Jan. 1, 1935. O. W. STAHL 1,986,022

CLOSURE FOR INSULATED CHAMBERS

Filed May 18, 1932

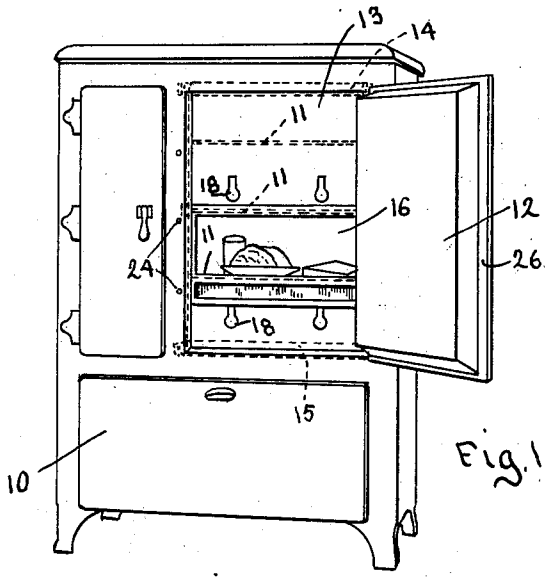


Fig. 1

Fig. 4

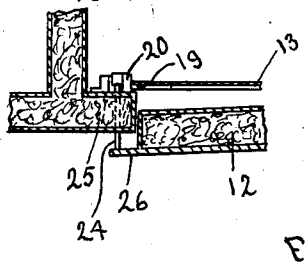


Fig. 2

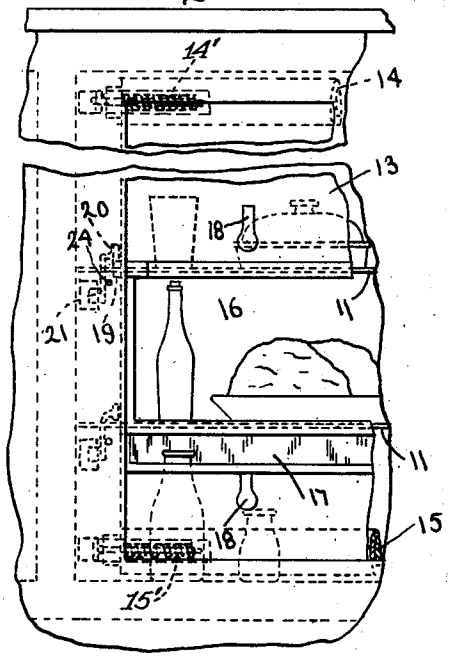


Fig. 3

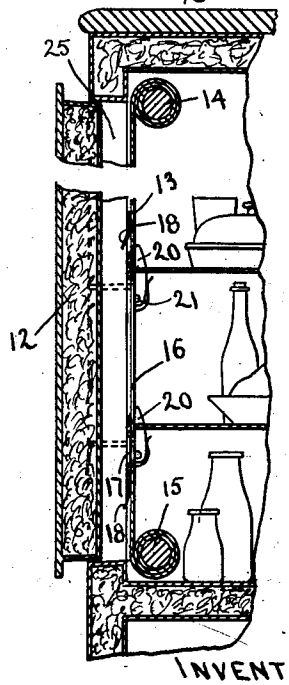
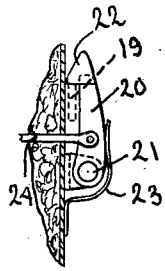


Fig. 5



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CLOSURE FOR INSULATED CHAMBERS

Oscar William Stahl, Needham, Mass.

Application May 18, 1932, Serial No. 612,015

2 Claims. (Cl. 312—190)

My invention relates to closures and particularly to closures for refrigerator chambers, ovens and the like, in which the temperature may vary widely from that outside.

When the door of a refrigerator or oven in service is opened to observe or to remove food, there is a marked variation in interior temperature depending on the time it remains open, and one object of my invention is to provide means for minimizing this variation.

A second object is to provide movable means for uncovering limited area of the chamber and varying the area uncovered as regards position.

My invention consists of a novel form of closure within the outer closure, and is provided with an opening of predetermined size adapted to be moved to uncover a selected portion of the chamber.

Other novelties in construction and operation will appear in the accompanying specifications and claims and the drawing forming a part thereof, in which I have described and shown one embodiment of my invention as applied to a refrigerator.

As analogous conditions prevail in the case of an oven, the description given will apply to the installation of my invention in an oven or the like. I do not confine myself to the particular form of my invention shown and described, as modifications in construction, materials used, and the operation of the device, may be made within the scope of the appended claims.

In the drawing,

Fig. 1 is a perspective view of a refrigerator in which my invention is embodied.

Fig. 2 is a fragmental front elevation of the same, enlarged.

Fig. 3 is a sectional fragment showing the application.

Fig. 4 is a fragmental plan showing means for retaining the closure element in adjusted position and the means for releasing to permit return to initial position.

Fig. 5, is an enlarged side elevation of such means.

Referring to the drawing,

The refrigerator 10 is provided with the usual shelves 11, the door 12 serving as a closure for the entire chamber. The curtain 13 is mounted on the rolls 14, 15, both of which are spring actuated. These rolls are of the type commonly used for like purpose, 14', 15' indicating the springs for rotating the respective rolls 14, 15.

The tension on the upper roll 14 is such that the curtain 13 will normally wind thereon when released, and the lower roll has only sufficient tension to serve as a takeup roll when the curtain is drawn from the roll 14 when operated for the purpose of uncovering a portion of the interior as will be explained. This curtain is provided with an opening 16 of such width that articles on a particular shelf may be withdrawn or placed on the shelf, the shelves dividing the chamber into compartments, initially closed by the curtain before it is operated to uncover a particular compartment, the opening being wound on the roll 14. When the curtain is pulled down by means of the tabs 18, the opening is moved to uncover the required compartment and while in such position all other compartments are separated and closed against lowering of temperature. In order that any compartment may be uncovered the least possible time, I provide a window 17 positioned in advance of the opening, and through which the compartments may be observed before uncovering. I provide on the curtain, a projection 19 which is adapted to engage dogs 20 in registering relation to each compartment, the dogs retaining the curtain while food is removed or placed on the shelf of a particular compartment. Any suitable means may be employed for retaining the curtain in adjusted position, and one such means I will describe. The dog 20 is hinged as at 21 to the refrigerator wall, and the upper end of the dog is wedge shaped as at 22, which permits the projection 19 from the curtain to swing it against the yielding resistance of the spring 23.

A pin 24 is hinged to the dog and projects through the wall 25 of the refrigerator into the path of the flange 26 of the door 12. When the curtain is drawn to selected position, the particular dog prevents rewinding on the roll 14, until the dog is released. When the outer door is closed, the flange 26 engages the several pins hinged to the dogs, and they are pressed backwardly out of the path of the projection 19, and the curtain is wound on the roll 14 by the spring action, covering all the compartments as a secondary closure.

When the outer door is opened, the interior remains closed until the curtain is operated as explained.

Having thus described my invention, I claim

1. In a chamber insulated against heat transference, having a plurality of compartments, an opening in one wall, a closure thereto, and an inner closure element movable to uncover any compartment, retaining the other compartments in closed condition, means for retaining the closure element in adjusted position relative to the

opening in the casing; and means operated by the closure to said opening, for releasing said retaining means; and means for returning the closure element to initial position.

2. In a chamber insulated against heat transference, having a plurality of compartments, an opening in one wall, a closure thereto, and an inner closure element movable to uncover any compartment, retaining the other compartments in closed condition; means for moving the closure element across said opening to expose a selected compartment only; means for retaining the closure element in adjusted position relative to the opening in the wall; yielding means for returning the closure element to initial position; a transparent element forming a part of the closure element and in fixed relation to an opening therein, through which the interior of the chamber may be viewed; and means operated by the outer closure for releasing the means for retaining the closure element in adjusted relation to the opening.

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