2 Sheets—Sheet 1.

M. SHAW.

REFRIGERATOR.

No. 169,854. Patented Nov. 9, 1875.

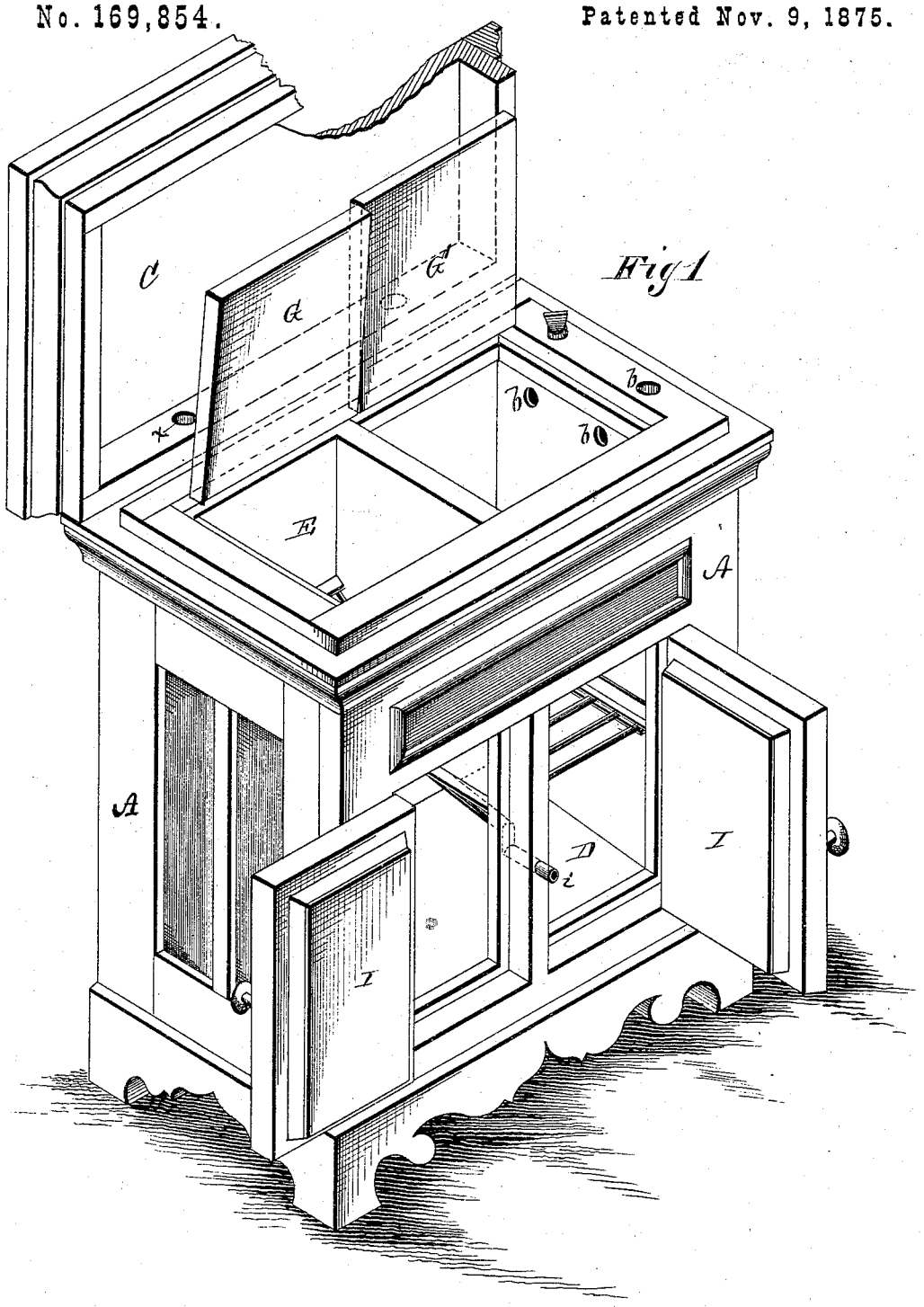

Fig 1

WITNESSES

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2 Sheets—Sheet 2.

M. SHAW.

REFRIGERATOR.

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Fig 2

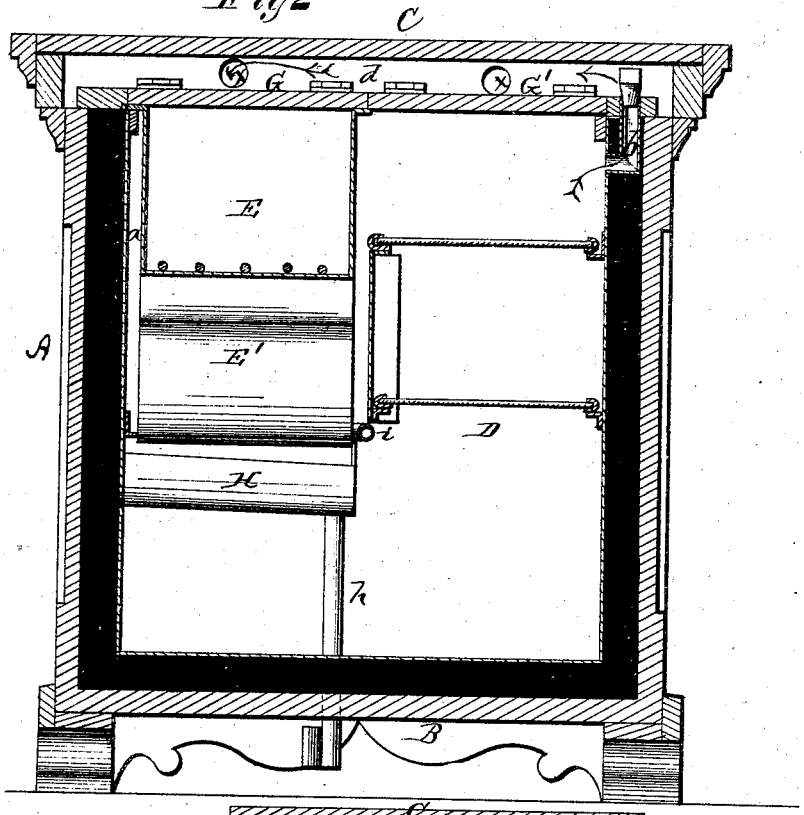
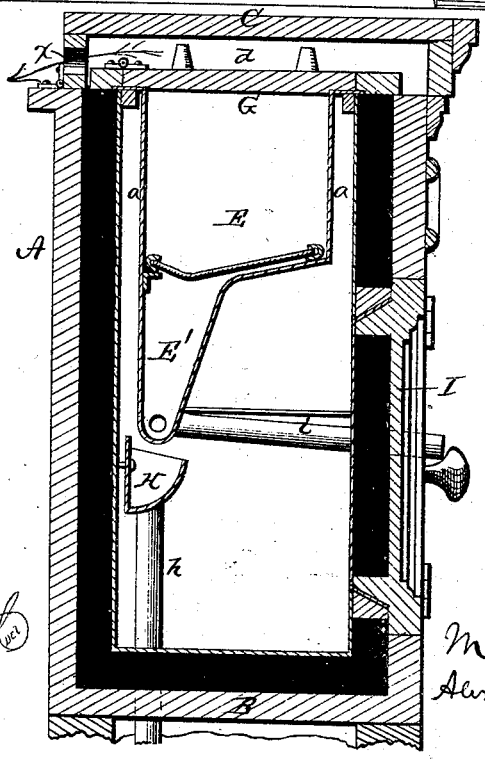


Fig 3



WITNESSES

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UNITED STATES PATENT OFFICE.

MATHEW SHAW, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN REFRIGERATORS.

Specification forming part of Letters Patent No. **169,854**, dated November 9, 1875; application filed September 18, 1875.

To all whom it may concern:

Be it known that I, MATHEW SHAW, of St. Louis, in the county of St. Louis and in the State of Missouri, have invented certain new and useful Improvements in Refrigerators; and 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, making a part of this specification.

My present invention is intended as an improvement on the refrigerator for which Letters Patent No. 139,428 were granted to me May 27, 1873; and it consists in the construction of a combined ice-box and water-tank, and in the peculiar arrangement of the ventilating-tubes, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a perspective view of a refrigerator embodying my invention. Fig. 2 is a longitudinal vertical section, and Fig. 3 a transverse vertical section, of the same.

A A represent the walls, B the bottom, and C the main lid, of my refrigerator, said parts being constructed in any of the known and usual ways, and provided with suitable non-conducting packing. B represents the provision-chamber, and E the ice-chamber. This ice-chamber is formed or connected with a tank, E′, extending downward for a suitable distance, and which may be used for ice or water. The combined ice-chamber and water-tank E E′ is made of galvanized iron, and is suspended in such a manner that it hangs clear of the walls of the refrigerator, leaving an air-space, *a*, all around the same. It is provided with a hinged lid, G, so as to make it air-tight, thereby securing the ice from every exposure to a current of air, which would cut it away. The ice-tank being disconnected from the walls of the refrigerator, and being made of galvanized iron, which is a conductor of cold, the iron becomes nearly as cold as the ice itself, which creates a current of cold air downward, driving all warm and foul air in its course to the warm-air flues *b b*. These flues are placed in the wall of the refrigerator which is farthest away from the ice-tank, which insures a steady and uniform circulation of cold air through the refrigerator, the warm and foul air passing into the chamber *d* between the inner and outer lids of the refrigerator, and from thence through outlets *x x* at the back. The ice-chamber and water-tank are constructed with inclined bottom, so as to carry off all sweat or vapor that accumulates against the same to a gutter, H, underneath, said gutter having a pipe, *h* leading out at the bottom of the refrigerator, and provided at its lower end with an ordinary trap or seal, to prevent the ingress of air. The water-tank E′ is provided with a pipe, *i*, from its bottom, leading out at the front of the refrigerator, and is to be provided with a faucet for obtaining drinking-water. The water is not exposed to the provision-chamber, and hence does not become contaminated with the vapors from the provisions. The provision-chamber is provided with an inside lid, G′, corresponding with the lid G of the ice-chamber, and it has, also, two filled doors, I I, in front, which are so arranged that only a portion of the body of the refrigerator need to be exposed in its use.

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

The combination, with refrigerator-body A B C, of the ice-chamber E and water-tank E′, with closed bottom, and suspended to form a continuous air-space, *a*, around the same, and the ventilating-pipes *b b* in the walls farthest from the ice-chamber and air-exits *x*, whereby a current of cold air passes downward from the ice-chamber, driving the warm and foul air through the flues *b b* and out the exits in the lid, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of August, 1875.

MATHEW SHAW.

Witnesses:

AUGUST FROEBEL,

KONSTANDIN HENKEL.