

Cook & Graves.

Feather Renovator.

No. 100,120.

Patented Feb. 22, 1870.

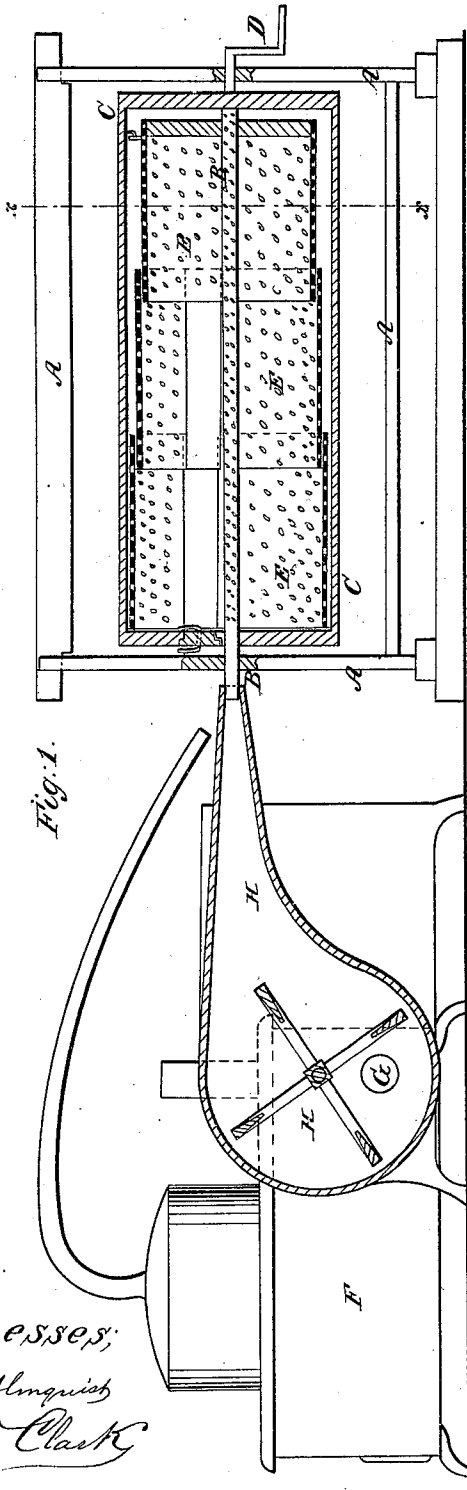


Fig. 1.

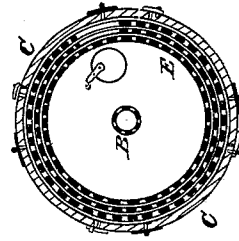


Fig. 3.

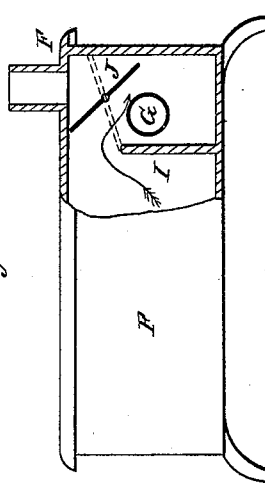


Fig. 2.

Witnesses;
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United States Patent Office.

ABEL D. COOK AND JAMES GRAVES, OF NEW MADRID, MISSOURI.

Letters Patent No. 100,120, dated February 22, 1870.

IMPROVEMENT IN FEATHER-RENOVATORS.

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

To all whom it may concern:

Be it known that we, ABEL D. COOK and JAMES GRAVES, of New Madrid, in the county of New Madrid, and State of Missouri, have invented an Improved Feather-Renovator; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification.

Figure 1 is a detail sectional view of parts of our improved feather-renovator.

Figure 2 is a side view, partly in section, of the stove or furnace.

Figure 3 is a detail cross-section of the steaming or drying-cylinder.

Our invention has for its object to improve the construction of feather renovators, so as to make them more convenient and effective in use, doing the work quicker and better; and

It consists in the construction and combination of various parts of the apparatus, as herein after more fully described.

A is a frame-work in bearings, in the standards of which revolve the ends of the pipe B, which serves as a shaft to support and rotate the cylinder C.

One end of the pipe B is closed, and to it is attached a crank, D, for rotating the cylinder C.

The other end of the pipe B is open, to receive the connecting-pipe from the steam-boiler or fan-blower, according as the feathers are to be steamed or dried.

The part of the pipe B within the cylinder C is perforated with numerous small holes, to allow the steam or air to escape through all parts of the feathers.

The cylinder C is made with several doors or openings, which may be tightly closed while steaming the feathers, to keep in the steam, and opened while drying the feathers, to allow the moist air to escape, and its place to be supplied by dry air while drying the feathers thoroughly in a very short time.

The interior of the cylinder C is lined with wire-gauze or perforated zinc-plate E to keep the feathers in while the doors of the cylinder C are opened to allow the steam or air to escape.

The interior cylinder E is made in sections, sliding into each other in the manner of a telescope-tube, to press the feathers together in one end of the cylinder C for convenience in removing them when renovated. This same thing may be accomplished by making one of the heads of the interior cylinder movable, so that

it may be moved towards the other end to press the feathers together.

For convenience in putting in and taking out the feathers, an opening should be made in one side of the sections of the interior cylinder E and in the end of the cylinder C, as shown in figs. 1 and 3.

F represents the stove or furnace upon which the boiler is heated to develop the steam for renovating the feathers.

Through the rear part of the stove or furnace F passes a pipe, G, one end of which is open, and the other end of which is connected with the fan-blower H, to supply heated air to said fan-blower.

The rear part of the stove or furnace F, through which the pipe G passes, is separated from the fire-chamber by a partition, I, and is provided with a damper, J, so arranged that when adjusted in one position the heated products of combustion may pass directly to the stove-pipe, and when adjusted in another position they will be compelled to pass around the pipe G before entering the stove-pipe.

The fan-blower H should be provided with another opening through which cold air may be admitted to temper the blast, and should be provided with a thermometer to enable the temperature of the blast to be regulated at will.

In using the apparatus, the feathers are first steamed sufficiently. The steam-pipe is then detached from the end of the pipe B, and the blast-pipe attached to it. The doors of the cylinder C are then opened, and the feathers are quickly and thoroughly dried by the blast of heated air without being removed from the apparatus until ready to be placed in the tick.

Having thus described our invention,

We claim as new and desire to secure by Letters Patent—

1. Forming the interior wire-gauze or perforated cylinder E in sections, sliding into each other telescopically, substantially as herein shown and described and for the purpose set forth.

2. The combination of the partition I, damper J, and pipe G, with the stove or furnace F and fan-blower H of a feather-renovator, substantially as herein shown and described, and for the purpose set forth.

The above specification of our invention signed by us this 2d day of August, 1869.

ABEL D. COOK.
JAMES GRAVES.

Witnesses:

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