

BENJAMIN F. CRAMER.

Improvement in Feather Renovators.

No. 115,440.

Patented May 30, 1871.

Fig. 1.

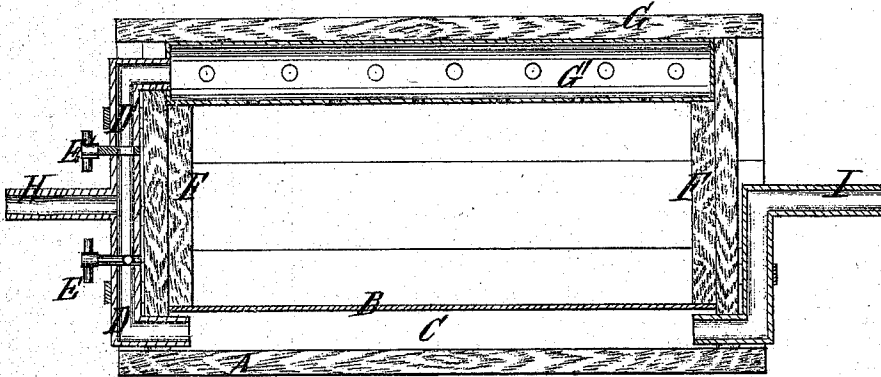
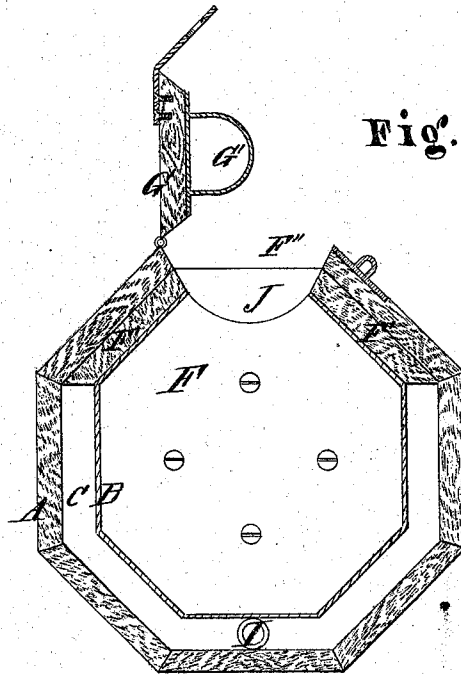


Fig. 2.



Witnesses.

E. H. Bates.
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UNITED STATES PATENT OFFICE.

BENJAMIN FRANKLIN CRAMER, OF TYRONE, PENNSYLVANIA.

IMPROVEMENT IN FEATHER-RENOVATORS.

Specification forming part of Letters Patent No. 115,440, dated May 30, 1871.

To all whom it may concern:

Be it known that I, BENJAMIN FRANKLIN CRAMER, of Tyrone, in the county of Blair and State of Pennsylvania, have invented a new and valuable Improvement in Feather-Renovators; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a vertical longitudinal section of my invention. Fig. 2 is a vertical transverse section.

This invention has relation to an improvement in feather-renovators; and it consists in providing the door of the double-walled casing with a perforated steam-chamber, so arranged that it will be in direct communication with a steam-pipe when the door is closed, said steam-pipe being of such a nature that the flow of steam may be regulated to alternately come in contact with and steam the feathers, and pass into the surrounding drying-chamber to dry them.

The form of the apparatus to which this improvement relates is that of an octagonal or many-sided box with a double surrounding wall; and in the accompanying drawing, letter A designates the outer, and letter B the inner walls, respectively. C is the space between said walls, in communication with one branch, D, of a steam-pipe, which has a stop-cock at E to regulate the flow of steam. F are end cleats, of a shape corresponding to that of the casing. The ends of the inner wall are secured to these cleats, and also to others, F', on either side of the opening F''. G represents a door to close said opening, and G' a semi-circular perforated steam-chamber attached thereto, and open at one end for the purpose of communicating with and receiving steam from the branch D' of the steam-pipe above referred to, this branch being also provided with a regulating-cock, E'. H is the main

steam-pipe, which supplies the branches D D'. I indicates the exhaust-pipe in communication with the drying-space C. J represents semi-circular notches in the end cleats F, in which rest the ends of the steam-tube G'. The branch D' enters the end of the case at the top of one of these notches, so that when the door is closed the open end of the tube G' shall fall directly in front of said branch, as shown clearly at Fig. 1 of the drawing. This apparatus is arranged so that it may be turned on a longitudinal axis. When the feathers are placed in their receptacle the door is closed and made the base of the renovator. The steam is then turned on through the branch D', the other being closed at the same time, and allowed to enter among the feathers through the perforations in the chamber G'. The steam in this way strikes the feathers from beneath, elevating and thoroughly penetrating them, thereby cleaning them perfectly and in a short space of time. After the feathers have been thus submitted to the action of the steam the renovator is turned around to bring the door to the top; where it is opened, and the flow of steam changed from the receptacle to the drying-space C, through which it circulates, and by its heat drives off all moisture from the feathers, the said moisture passing off through the exhaust-tube.

What I claim as my invention is—

The feather-renovator herein described, having revolving case A, drying-space C, feather-chamber as represented, perforated steam-chamber G' arranged in the door G, as shown, together with the notched cleats F and pipes and cocks, as described, constructed, and arranged, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

BENJAMIN FRANKLIN CRAMER.

Witnesses:

J. G. EBLING,
I. A. JERK.