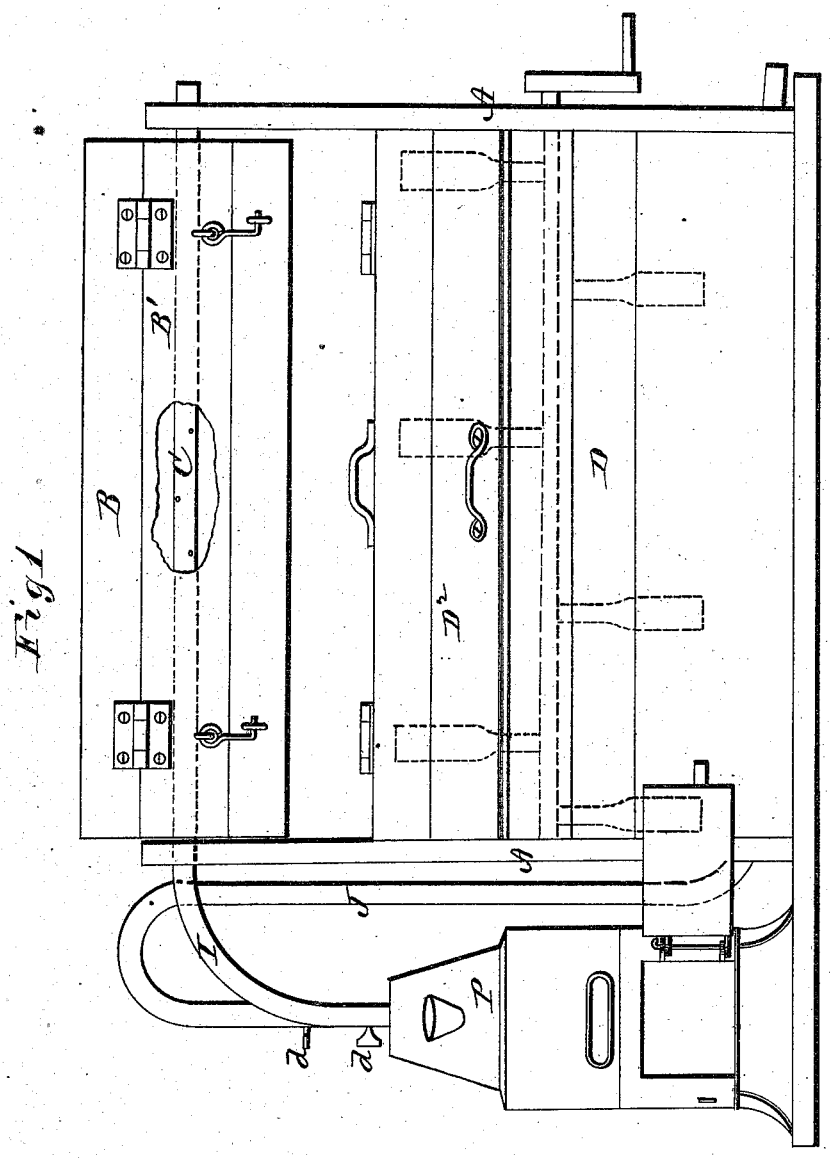
2 Sheets--Sheet 1.

H. P. MANLEY.
Feather-Renovator.

No. 162,933. Patented May 4, 1875.



WITNESSES

Franck L. Durand.

C. L. Ewerk.

INVENTOR

H. P. Manley.

per

Alexander Mason

Attorneys

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

2 Sheets--Sheet 2.

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Fig 2

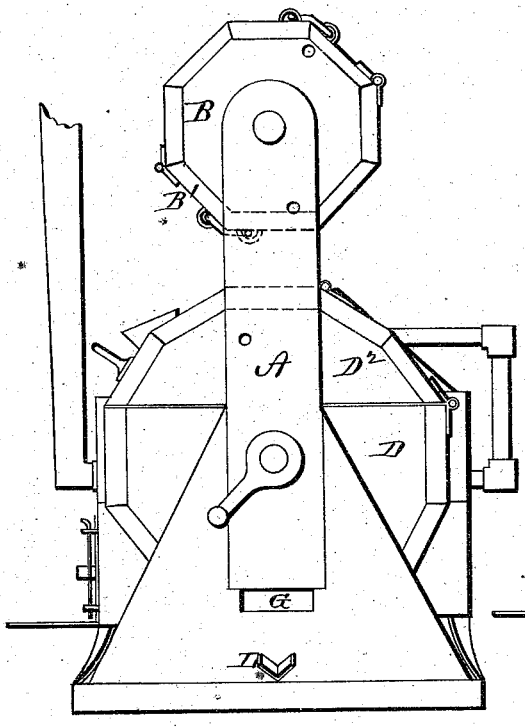
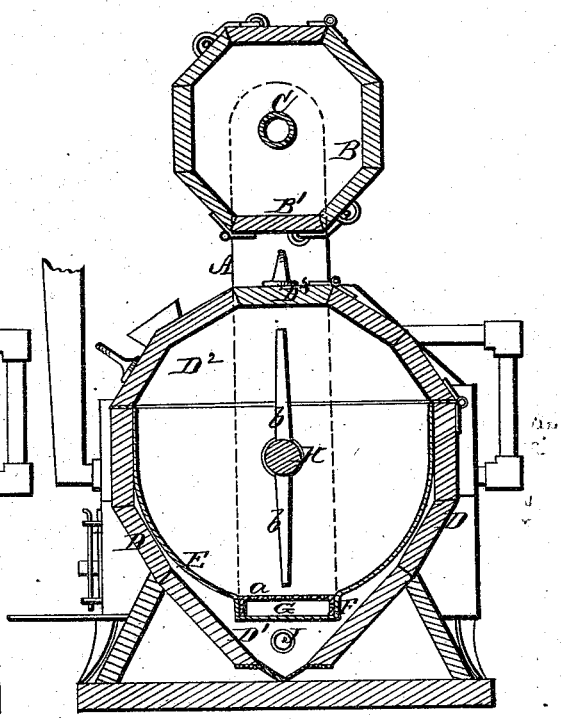


Fig 3



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UNITED STATES PATENT OFFICE.

HENRY P. MANLEY, OF POTSDAM, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO NATHAN P. CHANEY, OF SAME PLACE.

IMPROVEMENT IN FEATHER-RENOVATORS.

Specification forming part of Letters Patent No. **162,933**, dated May 4, 1875; application filed November 12, 1874.

To all whom it may concern:

Be it known that I, HENRY P. MANLEY, of Potsdam, in the county of St. Lawrence 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 drawings, in which—

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

A is the frame of the machine, and B the steaming-cylinder, revolving on the horizontal steam-pipe C. D is the drying-cylinder, having a steam-tight metal casing, E, within the lower section, to form an intermediate steam-space at the ends and sides. The bottom *a* of the casing E is perforated, and below the perforations, secured steam-tight to the casing E, is a sub-casing, F, to receive a sliding drawer, G, removable from either end of the cylinder. The object of the perforations and drawer is to allow the passage of and receive the dust, &c., falling on the bottom of the cylinder during the stirring of the feathers in the process of drying. H is the shaft, operating in suitable stuffing-boxes in the ends of the cylinder D, packed steam-tight, and which shaft is provided with radial arms *b*, arranged spirally or otherwise thereon, which, by being rotated, lightens the feathers in the process of drying. I is the inlet steam-pipe, connecting a boiler, P, with the perforated pipe C, and another pipe, J, connects said boiler with the steam-space D′ of the cylinder D below the drawer G, and both these pipes are provided with stop-cocks *d d*, for shutting off steam from either of the cylinders when desired.

The steam passes through the pipe J into the steam-space D′, heating the metal casing E, and drying the feathers therein, and the steam also passes through the pipe I and the perforated pipe C into the cylinder B, and steams the feathers contained therein.

The cylinders B and D are preferably of octagonal or polygonal shape. One of the sides of the cylinder B is hinged and opens the full length of the cylinder, forming a door, B′, to receive the feathers to be renovated. Three sides of the cylinder D are hinged to the lower part, forming the cover D^2, and the top side D^3 of said cover is hinged to one of the inclined sides. The cylinders B and D are set in the frame A about the breadth of one octagonal side apart, so that when the feathers are to be emptied from the upper or steaming cylinder B to the lower or drying cylinder D the hinged side B′ of the cylinder B falls vertically, and makes a close connection with the lower cylinder; and the top flap D^3 of the cylinder D, when raised vertically, forms a close connection with the upper cylinder, the two hinged sides thus forming a channel from one cylinder to the other, and prevents the feathers, during the transfer from one cylinder to the other, from dropping outside the cylinder D, the receiving and discharge apertures being directly over each other.

L is an aperture in the end of the cylinder D, through which the feathers are passed into the bed-ticking when the renovating process has been performed.

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

1. The combination, in a feather-renovator, of the two cylinders B and D, arranged one above the other separately in the frame A, and connected to the boiler P by the pipes I and J, respectively, substantially as set forth.

2. The cylinder B, with hinged side B′, in combination with the hinged side D^3 of the cylinder D, as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 27th day of October, 1874.

H. P. MANLEY. [L. S.]

Witnesses:

E. MERRILL,

N. P. CHANEY.