June 29, 1937. G. C. WAGNER 2,085,617

HOTEL ALARM SIGNAL

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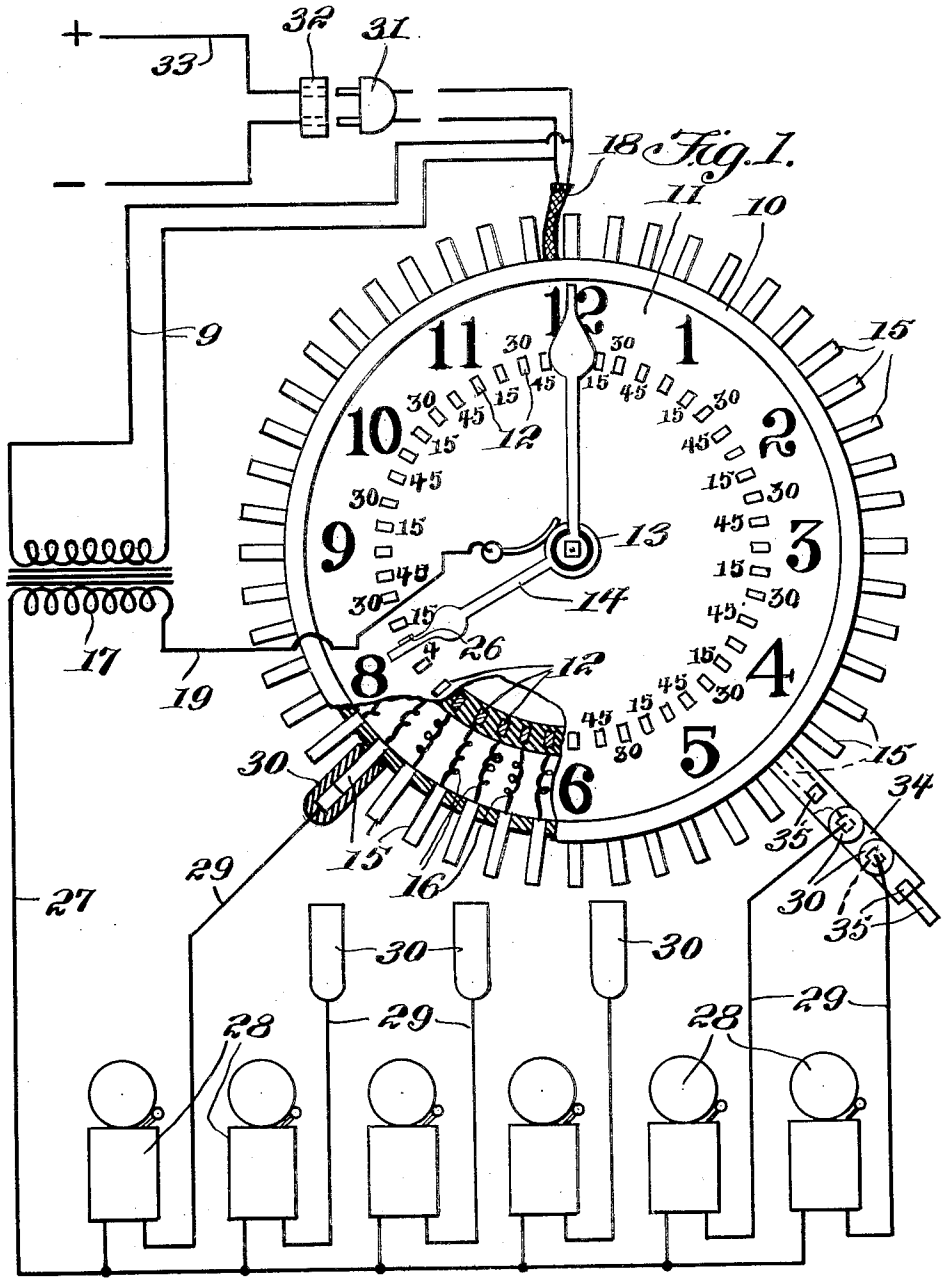


Fig. 1.

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Fig. 2.

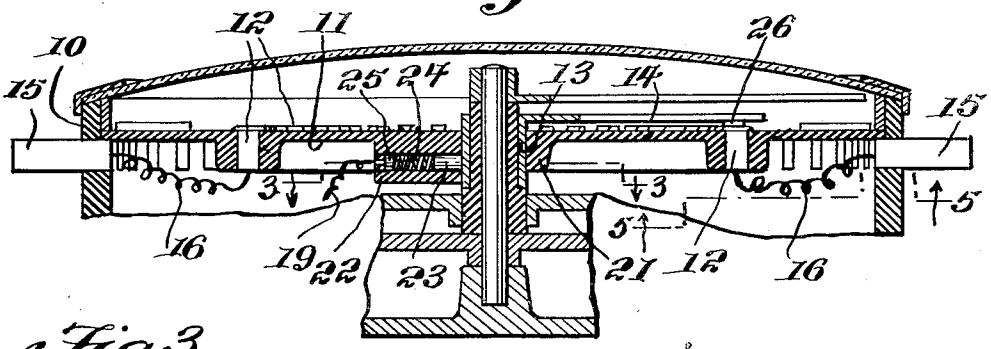


Fig. 3

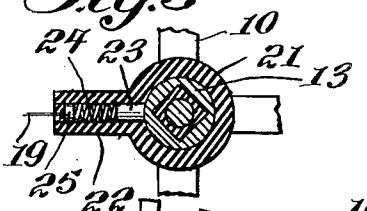


Fig. 6.

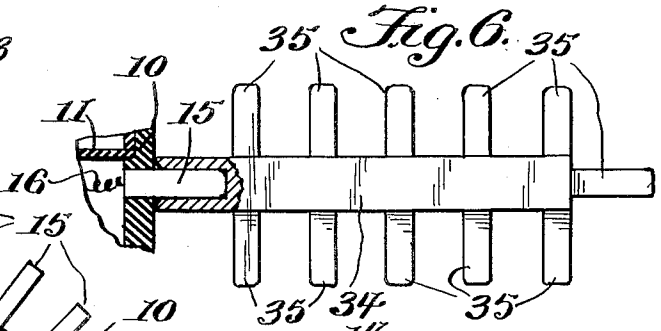




Fig. 4.

Fig. 5.

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2,085,617

HOTEL ALARM SIGNAL

George C. Wagner, Baltimore, Md.

Application August 24, 1936, Serial No. 97,695

1 Claim. (Cl. 161—4)

This invention relates to hotel alarm signals and has for an object to provide a master clock for controlling alarm signal circuits and alarm devices therein, means being provided for energizing a plurality of the alarm devices in a corresponding number of rooms in the hotel, or other building, at a predetermined time.

A further object is to provide a device of this character having novel plug-in connections for the signal circuits.

A further object is to provide a device of this character which will be formed of a few strong simple and durable parts, which will be inexpensive to manufacture, and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings forming part of this specification,

Figure 1 is a diagrammatic view showing the time controlled alarm circuits and alarm devices constructed in accordance with the invention.

Figure 2 is a cross sectional view through the clock dial and showing the switch contacts thereof.

Figure 3 is a detail cross sectional view taken on the line 3—3 of Figure 2.

Figure 4 is a perspective view showing the hour hand switch contact.

Figure 5 is a detail sectional view taken on the line 5—5 of Figure 2.

Figure 6 is a plan view, partly in section, showing the rod with multiple contact prongs thereon for simultaneously connecting a number of the alarm circuits to a single contact prong on the clock.

Referring now to the drawings in which like characters of reference designate similar parts in the various views, 10 designates an electric clock having the dial 11 thereof preferably formed of insulating material. An annular series of switch contacts 12 are disposed in the dial concentric with the arbor 13 of the hour hand 14, there being any desired number of these contacts located in each hour time interval, the present embodiment showing five although 10 or any other number may be used.

An annular series of contact prongs 15 are disposed to project radially from the clock casing, which likewise may be formed of insulating material, so that the prongs, like the contacts 12, are insulated from each other. The prongs are equal in number to the number of switch contacts and each prong is connected to an associated contact by a conductor wire 16.

A step down transformer 17 is supplied with current from the cord 18 of the clock by conductor wires 9 and has one pole electrically connected by a conductor wire 19 to the hour hand arbor 13. Preferably there is an annular boss 21 formed on the dial and the boss is provided on one side with an integral tube 22 which receives a plunger 23 that is yieldably held against the arbor 13 by means of a spring 24 which is confined under tension in the tube between the plunger and a metal plug 25 disposed in the end of the tube and connected to the conductor wire 18.

The hour hand is provided preferably with a copper coated corrugated switch contact 26 which is disposed at a right angle to the median line of the hour hand and is adapted to wipe over the stationary switch contacts 12 and close respective signal circuits at the stationary contacts.

The other terminal of the transformer is connected by a conductor wire 27 to one pole of each of a large number of alarm devices such as electric bells 28, disposed in the various rooms of the hotel or other building. A conductor wire 29 is connected to the other pole of each bell and terminates in a socket portion 30 of a plug and socket connector having a substantially square bore to receive a selected one of the similarly shaped contact prongs 15.

The cord 18 of the clock is as usual equipped with a pronged cap connector 31 which may be plugged into a receptacle or outlet 32 of the service line 33.

In operation, should it be desired to awake the occupant of a particular room at the hour of 7:30 for example, the socket portion 30 of the corresponding alarm bell 28 will be inserted on the radial contact prong 15 which is connected to the stationary switch contact 12 at the 7:30 location on the dial. When the hour hand arrives at said stationary contact the movable contact 26 will close the alarm circuit from the transformer through the wire 27, bell 28, wire 29, socket portion 30, contact prong 15, stationary switch contact 12, movable switch contact 26, hour hand arbor 13, plunger 23, and wire 19 to the transformer whereby the bell is energized and maintained energized until the movable switch

contact **26** passes off of the stationary switch contact **12**.

When more than one plug is to be engaged with a single contact prong an auxiliary contact is used which, as best shown in Figure 6, comprises a rod **34** adapted to be engaged with the prong **15** and provided with prongs **35** extending transversely and longitudinally therefrom and being substantially rectangular in cross section to receive a plurality of the socket portion **30** of a plug and socket connector, as best shown in Figure 1. It will thus be apparent that a plurality of signal circuits may be connected to a single prong and that when the alarm circuit is closed from the corresponding stationary switch contact to the prong, all of the alarm bells **28** which have been plugged into the prongs on the rod **34** will be simultaneously energized.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explanation.

What is claimed is:

The combination with a plurality of electric signal devices, of a time controlled switch means including a plurality of switch contact prongs disposed radially about a common center, multiple connectors for simultaneously connecting a group of the alarm devices with a predetermined prong including a rod adapted to engage the selected prong, and a plurality of contact prongs extending radially and longitudinally respectively from the rod and adapted to receive socket members of plug and socket connectors associated with said group of signal devices.

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