

(No Model.)

S. TATE.  
FEATHER RENOVATOR.

No. 260,626.

Patented July 4, 1882.

Fig. 1.

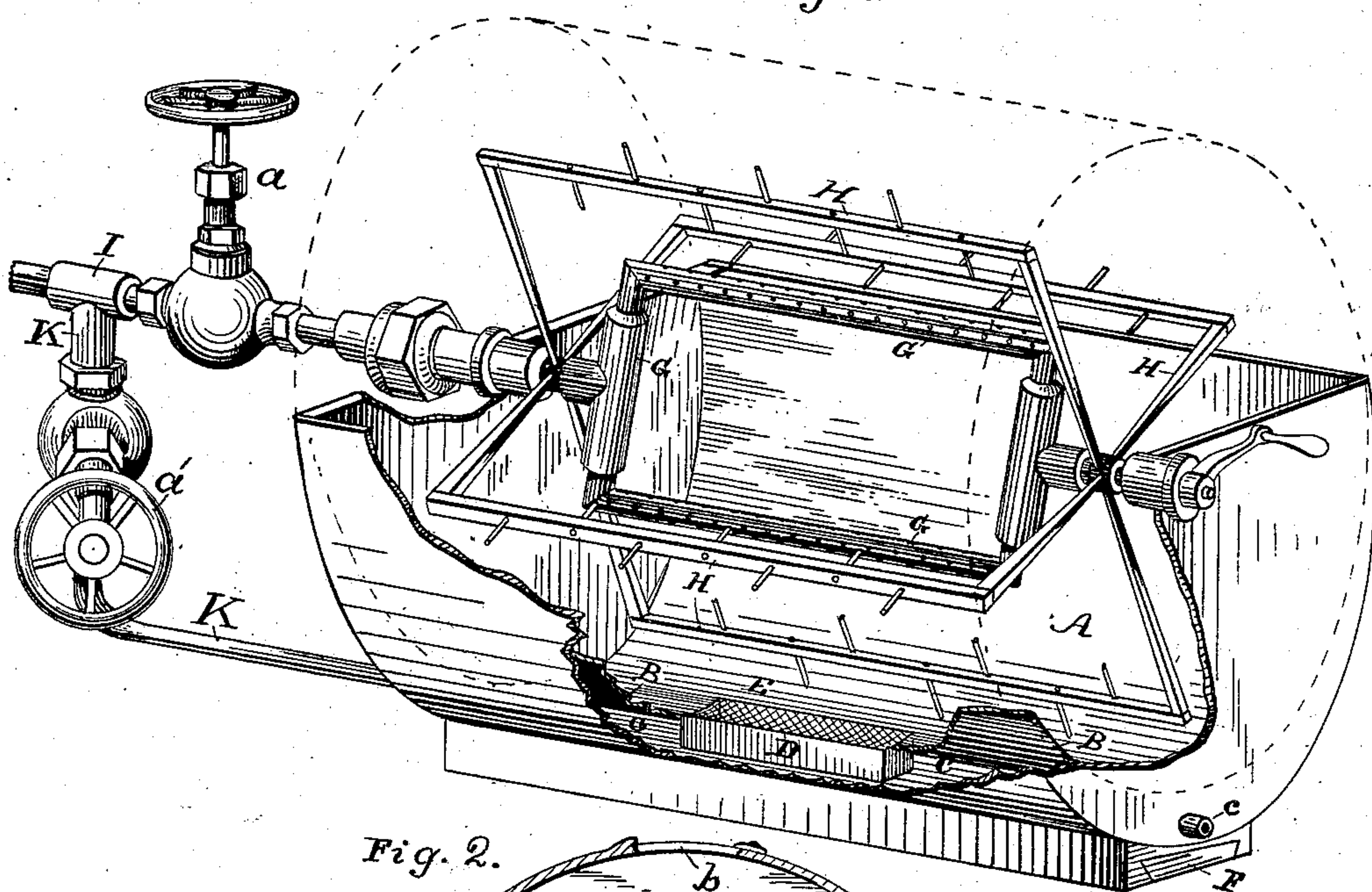
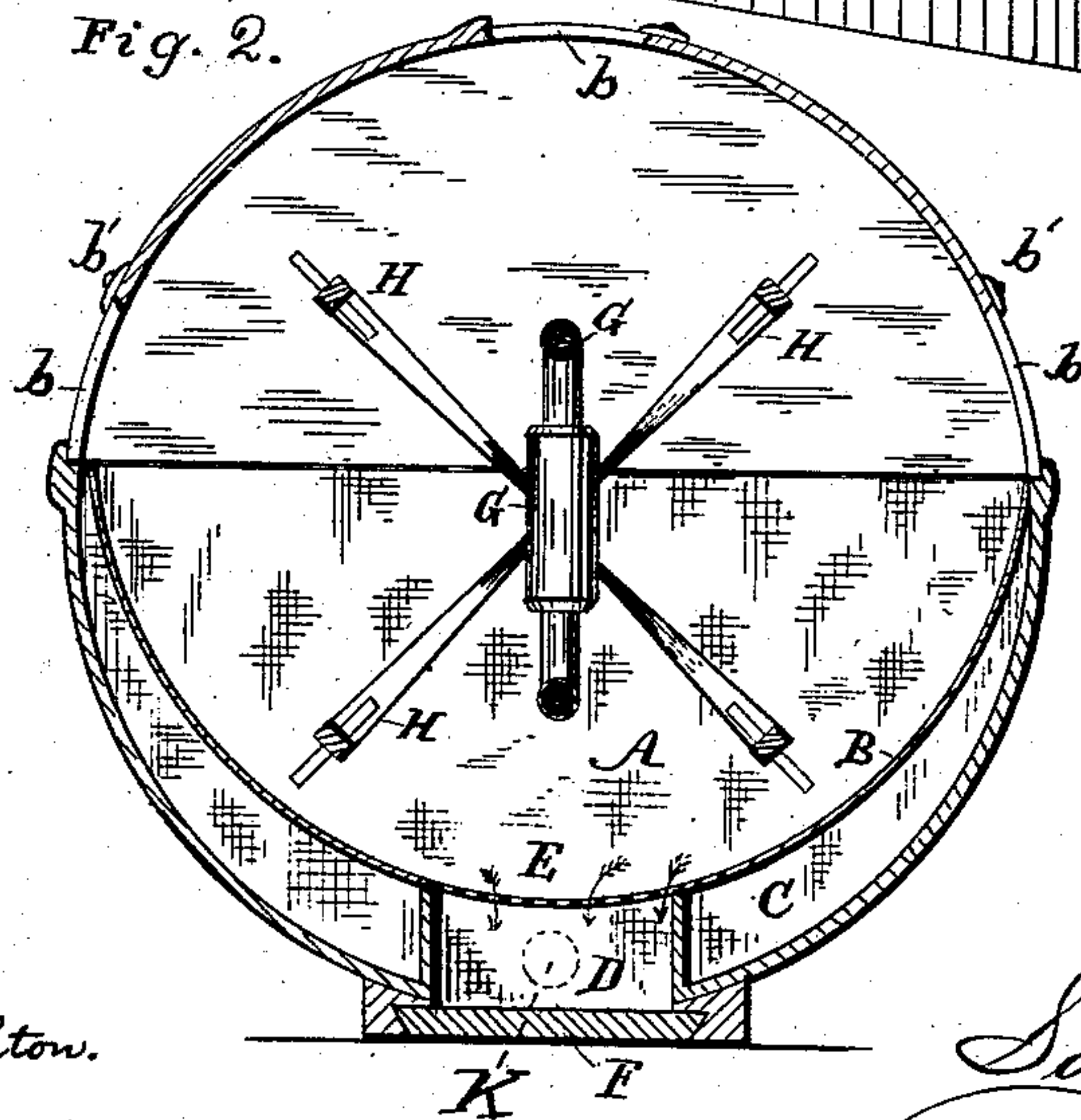


Fig. 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

SAMUEL TATE, OF SANDUSKY, OHIO.

## FEATHER-RENOVATOR.

SPECIFICATION forming part of Letters Patent No. 260,626, dated July 4, 1882.

Application filed April 18, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL TATE, of Sandusky, in the county of Erie and State of Ohio, have invented a new and useful Improvement in Feather-Renovators, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, forming part of this specification.

This invention relates to apparatus for steaming and drying feathers.

In the accompanying drawings, Figure 1 is a perspective view of my improved renovator, showing the top removed and a portion of one side broken away; and Fig. 2 is a vertical cross-section of the same.

The receptacle A is made cylindrical in form, consisting of two parts, one of which is adapted to be removed or opened as a lid. Inside the receptacle is secured a semi-cylindrical partition, B, made of metal, and so arranged as to form a chamber, C, which is entirely separated from the main chamber or receptacle. An opening or chamber, D, is formed through the chamber C, in which is placed a screen, E, through which all particles of matter separated from the feathers in the process of cleansing the latter shall be allowed to fall into a drawer, F, arranged underneath the receptacle.

In suitable bearings the double steam-pipe G is supported in the receptacle, and by means of a suitable joint is adapted to be rotated to steam the feathers. This double pipe consists of two branches from the main pipe, having perforations to allow the passage of the steam.

To the pipe is secured an agitating-rake, H, consisting of cross-pieces secured at each end to radiating arms attached to the pipe G, said cross-pieces being provided with teeth or pegs, as shown.

The pipe I, conducting steam to the pipe G, is provided with a branch pipe, K, leading downward therefrom and communicating with the chamber C. These pipes are provided with cocks or valves *a a'*, by which the passage of the steam shall be controlled, as desired.

The upper portion of the receptacle is provided with beveled-edged openings *b b* and buttons *b' b'*, by means of which removable screens or close-fitting lids may be secured therein.

The operation of the device is as follows: The feathers are placed in the receptacle and

the latter is tightly closed, the openings *b b* being closed by the doors. The steam is then admitted through the valve *a*, and the pipe G and rake H are rotated by means of a suitable crank on the outside. After the feathers have been sufficiently steamed and all foreign or waste particles of matter separated therefrom, the valve *a* is closed and *a'* is opened, allowing the steam to enter the chamber C to heat the metal partition B. At the same time the doors are to be removed from the openings *b* and screens are to be inserted instead, to allow all moisture to escape from the receptacle during the process of drying. The arrangement of the branch pipe K, leading downward from the pipe I, allows all water in the pipe to pass down into the chamber C, instead of being carried into the receptacle, and by means of an opening, *c*, this water is allowed to escape from the chamber C.

I am aware that it is not broadly new to construct a feather-renovator with two steam-chambers separated by a metallic partition, and pipes for conducting steam to said chambers. Heretofore, however, the opening formed through the bottoms of these chambers to allow the waste particles to escape has been so constructed as to divide the lower chamber into two distinct compartments, thus necessitating two pipes for supplying steam to said chamber for the purpose of drying the feathers. In my invention, on the contrary, the screened opening is formed through the center of the chambers without breaking the continuity of the said lower chamber, and thus one pipe is sufficient for supplying steam to said chamber.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination, in a feather-renovator, of the receptacle A, the chamber C, formed by the partition B, the screened opening or chamber D, formed through the center of chamber C, the steam-pipe G, leading to the receptacle A, the branch pipe K, leading to chamber C, and the rake H, secured to the pipe G, substantially as shown and described.

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Witnesses:

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