

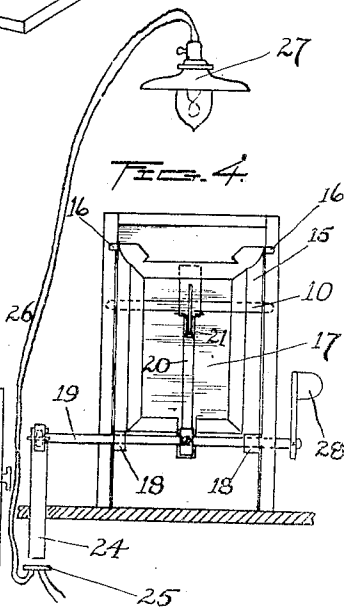
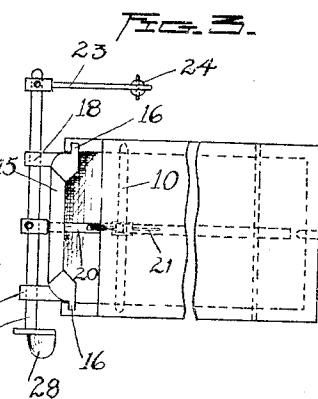
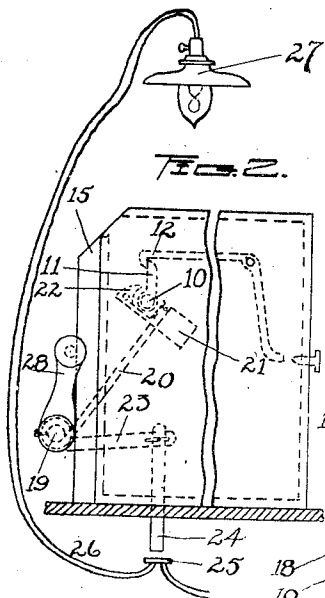
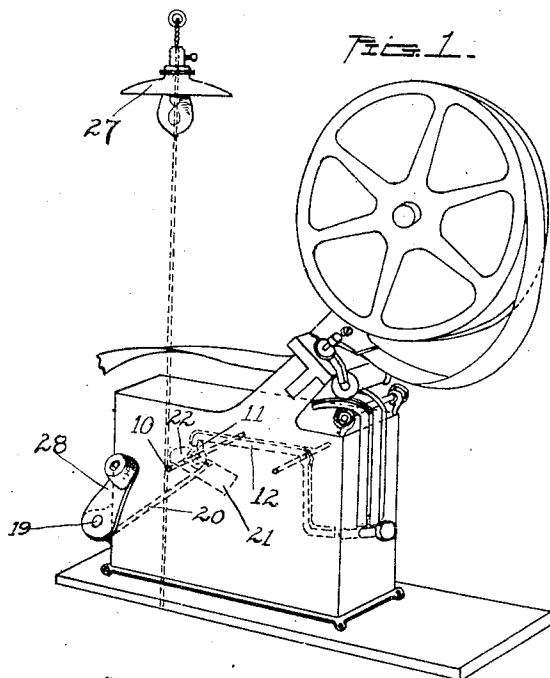
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AUTOMATIC SIGNAL ATTACHMENT FOR TELEGRAPH REGISTERS.

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UNITED STATES PATENT OFFICE.

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AUTOMATIC SIGNAL ATTACHMENT FOR TELEGRAPH-REGISTERS.

No. 845,522.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, JOHN C. CARMODY and WALTER T. PULSIFER, of Fitchburg, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Automatic Signal Attachments for Telegraph-Registers; and we do hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to self-starting registers of that class employed in the district messenger service for recording calls and other purposes. It is usual to employ a lamp or lamps adjacent to the register and to turn on the lamp-current when a call is received in order that the number of the box may be read.

The principal object of the present invention is to provide a means for automatically signaling a call or operation of the register and at the same time to furnish a light which shall be ignited as soon as the clockwork mechanism of the register is released and the device starts into operation, the lamp serving at once as a visual signal to notify the starting of operation of the register and to furnish the necessary light for the reading of the message.

A further object of the invention is to provide a signal and lighting device of this type in which the lamp will remain burning until the circuit is broken and the parts restored to initial position by hand.

A still further object of the invention is to provide an apparatus of this kind which may be applied to existing self-starting registers at comparatively small cost.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a perspective view of sufficient of a self-starting register to illustrate the invention. Fig.

2 is a side elevation of the same. Fig. 3 is a plan view. Fig. 4 is an end elevation of the register.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

In the drawings most of the operative parts of the register have been omitted for the sake of clearness; but as these devices are in common use it will be understood that the starting-shaft 10 is mounted in suitable bearings in the frame of the register and carries an arm 11, which is engaged by a catch 12. This catch is released by the action of the electromagnet as soon as the register starts into operation, and the releasing of the catch permits the arm 11 to rotate, together with the shaft 10, under the influence of the clockwork mechanism for the purpose of moving the tape on which the message is recorded.

In carrying out the present invention the end of the main casing of the register is formed by a frame 15, the opposite edges of which are reduced to form tongues that fit slidably in vertical grooves formed on the opposite sides of the casing. This frame 15 is provided with a central panel 17, formed of glass or other suitable material in order that the interior of the casing may be visible. Projecting from the frame are ears or lugs 18, forming bearings for a shaft 19, to the central portion of which is secured an arm 20, and at the upper end of this arm is pivoted a counterweighted catch 21, having a rather sharp bill 22, which will engage against the curved portion of the arm 11 when the latter is held in position by the catch 12, so that the arm 20 will be held in the elevated position shown in Figs. 1 and 2.

At a point to one side of the casing the shaft 19 is provided with an arm 23, from which depends a pin 24, that is arranged to engage with and close a switch 25, the latter being disposed in the circuit-wires 26 of an incandescent lamp 27.

The operation of the device is exceedingly simple. When the current through the starting-magnet of the register is energized, the catch 12 will be raised and the arm 11 will immediately proceed to rotate to the left under the influence of the clockwork

mechanism. As the arm rotates it will engage with the bill of the pivoted catch 21 and will force the latter from engagement with the hub portion of the arm 11, so that the arm 20 will fall by gravity toward the bottom of the case. At the same time the outer arm 23 will also move downward by gravity and will carry with it the pin 24 and the latter moving into engagement with the switch 25 and closing the lamp-circuit. The lamp will thus be ignited and during the night hours will form a visual sign to notify the person in attendance that a call is coming in. The lamp at the same time will afford a means for illuminating the tape, so that the message may be read. The arms 20 and 23 will remain in a depressed position until the operator, by grasping the handled crank 28 at one end of the shaft, pulls the arm 20 up to position, and the bill 22, riding over the hub portion of the arm 11, will be moved to engaging position by gravity, the lower end of the catch being much heavier than the upper end, so that such catch will be automatically moved to locked position and will remain in this position until another call is received.

It is necessary that the operator move the device by hand for the purpose of breaking the lamp-circuit; but even if this is not attended to there will be no interference with the ordinary operation of the register in receiving calls.

We claim—

1. In combination with a switch of a light-circuit, a suitably-mounted shaft, an arm thereon, a catch engaging said arm, means for releasing the catch from the arm, a second shaft suitably mounted, means carried by said shaft contacting with the switch, means for imparting motion to the second-named shaft, an arm carried by the second-named shaft acting in conjunction with the first-named shaft for holding said second-

named shaft against rotation until the catch is released. 45

2. In combination with a switch of a light-circuit, a suitably-mounted shaft, an arm thereon, a catch engaging said arm, means for releasing the catch from the arm, a second shaft suitably mounted, means carried by said shaft contacting with the switch, means for imparting motion to the second-named shaft, and a weighted arm carried by the second-named shaft acting in conjunction with the first-named shaft for holding said second-named shaft against rotation until the catch is released. 50 55

3. In combination with a switch of a light-circuit, a suitably-mounted shaft, an arm thereon, a catch engaging said arm, means for releasing the catch from the arm, a second shaft suitably-mounted means carried by said shaft contacting with the switch, means for imparting motion to the second-named shaft, an arm carried by the second-named shaft, and a bill on said arm engaging the first-named shaft to hold the second-named shaft against rotation until the catch is released. 60 65 70

4. In combination with a switch of a light-circuit, a suitably-mounted shaft, an arm thereon, a catch engaging said arm, means for releasing the catch from the arm, a second shaft suitably mounted, means carried by the second shaft for contacting with the switch, means for imparting movement to the second-named shaft, and means carried by the second-named shaft acting in conjunction with the first-named shaft for holding said second-named shaft against rotation, until the catch is released. 75 80

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