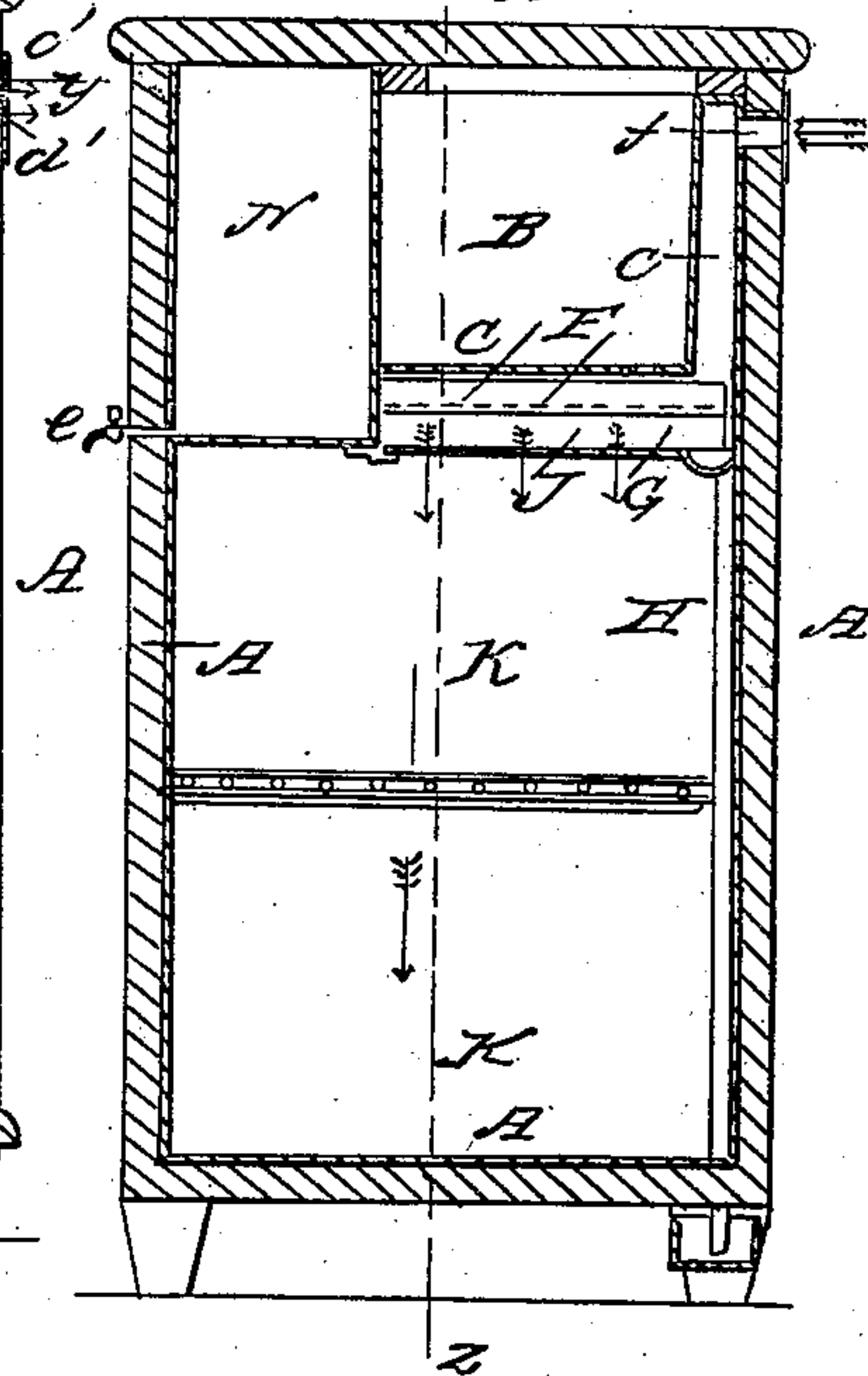


Fig. 3,



WITNESSES:

Wm. Tusch  
W. Tusch

INVENTOR:

Abraham Yost



# UNITED STATES PATENT OFFICE.

ABRAHAM YOST, OF NEW YORK, N. Y.

## REFRIGERATOR.

Specification of Letters Patent No. 23,803, dated April 26, 1859.

*To all whom it may concern:*

Be it known that I, ABRAHAM YOST, of city, county, and State of New York, have invented certain Improvements in Refrigerators; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

Figure 1 represents a vertical section of the refrigerator taken through the red line  $z, z$  of Fig. 3. Fig. 2 is a horizontal section taken through the red line  $y, y$  of Fig. 1. Fig. 3 shows a transverse section taken through the red line  $x, x$  of Fig. 1 in the direction of the arrows.

The nature of my invention consists in inclosing the ice within a tight metallic box and introducing the external air in immediate contact with the outside of this receptacle and circulating the same around the ice box and from thence throughout the entire refrigerator and allowing the rarefied air to pass out on either side near the top of the same, through tubes and escapes hereinafter described. Also in the peculiar arrangement of pipes compartments and dampers, so that the communication of either or all may be shut off from the cold currents of air thereby producing a great economy of ice.

I am aware that various devices have been essayed for producing a refrigeration, rotation and desiccation of the air within refrigerators and that the air has been introduced externally and brought in immediate contact with the ice and passed down and circulated throughout the refrigerating compartments and passed out near the top of the same, but they are all objectionable on account of their enormous consumption of ice.

It will be readily seen that in my refrigerator the warm air as it enters comes in contact with a large surface of cold metal which instantly lowers the temperature without exposing the ice in contact with the air, it then falls down and circulates among the articles to be refrigerated and as the temperature is raised it passes out through escapes without again being submitted to the cooler or ice box, described, represented and specified as follows.

The outer casing A is constructed of non-conducting material as is common with most refrigerators; within this box and near its top is arranged the ice holder B which is

made of zinc or other suitable metal; surrounding this box are spaces C, C' which separate the ice holder from compartments D, D' by metal partitions  $a$ , provided with dampers  $b, b'$ , near their bottoms. Underneath of the ice box is arranged the drip pans E E' constructed of semicylindrical plates which break joints so that the downward current of air can freely pass through the pans while the water is conducted off to pans G, G', and down through waste pipes H, H', which are placed on either side of a partition I and terminate in a cup  $h$  which is kept full of water and prevents the air from passing up the tubes, at the same time allowing the waste water from the ice to escape. Below the drip pans F, F', are dampers J, J', for shutting off the communication with the compartments K, K'. L, L', are tubes which are situated in the four corners of the compartments D, D', and open into the compartments K, K', and convey off the air through apertures C, C' in the sides of the refrigerator. The air is conveyed off from the compartments D, D', through apertures  $d, d'$ . N is a reservoir for water which is kept cool by the ice in box B and drawn off through faucet  $e$ .

The operation of this refrigerator is as follows: The ice holder being filled with ice and the covers closed tight the external air rushes in through aperture  $f$  and around the passages C, C' in the direction of the arrows, and when the dampers are all open it circulates through the compartments, D, D' and out through apertures  $d, d'$  also down through the drip-pans E, E', into the compartments K, K', and out through pipes L, L'. When the dampers communicating with one or two apartments are closed the cold air then circulates through those that are open, thus employing only that part of the refrigerator, containing the articles to be refrigerated, and in this manner creating a great economy of ice.

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

The combination and arrangement of compartments D and K, dampers  $b$  and J and escape tubes L substantially as and for the purposes herein above set forth.

ABRAHAM YOST.

Witnesses:

WM. TUSCH,  
W. HAIGHT.