

J. F. MADDEN.

Refrigerating Provision-Chests.

No. 134,386.

Patented Dec. 31, 1872.

Fig. 1

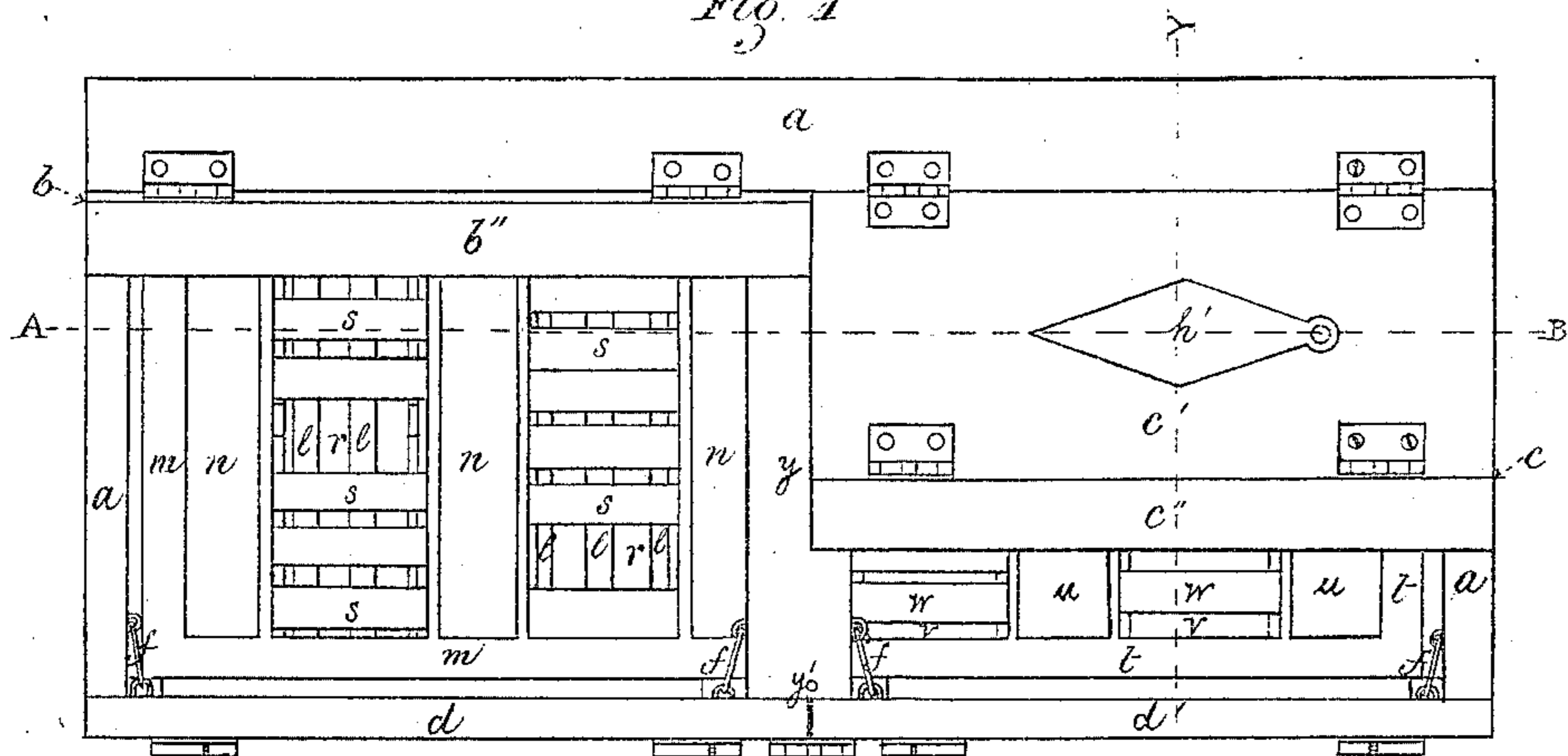


Fig. 2

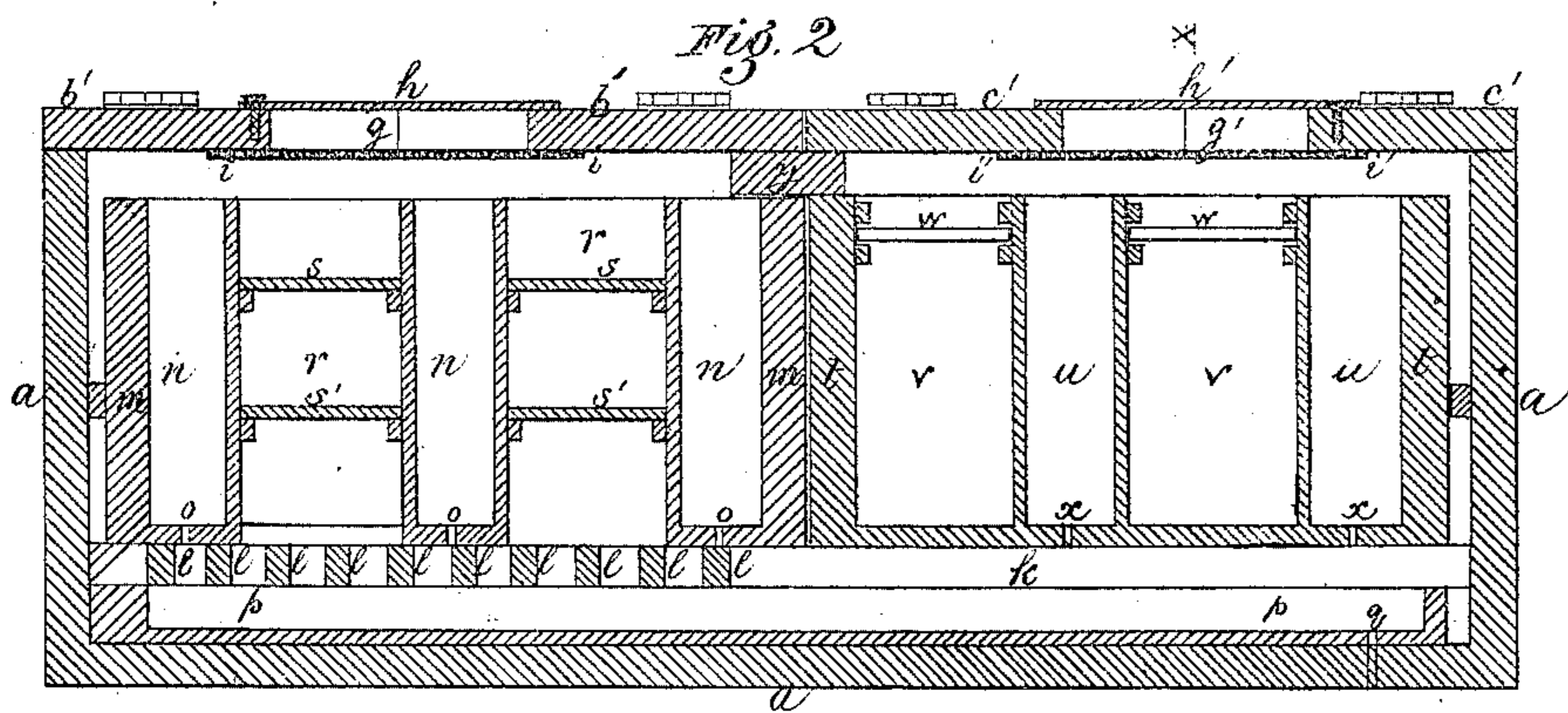
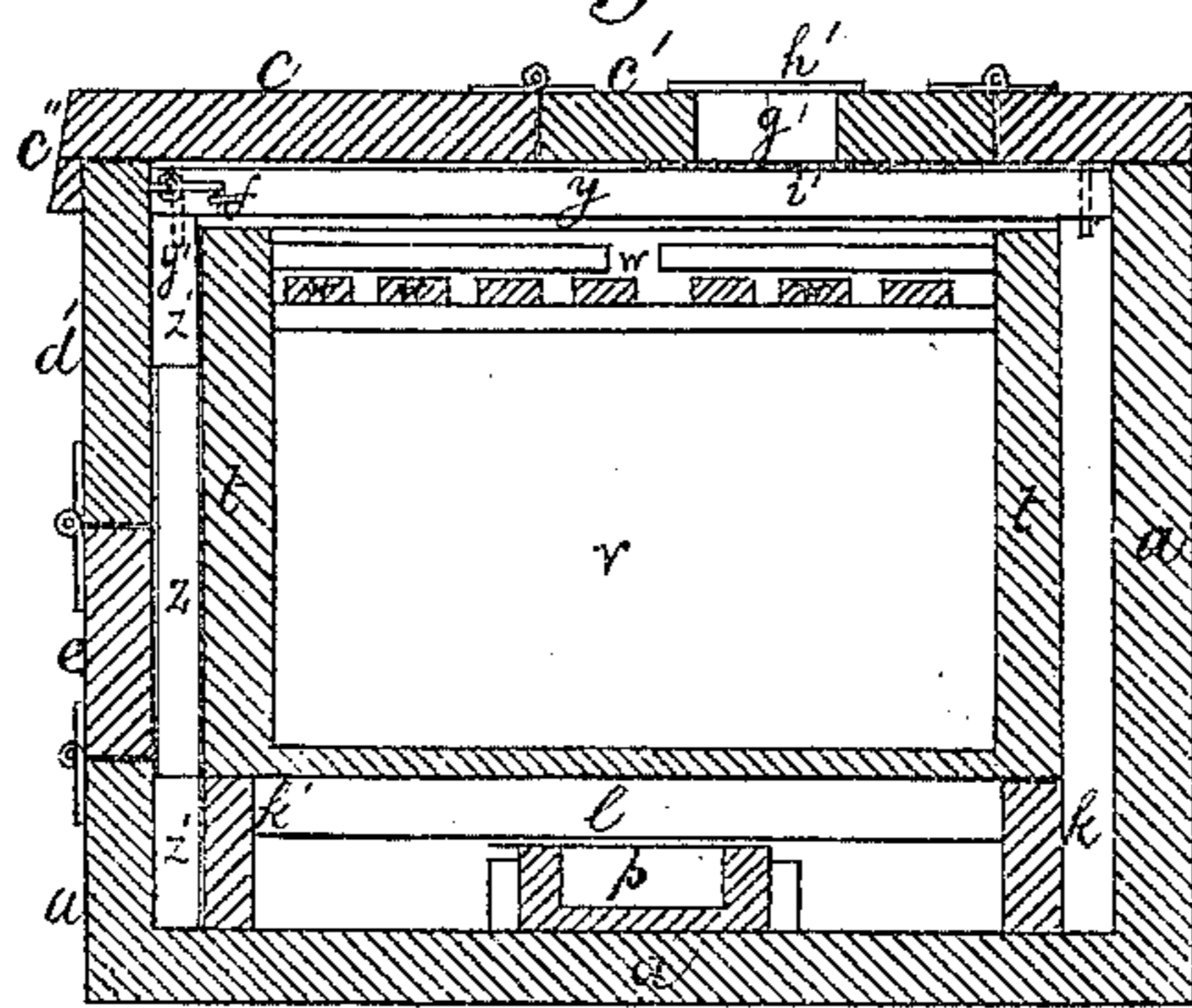


Fig. 3



Witnesses  
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# UNITED STATES PATENT OFFICE.

JAMES F. MADDEN, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN REFRIGERATING PROVISION-CHESTS.

Specification forming part of Letters Patent No. 134,386, dated December 31, 1872.

*To all whom it may concern:*

Be it known that I, JAMES F. MADDEN, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Provision-Chests, of which the following is a specification:

Figure 1 of the accompanying drawing is a top view of my improved chest with the top lids partly open; Fig. 2 is a vertical longitudinal section taken in line A B; and Fig. 3 is a vertical transverse section taken in line X Y of my improved provision-chest with the top lids closed.

The present invention relates to certain new and useful improvements in chests for preserving fresh and salt meats, &c.; its principal objects being to provide simple and effective means of cooling and ventilating the meat, &c., to insure the preservation of the pickle of salted meat, &c., to afford easy access to the meat and ice-boxes, and to allow of their ready removal to permit either the whole or a portion of the chest to be used for salt-bins or other purposes. My improvements consist mainly in a provision-chest arranged and operating, as will be more fully described hereafter, so as to admit a free circulation of air around, and the proper drainage of, separate adjustable refrigerators or boxes contained within it and constructed with suitable ice and meat compartments, the boxes being suitably formed, one for the reception of casks, &c., of salted meat or other pickled matter, and the other to contain fresh meat, vegetables, &c. Also, of so arranging the lids and front of the chest as to allow of easy access to and the removal of the boxes.

In the drawing, *a* represents a chest provided on the top with separate lids, each formed in two flaps, *b b' c c'*, hinged at the back and to each other. The front flaps *b c* have on the face a lip, *b'' c''*, extending down when closed over so as to hold two front vertical flaps, *d d'*, hinged to a longitudinal vertical flap, *e*, which is hinged to the lower portion of the front of the chest *a*. The flaps *d d'* are hung so as to slide to one side and be easily removed when desired. When closed the flaps *d d'* and flap *e* are held in place by proper hooks and staples *f*, or by any other suitable means that may be preferred. In the top lids of the chest *a* are formed ventilating-ap-

ertures *g g'*, provided on the top with suitable adjustable covers *h h'* and on the bottom with proper fly-screens *i i'*. Extending longitudinally along the bottom, at front and rear of the interior of the chest *a*, are bars *k k'*, notched on the top or otherwise formed on one portion to about the center of the chest, to hold adjustable transverse slats or bars *l*, over which is inserted a refrigerator or box, *m*, that is supported by the bars *k k'*, and is arranged with three vertical ice-compartments, *n*, formed with tight bottoms provided with suitable ducts *o* emptying into a trough, *p*, situated in the bottom and extending the length of the chest *a*, and having a suitable exit-pipe or pipes, *q*, passing through the chest *a* to carry off the drainage from the ice-compartments *n*. Between the ice-compartments *n* are two vertical compartments, *r*, for the reception of fresh meat, vegetables, &c., provided with suitable adjustable slats *s s'* and formed with open bottoms, which allow the meat, &c., to be placed directly on the lower slats or bars *l* as well as on the upper slats *s s'*, and permit a free circulation of air up through the meat, &c., compartments *r*. Inserted in the other end of the chest *a*, and resting on the other portion of the bars *k k'*, is a refrigerator or box, *t*, to contain casks or boxes, &c., of salted meat or other pickled matter, divided into two ice-compartments, *u*, provided with suitable ducts *x* and two compartments, *v*, to hold the receptacles of pickled matter, formed with solid bottoms and provided at the top with adjustable slats *w*. Pivoted or otherwise hung at the back so as to swing over the top of the boxes *m* and *t* is a transverse horizontal bar, *y*, provided with a pin, *y'*, or other suitable arrangement, connecting with so as to hold it to or release it from a vertical adjustable bar, *z*, supported between standards *z'*. The bar *y* is provided with proper staples for the reception of hooks *f*, or is otherwise arranged to hold the ends of the upper flaps *d d'*, and serves for a support to the ends of the top lids, as does the bar *z* for the vertical flaps *d d'*. The chest *a* may be arranged to contain any desired number of refrigerators or boxes *m* and *t*, arranged as shown, or having more or less compartments differently arranged to serve the same purposes.

By the foregoing description, reference be-

ing had to the drawing, it will readily be seen that ice placed in the compartments *n* on both sides of the compartments *r* in which the fresh meat, &c., is deposited, keeps the latter perfectly cool, while the air-space left between the box *m* and chest *a* and the open bottom of the meat-compartments *r*, together with the ventilator *g* in the top lids, secures a plentiful circulation of air to secure the sweetness and preservation of the meat, &c.

It is well known that the pickle in which salt meat, &c., is preserved should be kept cool during hot weather, and ice is often put in the pickle for this purpose, which weakens and is liable to destroy the efficacy of the pickle. To obviate this objection, the compartments *v* of the box or refrigerator *t* are arranged with tight bottoms to receive the pickle-casks or boxes, &c., and the ice is deposited in the compartments *u* at the side and between the compartments *v*, thereby keeping the pickle cool without any injury to it. A free circulation of air is allowed through the space formed between the box *t* and the interior of the chest *a*, which, together with the ventilating-aperture *g'* in the lid *c'* and the thorough drainage of the ice-compartments *u*, by means of the duct *x* connecting with the trough *p*, as in the former case, keep the box *t* and chest *a* sweet and dry. The ventilators *g g'* are opened principally at night or when the chest is not much used, as a sufficient ventilation is produced by the opening of the lids when frequent access is had to the chest. By the arrangement of the lids with double-hung flaps *b b' c c'* a portion or the whole of the lid may be raised, according to the size of the article to be deposited in or taken from the boxes; thus, instead of being obliged to raise

the heavy weight of the whole lid to deposit or remove a small article, only the front flap *b* or *c* need be lifted. By means of the sliding hinges or other arrangement by which the flaps *d d'* are hung, and the hinged flap *e*, the former may be removed so as to allow the bottom flap *e* to be lowered sufficiently for the removal in cool weather, or, when desired, of the box or boxes *t* or *m*, and permit the whole or a portion of the chest *a* to be used as a salt-bin, or for any other purpose that may be desired.

Having thus fully described my improvements, what I claim as my invention, and desire to have secured to me by Letters Patent, is—

1. A provision-chest, *a*, arranged as herein described, to admit easy access to, and the ready adjustment in and removal of, refrigerators or boxes *m t*, substantially as specified.

2. In a provision-chest, an adjustable refrigerator or box, *m*, having compartments *n* and *r*, arranged substantially as and for the purposes specified.

3. In a provision-chest, an adjustable refrigerator or box, *t*, having compartments *u* and *v*, arranged substantially as and for the purpose specified.

4. The combination of the adjustable boxes *m* and *t* and a provision-chest, *a*, all arranged substantially as shown and set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAS. F. MADDEN.

Witnesses:

CARROLL D. WRIGHT,  
SAML. M. BARTON.