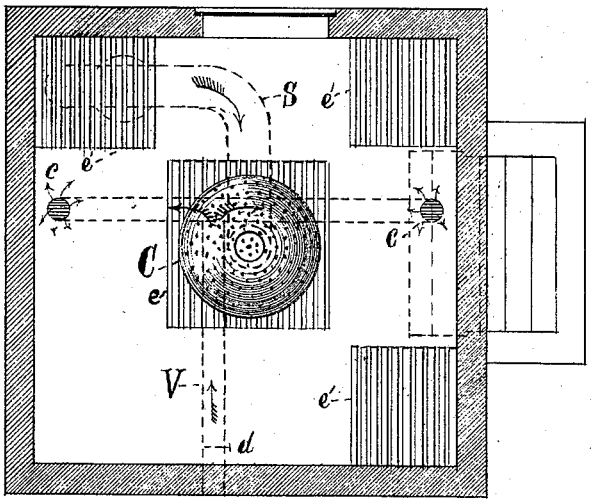
A. WATERMAN.

SMOKE HOUSE.

No. 113,602. Patented Apr. 11, 1871.

Fig 1.



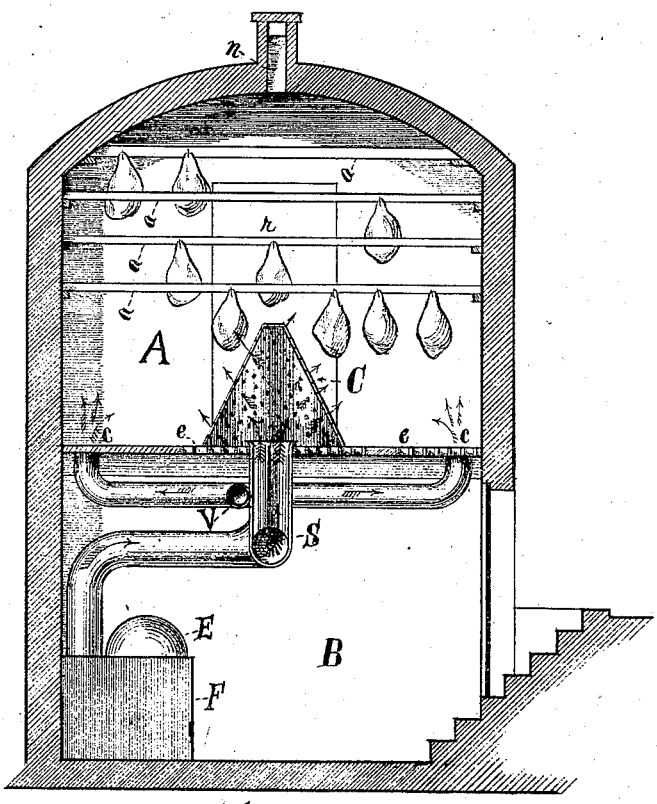


Fig 2.

WITNESSES.

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ASA WATERMAN, OF PROVIDENCE, RHODE ISLAND.

Letters Patent No. 113,602, dated April 11, 1871.

IMPROVEMENT IN SMOKE-HOUSES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ASA WATERMAN, of the city and county of Providence, in the State of Rhode Island, have invented a new and improved Smoke-House, of which the following is a specification.

In the drawing—

Figure 1 is a plan taken from the point *r* in fig. 2.

Figure 2 is a vertical central section.

Similar letters denote like parts in the drawing.

My invention relates to a smoke-house of any suitable size or shape, which is built of brick, stone, or other non-combustible material, with an arched roof, also of brick.

It consists of an upper and a lower chamber, the lower chamber containing the furnace and necessary pipes, the upper chamber containing a perforated cone, the use of which will be hereafter explained, and a suitable number of movable beams, upon which the hams to be cured are hung.

The floor which divides the two chambers is provided with openings covered by iron gratings, to admit of the passage of hot air from the lower to the upper chamber. This floor is constructed of brick or any non-combustible substance.

The furnace in the lower chamber has a radiator on top, which spreads the heat over the two chambers thoroughly and quickly.

The smoke-pipe leads from the top of the furnace to the upper chamber.

A perforated cone is placed over the upper end of the smoke-pipe to receive and spread the smoke in all directions in the upper chamber.

A second pipe extends from the outside of the house into the lower chamber, and, branching at right angles, terminates in the upper chamber at grated openings in the floor. This pipe acts as a ventilator to the upper chamber, pure air from without passing through it into the upper chamber.

There is a damper or regulator in this pipe to regulate the amount of air admitted through the passage, and tends to keep the air in the upper chamber at an even temperature.

The arched roof is provided with an opening of suitable size and shape, to let off the impure air and superfluous smoke.

In the drawing—

A represents the upper chamber, with its movable beams *a a a*, and perforated cone C, fig. 2.

B represents the lower chamber, with its furnace F, radiator E, smoke-pipe S terminating in the grating *e*, and ventilating-pipe V terminating in the gratings C C.

The pipe V has a regulator, *d*, placed at any convenient point.

There are other gratings, *e' e' e'*, which are placed over openings in any convenient part of the floor, fig. 1.

A fire being built in the furnace F, all the smoke passes through the pipe S into and through the perforated cone C, taking the directions indicated by the arrows in fig. 2.

The heat thrown off by the radiator E passes into the chamber A through the gratings *e e' e' e'*.

The regular *d* being opened, the air from without passes through the pipe V and grating *c c* into the chamber A.

The impure air and superfluous smoke passes out through the opening *n* in the arched roof.

The advantages which I claim in a smoke-house constructed in this manner are—

First, perfect security from all danger of fire.

Second, that hams cured in this house are perfectly sweet, and have a bright, clean appearance not to be obtained by any other smoke-house.

Third, that they can be cured in one-half the time taken by any other process.

Having thus fully described my invention,

What I claim as my invention, and desire to secure by Letters Patent, is—

A smoke-house constructed as described, consisting of an upper chamber, A, with its movable beams *a a a*, perforated cone C, ventilator *n*, and gratings *c c*, *e e' e' e'*, together with a lower chamber, B, containing a furnace, as F, with its radiator E, a smoke-pipe, as S, and the branching ventilating pipe V with its regulator *d*, as herein set forth, and for the purpose specified.

Witnesses: ASA WATERMAN.

HENRY MARSH, Jr.,

ASA R. WATERMAN.