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B. P. Coston.

Feather Renovator.

Patented Jun. 28, 1836.

Fig: 1

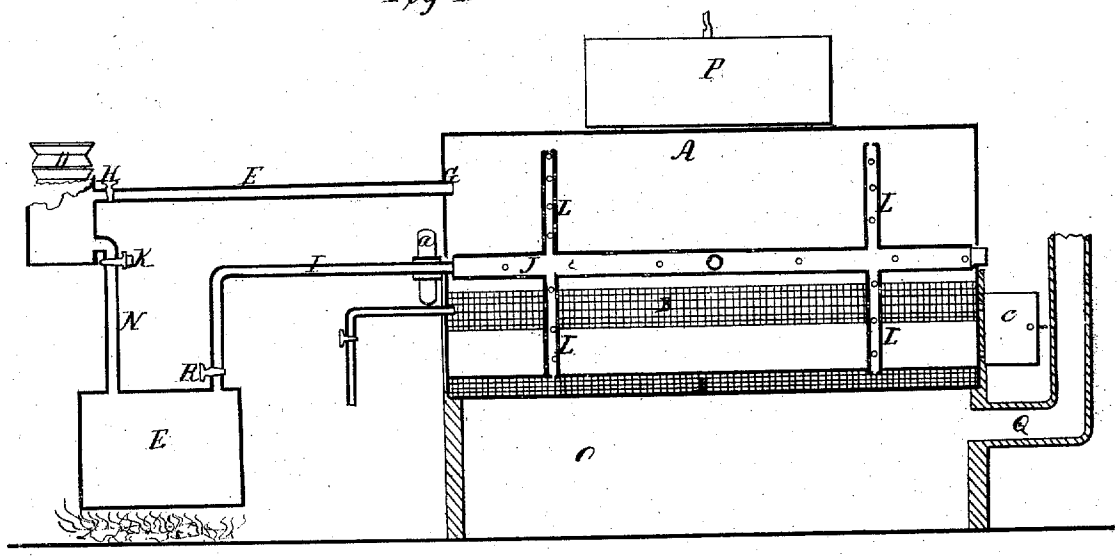
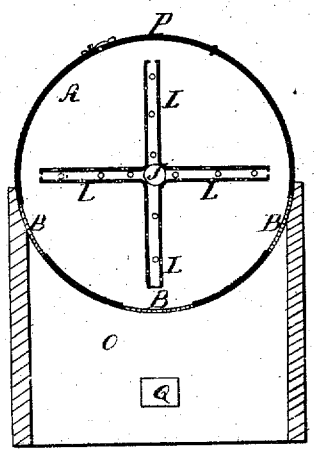


Fig: 2.



THE NORRIS PETERS CO., WASHINGTON, D. C.

June 28, 1836

Benton P. Coston. 4 Sq

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Benton P. Coston, himself, of his improvement in certain parts of the process of Cleaning and renovating feathers

To all to whom these presents shall come

Be it known that I Benton P. Coston of Sterling in the County of Wayne and State of Pennsylvania have invented new and useful improvements in certain parts of the process of renovating or Cleansing feathers and that the manner in which the same is to be performed, is particularly described and ascertained in the following explanation and description thereof reference being had to the drawings annexed (and to the Letters marked thereon, that is to say) The application of steam within the cylinder that forms an enclosure for the feathers during the process of cleansing made by means of a tube or hollow cylinder through the axis of it, and which is made to revolve therein for the purpose of agitating the feathers already known and used, and therefore forms no part of my invention, though this method of using the steam (may serve for the better understanding of the operation;) But after that is done I introduce the feathers to be cleansed into the cylinder amongst the feathers in all directions in the same manner. I also discharge the feathers from the cylinder after they are finished by means of opening the door in the end of it through an opening made for the purpose. to be closed when not in use and made large enough to admit of their free passage out, but in such that any evaporation may be better understood I refer to the drawings annexed, by the letters thereon

* As the steam has been during the first part of the operation, by which means they are thoroughly dried, after the action of said steam.

on marked, that is to say) Fig. 1. is an elevation of the Machine showing the construction of a hollow shaft and arms to receive by means of a pulley &c. drawing to disperse the hot air amongst the feathers, the whole revolving within a Cylinder A. pierced either as a duodecagon or other sided figure. This cylinder is left open along the sides at intervals, and on three spaces, viz. from the lower staff only, as will be described hereafter. These spaces are kept covered by means of brass work or gratings, so as that the dirt & impurities arising in dressing by the rush of air through the Cylinder may not come out at those openings and gratings, as at B. At one end is made the opening or door C through which the feathers when finished are taken out by the force of the bellows D. acting above the receiver for hot air Chamber E and forcing the air through the tube F by the opening G. so as to produce a constant current through the Machine by C. in which all the feathers are discharged at leaving one door or that the dirt &c. may be occasionally opened for that purpose. within the tube F. leads from the air Chamber so as to be continued into the mouth of the hollow axis I. which is also to be furnished with the stop cocks K. & R. the latter being opened whilst that at K is closed, allows the hot air to escape into the hollow axis I. & thence be distributed by means of the arms L. through the feathers in like manner as heat is frequently drawn down by the introduction of another tube with its stop cock as is usual to convey the steam from its Chamber as has been already described and known except for which reason I do not more describe them here. Through I pass an inner pipe through a separate tube to which is let at one end the Cylinder below the shaft S not all connection with it = The application of steam is of course made below the air Chamber into which the air is conveyed as before by any

gf

of the known modes in use. The ordinary tube bellows being one well adapted to the purpose and this to be applied at the top of the tube N. leading into the receiver E & the cock R. & valve H. being closed the Chamber may be filled and the feathers ready for application. When the cock R being opened the contents may be forced by the use of the bellows by force through the tube I into the bellows axle J. The cylinder is to be inclosed in an outside case as shown at C. which will reach about half way up the side of said cylinder so as to allow the gratings B as above described. There is also to be a door for the introduction of the feathers at the top of the cylinder as at P. It will also appear that the dust and impurities driven off through the gratings B. must be of course received within the case C at the ends of which is made the dust opening or flue Q for the purpose of carrying off as well as the steam &c which would otherwise be an annoyance in the work room. The hollow shafts as well as the arms are furnished with small apertures numerously dispersed throughout for the purpose of distributing the hot air, On the operation according to my process, I first make use of steam introduced through the described tube as described until the feathers are clean, when by shutting it off by the cock M. and opening those at K & R. the force of the bellows is applied at the top of the tube N. when the heated air is driven through the axle J and arms until the feathers are thoroughly dried by the agitation. When closing the cock K & opening H the cold air is driven by the tube L through the opening G. so as to displace the feathers through the door C. the gratings BB. being previously closed by shutters on sliding doors. When the said feathers fall into the situation described for cooling & dry. What I claim as my invention and for which I wish Letters

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Sailors Patent is the improvement in the process of manufacturing feathers by introducing hot air to dry them and clean off the animalitis after they have been cleansed by steaming in the ordinary manner, according to the above description thereof. Also for cooling and disinfecting steam by the forcing air of cold air as explained. & for employing for that purpose any apparatus substantially the same as that herein before mentioned and described.

In testimony whereof I the above named Inventor have hereunto set my hand.

Witness

B. Tuck Mosely

Wm. Carter Jr.

Boston D. Sailors

Drawings [illegible]