

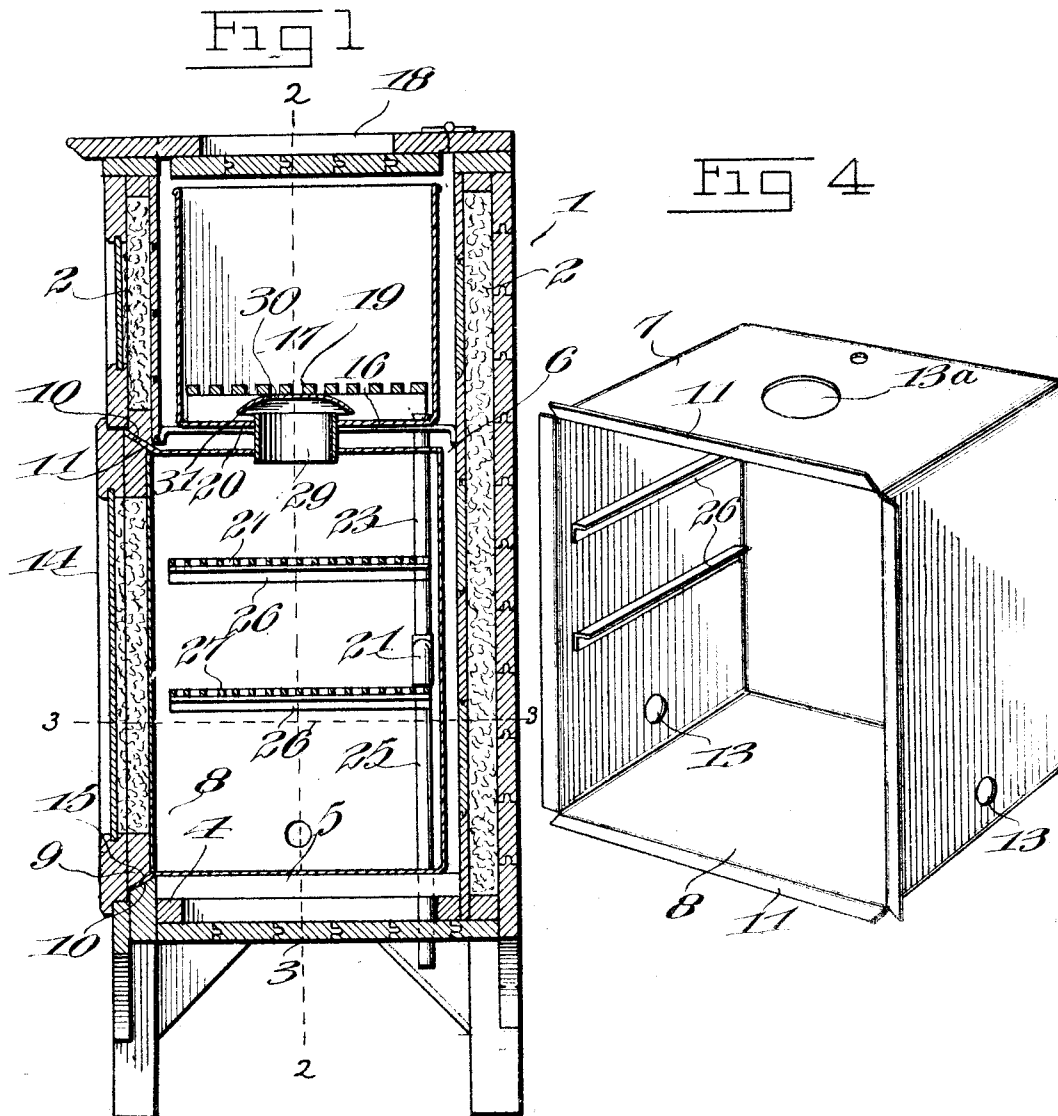
J. I. PAYNE.
REFRIGERATOR.

APPLICATION FILED APR. 2, 1912.

Patented Feb. 4, 1913.

2 SHEETS—SHEET 1.

1,052,375.



Inventor

James I. Payne

Witnesses

W. A. Steyer
James K. Kelly

By *Victor J. Evans*

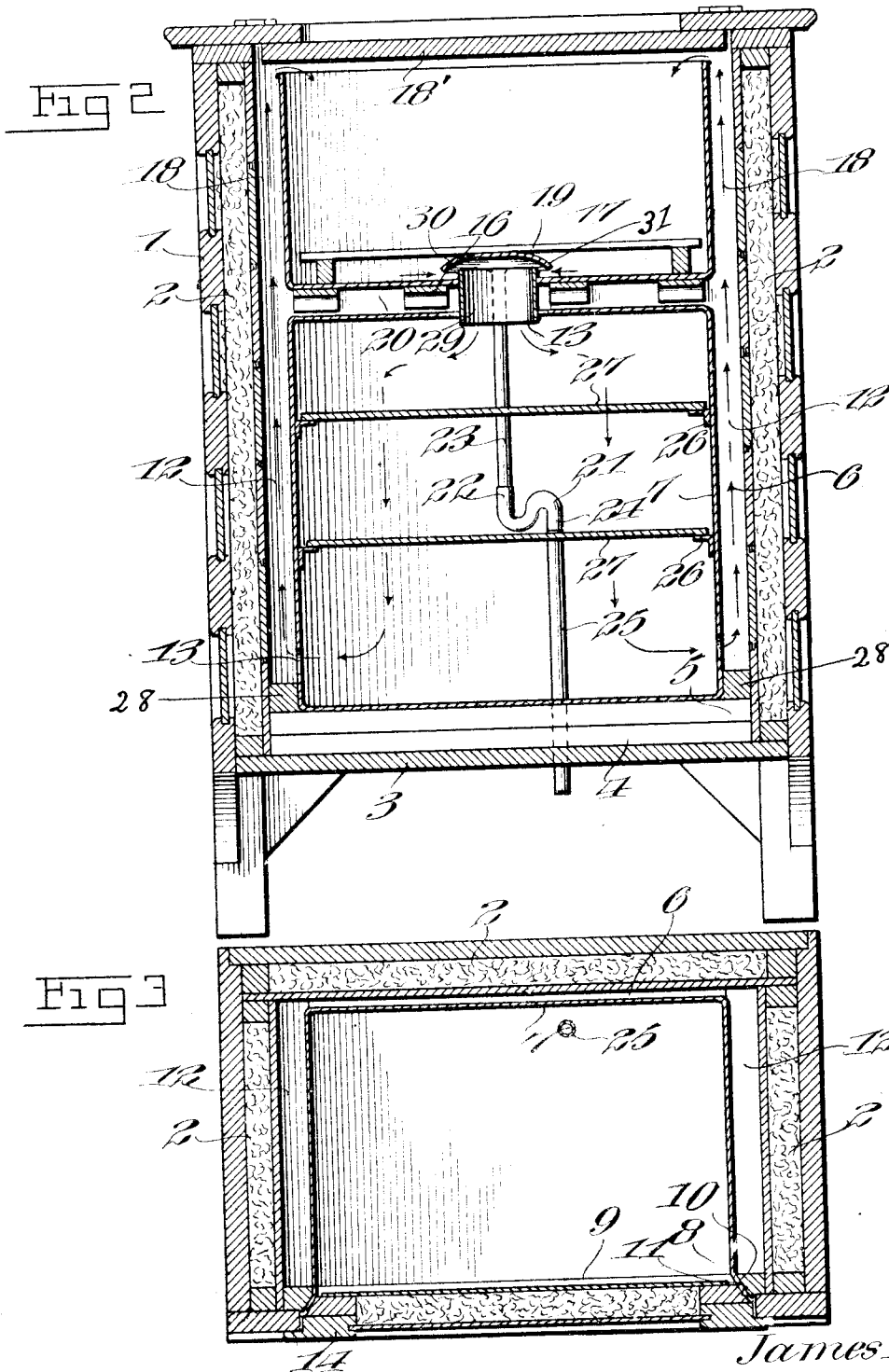
Attorney

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UNITED STATES PATENT OFFICE.

JAMES I. PAYNE, OF CINCINNATI, OHIO.

REFRIGERATOR.

1,052,375.

Specification of Letters Patent. Patented Feb. 4, 1913.

Application filed April 2, 1912. Serial No. 688,102.

To all whom it may concern:

Be it known that I, JAMES I. PAYNE, a citizen of the United States, residing at Arlington Heights, Cincinnati, in the county of Hamilton and State of Ohio, have invented new and useful Improvements in Refrigerators, of which the following is a specification.

This invention relates to refrigerators or like storage receptacles for food stuffs and has for an object to construct a refrigerator having a removable lining or storage chamber which can be readily disconnected from the refrigerator and thoroughly cleaned and maintained in a highly sanitary condition.

Another object of the invention is to provide means for positively holding the walls of the lining spaced from the walls of the refrigerator casing so as to define therewith cold air circulating spaces.

Another object of the invention is to prevent the waste water or water of condensation in the ice compartment from entering the food compartment.

In the drawing forming a portion of this application and in which like letters of reference indicate similar parts in the several views:—Figure 1 is a vertical section through the refrigerator. Fig. 2 is a section taken on line 2—2 of Fig. 1. Fig. 3 is a horizontal section taken on line 3—3 of Fig. 1. Fig. 4 is a perspective view of the lining.

The refrigerator herein illustrated comprises a casing 1 of double walls and between the walls is arranged a packing of mineral wool or like insulating material 2. The bottom 3 of the refrigerator has secured thereupon the relatively narrow strips of material 4 and the similar supporting strips 5. The food storage space 6 of the refrigerator has removably mounted therein a lining 7 which opens at 8 into the door opening 9 in the front of the refrigerator casing, the walls of the door opening 9 of the casing being flared as at 10 to receive thereagainst the correspondingly flared portions 11 on the walls of the lining. In this manner the portions 11 co-act with the portions 10 in a manner which will admirably serve to accurately position the lining within the refrigerating space 6 and to also serve to hold the walls of the lining spaced from the inner walls of the casing 1. By spacing the walls of the lining from the walls of the refrigerator casing, air circulating spaces 12 are arranged therebetween. The side and top

walls of the lining are provided with suitable perforations 13 which open directly into the spaces 12 as clearly shown in Fig. 2.

The opening 9 in the front of the casing may be closed by a door 14 which is preferably provided with the inner beveled surfaces 15 which engage against the portions 11 of the lining 7. The portions 11 now act as weather stripping, which, when in effective contact with the surfaces 15 of the door when the latter is closed effects an air tight connection between the door and said lining.

Above the lining 7 and secured in any suitable manner within the casing 1 is a grating 16 upon which is removably supported a one piece ice receptacle 17. This receptacle has its side walls spaced from the inner walls of the casing 1 to define therewith intervening spaces 18 which are arranged in direct communication with the spaces 12. The top of the receptacle 17 is open and disposed beneath a suitable hinged cover 18'. The receptacle 17 is provided with an ice supporting grate 19, and as illustrated the bottom of the receptacle is in communication as at 20 with the perforation in the top wall of the lining 7.

The lining 7 has secured thereto upon its back wall a trap 21 whose branch portion 22 is detachably connected with the waste pipe 23 which leads from the bottom of the ice receptacle. The branch 24 of the trap is detachably connected with the waste pipe 25 which is removably associated with the casing 1. This construction is such that the sections 23 and 24 can be readily disconnected when it is desired to remove the lining 7 from the casing. The side walls of the lining 7 have secured thereto brackets 26 for removably supporting the shelves or grating members 27. The bottom 3 of the casing 1 is also provided with spaced guiding cleats 28 between which the parallel vertical sides of the lining 7 can be slid and properly guided when the lining is removed from or inserted in the space 6.

From the construction described it is evident that the lining 7 can be conveniently and quickly removed from the refrigerator casing and thoroughly cleaned and maintained in a highly sanitary condition. This may also be said of the ice receptacle 17. The receptacle 17 and the lining 7 are each formed of a single piece of material preferably and lined with porcelain or the like.

A short relatively wide pipe 29 is secured

in the bottom of the ice compartment, the upper end of the pipe being extended above the plane of the bottom of said compartment so as to prevent the water on the bottom from entering the food compartment by way of said pipe. The top of the food compartment has an opening 13^a therein in which the lower end of the pipe 29 is removably fitted whereby direct communication is established between the food compartment and the ice compartment, the construction and arrangement of parts being such that under normal atmospheric conditions a complete circulation of cold air will be created and the refrigerating products compelled to circulate in the food compartment as shown by the arrows. By extending the plate 29 into the opening 13^a of the lining 7 as described, it is seen that the ice receptacle will be centered with relation to the lining and that the walls of said receptacle will be held equi-distances from the side walls of the casing. With a further view to preventing the water in the ice compartment from entering the food compartment I provide the bottom of the ice grate 19 with a hood 30. This hood is of concavo-convex form with its concavity disposed above the upper end of the pipe 29, the walls of the concavity being spaced from the upper end of the pipe and curved downwardly and outwardly slightly below the plane of the said upper end of the pipe as at 31 whereby the water falling onto the hood will be carried beyond the sides of the pipe as will be understood.

I claim:—

1. A refrigerator comprising a casing, spaced cleats rising from the bottom thereof, a removable lining mounted in the casing and slidable between the cleats, said cleats spacing the vertical walls of the lining

from the vertical walls of the casing, a grate located in the casing above the lining, an ice receptacle disposed above the first lining and supported upon said grate, said receptacle having its walls spaced from the vertical walls of the casing, and a cold air circulating pipe carried by the receptacle and depending from the bottom thereof and removably fitted in the top of the lining and adapted to center the receptacle with relation to the adjacent walls of the casing.

2. A refrigerator comprising a casing having a refrigerating chamber, the said casing having an opening therein, a removable lining slidably mounted in the chamber and having stop portions adapted to engage against the walls of the opening to limit the sliding adjustment of the lining in one direction and to space the back wall of the lining from the back wall of the casing, the side walls of the lining being spaced from the side walls of the casing, the said lining having openings therein for establishing communication between the refrigerating chamber of the lining and the space between the outside walls of the lining and in the inside walls of the casing, an ice receptacle mounted in the casing and disposed above the lining spaced from the adjacent walls of the casing, and a cold air pipe establishing communication between the top of the lining and the bottom of the receptacle and adapted to center the same with relation to the lining.

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

JAMES I. PAYNE.

Witnesses:

JAMES A. KOEHL,
E. EDMONSTON, Jr.