

No. 896,874.

PATENTED AUG. 25, 1908.

H. WILLIAMS.
HOT BOX INDICATOR.
APPLICATION FILED OCT. 28, 1907.

Fig. 1.

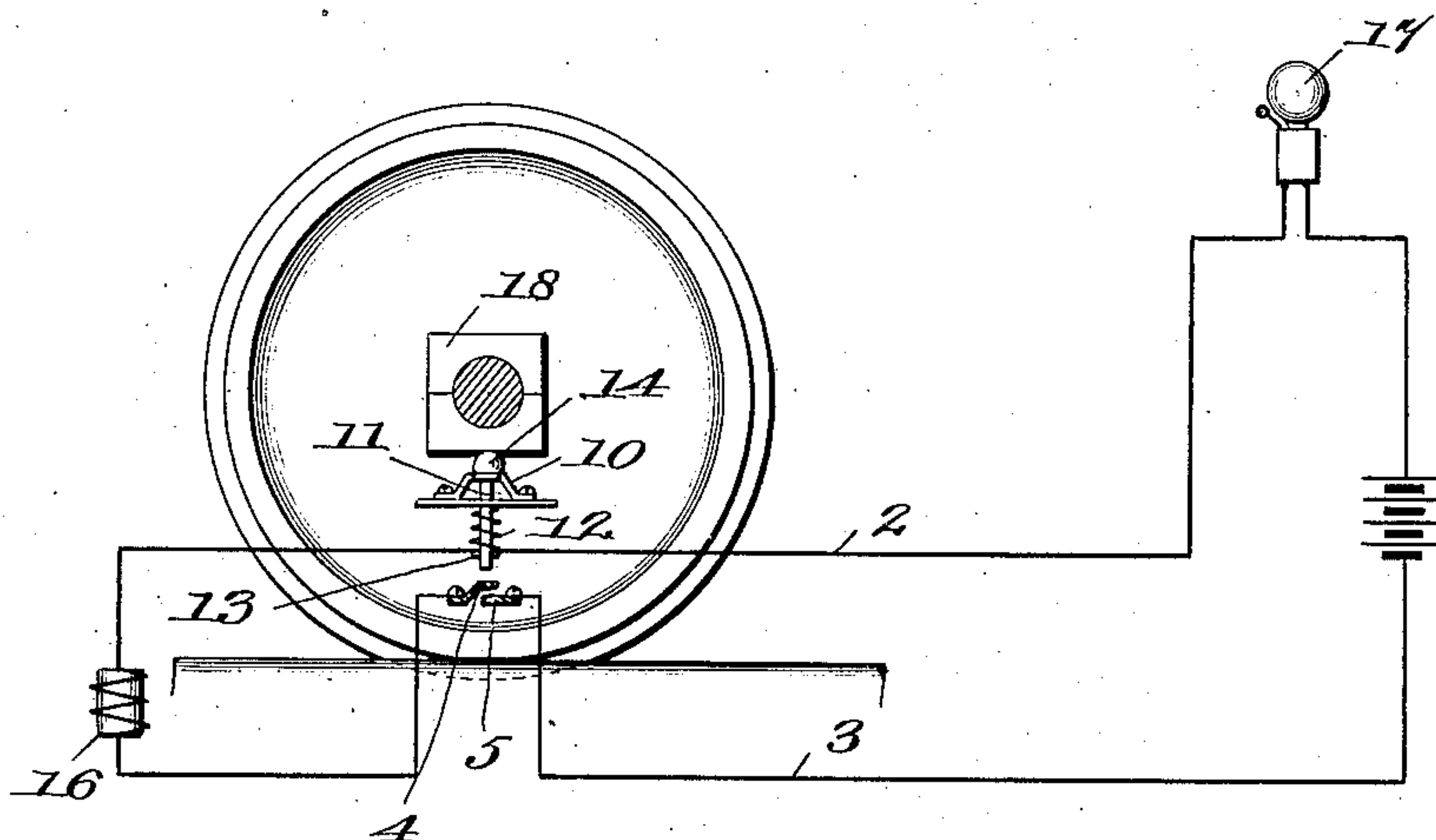
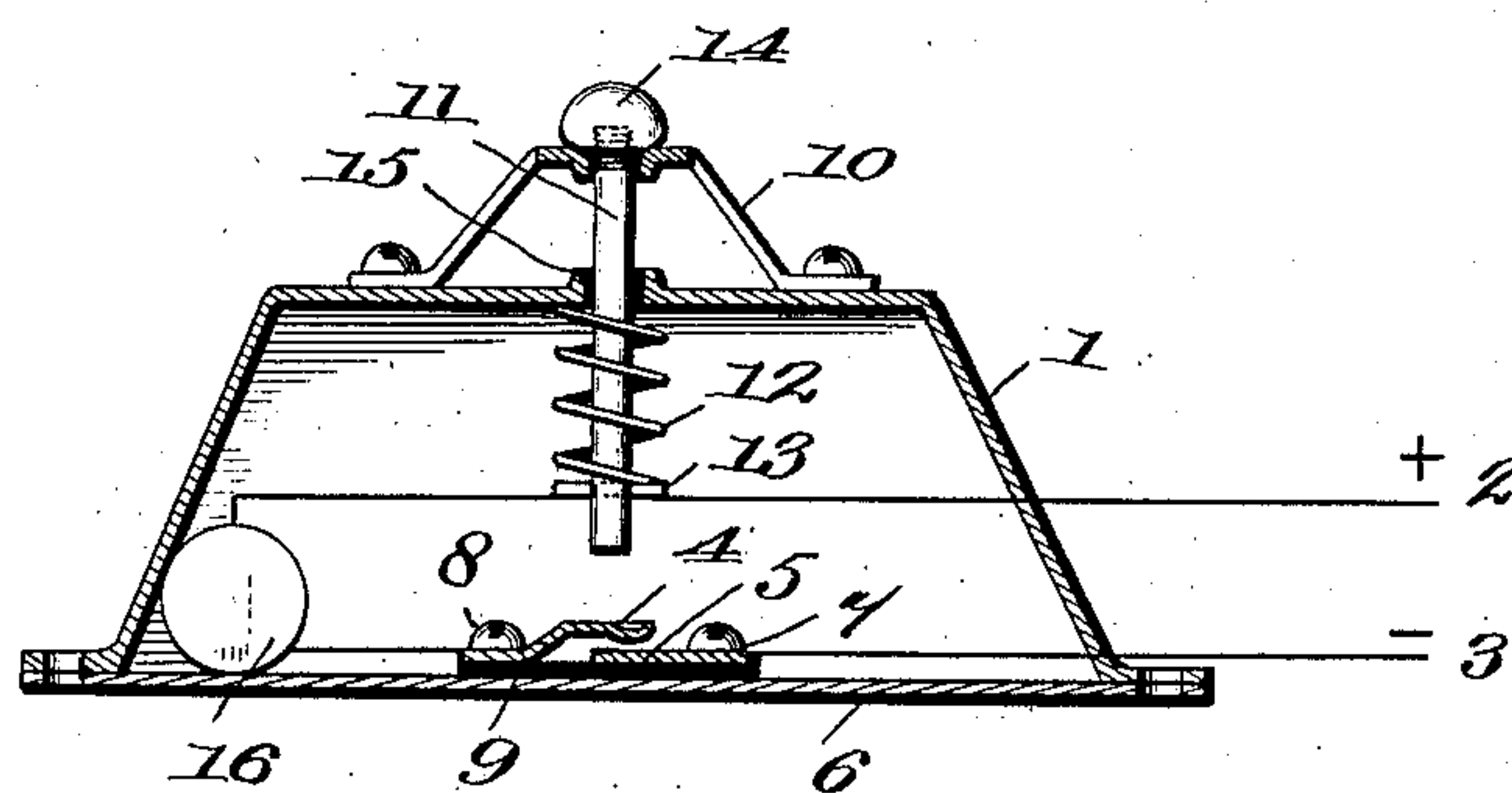


Fig. 2.



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HENRY WILLIAMS, OF CHICAGO, ILLINOIS.

HOT-BOX INDICATOR.

No. 896,874.

Specification of Letters Patent.

Patented Aug. 25, 1908.

Application filed October 28, 1907. Serial No. 399,506.

To all whom it may concern:

Be it known that I, HENRY WILLIAMS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hot - Box Indicators, of which the following is a specification.

My invention relates to signals, more particularly to the automatic type, and has for its purpose to provide a device of that character whereby to announce at any suitable location the overheating of a journal. Its further purpose is in so constructing the apparatus that it shall be positive in its operation.

Another object lies in that the circuit closure is held in direct contact with the journal box, and by the heating of the same beyond a predetermined point, is released to close the circuit and thus sound an alarm. Its use in this instance is shown in connection with a car wheel journal with which it is so connected as to sound an alarm in the engineer's cab in the event of a hot box. I have shown it in this application merely for illustrative purposes and do not, therefore, wish to be limited to such for it may be just as readily applied to any kind of a journal.

In the accompanying drawing which discloses the preferred embodiment of my hot-box indicator, and in which like numerals of reference designate corresponding parts in the different figures shown,—Figure 1 is a diagrammatic view of the apparatus shown applied to the journal box of a car wheel, and Fig. 2 is a sectional elevation of the casing illustrating the operative parts.

In a detailed description of the apparatus it comprises a casing or housing 1, into which are led the positive and negative circuit closing wires 2 and 3 respectively, said wires terminating in contact with the electrodes 4 and 5 which are, of course, normally separated. The electrodes are secured to the bottom 6 of the casing 1 by the screws 7 and 8; and 9 designates insulation interposed between said electrodes and the bottom 6 of the casing.

Secured by any suitable means to the top of the casing 1 is a bracket 10 whose function is to maintain the circuit closer, or plunger, 11

in contact with the journal box in which position it is held by the cap 14 containing any fulminous material, said cap being seated against the outer side of the casing and adapted to explode when overheated. The cap 14 is internally threaded for screw connection with plunger 11. This plunger is in a sense suspended from the bracket 10 so as to depend into the casing 1 for which purpose the top of said casing is provided with an opening 15 whose diameter is a trifle larger than the depending plunger rod 11.

A spiral spring 12 surrounds the member 11 within the casing and is held in its proper position on the rod by seating against the under side of said casing and against a stop pin 13 near its lower extremity. The spring 12 is of course normally contracted.

The operation of my apparatus is as follows: Assuming that the journal box 18 has become heated beyond normal the fulminous material in the cap 14 will, by the rise of said heat, explode and thereby release the plunger 11 which will, by the action of the spring 12, be thrown positively against the electrode 4, which engaging with 5 will complete the circuit and sound an alarm 17.

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

An apparatus of the character described comprising a casing, a bracket removably secured thereon, circuit closing means within said casing, an aperture in said casing immediately beneath said bracket, a plunger-rod within said aperture, one end of said rod extending normally beyond said bracket and provided with a fulminous cap, said cap seated on said bracket and adapted to hold said rod in its normal position, the lower end of said rod within said casing, and a spring carried by said rod within said casing and adapted to positively throw said rod against said circuit closing means whereby to sound an alarm.

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

HENRY WILLIAMS.

Witnesses:

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