

(No Model.)

J. EURIGHT.
REFRIGERATING APPARATUS.

No. 265,250.

Patented Oct. 3, 1882.

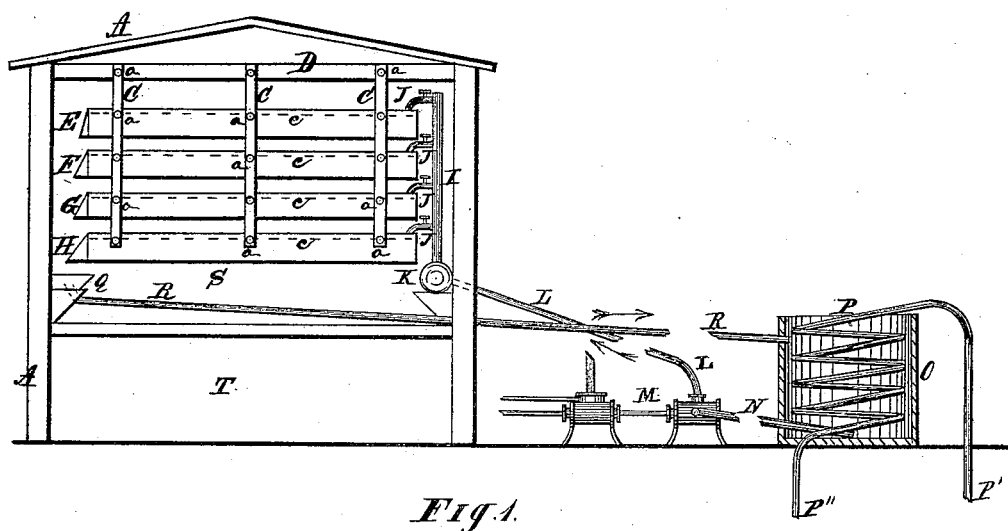


Fig. 1.

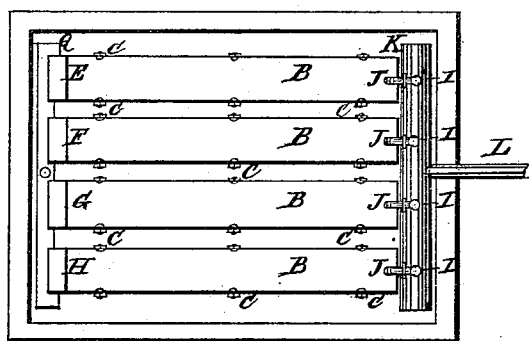


Fig. 2.

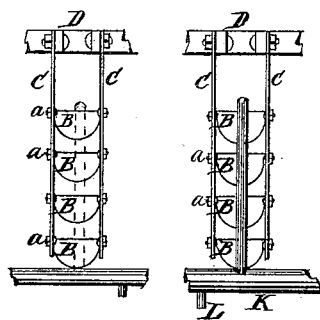


Fig. 3.

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UNITED STATES PATENT OFFICE.

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REFRIGERATING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 265,250, dated October 3, 1882.

Application filed July 20, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN EURIGHT, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Refrigerating Apparatus; and I hereby declare that the following is a full, clear, and complete description of the same, reference being had to the accompanying drawings, making part of this specification.

The nature of my invention relates to a refrigerating apparatus consisting in part of a system of troughs arranged in relation to certain means for supplying the said trough with cold salt-water, which water is regulated in its admission and escape from the trough, so that a continuous current of frigid water is coursed through the said troughs, causing a temperature of low degree in the room where the apparatus is used. The system employed is designed principally for the preservation of meat in slaughter and packing houses, as it is well known that it is extremely difficult and attended with much care, cost, and labor to preserve meats by the present means employed for this purpose.

The object of my improvements is to obtain the desired results with a minimum of expense and labor.

That my improvements may be more fully seen and appreciated, reference will be had to the following specification, and to the annexed drawings, making part of the same, which completely set forth and describe the construction and operation of my apparatus.

In the drawings, Figure 1 is a side elevation. Fig. 2 is a plan view. Fig. 3 shows sectional views.

Like letters of reference denote like parts.

I am aware that refrigerating-pipes, troughs, and jacketed chambers or cells have been in use. Hence I disclaim such apparatus *per se*. What distinguishes my improvements is herein set forth.

In Fig. 1, A represents a general outline of a building in which my apparatus is shown in part.

B are troughs, preferably semicircular, which may be more or less in number, arranged one above the other and side by side, as seen in Fig. 2. These troughs are attached to hangers C by means of bolts, nuts, or otherwise, as

indicated at *a*, Figs. 1 and 3. The hangers are bolted to beams B, forming a part of the structure, above the troughs. On one end of the troughs is formed a drip-conveyer, E F G H, Fig. 1, which extends gradually from each trough, one beyond the other, from the upper one, E, to the lower one, H, as seen in Fig. 1, for a purpose hereinafter shown. In close proximity to the other end of the troughs is a stand-pipe, I, to which is connected a series of cocks, J, each one of which opens respectively into a trough, as shown in the drawings. The lower end of the stand-pipes I is attached to and in open relation with the main pipe K. From this main pipe extends a supply-pipe, L, to the force-pump M, and the pipe N leads into the brine-tank O from the said pump. In the tank is arranged a coil or system of pipes, P, the ends P' and P'' of which are connected with a refrigerating-machine similar to that patented to me April 23, 1878, No. 202,641, or any machine for like purpose by which the brine is chilled. Hence the operation of said machine, by a well-known law in physics, produces a frigid temperature in and about the pipes P, which is communicated to the brine in the tank O so long as the said refrigerating apparatus is efficiently working. By the action of the pump M, which may be operated by any suitable motor, the cold brine is drawn from the tank through the pipe N and forced up through the pipe L into the main pipe K and stand-pipe I, and by means of the cocks J the supply of cold brine is regulated and discharged into each respective trough, more or less, as may be required. The overflow escapes at the ends E F G H, which overflow is sent from one drip-conveyer to the next below, step by step, until it is conveyed into the discharge-trough Q, from which it flows back through the pipe R into the tank. In this way a constant circulation of cold salt-water is passing through the troughs from and to the brine-tank O. The water from the troughs is discharged into the tank at one point and withdrawn at another, to be returned to the troughs by means of the pump M, as before stated. The troughs are filled with cold brine to about the point indicated by the dotted lines *c*, Fig. 1. A slight incline is given to the troughs, which enables the brine to flow out at the ends

E F G H as fast as an inflow from the stand-pipe I is received in the troughs. This will effectually prevent any overflowing of the sides, and as the drip-conveyers are extended beyond each other below, the entire overflow of each trough is taken up and conveyed to the discharge-trough Q. In this way a large refrigerating-surface is presented to the room, and the refrigeration is constantly kept up without the continual handling and supply of solid ice, as is now required, which is attended with great labor and expense.

The system of refrigerating-troughs is arranged in a series of two or more, one above the other and side by side longitudinally, as seen in Fig. 2, allowing sufficient space between the series of troughs for a person to pass, so as to work and manage the arrangement. For the same purpose a space or passage is arranged between the walls and the sides and ends of the troughs, as seen in the drawings.

The room S, in which the system of troughs is arranged, is above the room T, in which the carcass and meat are hung or placed for preservation.

The capacity of the refrigerating apparatus may be enlarged or reduced and arranged in accordance with such requirements without departing from the nature of the invention.

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

1. A refrigerating apparatus consisting of a series of troughs arranged one above the other, a stand-pipe at one end, provided with supply-cocks, and drip-conveyers at the other, in combination with a discharge-trough having a pipe extending therefrom to the tank O, main pipe K, and force-pump connected by an intermediate pipe with a pipe leading from said pump to the brine-tank, substantially as and for the purpose set forth.

2. In a refrigerating apparatus, a system of troughs arranged in horizontal series one above the other, in combination with pipes and pumping mechanism connected with a tank of cold brine, whereby the said brine is withdrawn from the tank to the troughs and returned from said troughs to the tank by one continuous operation, in the manner and by the means substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN EURIGHT.

Witnesses:

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J. H. BURRIDGE.