

July 3, 1928.

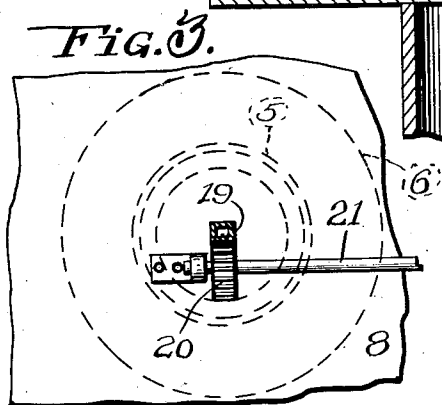
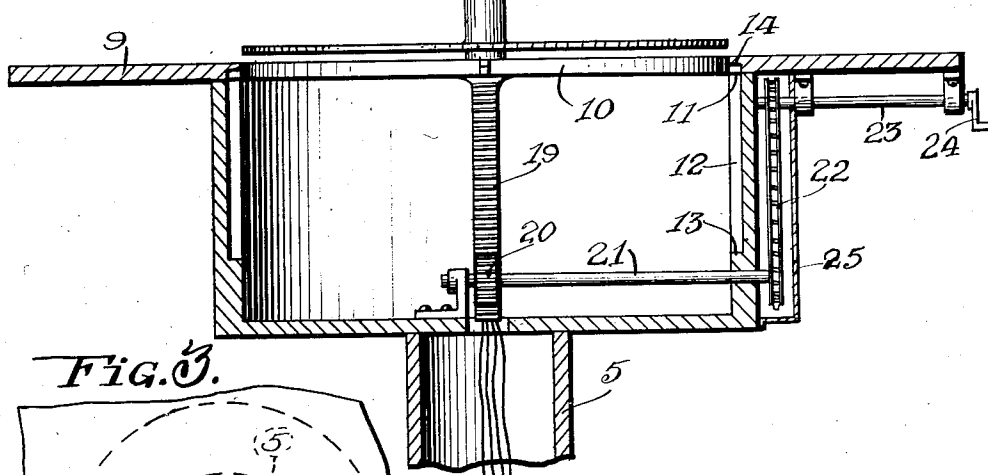
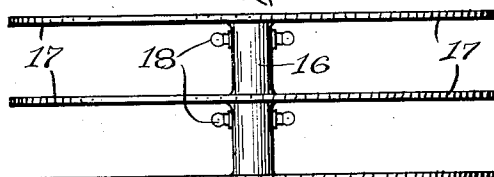
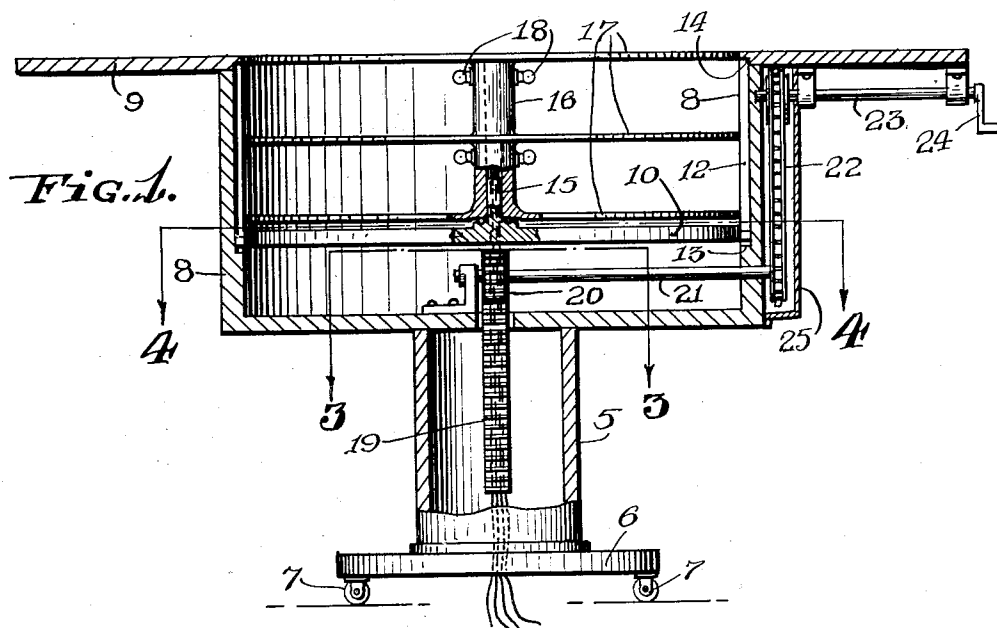
1,676,108

J. NOVAK

CONVERTIBLE TABLE

Filed Jan. 4, 1927

2 Sheets-Sheet 1



Inventor

James Novak

By Bryant & Lowry
Attorneys

Attorney,

July 3, 1928.

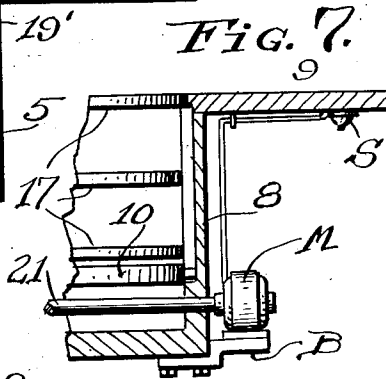
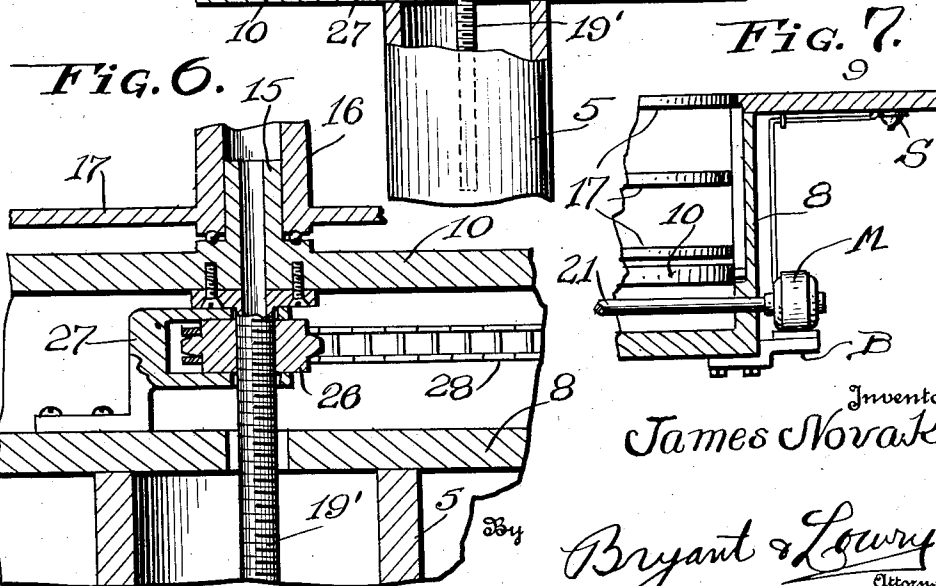
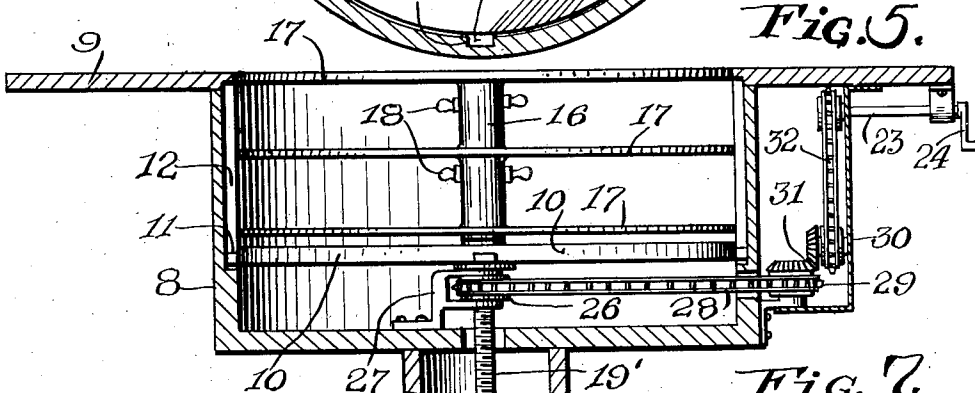
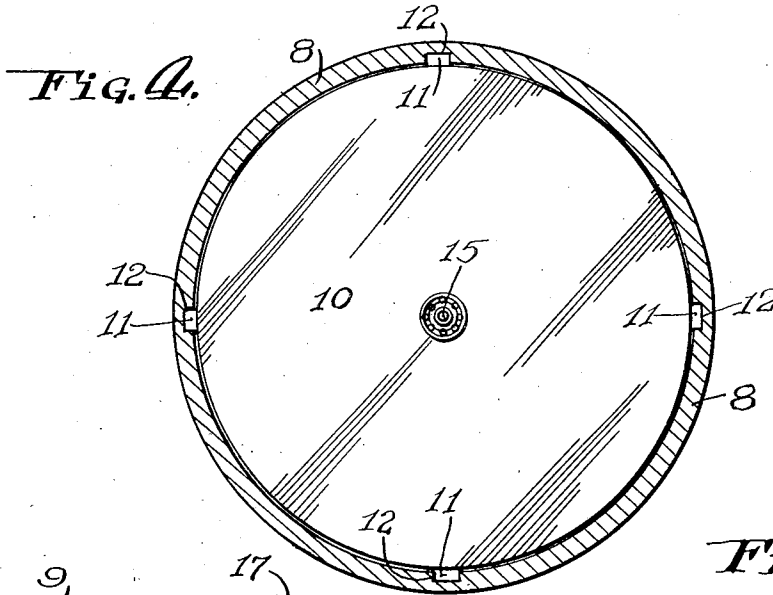
1,676,108

J. NOVAK

CONVERTIBLE TABLE

Filed Jan. 4, 1927

2 Sheets-Sheet 2



Inventor
James Novak

Bryant & Lowry
Attorneys

Patented July 3, 1928.

1,676,108

UNITED STATES PATENT OFFICE.

JAMES NOVAK, OF CLEVELAND, OHIO.

CONVERTIBLE TABLE.

Application filed January 4, 1927. Serial No. 153,871.

This invention relates to certain new and useful improvements in convertible tables, and has more particular reference to an improved table adapted to be readily converted for use either as a conventional flat top table, or as a self-waiting dining table, as desired.

The primary object of the invention is to provide a convertible table of the above kind which is extremely simple and durable in construction as well as efficient in operation.

A more specific object is to provide a table of the above kind embodying a central open top compartment or receptacle, a border table top section rigidly mounted at its inner margin upon the top of said compartment or receptacle and having a central opening registering with the top opening of said compartment or receptacle. A vertically movable support adapted to be manually lowered into the compartment or receptacle or to be raised for closing the central opening of the border table top section and temporarily act as a central table top section, and a multiple shelf dish carrier rotatably mounted upon a support so as to be raised to an exposed operative position when the support is elevated and to be lowered within the compartment or receptacle when the support is lowered, the upper shelf of the dish carrier adapted to act as a central or closure table top section for producing, together with the border table top section, a flat top table when said support is lowered.

A still further object is to provide improved means for guiding the dish carrier support in its vertical movement while at the same time restraining it from turning or being excessively raised or lowered.

Another object is to provide a table of the above kind wherein the dish carrier may embody a plurality of rigidly connected superimposed shelves of similar diameter, in view of efficient arrangement of the eliminating means for said shelves, thus ensuring maximum capacity for the dish carrier.

Other objects will appear as the nature of the invention is better understood, and the same consists in the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawings and claimed.

In the drawings, wherein like reference characters indicate corresponding parts throughout the several views,

Figure 1 is a view, partly in elevation, and

partly in central vertical section, of a convertible table constructed in accordance with the present invention, the parts being positioned to provide a flat top table;

Figure 2 is a fragmentary view somewhat similar to Figure 1 illustrating the dish carrier and its support raised to provide a self-waiting dining table;

Figure 3 is a fragmentary horizontal section taken substantially upon line 3—3 of Figure 1;

Figure 4 is a horizontal section taken substantially upon line 4—4 of Figure 1;

Figure 5 is a view somewhat similar to Figure 2 with the dish carrier and support lowered, and illustrating a modified form of means for manually raising and lowering said dish carrier support;

Figure 6 is an enlarged fragmentary vertical section showing details of the device shown in Figure 5; and

Figure 7 is a fragmentary vertical section illustrating a modification of the invention broadly disclosed in Figs. 1 to 6 inclusive.

Referring more in detail to the drawings, the present invention preferably embodies a hollow pedestal 5 suitably mounted upon a supporting base such as a base plate 6 equipped with caster wheels 7 for facilitating movement of the table from one point to another. Rigidly and centrally or concentrically mounted upon the pedal 6 is a compartment or receptacle 8 which is open at its top and preferably of circular form as shown in Figure 4. Rigidly mounted upon the upper edge of the receptacle 8 at its inner margin is a border table top section 9 of continuous form, said section 9 having a central opening registering with the top opening of the receptacle 8 and substantially conforming to the internal diameter of the latter. Slidably fitted and vertically movable in the receptacle 8 is a supporting disk or plate 10 having a plurality of equally spaced and outwardly projecting radial guide lugs 11 vertically movable in correspondingly arranged guide grooves 12 provided interiorly of the receptacle 8 so as to extend from a point spaced above the bottom of the latter to the top thereof. Thus, the support 10 is allowed limited vertical movement and at the same time restrained against turning relative to the receptacle 8, shoulders being presented as at 13 and 14 at the opposite ends of the vertical guide grooves 12 for limiting the movement of the

support 10 to a position wherein the same is spaced above the bottom of receptacle 8 as shown in Figure 1, or to a position wherein the support 10 closes the opening in the border table top section 9 and acts as a temporary central table top section as shown in Figure 2. The supporting disk or plate 10 is provided with a central up-standing pintle or post 15 upon which is rotatably mounted a circular dish carrier including a central hub 16 receiving the pintle 15 and rigidly carrying a plurality of spaced superimposed dish-supporting shelves 17 of a diameter corresponding to the diameter of the supporting plate 10 and the opening in the border table top section 9. This dish carrier is of such height that when the supporting plate 10 is in its lowermost position, the uppermost shelf 17 will be positioned to close the opening of the table top section 9 and act as a central table top section, cooperating at that time with the section 9 to form a conventional flat top table. It will also be apparent, in view of the above, that when the supporting plate 10 is raised the dish carrier will be exposed to view above the plane of the table top so as to be readily operatively employed as a rotatable dish carrier in the usual well known way as generally heretofore practiced in connection with self-waiting dining tables. However, by providing the shelves 17 of similar diameter and of a diameter equal to the diameter of the opening in the table top section 9, maximum capacity is insured. In order to permit such use of similar maximum sized shelves, and at the same time render the dishes readily visible without interference to access to the same, I provide illuminating means on the hub 16 between the shelves as generally indicated at 18. This illuminating means consists in equipping the hub 16 with radial lamp sockets, the feed wires for which are extended downwardly through the hub 16, supporting plate 10, a spindle depending member 19 carried by the supporting plate 10 and projecting into the pedestal 5, as well as acting as part of a mechanism for raising and lowering the plate 10 as will presently become apparent, and then passing through the lower end of the member 19 and the supporting base 6 in the form of an attachment cord adapted to be suitably extended to a source of current supply.

As shown in Figures 1 to 4 inclusive, the depending member 19 may consist of a vertical rack bar normally depending through a central opening provided in the bottom of the receptacle 8 and extending into the hollow pedestal 5, said rack bar being engaged by a pinion 20 fixed upon the inner end of a radial driven shaft 21 suitably journaled in the receptacle 8 adjacent the bottom of the latter. The shaft 21 projects

outwardly through the receptacle 8 at one side where it is operatively connected by means of a sprocket gearing 22 with the inner end of a further radial drive shaft 23 mounted upon the under side of the border table top section 9 and equipped at its outer end with a suitable operating handle or crank 24. A gear casing 25 may be attached to the side of receptacle 8 for enclosing the sprocket gearing 22. In view of this construction it will be seen that upon manually rotating the drive shaft, 23 the pinion may be rotated in one direction for cooperating with rack bar 19 to effect raising of the supporting plate 10 and the dish carrier mounted thereon, or for lowering the supporting plate 10 and dish carrier, the direction of movement of the supporting plate 10 depending upon the direction of rotation of the shaft 23.

The construction shown in Figures 5 and 6 is substantially the same as that shown in the remaining figures except that the depending member 19' is in the nature of an adjusting screw rigid with the supporting plate 10 and engaged by the externally threaded hub of a sprocket wheel 26 which is horizontally positioned and journaled between the overlying arms of a bracket 27 fixed upon the bottom of receptacle 8 so as to be restrained against vertical movement. The sprocket wheel 26 is operatively connected by a radially arranged sprocket chain 28 with a sprocket wheel 29 suitably journaled upon a stub shaft carried by the gear casing 30 rigidly mounted under the table top section 9 at one side of the receptacle 8, the chain 28 projecting outwardly through the side of the receptacle 8 as shown. The sprocket wheel 29 is in turn operatively connected to the manually operative drive shaft 23 by means of a bevel gearing 31 and a sprocket gearing 32, so that upon manually turning the shaft 23 the vertical adjustment of the supporting plate 10 may be effected as described above in connection with the structure of Figures 1 to 4 inclusive. In other words, turning of the sprocket wheel 26 in one direction will cause upward movement of screw 19', while turning of the sprocket wheel 26 in the other direction will effect lowering thereof.

In practice, the supporting plate 10 and dish carrier mounted thereon are elevated when the article of furniture is adapted for use as a self-waiting dining table. Thus, with the parts arranged as shown in Figure 2 persons seated about the table with personal faith upon the border table top section 9, may readily reach the dish carrier for turning it so as to bring the desired dish of food within convenient reach. The raising of the supporting plate 10 may be effectively accomplished by manipulation of the hand crank 24 at the edge of the table

top, and by reason of the plate 10 closing the opening of the table top section 9, articles and foreign matter will be prevented from falling into the receptacle 8. When requiring a conventional flat top table, the hand crank 24 may be manipulated so as to lower the parts until the plate 10 and the lower ones of the shelves 17 disappear or are hidden from view in the receptacle 8. At this time, the uppermost shelf 17 acts as a central table top section and cooperates with the section 9 for producing a flat top table of neat appearance.

From the foregoing description it is believed that the construction and operation as well as the advantages of the present invention will be readily understood and appreciated by those skilled in the art.

Minor changes may be made without departing from the spirit and scope of the invention as claimed.

Obviously, a motor may be used to actuate the shaft 21 or the horizontal shaft of the bevel gearing 31, thus doing away with the hand crank 24 and its connection with either shaft. As shown in Fig. 7, this may be done by using an electric motor M to directly drive the shaft, the motor being mounted on a bracket B carried by the receptacle 8 and controlled by a switch S mounted on the underside of the table top section 9 near the outer edge of the latter for convenient access.

What I claim as new is:—

1. A convertible flat-top and self-waiting table including a supporting structure, an open-top receptacle rigidly mounted thereon, a border table top section rigidly mounted on said receptacle and having a central opening registered with the open top of said receptacle, a supporting plate slidably fitted in the receptacle for vertical movement therein and adapted to close the opening of the border table top section when raised, means operable to raise and lower said supporting plate, and a multiple-shelf plate carrier rotatably mounted on said supporting plate and embodying an upper shelf adapted to close the opening of the border table top section when the supporting plate is lowered, said plate carrier embodying a hub having a plurality of spaced superposed shelves of similar size rigid therewith and each shelf being of a size to close the table top opening when aligned therewith.

2. A convertible flat-top and self-waiting table including a supporting structure, an open-top receptacle rigidly mounted thereon, a border table top section rigidly mounted on said receptacle and having a central opening registered with the open top of said receptacle, a supporting plate slidably fitted in the receptacle for vertical movement therein and adapted to close the opening of the border table top section when

raised, means operable to raise and lower said supporting plate, a multiple-shelf plate carrier rotatably mounted on said supporting plate and embodying an upper shelf adapted to close the opening of the border table top section when the supporting plate is lowered, said plate carrier embodying a hub having a plurality of spaced superposed shelves of similar size rigid therewith and spaced from each other, said receptacle having vertical internal guide grooves, and radial marginal guide lugs on the supporting plate slidably engaged in said grooves.

3. A convertible flat-top and self waiting table including a supporting structure, an open-top receptacle rigidly mounted thereon, a border table top section rigidly mounted on said receptacle and having a central opening registered with the open top of said receptacle, a supporting plate slidably fitted in the receptacle for vertical movement therein and adapted to close the opening of the border table top section when raised, means operable to raise and lower said supporting plate, a multiple-shelf plate carrier rotatably mounted on said supporting plate and embodying an upper shelf adapted to close the opening of the border table top section when the supporting plate is lowered, said plate carrier embodying a hub having a plurality of spaced superposed shelves of similar size rigid therewith, said raising and lowering means for the supporting plate embodying a depending member rigid with the latter and normally projecting through the bottom of the receptacle into said supporting structure, a rotatable element in the receptacle operable for effecting reciprocation of said depending member, said rotatable element embodying an internally threaded gear, said depending member embodying an adjusting screw on which said gear is threaded, and a bracket on the bottom of the receptacle having said gear journaled therein, said bracket restraining the gear from vertical movements.

4. A convertible flat-top and self waiting table including a supporting structure, an open-top receptacle rigidly mounted thereon, a border table top section rigidly mounted on said receptacle, and having a central opening registering with the open top of said receptacle, a supporting plate slidably fitted in the receptacle for vertical movement therein and adapted to close the opening of the border table top section when raised, means operable to raise and lower said supporting plate, a multiple-shelf plate carrier rotatably mounted on said supporting plate and embodying an upper shelf adapted to close the opening of the border table top section when the supporting plate is lowered, said plate carrier embodying a hub having a plurality of spaced superposed shelves of similar size rigid therewith, said

raising and lowering means for the supporting plate embodying a depending member rigid with the latter and normally projecting through the bottom of the receptacle into said supporting structure, and a rotatable element in the receptacle operable for effecting reciprocation of said depending member, a power transmission element operatively connected to said rotatable element and disposed radially of and in the bottom of said receptacle as well as projecting outwardly through the side of the receptacle, a drive shaft journaled radially of and directly beneath the border table top section in a plane above said power transmission element, and an operative connection between the outer end of the power transmission element and the inner end of said drive shaft. 15

In testimony whereof I affix my signature.

JAMES NOVAK.