Oct. 17, 1939 H. L. GREENE ET AL 2,176,794

SIGNALING DEVICE

Filed July 29, 1936

FIG. 5

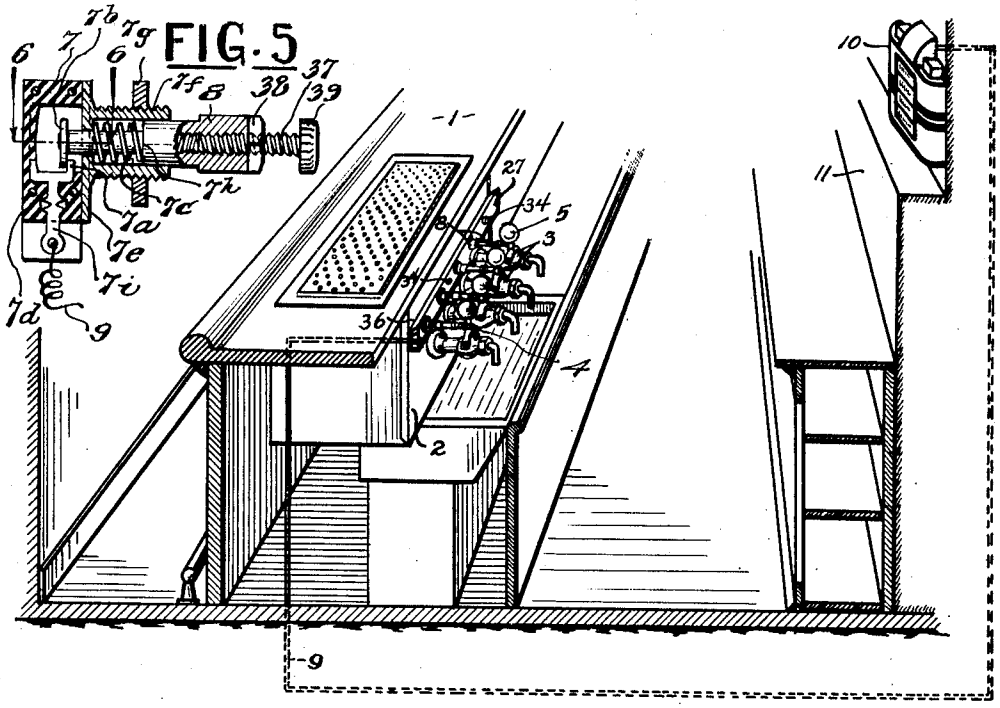


FIG. 1

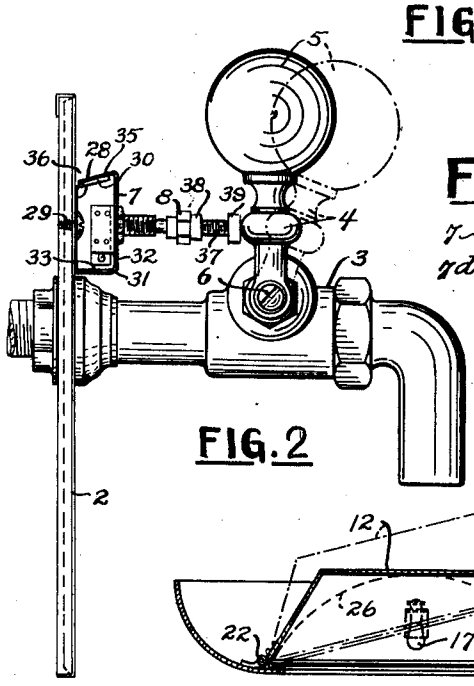


FIG. 2

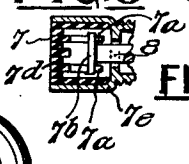


FIG. 6

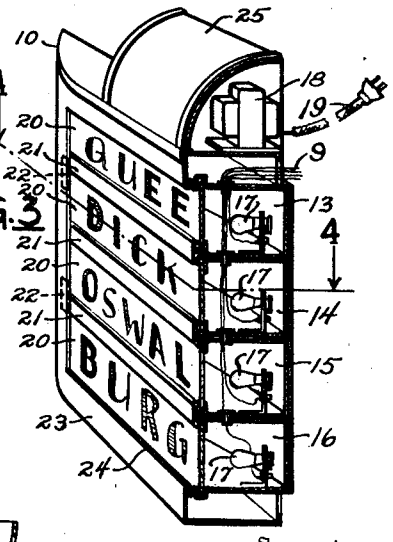


FIG. 3

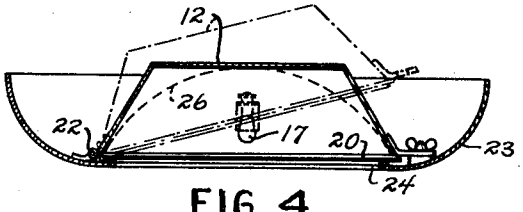


FIG. 4

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SIGNALING DEVICE

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2 Claims. (Cl. 200—53)

This invention relates to indicators or signal devices, and more particularly to an indicator system for dispensing apparatus by which liquid beverages, such as beer and the like, are drawn. The invention additionally constitutes an improved advertising display system, and while it is endowed with a more or less general utility, the following description will be principally confined to its preferred application to beer bars, by way of example.

Heretofore, it has been the common practice to rely upon the honesty and sincerity of the bartender or other attendant to supply the customer the particular brand of beer or other beverage which is ordered by the customer, and not infrequently the wrong brand is drawn, purposely or through a bona fide mistake. The usual bar equipment includes a plurality of faucets or spigots arranged side-by-side behind the bar or counter, each faucet supplying a type or brand of beer different from those of the other faucets. Normally, the faucets are not labeled or otherwise identified for the convenience of either the bartender or the customer, so it has been necessary for the former to continuously keep in mind the particular order and arrangement of the faucets for the different brands. Obviously, this frequently leads to confusion, especially where quite a few different brands are dispensed at the same bar, and particularly during rush periods when a number of customers are being served in rapid order.

It has recently come to be recognized that the above mentioned standard equipment is inadequate and more or less unfair to the customer from the standpoint of assuring the customer that his order is being filled correctly. Accordingly, bars are lately being equipped with means for identifying the particular brands of beverages which are available at the bar, the identifying means generally being in the form of a label applied to the faucet, and designating the particular brand of beverage which is to be dispensed by that faucet. As a convenient method of labeling the faucets, the labels or other identifying indicia are applied directly to the knob or ball-shaped extremity of the usual valve operating handle which forms a part of each faucet. In other words, the old plain knobs are removed, and in their place, new knobs are substituted, the new knobs bearing the name of the brand of beverage which is to be drawn from that faucet. In some localities, ordinances have actually been passed requiring or approving the means of identifying the brands of beverages in the manner just described. However, it should be quite obvious that this method of identifying the faucets is little better than the old practice without any identification of the faucets at all. In the first place, a customer, even though he may be standing at the bar, but a few feet to one side of that part of the bar where the faucets are located, cannot readily see the faucets, and consequently, cannot tell what the label on the faucets is. In the second place, if the identification is applied to the knob of the valve-operating handle of the faucet, it cannot be seen readily due to the fact that it is covered by the bartender's hand during the drawing of the beverage.

One of the primary objects of the present invention is to overcome the aforementioned difficulties and objections, and particularly, to provide a suitable beverage indicator or identifying system which may be readily applied to present standard equipment without any substitution of parts, and with little if any changes in the entire bar set-up. To this end, we have provided an electrical display sign which is preferably controlled directly in response to the actuation of the usual valve-operating handle of a standard beverage faucet, and without requiring any change whatsoever in the construction of the standard faucet.

Another object of the invention is to provide for positive protection of the switch means which forms a part of our indicating system, against short-circuiting by accidental spilling or splashing of the beverage or other fluids thereon, thereby insuring against the collection of the beverage on the switch parts, which collection would otherwise soon become sour and create an offensive odor. To this end, we have provided an improved type of molding which forms a housing for the separate switch means associated with each faucet, the molding extending across the face of the apron behind the bar and housing the portions of the electrical conductors which lead from the display sign to the various switch means. This molding not only serves to prevent the beverage and other foreign matter from gaining access to the switch means, but also serves to collect any fluid which may be spilled onto the upper portion of the apron, and prevents the fluid from running down the apron onto the floor. The molding can be readily applied to the usual apron or vertical panel behind the bar, from which the faucets extend, and it not only enhances the attractiveness of the apron, but it can be kept clean with a minimum of effort, thereby

contributing materially to the sanitary requirements which are so much to be desired.

A still further object of the invention is to provide an improved illuminated display sign which permits of convenient change of the advertising displays, as where the beverage brands are changed from time to time. Accordingly, our indicating system may be adapted to use for any combination or combinations of beverage brands, as desired, without necessitating any modification in the general characteristics of the system.

Other objects and advantages of the invention will be hereinafter described and the novel features thereof defined by the appended claims.

In the drawing:

Figure 1 is a perspective view of a typical bar installation to which our invention has been applied;

Figure 2 is an enlarged detail view in side elevation, showing one of the dispensing faucets and associated switch means controlled by the valve-operating handle of the faucet, and also showing the molding which is mounted on the bar apron or panel and enclosing the switch means;

Figure 3 is an enlarged fragmentary perspective view of the illuminated display unit which is controlled by the switch means associated with the faucet, and which forms a part of our improved indicator system;

Figure 4 is a sectional view, taken through the display unit of Figure 3 on a plane indicated by the lines 4—4 of Figure 3;

Figure 5 is an enlarged, detailed, sectional view of one of the switch means which is controlled by the valve operating handle of the faucet; and

Figure 6 is a fragmentary, sectional view taken approximately on the line 6—6 of Figure 5.

Like reference characters designate corresponding parts in the several figures of the drawing.

In Figure 1, 1 designates the usual bar counter which is provided with the conventional standard dispensing equipment generally embodying an apron or panel 2, depending below the bar counter at the rear thereof, and on which a plurality of faucets 3 are mounted. While only four faucets have been shown in Figure 1, it is to be understood that the number of faucets may be varied as desired.

The faucets are of standard construction, and each includes a valve-operating handle 4 which is provided at its upper extremity with a knob or ball 5, which may be conveniently grasped to shift the handle rearwardly and forwardly about the pivotal axis 6, that is, to and from a position closing the valve, in the usual manner. When the valve is closed, the handle 4 is vertically disposed, or substantially so, and to open the valve to draw the beverage through the faucet, the handle is shifted rearwardly, as best seen in Figure 2.

According to our invention, we mount, preferably on the apron or panel 2, a plurality of switch means, generally designated 7, in proximity to the faucets, there being one such switch means for each faucet. The switch means are preferably of the self-closing type and may be of any suitable construction, such as has been shown herein by way of illustration. As best seen in Figures 5 and 6, each switch means includes a pair of stationary contacts 7*a*, 7*a*, and a movable contact plate or bridge 7*b*, which, when engaged across the contacts 7*a*, 7*a*, closes an electrical circuit which includes a lamp which forms a part of an illuminated display sign, which will hereinafter be more particularly described. Extending rearwardly from the switch means 7 and operatively connected with the movable contact 7*b* of the switch means, as by mounting the contact 7*b* on the front end thereof, is a shiftable plunger 8, the rearward extremity of which is normally disposed in the path of the valve-operating handle 4 so as to be engaged thereby as the handle is shifted from the valve-opening position, shown in broken lines in Figure 2, to the valve closed position, shown in full lines. That is to say, the handle 4 abuts against the end of the plunger 8 before the handle reaches the valve closed or upright position, and as the movement of the handle is continued to the position fully closing the valve of the faucet, the plunger 8 is shifted forwardly, thereby causing the electrical contacts of the switch means 7 to open, breaking the electrical circuit to the lamp of the display sign. By reason of this particular arrangement just described, no modification whatsoever of the standard faucet 3 or valve operating handle 4 is required. As the handle 4 is shifted rearwardly to a position opening the faucet valve, the plunger 8 is yieldably urged rearwardly by the spring 7*c* for a limited distance, in the nature of a self-closing action of the switch means 7, thereby permitting the aforementioned electrical contacts to close whenever beverage is being drawn from the faucet. On the return movement of the valve-operating handle 4, the handle abuts against the end of the plunger 7 as it approaches the end of the valve-closing movement, thereby actuating the switch means 7 through the plunger 8 to break the electrical circuit in the manner just described. The contacts 7*a*, 7*a* are mounted in a casing 7*d* of insulating material, which in turn is embraced within a metal housing or frame 7*e*, the rear face of which is provided with an externally threaded sleeve 7*f* adapted to extend through a suitable support. A nut 7*g* serves to clamp the switch unit tightly against the support. The sleeve 7*f* acts as a guide for the plunger 8, the forward end of the latter passing completely therethrough and into the casing 7*d*. The spring 7*c* is mounted within the sleeve 7*f* and encircles the plunger 8, which is reduced in size at its forward end to provide the annular shoulder 7*h* against which the rear end of the spring bears. The forward end of the spring bears against the rear face of the casing 7*e*.

The contacts 7*a*, 7*a* of the various switch means 7 have terminal members 7*i* extending therefrom which are connected to suitable conductors 9 which are more or less diagrammatically illustrated in Figure 1, the conductors leading to a display sign unit generally designated 10. The unit 10 is preferably mounted on the back bar 11, or at some other convenient place near the bar 1, where it can be readily observed by the cutomers. This unit includes a frame 12 having a plurality of compartments 13, 14, 15 and 16 therein, the number of compartments corresponding to the number of faucets 3 and switch means 7. Mounted in each compartment is a lamp 17, which derives its energy from a suitable power source such as an ordinary service outlet of the electrical system of the building in which the bar is located. Preferably, the lamps 17 are of the low voltage type of, say, six to eight volts, and to step down the voltage from

the conventional one hundred and ten volts of the usual service system, we provide a transformer 18, which is adapted to be connected to the service outlet by the extension cord 19. The lamps 17 and the switch means 7 are connected in circuit with the low voltage side of the transformer 18 so that the operation of each of the switch means 7 will control one of the lamps, as will be obvious to those skilled in the art.

Slidably mounted across the front face of each of the compartments 13 of the display unit 10, is a sign member 20, which bears suitable indicia related to the beverages dispensed from the faucets 3, as for example, the trade-name of the brand of beverage. Preferably, these sign members have the form of glass panels on which the name of the beverage is depicted in translucent letters on an opaque field. The frame 12 which forms the compartments 13, 14, 15 and 16, is provided with suitable channels or grooves in which the panels or sign members 20 are adapted to be received, and the different panels are held in place by removable separator strips 21, which are generally T-shape in cross section, as can best be seen from reference to Figure 3. Preferably, those edge portions of the panel 20 which are received in the channels or grooves, are encased in metal mouldings to prevent mutilation of the signs as the same are inserted or removed. It will accordingly be obvious that the panels 20 are removably mounted so that they can be readily changed as desired, so that any particular combination or combinations of different brands of beverages may be made up or changed from time to time as required. Hingedly connected at 22—22 to the frame 12, is a cover 23 which may have any desired shape and which may be ornamented in any desired manner to afford a pleasing and attractive appearance. Preferably, the cover 23 is more or less rectangular in shape and serves to house the frame 12, as will be best understood from reference to Figures 3 and 4. The front face of the cover 23 is provided with an opening 24, the dimensions of which are approximately equal to the combined dimensions of the sign members or panels 20 so that the latter may be viewed through the opening 24. The transformer 18 is shown mounted on top of the cover 23 and is housed by a casing or housing 25 formed at the top of the cover. Of course, the shape and details of the unit 10 may be varied as desired. Also, if desired, a reflector 26 may be provided in each of the compartments 13, 14, 15 and 16 in order to clearly illuminate the sign members 20 with a minimum expenditure of electrical energy.

In order to protect the switch means 7 from becoming short-circuited through the accidental spilling or splashing of the beverage or other liquids thereon, which might otherwise tend to interfere with the operativeness of the indicator system, or create an unsanitary condition due to collection and souring of the beer on the parts of the switch means, which are more or less inaccessible and cannot be readily cleaned, we preferably provide a protecting molding, generally designated 27, which is mounted on the apron or panel 2 and serves to house all of the switch means which are associated with the faucets 3, and the adjacent end portions of the electrical conductors 9 which lead to the switch means. The construction of this molding can be best seen in Figure 2. As shown, the molding includes an angular strip 28, one face of which abuts against the rear face of the apron 2, and is held tightly against the apron by means of the screws 29. The upper edge of the strip 28 is bent rearwardly and inclines upwardly, as at 30. Enclosing the strip 28 is a channel-like strip 31, on the upright wall 32 of which is mounted the switch means 7, and through which sleeves 7f and the plungers 8 of the switch means extend. The wall 32 thus constitutes a support for the switch means and is clamped between the rear face of the casings 7e and the nuts 7g. The lower edge of the wall 32 extends substantially horizontally forwardly, as at 33, into abutting engagement with the apron or panel 2, while the upper edge of the wall 32 extends forwardly and downwardly, as at 35, at an inclination corresponding to the upper edge 30 of the strip 28. The strip 31 is suitably secured to the apron 2, as by means of screws 34. By virtue of the construction just described, the molding 27 provides a shallow trough-like ledge along its upper edge which will effectively collect any beverage or liquid which may be inadvertently spilled or splashed over the edge of the bar counter 1, thereby preventing the same from running down over the panel 2. Due to the inclined positions of the upper extremities 30 and 35 of the respective strips 28 and 31, any liquid which may collect in the shallow trough 36 formed by the upper edge of the molding 27 and the face of the apron 2, cannot gain access to the interior of the molding, because, to do so, the liquid would have to run up hill, so to speak, between the parts 30 and 35, which are more or less in close overlapping engagement. Moreover, the trough 36 can be kept clean with a minimum of effort, as by occasionally wiping the same out with a cloth. This materially contributes to the practical utility of our invention and aids in keeping the equipment in a sanitary condition.

To enable our indicator system to be more easily applied to bar installations already established, and to compensate for wear of the faucet, the rear end of the plunger 8 is preferably provided with an adjustable part designated 37, which, as seen best in Figure 2, has the form of a threaded screw which may be screwed into or out of the end of the plunger and forms a continuation thereof, whereby to permit adjustment of the effective length of the plunger. When the proper adjustment has been effected, the screw 37 may be locked in adjusted position by means of the lock nut 38. The enlarged head 39 on the outer or rear end of the screw 37 is normally disposed so as to be engaged by the valve-operating handle 4 shortly before the handle reaches the valve closed upright position, and the adjustment of the screw 37 should be such that there is sufficient shifting imparted to the plunger 8 by the handle 4 to cause the contacts of the switch means 7 to open when the handle member reaches the valve closed position.

The operation of the invention should be clearly understood from the foregoing description, and may be briefly summarized as follows. In filling an order of a customer for a particular brand of beverage or beer, the bartender or attendant grasps the knob 5 of the handle member 4 of the particular faucet 3 which is connected with the source of supply of this particular beverage. The handle member 4 is then shifted rearwardly, that is, towards the attendant, thereby drawing the handle member away from the end of the plunger 8, allowing the contacts of the switch means 7 associated with that particular faucet, to close automatically. In so closing, the contacts establish a circuit through the

conductors 9 to the lamp 17 in the particular compartment of the display unit 10, over which the particular sign member 20 which carries the indicia identifying the brand of beverage called for is disposed. This sign member is thus illuminated and being clearly visible to the customer, assures the customer that the correct brand of beverage which he ordered is being drawn. Moreover, the illumination of the sign member creates a unique and distinctive advertising display which will attract the attention of other customers, and serves to promote the advertising and sale of the beverage. When the drawing of the beverage has been completed, the handle member 4 is shifted forwardly to close the faucet valve, and as it approaches the end of the closing movement, the handle member 4 reengages the end of the plunger 8, or more specifically, the head 39 of the adjustable screw 37, and causes the plunger 8 to be shifted forwardly with the handle member 4, thereby opening the contacts of the self-closing switch means 7, and consequently breaking the circuit to the lamp 17 which was previously illuminated in the act of drawing the beverage from the faucet. As the customers call for other brands of beverage, the manipulations of the faucet handles cause the illumination of the respective sign members 20 which identify the particular brand of beverage being drawn, in such a manner that the customer is assured that he is being served with just what he ordered

While the specific details have been herein shown and described, the invention is not confined thereto, as changes and alterations may be made without departing from the spirit thereof as defined by the appended claims.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is—

1. In a beverage dispensing apparatus including the apron of a bar having a plurality of faucets arranged thereon, each faucet having a valve-operating handle movable to and from a closed position, switch means mounted on said apron, there being one switch means for each faucet, and each of said switch means including a member engageable by one of the valve-operating handles and shiftable responsive to movement of the handle to control the operation of the switch means, and a molding mounted on said apron and enclosing all of said switch means whereby to protect the latter from moisture and the like, said molding including an angular strip having one face abutting said apron and another face extending forwardly from said apron and upwardly inclined, and a substantially channel-shaped strip enclosing the first mentioned strip and having its upper face inclined corresponding to the inclined face of the first mentioned strip.

2. In a beverage dispensing apparatus including the apron of a bar having a faucet mounted thereon, said faucet having a valve-operated handle movable to and from a closed position, switch means mounted on said apron, said switch means including a plunger normally projecting into the path of the valve operating handle of said faucet and having abutting engagement therewith, whereby to maintain the switch means in an open condition when the valve operating handle is in closed position, and to automatically close said switch means when the valve operating handle is moved to open position, and a molding mounted on said apron and enclosing said switch means so as to protect the latter, said molding including an angular strip having one face abutting said apron and another face extending forwardly from said apron and upwardly inclined, and a substantially channel shaped strip enclosing the first mentioned strip, and having its upper face inclined corresponding to the inclined face of the first mentioned strip, thereby forming with the apron a shallow trough serving to collect any beverage or other fluid which may be spilled on the bar and run down the face of the apron.

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