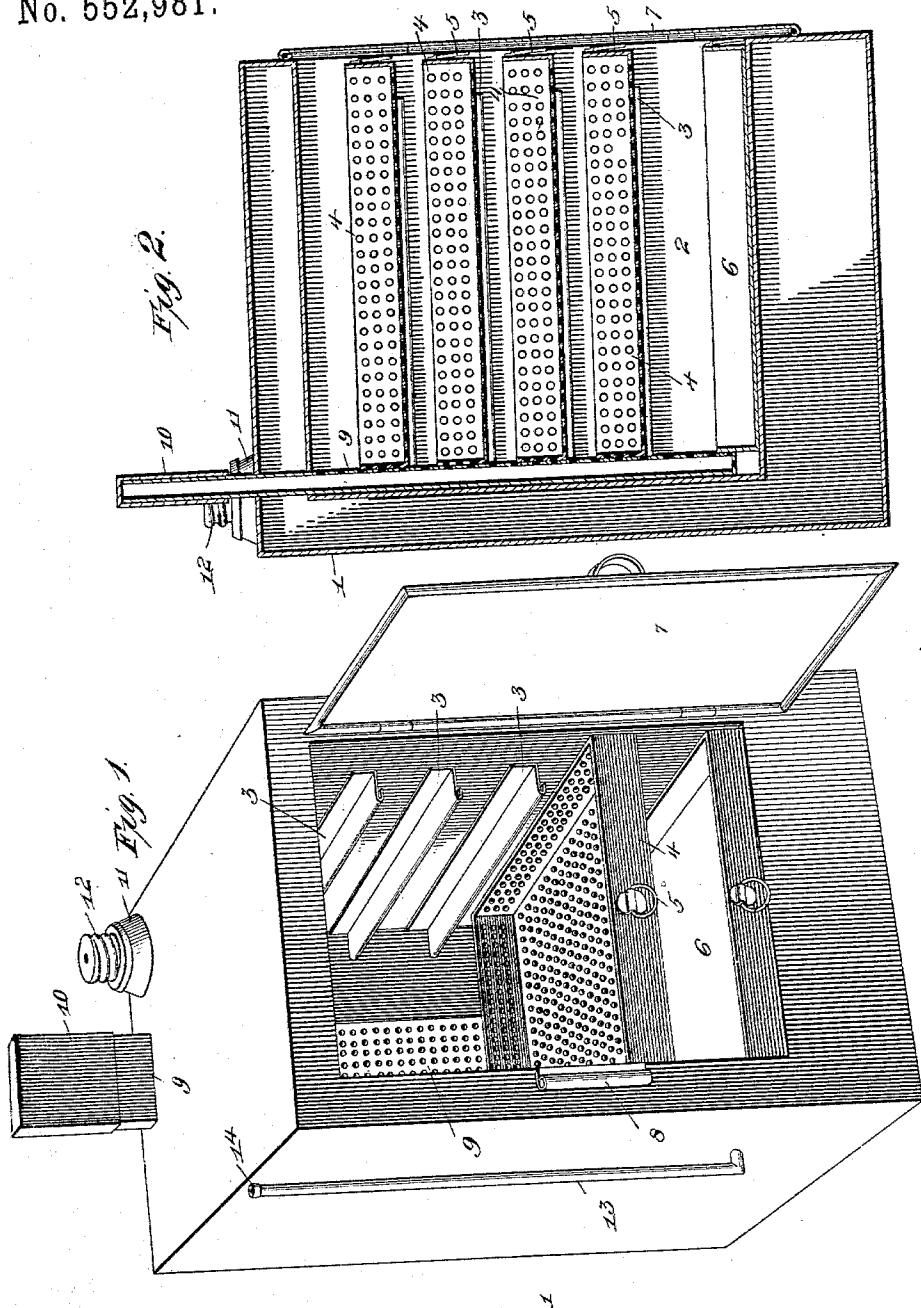


(No Model.)

W. BOLINGER.
FRUIT EVAPORATOR.

Patented Jan. 14, 1896.

No. 552,981.



Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM BOLINGER, OF EUREKA, KANSAS, ASSIGNOR OF ONE-HALF TO
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FRUIT-EVAPORATOR.

SPECIFICATION forming part of Letters Patent No. 552,981, dated January 14, 1896.

Application filed July 27, 1895. Serial No. 557,365. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BOLINGER, a citizen of the United States, residing at Eureka, in the county of Greenwood and State of Kansas, have invented a new and useful Fruit-Evaporator, of which the following is a specification.

This invention relates to an improvement in fruit-evaporators, and has for its object to provide a simple, inexpensive and efficient evaporator adapted especially for family use, being designed to be placed upon an ordinary cooking-stove.

The principal objects in view are to provide in connection with a fruit-evaporating compartment having a surrounding hot-water space or chamber a foraminous tube leading from the interior of the evaporating-compartment to the exterior, and providing for the proper ventilation of said compartment and the carrying off of the excess steam contained therein; also, to provide in connection with the hot-water space or chamber a steam-tube carrying a whistle and disposed in such manner that said whistle will be blown when the water-level has descended to a predetermined point.

Other objects and advantages of the invention will appear in the course of the ensuing description.

In order to accomplish the objects above enumerated, the invention consists in an improved evaporator, embodying certain novel features and details of construction and arrangement of parts, as hereinafter fully set forth, illustrated in the drawings, and finally incorporated in the claims.

In the accompanying drawings, Figure 1 is a perspective view of an improved evaporator constructed in accordance with this invention with the door thereof thrown open to show the interior arrangement. Fig. 2 is a vertical transverse section through the same with the door closed.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

Referring to the drawings, 1 designates the body of the evaporator, which is preferably made in a substantially cubical form and pro-

vided throughout with double walls of tin, copper or other sheet-metal, said walls being so disposed as to form an inclosed inner compartment 2 and a surrounding hot-water space, as shown. The space between the bottom of the compartment 2 and the bottom of the evaporator-body is preferably greater than the space between the side, end and top walls, in order to provide the necessary space for an ample supply of water for a purpose that will hereinafter appear.

Within the evaporator-compartment 2 are arranged a number of cleats or ledges 3, which are oppositely disposed in pairs and adapted to receive a number of fruit-holding trays 4, said trays being formed from perforate sheet metal and provided at their front edges with suitable handles 5, facilitating the insertion and removal of the trays through the doorway.

6 indicates a drip-pan made of imperforate sheet metal and of a size adapting it to be introduced into the evaporating-compartment upon the floor thereof, and beneath the fruit-holding trays in such position as to catch the drip from the fruit, said drip-pan being capable of being removed the same as the other trays whenever necessary. When all the trays and the drip-pan are in place within the evaporator-compartment, the latter may be closed by means of a hinged door 7, the latter being engaged by a spring-metal keeper 8 secured to the front wall of the evaporator and serving to hold said door snugly and firmly closed, so as to effectually prevent the escape of steam from said compartment.

9 designates a ventilator-tube which is preferably arranged in the rear of the evaporator-compartment and supported against the rear wall thereof. This tube is composed of foraminous sheet metal and extends from top to bottom of said compartment, passing through the top of the evaporator-body and extending a sufficient distance above the same to receive a cap 10. The upper portion of this tube, or that portion which projects through the space between the upper walls of the evaporator and above the same, is made imperforate, as shown, and the cap 10 is also imperforate and adapted to fit snugly over

the upper end of said tube so as to prevent the escape of steam when in place. Water is introduced between the double walls of the evaporator and into the lower boiler-chamber thereof through a nozzle 11, arranged preferably at one of the rear corners of the evaporator and threaded to receive a screw-threaded cap 12, having formed therein one or more perforations providing for the escape of the steam.

13 indicates a small pipe which communicates with the hot-water space through the outer wall of the evaporator-body and is provided at its extremity with a steam-whistle 14. When the water gets below a certain level in the evaporator or that point where the tube 13 enters, the steam will enter and pass through said tube and blow the whistle referred to, thus warning the attendant that the water-supply needs replenishing.

From the foregoing description it will be apparent that a very neat, simple, and inexpensive fruit-evaporator is obtained, which may be made either of a size for family use or in larger sizes for factories, &c.

In operation water is introduced into the boiler-chamber and between the double walls of the evaporator, the screw-cap 12 applied and the device placed upon the stove. The trays containing the fruit are now introduced into the evaporator-compartment and the drip-pan placed beneath the same and the door closed. As the water boils, the heat therefrom entering the evaporator-compartment will cause the fruit to sweat and the juice therefrom to descend into the drip-pan. By reason of the fruit-trays being made of perforate metal the heat and steam are allowed to thoroughly permeate said fruit. When it is thought that the fruit has been subjected for a sufficient length of time to the action of the heat and steam, the cap is removed from the upper end of the foraminous ventilator-tube, which will allow any excess of steam and moisture to pass out of the evaporator-compartment. Should the water-supply become too far exhausted at any time,

due warning of the same will be given through the medium of the whistle above described.

One or more of the trays may be removed at any time when the fruit therein has been sufficiently evaporated and replaced by trays of fresh fruit, thus rendering the device very convenient in practice.

Various changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In an evaporator, the body thereof formed with double walls providing an inclosed evaporator compartment and a surrounding water and steam space, and means for holding a series of removable fruit holding trays within said compartment, in combination with a foraminated ventilator tube arranged wholly within said compartment and provided with an imperforate portion or extension passing through the steam space of the evaporator body and opening outward exteriorly thereof, substantially as and for the purpose described.

2. The herein described evaporator, comprising a body having an inclosed evaporating chamber entirely surrounded by a hot water and steam space, means for supporting a series of removable fruit trays within said chamber, a foraminous ventilator tube arranged wholly within said chamber and having an imperforate portion or extension passing through the steam space of the ventilator body, and a cap for sealing or closing the outer end of said ventilator tube, substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM BOLINGER.

Witnesses:

T. O. SEARS,

H. F. RIZER,