

H. E. ROWE.
Feather-Renovator

No. 163,889.

Patented June 1, 1875.

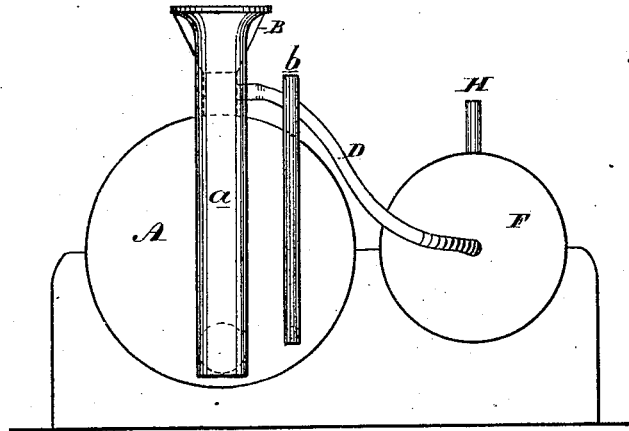


Fig. 1.

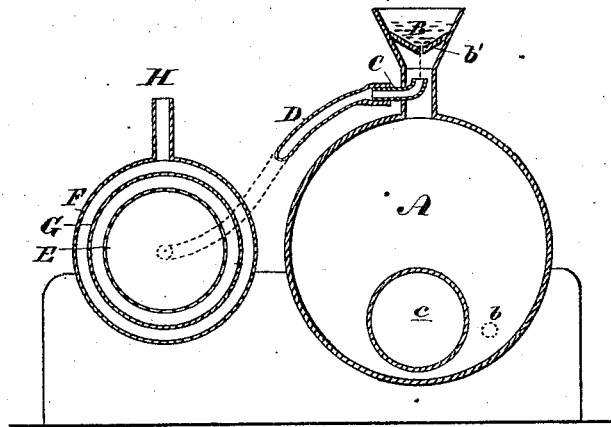


Fig. 2.

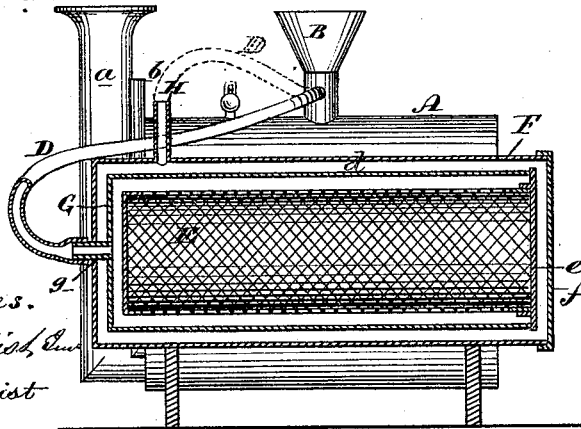


Fig. 3.

Witnesses.
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UNITED STATES PATENT OFFICE.

HORACE E. ROWE, OF BROCKVILLE, CANADA.

IMPROVEMENT IN FEATHER-RENOVATORS.

Specification forming part of Letters Patent No. **163,889**, dated June 1, 1875; application filed February 19, 1875.

To all whom it may concern:

Be it known that I, HORACE ERASTUS ROWE, of the town of Brockville, in the county of Leeds and Grenville, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Feather-Renovators; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to a feather-renovator having for its object to purify feathers by means of a chemical agent in combination with steam, for cleaning and drying the same; and it consists, first, in combining with a steam-boiler a chemical-holder, whereby the chemical agent will, with the steam, be diffused among the feathers, for disinfecting, purifying, and cleaning them; second, in combination with a steam-generator and chemical-holder, a tubular perforated feather-chamber having a surrounding steam-tight jacket within a casing, forming an annular steam heating-chamber, both chambers having a pipe or pipes communicating with the chemical-holder and boiler, whereby the feathers can be steamed and dried by steam heat without removal from the feather-chamber.

Figure 1 is an end elevation of my improved machine. Fig. 2 is a transverse vertical section. Fig. 3 is a longitudinal vertical section of the same.

A is the steam-boiler, of any ordinary construction, of which *a* is the smoke-stack, *b* the feed-water pipe, and *c* the fire-box. B is the chemical-holder on the top of the boiler, over the steam-outlet. A pipe, C, projects from the holder B into the steam-pipe D, which exhausts in the space between the jacket G and the feather-chamber E when steaming, or into the annular space *d* when drying, the feathers. F is the outer casing of the feather-chamber E. G is a steam-tight jacket within the casing F, and it surrounds the perforated feather-chamber E, having a tight-fitting door, *e*, within a door, *f*, in the end of the casing F, to prevent escape of steam and allow

of insertion and removal of the feathers. H is a tube to connect with the steam-pipe D, whereby steam from the boiler will be exhausted into the annular space between F and G, for heating the latter and drying the feathers.

When the feathers are to be steamed in the process of cleaning the steam-pipe D is connected with the collar *g* of the steam-jacket G; the steam will then exhaust in the space between it and the perforated feather-chamber E, the steam passing through the perforations into contact with the feathers and renovates them.

A carbolic liquid is employed for disinfecting the feathers in connection with the steaming process. The liquid is placed in a holder, B. In the bottom *b'* of this holder is a small perforation, which permits the liquid to pass through to the steam-pipe D in small drops. The liquid is then carried with the steam through the pipe D, and thence into the feather-chamber, through which it circulates.

I claim as my invention—

1. The combination of boiler A, the chemical-holder B, connected thereto, and having the converging and perforated bottom *b'*, so as to permit the chemical to pass in small drops and impregnate the steam, the perforated feather-chamber E, and the pipe D, connecting said boiler and chemical-holder with the said feather-chamber, as and for the purpose set forth.

2. The combination of perforated feather-chamber E, steam-jacket G, boiler A, chemical-holder B, and pipe D, as and for the purpose set forth.

3. The combination of perforated feather-chamber E, jacket G, outer case F, boiler A, chemical-holder B, pipe D, and pipe H, as and for the purpose set forth.

H. E. ROWE.

Witnesses:

H. Y. KENDALL,
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