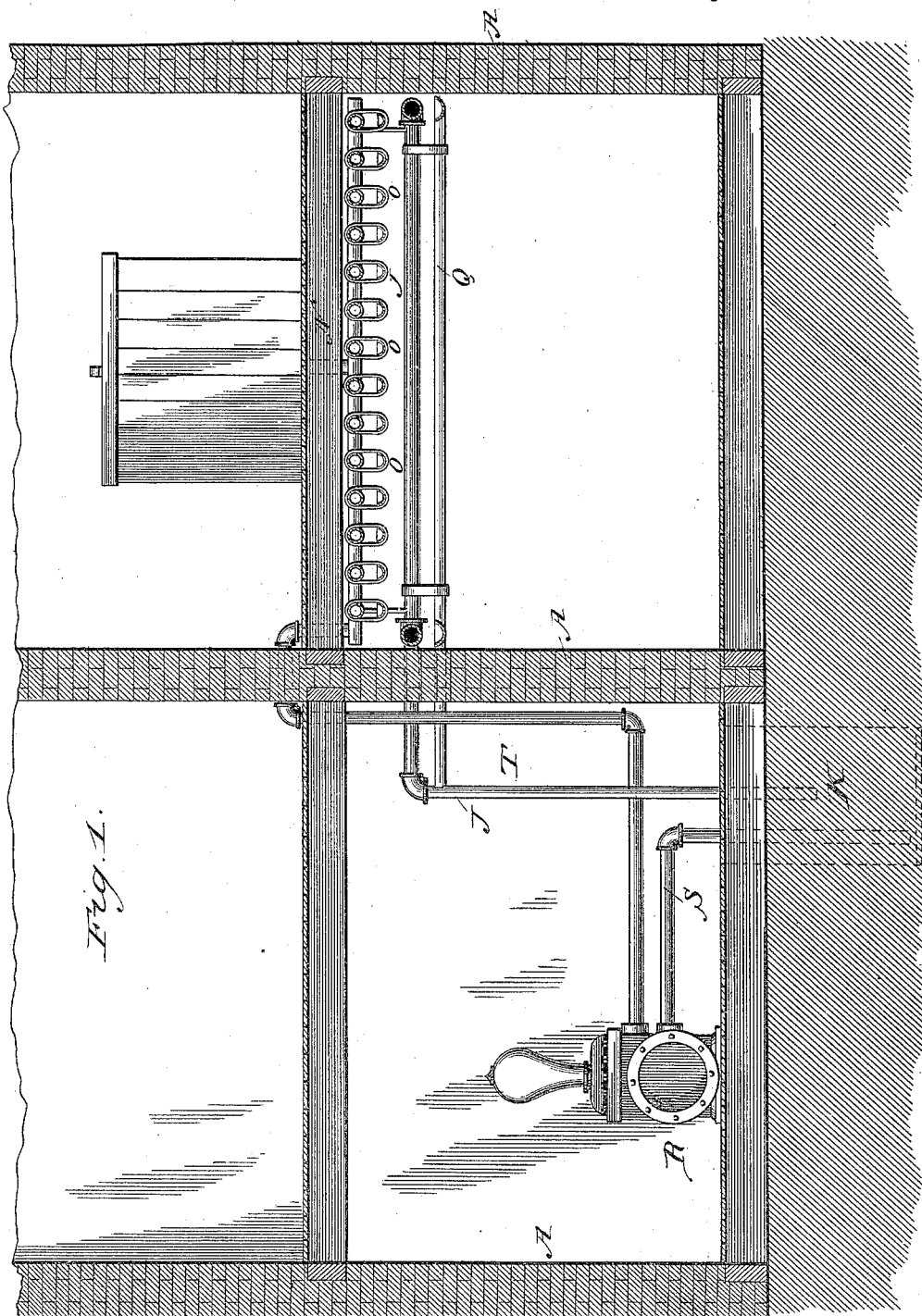


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COOLING-ROOM AND DISPOSING OF NOXIOUS GASES THEREIN.

No. 341,906.

Patented May 18, 1886.



Witnesses.

W. Rossiter
E. H. Hay

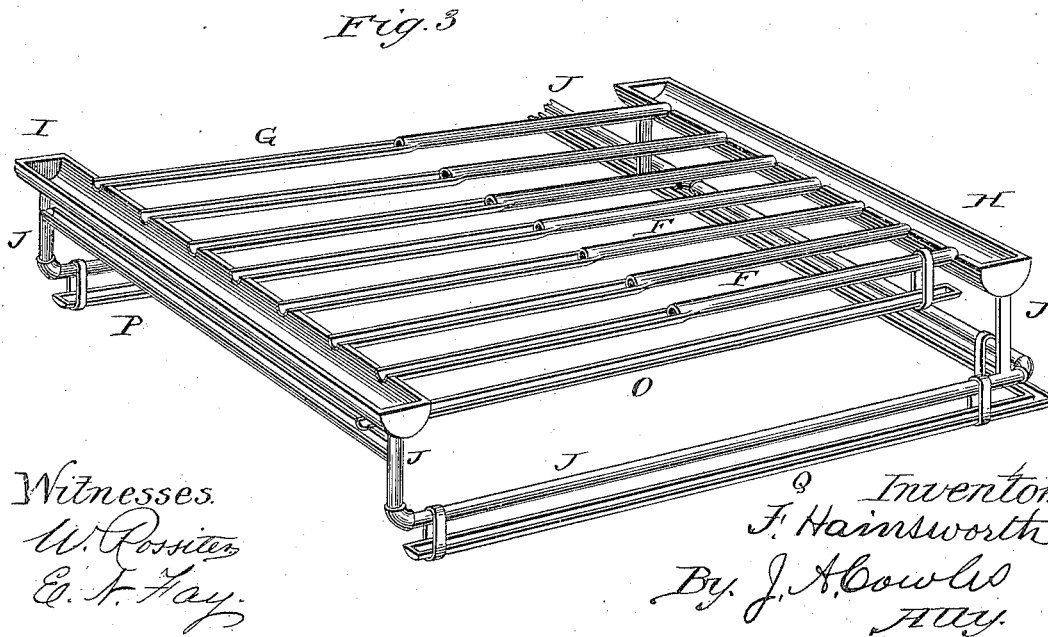
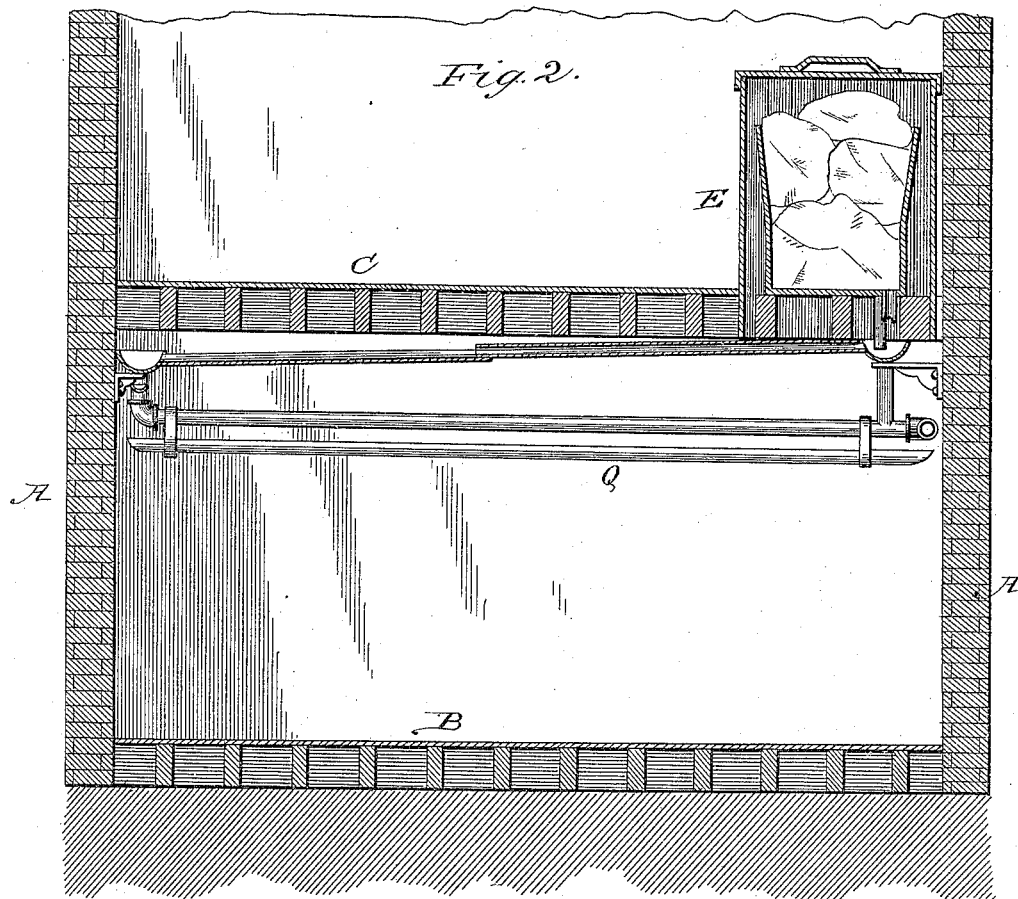
Inventor.
F. Hainsworth
By J. A. Howles
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UNITED STATES PATENT OFFICE.

FREDERICK HAINSWORTH, OF CHICAGO, ILLINOIS.

COOLING-ROOM AND DISPOSING OF NOXIOUS GASES THEREIN.

SPECIFICATION forming part of Letters Patent No. 341,906, dated May 18, 1886.

Application filed April 10, 1885. Serial No. 161,843. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK HAINSWORTH, a citizen of the United States, residing in Chicago, in the State of Illinois, have invented certain new and useful Improvements in Cooling-Rooms and Disposing of Noxious Gases Therein, of which the following is a specification.

In cooling the carcasses of freshly-slaughtered animals as it is done in cooling-rooms the animal heat and odors arise to the top of the room. The same is the result in halls and rooms where-in are assembled a large number of people.

It is a well-known fact that cold will destroy heat and that water will readily absorb noxious gases. If the atmosphere in a room is in a cool condition, then everything in that room will be kept cool. It is also a well-known fact that nearly every substance when prepared for future use will be preserved in a natural state if placed in a cool room; hence meats are cured and preserved in a cool room. Fruits, vegetables, eggs, &c., are kept in a natural state in cool rooms. It is also a well-known fact that if the atmosphere in rooms is above a certain temperature it is both uncomfortable and unhealthy to occupy, such as churches, halls, railroad-cars, &c.

It is the object of this invention to provide the presence of water and cool surface at the upper parts of cooling-rooms, halls, factories, cars, &c., where it is desirable to have the temperature reduced.

Figure 1 is a view of interior of one or more rooms that may be used for cooling-rooms, or may be halls or factory-rooms with apparatus for cooling the room. Fig. 2 is a view of a similar room with ice-box on floor above. Fig. 3 is a perspective of apparatus for cooling the warm air in upper part of room.

A A are the walls of the room, B the lower floor, and C the top floor.

On the floor C is placed any kind of an ice-box, E.

In the upper part of the cooling-room are placed a series of pipes, F, and open gutters G.

H and I are troughs placed at ends of pipes, leading from the gutters and pipes above them and through the walls of the room into the well or tank K.

O O are drip-gutters placed immediately below each gutter G, and all connected to com-

mon gutter P, which connects with the pipe J, thus leading off all the drippings that may fall into them into the well K by the pipe J. The same also is the office of gutter Q.

R is a pump, connected to well K by pipe S, which can be used to return the water through pipe T to the gutters and pipe in the cooling-room. Thus constantly can flowing water be kept in the upper part of the cooling-room. The cold water can be supplied from any source. The pipe T can lead up into the ice-box, thus giving an additional coldness to the water from contact with the ice, in addition to the drippings from the ice, which flow from the ice-box through pipe N into the pipes and gutters; or the ice can be placed in well K. Thus ice-water can be directly returned to the gutters.

I am aware that a single trough has been suspended at the upper part of rooms in which was flowing water. I do not claim, broadly, the suspension of a single trough in the upper part of the room. In my device I employ a series of troughs or narrow gutters placed side by side and parallel with each other, leaving a space from one to two inches between them. This construction gives a cooling-surface of increased capacity—that is, an increased or enlarged cooling-surface is presented for the gases and warm air in the room to come in contact with. The troughs being narrow, with open spaces between them, gives greater facilities for the cool air from the surface of the water to fall to the lower part of the room. Moisture will settle on the outer surface of the gutters, because of the condensation of the moisture in the warm air on cool surface of the gutters. This method of keeping cool water in the upper part of a room, as herein shown, enables me not only to keep the room cool, but also to carry off and dispose of the noxious gases arising from whatever source they may.

It will be observed that I apply my cooling device at the upper part of and within the room.

I disclaim the combination of the pump, tubes, and brine-box or refrigerator at the top of the room.

I claim—

1. In combination with a cooling-room, a series of narrow gutters placed at upper part of room, with narrow open spaces between for the free descent of the cool air and the free rising of warm air through said open spaces,

all of said gutters being joined together by one or more pipes for the purpose of conducting water to and from them, as and for the purpose shown.

- 5 2. In a cooling-room, a series of narrow gutters placed at upper part of room with narrow open spaces between for the free descent of the cool air and the free uprising of warm air through said open spaces, all of said gutters
10 being joined together by one or more pipes for

the purpose of conducting water to and from them, in combination with drip-gutters, one being placed below each narrow gutter to receive and carry off any dripping that may accrue from condensation or otherwise, as and 15 for the purpose shown.

FREDERICK HAINSWORTH.

Witnesses:

JAS. A. COWLES,
FELIX J. GRIFFEN.