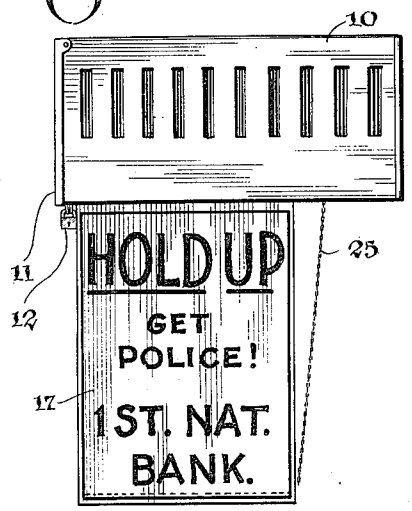
July 8, 1924. 1,500,706

B. B. ISOM

SIGNAL

Filed April 5, 1922 2 Sheets-Sheet 1

Fig. 1.



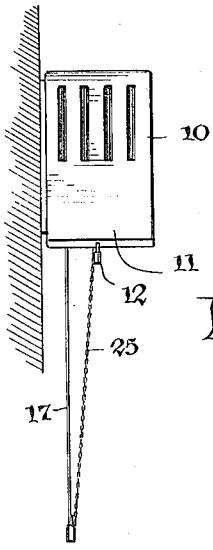


Fig. 2.

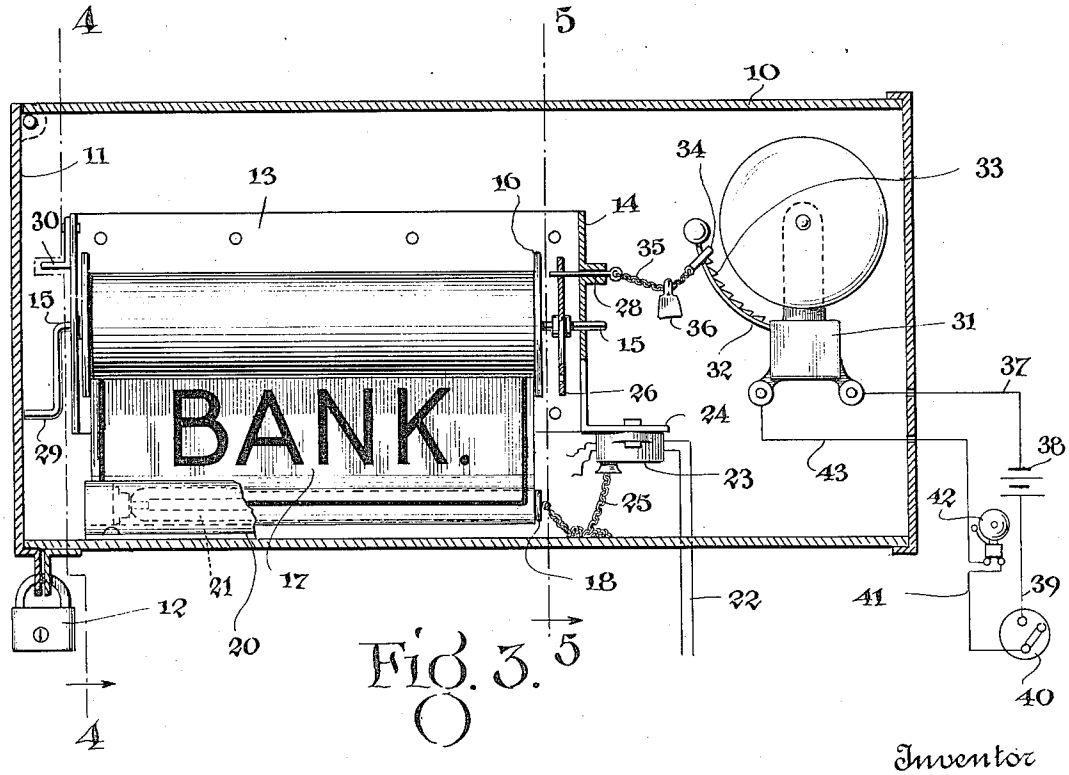


Fig. 3.

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Filed April 5, 1922 2 Sheets-Sheet 2

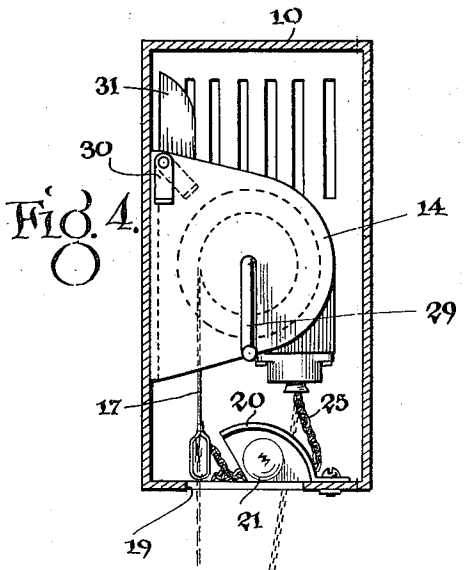


Fig. 4.

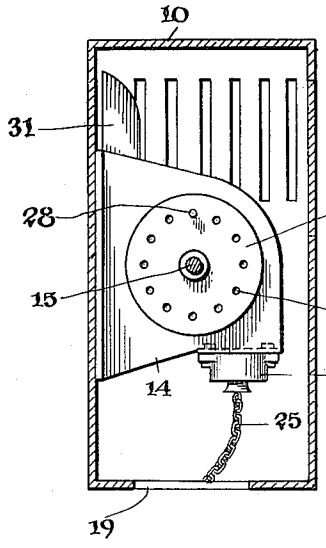


Fig. 5.

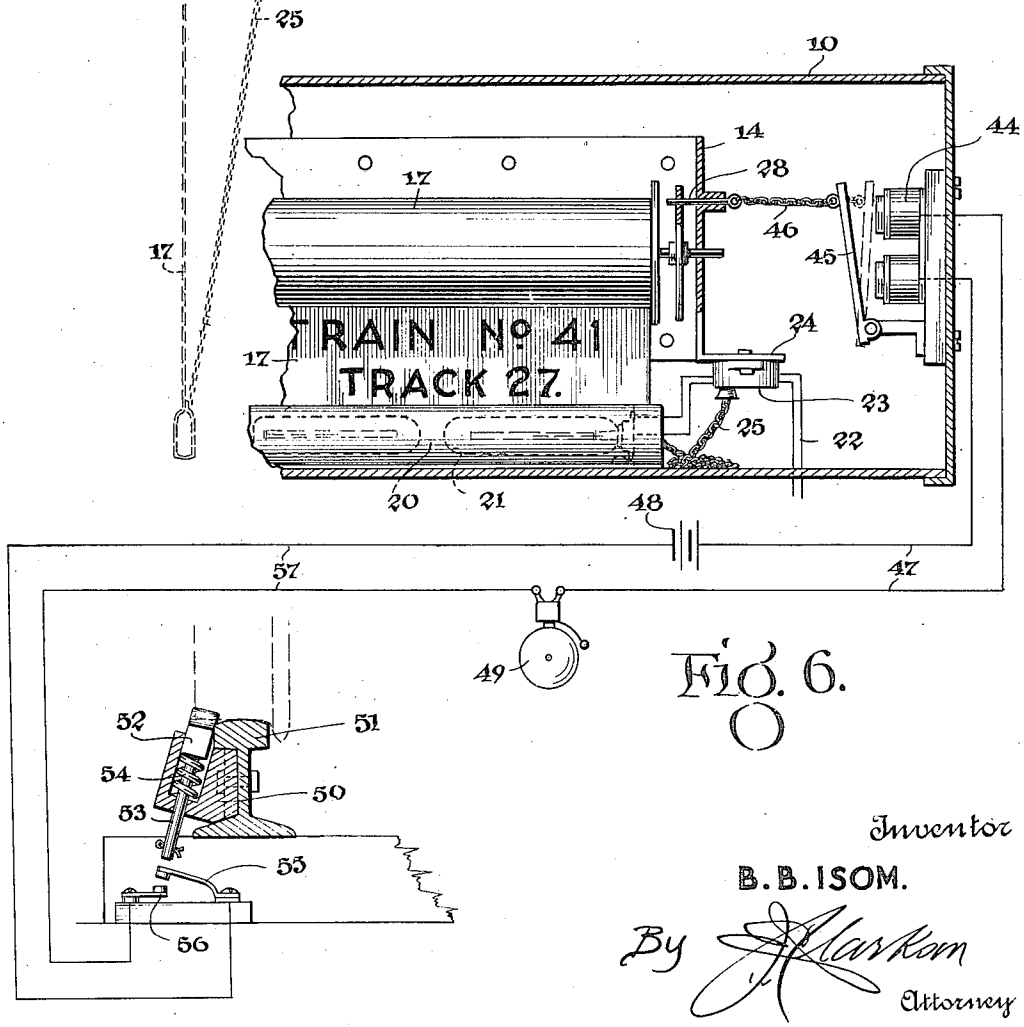


Fig. 6.

Inventor

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Patented July 8, 1924. 1,500,706

UNITED STATES PATENT OFFICE.

BYRD B. ISOM, OF NEAR ACTON, TENNESSEE.

SIGNAL.

Application filed April 5, 1922. Serial No. 549,804.

To all whom it may concern:

Be it known that BYRD B. ISOM, citizen of the United States, residing near Acton, in the county of McNairy and State of Tennessee, has invented certain new and useful Improvements in Signals, of which the following is a specification.

This invention relates to signals and has special reference to a signal arranged to display a sign, the signal being peculiarly adapted for announcing the presence of burglars in banks and other like institutions, for announcing the approach of trains to stations or railroad crossings and for a variety of other similar uses.

One important object of the invention is to improve the general construction of devices of this character.

A second important object of the invention is to provide an improved signal construction wherein the closing of an electric circuit will serve to release a curtain or banner and to display the same.

A third important object of the invention is to provide, in a device of this character, means actuated by the curtain in its movement to display position which will serve to switch on lights to illuminate the display curtain or banner.

With the above and other objects in view, the invention consists in general of certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings, and specifically claimed.

In the accompanying drawings, like characters of reference indicate like parts in the several views, and:—

Figure 1 is a front elevation of the complete device arranged in a manner suitable for use as a burglar alarm for a bank, the banner or curtain being displayed.

Figure 2 is an end view thereof.

Figure 3 is an enlarged front view of the device with the front of the casing removed and with certain parts of the interior broken away or shown in section to better dispose the details.

Figure 4 is a section on the line 4—4 of Figure 3.

Figure 5 is a section on the line 5—5 of Figure 3.

Figure 6 is a partial front elevation with the front of the casing cut away, the view showing a modified form of the device suitable for use as a train announcer, and also showing the manner in which the device can be automatically operated by an approaching train.

In the two embodiments of the device shown in the accompanying drawings it will be seen that there is provided a casing 10 having a door 11 at one end which is normally held closed by a suitable lock 12. Within the casing and secured to the rear wall thereof is a bracket 13 having a pair of forwardly projecting arms 14. These arms are provided with suitable openings to receive the journals 15 of a roller 16 having a shade or banner 17 rolled thereon. This shade or banner is provided at its lower end with a heavy weight 18 and on the face of the shade are painted suitable words for the particular purpose to which the signal is to be put. For instance, in the case of a bank burglar alarm the banner might be inscribed with the words "Hold up. Get police!" while the use of the signal as a train announcer would naturally entail the wording on the banner to show the train number and track, or other like matter. This banner 17 is normally rolled up on the roller 16 so that it is entirely housed within the casing 10. However, the casing is provided in its bottom with a slot 19 through which the banner may pass from its rolled up to its displayed position.

Adjacent to slot 19 and within the casing is mounted a reflector 20 which supports one or more electric lamps 21 connected circuit wires 22 which pass through a pull switch 23 carried on an arm 24 projecting from one of the bracket arms 14. This pull switch is provided with the usual chain 25 and the end of this chain is connected to the weight 18. Thus, as the banner is unrolled the chain 25 is pulled and the switch actuated to turn on the lamps 21.

Fixed on one of the journals 15 is a disc 26 having a series of openings 27 formed adjacent to its periphery. Through one of the arms 14 extends a pin 28 which is arranged to enter a selected opening 27 and thus hold the curtain from unrolling. The purpose of a plurality of openings 27 is to enable a person setting the device to set the same at any desired point, as for instance to display the lower line or lines of the legend on the banner. Thus the word "Bank" in the legend shown may be normally displayed if desired as an advertisement, the alarm signal being kept rolled up. The

other journal 15 is extended to form a crank 29 and mounted to swing into and out of the path of this crank is a detent 30. This crank and detent are arranged at the end of the roller next the door 11 so that by opening the door the shade may be rolled up. Also the detent may, when desired, be used to prevent unrolling of said shade.

In the form of the device best shown in Figure 3, there is provided, within the casing, an electric bell or gong 31 having a clapper arm 32 provided with serrations 33. On this arm is slidably mounted a ring 34 which is connected by a chain 35 with the pin 28. On the chain 35 is a weight 36. A wire 37 leads from the bell 31 to a battery 38 which is connected by a wire 39 with a switch 40. In turn this switch is connected by a wire 41 with a bell 42 which may be located at a police station or other suitable points, the circuit being completed through a wire 43 connecting the bells 31 and 42. The switch 40 as here illustrated is merely typical and may take any form desired. For instance, it may be a concealed switch placed under a door mat, or the like, it may be a push button positioned convenient for the cashier to reach, or it may be any one of a number of like devices as can readily be understood.

In the operation of this form of device the closing of the switch 40 will cause the bells 31 and 42 to ring. The ringing of the bell 31 will be effected by vibration of the arms 32. Under these conditions the ring 34 will work down the serrations 33 and, as the arm continues to vibrate, the pin 28 will be pulled out of the opening in the disc 26. This will release the curtain which will drop in position shown in Figure 1 and, as before noted, will turn on the lights.

In the form of the device shown in Figure 6 the bell 31 is replaced by an electro-magnet 44 having an armature 45 connected to the pin 28 by a chain 46. This electro-magnet is connected by wiring 47 to a battery 48, bell 49 and a suitable circuit closer. In this Figure 6 there has been shown a train operated circuit closer which consists of a block 50 secured on the outer side of a rail 51. Slidably mounted in this block is a plunger 52 having a stem 53 projecting downward through the bottom of the block. This plunger is normally held raised by a spring 54. Beneath the lower end of the plunger 53 is a spring contact member 55 movable into and out of engagement with a fixed contact member 56, these contact members being connected by wiring 57 with the battery and bell.

With this construction the movement of a train along the track causes the wheels to depress the plunger 52 and close the member 55 on the member 56. This closes the circuit through the magnet 44, and causes the pin 28 to move out of the opening 27 in which it is engaged so that the banner or curtain is released and displayed as in the previous case.

There has thus been provided a simple and efficient device of the kind described and for the purposes specified.

It is obvious that minor changes may be made in the form and construction of the invention without departing from the material principles thereof. It is not therefore desired to confine the invention to the exact form herein shown and described but it is wished to include all such as properly come within the scope claimed.

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

1. In a device of the kind described, a roller, a curtain wound on said roller, a weight at the lower end of said curtain tending to unwind the same, journals on the ends of said roller, arms supporting said journals, a disc fixed on one of said journals and provided with a series of openings adjacent its periphery, a pin projecting through one of the arms and engaging in one of the openings to hold the roller from rotation, and electrically operated means for withdrawing said pin including an electrically operated audible signal and a mechanical connection between said audible signal and the pin.

2. In a device of the kind described, a roller, a curtain wound on said roller, a weight at the lower end of said curtain tending to unwind the same, journals on the ends of said roller, arms supporting said journals, a disc fixed on one of said journals and provided with a series of openings adjacent its periphery, a pin projecting through one of the arms and engaging in one of the openings to hold the roller from rotation, an electric bell including a serrated clapper arm, a ring mounted on the clapper arm to slide down the arm upon vibration of the clapper, a chain connecting said ring and pin, and means to close a circuit through said bell.

3. In a device of the kind described, a roller, a curtain wound on said roller, a weight at the lower end of said curtain tending to unwind the same, journals on the ends of said roller, arms supporting said journals, a disc fixed on one of said journals and provided with a series of openings adjacent its preiphery, a pin projecting through one of the arms and engaging in one of openings to hold the roller from rotation, an electric bell having a clapper, and means connecting the clapper and pin to cause withdrawal of the pin upon actuation of the clapper.

In testimony whereof I affix my signature.

BYRD B. ISOM.