

UNITED STATES PATENT OFFICE

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FOOD PRESERVING APPARATUS

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2 Claims. (Cl. 98—51)

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This invention relates to apparatus primarily designed for preserving food, and aims to accomplish such end by the use of air and water alone, as found in nature, although when desired the action may be supplemented by the use of ice or any mechanical refrigerating unit.

I aim to provide a structure wherein the foods or materials may be preserved without the use of ice or electric refrigeration or the equivalent for many months in each year, but at the same time with retention of the nutritive values of the foods and without exchange or interchange of food flavors.

In addition I aim to attain the end stated by disposing in the food compartment at the base thereof a water reservoir, and by having a draft pipe and a vent pipe in communication with the food compartment, the draft pipe being located between the water supply or reservoir and the vent pipe, and with novel closure or control means to open or close said draft pipe and vent pipe.

The more specific objects and advantages will become apparent from a consideration of the description following taken in connection with accompanying drawings illustrating an operative embodiment.

In said drawings:

Figure 1 is a view in front elevation, partly broken away, and with the door to the food compartment removed, of the food preserving apparatus according to the invention; and

Figure 2 is a vertical sectional view taken primarily on the line 2—2 of Figure 1.

Referring specifically to the drawings wherein like reference characters designate like or similar parts, throughout the different views I provide a suitable box or cabinet as at 10 whose walls are of any suitable construction, being of metal, wood, plastic, or the like and which may have suitable insulation. Cabinet 10 preferably is elevated from the floor or other supporting structure as by legs at 12. Also the cabinet is open at the front to enable access to the food compartment generally designated 13, which opening is closed by a suitable door 14.

The door 14 may be hinged to the cabinet as at 16, and any suitable latching, locking, or equivalent device may be provided therefor, although not shown.

Adjacent the base of the food compartment 13 I provide a perforated or foraminous shelf 17.

Below the perforated shelf 17 the cabinet is closed at the front as well as at the other sides, thereby to provide a reservoir 19 adapted to be maintained full of water as at 20. The water may

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be supplied in any suitable manner, for instance poured into the reservoir through the perforated shelf 17, but preferably be supplied through a pipe 21 from any suitable source by manual or automatic control as preferred. A suitable valve-controlled drain pipe 22 may lead from the base of the reservoir, and near the top of the latter I also provide an overflow pipe 23.

Connected to a wall of the cabinet 10 and communicating with the interior of the food compartment 13 adjacent the base thereof is a draft pipe or duct 24 of any suitable diameter. Such draft pipe is adapted to open to the exterior of the building or room where the apparatus is located, in order that it will communicate with outside air.

Also fastened in a wall of the apparatus at the food compartment 13, adjacent the top thereof, is a vent pipe or duct 26, which likewise is adapted to discharge into the outside atmosphere, as into a chimney, stove pipe, or even independently thereof.

Around the pipes or ducts 24 and 26, within the casing or cabinet 10, I provide suitable frames 27 and 28, respectively, in which valves or plates 29 and 30 are slidably mounted, respectively, so as entirely to cut off the communication between the food compartment 13 and said pipes or ducts or partly cut off the same.

With such a food preserving structure or system, food or the like may be preserved many months in each year without ice, electric, gas, or other mechanical refrigeration, or the equivalent. I simply utilize the free flow of cold air from the atmosphere for cooling compartment 13 and the water 20 which coacts therewith in preserving the nutritive value of foods by humidifying the air so that dry cold is avoided, and which is well known to extract the nutritive value of foods. I also find that in the instanced structure there is no exchanging of food flavors one with another.

Closures 29 and 30 may be closed when the weather is subzero, and they may be thermostatically operable if preferred.

Any number of suitable foraminous shelves 13a may be employed in the food compartment 13.

The cabinet 10 has an upper compartment 31 separated by a foraminous wall 32 from the food compartment 13 and containing a refrigerating unit R for cooling the compartment 13 in hot weather. This unit may be any conventional refrigerating unit adapted for operation electrically, by gas, or otherwise.

Various changes may be resorted to provided that they fall within the spirit and scope of the invention.

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I claim as my invention:

1. Preserving apparatus of the class described comprising a cabinet, said cabinet having a food compartment, a water reservoir in the bottom of the cabinet open to the food compartment, a draft pipe, a vent pipe above the draft pipe, said draft pipe and vent pipe communicating with the interior of the food compartment and the outside air, said draft pipe being disposed above and adjacent the reservoir, and refrigerating means within the cabinet above the food compartment to produce a lower temperature within the food compartment than that of said water reservoir.

2. A preserving apparatus comprising an insulated cabinet having a food compartment, a water reservoir in the cabinet beneath the food compartment and communicating therewith, conduit means connected to a source of water supply for maintaining a controlled flow of water to the reservoir, an overflow pipe leading from the reservoir to maintain and limit the water level therein, said reservoir having a drainage pipe, a draft pipe opening into the food compartment above and adjacent the reservoir, a vent pipe leading from the upper part of the food compartment, said draft and vent pipes communicating with the

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atmosphere, and a refrigerating unit in the upper part of the cabinet above the food compartment for maintaining the food compartment at the desired temperature.

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