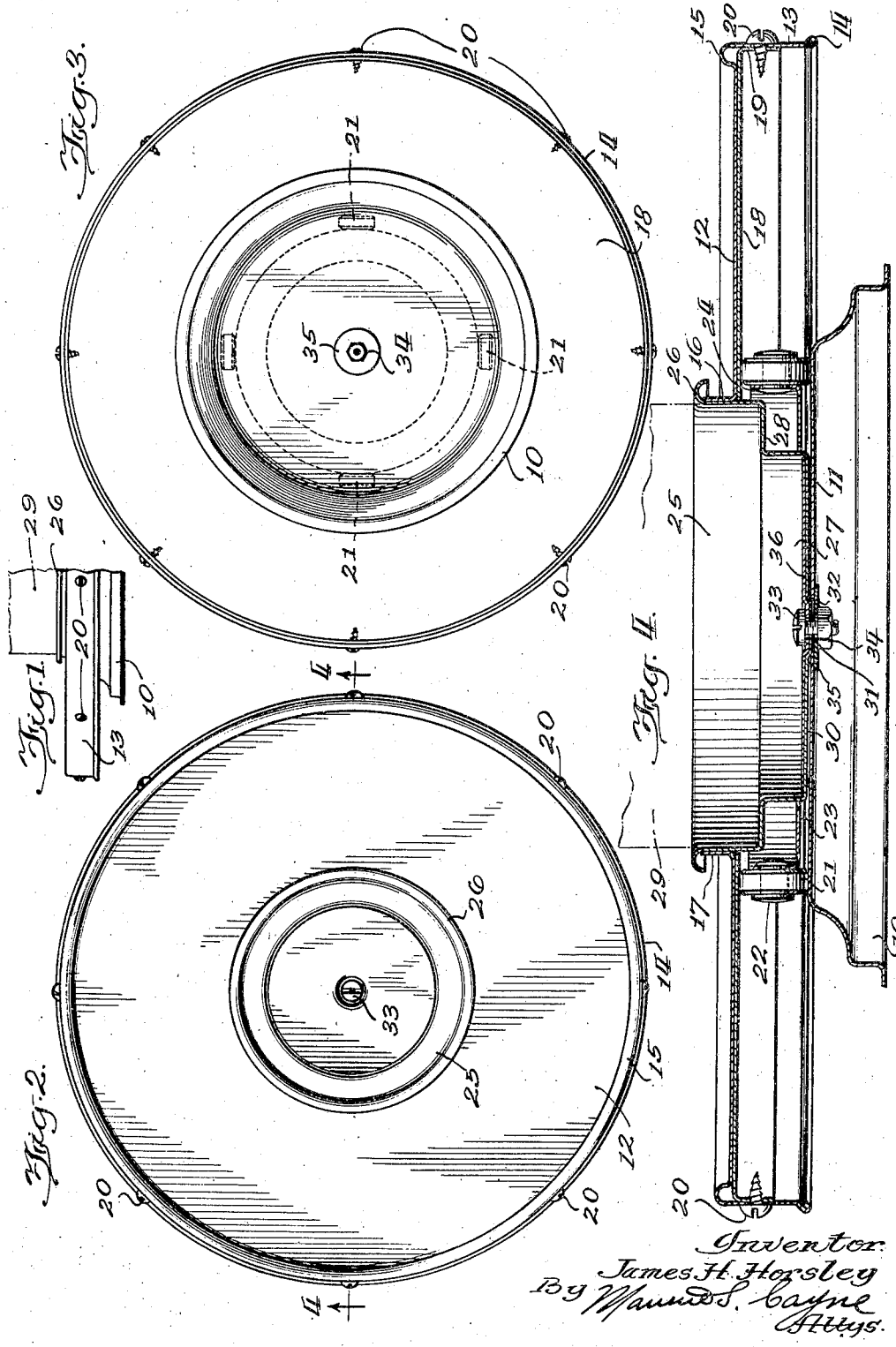
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TRAY

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TRAY

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This invention relates generally to trays, and more particularly to a novel and improved construction of tray, wherein there is provided a support for the same, the tray proper being rotatably mounted on said support, whereby the same would lend itself for use for a variety of purposes.

It is the main object of the invention to provide a tray of the character described, which will be simple in construction and assembly, which may be produced along lines convenient for low cost manufacture, and which will, at the same time, be highly efficient for carrying out the purposes for which it is designed.

Another object of the invention is to provide in a tray of the character described, novel and improved means for assembling the various parts thereof, whereby a single fastening member will be effective for holding the device in completely assembled condition, with the result that the same may be readily assembled or disassembled by the mere tightening or loosening of a single nut.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention consists in certain novel features of construction, arrangement and combination of parts hereinafter more fully described, illustrated in the accompanying drawing, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportion, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

For the purpose of facilitating an understanding of my invention, I have illustrated in the accompanying drawing preferred embodiments thereof, from an inspection of which, when considered in connection with the following description, my invention, its mode of construction, assembly and operation, and many of its advantages should be readily understood and appreciated.

Referring to the drawing in which the same characters of reference are employed to indicate corresponding or similar parts throughout the several figures of the drawing:

Fig. 1 is a view in perspective of a fragmentary portion of a tray constructed in accordance with the principles of my invention;

Fig. 2 is a top plan view of the same;

Fig. 3 is a bottom plan view of the same;

Fig. 4 is a transverse sectional view taken substantially on line 4—4 of Fig. 2.

Referring to the drawing more specifically by characters of reference, the numeral 10 designates generally a base formed of any suitable material, such, for example, as sheet metal or the like, said base being of substantially inverted cup-shaped formation, and is provided with a relatively flat top 11. The gauge of metal used for the base 10, and the size of said base will, of course, depend upon the purpose for which the tray to be supported on said base is to be used.

Supported on said base 10 is the body of the tray proper which in the embodiment illustrated, comprises a wall 12 having a depending annular flange 13, the bottom edge of which flange is rolled to form the bead 14 to give strength to said bottom edge and also to present a more attractive appearance as well as eliminating a sharp edge, which may be dangerous when the tray is in use.

The upper edge of the flange 13 is rolled, as shown at 15 to provide a raised portion for the outer edge of the tray. The body of the tray is provided with a central opening 16 at the outer edge of which is formed the upstanding flange 17. The member 12 with the depending flange 13 may be formed of suitable sheet metal and suitably plated so as to give to the same a highly attractive appearance, and, at the same time, prevent the same from tarnishing and the like.

In order to give body to the tray member, I provided therefor the sheet metal reinforcing member 18, which has an annular depending flange 19, by means of which said member 18 is secured to the member 12 with the use of suitable screws 20 or in some other suitable and well known manner. When the member 18 is assembled with the member 12, the same will lie against the underside of the wall of said member 12, and the depending flange 19 thereof will extend only about one-half way down to the rolled edges 14 of the depending flange 13. The member 18 is provided with a central opening which is of substantially the same size as the central opening 16 and coincides therewith when the members 18 and 12 are secured to each other.

In order to provide for free and easy rotary movement of the assembled tray on the support 10, I mount between said tray and support a plurality of rollers 21, which rollers are carried on studs 22 permanently secured to an annular ring member 23, said rollers being carried by the upstanding annular flange 24 of said ring member 23, and the peripheral surfaces of said rollers extending above the uppermost edge of said upstanding flange 24 and below the bottom edge of the member 23 as shown more clearly in Fig. 4 of the drawing.

In order to complete the assembly of my improved tray, I employ the cylindrical member 25, closed at its lower end and open at its upper end, the peripheral edge of which open end is turned outwardly and downwardly, as shown at 26, to engage over the free upper edge of the flange 17. The member 25 is of such a size as to be received within the opening formed by the annular flange 17 in the tray member 12, and has its bottom por-

tion formed of reduced diameter to produce the part 27 which is received within the central opening of the ring member 23, there being an annular shoulder 28 formed between the reduced portion 27 and the upper portion of the member 25, upon which shoulder may rest a bottle or container 29, as shown in broken lines in Figs. 1 and 4. The bottom wall 30 of the portion 27 is provided with a small central opening 31, which will be in alignment with the central opening 32 provided in the base member 10 when the parts are in fully assembled position. Through said openings is adapted to extend the bolt 33, on the lower end of which may be threaded a nut 34 for securing the parts to each other in their assembled position. If desired, a suitable washer 35 may be interposed between the surface 11 of the base 10 and the nut 34 and a similar washer or plate member 36 may be interposed between the head of the bolt 33 and the bottom wall 30 of the portion 27.

From the above, it will be noted that the device may be readily and quickly assembled by merely tightening the nut 34 on the bolt 33 after the parts have been placed in their desired positions, and when once tightened, will hold the device in fully assembled position with the tray 12 being freely rotatable through the medium of the rollers 21 upon the base 10. It will also be noted that the structure described will make for a sturdy construction, which may be readily assembled and disassembled, and one which will lend itself for many uses.

It is believed that my invention, its mode of construction and assembly, and many of its advantages should be readily understood from the foregoing without further description, and it should also be manifest that while a preferred embodiment of the invention has been shown and described for illustrative purposes, the structural details are nevertheless capable of wide variation within the purview of my invention as defined in the appended claims.

What I claim and desire to secure by Letters Patent of the United States is:

1. A device of the character described, comprising a base having an upper relatively flat surface and annular ring arranged on said base, said ring being provided circumferentially thereof with spaced rollers each mounted for rotation in a vertical plane, a tray supported on said rollers arranged for movement in a horizontal plane, and a cylindrical member extending centrally through said tray and having its bottom wall secured fixedly to said support, said member when secured to said support being effective for maintaining the said base, roller members and tray in assembled, operative position.

2. A device of the character described, comprising a base having an upper relatively flat surface and annular ring arranged on said base, said ring being provided circumferentially thereof with spaced rollers each mounted for rotation in a vertical plane, a tray supported on said rollers arranged for movement in a horizontal plane, and a cylindrical member extending centrally through said tray and having its bottom wall secured fixedly to said support, said member when secured to said support being effective for maintaining the said base, roller members and tray in assembled, operative position, said tray being provided with a central opening bounded by an upstanding annular flange, said cylindrical member being received in said opening and having the upper edge thereof turned outwardly and downwardly to engage over the free upper edge of said upstanding flange.

3. A device of the character described, comprising a base, a tray supported on said base, an annular ring member interposed between said tray and base, a plurality of rollers arranged on said ring member circumferentially thereof for rotation in a vertical plane, said tray being provided with a central opening and a cylindrical member arranged centrally of said tray extending through said opening, said cylindrical member having a bottom wall for engagement with said flat surface of said base and an outwardly turned flange at its upper end for engaging with said tray, and means for fixedly securing said bottom wall of said cylindrical member to said base, whereby said securing means will be effective for holding said base, roller members and tray in fully assembled operative position.

4. A device of the character described, comprising a base having an upper relatively flat surface, an annular ring disposed on said base, said ring being provided circumferentially thereof and spaced rollers each mounted for rotation in a substantially vertical plane, a tray supported on said rollers and arranged for movement in a horizontal plane, a reinforcing member fixed to the lower surface of said tray for engagement by said rollers, and a cylindrical member extending centrally through said tray and reinforcing member and having its bottom wall fixedly secured to said base, said cylindrical member, when secured to said base, being effective for maintaining said base, roller members and tray in an assembled operative position.

5. A device of the character described, comprising a base having an upper relatively flat surface, an annular ring disposed on said base, said ring being provided circumferentially thereof with spaced rollers each mounted for rotation in a substantially vertical plane, a tray supported on said rollers arranged for movement in a horizontal plane and having a central opening provided therein defined by an upstanding flange formed integral with said tray, a cylindrical member open at its upper end and closed at its lower end extending through said central opening in said tray, and means for fixedly securing the bottom wall of said cylindrical member to said base for holding said tray in assembled position with said base, but permitting rotary movement of said tray relative to said base and said cylindrical member.

6. A device of the character described, comprising a base having an upper relatively flat surface, an annular ring disposed on said base, said ring being provided circumferentially thereof with spaced rollers each mounted for rotation in a substantially vertical plane, a tray supported on said rollers and arranged for movement in a horizontal plane, a reinforcing member fixed to the lower surface of said tray for engagement by said rollers, and a cylindrical member extending centrally through said tray and reinforcing member and having its bottom wall fixedly secured to said base, said cylindrical member, when secured to said base, being effective for maintaining said base, roller members and tray in an assembled operative position, the bottom wall of said cylindrical member being substantially below the surface of said tray.

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