

E. STEWART & E. D. SMITH.

FEATHER RENOVATOR.

No. 183,721.

Patented Oct. 24, 1876.

Fig. 1.

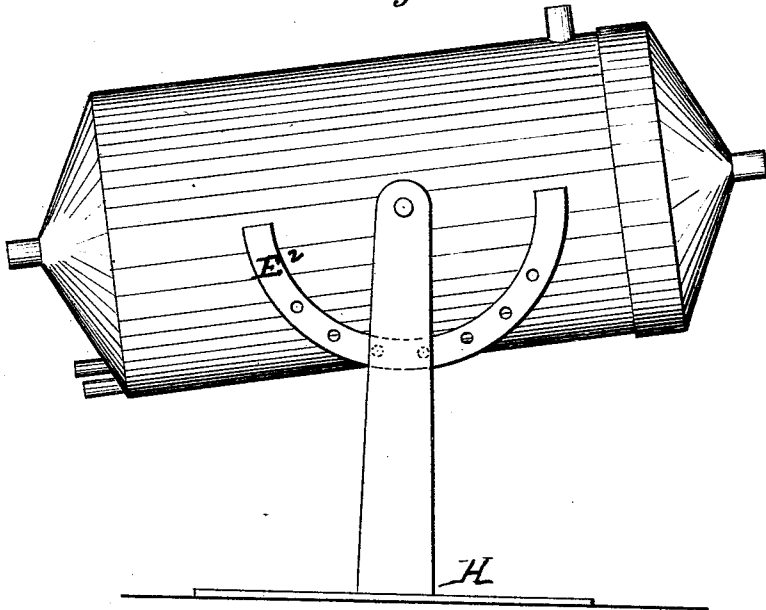
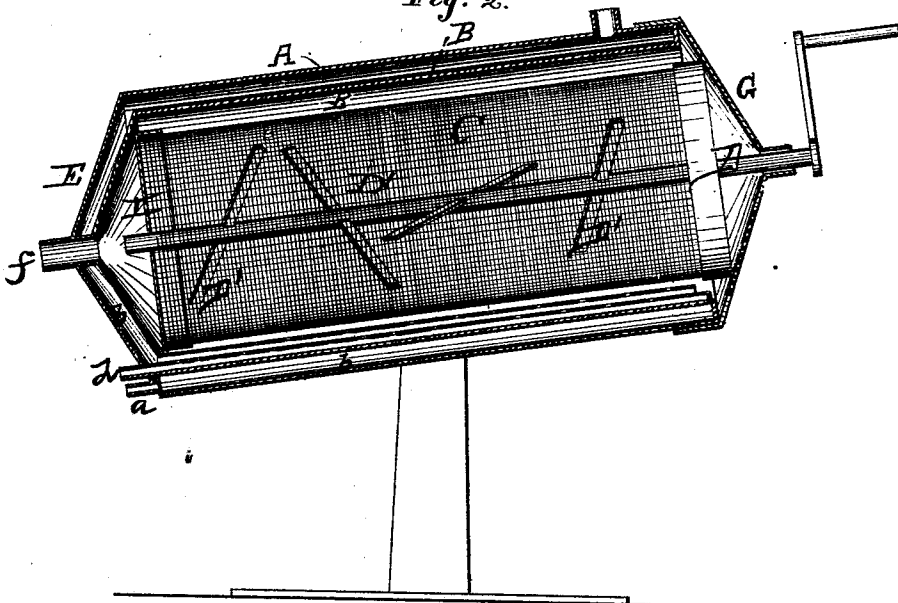


Fig. 2.



Witnesses:

Albert R. Smith
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Inventor:

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UNITED STATES PATENT OFFICE

EDWARD STEWART AND EDWIN D. SMITH, OF FORT MADISON, IOWA.

IMPROVEMENT IN FEATHER-RENOVATORS.

Specification forming part of Letters Patent No. **183,721**, dated October 24, 1876; application filed September 5, 1876.

To all whom it may concern:

Be it known that we, EDWARD STEWART and EDWIN D. SMITH, of Fort Madison, county of Lee and State of Iowa, have invented a new and useful Improvement in Feather-Renovators; and do hereby declare that the following is a clear and exact description thereof, reference being had to the accompanying specification and drawings.

Figure 1 of the drawings is a side view of the machine ready for use. Fig. 2 is a longitudinal sectional view of the same.

This invention has relation to feather-renovators; and the novelty consists in cylinders for retaining the feathers while being renovated; also, in a movable cylinder or case; and also in the feather-renovator being mounted on a frame having an adjusting-arc, whereby the renovator can be lowered and raised at will, as will be hereinafter more fully set forth, and pointed out in the claim.

In the annexed drawings, A represents the outer cylinder or case, and B the inner cylinder, forming a shell, with an intermediate space or vacuum between said outer and inner cylinders. To the lower ends of these cylinders is rigidly fastened a double wall conical cover, E, with an inlet-pipe, *a*, for the admission of steam to the space *b*. The letter C designates the inner hollow cylinder made of copper wire meshed, or other suitable material, for holding the feathers to be renovated. D is a central shaft within said meshed cylinder C, having a series of blades or beaters, D', thus forming an agitator. The meshed cylinder C has at its upper end a rigid cap or cover,

G, so constructed as to overlap the outer cylinder B of the shell to form the necessary connection. The lower end of this cylinder C is provided with a removable end or bottom, I, for the purpose of putting in and taking out the feathers, which may be provided with steam-ventilating holes.

To the inner surface of the inner cylinder B of the shell is attached an oval perforated pipe, extending from end to end. Within this oval perforated pipe is a steam perforated pipe, *a*, for admitting the steam to the oval perforated pipe, and thence to the feathers in the meshed cylinder. Air is admitted to the interior of the renovator through the pipe *f* attached to the double wall conical cover. The renovator is mounted upon a frame, H, and adjusted in any desired position for the reception and discharge of the feathers by means of the perforated semicircle E² and a suitable holding-catch.

What we claim is—

1. A feather-renovator with frame H, and perforated semicircle E², for the purpose set forth.

2. In a feather-renovator the inner meshed cylinder C, with a rigid head or cover, G, substantially as and for the purpose set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 21st day of August, 1876.

EDWARD STEWART.
EDWIN D. SMITH.

Witnesses:

ALBERT R. SMITH,
M. M. M. MYERS.