L. S. ENOS.

Feather Renovators.

No. 143,130. Patented September 23, 1873.

Fig. 1.

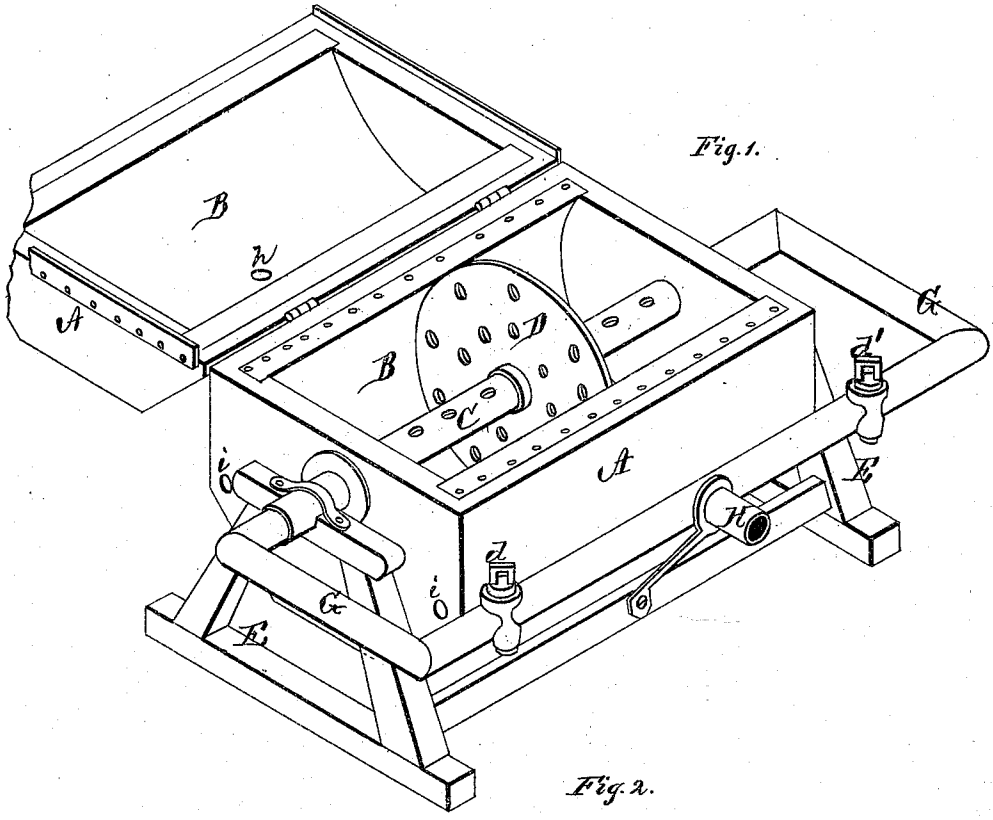
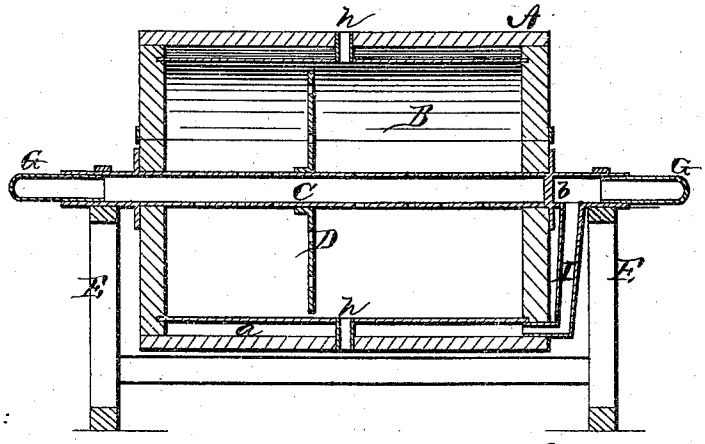


Fig. 2.



Witnesses:

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AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS)

UNITED STATES PATENT OFFICE.

LEVI S. ENOS, OF ALMOND, NEW YORK, ASSIGNOR TO HIMSELF AND S. B. ESTABROOK, OF SAME PLACE.

IMPROVEMENT IN FEATHER-RENOVATORS.

Specification forming part of Letters Patent No. **143,130**, dated September 23, 1873; application filed May 24, 1873.

To all whom it may concern:

Be it known that I, LEVI S. ENOS, of Almond, in the county of Allegany and in the State of New York, have invented certain new and useful Improvements in Feather-Renovators; and 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, making a part of this specification.

The nature of my 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 my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of my feather-renovator thrown open, and Fig. 2 is a longitudinal vertical section of the same closed.

A represents the box in which the feathers are to be cleaned. This box is made of wood, in any desired dimensions, round or polygonal-shaped, and provided with an interior lining, B, of metal, forming a steam-chamber, *a*, between said lining and the box. The entire box is made in two parts, the upper smaller part being hinged to the other, and forming a lid to be opened when the feathers are to be put in or taken out. Through the center of the box A longitudinally passes a tube or pipe, C, the ends of which rest on a frame, E, and form journals for the box, on which it is made to revolve. This pipe is perforated within the box, so that the steam entering one end of the pipe will pass into and permeate the feathers in the box. On the pipe C is placed one or more movable perforated disks, D, for the purpose of dividing the interior of the box into two or more compartments of any size, when it is desired to keep feathers from different articles separate while cleaning the same, or when cleaning different kinds of feathers at one time. G represents the steam-pipe connected with both ends of the central pipe C in such a manner that the box and its pipe can readily revolve without interfering with the steam-pipe G. The steam from the boiler enters said pipe at H, and on each side of this entrance in the steam-pipe is a stop-cock, marked *d* and *d'*. When the stop-cock *d* is open the steam enters one end of the central pipe C, and passes through the perforations in said pipe into the interior of the renovator-box, the steam being prevented from passing out at the other end of the pipe C by means of a partition, *b*, in the same. When the stop-cock *d* is closed, and the stop-cock *d'* opened, the steam passes into the other end of the pipe C outside of the partition *b*, and goes through a tube, I, into the steam-chamber *a*, between the lining B and box A, as shown in Fig. 2, for the purpose of drying the feathers after they have been cleansed. *h h* are outlets for the dirt and condensed steam when the case is revolved, and *i i* are vent-holes from the steam-chamber *a*.

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

1. In a feather-renovator case or box, one or more movable perforated partitions, D, for the purposes herein set forth.

2. The combination, with the box A, lining B, and pipe C, having one or more perforated partitions, D, of the steam-pipe G, with stop-cocks *d d'*, branch pipe I, and partition *b*, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 29th day of April, 1873.

LEVI S. ENOS.

Witnesses:
JOHN C. VINCENT,
S. B. ESTABROOK.