June 6, 1944. C. WILLIAMSON 2,350,656

POULTRY DRESSING DEVICE

Filed April 3, 1941

FIG. 1.

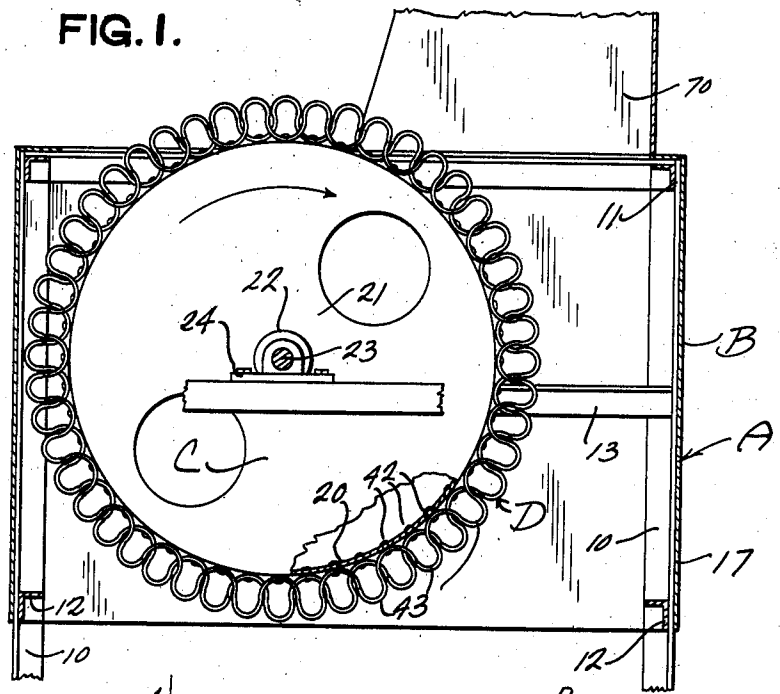
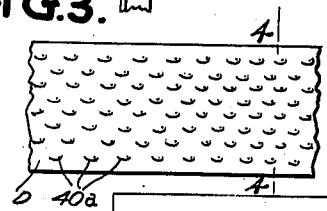


FIG. 3.



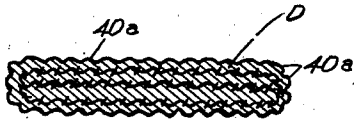


FIG. 4.

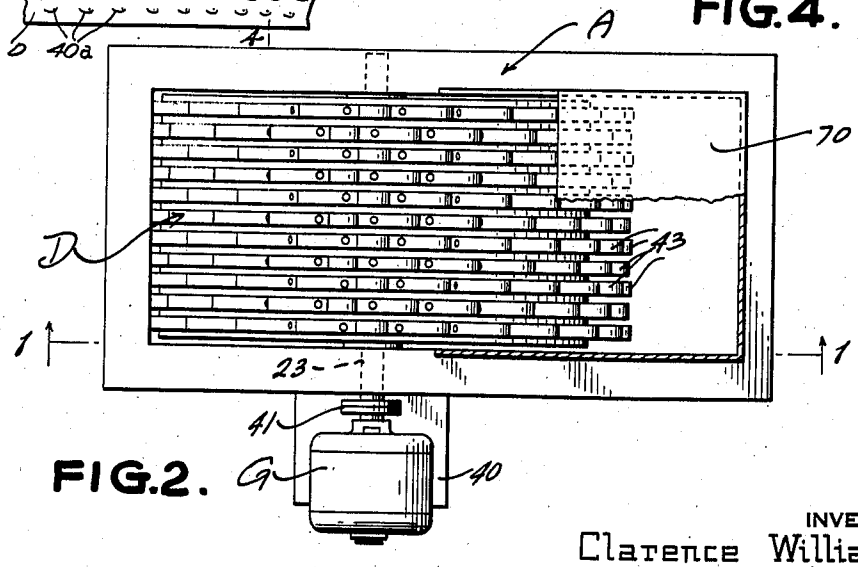


FIG. 2.

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POULTRY DRESSING DEVICE

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Application April 3, 1941, Serial No. 386,706

3 Claims. (Cl. 17—11.1)

This invention relates to improvements in machines for plucking feathers, down, etc. from poultry, ducks, etc.

The primary object of this invention is the provision of an improved machine for facilitating the plucking of feathers from poultry and the like, upon which is located an improved means for contacting and removing the feathers.

Other objects and advantages of this invention will be apparent during the course of the following detailed description.

In the accompanying drawing, forming a part of this specification, and wherein similar reference characters designate corresponding parts thruout the several views,

Figure 1 is a vertical cross sectional view taken thru the machine, taken on the line 1—1 of Fig. 2 and showing more particularly the improved feather plucking rotor.

Figure 2 is a plan view of the machine.

Figure 3 is a fragmentary view showing the buffing surface of the means associated with the rotor for plucking feathers.

Figure 4 is a cross sectional view taken substantially on the line 4—4 of Figure 3.

In the drawing, wherein for the purpose of illustration is shown a preferred form of the invention, the letter A may generally designate the improved feather removing machine, which includes a supporting structure B; rotor C; and means D mounted as a buffing surface on the rotor. The rotor is driven by motor means G.

The housing or casing construction B preferably comprises uprights or supporting legs 10 connected at their upper ends by means of a rectangular framework 11. Adjacent to their lower ends, they are connected with a similar framework consisting of front and rear braces 12, and about midway between the framework 11 and 12 there are provided horizontally positioned rotor supports 13 at opposite sides; suitably connected to the legs 10, as by spot welding, in case the legs and framework are constructed of angle iron. Suitable wall panels 17 may enclose the sides, front and rear, to provide the casing or housing which encloses the rotor C.

The rotor C may be of metal or any other approved construction. It includes the drum portion 20 and side walls 21. The latter are provided with suitable hubs 22 and receive a shaft 23. The latter is supported by suitable bearings 24 upon the side supports 13 of the framework of the machine, as shown in Figure 2 of the drawing. Of course the rotor C is located within the housing or casing B, and its upper peripheral portion extends above the plane of the top of the housing B to facilitate application of the animal to be dressed upon the buffing surface of the rotor.

The motor G is preferably suitably mounted upon a suitable standard 40, shown in Figure 2 of the drawing, at a side of the casing B, and it is connected by means of a flexible coupling 41 with the shaft 23.

Referring to the preferred form of buffing surface D, the same is preferably constructed of strip material (flexible) secured in a sinuous or undulating arrangement upon the drum portion 20 of the rotor. This strip material may vary in width from three-eighths to one and one-half inches. It is provided with a roughened surface, and preferably consists of rubber impregnated fabric having the raised portions or boss projections 40a on the feather removing surface thereof.

Referring to the mode of attaching the material D upon the drum, it will be noted from Figure 1 of the drawing that rivets or other securing elements 42 are provided for securing the bight portions of the inturned loops of the sinuously bent strip material; the loops 43 which project from the drum surface 20 extending in height approximately three inches from the drum surface. The centers of these loops may be spaced any distance desired.

The adjacent sinuously applied strips are arranged so that the projecting loops are in staggered relation transversely of the drum, as shown in Figure 1 of the drawing. That is, viewing the drum endwise, the projecting loops 43 of one strip lie opposite the spaces between the loops of adjacent strips. This provides a more efficient buffing and feather removing construction.

The buffing means D, is resilient and yieldable; preferably being formed of rubber, fabric or some composition material. The speed of the rotor may vary to suit requirements. However, utilizing a fifteen inch diameter drum with three inch projecting loops, I have found that a desired speed of rotation of the drum may vary between one hundred seventy-five revolutions per minute to four hundred revolutions per minute, to suit requirements.

It is entirely within the contemplation of this invention to utilize the machine for removing other objects than feathers. For instance, hair from fur bearing animals.

In connection with the casing B, I prefer to provide a rear hooded enclosure 70 into which the feathers are thrown by centrifugal action, and from whence they drop into the rear of the

machine. I may provide a drawer or other means to catch the feathers, if so desired.

Various changes in the shape, size, and arrangement of parts may be made to the form of invention herein shown and described, without departing from the spirit of the invention or the scope of the claims.

I claim:

1. In apparatus for picking feathers and the like the combination of a rotary drum, means mounting the drum for rotation, means for rotating the drum, and a plurality of continuous strips of flexible feather removing material secured upon the drum in parallelism, with each strip being secured at spaced points circumferentially around the drum; the material of each strip between adjacent points of securement being looped radially outwardly upon the drum to provide convex surfaces.

2. In apparatus for picking feathers and the like the combination of a rotary drum, means mounting the drum for rotation, means for rotating the drum, and a plurality of relatively spaced parallel strips of flexible feather removing material secured upon the drum, each being secured at spaced points circumferentially around the drum; the material of each strip between adjacent points of securement being looped radially outwardly upon the drum to provide convex surfaces, said convex surfaces externally being provided with feather removing roughened portions.

3. In apparatus for picking feathers and the like the combination of a rotary drum, means mounting the drum for rotation, means for rotating the drum, and a plurality of spaced parallel strips of flexible feather removing material secured upon the drum, each being secured at spaced points circumferentially around the drum; the material of each strip between adjacent points of securement being looped radially outwardly upon the drum to provide convex surfaces, said convex surfaces externally being provided with feather removing roughened portions and the loops of adjacent strips being relatively staggered transversely of the drum.

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