V. E. RUSCO.

Lard Cooler.

No. 40,644. Patented Nov. 17, 1863.

Fig. 1

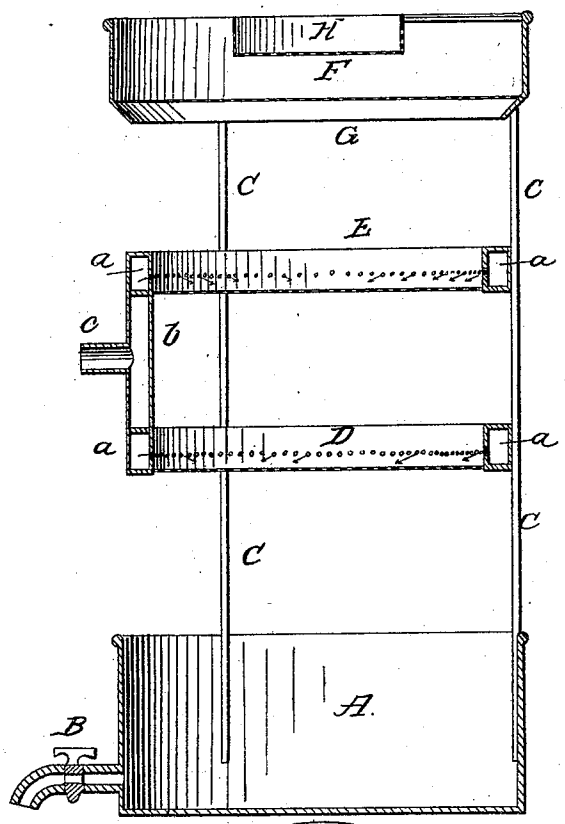
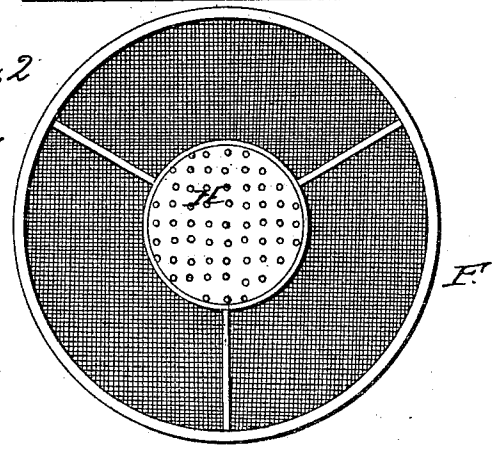


Fig. 2



Witnesses

R. F. Campbell

O. Schopel.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

VOLNEY E. RUSCO, OF CHICAGO, ILLINOIS.

IMPROVED APPARATUS FOR COOLING LARD.

Specification forming part of Letters Patent No. 40,644, dated November 17, 1863.

To all whom it may concern:

Be it known that I, VOLNEY E. RUSCO, of Chicago, in the county of Cook and State of Illinois, have invented a new and improved apparatus for cooling and straining lard and other fatty substances in their passage from the rendering apparatus into barrels or casks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 is a vertical central section of a machine or apparatus adapted for carrying out my invention. Fig. 2 is a top view of the same.

Similar letters of reference in the several figures refer to corresponding parts.

My invention consists in subjecting the finely-divided particles of flowing lard or other fatty substances to the action of finely-divided air under pressure, this operation being performed by a machine constructed substantially as hereinafter described, and immediately after the lard flows out of the rendering vessel or tank and just before it is let into barrels or casks.

The design of my invention is to render practicable the placing of the lard into barrels in a few minutes after it flows from a "Wilson" or other rendering tank—a result never before successfully attained, I believe.

To enable others skilled in the art to make and use my invention, I will proceed to describe a machine adapted for cooling lard according to my invention.

A is a vessel for receiving the lard as fast as cooled. This vessel is furnished with a "draw-off" faucet or gate, as shown at B. From the top of this vessel a frame, C C, extends up a suitable distance, and within this frame two or more vessels, D E, with wire work or reticulated bottoms are arranged so as to be some distance apart. These vessels have double walls, which form closed air-chambers *a a* all round their depth. These air-chambers are connected with one another by one or more vertical hollow legs or pipes, *b*, each leg having an inlet or branch, *c*, for the insertion of the nozzle of a fan-blower. Around the inner circumference of the vessels D E a series of small perforations are formed in the inner wall, so that the air circulating in the air-chambers *a a* shall escape or be expelled in divided streams throughout the vessels. Above the vessel E a larger single-walled vessel, F, with reticulated bottom, is mounted on the frame C C. This vessel has a funnel-shaped conductor or flange, G, below its bottom for concentrating the flowing lard and directing it into the vessel E. There is also a spreading or diffusing device, H, suspended above the bottom of the vessel. This spreader has its sides and bottom finely punctured, and therefore the flowing lard from the tank discharges vertically and horizontally in passing upon the bottom of the vessel F.

The operation is as follows: The fluid lard from the tank or rendering apparatus enters the spreader H, escapes therefrom in a diffused state over and upon the reticulated bottom of vessel F. From here and from the spreader, having been strained to a considserable extent, it flows in minute streams or particle into the vessels D E. In its passage into these vessels it is met by strong finely-divided currents or streams of air under pressure and is cooled to a very great degree. From the vessels D and E it drips in a purified state into the vessel A, from whence it is drawn off at the proper time into barrels or casks.

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

1. A machine or apparatus for cooling lard, constructed substantially as herein set forth.

2. Subjecting fluid hot lard, which is finely divided, to the action of finely-divided streams or currents of cold air under pressure, as it flows from the rendering tank or apparatus, substantially as and for the purposes set forth.

VOLNEY E. RUSCO.

Witnesses:

PETER H. WITT,

C. D. WOLF.