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C. Reynolds.

Feather Renovator.

Patented May 23, 1836.

Fig: 2.

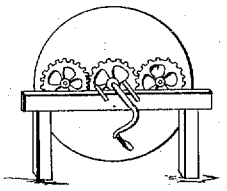


Fig: 1

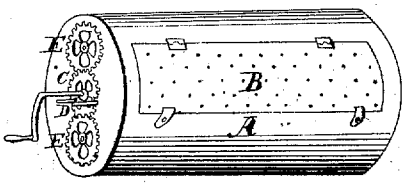
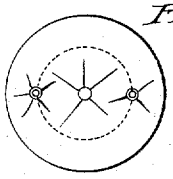


Fig: 3



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

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George Reynolds East Hartford Ct.

Letters Patent

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said George Reynolds himself of his improvement in his feather dressing Machine.

To all to whom these Presents shall come.

Be it known that I George Reynolds of East Hartford in the County of Hartford and State of Connecticut have invented a new and useful improvement in the machine for stripping raw old feathers and preparing new ones for Beds and that the following is a full and exact description of the construction and operation of the said machine and also of the improvement as invented and improved by me. The machine consists of a cylinder or barrel of sheet Iron copper or tin three feet more or less in length and 18 inches more or less in diameter as shall best suit the operator. On one side of the cylinder is a door which for convenience should be nearly the whole length of the cylinder and of sufficient width for putting in and emptying out the feathers. Through the centre of the cylinder is inserted to end runs a shaft of wood or metal into which are inserted pins called stripping pins of large wire or any other material that may be thought suitable the number and length of which may be varied according to the length and diameter of the Cylinder and the judgment of the operator. In the centre of each end or head of the Cylinder is a hole through which gudgeons and screws into the ends of the shaft One of these gudgeons forming part of the crank for turning the Cylinder has a oval or collar on the inside of the head of the Cylinder which is screwed up close to confine the head of the cylinder to the end of the shaft so that both may turn together The gudgeons may be screwed out and the shaft taken out at pleasure. Upon the neck of one of these gudgeons (it may be at either end of the Cylinder) is a cloth wheel or fan. that the gudgeon may revolve within the centre hole of the wheel without turning the wheel. Between the centre shaft and the outside of the Cylinder are one two or more

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auxiliary shafts each carrying a set of dressing fans so placed as to play between them in the centre shaft. These shafts have upon each gudgeon passing through the heads of the cylinder on the gudgeon of these shafts at the end where the toothed wheel is placed on the cross shaft gudgeon are fixed corresponding toothed wheels gearing into the centre one so that when the cylinder is made to revolve on the main shaft the auxiliary shafts revolve in the opposite direction the centre wheel being in this case prevented from revolving by means of two short arms fixed to the frame of the wheel and resting on the frame or bar which supports the machine and on which the gudgeon of the main shaft rests. The head of the cylinder next the crank is not fastened to the body of the cylinder but made with a rim or rims similar to the cover of a draught box and only closes either within or over the body of the cylinder and can be taken off when necessary to take out the shafts. Both heads may be made in the same manner if preferred at the ends or heads of the cylinder are several small holes for letting out air and steam and in the door of the cylinder are several small holes for sifting out exhalations of dirt &c may be among the feathers. To use this machine if in a room with a fire place a sort of stove similar to the size of the machine may be built of brick on the hearth filling up the fire place except an opening at top to take off the smoke. Into this a small fire of kindled coal which the machine is hung by the gudgeon resting on bars fitted for them to turn upon. A sheet iron may be placed a cover of sheet iron or tin to confine the heat around the cylinder and leave the smoke into the opening left for it or a stove or furnace of brick or sheet iron may be made in which to suspend the cylinder somewhat similar to a low oven or Franklin stove with a flue or pipe at top to carry off the smoke or gas from the fire of wood or coal. If made of sheet iron the whole will be rendered portable. The form of construction is immaterial provided the heat is communicated properly to the cylinder. The feathers to be dressed if very foul and badly matted will require washing and when about half dry are

are in before order for dressing but this is seldom necessary. we must pass they need only be put more or less according to the condition they are in. A sufficient quantity to operate upon are put into the machine and the machine placed over the fire. when the cylinder is turned slowly around till the feathers are entirely dry which may be known from the steam ceasing to issue from the holes in the heads of the cylinder. The feathers are carried round with the cylinder till they come to the top when while and they fall. Dressing in the manner above the same time separating and working them together and by constantly changing their position give them an equal chance to the heat and however dried and mellowed before they come from the machine as light and lively as new feathers. Of the disagreeable odor and small quantity of the solution of Chlorine of lime sprinkled on them before the operation will entirely destroy it. When one bale or filling is done the machine is taken from the fire and placed on some thing or destination for the purpose on a light frame on which the machine may rest permanently and be placed over and removed from the fire all together. may be dispensed with when by opening the door and turning it down the feathers are emptied and then turning the door up again the cylinder is filled and placed over the fire for another operation. By this process every disagreeable odor either in old or new feathers is entirely removed every insect and nit destroyed and all dust expelled and. Thereby feathers this process is very useful by destroying the animal matter which adheres to them and thus fitting them for a new body. I do not claim as any invention the cylinder, the shafts the ring - nor indeed any several part of the machine taken by itself but I do claim as my invention the combination of the several parts of the machine as above described and applicable to the particular object aforesaid and the manner of communicating the heat to the feathers by means of the revolving of the cylinder presenting every side to the fire in rotation and communicating the heat to every part of the feathers as they are kept in con-

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binual motion by the dressing fingers. the revolving of the cylinder and the auxiliary shaft and burrs. liable to burn or be overheated
The foregoing specification is copied from a former one on which Letters Patent were granted me dated Oct 17 1835. excepting only such alterations and additions as were necessary on account of the improvement in the machine which I am desirous of securing. This was judged necessary in order to explain more clearly the the improvement as connected with the machine in its construction and operation as appears by the drawings making a part of the specification and the references therein contained. The improvement in this feather dressing machine which I claim as my invention & that part which is already patented consists in the addition and combination of the auxiliary shafts or shafts with their fingers and the toothed wheels gearing into each other in the manner herein described so as to carry the auxiliary shafts around the main shaft while at the same time they revolved on their own axes

Witnesses
F O Reynolds
T Dillwright

George Reynolds.

1469 words

Ck/W.

(Patented May 20. 1836.)