

(No Model.)

2 Sheets—Sheet 1.

C. M. BATES.
REFRIGERATOR.

No. 387,203.

Patented Aug. 7, 1888.

Fig 1

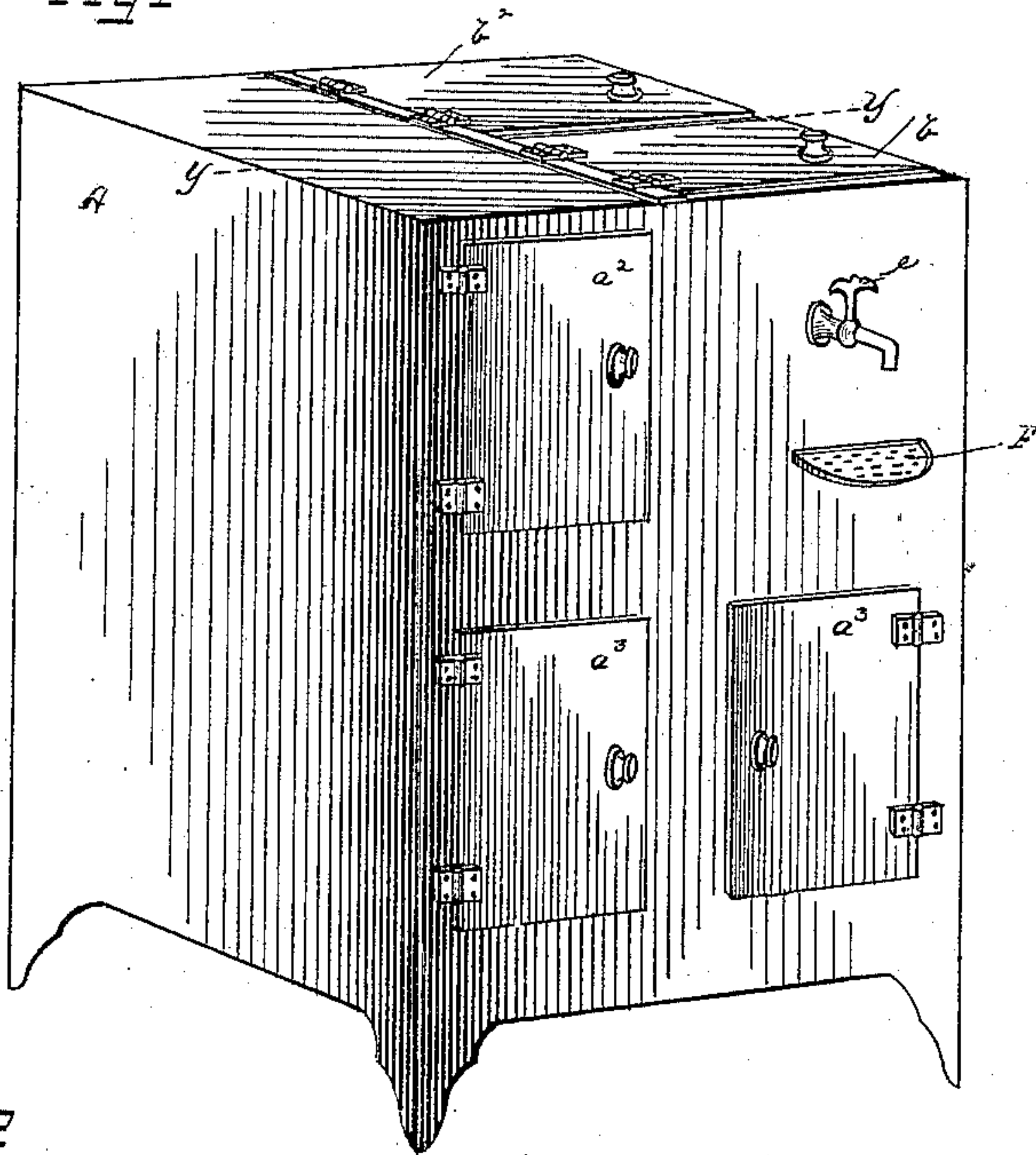
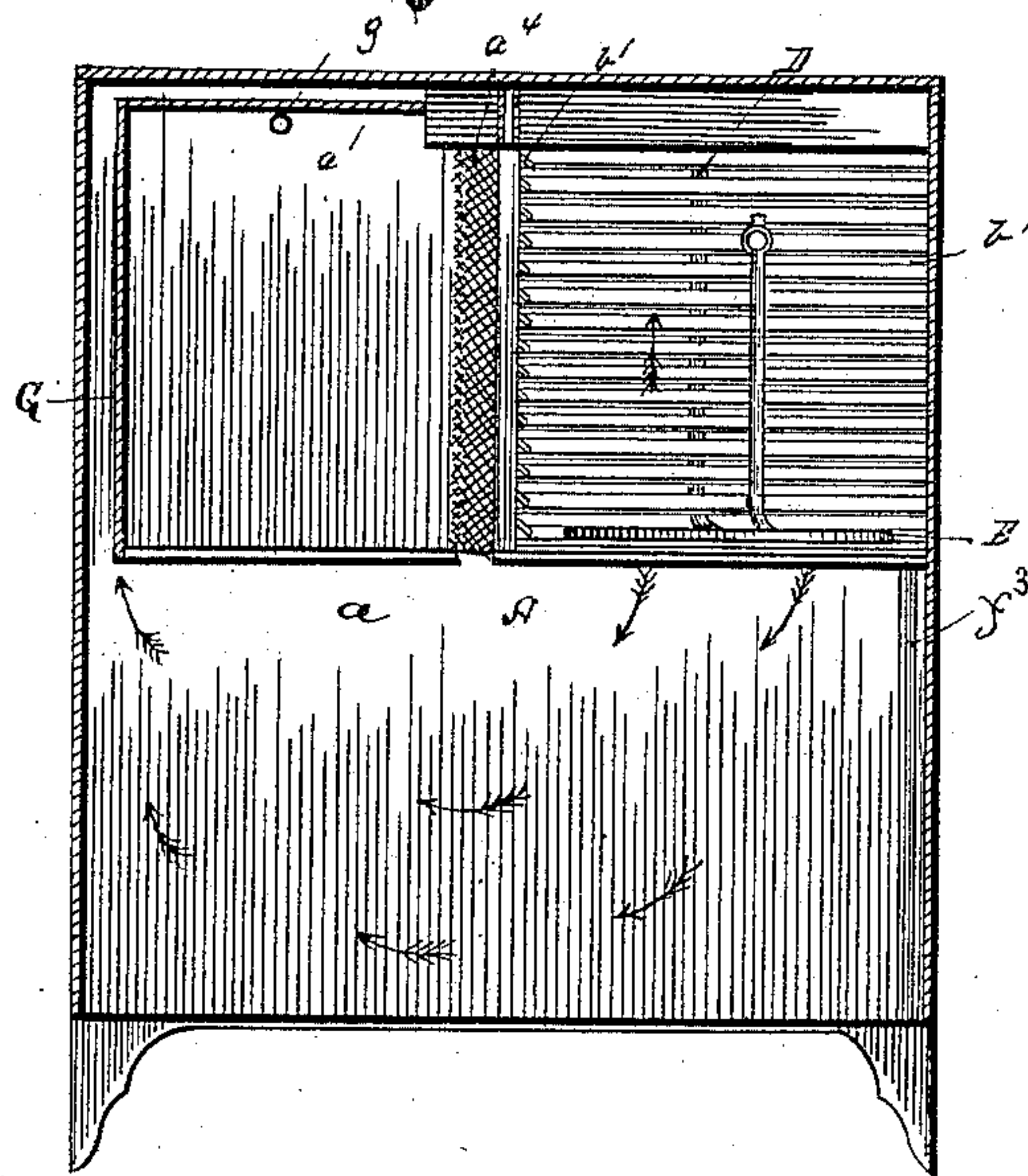


Fig 2



WITNESSES,

John Montgomery.
Geo. Fox.

INVENTOR.

Chester H. Bates,
By Myers & Co. Attorneys,

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Fig 3

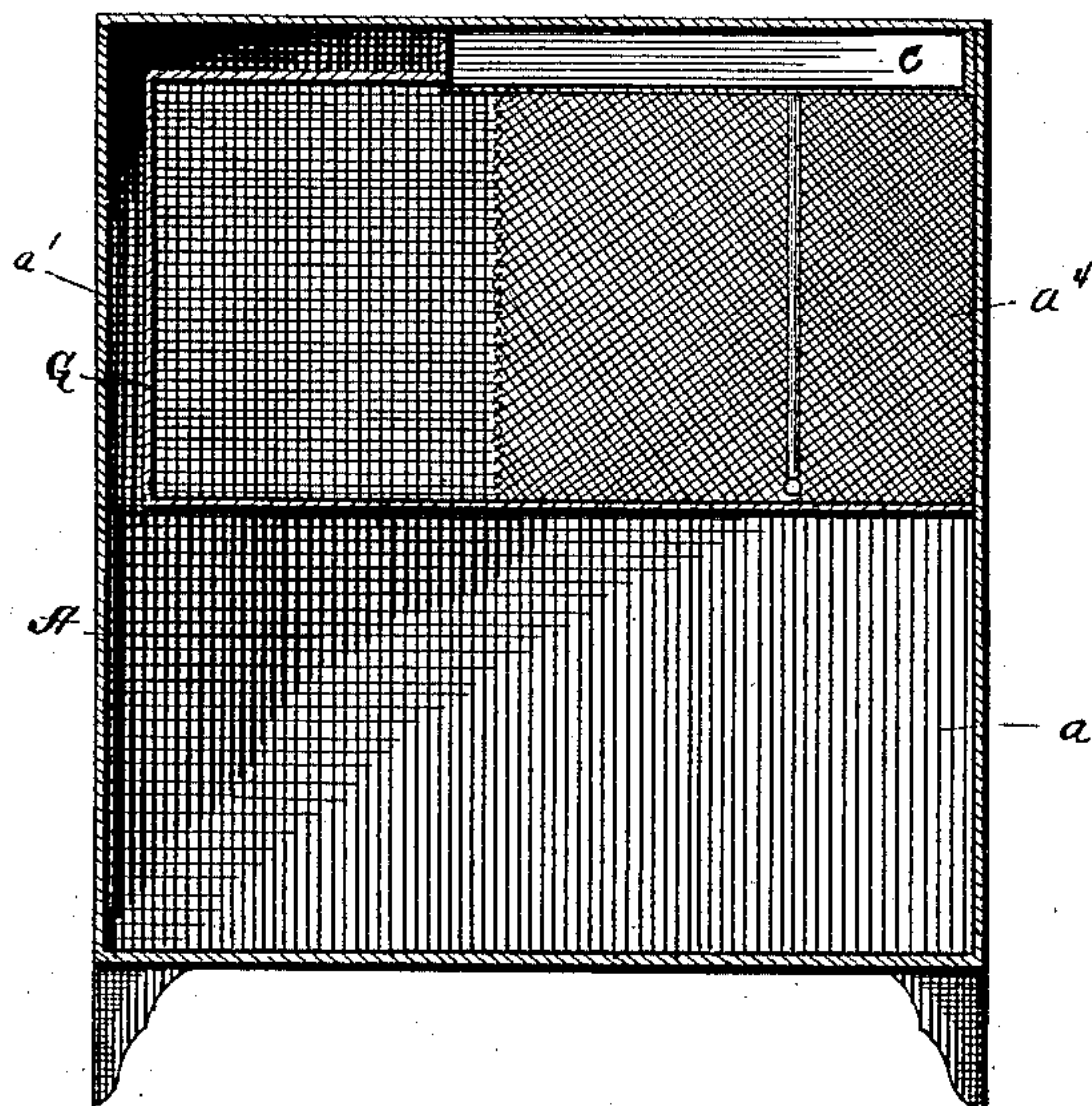


Fig 4

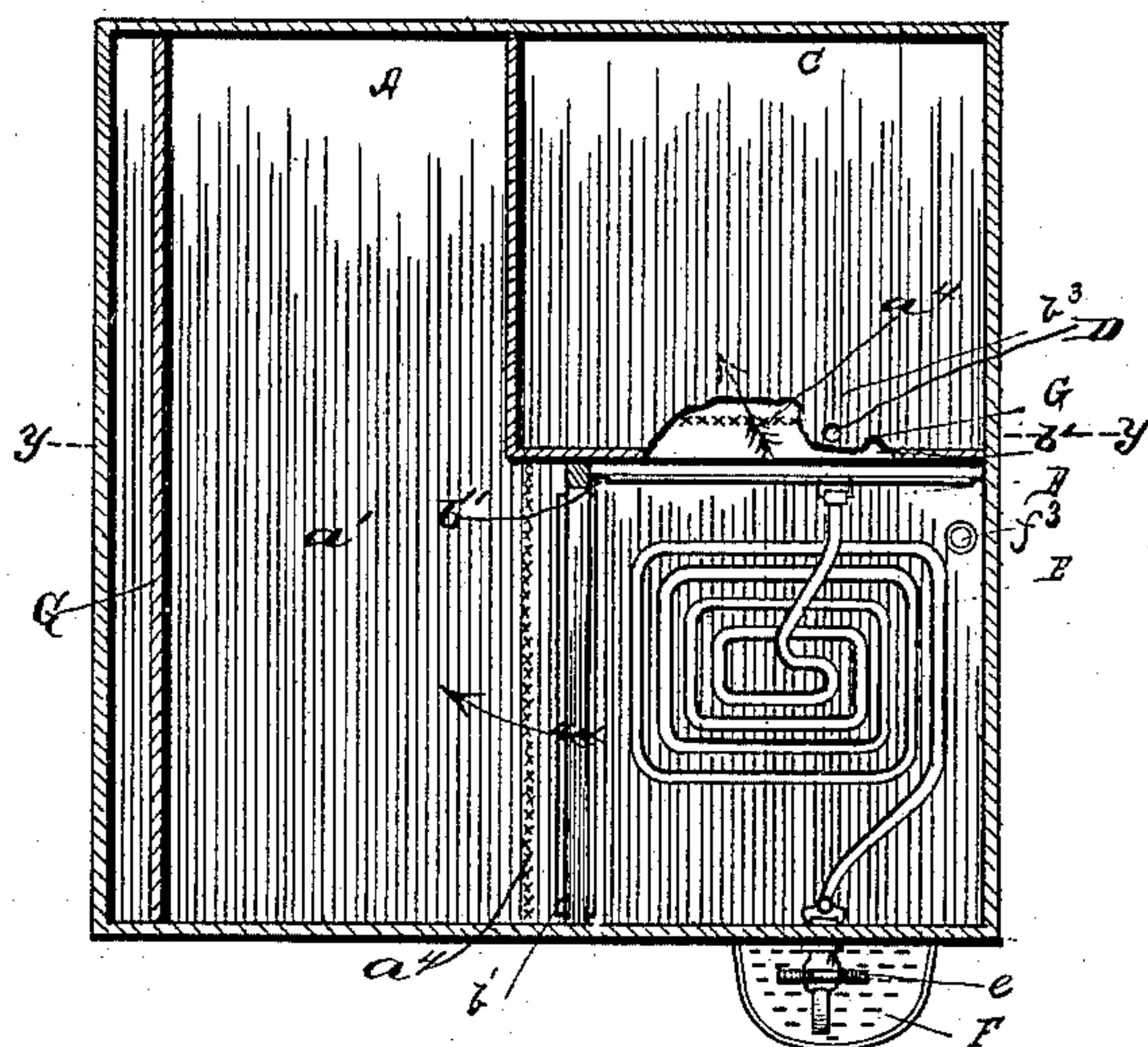
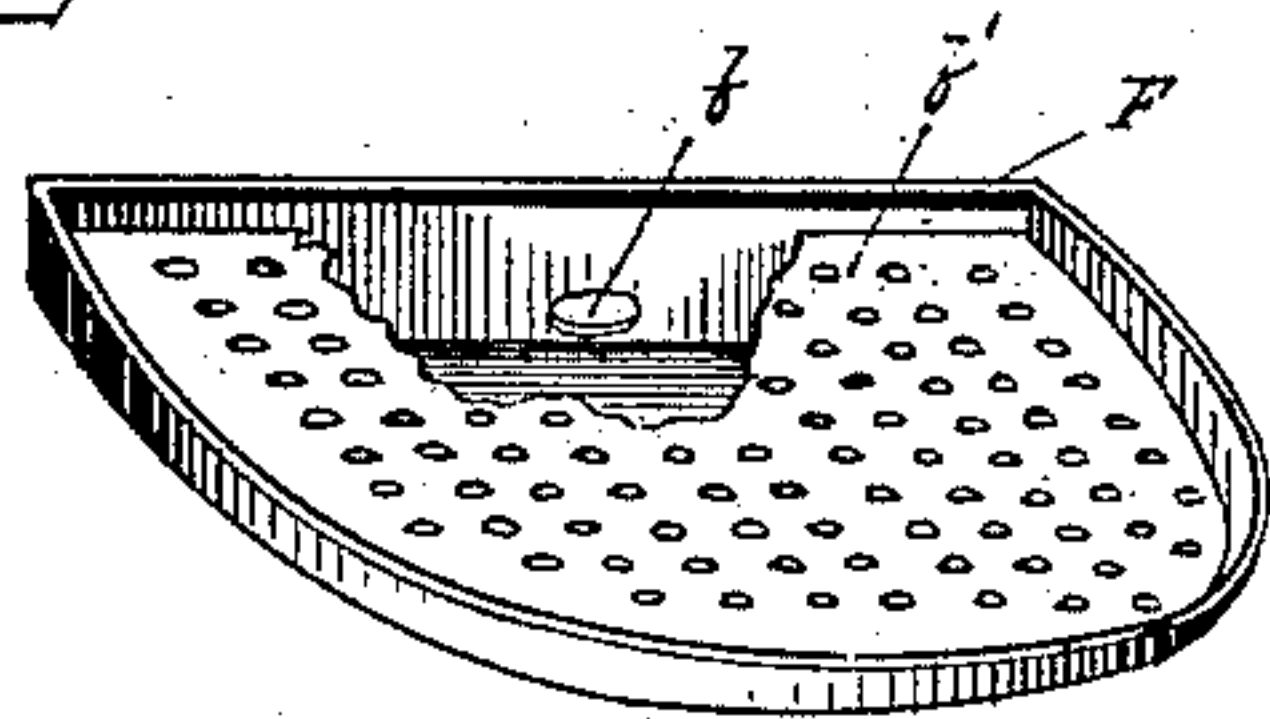


Fig 5



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UNITED STATES PATENT OFFICE.

CHESTER M. BATES, OF LEHMAN, PENNSYLVANIA, ASSIGNOR OF ONE-HALF
TO FREDERICK N. RUGGLES, OF SAME PLACE.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 387,203, dated August 7, 1888.

Application filed February 11, 1888. Serial No. 263,724. (No model.)

To all whom it may concern:

Be it known that I, CHESTER M. BATES, a citizen of the United States of America, residing at Lehman, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Refrigerators, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention pertains to certain new and useful improvements in refrigerators, having for its object the production of a new and improved device of this class, whereby the cold air arising from the ice in the ice-box is thoroughly disseminated throughout the refrigerator, and suitable means employed for providing for a continuous circulation of air.

To these ends the invention comprises the detail construction, combination, and arrangement of parts, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of my improved refrigerator. Fig. 2 is a vertical cross-sectional view thereof, taken immediately back of the front wall of the refrigerator. Fig. 3 is a similar view on the line *y y*, Fig. 4. Fig. 4 is a horizontal sectional view taken just below the top or cover of the refrigerator, and Fig. 5 is a detail perspective view.

Referring to the drawings, A designates the box or chest of my improved refrigerator divided into a large lower compartment, *a*, and three upper small compartments. In the upper portion, on one side, is formed an approximately L-shaped chamber or compartment, *a'*, which extends from the front end of the refrigerator to the rear thereof parallel with one side, and has the right-angular bend or extension extending to the opposite side of the refrigerator. The walls of the re-entering angle of this L-shaped chamber or compartment *a'* are composed of a wire screen, *a¹*, which extends from the top to the bottom thereof, as shown. This chamber or compartment is provided at its outer end with a door, *a²*, and the lower main chamber or compartment, *a*, is also provided with two similar doors, *a³* *a³*.

B is an ice box or receptacle formed in one corner of the upper portion of the refrigerator,

occupying the re-entering angle of the L-shaped compartment, and is provided at its top with a hinged lid or cover, *b*. The inner sides of this ice-box are composed each of a series of inclined slats, *b' b'*, the meeting ends of which are secured to a post or upright, *b''*, of the ice-box.

C is a water-tank formed in the upper corner of the refrigerator and extends inwardly some distance over a portion of the L-shaped compartment, and it is also provided with a lid or cover, *b²*. This water-tank is located over the inner rear portion of the L-shaped chamber or compartment *a'*. Within an aperture, *b³*, in the bottom of this water tank is secured one end of a short bent pipe, D, which projects down through the space or passage-way between the slatted and wire walls of the ice-box and chamber or compartment *a'*, respectively, and between two of the lowermost slats into the ice-box, at which point is coupled thereto one end of a long coil of block-tin pipe, E, resting upon the bottom of the ice-box, the other end of said coil-pipe being likewise coupled to the inner end of an ordinary spigot or faucet, *e*, secured in an aperture in the front wall of the refrigerator about on the line with the bottom of the water-tank. By this means water placed within the water-tank will pass into the coil-pipe, and, by reason of the ice resting thereon, will become thoroughly cooled, and the same can be drawn from the spigot or faucet as desired. By reason of coupling the ends of this coil-pipe the same can be removed to be cleaned or to clean the ice-box, and by reason of making said coil-pipe of block-tin the same greatly aids in keeping the water cool, since it will continue to remain in its cooled state for a great length of time, and hence is quite desirable for this purpose.

F is the drip-pan or waste-water receptacle secured to the front side of the refrigerator below the spigot or faucet, and the same has a curved bottom the sides of which converge toward a small hole or aperture, *f*, opening through the front wall into the bottom of the ice-box, and this drip-pan is provided with an apertured or screen cover, *f'*, whereon a tumbler is designed to rest, and any drippings therefrom will immediately pass into the drip-

pan and into the ice-box, from which it is conveyed by a drain-pipe, f^3 , to the outside of the refrigerator.

It will be seen by reference to Figs. 2 and 3 that there is a space, G, between the longitudinal side of the upper L-shaped chamber or compartment, a' , and the adjacent side or wall of the refrigerator casing, said space extending to the top of said refrigerator over the top of said chamber or compartment a' , and opens at the forward right-hand side into the top of the ice-box at one side thereof, as shown.

In the upper portion of the rear wall of the L-shaped chamber or compartment a' is a small escape-pipe, g , to permit of the escape of foul or hot air from said chamber or compartment.

From the foregoing description it will be seen that the cold air arising from the ice in the ice-box will pass through the slatted walls thereof into the spaces or passage-ways surrounding the same and down into and through the lower or main compartment, a , and through the wire-screen walls of the upper L-shaped chamber or compartment and be thereby thoroughly disseminated over the entire refrigerator. The foul or hot air arising from the lower or main chamber or compartment will pass up through the side space, G, along the side of the L-shaped compartment, over the top thereof, and down into the ice-box, thus creating a continuous circulation and preventing accumulation of foul or hot air. It will also be seen that water placed within the water-tank will be thoroughly cooled in the coil-pipe located within the ice-box, and that by reason of my form of drip-pan or waste water receptacle the objection heretofore urged against the same is obviated by providing means for immediately conveying the water therefrom through the ice-box into the waste-water pipe, and that by reason of the perforated or screen top of said drip-pan the tumblers can be placed thereon, and all drip-water will immediately pass into the pan.

The advantages of my invention will be apparent to those skilled in the art to which it

appertains, and the invention embodies advantages in points of simplicity, durability, inexpensiveness, and general efficiency.

It will be understood, of course, that, if desired, slight changes may be made in the construction of my refrigerator without departing from the spirit thereof—as, for instance, the pipe D, instead of being extended in rear of the slatted wall b' , can be brought down in front thereof, and in lieu of placing the coil-pipe on the bottom of the ice-chamber the same can be secured against the sides thereof, as is obvious.

I claim as my invention—

1. The combination, with the box or chest having the large lower compartment, of the L-shaped compartment located in the upper part of said box or chest, and having one side wall and its top parallel with the adjoining side and top of said box or chest, forming a space, G, thereinbetween, and the ice-box located in the re-entering angle of the L-shaped compartment, with its walls adjacent to the walls forming said angle, whereby a space or passage-way is formed between the ice-box and the adjacent walls of said angle, substantially as shown and described.

2. The combination, with the box or chest having the large lower compartment, of the L-shaped compartment located in the upper part of said box or chest and having a continuous space, G, surrounding one side and the top thereof, the wire or screen walls of the re-entering angle of said L-shaped compartment, the ice-box provided with two slatted walls, also located in the said angle, said slatted walls being adjacent to and parallel with said wire or screen walls, forming a space or passage-way between the same, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

CHESTER M. BATES.

Witnesses:

A. L. WILLIAMS,
WM. C. PRICE.