United States Patent [19]

Lambert

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[54] **COMBINATION SIGNALLING AND ADVERTISING SYSTEM**

[76] Inventor: **Adelor A. Lambert,** P.O. Box 427, Round Lake, Ill. 60073

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[52] **U.S. Cl.** **340/332,** 340/272, 340/334

[51] **Int. Cl.** **G08b 5/36**

[58] **Field of Search** 340/332, 334, 272

[56] **References Cited**

UNITED STATES PATENTS

2,674,675	4/1954	Lambert	340/332
3,412,395	11/1968	Kiene, Jr.	340/334
1,477,708	12/1923	Larson	340/334
1,030,879	7/1912	Emanuel	340/334

Primary Examiner—John W. Caldwell
Assistant Examiner—Glen R. Swann, III
Attorney, Agent, or Firm—Clarence A. O'Brien; Harvey B. Jacobson

[57] **ABSTRACT**

A combination signalling and advertising system comprising a plurality of switches mounted on a bar counter top or the like, each including a lamp actuated by positioning a drinking container on the switch, the switches being arranged in groups, corresponding to service areas, a master indicator including signal lamps each corresponding to a particular group of switches and actuatable by any switch of that group, and an advertising display associated with the master indicator and being enhanced thereby when the signal lamps are energized. Each switch is provided with a hinged mounting which permits it to be swung upwardly for easy cleaning of the counter top surfaces.

3 Claims, 5 Drawing Figures

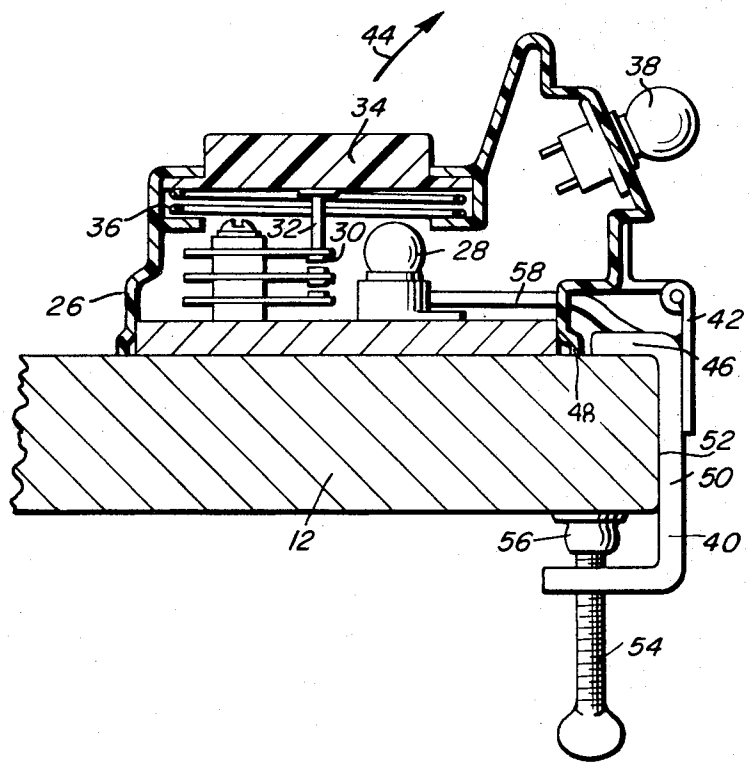


Fig. 1

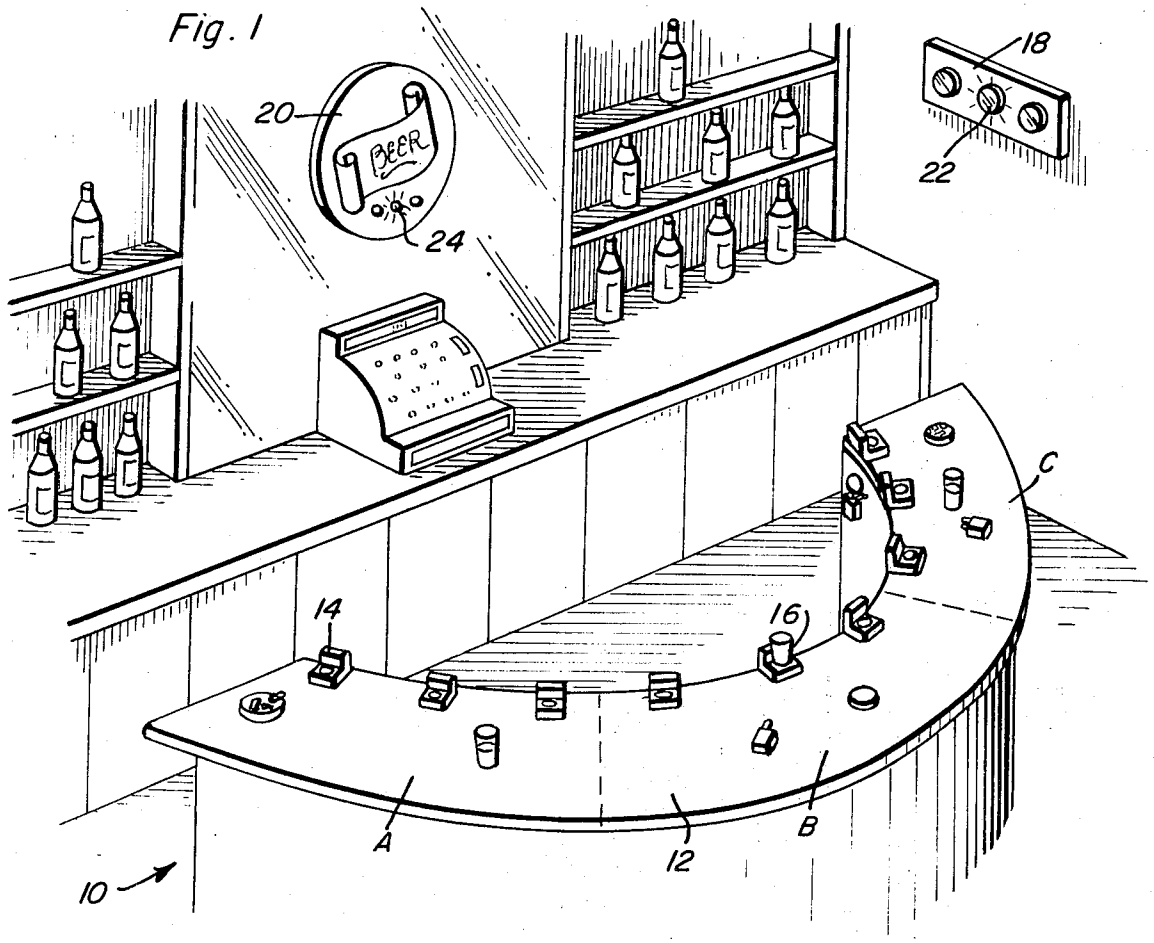

20
BEER
24
18
22
C
14
16
A
12
B
10

Fig. 5

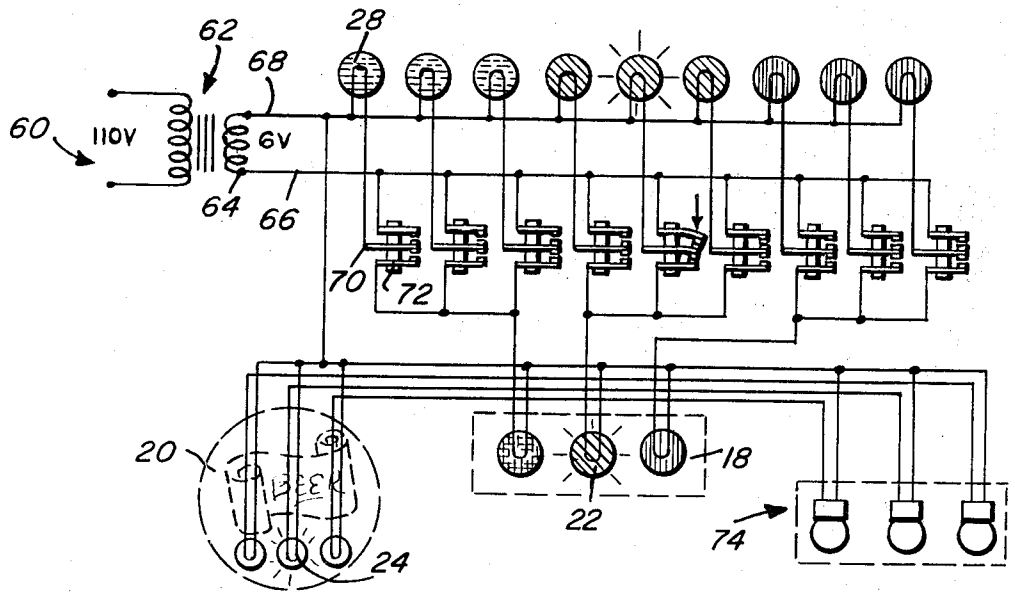

62
28
68
60
110V
6V
64
66
70
72
20
18
22
74
24

Fig. 2

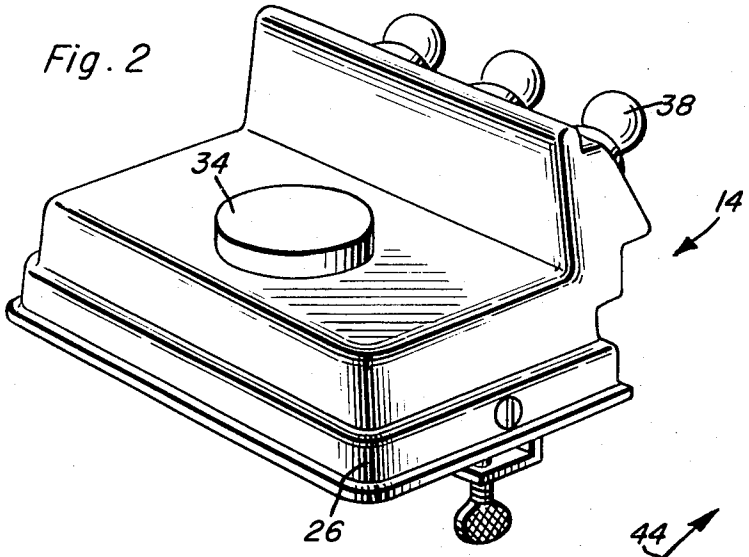


Fig. 3

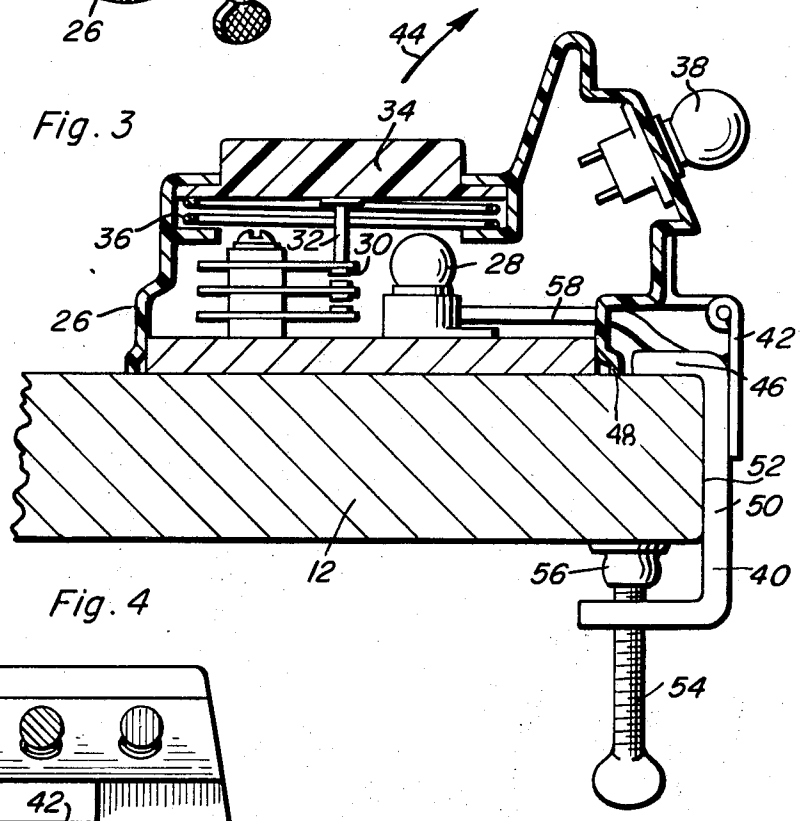
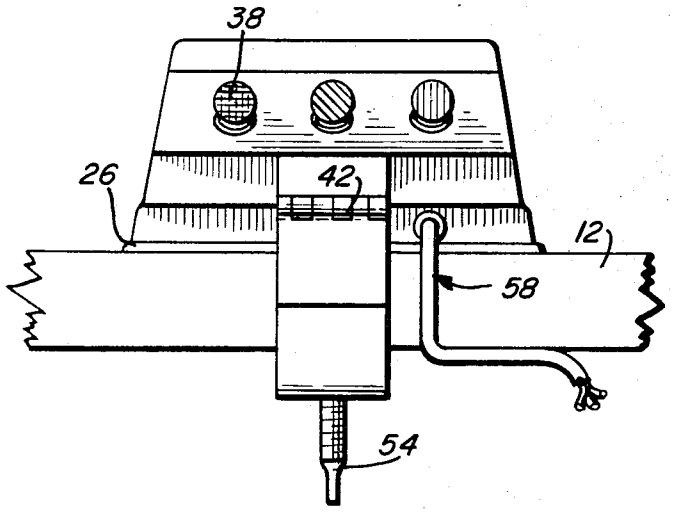


Fig. 4



COMBINATION SIGNALLING AND ADVERTISING SYSTEM

The present invention is generally related to signalling systems and, more particularly, to a combination signalling and advertising system which may be effectively employed at bars, counters, or the like to aid the attendants when any one of several persons desires to be served.

In the past, various customer signalling devices have been proposed, whereby a customer may signal a bartender, waiter, or other attendant that he wishes to be served. However, many such conventional devices have been ineffective since the attendant either is not aware that the customer is signalling or he knew that a signal had been given, but he had difficulty in locating the customer. Other more sophisticated signalling systems have been provided, but such have proven to be prohibitively expensive to manufacture and install.

Therefore, it is an object of the present invention to provide a novel signalling system which includes means for readily communicating to an attendant that an individual desires to be served and which identifies the area in which the individual is located, thereby providing the attendant with sufficient information to promptly serve the individual.

Another object of the present invention is to provide a unique combination signalling and advertising system which includes point-of-sale advertising displays which are automatically illuminated, or otherwise enhanced, when a customer signals an attendant for service. It is a further object of the present invention to provide a versatile signalling system including a plurality of manually actuatable switches, one for each patron, which may be actuated by the placement of a glass, or similar container thereon, whereby a lamp associated with the switch is energized together with a remote master signal lamp indicating in which service area the signalling patron is located.

Still another object of the present invention is to provide an improved signalling switch construction which may be easily installed on existing bar counter tops or the like and including a hinge mounting, whereby the switch may be readily swung up for easy cleaning of the underlying counter top surface.

It is still another object of the present invention to provide a versatile combination signalling and advertising system which is relatively simple in overall construction, easy to install, and relatively inexpensive to manufacture and maintain.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout.

FIG. 1 is a perspective view of a typical bar counter top installation utilizing the signalling system of the present invention.

FIG. 2 is a perspective view of the switch construction associated with the present invention.

FIG. 3 is a sectional view of the switch construction illustrated in FIG. 2 and being shown mounted to a counter top.

FIG. 4 is an elevational view of the switch construction illustrated in FIG. 3.

FIG. 5 is a schematic diagram of the circuitry associated with the system of the present invention.

Referring now, more particularly, to FIG. 1 of the drawings, the signalling system of the present invention is generally indicated by the numeral **10** and is illustrated as being utilized with a bar counter top **12** which, for the purposes of explanation, is divided into three service areas labelled A, B, and C. Each area of the bar counter top is provided with three manually actuatable weight responsive switches **14** which respond to the positioning of a glass or container thereon, such as indicated at **16.** Each switch is provided with an internal lamp, as hereinafter explained, which is energized by placing a container on the switch as illustrated at **16.** The switches are wired in groups corresponding to service areas A, B, and C, and are connected to an electrical circuit including remote signalling means as indicated at **18** and **20.**

Each remote signalling station is provided with a plurality of lamps, or similar indicating devices, each of which corresponds to a particular service area of the bar counter top. The electrical circuit arrangement is such that actuation of any one of the switches in service area A is effective to energize the corresponding lamp at the remote signalling stations. The lamps associated with the remote signalling station may be of different colors which are easily distinguishable by the bartender or attendant and inform him of which service area requires attention. For example, with a switch at **16** being actuated by a glass, lamps **22** and **24** will be energized, indicating to the attendant that an individual desires service in area B. Upon proceeding to this area, the attendant may readily observe which switch or switches have been lighted, such that he may provide prompt service to his customers.

It will be appreciated, that the remote signalling station may be associated with an advertising display, such as that indicated at **20,** whereby energization of the lamps or other signalling means will illuminate or enhance the advertising display. This arrangement provides point-of-sale advertising which is readily recognized by the patrons within the vicinity. It is not intended that the present invention be limited to the energization of lamps to enhance the advertisement. The system may be utilized to operate motorized displays, sound equipment or other devices associated with the advertisement. Of course, the advantages of the combination signalling and advertising system of the present invention may be best realized when installed on premises serving large numbers of patrons, whereby each attendant may cover a larger area and serve more patrons compared with conventional techniques.

Referring now, to FIGS. **2–4,** the construction of the switch associated with the present invention may be seen in more detail. Each switch is provided with a relatively rigid housing **26,** formed from plastic or similar materials. The lower portion of the housing is provided with generally planar bottom surfaces adapted to rest upon the upper surfaces of the associated counter top, as best illustrated in FIGS. **3** and **4.** As mentioned above, each switch is provided with an internal lamp **28** which is energized through the actuation of a plurality of switch contacts **30,** mounted on leaf springs and influenced in a downward direction by way of an actuation pin **32.** The actuation pin is fastened to a circular, disk-like platform member **34** of transparent material and mounted for reciprocation in the housing against

the influence of a coil compression spring **36.** The platform member projects above the top horizontal surface of the lower portion of the housing located in fron of a back fence portion from which external lamps **38** may project rearwardly as shown. When a glass, or similar container, is placed upon member **34** it is influenced downward and switch contacts **30** are closed, thereby completing a circuit which energizes internal lamp **28** and one of the indicating devices at the remote signalling stations.

If desired, some or all of the switches may be provided with external indicating lamps **38** wired in parallel with those at the remote signalling stations. This arrangement may be desirable in installations where the attendant may be likely to have his back turned to the remote signalling stations and facing the bar counter top, whereby he would immediately observe energization of one of the external lamps associated with the counter top mounted switches. If desired, the external indicating lamp of each switch may be provided with an advertising sign, or the like.

Each of the switches is uniquely held in place to the associated countertop by way of a C-clamp type mounting flange **40** which is fastened to the lower half of a hinge **42** having a generally horizontal pivotal axis. The upper half of the hinge is attached to switch housing **26,** whereby the entire switch may be pivoted in a direction indicated by the arrow at **44** to swing it up and off of the underlying counter top surfaces. This is a highly desirable mounting arrangement for the switches associated with the system of the present invention, since bar counter tops and similar service areas require frequent cleaning by the attendant. Since the switches may be raised above the counter top surfaces, the accumulation of food particles or the like in the vicinity of each switch is eliminated.

It will be appreciated that the C-clamp mounting flange provides a means by which each switch of the system may be easily and inexpensively installed on existing counter tops. The mounting flange includes an upper portion **46** which extends inwardly along the upper surfaces of the counter top and terminates adjacent to the lower portion of the housing, as indicated at **48.** A vertical portion **50** of the mounting flange overlies the edge surfaces **52** of the counter top, while a lower portion of the flange is provided with a threaded member **54** and swivel mounting **56** which retentively engage the bottom surfaces of the counter top. It will also be appreciated, that this mounting arrangement sets the switch back slightly from the counter top edges, thereby preventing accidental damage to the switches by the movements of the attendant while working behind the bar.

Preferably, the electrical wires associated with each switch extend from the housing adjacent to the mounting flange and may be dressed around the edge of the counter top, as indicated at **58** in FIG. **4.** Thus, installation of the switches of the present invention may be made easily and inexpensively with existing counter top constructions without the need for drilling holes or expensive modification to the existing counter top itself.

With reference to FIG. **5** of the drawings, the circuitry associated with the present invention may be seen to include a primary source of voltage, such as 110 VAC as indicated at **60** connected to a control transformer **62** with a secondary low voltage winding **64.** Each of the switches is connected to a common line **66** which is in series with winding **64** of the control transformer. The internal lamps of each switch are connected to the opposite side of the control transformer secondary winding by line **68.** The opposite side of each internal lamp is connected to a central contact of the associated switch, as indicated at **70.** A lower contact member **72** underlies the central contact of each switch and is connected to one of the master signal station lamps corresponding to the appropriate service area. The switches within each group are connected in parallel to a common lamp at the master signalling station. In addition, the lamps of the advertising display **20** are connected in parallel with those of the remote station **18** to provide simultaneous actuation thereof. Optional buzzers or alarms **74** may be connected in parallel with the master signalling lamps to provide an audible signal to the attendant.

From the foregoing description, it will be appreciated that the system of the present invention provides a versatile means by which a signal is communicated to an attendant to indicate that a patron in a particular service area desires to be served. In addition, energization of the master signal station is effective to illuminate or otherwise enhance an advertising display which aids in promoting the sale of the beverage or other product being served. Of course, it is not intended that the system of the present invention be limited to any particular number of switches or groups of switches, and as many switches may be provided in the circuitry, as required. It will also be appreciated that the unique mounting arrangement of each switch of the system provides easy and inexpensive installation onto existing counter tops without appreciable modification. Also, the mounting of each switch is such that it does not protrude into the working area, thereby preventing accidental damage by the bartender or attendant.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

What is claimed as new is as follows:

1. In combination with a counter top having opposite edge portions, a signalling device mounted above the counter top adjacent one of said edge portions comprising a housing, a vertically moveable platform made of light transmissive material, lamp means mounted internally of said housing for illuminating articles placed on said platform, contact means actuated by depression of the platform for energizing the lamp means, a clamp removably secured to said one of said edge portions of the counter top, and hinge means pivotally connecting the housing to the clamp for pivotal displacement from the counter top.

2. The combination of claim **1** wherein said housing includes a horizontal surface portion from which said platform projects and a back fence portion extending upwardly therefrom to which the hinge means is connected.

3. The combination of claim **2** including external lamp means projecting rearwardly from the fence portion and energized simultaneously with the internally mounted lamp means.

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