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PLUCKING DEVICE FOR FEATHERS, HAIRS OR THE LIKE

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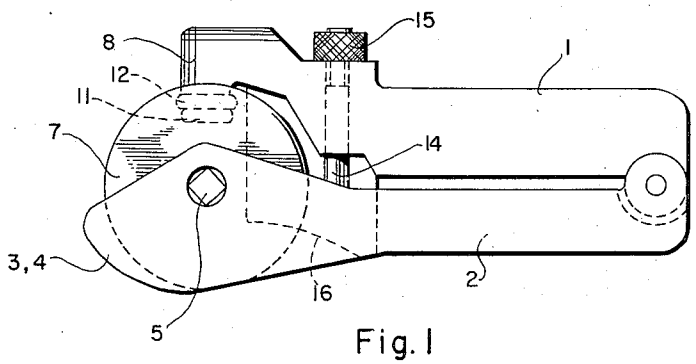


Fig. 1

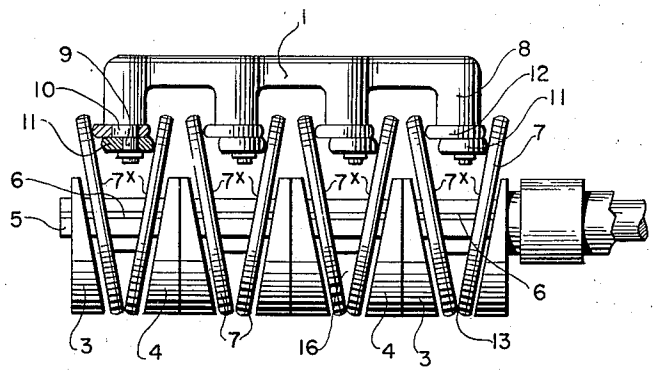


Fig. 2

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PLUCKING DEVICE FOR FEATHERS, HAIRS OR THE LIKE

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3 Claims. (Cl. 17—11.1)

In large shops, hotels or the like, poultry has to be plucked in fairly large quantities. For this purpose use has hitherto been made of rotatably mounted containers in the form of a drum, which are rotated manually or by means of a motor and which accommodate the particular poultry to be plucked. These drums are provided internally with radially extending pins or the like of flexible material, which are provided with resin or other sticky substances for the plucking work. The adhesive power of the particular adhesive substance used is not sufficient, however, to pluck the feathers of freshly killed poultry. It is therefore necessary to scald the poultry before plucking, and in consequence the appearance suffers considerably and the selling value is reduced.

According to the invention, in order to avoid the relatively high costs that had to be expended for previously known plucking devices and the other disadvantages occurring with these, a plucking device for feathers, hair or the like comprises at least two discs or the like, which are rotatable in the same direction, are disposed at an angle to one another, and converge at one point. Such a device is passed manually for example over a freshly killed bird, the feathers passing into the space between the inclined pair of discs, then being clamped fast between the discs and plucked out, whereupon the plucked feathers are ejected rearwardly in consequence of the divergence of the discs. The discs may be driven either manually or by a motor.

The discs are preferably held at an angle to one another by means of press-on rollers or the like. In this case, pressing rollers may be disposed at the outer and inner surfaces of the discs respectively, the inner and outer rollers preferably being offset by 180° relative to one another. In order to enable the angle position of the discs or the bearing pressure at the point of contact of the discs to be varied, the pressing rollers are mounted so as to be adjustable.

In order to obtain particularly dependable guiding and good support for the discs, it is also possible to bear against the discs by means of wedge-shaped guide pieces instead of press-on rollers or some of the latter. The discs are advantageously provided, at least at the plucking surface, with a friction lining, for example rubber vulcanised thereon. Particularly when a relatively large number of discs is used, said discs are advantageously connected positively, but rockably, to a driven shaft passing through them. In this case the shaft may advantageously be provided with longitudinal ribs or the like and the discs be provided with correspondingly shaped recesses radiating from their bearing bore and permitting a rocking of the discs relative to the shaft.

One embodiment of the invention is illustrated in the accompanying drawing by way of example, in which:

Figure 1 is a side elevation of a plucking device, and

Figure 2 is a front elevation of Figure 1.

Two holder jaws 1 and 2, are rockably connected together. The lower jaw 2 has a certain number of wedge-

shaped guide pieces or abutments 3 and 4, in which there is rotatably mounted the shaft 5, which is driven by means of a flexible shaft for example (not illustrated). The shaft 5 is disposed transversely of the wedges and is provided with longitudinal ribs 6 and accommodates a relatively large number of discs 7, which are disposed on the shaft at an angle to the axis of the shaft other than a right angle. The discs are at equal and opposite angles to the shaft axis and thus at an angle to each other. The discs are disposed in pairs, each pair being in contact or in close proximity to each other at one position 13 around their peripheries remote from the jaw 1 and spaced apart to a progressively greater extent towards the diametrically opposite positions on their peripheries. Said discs 7 are provided (not shown) with recesses radiating from their centre bores, so that the discs 7 are positively connected to the shaft 5 by way of the ribs 6, but can be rocked relative to the shaft 5. The discs of each pair lie with their outer surfaces against the adjacent inclined surfaces of the wedges 3, 4, said surfaces being at approximately the same angle to the axis of the shaft as the discs. The top jaw has at its front end a plurality of downwardly extending fork-like projections 8, which are in each case provided with two pressing rollers 11, 12, the axes 9, 10 of which are offset relative to one another. The pressing rollers 11, 12 are disposed against the inner surfaces of each pair of discs and are freely rotatable on their axes 9 and 10 and force the discs 7 apart at their upper ends, so that each pair of discs is in contact at their positions 13 remote from the rollers 11, 12 and adjacent the large ends of the wedges. The discs 7 are provided with vulcanised rubber as at 7X, for better adhesion to the feathers, or hairs, to be plucked. In order to be able to regulate the angle position of the discs 7 or the bearing pressure at their points of contact 13, the distance between the two holder jaws 1 and 2 is adjustable by means of the nut 15 on the screw 14. By means of this the pressing rollers 11 and 12 are simultaneously moved towards the shaft 5 or farther away from the latter, so that the discs 7 are forced apart to a greater or lesser extent at the top.

In order to pluck a freshly killed bird, it is now no longer necessary to scald it; on the contrary, the plucking device according to the invention is simply passed over the body of the bird or the like, so that the feathers are clamped between the rotating pairs of discs 7 and are plucked out. On further rotation of the discs 7 the plucked feathers are ejected rearwardly.

The feathers or hairs of the bird or the like are parted and moved to the side on the movement of the hand device by the fork arms of the part 2, which are constructed as wedge pieces 3, 4 at the front, so that said feathers or hairs pass between the pairs of discs 7 in relatively large quantities.

Deflectors 16, by means of which the plucked feathers are prevented from moving upwardly with the discs at the back of the device, can also extend from the part 2 to engage between the pairs of discs. These deflectors are also of wedge shape and lie one between each pair of discs with their inclined surfaces at about the same angle to the axis of the shaft as the discs, and are disposed at the contacting parts of the discs.

I claim:

1. A plucking device for feathers, hairs or the like, comprising at least one pair of discs rotating at an angle to each other in the same direction and converging at one point; and presser rollers contacting the adjacent faces of adjacent discs of the pair and influencing the angular position of the discs relatively to one another; said rollers being arranged between the discs and pressing the discs apart, to cause the pair of discs to converge at said

point; the axes of said presser rollers being offset relatively to each other, whereby the feathers or the like will be plucked.

2. In a plucking device as set forth in claim 1, wedge-shaped guide elements bearing against the portions of the discs and positioned substantially diametrically opposite the presser rollers.

3. In a plucking device as set forth in claim 1, the discs being provided at least on their plucking surfaces with a friction coating of vulcanized rubber.

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