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2,830,862

MEANS FOR CONNECTING A TURNTABLE TO A COUNTER TOP

Filed Jan. 27, 1956

2 Sheets-Sheet 1

FIG-1

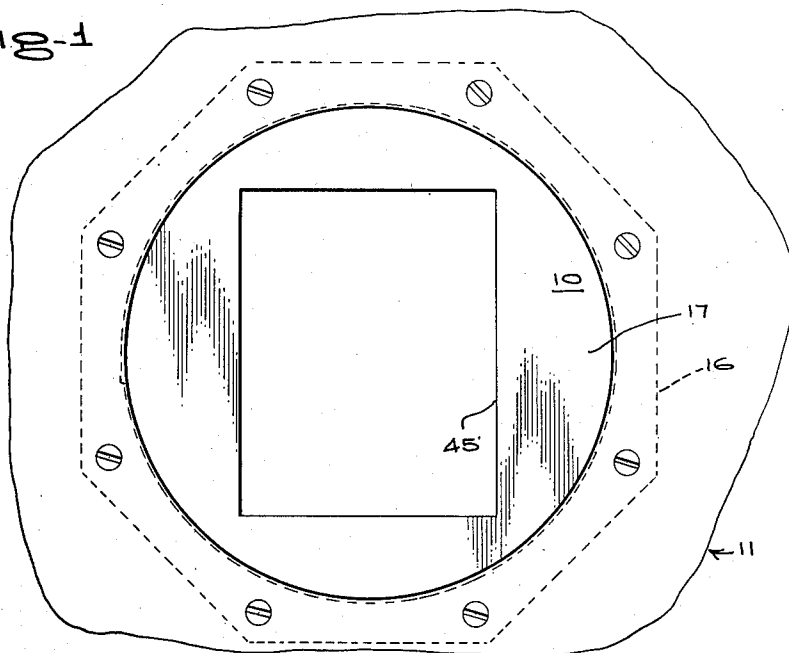
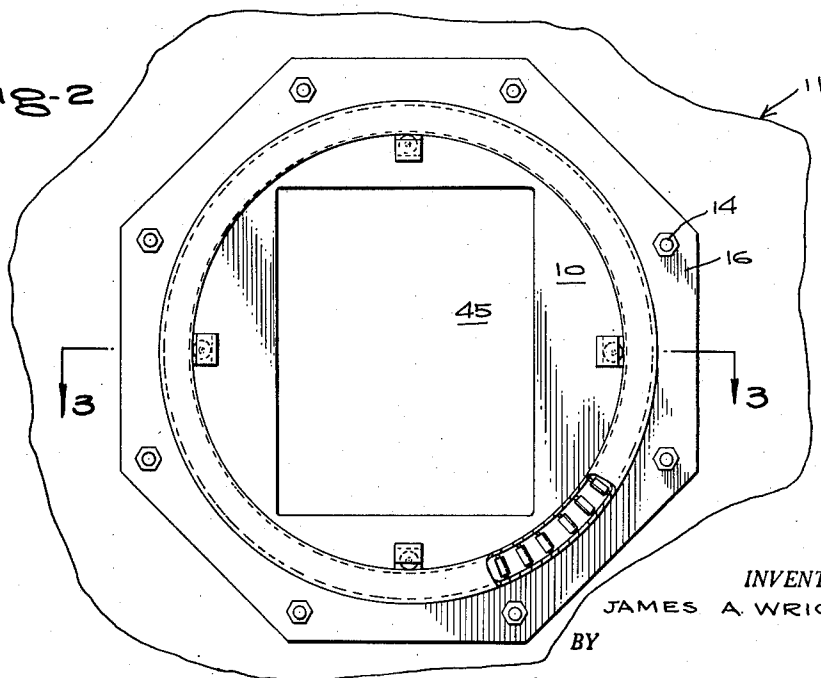


FIG-2



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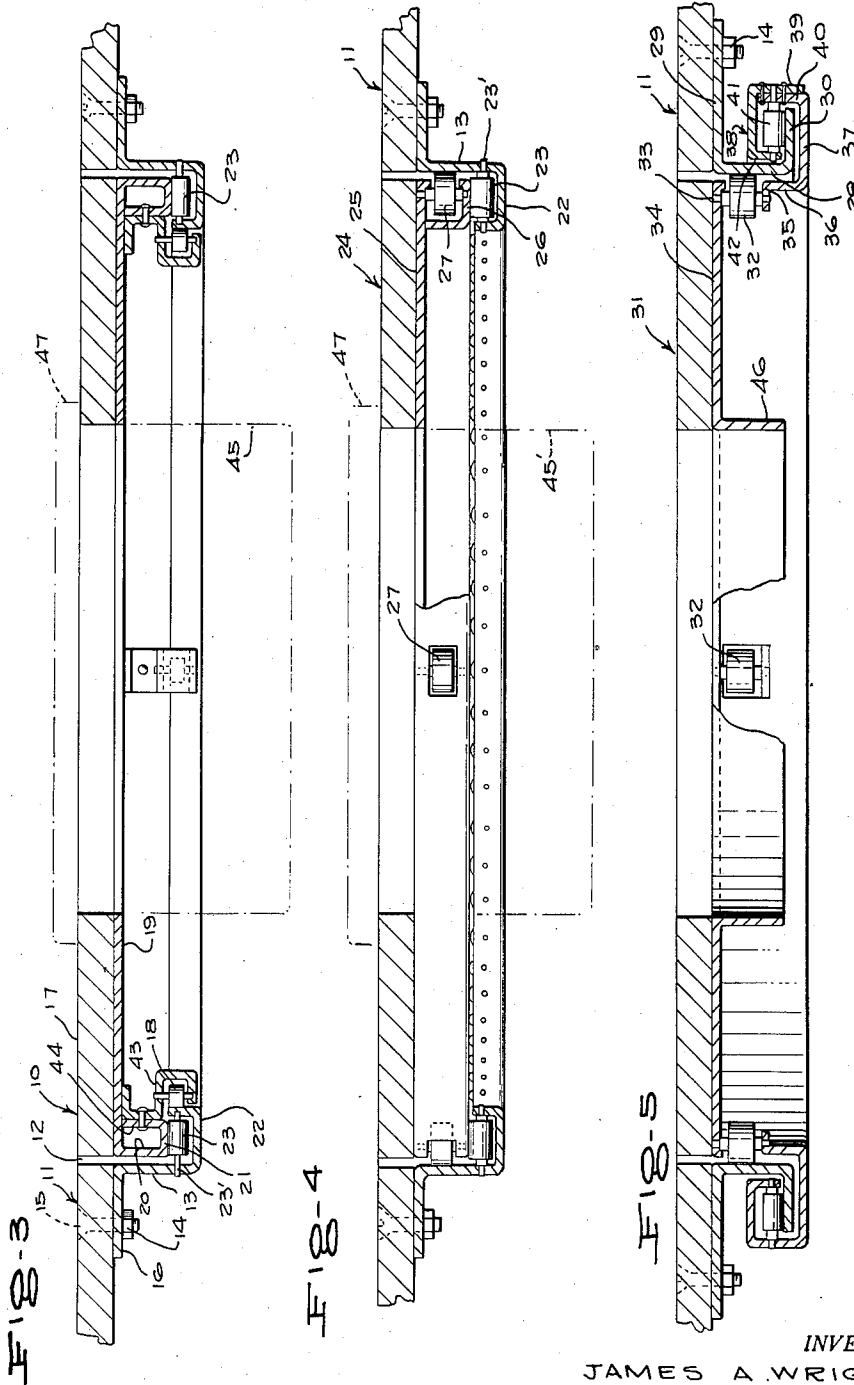
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MEANS FOR CONNECTING A TURNTABLE TO A COUNTER TOP

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1 Claim. (Cl. 311—33)

The present invention relates to a means for connecting a turntable to a counter top.

An object of the present invention is to provide means for movably connecting a turntable to a counter top.

Another object of the present invention is to provide means for connecting a turntable to a counter top so that it is rotatable within the counter top at the will of the operator.

A further object of the present invention is to provide means for rotatably connecting a turntable to a counter top which is easy to install, simple in structure, efficient in action, sturdy in construction, and one which is economically feasible.

These and other objects and advantages of the present invention will be fully apparent from the following description when taken in connection with the annexed drawings, in which:

Figure 1 is a top plan view of the turntable unit of the present invention shown installed in a counter top, with the counter top broken away,

Figure 2 is a bottom plan view of the assembly of Figure 1, with a portion of the turntable supporting means broken away to show the roller bearings installed therein,

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

Figure 4 is a sectional view similar to Figure 3 but of another form of the invention, and

Figure 5 is a sectional view similar to Figures 3 and 4 but of still another form of the invention.

Referring in greater detail to the drawings in which like numerals indicate like parts throughout the several views, the turntable unit of the present invention, in a first form shown in Figures 1 to 3, inclusive, comprises a turntable indicated generally by the reference numeral 10 mounted in a counter top 11 in which an opening has been provided for the turntable 10, the opening being indicated by the reference numeral 12 in Figure 3. The turntable 10 includes an upstanding skirt 13 positioned within and extending about the opening 12 and having the upper end thereof secured to the counter top 11. On the underside of the latter, the means securing the skirt 13 to the underside of the counter top 11 comprises nut and bolt assemblies 14. The bolts of the bolt and nut assemblies 14 have flat heads as indicated at 15 received in countersunk holes provided for them in the top surface of the counter top 11. The skirt 13 is vertically disposed and has its upper end portion 16 extending outwardly and horizontally disposed.

A table 17, conformably shaped to fit within the skirt 13 is positioned within the skirt 13 so that the upper face thereof is flush with the upper face of the counter top 11.

A plurality of rollers 18, each rotatable about a vertical axis, are positioned in spaced relation about the perimeter of the table 17 and are carried by the table 17 and rollably engage the skirt 13. In Figure 3 it will be seen that the table 17 is formed from a circular plate 19 having a downwardly turned flange 20 terminating in an inwardly

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projecting and horizontally-disposed rim 21. The lower end portion of the skirt 13 is formed into a channel 22 which faces upwardly and extends inwardly of the skirt 13. A plurality of rollers 23 are arranged in spaced relation about the channel 22 and are mounted on shafts 23' which have their ends journaled in the sides of the channel 22. The rollers 23 and the channel 22 constitute a horizontally-disposed roller bed. The rim 21 of the plate 19 rolls on the roller bed thus formed and constitutes means connecting the table 17 to the skirt 13 for rotational movement.

In the embodiment of the invention shown in Figure 4 the construction of the skirt 13 and its method of attachment to the underface of the counter top 11 is the same as in the embodiment shown in Figures 1 to 3, inclusive. The table 24 has a circular plate 25 provided on the underside of its periphery with a horizontally-disposed rim 26 positioned below and spaced from the table 24 and carried by the table 24, the same as the rim 21 is below and spaced from the table 17 in the first embodiment shown. The rim 26 is one leg of an annular member of L-shaped cross sectional configuration, the member having the end of its other leg fixedly secured to the underside of the table 24. The roller bed, in the form of the invention shown in Figure 4, is identical in construction with the roller bed of the first form of the invention, and embodies rollers 23 supported on shafts 23' which are journaled in the channel 22 provided on the lower end of the skirt 13. The last-named rollers 23 rollably engage the underface of the rim 26 and connect the table 24 to the skirt 13, in the second form of the invention, for rotational movement of the table with respect to the counter top 11.

The annular member of L-shaped cross sectional configuration, of which the rim is one leg, forms a support for a plurality of vertically-disposed rollers 27 which have their shafts journaled in the underside of the table 24 and in the rim 26 and rollably engage the inner face of the skirt 13 to provide against lateral movement of the table 24 with respect to the counter top 11.

In Figure 5 a further form of the invention is shown, in which the counter top 11 is provided with an opening, as in the other forms of the invention shown, and secured to the underside of the counter top 11 adjacent the opening is a skirt 28 having a horizontally-disposed flange 29 formed integrally with its upper end and secured by nut and bolt assemblies 14 to the underside of the counter top 11. A horizontally-disposed rim 30 is positioned outwardly of the skirt 28 and below and spaced from the counter top 11. A table 31 is rotatably centered in the opening in the counter top 11, in this form of the invention, by means of a plurality of rollers 32 rotatably mounted on vertically-disposed shafts 33 and arranged in spaced relation about the periphery of the table 31 adjacent to the underside of the plate 34, the latter being a part of the table 31. The upper ends of the shafts 33 are secured in the plate 34 and the lower ends of the shafts 33 are anchored in a horizontally-disposed flange member 35 which projects inwardly from the upper end of the one leg 36 of an annular member 37 of U-shaped cross sectional configuration.

A second annular member 38, of inverted U-shaped cross sectional configuration, is arranged in superimposed spaced relation with respect to the annular member 37 and has its one leg 39 fixedly secured by means of rivets or other means to the other leg 40 of the annular member 37.

A plurality of horizontally-disposed rollers 41 are arranged in spaced relation within the annular member 38 and have their shafts journaled in the legs 40 and 42 of the annular member 38 and rollably engage the upper face of the rim 30 for support of the table 31 within the

opening provided in the counter top 11. The rollers 41 and the rim 30 constitute the means by which the table 31 is connected to the counter top 11 in this embodiment of the invention, for rotational movement within the opening provided in the counter top 11.

In the first form of the invention, shown in Figures 1 to 3, inclusive, the vertically-disposed rollers rollably engage the innermost face of the channel 22 and are carried in an annular support 43 of S-shaped cross sectional configuration which is riveted or otherwise secured to a vertically-disposed flange which projects upwardly and is formed integrally with the inner end of the rim 21. The rollers 18 provide for smooth rotation of the table 17 within the opening 12 provided in the counter top 11 without appreciable lateral movement.

A well is provided in each of the tables 17 and 24, shown in full lines in Figures 1 and 2 and in dotted lines in Figure 3 as indicated by the reference numeral 45. The well in Figure 4 is shown in dotted lines and indicated by the reference numeral 45'. In Figure 5, a downwardly-bent flange 46 formed in the plate 34 defines a well opening. In each of the forms of the invention it is intended that a billing or receipting machine, having a top portion larger than the well opening, as indicated by the reference numeral 47 in Figures 3 and 4, may be carried within the well provided in the table of each of the embodiments of the invention.

In use, the turntable of the present invention provides a means for mounting a billing or similar machine within an opening provided in a counter top 11 so that the billing machine may be used by a clerk of an establishment where so used with the clerk on one side of the counter. The turntable unit of the present invention makes it conven-

ient for the clerk to execute the required notations upon the billing machine and to turn the turntable to a position at which it is convenient for the customer to acknowledge the receipt of the goods by signature on the paper provided in the billing machine. In each of the forms of the invention hereinabove described, the turntable rotates readily and easily at the touch of a finger and is held against lateral and unwanted movements from side to side by the vertically-disposed rollers 18, 27, and 32.

What is claimed is:

In combination with a counter top having an opening therein, an upstanding skirt positioned within and extending about said opening and having the upper end secured to said counter top, a plurality of rollers each rotatable about a vertical axis positioned in spaced relation about the perimeter of said table and carried by said table and rollably engaging said skirt, a circular plate on the under face of said table, a downwardly turned flange projecting from the periphery of said plate, a horizontally disposed rim projecting inwardly from said flange, and a horizontally disposed roller bed carried by said skirt and rollably engaging the under face of said rim.

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