

(No Model.)

G. F. TALLMAN.
FEATHER RENOVATOR.

No. 272,795.

Patented Feb. 20, 1883.

fig 1

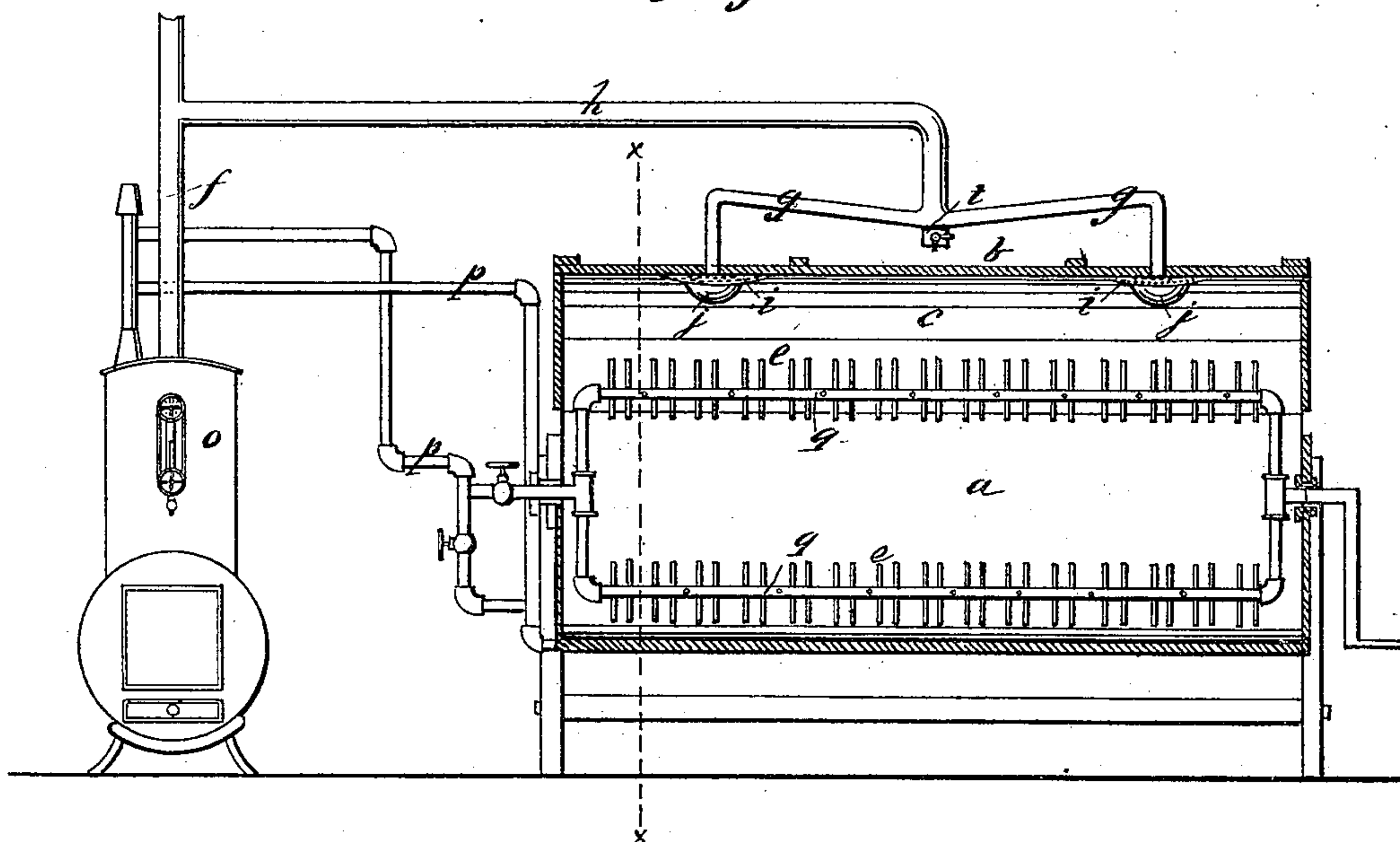
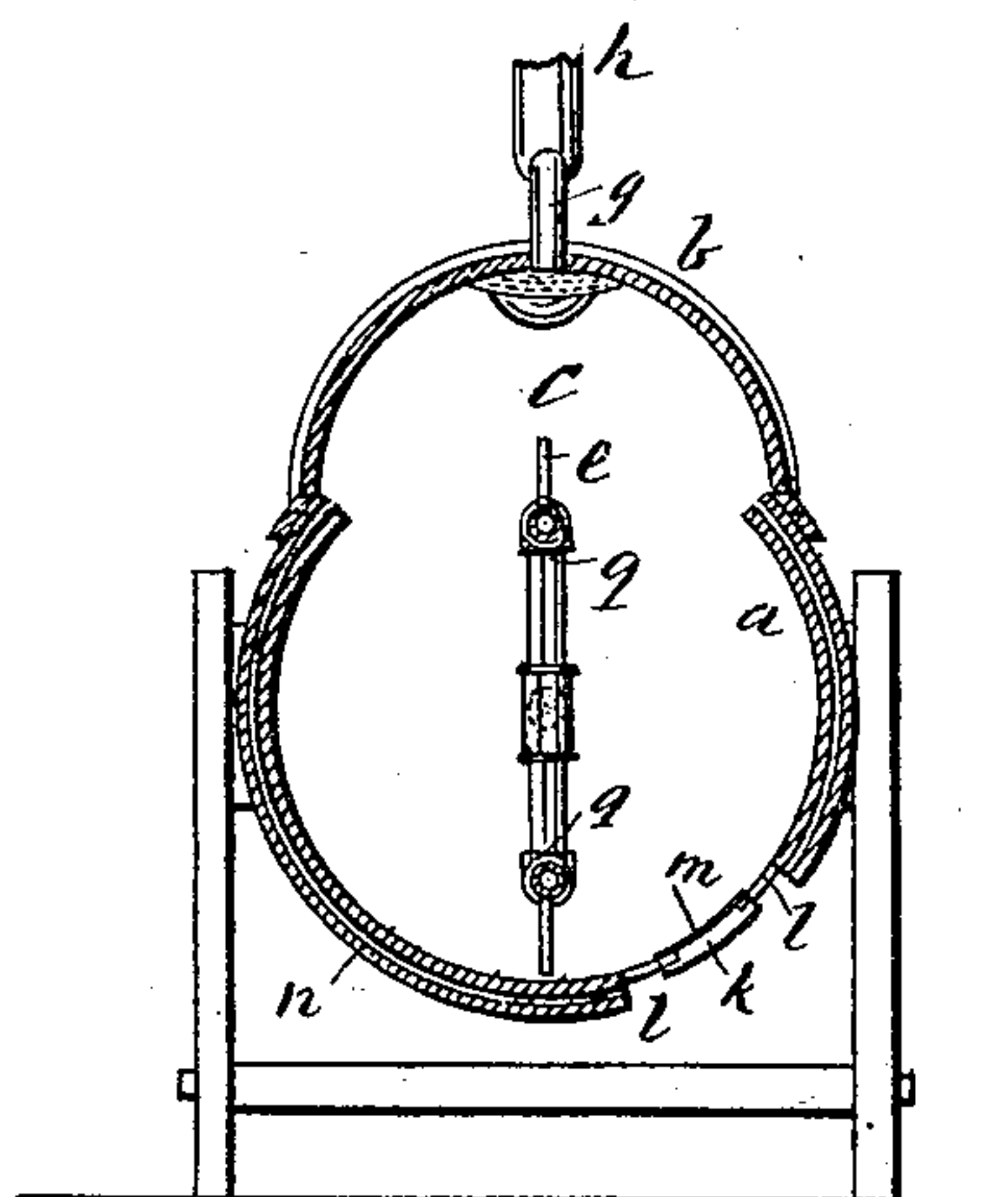


fig 2.

fig 3,



WITNESSES:

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GEORGE F. TALLMAN, OF DEPOSIT, NEW YORK.

FEATHER-RENOVATOR.

SPECIFICATION forming part of Letters Patent No. 272,795, dated February 20, 1883.

Application filed October 7, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE FERNANDO TALLMAN, of Deposit, in the county of Broome and State of New York, have invented a new and Improved Feather-Renovator, of which the following is a full, clear, and exact description.

My invention consists of improvements in the construction of feather-renovators, designed to facilitate the escape of the steam, water, and foul odors from the feathers, increase the drying-surface, and facilitate the escape of the dirt from a machine consisting of a jacketed cylindrical case in which steam-heated arms are made to revolve for stirring up and washing or cleaning the feathers therein by steam discharged in the cylinder along with the feathers, all as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal sectional elevation of the cylinder of a feather-renovator constructed according to my invention. Fig. 2 is a transverse section of Fig. 1 on line *xx*. Fig. 3 is a top view, in perspective, showing the wire mesh inside face of the dirt-box.

Instead of making the case *a* cylindrical in the upper part, as in the rest, I propose to apply an oval extension, *b*, above the circle of the cylinder at the top to provide space *c* above the sweep of the heating and stirring fingers *e*, into which the feathers may be thrust by the fingers and more widely spread about to facilitate the escape of moisture from them, and afford more room for the steam and vapors to collect and escape to the passages through which they are to be drawn off to the chimney *f*, or otherwise.

I propose to employ two branches, *g*, of the escape-pipe *h*, connecting them to the top *b*, about equidistant between the ends and the center, to facilitate the escape of said matters, with perforated guards *i*, surrounding the openings, to prevent them from clogging with feathers, and below each guard I provide a drip-cup, *j*, to catch the water of condensation falling back, and thus avoid the cost and save the time of drying it out of the feathers

again, besides saving the damage to the feathers by the return of foul matters once separated from them.

To lessen the quantity of the drip thus tending to return I construct the branches *g* with a slight fall toward the junction with the main pipe, where the water may be trapped at *t*, and drawn off from time to time through any suitable discharge-cock or other device. I now propose to locate the dirt-box in the door, the door being in the same position as before, a little up the side of the cylinder. The advantages are, that the dirt will be discharged into the box through the wire-netting *m* to better advantage, in consequence of being a little above the bottom and on that side up which the fingers *e* ascend. It is more easy of access for taking off for removal of the dirt, because it can be reached better by the attendant, and the steam-jacket *n* may be extended over the space heretofore occupied by the box, so as to provide more heating-surface, and thereby enable the machine to be more effective and economical.

When the dirt-box is located directly under the center of the cylinder, the dirt is liable to be brushed across the wire-netting *m*, through which it is to escape into the box, than when placed a little up the side, where centrifugal action takes better effect.

The method of attaching the door to the cylinder and attaching the box to the door, also the construction of the box, will be similar to the contrivances now employed, and need not be described, the box being simply a long shallow device with a wire-gauze cover, which serves as a section of the cylinder when the box is in place, over which the feathers may be brushed, as in the rest part of the cylinder, and allowing the dirt to fall through into the box.

The steam-generator *o*, connecting-pipes *p*, distributing-pipes *q*, and the jacket *n* may all be constructed and arranged in the ordinary approved way.

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

1. The combination, with pipes *g*, leading to the escape-pipe, of the perforated guards *i*, ar-

ranged under the open end thereof, and cups *j*, arranged under the said guards, whereby the impurities carried by the steam are filtered therefrom and caught in the cups.

- 5 2. The escape-pipe *h*, combined and connected with the top of a feather-renovator by one or more angle-pipes, *g*, rising to a point above the inlet of said escape-pipe, and then inclined downwardly to said inlet, whereby
10 the water of condensation may be caused to flow freely down the pipe and be discharged at the place of junction with the escape, as described.

3. The combination of the drip-cups *j* with the discharge-pipes and cylinder of a feather-renovator, substantially as described. 15

4. The discharge-pipes *g* of a feather-renovator, arranged with a trap, *t*, substantially as described.

GEORGE F. TALLMAN.

Witnesses:

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