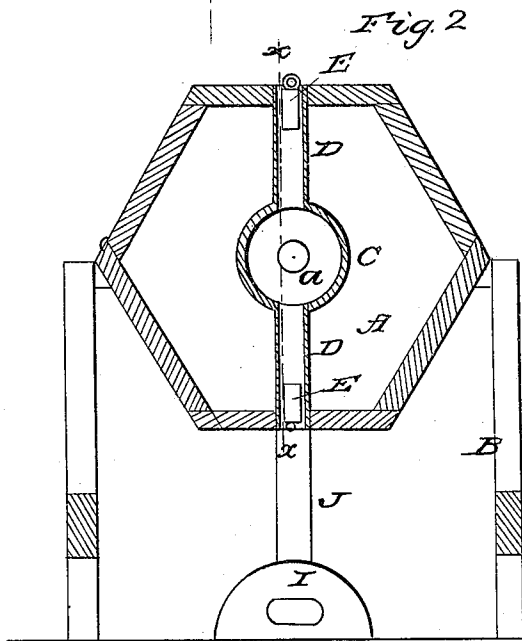
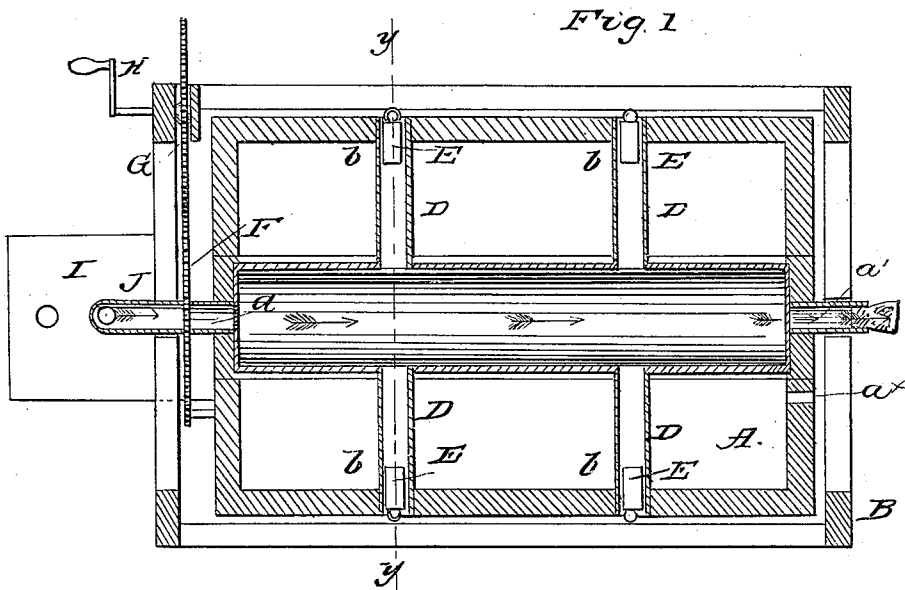


TURNER & JACKSON.
Feather Renovator.

No. 40,871.

Patented Dec. 8, 1863.



*J. W. Coombs
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UNITED STATES PATENT OFFICE.

CLARK TURNER AND JAMES A. JACKSON, OF TRIANGLE, NEW YORK.

IMPROVED MACHINE FOR PURIFYING AND RENOVATING FEATHERS.

Specification forming part of Letters Patent No. 40,871, dated December 8, 1863.

To all whom it may concern:

Be it known that we, CLARK TURNER and J. A. JACKSON, of Triangle, in the county of Broome and State of New York, have invented a new and Improved Machine for Cleaning and Purifying Feathers; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a longitudinal vertical section of our invention, taken in the line *x x*, Fig. 2; Fig. 2, a transverse vertical section of the same, taken in the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in the employment or use of a rotating feather-receptacle provided with an internal steam-tube having tubes projecting from it provided with valves, and all arranged in such a manner that the feathers may be steamed and cleaned or purified and dried in a thorough manner.

To enable those skilled in the art to fully understand and construct our invention, we will proceed to describe it.

A represents a receptacle for feathers, which may be of polygonal form and provided with tubular journals *a a*, which are fitted on a proper framing, B. The feather-receptacle A is allowed to rotate freely on the framing B, and within said receptacle there is placed centrally a cylinder, C, which serves as a steam-chamber, and with the ends of which the journals *a a'* communicate, as shown clearly in Fig. 1. The steam chamber C extends the whole length of the feather-receptacle A, and the former has four tubes, D, extending from it at right angles, said tubes projecting through the feather-receptacle A, and provided each with a cylindrical valve, E. These valves are operated or adjusted from the outer side of the feather-receptacle, and in each tube D, at a point within the receptacle A, there is made a hole, *b*. These holes *b*, when the valves E are drawn outward, admit of the tubes D communicating with the interior of the feather-receptacle, as will be fully understood by referring to Fig. 1.

To one side of the feather-receptacle A there is attached a toothed wheel, F, into which a wheel, G, gears, the latter having its

shaft in the framing B, and provided at one end with a crank, H.

I is a steam-boiler which communicates with the journals *a* by means of a pipe or tube, J.

The operation is as follows: The feathers to be cleaned or purified are placed in a receptacle, A, to which a rotary motion is communicated by hand or any convenient power. In order to steam the feathers, the journal *a'* is closed by means of a plug or other convenient means, and the valves E drawn outward to admit of the steam escaping into the receptacle A, where it is allowed to act upon the feathers and remove all gum and glutinous substance which adhere to the quills, and at the same time expands the fibers of the feathers, rendering them elastic and firm. The steam, it will be seen, is admitted into the body of the mass of feathers in consequence of being allowed to escape near the inner surface of the receptacle, the feathers, of course, remaining at the lower part of the receptacle as the latter rotates. In order to dry the feathers, the plug or stopper in the journal *a'* is removed, the valves in the tubes D shoved inward so as to close the holes *b* therein, and the steam is allowed to pass directly through the chamber C, as indicated by the arrows, and the chamber radiates heat into the receptacle A, and expels the moisture from the feathers.

The feather-receptacle A may have one or more openings, *a^x*, made in it to admit of the escape of steam and moisture.

We do not claim, broadly, the revolving feather-receptacle and steam-heater irrespective of the arrangement and construction herein shown and described; but,

Having thus described our invention, what we do claim as new, and desire to secure by Letters Patent, is—

The revolving feather receptacle A, in combination with the steam-chamber C, provided with perforated tubes D D, passing into the sides of the receptacle A, and having valves E fitted within them, and all arranged as shown, to operate in the manner as and for the purpose herein set forth.

CLARK TURNER.
JAMES A. JACKSON.

Witnesses:

C. A. SEYMOUR,
M. J. SEYMOUR.