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POULTRY PICKING MACHINE ATTACHMENT

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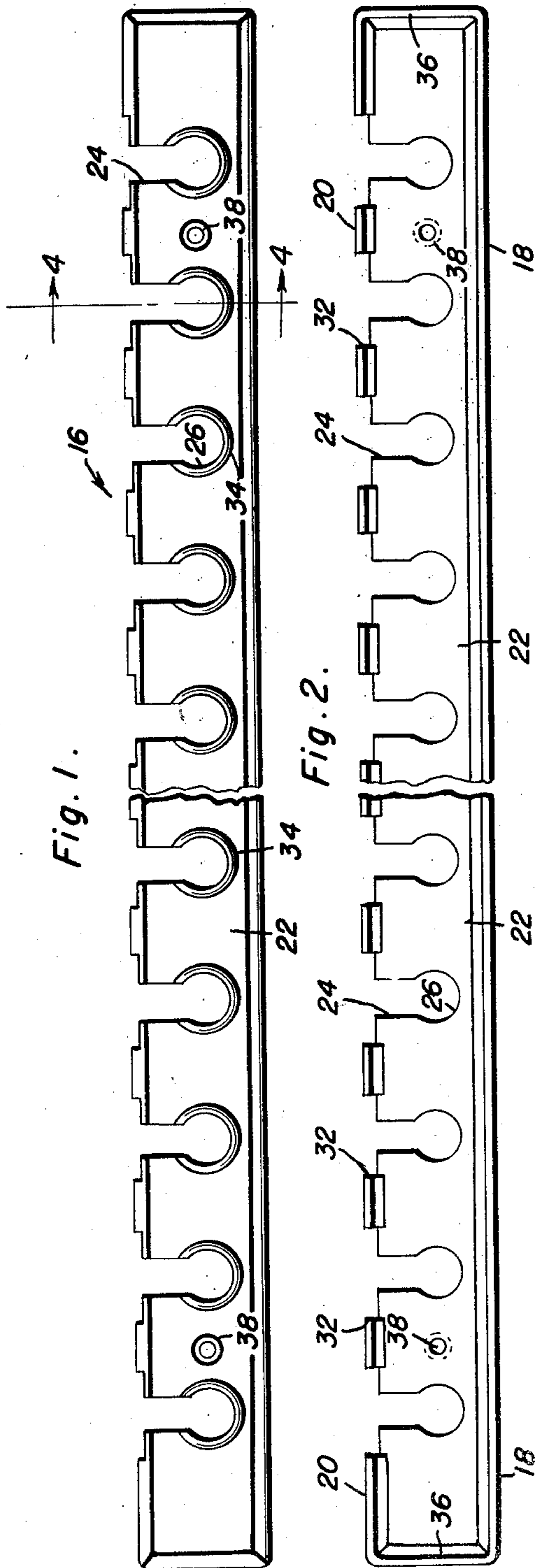


Fig. 5.

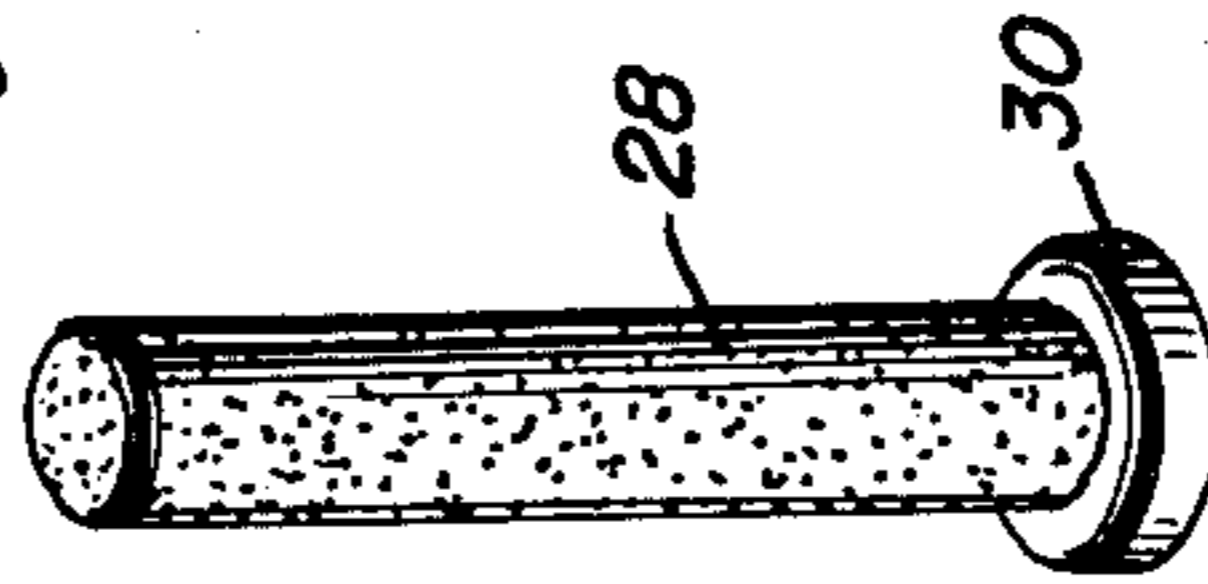


Fig. 4.

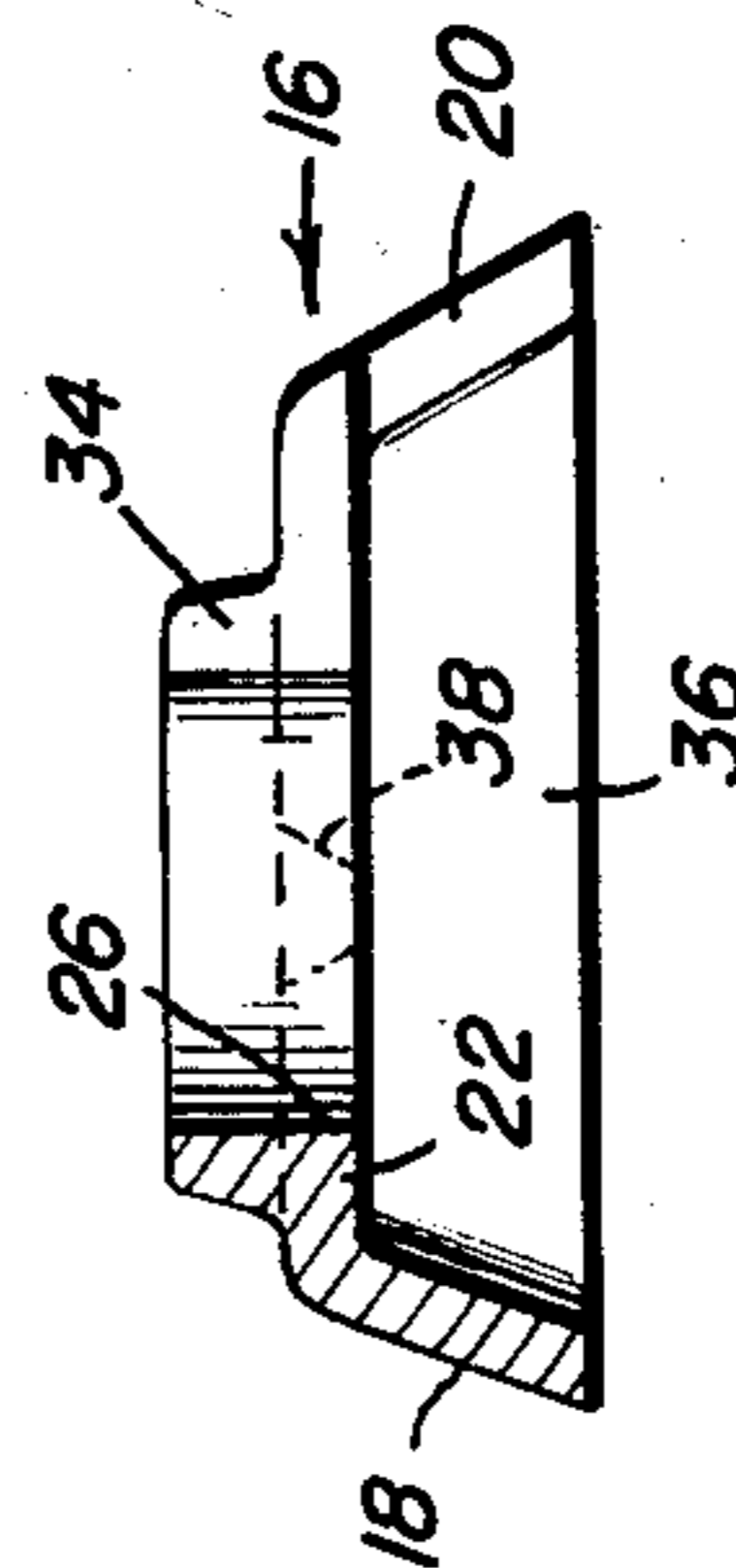
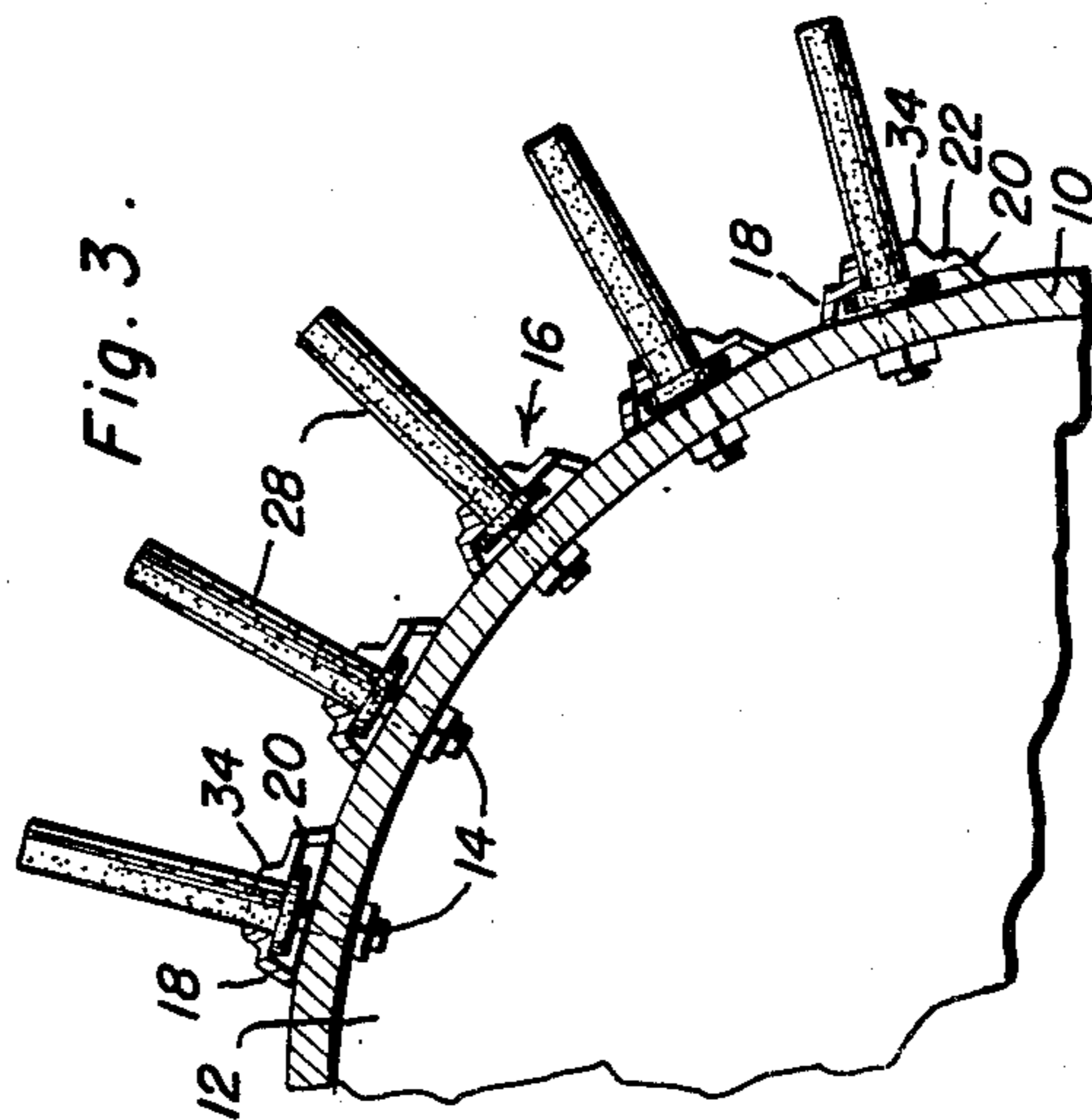


Fig. 3.



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POULTRY PICKING MACHINE ATTACHMENT

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4 Claims. (Cl. 17—11.1)

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This invention relates generally to poultry picking machines, and more particularly to means for removably securing resilient fingers to a rotating drum used in such machines.

The primary object of this invention is to provide means whereby resilient fingers of a simple character having an annular flange at one end may be secured in place on the rotating drum by forcing the said flanges between the drum and an elongated channel member having regularly spaced slots therein and provided in plurality for permanent securement to the drum.

Another object of this invention is to provide means whereby the work of removing a damaged finger and replacing the same by a new finger is greatly simplified, no bolts or other adjustments of a mechanical nature, other than can be accomplished conveniently manually, being required to effect this replacement.

Still another object of this invention is to provide channel member holders for fingers in rotating drums in poultry picking machines, wherein means is provided to support the fingers against flexing to an unwarranted extent immediately adjacent the flange attachment terminals on the fingers, this means taking the form of necks on the elongated channel members extending radially of the drum.

Still another object of this invention is to provide finger holding means for the drum of a poultry picking machine, which may be used with several types of machines, and which will reduce the cost of maintenance of such machines.

A last object to be mentioned specifically is to provide a device of this character which is relatively inexpensive and practicable to manufacture, which is extremely simple and safe to use, and which will give generally efficient and durable service.

With these objects definitely in view, this invention resides in certain novel features of construction, combination and arrangement of parts as will be hereinafter described in detail in the specification, particularly pointed out in the appended claims, and illustrated in the accompanying drawings which form the material for this application, and in which:

Figure 1 is a top plan view of one of the elongated channel members, the member being broken at the center to conserve space;

Figure 2 is a lower plan view of the same channel member;

Figure 3 is a transverse vertical sectional view of a portion of a drum such as is used in a mechanical poultry picking machine, a plurality of

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elongated channel members and resilient fingers operatively secured to this drum, all according to this invention;

Figure 4 is a vertical transverse sectional view of one of the elongated channel members, the view being taken in a plane indicated by the section line 4—4 in Figure 1; and

Figure 5 is a three-dimensional view of one of the improved resilient fingers.

Similar characters of reference designate similar or identical elements and portions throughout the specification and throughout the several views in the drawing.

Referring now to the drawing in detail, the environment wherewith this invention is adapted to be used includes a drum 10 which will ordinarily be closed at each end, as indicated by the presentation of a panel 12, and which will be mounted for rotation according to conventional practice. This drum is apertured at regularly spaced intervals to receive bolts 14 whereby the elongated channel members, generally indicated by the numeral 16 are secured, more or less permanently, upon the drum, being longitudinally and externally positioned thereon, in spaced parallel relation as indicated in Figure 3.

Each of these elongated channel members includes arm portions 18 and 20 which may be slightly divergent and which will be integral with the bight portion 22. Transversely disposed slots 24 are cut or otherwise provided through the arms 20 and the adjacent portions of the bight portions 22, the inner ends 26 of these slots being enlarged to conform with the cross-sectional shape of the fingers 28. It will be noted that the width of the slots 24 may be very slightly less than the width of the fingers 28, and that a preferred shape for the fingers is cylindrical, that is, regularly circular throughout the length thereof as indicated in Figure 5.

It should be particularly carefully noted that the fingers 28 are each formed with a terminal annular flange 30 which will ordinarily be integral with the finger and may be of regular cylindrical shape.

To admit the annular flanges 30, the arms 20 of the channel members are provided with slots 32 of a width substantially equal to the diameter of the annular flanges 30.

Coaxially arranged at each of the enlarged end portions 26 of the slots are necks 34 which are preferably integral with the bight portions 22 and extend radially of the drum 10 and in line with the longitudinal axes of the fingers 28. The ends of the longitudinal members may be pro-

vided with flange portions 36 which may be continuations of the arms 18 and 20, and the bight portions 22 will be provided with apertures 38 to receive the bolts 14 used to secure these elongated members on the drum 10.

The operation of this invention will be clearly understood from the foregoing description of the mechanical details thereof, taken in connection with the objects recited above and the drawings, this descriptive matter being thought of as illustrative rather than limiting. In recapitulation, it will be clear that the broken or damaged finger may be forced out of its seat between the drum 10 and the bight portion 22 of an elongated member, by pressure of the fingers only. A new finger may be as easily secured in position and it will be clear from the foregoing that the fingers will be sufficiently rigidly retained by the above described apparatus. The neck portions 34 greatly decrease the amount of flexing of the fingers immediately adjacent the junction of the flanges 30 with the major portions of the fingers, and the length of useful life of the fingers is greatly increased by provision of these neck portions.

Minor modifications may be made in the proportionment and details of construction without departure from the spirit and scope of this invention and this invention should be limited only as determined by a proper interpretation of the terminology in the subjoined claims.

Having described the invention, what is claimed as new is:

1. In a poultry picking machine having a rotating drum, a plurality of resilient fingers having terminal annular flanges, and elongated channel members secured longitudinally and externally on said drum, said members having a plurality of slots extending through one arm of each channel member and through a portion of the bight portion of each channel member wherein said fingers are removably inserted, said flanges being gripped between said bight portions of the channel members and said drum, the widths of the slot through said bight and said one arm being substantially equal to the transverse dimensions of the fingers and flanges, respectively.

2. In a poultry picking machine having a rotating drum, a plurality of resilient fingers having terminal annular flanges, and elongated channel members secured longitudinally and externally on said drum, said members having a plurality of slots extending through one arm of each channel member and through a portion of the bight portion of each channel member wherein said fingers are removably inserted, said flanges being gripped between said bight portions

of the channel members and said drum, the widths of the slot through said bight and said one arm being substantially equal to the transverse dimensions of the fingers and flanges, respectively, and said slots having slightly enlarged inner end portions to receive the fingers when in operative position.

3. In a poultry picking machine having a rotating drum, a plurality of resilient fingers having terminal annular flanges, and elongated channel members secured longitudinally and externally on said drum, said members having a plurality of slots extending through one arm of each channel member and through a portion of the bight portion of each channel member wherein said fingers are removably inserted, said flanges being gripped between said bight portions of the channel members and said drum, the widths of the slot through said bight and said one arm being substantially equal to the transverse dimensions of the fingers and flanges, respectively, and said slots having slightly enlarged inner end portions to receive the fingers when in operative position, and radially disposed necks on said members and coaxial with said enlarged inner end portions of said slots.

4. In a poultry picking machine having a rotating drum, a plurality of resilient fingers having terminal annular flanges, and elongated channel members secured longitudinally and externally on said drum, said members having a plurality of slots extending through one arm of each channel member and through a portion of the bight portion of each channel member wherein said fingers are removably inserted, said flanges being gripped between said bight portions of the channel members and said drum, the widths of the slot through said bight and said one arm being substantially equal to the transverse dimensions of the fingers and flanges, respectively, the arms of said channel members being such that the bight portions thereof are spaced from the drum a distance equal to the thickness of said flanges on the fingers.

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