J. A. BELL.

Feather Renovator.

No. 111,606 Patented Feb. 7, 1871.

Fig. 1.

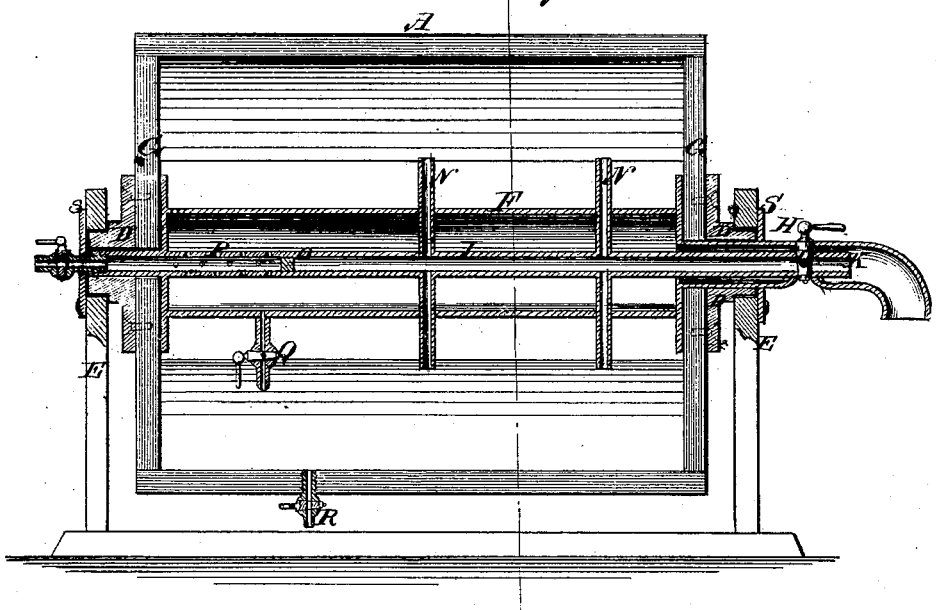
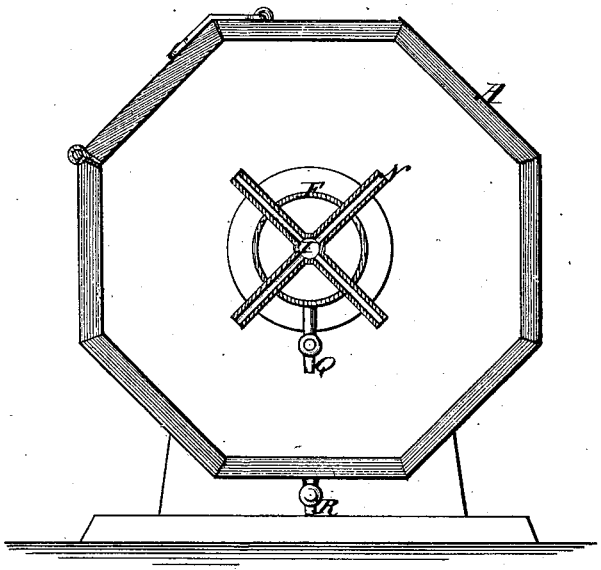


Fig. 2.



Witnesses:

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JAMES A. BELL, OF TYRONE, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND HENRY Z. STETLER, OF SAME PLACE.

Letters Patent No. 111,606, dated February 7, 1871.

IMPROVEMENT IN FEATHER RENOVATORS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JAMES A. BELL, of Tyrone, in the county of Blair and State of Pennsylvania, have invented a new and Improved Feather Renovator; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to improvements in apparatus for steaming and renovating feathers; and

It consists in the hereinafter described arrangement of devices, of which—

Figure 1 represents a longitudinal sectional elevation, and

Figure 2 is a transverse section.

Similar letters of reference indicate corresponding parts.

A represents a large cylindrical, polygonal, or other-formed, hollow case, mounted by the tubular journals D on suitable stands, E, so as to revolve.

F is a large tin or other sheet-metal tube, arranged within said case axially between the heads G, and bearing an extension, H, projecting through one head and beyond the hollow journal, for attachment to any steam-supplying source.

I is another but smaller tube, arranged in the axis of tube F, and projecting at both ends beyond the journals.

At the receiving end K it opens into tube H, and it has a stop-cock, L, thereat.

The other end, which is the discharge, also has a stop-cock, M.

This tube has small radial pipes, N, placed at suitable intervals, and extending through pipe F, for discharging into the space within case A.

It also has a plug at O, and small perforations, P, between the latter and the discharging end.

Q is a cock for allowing the water of condensation to escape from pipe F into case A, and

R is a cock for allowing it to escape from the latter.

The feathers being placed in case A, the cocks M, Q, and R are closed, and steam is admitted to both pipes F and I, the cock L being opened to act on the said feathers, both by the application of the steam entering through pipes N and the heat radiating from pipe F.

When they have been sufficiently treated in this way the cock L is closed, to shut the steam off from the case, the cock R is opened, to let the condensed steam escape, and the cock M is slightly opened, to allow a slight escape of steam, to cause a circulation through pipe F, to heat the feathers for drying them.

The steam escapes from pipe F through the perforations P in pipe I, and then through pipe I and cock M.

The pipes F and I are confined to the supports by the plates S, which are also employed to make steam-tight joints at the ends of the hollow journals, being clamped tightly against them.

The radial pipes N, being prevented from revolving when the case revolves, serve to agitate and shift the feathers, so as to cause a uniform application of the steam.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

The case A, mounted on the hollow journals so as to be revolved, and provided with the large steam-pipe F, having the extension H, also provided with the small pipe I, having the induction-cock L, exhaust M, plug O, perforations P, and the radiating tubes N, the said case and the pipe F being provided with escape-cocks, and all combined and arranged substantially as specified.

JAMES A. BELL.

Witnesses:
HENRY STETLER,
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