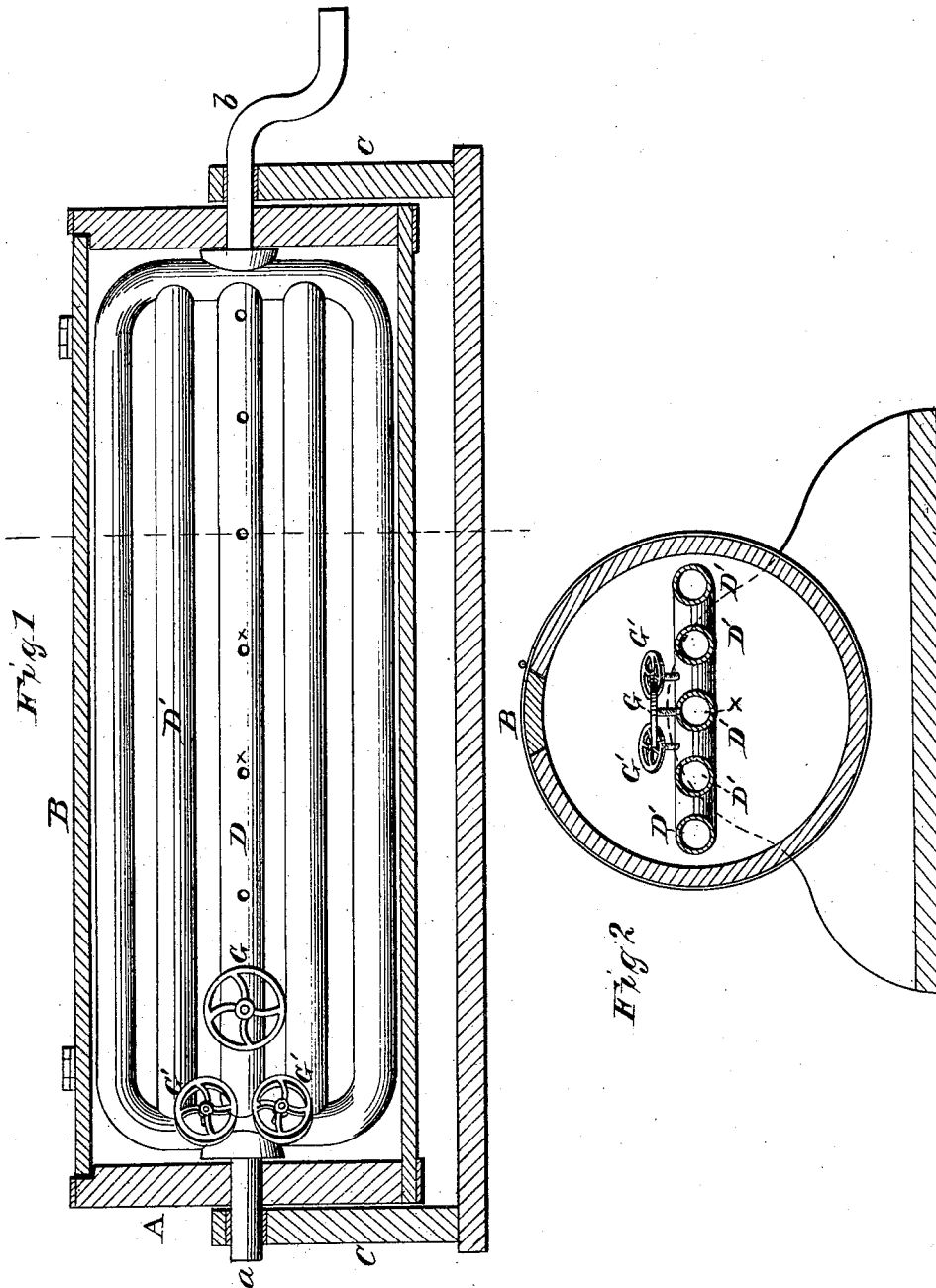


J. W. DeWITT & A. J. HITE.

FEATHER RENOVATOR.

No. 178,742.

Patented June 13, 1876. *



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN W. DE WITT AND ANDREW J. HITE, OF LOGANSPOUT, INDIANA.

IMPROVEMENT IN FEATHER-RENOVATORS.

Specification forming part of Letters Patent No. **178,742**, dated June 13, 1876; application filed May 10, 1876.

To all whom it may concern:

Be it known that we, JOHN W. DE WITT and ANDREW J. HITE, of Logansport, in the county of Cass and State of Indiana, have invented certain new and useful Improvements in Feather-Renovators; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

The nature of our invention consists in the construction and arrangement of a feather-renovator, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a longitudinal section of our machine. Fig. 2 is a transverse section of the same.

A represents a cylindrical case, of any suitable dimensions, provided with a door, B, for admitting and removing the material. This case is hung upon the journals of the interior reel, which have their bearings in a stand, C. The interior reel consists of a central perforated pipe, D, having on opposite sides pipes D' D', running parallel therewith, making a reel of one center and four side pipes, the center pipe only being perforated. The side pipes D' are connected with the center pipe D, at or near its ends, by suitable elbows and joints. At one end the pipe D is provided with an inlet-pipe, *a*, passing through the head of the case A, and that side of the stand forming the journal at that end. At the other end the journal is formed by a crank, *b*, as shown. At the inlet end of the reel are arranged three globe-valves, G and G' G', or stop-cocks, which are for the purpose of admitting and shutting off the steam, as required.

This machine is intended to be used for cleaning or renovating feathers, hair, moss, and similar articles.

In steaming, the valve or cock G is opened, and G' G' closed. The steam then enters the pipe D at *a*, and as the other end of this pipe is closed it is compelled to pass out through the perforations *x* in said pipe into the case, to permeate the material therein.

For drying, the valve or cock G is closed, and G' G' opened, when the steam will pass into all the pipes D' and heat the same.

The crank *b* is used to rotate the reel when renovating and loosening up the matted places in the feathers, &c., also in circulating steam all through the material.

It will thus be seen that the pipes D D' as arranged are used for three distinct and separate purposes—viz., for steaming, drying, and beating, all in one machine.

When drying, the door B of the case A should be partially opened.

In the act of renovating when beating, insoluble matter, (or impure substances,) being heavier than the material acted upon, descends to the bottom and sides of the case, and these, being damp, retain the sediment.

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

The combination of the case A, the perforated central pipe D, having stop-cock G, and the pipes D' D', connected thereto, and provided with stop-cocks G' G', all substantially as and for the purposes herein set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

JOHN W. DE WITT.
ANDREW J. HITE.

Witnesses:

SAMUEL CODDINGTON,
SAMUEL B. RICHARDSON.