April 7, 1953 M. K. JONES 2,634,406

ELECTRICALLY OPERATED MENU

Filed April 13, 1949 2 SHEETS--SHEET 1

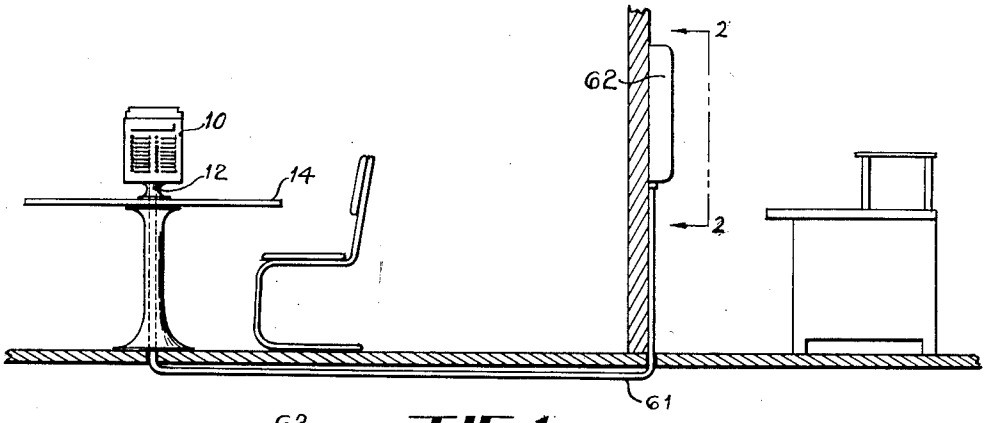


FIG. 1

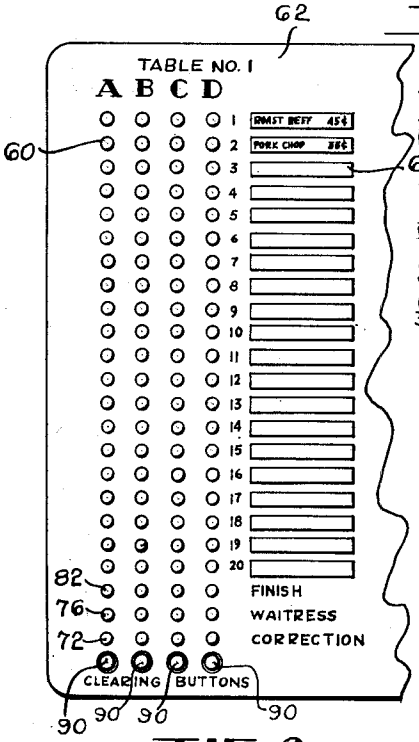


FIG. 2

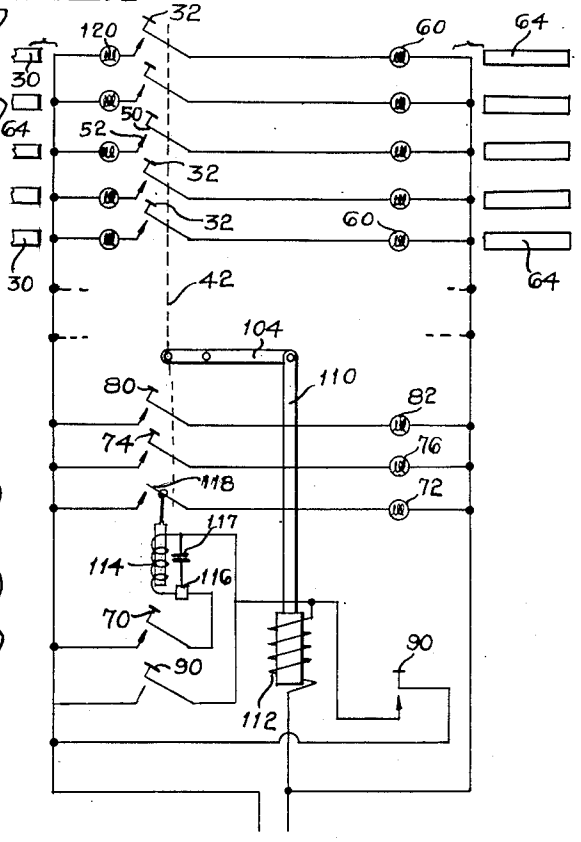


FIG. 6

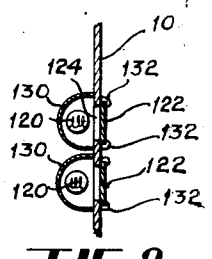


FIG. 8

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ELECTRICALLY OPERATED MENU

Filed April 13, 1949 2 SHEETS—SHEET 2

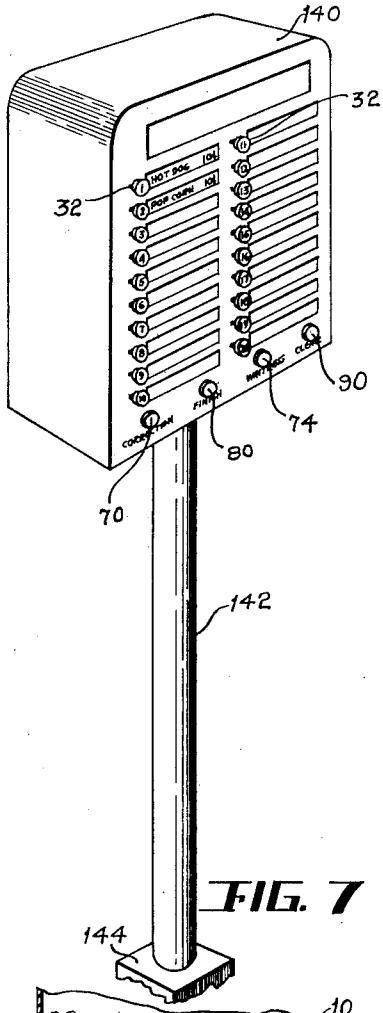


FIG. 7

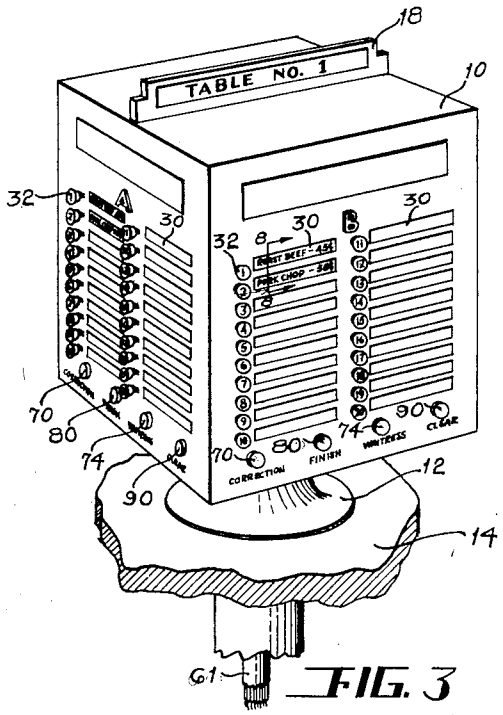


FIG. 3

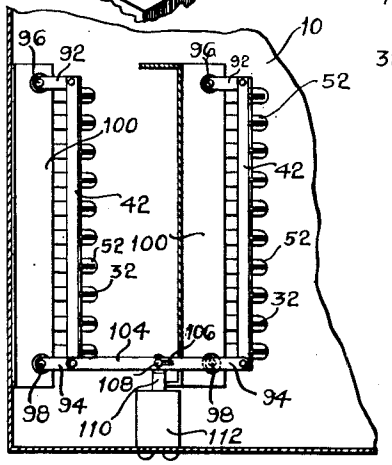


FIG. 5

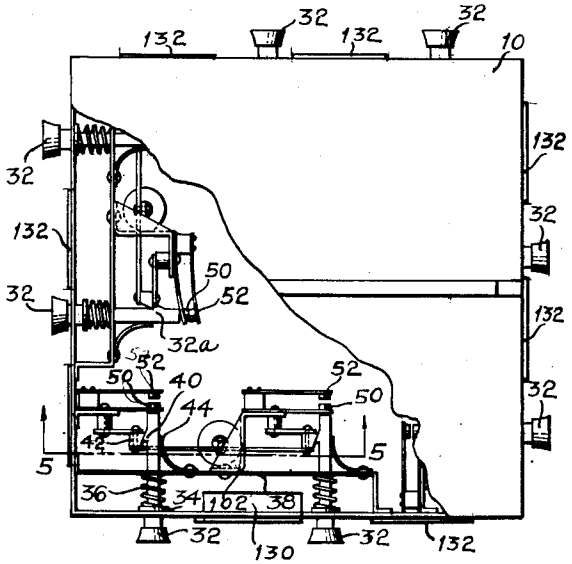


FIG. 4

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UNITED STATES PATENT OFFICE

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ELECTRICALLY OPERATED MENU

Mary Katherine Jones, Louisville, Ky.

Application April 13, 1949, Serial No. 87,297

2 Claims. (Cl. 340—286)

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This invention relates to an electrically operated menu for use in ordering food, beverages, refreshments and the like from a remote source of supply.

This application is a continuation-in-part of my copending application Serial No. 46,801, filed August 30, 1948, for Electrically Operated Menu, now abandoned.

An object of this invention is to provide electric means for ordering foods, beverages, refreshments and the like from a remotely located source of supply without the necessity of a waiter or an attendant calling upon the customer to take the order. The menu may be prepared and posted upon or within a housing provided with a plurality of push buttons, one registering with each item on the menu, this housing being located on the table or in close proximity to the customer, so that it is merely necessary for the customer to actuate the push buttons associated with the items which the customer desires to order, the order being relayed through suitable conductors to a suitable panel in the kitchen or at the source of supply, so that as each selected push button is actuated, corresponding lights are illuminated at the panel to indicate to the chef or the waiter the items ordered. Thereby, the service is hastened, in that it is not necessary for the customer to wait for the waiter or waitress to come to take the order and for waitress to relay the order to the kitchen. Furthermore, this system reduces the chances of error, in that the selected items on the menu, as selected by the customer, are accurately displayed on the panel, thereby eliminating the error of misunderstanding as to what the customer has ordered and eliminating the error that may creep in due to cerelessness in writing the order or calling the order, as the case may be. The housing containing the push buttons and the menu may be positioned on the table, or it may be erected upon a standard in the vicinity of the table or the counter, or it may be erected adjacent an automobile parked in a drive-in theater or at an eating establishment having curb service, sometimes referred to as a drive-in restaurant.

Other objects and advantages reside in the construction of parts, the combination thereof and the mode of operation, as will become more apparent from the following description.

In the drawings,

Figure 1 is a diagrammatic view disclosing the electrically operated menu and a side view of the panel in the kitchen.

Figure 2 is an enlarged, fragmentary, front

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elevational view, looking in the direction of the arrows 2—2 in Figure 1.

Figure 3 is an enlarged, perspective view of the electrically operated menu positioned on a table.

Figure 4 is a top plan view of the unit shown in Figure 3, with parts broken away.

Figure 5 is a cross sectional view taken substantially on the line 5—5 of Figure 4.

Figure 6 is a schematic wiring diagram.

Figure 7 is a perspective view of a modification adapted for use in drive-in theaters, drive-in restaurants and the like.

Figure 8 is a fragmentary, enlarged, cross sectional view taken substantially on the line 8—8 of Figure 3.

Referring to the drawings, the reference character 10 indicates a unit including a housing or a casing supported upon a pedestal 12 mounted on a table or a counter 14. On top of the casing 10 is mounted an identification sign 18, for example, the number of the table, or, in the case of drive-in service, it might be the number of the stall. Each of the vertical sides is provided with a plurality of spaces or menu items 30, adapted to indicate the menu. Push buttons 32 are aligned with the spaces for the items of the menu, so that the customer may actuate the push buttons registering with the items that he selects. If there are four places at the table, the casing 10 may be provided with four menus and four sets of push buttons, so that each customer may indicate his choice.

As best seen in Figure 4, each push button 32 is provided with a collar 34 abutting a compression spring 36 pressing against a partition 38. The partition 38 is provided with a plurality of apertures, one for each push button on a side. As the push button is pressed inwardly, it is biased slightly to the side by an angularly disposed projection 40 engaging a retaining bar 42. A leaf spring 44 urges the push button towards the retaining bar 42. As soon as the projection 40 clears the retaining bar 42, the leaf spring 44 snaps the upper end of the push button towards the left, as viewed in the lower portion of Figure 4, causing the push button to be locked in position by a shoulder on the projection 40 engaging the retaining bar 42.

When the push button is actuated into the "in" position, as shown by the push button 32a in Figure 4, the switch contacts 50 and 52 are closed, so as to close an electric circuit, energizing a corresponding light 60 on another unit including the panel 62 located in the kitchen or the source of supply. A suitable electrical cable 61 extends

from the table 14 to the lights 60 in the kitchen. The lights 60 are arranged in rows that, for convenience, have been labelled A, B, C and D, corresponding to the stations A, B, C and D on the housing 10. A light 60 in each of the rows A, B, C and D registers with each of the menu items 64. The menu items 64 correspond with the menu items 30. It can readily be seen that the customer at station A at the table, by pressing push buttons 32 to select a menu, will cause lights 60 in row A on panel 62 to be illuminated opposite the selected menu items. Likewise, when the customer at station B makes his selection by pressing the selected push buttons 32, this will cause lights in row B on panel 62 to be illuminated.

A customer, in placing his order, may find some item on the menu that may cause him to change his selections. If so, it is then merely necessary for the customer to press a "Correction" button 70, which releases all of the push buttons that he has actuated, so as to allow him to change his order by ordering all of the items anew. The mechanism for releasing the push buttons will be described more fully later. When the customer presses the "Correction" button 70, a light 72 is energized on the panel 62 which directs the attention of the employees in the kitchen to the fact that customer A at Table No. 1, or whichever customer it may happen to be, has changed his mind and his order.

A customer may wish for the services of a waitress. In order to attract attention, the customer may actuate "Waitress" push button 74, illuminating a light 76 on the panel 62 in the kitchen, or in any other suitable location. When the customer has finished a course and is ready for another course, he may push a "Finish" button 80, illuminating a light 82 on the panel 62 in the kitchen. This calls the waitress's attention to the fact that the customer is finished and is ready for the next course. After the customer is finished with the meal, the bus boy or bus girl, as the case may be, when clearing the table, may press the "Clearing" buttons 90, either at the table or in the kitchen, releasing all of the push buttons, so as to cause all of the lights for that particular station on the panel 62 to be deenergized. The releasing mechanism will now be described.

Referring to Figures 4 and 5, the retaining bars 42 are mounted upon a pair of links 92 and 94 pivotally attached at 96 and 98 to an angle bar 100 or to a bracket 102. A cross bar 104, fixedly attached to the lower end of the retaining bars 42 for the particular station, is used for the two rows of push buttons. The center part of the cross bar 104 is provided with a slot 106 receiving a pin 108 fixedly attached to an armature 110 of an electromagnet 112. The circuit through the electromagnet 112 is energized whenever the "Clearing" button 90 is closed. The electromagnet 112, by actuating the armature 110 downwardly, as viewed in Figure 5, causes the two retaining bars 42 to travel downwardly and to the left, as viewed in Figure 5, by virtue of the fact that the links 92 and 94 are pivoted upon fixed pivots 96 and 98, so as to cause the retaining bars 42 to move out of engagement with all of the projections 40 on the two rows of push buttons 32 located at one station, thereby resetting the electrically operated menu to its initial position.

When the "Correction" button 70 is actuated, the relay 112 is again energized, so as to actuate the armature 110 downwardly, as shown schematically in Figure 6 and as shown in the cross sectional view in Figure 5, so as to release all of the switches 32. As may be clearly seen in Figure 6, a relay 114 and a time-delay unit 116, including a condenser 117, is connected in series with a switch controlled by the "Correction" button 70 and the electromagnet 112. As the relay 114 is energized, it will close the switch 118, causing the light 72 to be illuminated in the kitchen or at the source of supply, as the case may be. Then, upon releasing the button 70, which is not locked in position by the bar 42, the electromagnet 112 will be deenergized; but the relay 114 will be supplied with energy from the time-delay unit 116, including the condenser 117, so as to hold the switch 118 in closed position until it can be locked in position by the retaining bar 42 snapping into the home position shown in Figure 5. Thus, the light 72 will continue to be illuminated after the push button 70 has been released.

It is preferable to have a small light 120, shown in the schematic wiring diagram in Figure 6, adjacent each item or to the rear of each item 30 at each of the stations at the table, so that in the event a customer orders a "Pork Chop" and pushes in the button registering with the item "Pork Chop," this item is illuminated, to indicate to the customer that the push button for "Pork Chop" has been actuated and that he has ordered this item.

As may best be seen by referring to Figure 8, the items 30 of the menu may be printed upon a translucent strip of record material 122 in such a manner that each of the items 30 on the menu registers with its slot 124 in the side wall of the casing 10. To the rear of each item 30 the light 120 may be mounted in a suitable opaque shield 130 underlying an item 30, so that when the push button is actuated, the light 120 will illuminate that portion of the menu shown on the record material 122 containing the selected item. The record material 122 may be held in position by members 132. The menu may be changed by sliding the record material members 122 endwise to clear members 132 and another member 122 substituted therefor. Any other suitable arrangement for displaying the menu in proper registry with the push buttons 32 may be used.

Referring to the modification disclosed in Figure 7, the casing 140 supporting the push buttons 32 associated with the items that may be selected is mounted upon a standard 142 that may be mounted in a concrete footing 144 adjacent an automobile parked in a stall in a drive-in theater, in a drive-in restaurant or a concession provided with drive-in service. It can readily be seen that a customer may place his order at a station without the necessity of a waitress taking the order. The items ordered are displayed by means of suitable signals in the kitchen or the source of supply, so that it is merely necessary for the waitress to carry the items ordered from the kitchen or the source of supply to the station where the food or beverage is to be served.

In the event this electrically operated menu is used in a drive-in theater, the standard 142 may also function as a support for the loud speaker for use in the automobile.

Although the preferred embodiment of the device has been described, it will be understood that within the purview of this invention various changes may be made in the form, details, proportion and arrangement of parts, the combina-

tion thereof and mode of operation, which generally stated consist in a device capable of carrying out the objects set forth, as disclosed and defined in the appended claims.

Having thus described my invention, I claim:

1. An electrically operated menu including a unit mounted in the proximity of a customer, said unit having a plurality of push buttons and a plurality of menu items mounted in registry with the push buttons, a plurality of electric light bulbs, one mounted to the rear of each menu item, a second unit mounted in the kitchen or at the source of supply, said second unit being provided with a plurality of signalling means and a plurality of menu items corresponding with the menu items on the first unit, said signalling means being mounted in registry with the menu items on the second unit, and electric circuit means for remotely controlling the signalling means on the second unit by actuating push buttons on the first unit, said electric circuit means including a plurality of electric circuits there being at least one circuit for each of said electric light bulbs so that as the customer makes selections from the menu items by actuating the corresponding push buttons the electric light bulbs to the rear of the selected menu items are illuminated and the signalling means on the second unit indicate the selected menu items, said electric circuit means including means for holding each of the circuits for the selected menu items closed, and means responsive to one of the push buttons for permitting correction by clearing the selection of menu items, said one push button actuating the signalling means in the kitchen responsive to the clearing means for indicating that a reorder has been made, and means controlled from the second unit for resetting the electrically operated menu in readiness for another customer.

2. An electrically operated menu including a unit mounted in the proximity of a customer, said unit having a plurality of push buttons and a plurality of menu items mounted in registry with the push buttons, a plurality of electric light bulbs, one mounted to the rear of each menu item, a second unit mounted in the kitchen or at the source of supply, said second unit being provided with a plurality of signalling means and a

plurality of menu items corresponding with the menu items on the first unit, said signalling means being mounted in registry with the menu items on the second unit, and electric circuit means for remotely controlling the signalling means on the second unit by actuating push buttons on the first unit, said electric circuit means including a plurality of electric circuits there being at least one circuit for each of said electric light bulbs so that as the customer makes selections from the menu items by actuating the corresponding push buttons the electric light bulbs to the rear of the selected menu items are illuminated and the signalling means on the second unit indicate the selected menu items, said electric circuit means including means for holding each of the circuits for the selected menu items closed, means responsive to one of the push buttons for clearing the selection of menu items, said last mentioned means including an electromagnet for resetting both units, a relay circuit for actuating one of the signalling means in the kitchen for indicating a clearance and a new selection made by the customer, and independent means controlled from the second unit for resetting the electrically operated menu in readiness for another customer.

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