Aug. 28, 1951 C. M. MOORE 2,565,980

SIGNALING DEVICE

Filed Feb. 27, 1950

Fig. 1.

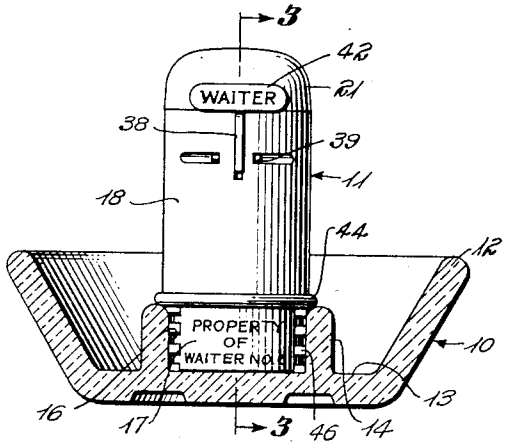


Fig. 3.

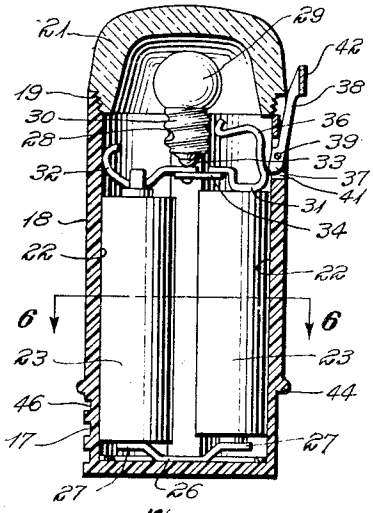


Fig. 2.

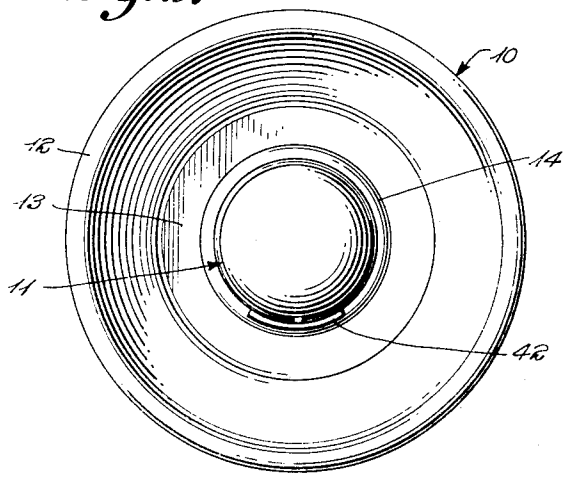


Fig. 4.

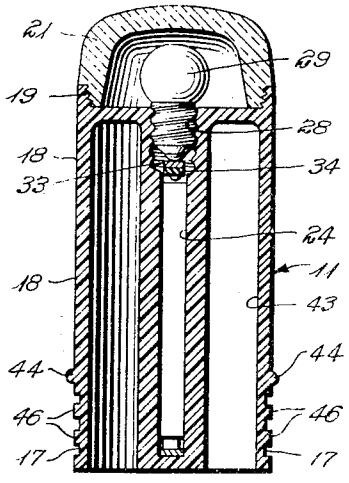


Fig. 5.

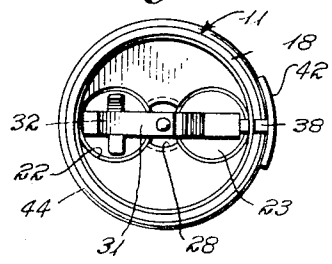
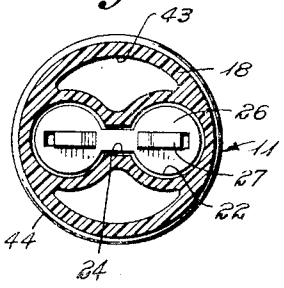


Fig. 6.



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SIGNALING DEVICE

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6 Claims. (Cl. 177—329)

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This invention relates to a signalling device, and more particularly, to a device useful in restaurants and similar establishments for notifying a waiter that service is desired.

Various systems and devices have been suggested for signalling a waiter in restaurants including annunciator systems involving the installation of complicated fixed wiring and also including various signalling devices to be placed on tables to provide an illuminated signal under control of customers. Systems of the annunciator type are expensive to install and maintain and are not practical where the various tables are movable. The previously suggested signals for placing on the tables have also been expensive and complicated and if relatively small, so as to enable ease in handling while cleaning of the tables or changing table covers, they have been subject to theft.

In accordance with the present invention I have provided a simple and inexpensive device having a detachable self-contained illuminated signal of small size which is the property of the waiter so that the waiter has an interest in preventing the theft of the signal. While the complete signalling device may be attractive in design as well as being small in size, the detachable signal has no utility other than its utility as part of a signalling device in the restaurant. Also the waiter removes the detachable portion of the signalling device before the customer leaves the table, for example, at the time of presentation of a bill or check. The base or holder for the detachable signal may be an inexpensive ash tray provided with a suitable socket for reception of a corresponding portion of the detachable signal. The waiter does not need to remove and carry the base with him and there is very little likelihood of the ash tray being stolen, and if stolen, is represents a very minor portion of the cost of the signalling device. The ash tray or base can therefore be left on the table at all times while the illuminated signal is left on the table only during the period when it is required for calling the waiter. The illumination of the signal is under control of the customer but may be discontinued by the waiter as soon as he comes to the table.

It is therefore an object of the invention to provide an illuminated service signal which may be carried by a waiter and left on the table only during the period when its use is required.

Another object of the invention is to provide a combination ash tray and illuminated signalling device by which an inexpensive ash tray provides a socket for the reception of a small light-weight illuminated signal to be carried by a waiter.

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A further object of the invention is to provide a small light-weight signalling device having an inexpensive base portion which may be left on a table at all times and a detachable signalling portion to be carried by the waiter when not in use which provides an illuminated signal under control of the customer and waiter when supported by said base.

Other objects and advantages of the invention will appear in the following description of the invention, a preferred embodiment of which is shown in the attached drawings, of which:

Fig. 1 is a view partly in vertical section illustrating a device in accordance with the present invention;

Fig. 2 is a plan view of the device of Fig. 1;

Fig. 3 is a vertical section through the signal portion of the device taken on the line 3—3 of Fig. 1;

Fig. 4 is a vertical section similar to the vertical section of Fig. 3 but taken at right angles thereto;

Fig. 5 is a plan view of the signal portion of the device with the lens and lamp removed; and

Fig. 6 is a horizontal section taken on the line 6—6 of Fig. 3.

Referring more particularly to the drawings, the device shown in the various figures may include a base element 10 and a signal element 11. The base element 10 may be in the form of an inexpensive ash tray of glass, plastic or similar material and may be provided with an upstanding outer annular rim portion 12 providing an ash receiving portion 13. An annular upstanding flange 14 may be provided in the ash receiving portion 13 to form a socket or recess 16 for receiving the base portion 17 of the signal element 11.

The details of the signal element 11 are more clearly shown in Figs. 3 to 6, inclusive, and this element may also include a body portion 18 terminating at its lower end in the base portion 17 and having internal screw threads 19 at its upper portion for attaching the lens 21 provided with external screw threads. The body portion 18 of the signal element may have internal chambers 22 for receiving a pair of flash light cells 23. The chambers 22 are interconnected by a slot 24, and the chambers 22 and slot 24 extend through the upper surface of the body portion 18. A lower contact member 26 having upstanding lugs 27 struck therefrom may be positioned in the lower

portion of the chambers 22 and slot 24 so that the lugs 27 are positioned to contact the ends of the flash light cells 23. As shown in Fig. 3, one of the cells 23 may be positioned with its central contact directed downwardly and the other of the cells 23 may be positioned to have its central contact directed upwardly so that the contact member 26 is effective to connect the two cells in series to form a battery.

The slot 24 may have its upper end enlarged and screw-threaded to provide a socket 28 to receive the base of a flash light lamp 29. An upper contact and switch member 31 may be positioned in the upper ends of the chambers 22 and slot 24 above the flash light cells 23 and may have a contact portion 32 engaging an end of one flash light cell 23 and also the central terminal 33 of the lamp 29. The contact portion 32 of the contact and switch element 31 may be secured to an insulating strip 34 in any suitable manner such as by a rivet and the insulating strip 34 may likewise be secured to a contact and spring portion 36. The contact and spring portion 36 may have its lower portion engaging the end of the other flash light cell 23 and may have its upper end positioned adjacent the side terminal of the base 30 of the lamp 29. An intermediate portion of the contact and switch portion 32 may be positioned to be engaged by a cam portion 37 on the lower end of a switch lever 38 pivoted to the body member 18 of the signal element by a pin 39. The switch lever 38 extends through a slot 41 in the upper portion of the body member 18 and terminates at its upper end in a curved finger engaging portion 42 which may have any suitable legend thereon such as "Waiter."

The switch structure is shown in the off position in Fig. 3 and it will be apparent that depressing of the finger engaging element 42 in Fig. 3 so as to swing the switch lever 38 downwardly about its pivot 39 will cause the cam portion 37 thereof to cam the upper end of the switch and contact element 36 into engagement with the side terminal of the base 30 of the lamp 29. This will establish a circuit from the lower contact 33 of the lamp 29 through the contact element 32, one of the flash light cells 23, the contact member 26, the other flash light cell 23 back to the side of the base 30 of the lamp 29. Return of the switch lever 38 to the position shown in Fig. 3 will again break this circuit.

In order to reduce the weight of the signal element, the body portion 18 thereof may be provided with recesses or cored out portions 43 which are shown as opening through the lower end of the body portion. The lower end of the body portion 18 may be provided with an annular flange 44 for engagement with the upper edge of the annular flange 14 and with a plurality of interrupted annular flanges 46 for engagement with the internal surfaces of the flange 14 of the base element 10. Ths structure enables the signal element 11 to be readily removed and reinserted in the socket 16 provided by the annular flange 14 and provides a stable support for the signal element 11 in the base element 10. The interruption of the annular flanges 46 provides a smooth surface on the lower portion 17 of the signal element for any suitable legend, such as "Property of waiter No.——."

Referring again to the structure of the signal element 11, it will be apparent that this element may be disassembled by unscrewing the lens 21 from the body portion 18 and then unscrewing the lamp 29 from its socket 28. The spring and contact element 31 may then be removed from its position in the slot 24 and chambers 22 after which the flash light cells 23 may be removed from the upper portion of the body member 18. If desired, the lower contact member 26 may also be removed or reinserted through the upper portion of the body member 18. It will thus be seen that the internal electrical connections and cells 23 may be removed at any time for repair or renewal of the cells 23 by merely removing the lens 21 and lamp 29. The entire signal element 11 has somewhat the appearance of a flash light but is not usable therefor as the lens 21 will ordinarily be made of frosted glass or translucent plastic so as to give a diffused signal rather than a focussed light. The lens 21 may, of course, be of any desired color including white.

In using the device of the present invention, the ash tray 10 will ordinarily be left upon a restaurant table at all times and is light in weight so that it may be easily handled during cleaning or recovering of the table. It may also be an inexpensive element so that the ordinary thefts which occur in restaurants will not entail serious expense. The relatively small and light-weight signal element 11 will ordinarily be charged to the waiter so that he is interested in preventing its theft. This element will ordinarily be removed from its base 10 and be carried by the waiter. When customers are seated at a table, the waiter will insert one of a plurality of signal elements carried by him in the ash tray base 10 and will take the customer's order. At any subsequent time when the customer desires service, it is merely necessary for him to depress the switch 38, thus providing an illuminated signal for the waiter. After service has been completed and usually at the time the check is presented to the customer, the waiter removes the signal element 11 from the base 10 for use on other tables. It will thus be seen that I have provided an improved device which is capable of use in restaurants or similar establishments for signalling the waiter which does not require expensive wiring installations or a heavy device positioned upon a table, and which at the same time, is unlikely to be stolen.

I claim:

1. In a signalling device, the combination of a base element and a vertically extending illuminated signal element, said signal element including an electric lamp adjacent its upper end, a self-contained source of electric power for energizing said lamp and a manually operable switch having an operating lever adjacent said lamp for connecting and disconnecting said lamp and said source, one of said elements being provided with a socket and the other being provided with a projecting member for slidable reception in said socket for detachably supporting said signal element on said base element.

2. In a signalling device, the combination of a base element and a vertically extending illuminated signal element, said signal element including an electric lamp adjacent its upper end, a self-contained source of electric power for energizing said lamp and a manually operable switch having an operating lever adjacent said lamp for connecting and disconnecting said lamp and said source, said base element being a light-weight ash tray having a socket therein for slidably receiving the lower end of said signal element, and said signal element having its lower end detachably fitting said socket.

3. In a signalling device, the combination of a base element and a detachable signal element, said signal element having an upstanding casing having an opening at its upper end and provided with a translucent lens closing said opening, an electric lamp within said signal element and positioned to direct light through said lens, a self-contained source of electric power positioned within said casing for energizing said lamp, and a manually controlled switch having an operating lever adjacent the upper end of said casing for connecting and disconnecting said lamp and said source, said base element having a socket for slidably receiving the lower end of said signal element and said lower end of said signal element detachably fitting said socket.

4. In a signalling device, the combination of a base element and a detachable signal element, said signal element having an upstanding casing having an opening at its upper end and provided with a dome-shaped translucent lens closing said opening and extending upwardly from said casing, an electric lamp within said signal element and having its light emitting portion within said lens and positioned to direct light through said lens, a self-contained source of electric power positioned within said casing for energizing said lamp, and a manually controlled switch adjacent the upper end of said casing for connecting and disconnecting said lamp and said source, said base element having a socket for receiving the lower end of said signal element and said lower end of said signal element detachably fitting said socket, said lens being detachably secured to said casing and said lamp also being detachably secured to said casing, said signal element having means interposed between said lamp and said source for retaining said source in said casing whereby removal of said lens and lamp enables said source to be removed through said opening.

5. In a signalling device, a signal element comprising a casing having an opening at one end, an electric lamp adjacent said end of said casing, a self-contained source of electric power for energizing said lamp and positioned within said casing and a manually operable switch for connecting and disconnecting said lamp and said source, said lamp being detachably secured in said casing, and means interposed between said lamp and said source for retaining said source in said casing, whereby removal of said lamp enables said source to be removed through said opening.

6. In a signalling device, a signal element comprising a casing having an opening at one end, a lens detachably secured to said end of said casing and closing said opening, an electric lamp in said element positioned to direct light through said lens, a self-contained source of electric power for energizing said lamp positioned within said casing and a manually operable switch for connecting and disconnecting said lamp and said source, said lamp being detachably secured in said casing, and means forming part of said switch and interposed between said lamp and said source for retaining said source in said casing, whereby removal of said lens and lamp enables said source to be removed through said opening.

CLYDE MAURICE MOORE.

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