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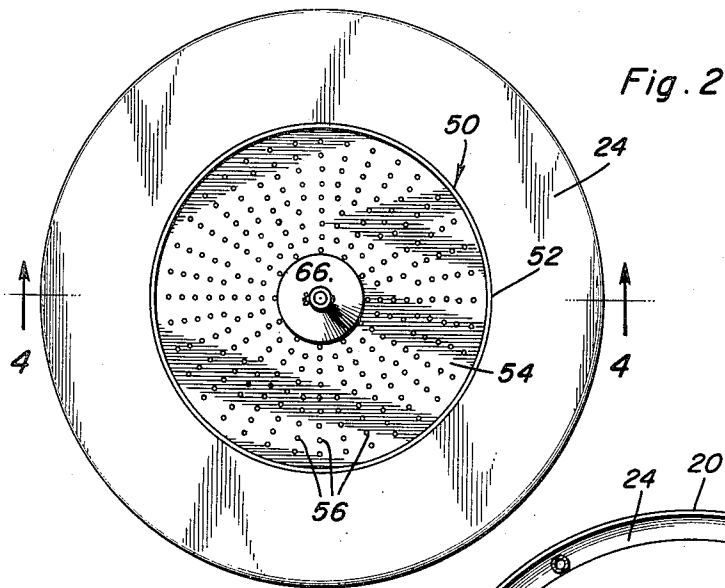
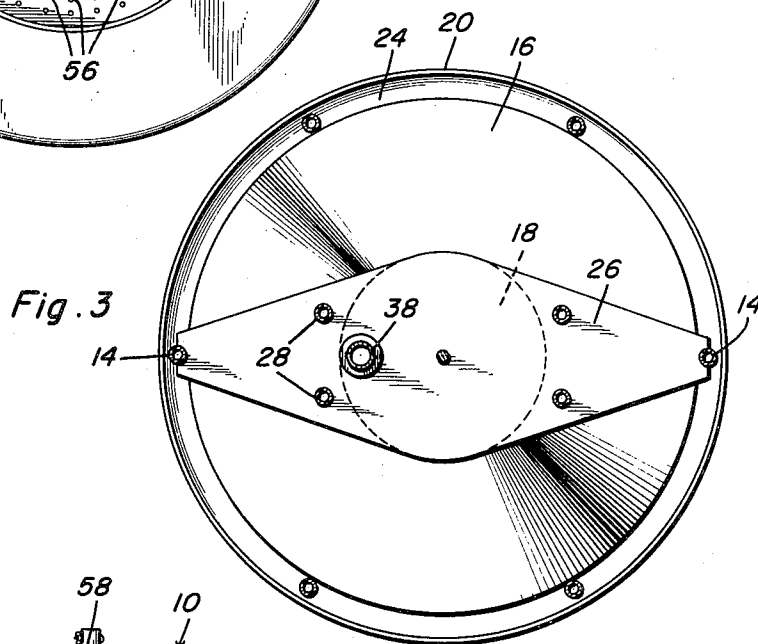
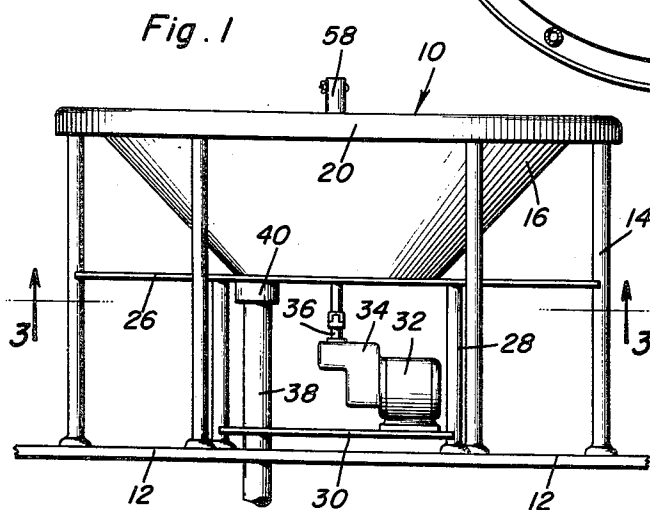
C. E. NOCK

2,865,508

ARTICLE HANDLING TABLE WITH REVOLVING PERFORATED DRUM

Filed Feb. 26, 1957

2 Sheets-Sheet 1



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Fig. 4

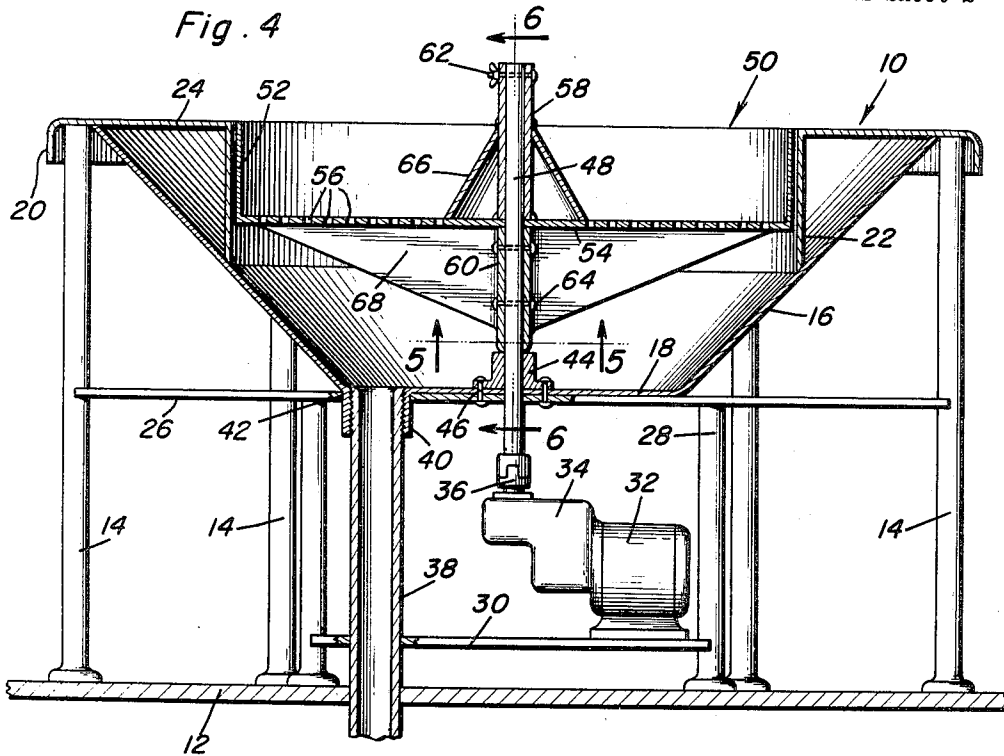


Fig. 5

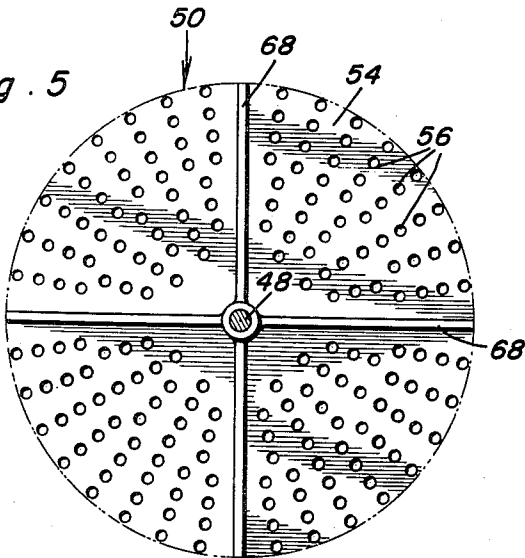
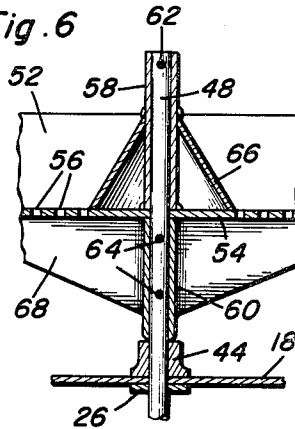


Fig. 6



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ARTICLE HANDLING TABLE WITH REVOLVING PERFORATED DRUM

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Application February 26, 1957, Serial No. 642,615

10 Claims. (Cl. 210—152)

This invention comprises a novel article handling table with revolving center and more particularly relates to a rotating table specifically adapted for use as a packing table.

The primary object of this invention is to provide a rotary packing table especially adapted for use by packers of poultry, other articles of food and the like, and which shall have improved means for draining moisture from such articles.

A further object of the invention is to provide a packing table in accordance with the foregoing object wherein a drum for receiving the articles to be packed shall be mounted in an improved manner upon a vertical drive shaft for rotation therewith whereby to distribute the articles uniformly between a group of surrounding packers.

Yet another object of the invention is to provide a packing table as set forth in the preceding objects which shall include improved support and brace means for the device.

A further object of the invention is to provide a packing table as set forth in the above mentioned objects wherein the means for causing rotation of the revoluble drum of the table shall be conveniently mounted beneath the same.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a side elevational view showing a suitable embodiment of a packing table incorporating therein the principles of this invention;

Figure 2 is a top plan view of the apparatus of Figure 1;

Figure 3 is a horizontal sectional detail view taken substantially upon the plane indicated by the section line 3—3 of Figure 1 and showing in particular the underside of the bottom wall of the tank of the device and of a cross member forming a part of the supporting structure of the tank;

Figure 4 is a vertical transverse sectional view taken substantially upon the plane indicated by the section line 4—4 of Figure 2 and upon a diameter of the apparatus;

Figure 5 is a horizontal sectional view taken substantially upon the plane indicated by the section line 5—5 of Figure 4 and showing the underside of the perforated revoluble drum forming a part of the apparatus; and

Figure 6 is a detail view taken substantially upon the plane indicated by the section line 6—6 of Figure 4 illustrating the manner in which the revoluble drum is fixedly secured to and mounted upon the drive shaft for support by the latter and by the drive shaft bearing.

The improved packing table forming the subject of this invention is designated generally by the numeral 10 in the accompanying drawings and consists of a sup-

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port means upon which is mounted a tank open at its top together with a revoluble drum mounted in the open upper portion of the tank and which drum in turn is provided with an open top and with a perforated bottom wall.

The support means may conveniently comprise a flat base 12 from which rise supporting legs 14. Preferably the base is circular and the support legs are arranged in a circle upon the base. A generally conical shaped tank 16 and having a flat bottom wall 18 is provided with a peripheral downturned flange 20 at its upper edge, and is supported at its upper edge upon the legs 14.

Mounted upon and extending upwardly from the sloping side walls of the conical tank 16 is a vertical cylindrical wall 22 which at its upper end is provided with an annular, laterally outwardly extending flange 24, which overlies the upper end of the tank 16 and has the above mentioned downturned flange 20.

Secured to a pair of the legs 14 is a horizontally extending plate or cross member 26, see Figure 3, which underlies and assists in supporting the bottom wall 18 of the tank. A set of additional supporting legs 28 is employed to secure the midportion of the cross member 26 and assists in supporting the same from the base 12.

Extending between, secured to and supported by the lower portions of the additional legs 28 is a horizontally extending shelf or platform 30 upon which is mounted a suitable prime mover for the device such as an electric motor or the like 32 and which is provided with a reduction gear assembly generally indicated at 34 by means of which an upstanding shaft 36 is driven to constitute a power output or power delivery shaft as set forth hereinafter.

A drain conduit 38 is threadedly engaged in a depending internally threaded nipple 40 formed upon the bottom wall 18 of the tank whereby the drain conduit establishes communication with the interior of the tank, it being noted that the nipple extends through a correspondingly positioned aperture 42 in the cross member 26.

Disposed centrally of the bottom wall 18 and projecting axially upwardly therefrom is a bearing 44 and this bearing together with the bottom wall 18 of the tank is clamped as by fastening members 46 to the above mentioned cross member 26 to thus provide adequate reinforcing and supporting means for the bottom wall of the tank and for the bearing member.

Detachably coupled to the output shaft 36 is a vertically extending drive shaft 48 which passes from beneath the cross member 26, through the latter and through the bottom wall of the tank, through the bearing 44 and upwardly into the tank.

Secured upon and supported by the drive shaft 48 is a revoluble drum indicated generally by the numeral 50. This drum includes a cylindrical side wall 52, has an open top, and its bottom wall 54 is provided with a plurality of perforations 56 therethrough for drainage purposes.

A tube 58 and a depending sleeve 60 are aligned with each other and are secured to the upper and lower sides of the bottom wall 54 at the central portion of the same. The tube and sleeve may be welded or otherwise secured to the bottom wall 54 and serve to provide a bearing means whereby the drum 50 may be secured to and supported by the drive shaft 48. Conveniently, a wing nut and screw 62 may be provided for fixedly securing the upper end of the tube 58 to the shaft 48, while rivets or other fasteners 64 may be provided to secure the sleeve 60 to the lower portion of the shaft.

An inverted conical deflector 66 has its apex surrounding the tube 58 and fixedly secured thereto as by welding, and has its base welded or otherwise secured to the bottom wall 54 of the drum 50 to serve the purpose of reinforcing and rigidifying the connection of the drum

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to the tube, and also to assist in causing movements of articles dropped into the drum towards the periphery of the drum and evenly over the bottom wall thereof.

Radially extending reinforcing ribs or webs 68 are integrally connected to the sleeve 60 and to the bottom side of the bottom wall of the drum to rigidify and strengthen the support and attachment of the drum to the sleeve.

It will also be observed that the lower end of the sleeve 60 is adapted to rest upon and thus be supported by the bearing member 44, thus assisting in relieving the shaft 48 and its driving mechanism from the weight of the drum.

From the foregoing, it is believed that the construction and operation of the apparatus will now be readily apparent. Articles of food such as poultry, and the like, as well as other articles may be discharged into the open upper end of the drum and by means of the conical deflector 66 will be spread evenly over the bottom wall of the same, any moisture on the articles being discharged by the drainage openings 56 into the wall of the sloping tank 16. As the drum rotates, persons disposed about the side of the apparatus can remove articles from the drum and package the same upon the annular supporting surface or table 24.

Any liquids accumulating in the tank will be discharged through the drainage conduit 38.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A packaging table comprising a tank, support means for said tank, a circular drum disposed in the upper portion of said tank and having an open top and a plurality of drainage apertures in its bottom walls, a vertical shaft supporting said drum for rotation in said tank about a vertical axis, a cross member secured to said support means and underlying and supporting the bottom wall of said tank, a drain conduit communicating with the interior of the tank, drive means for imparting rotation to said shaft, means carried by said support means and beneath said tank for carrying said drive means, said tank having a vertical cylindrical wall therein receiving in closely spaced relation said drum and a horizontal, laterally projecting table surface at the upper end of said cylindrical wall and extending from the latter to the upper edge of said tank.

2. A packaging table comprising a tank, support means for said tank, a circular drum disposed in the upper portion of said tank and having an open top and a plurality of drainage apertures in its bottom walls, a vertical shaft supporting said drum for rotation in said tank about a vertical axis, a cross member secured to said support means and underlying and supporting the bottom wall of said tank, a drain conduit communicating with the interior of the tank, drive means for imparting rotation to said shaft, means carried by said support means and beneath said tank for carrying said drive means, said drum including an inverted conical deflector disposed centrally thereof and secured to said shaft.

3. A packaging table comprising a tank, support means for said tank, a circular drum disposed in the upper portion of said tank and having an open top and a plurality of drainage apertures in its bottom walls, a vertical shaft supporting said drum for rotation in said tank about a vertical axis, a cross member secured to said support means and underlying and supporting the bottom wall of said tank, a drain conduit communicating with the interior of the tank, drive means for imparting rotation to said shaft, means carried by said support

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means and beneath said tank for carrying said drive means, said drum including an inverted conical deflector disposed centrally thereof and secured to said shaft, a tube secured to the bottom wall of said drum and extending axially through and secured to said deflector, said tube being mounted upon said shaft.

4. A packaging table comprising a tank, support means for said tank, a circular drum disposed in the upper portion of said tank and having an open top and a plurality of drainage apertures in its bottom walls, a vertical shaft supporting said drum for rotation in said tank about a vertical axis, a cross member secured to said support means and underlying and supporting the bottom wall of said tank, a drain conduit communicating with the interior of the tank, drive means for imparting rotation to said shaft, means carried by said support means and beneath said tank for carrying said drive means, said drum having a sleeve secured to and depending axially from the bottom wall thereof, reinforcing radial webs securing said sleeve to said bottom wall, said sleeve being mounted upon and secured to said shaft.

5. A packaging table comprising a tank, support means for said tank, a circular drum disposed in the upper portion of said tank and having an open top and a plurality of drainage apertures in its bottom walls, a vertical shaft supporting said drum for rotation in said tank about a vertical axis, a cross member secured to said support means and underlying and supporting the bottom wall of said tank, a drain conduit communicating with the interior of the tank, drive means for imparting rotation to said shaft, means carried by said support means and beneath said tank for carrying said drive means, a bearing mounted upon the bottom wall of said tank and rising axially therefrom, said shaft being journaled in said bearing.

6. A packaging table comprising a tank, support means for said tank, a circular drum disposed in the upper portion of said tank and having an open top and a plurality of drainage apertures in its bottom walls, a vertical shaft supporting said drum for rotation in said tank about a vertical axis, a cross member secured to said support means and underlying and supporting the bottom wall of said tank, a drain conduit communicating with the interior of the tank, drive means for imparting rotation to said shaft, means carried by said support means and beneath said tank for carrying said drive means, the bottom wall of said drum having aligned upwardly projecting and downwardly extending tube and sleeve for supporting said drum on said shaft.

7. A packaging table comprising a tank, support means for said tank, a circular drum disposed in the upper portion of said tank and having an open top and a plurality of drainage apertures in its bottom walls, a vertical shaft supporting said drum for rotation in said tank about a vertical axis, a cross member secured to said support means and underlying and supporting the bottom wall of said tank, a drain conduit communicating with the interior of the tank, drive means for imparting rotation to said shaft, means carried by said support means and beneath said tank for carrying said drive means, the bottom wall of said drum having an aligned upwardly projecting and downwardly extending tube and sleeve for supporting said drum on said shaft, radial webs secured to said sleeve and to said bottom wall.

8. A packaging table comprising a tank, support means for said tank, a circular drum disposed in the upper portion of said tank and having an open top and a plurality of drainage apertures in its bottom walls, a vertical shaft supporting said drum for rotation in said tank about a vertical axis, a cross member secured to said support means and underlying and supporting the bottom wall of said tank, a drain conduit communicating with the interior of the tank, drive means for imparting rotation to said shaft, means carried by said support means and beneath said tank for carrying said drive

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means, the bottom wall of said drum having an aligned upwardly projecting and downwardly extending tube and sleeve for supporting said drum on said shaft, an inverted, axially disposed conical deflector in said drum secured to said bottom wall and to said tube.

9. A packaging table comprising a tank, support means for said tank, a circular drum disposed in the upper portion of said tank and having an open top and a plurality of drainage apertures in its bottom walls, a vertical shaft supporting said drum for rotation in said tank about a vertical axis, a cross member secured to said support means and underlying and supporting the bottom wall of said tank, a drain conduit communicating with the interior of the tank, drive means for imparting rotation to said shaft, means carried by said support means and beneath said tank for carrying said drive

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means, the bottom wall of said drum having an aligned upwardly projecting and downwardly extending tube and sleeve for supporting said drum on said shaft, said tank having a bottom wall with an upstanding bearing receiving said shaft, means fixedly securing said bearing, tank bottom wall and cross member.

10. The combination of claim 9 wherein the lower end of said sleeve rests upon the top of said bearing.

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