

May 10, 1927.

1,628,013

M. B. TWEDT

REVOLVING TRAY FOR DINING TABLES

Filed Jan. 14, 1924

Fig. 1.

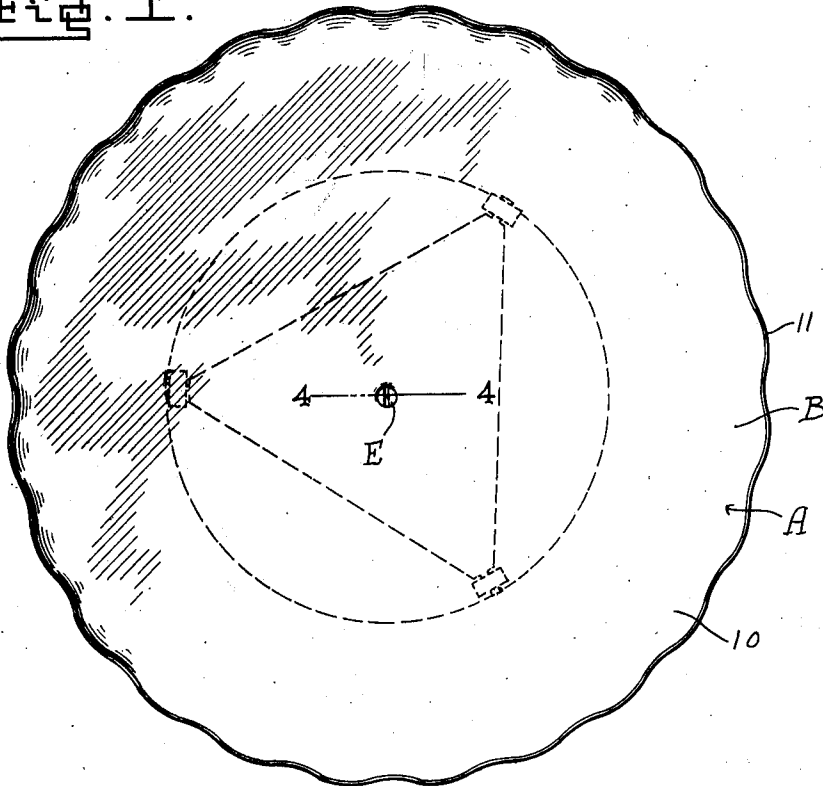


Fig. 2.

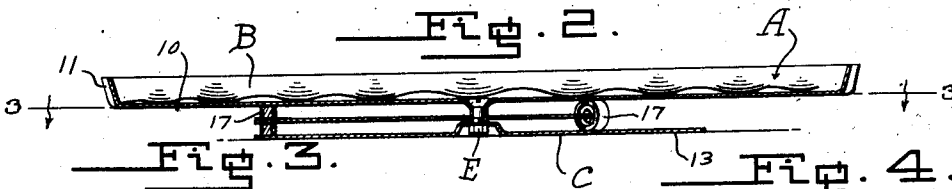


Fig. 3.

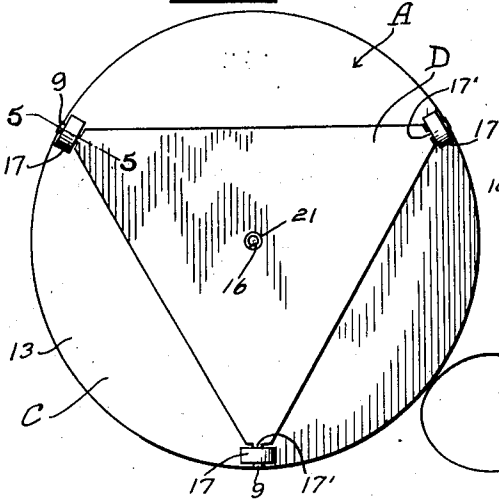


Fig. 4.

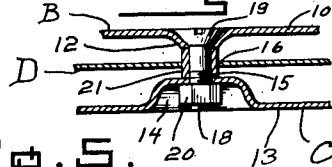
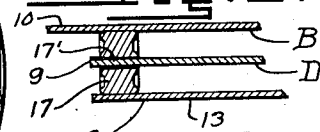


Fig. 5.



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UNITED STATES PATENT OFFICE.

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REVOLVING TRAY FOR DINING TABLES.

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My present invention relates to revolving trays especially well adapted for use upon dining tables, and the primary object thereof is to provide a revoluble tray for holding dishes of various foodstuffs, whereby persons sitting at any place around the table may easily bring any desired dish immediately in front of them; thereby eliminating the passing of hot and heavy dishes across the table.

Another object of the invention is in the provision of a novel revolving self serving tray so constructed as to revolve very freely, due to the novel arrangement of the various parts, and one having its marginal portion so formed as to facilitate turning of the tray.

Another object of the invention is to provide a very efficient self serving tray of the above described character which may be formed entirely of stamped sheet metal and one which may be transported as a unit when desired.

Other objects and advantages will appear in the following detailed description, taken in connection with the accompanying drawings, wherein like reference characters designate corresponding parts throughout the views.

Figure 1 is a top plan view of my revoluble tray and showing in dotted lines the relative position of parts beneath the tray proper.

Fig. 2 is a central transverse section through the same.

Fig. 3 is a sectional view taken on the line 3—3 of Figure 2.

Fig. 4 is an enlarged fragmentary section taken on the line 4—4 of Figure 1.

Fig. 5 is an enlarged fragmentary section taken on the line 5—5 of Fig. 3.

Referring to the drawing in detail, the letter A designates generally an improved revolving tray comprising a tray member B, a base C and a rotatable roller carrier D; said tray member B and carrier D to revolve about a pivot E.

The tray member B which is preferably of sheet metal of any desired gauge, consists of a disc 10 having its marginal edge upturned as at 11. This upturned marginal edge is corrugated or scalloped in order to provide a gripping portion for facilitating turning of the tray member B. A depression 12 of frusto-conical configuration is provided axially of the disc 10; the purpose of

which will be fully explained. It is to be observed that the upturned scalloped edge 11 also prevents dishes or other articles from dropping or sliding from the disc 10.

The base C consists of a disc 13 formed with an upwardly pressed recess 14 provided with an aperture 15; the recess 14 and aperture 15 to be formed axially of the disc 13.

The rotatable roller carrier D which is also formed of sheet metal, is of triangular shape and has provided at its axial center, an aperture 16. Rollers 17 which are rotatably mounted at each point of the triangular shaped carrier D, are adapted to engage the under face of the tray member B and the upper face of the base C, and these rollers are adapted to revolve as the tray members B is moved about the pivot E. These rollers are mounted on radially extending stub shaft 17', formed on each point of the triangular shaped carrier D as by cutting triangular shaped blanks from each edge of the carrier adjacent its pointed ends, and held against displacement by the flattening of the shafts as at 9. If desired, rubber tires may be placed on the rollers 17 or the rollers made of rubber or the like with a metal hub for mounting on the shaft 17'.

The pivot E consists of a bolt 18 adapted to pass through the various elements for axially aligning the same and providing a retaining means for the elements. The bolt 18 is provided with a countersink head 19 for seating in the depression 12 and thereby providing a smooth upper face for the tray member B. The shank of the bolt 18 may be threaded for reception of a nut 20 which lies in the recess 14 formed in the base C and it can be seen that by so forming the recess 14 in the base C, that a smooth bearing surface will be obtained for the tray A.

A spacer or sleeve 21 which encircles the shank of the bolt 18 is positioned between the tray member B and base C for preventing binding of the rollers 17 when the nut 20 is tightened upon the bolt 18. The lower edge of the depression 12 is adapted to bear against the upper end of the spacer or sleeve 21 and thereby form a rigid support for the center of the tray member B.

It will therefore be seen that as the tray member B is revolved, that it will roll on three revolving rollers which will eliminate friction between the member B and base C; as the roller carrier D will also revolve as the member B is turned about the pivot E.

Various minor changes in detail may be made without departing from the spirit or scope of my invention but

I claim:

- 5 1. In a revolving tray, the combination with a base portion having a smooth upper surface, and a tray portion having a smooth lower surface; of means for rotatably supporting the tray portion above the base portion, comprising an axially disposed pivot
10 means rotatably connecting and supporting the tray portion in spaced relation above the base portion, a triangular shaped roller carrier formed of sheet metal, revoluble upon
15 the pivot means between the base and tray portions and having portions cut from each edge thereof adjacent each point of the carrier and forming radially extending stub shafts each having shoulders formed at its
20 inner end, a roller mounted upon each of said shafts and engaging the confronting

faces of the base and tray portions for rotatably supporting the tray member in parallel spaced relation above the base portion, and means for preventing movement of the rollers off of said shafts.

2. A device of the class described comprising a base member formed of sheet metal, a tray member formed of sheet metal and having upturned marginal edges, axially
30 disposed pivot means rotatably connecting and supporting the tray member in parallel spaced relation above the base member, and a triangular shaped roller carrier rotatably
35 mounted on the pivot means between the base and tray members and having each point thereof cut out to form radially extending shafts, said shafts being adapted to revolvably receive rollers and have their
40 ends flattened out for retaining the rollers on the shafts.

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