W. W. BALDWIN.

THERMAL CIRCUIT CONTROLLER.

APPLICATION FILED JAN. 12, 1918.

1,383,060. **Patented June 28, 1921.**

Fig. 1.

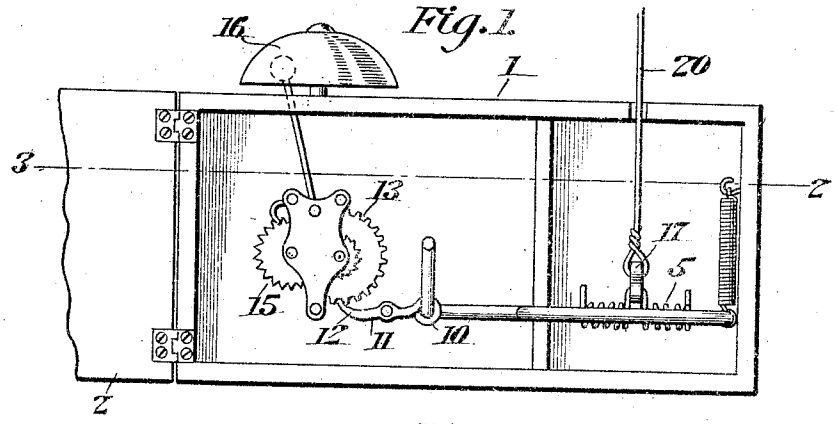
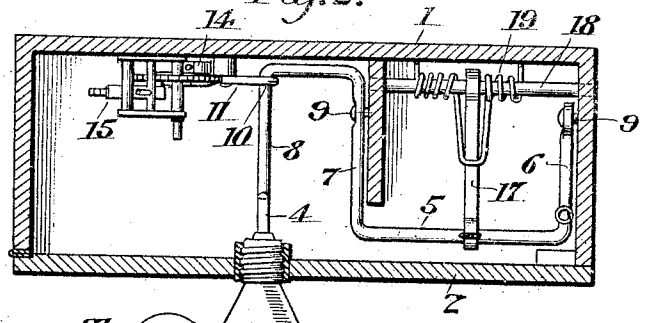
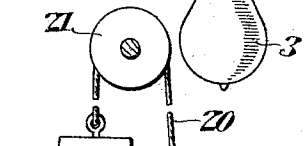


Fig. 2.





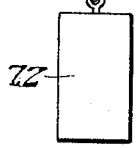
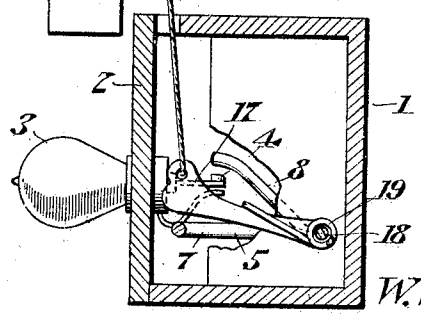


Fig. 3.



Inventor

W. W. Baldwin

Witnesses

M. H. Slifer

Wm R. Smith

By Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

WILLIAM W. BALDWIN, OF DESKINS, VIRGINIA.

THERMAL CIRCUIT-CONTROLLER.

1,383,060. Specification of Letters Patent. Patented June 28, 1921.

Application filed January 12, 1918. Serial No. 211,642.

To all whom it may concern:

Be it known that I, WILLIAM W. BALDWIN, a citizen of the United States, residing at Deskins, in the county of Buchanan and State of Virginia, have invented new and useful Improvements in Thermal Circuit-Controllers, of which the following is a specification.

This invention relates to an automatic fire alarm apparatus by means of which visual as well as audible signals will be given in case of a fire.

The primary object of the invention is the novel manner of associating the elements so that an audible alarm device may be put into operation simultaneously with the energization of a visual signal element.

An object of the invention is the use of two consumable elements capable of allowing the apparatus to be put into operation.

With these and other objects in view, the invention will be better understood from the following detailed description taken in connection with the accompanying drawing wherein—

Figure 1 is a front elevation of the apparatus with the cover partly thrown back.

Fig. 2 is a sectional view on the line 2—2 of Fig. 1.

Fig. 3 is a detailed view.

Referring to the drawing, the numeral 1 designates a casing having a hinged door 2 upon which is mounted an electric bulb 3. This electric bulb makes connection with a pair of normally spaced contacts 4 arranged interiorly of the casing.

The numeral 5 designates a bar bent to have three parallel portions 6, 7 and 8, the portions 6 and 7 being pivotally connected to the casing as indicated at 9, while the remaining portion 8 is so arranged as to be capable of assuming a position to force the contacts 4 together.

Encircling the portion 8 is the apertured extremity 10 of a dog 11 which is mounted so that the bill 12 may engage the teeth of a ratchet wheel 13. This ratchet wheel has connected thereto in the usual manner a coil spring 14 and coöperating with the ratchet wheel is a hammer mechanism 15 adapted to strike a gong 16 arranged interiorly of the casing.

From the foregoing description it will be seen that when the rod is moved about its pivot, the portion or striker arm 8 will move in such a direction as to close the contacts and move the dog out of engagement with the ratchet wheel with the result that the audible alarm mechanism is thrown into operation and also the bulb 3 is illuminated.

For giving movements to the rod upon a rise in the temperature of the surrounding medium, I provide a striker 17 rotatably mounted upon a rod 18 that is in turn rigidly supported by the casing. Encircling the rod 18 with its intermediate portion yieldably engaging the striker 17 is a coil spring 19, the purpose of which is to violently throw the striker into engagement with the bar 5 under the conditions previously set forth. Attached to the striker is a combustible element 20 of a length great enough to protect a large area. At a certain point in its length the element 20 passes over a pulley 21 so that a portion thereof beyond the pulley can support a fusible weight element 22. By this latter arrangement it will be seen that should the element 20 be consumed the striker will perform its function and the same is true when the fusible element fuses.

It is to be understood that the structural embodiment of the invention as a whole and its various features as shown is merely illustrative and not restrictive since I am well aware that many of the details of construction can be widely varied without departing from the spirit of the invention such as dispensing with the striker and its associated elements allowing the fusible element to act directly upon the bar 5 in opposition to a suitably arranged spring. I therefore do not desire to be limited in these particulars or in any others except as set forth in the appended claim.

What I claim is:

A device of the class described comprising a pivoted U-shaped yoke having one end offset to define a striker arm, a pair of spring contacts disposed in the path of travel of said striker arm, a pivoted lever, a spring engaging said lever and normally urging the same toward said yoke, and a combustible member connected with said lever and holding the same under tension against the resistance of said spring, whereby upon combustion of said combustible member said spring pressed arm will be released to engage and move said yoke whereby the striker arm thereof will move said contacts into engagement.

In testimony whereof I affix my signature.

WILLIAM W. BALDWIN.