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D. H. COKER.

ANNUNCIATOR.

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Fig. 1

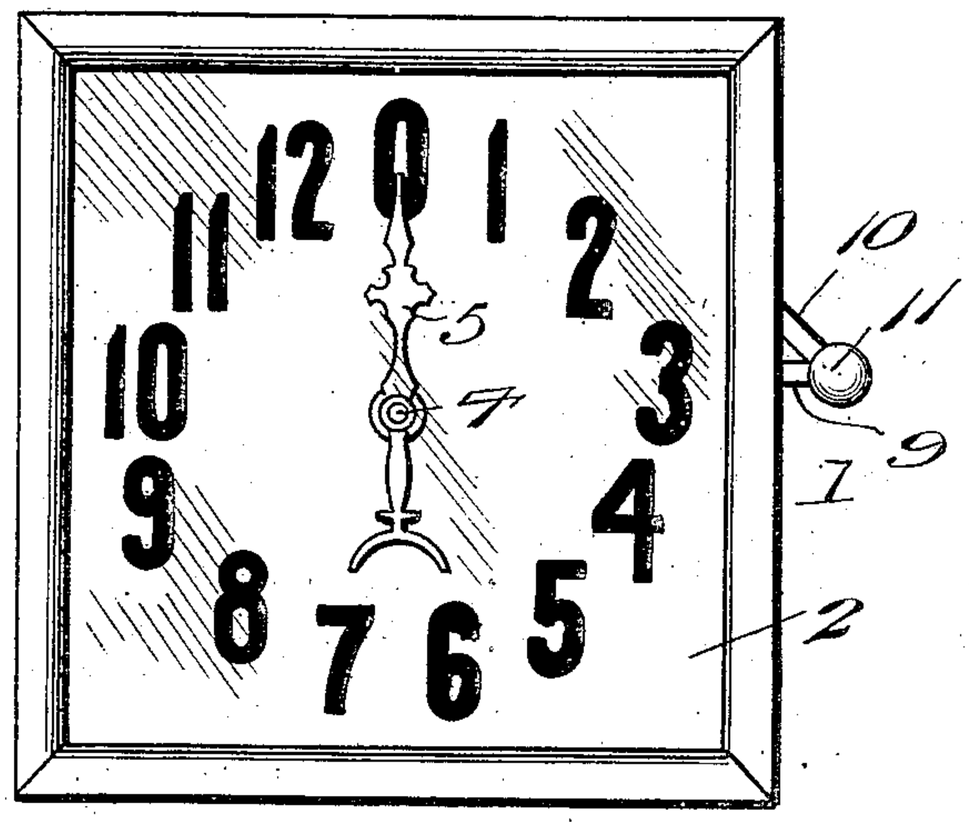


Fig. 2.

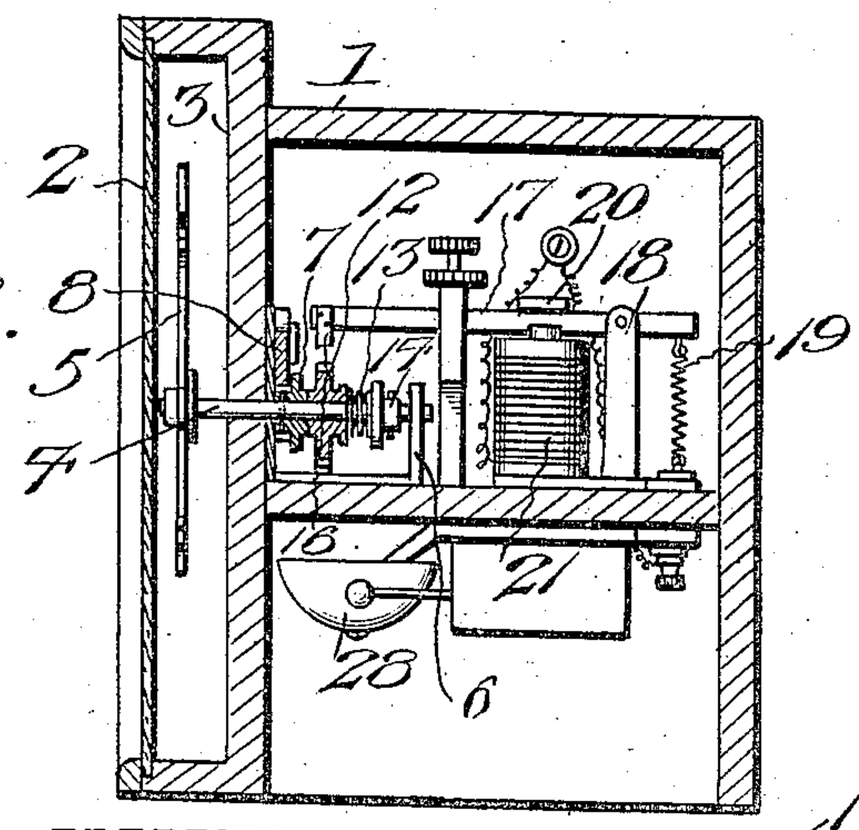
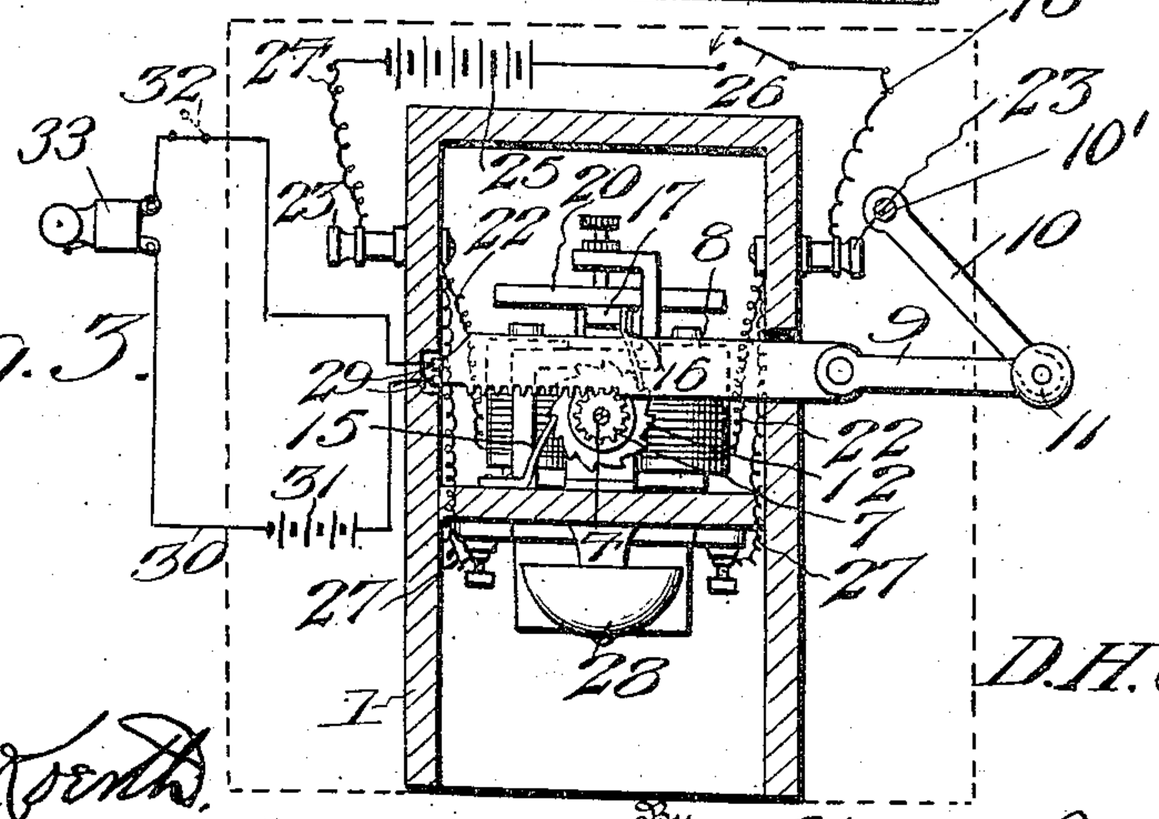


Fig. 3.



Witnesses

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ANNUNCIATOR.

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To all whom it may concern:

Be it known that I, DAVID H. COKER, a citizen of the United States of America, residing at Piedmont, in the county of Calhoun and State of Alabama, have invented new and useful Improvements in Annunciators, of which the following is a specification.

The object of this invention is to provide a simple construction of annunciator and signal circuits whereby a signal may be transmitted from an office or other portion of a shop or establishment to notify an official or employee that his attendance at some certain point in the shop or establishment is wanted and whereby a return signal may be transmitted back to the office or main signaling-point to indicate that the calling-signal has been observed.

In the accompanying drawings, Figure 1 is a front elevation of the improved annunciator. Fig. 2 is a central front to rear vertical section thereof. Fig. 3 is a cross-section through the annunciator and showing the circuits.

Referring to the drawings, 1 represents the annunciator-casing, which is provided with a transparent panel 2 and in rear thereof with a dial 3, bearing numerals or other indicia designating certain employees or officials. Extending through the dial into the rear of the casing is a shaft 4, carrying at its forward end a hand or pointer 5 to coöperate with the numerals on the dial. The rear end of the shaft is journaled in a bearing-support 6 and has fixed thereto a pinion 7, meshing with the teeth on a rack-bar 8, constituting a resetting device, said rack-bar having one end projecting to the exterior of the casing and connected to links 9 and 10, the link 10 being attached at one end to a stationary pivot-pin 10′ and at the other end to the outer end of the link 9, the pivotal connection between the links being provided with an operating knob or handle 11.

Loosely journaled on the shaft 4 is a ratchet-wheel 12, the hub of which bears at one end against the hub of the pinion 7. The ratchet-wheel is held in frictional contact with the pinion by a coiled spring 13, surrounding the shaft between the opposite end of the hub of the ratchet-wheel and a collar 14, fixed to the shaft. The frictional contact between the ratchet-wheel and pinion is sufficient to permit motion being imparted to the shaft through the pinion when the ratchet-wheel is turned, while insufficient to prevent independent retrograde movement of the pinion and shaft under the action of the rack-bar 8.

The ratchet-wheel is held from retrograde movement by a stationary pawl 15 and is adapted to be intermittently moved in the reverse direction by a pawl 16, carried by an operating-lever 17, said lever being fulcrumed to a post or standard 18 and normally held in retracted position by a spring 19. The lever carries an armature 20, adapted to be drawn down by the attractive influence of one or more electromagnets 21 to cause the pawl 16 to rotate the ratchet-wheel one step, or the distance of one tooth. Leading from the magnets are wires 22, connected with binding-posts 23, which are connected in turn with conductors of a main signaling-circuit 24, in which is a battery 25 and a switch 26, which latter may be in the form of an ordinary push-button arranged at the office or main signaling-point. When the circuit 24 is closed by the push-button 26, the pawl-and-ratchet mechanism will be actuated to move the pointer 5 a single step, and by operating the push-button one or more times the hand may be moved opposite any numeral on the dial to designate the employee or official whose presence is desired at the signaling-point. Conductors 27 lead from the binding-posts to binding-posts on an electric alarm-bell 28 or its equivalent arranged in parallel with the magnets 21, whereby a signal may be sounded to call the attention of the employee or official to the annunciator.

The inner end of the resetting-bar 8 is adapted to contact with and electrically connect a pair of contact members 29, arranged in a return signal-circuit 30, in which is a battery 31, an energizing-switch 32, and a suitable signal 33, such as a bell, arranged at the main signaling-point, the switch 32 being arranged in practice at any convenient point adjacent the annunciator.

In operation the operator upon manipulating the switch 26 may adjust the pointer to register with any desired figure on the dial, in which operation the ratchet-wheel 12 is turned forwardly the desired number of teeth and transfers motion through the pinion to the pointer-shaft 4, the rotation of the pinion causing the rack-bar 8 to be moved a greater or less distance away from the contacts 29. The person called upon observing the signal returns the bar 8 to normal position through the medium of the operating-

handle 11, the return movement of the rack-bar restoring the pointer to normal position through its meshing engagement with the pinion 7 without affecting the ratchet-wheel 12, which is held from reverse rotation by the pawl 15. After sending the signal from the main station the operator thereat closes the switch 32, so that when the bar 8 is returned to normal position and engages the contact 29 the bell 33 will sound, thus indicating that the person called has perceived the signal and reset the annunciating mechanism. After the bell 33 has sounded the switch 32 is again opened to restore normal conditions, as will be readily understood.

It will thus be seen that my invention provides a simple and effective construction of signaling means, whereby an operator at the main or signaling station may call up any one of a number of employees or persons at or near the receiving-station, and that the person called upon resetting the annunciator will send a return signal to the main station, thus indicating that the calling-signal has been heard.

Having thus described the invention, what is claimed as new is—

1. An annunciator having an indicator, a shaft for operating the indicator, a pinion fixed to the shaft, a ratchet-wheel loosely mounted on the shaft and in frictional engagement with said pinion, a resetting rack-bar meshing with the pinion, means for holding the ratchet-wheel against retrograde rotation, a pawl for imparting an intermittent forward motion to the ratchet-wheel, and electrical means for actuating the pawl.

2. An annunciator having an indicator, a shaft for operating the indicator, a pinion fixed to the shaft, a ratchet-wheel loosely mounted on the shaft and in frictional engagement with said pinion, a spring for holding the ratchet-wheel in engagement with the pinion, a resetting rack-bar meshing with the pinion, means for holding the ratchet-wheel against retrograde rotation, a pawl for imparting an intermittent forward motion to the ratchet-wheel, and electrical means for actuating the pawl.

In testimony whereof I affix my signature in presence of two witnesses.

DAVID H. COKER.

Witnesses:
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O. W. SHARPE.