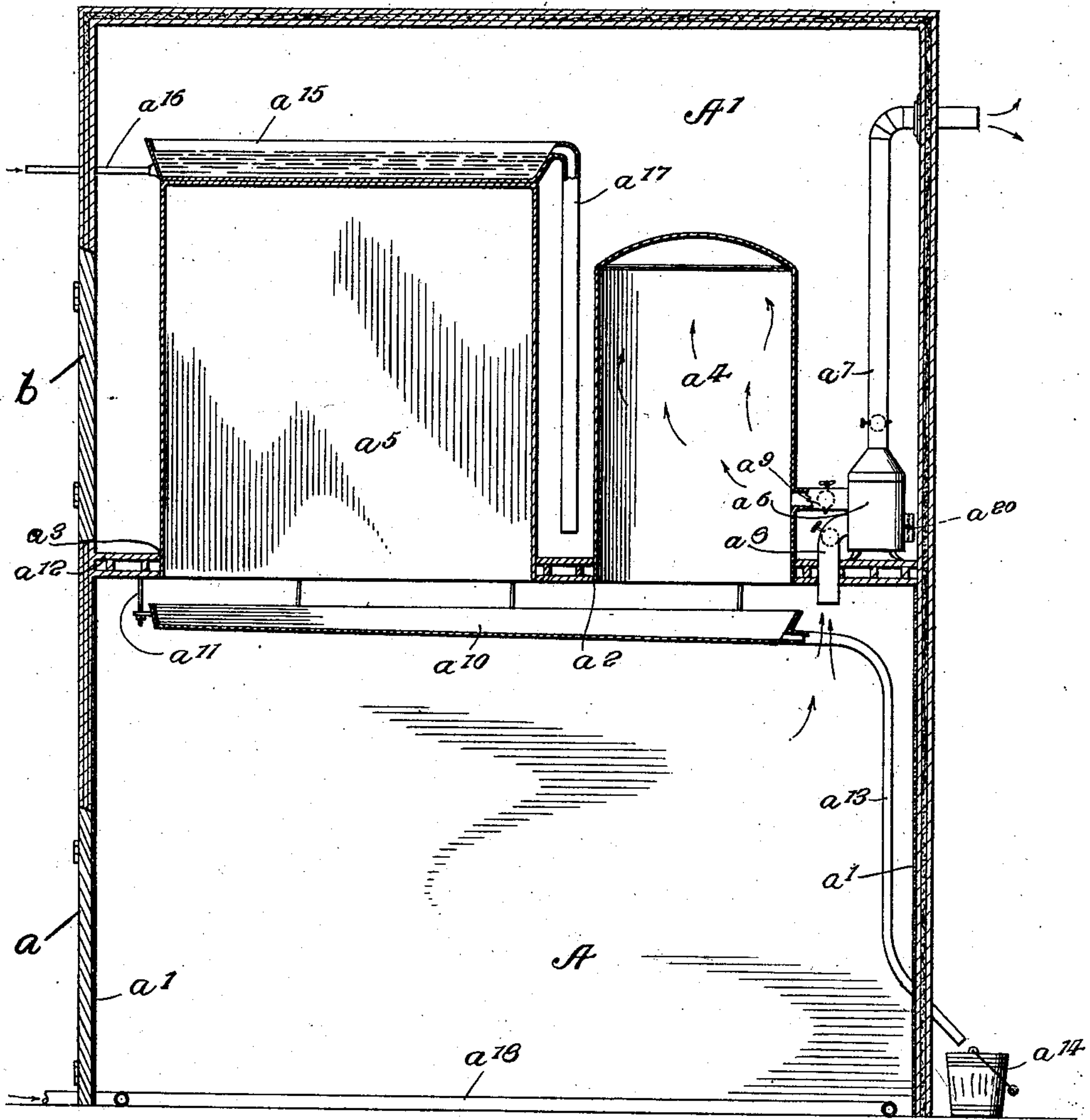


No. 889,828.

PATENTED JUNE 2, 1908.

C. B. TRESCOTT.
DEVICE FOR CURING EDIBLE MATTER.

APPLICATION FILED JUNE 4, 1907.



Witnesses

L. H. Schmidt.

E. T. Gramsberg.

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Inventor

Charles B. Prescott,

A. S. Dyrenforth,
Attorney

UNITED STATES PATENT OFFICE.

CHARLES B. TRECOTT, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO SAMUEL ELMORE,
OF ASTORIA, OREGON.

DEVICE FOR CURING EDIBLE MATTER.

No. 889,828.

Specification of Letters Patent.

Patented June 2, 1908.

Application filed June 4, 1907. Serial No. 377,276.

To all whom it may concern:

Be it known that I, CHARLES B. TRECOTT, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Devices for Curing Edible Matter; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide a device for curing fish, meats, and other food-matter, which shall embody, with a maximum of simplicity and efficiency of operation, a minimum of cost of production and of operation.

A further object is to provide a device of the above description which shall utilize all the smoke, thus effecting a large saving and economy in the cost of operation.

A further object is to provide a device wherein the smoke is purified, cooled, and dried before entrance into the curing-chamber.

A further object is to provide means for taking up the moisture from the room, coming from the fish, or meats.

With these objects in view, the invention consists in the novel construction, combination, and arrangement of parts of a device characterized by my invention, as fully hereinafter described in the specification, summed up in the claims, and illustrated, by way of example, in the drawing, which shows one form of embodiment of my invention, and in which the figure is a central, vertical, longitudinal section through a device capable of carrying into effect the objects of my invention.

Referring to the drawing in detail, A designates a lower apartment, which may be the lower story of a two-story building; A' designating the upper apartment. The inner walls of apartment or chamber A are desirably insulated, as at a^1 ; means of access to the apartments, as doors a , b , being also provided.

Cut through the ceiling of the lower chamber, or the division wall between the two stories, are two spaced openings a^2 , a^3 , in which are disposed two chambers, which may be drums a^4 , a^5 , or the like, both desir-

ably formed of thin metal and inclosed at the sides and top, but open-bottomed, so as to communicate with the lower apartment A.

It is obvious that, while drum a^4 is shown as communicating with the lower chamber through the top thereof, the position of the drum with reference to its point of communication with said chamber may be altered, so as to communicate with said chamber near the top thereof, the important point being that said drum have communication with said chamber away from the bottom thereof; and all such slight modifications, not constituting a departure from the spirit of my invention, come strictly within the scope and purview thereof.

In proximity to the drum a^4 is a source of smoke, such as a stove a^6 , provided with a damper a^{20} and having communication by valved pipe a^7 with the outside atmosphere.

In communication with the stove and with the lower chamber A is a valved circulation-pipe a^8 . Communicating with the stove and with the drum a^4 is a short section of valved pipe a^9 .

Extending beneath and spanning the open bottoms of the drums a^4 , a^5 , is a catch-basin or pan a^{10} , suitably supported, as by brackets a^{11} depending from the ceiling a^{12} . Communicating with the bottom of the pan is an escape-pipe a^{13} , and beneath the lower extremity of the pipe may be disposed a bucket, or the like, a^{14} .

It is advantageous to provide on top of drum a^5 a basin a^{15} , communicating with which may be a water-supply pipe a^{16} , in communication with any suitable source of water-supply (not shown), and also communicating with the basin may be a water-exit-pipe a^{17} .

In charging the lower chamber A with the preservative products of combustion, the operation may be described as follows: The valve in the pipe a^7 is opened, the valves in the pipes a^8 , a^9 closed, and damper a^{20} opened, and fire is started in the stove a^6 . When the fire is well started, the valve in the pipe a^7 is closed, the valves in pipes a^8 , a^9 opened, and damper a^{20} closed, and the highly-heated products of combustion immediately begin to pour into the drum a^4 , which, it may be here said, constitutes a combined cooling, drying, and purifying

chamber. The highly-heated smoke and products of combustion strike the thin walls and top, which are cooler than the smoke; and the smoke, upon entering the drum a^4 , is thus cooled, the unconsumed carbon and soot collect on the walls of the drum, and the moisture collecting on the interior walls of the drum washes the soot and unconsumed carbon down into the underlying pan a^{10} , from whence it escapes through the exit-pipe a^{13} into the bucket a^{14} provided for its reception. All the unconsumed carbon and soot being thus collected on the walls of drum a^4 , none of it descends to the lower chamber A, and thus the fish and meats to be cured are removed from all possibility of contact with such soot, etc., and the walls of the lower chamber A are kept entirely clean. The preservative products of combustion, being heavier than the air of the room A, fall upon and into contact with the meat or fish in the chamber A. It will thus be seen that the drum a^4 subserves the very important triple function of cooling, purifying, and drying the smoke. The pipe a^8 provides for a slight circulation from the chamber A into the stove and thence through the pipe a^9 into the drum a^4 and back into the chamber A; the hot smoke and gases, upon entering the drum a^4 and striking the cool walls thereof, contracting, thus keeping up a circulation through the chamber A. This circulation in the lower chamber A acts to keep the fish and the like moist.

While the drum a^4 is sufficient to take up all the moisture in the smoke, the drum a^5 is provided for the purpose of taking the moisture from the fish or meats, caused by evaporation; and this moisture ascends into the drum a^5 , collects on the walls thereof by reason of radiation of heat through the walls of the drum in cool weather, and descends the same into the pan directly therebeneath.

It may be of interest to add, as one indication of the cheapness of operation of my device, that I find in practice that it is only necessary to use four sticks of wood twice a day in the stove; and that it is only necessary to charge the chamber A with preservative products of combustion twice a day, for not over three-quarters of an hour to an hour at a time. The fact that my device is entirely inclosed, and that it therefore utilizes all the smoke, letting none escape, is a material factor in the cheapness of operation of the device.

I find that it is desirable, in curing such food-matter as salmon, for instance, to have a temperature in the lower chamber A approximating 75° to 80° F; and, in curing such food-matter as hams, for instance, a temperature approximating from 80° to 100° F. In very cold weather, therefore, it is desirable to provide means of heating the lower chamber A, wherefore I provide a coil of hot-

water or steam-pipe a^{28} , whereby the temperature may be raised to the desired point, when necessary.

In very hot weather, or in very hot climates, the temperature of the lower chamber A may have a tendency to rise above 75° to 80° F. Therefore, I desirably provide means for keeping down the temperature to the desired point, when necessary. For this purpose, I have furnished the basin a^{15} , into and out of which may be caused to run a steady stream of cool water. The water will thus cool the top and side walls of the drum a^5 , and decrease the temperature of the lower chamber A.

Having thus fully described my invention, what I claim as new and desire to secure by Letters-Patent is:

1. In a device for curing edible matter, a curing-apartment, a combined cooling, purifying and drying chamber communicating therewith at the top thereof, and a source of smoke-supply exterior of the curing-apartment and communicating with said chamber.

2. In a device for curing edible matter, a curing-apartment, a combined cooling, purifying and drying chamber communicating therewith at the top thereof, means disposed beneath the chamber for catching the drip therefrom, and a source of smoke-supply exterior of the curing-apartment and communicating with said chamber.

3. In a device for curing edible matter, a curing-apartment, a combined cooling, purifying and drying chamber communicating therewith at the top thereof, and a source of smoke-supply exterior of the curing-apartment and communicating therewith and with said chamber.

4. In a device for curing edible matter, a curing-apartment, a combined cooling, purifying and drying chamber communicating therewith at the top thereof, means disposed beneath said chamber and extending thereacross for catching the drip therefrom, and exit-means communicating with the drip-catch means for carrying off drip.

5. In a device for curing edible matter, a curing-apartment, a combined smoke cooling, purifying and drying chamber communicating therewith at the top thereof, a supplemental drying and cooling chamber also communicating with the curing-apartment at the top thereof, and a source of smoke-supply exterior of the curing-apartment and communicating with the cooling, purifying and drying chamber.

6. In a device for curing edible matter, a curing-apartment, a combined smoke cooling, purifying and drying chamber communicating therewith at the top thereof, a supplemental drying and cooling chamber also communicating with the curing-apartment at the top thereof, and a source of smoke-supply exterior of the curing apartment and

communicating with the cooling, purifying and drying chamber and with the curing-apartment.

7. In a device for curing edible matter, a
5 curing-apartment, a combined smoke cooling, purifying and drying chamber communicating therewith at the top thereof, a supplemental drying and cooling chamber also communicating with the curing-apartment
10 at the top thereof, means underlying both chambers for catching the drip therefrom, and a source of smoke-supply exterior of the curing-apartment and communicating with the cooling, purifying and drying chamber.

15 8. In a device for curing edible matter, a curing-apartment, a combined smoke cooling, purifying and drying chamber communicating therewith at the top thereof, a supplemental drying and cooling chamber also
20 communicating with the curing-apartment at the top thereof and carrying a cooling-basin, means underlying both chambers for catching the drip therefrom, and a source of smoke-supply exterior of the curing-apartment and communicating with the cooling,
25 purifying and drying chamber.

9. In a device for curing edible matter, a curing-apartment, a combined smoke cooling, purifying and drying chamber communicating therewith at the top thereof, a supplemental drying and cooling chamber also communicating with the curing-apartment at the top thereof and carrying a cooling-basin, means for supplying cooling liquid to the
30 basin, drip-catch means underlying both

chambers, and a source of smoke-supply exterior of the curing-apartment and communicating with the cooling, purifying and drying chamber.

10. In a device for curing edible matter, a
40 curing-apartment, a combined cooling, purifying and drying chamber communicating therewith at the top thereof, a pan underlying the chamber for catching the drip therefrom, and a source of smoke-supply exterior
45 of the curing-apartment and communicating with the chamber.

11. In a device for curing edible matter, a curing-apartment, a combined cooling, purifying, and drying chamber communicating
50 with the curing-apartment at the top thereof, means for raising the temperature of the curing-apartment, and a source of smoke-supply exterior of the curing-apartment and communicating with said chamber.
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12. In a device for curing edible matter, a curing-apartment, a combined cooling, purifying and drying chamber communicating with the curing-apartment at the top thereof, a coil of pipe disposed within the curing-
60 apartment for raising the temperature thereof, and a source of smoke-supply exterior of the curing-apartment and communicating with the said chamber.

In testimony whereof, I affix my signature, 65
in the presence of two subscribing witnesses.

CHARLES B. TRESCOTT.

Witnesses:

R. G. DYRENFORTH,
E. T. BRANDENBURG.