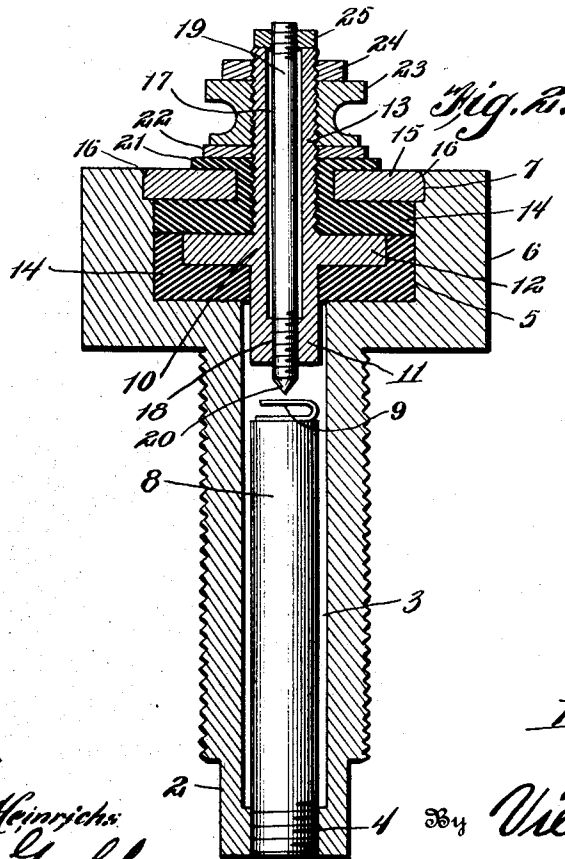
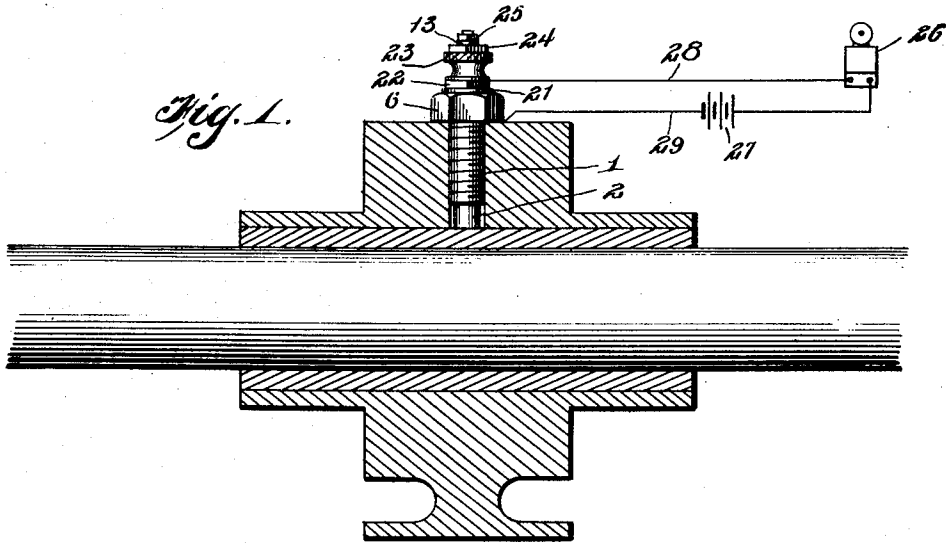


H. W. FRYLING.
ELECTRIC OPERATED ALARM.
APPLICATION FILED MAR. 8, 1913.

1,111,652.

Patented Sept. 22, 1914.



Witnesses

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UNITED STATES PATENT OFFICE.

HARRY W. FRYLING, OF LOWELL, NORTH CAROLINA.

ELECTRIC-OPERATED ALARM.

1,111,652.

Specification of Letters Patent.

Patented Sept. 22, 1914.

Application filed March 8, 1913. Serial No. 753,040.

To all whom it may concern:

Be it known that I, HARRY W. FRYLING, a citizen of the United States, residing at Lowell, in the county of Gaston and State of North Carolina, have invented new and useful Improvements in Electric-Operated Alarms, of which the following is a specification.

The invention relates to an electrically operated alarm controlled by the condition of heat of the journal or the like whereby in the event of the journal becoming heated from any cause the alarm is automatically sounded to indicate such condition.

The main object of the present invention is the provision of an element forming in effect the circuit closure of the alarm, which element is constructed for use as an ordinary part of the journal.

The invention in its preferred form of details will be described in the following specification, reference being had to the accompanying drawings, in which:—

Figure 1 is a sectional view showing the application of the improvement to a journal. Fig. 2 is a vertical central section through the element constituting the improvement.

Referring particularly to the accompanying drawings the improvement is in the form illustrated shown as a bolt 1, preferably provided with a non-threaded terminal 2 which when the bolt is in place will contact with Babbitt or other bearing metal of the journal. The bolt is centrally formed with longitudinally extending bore 3, which adjacent the lower end of the bolt is slightly reduced in diameter at 4 and interiorly threaded as shown. At the upper end of the bore is circumferentially enlarged to form what may be termed a recess 5, the enlargement being within the head 6 of the bolt. That portion of the recess adjacent and including the upper surface of the bolt head is further enlarged as at 7.

Secured within the bore 3 is a contact element 8 preferably a rod-like member or metal readily expanded by heat or at least more readily influenced by heat than the metal of which the bolt proper is constructed. The upper end or terminal 9 of the contact strip 8 is in the form of a spring rod and is arranged below the juncture of the bore 3 and recess 5, and in the recess is arranged a body 10 having a depending stem like portion 11 to project within the

bore in alinement with the contact section 8 and a horizontally arranged disk like portion 12 to fit within the recess, the body above the disk being in the form of a tubular exteriorly threaded stem 13. That portion of the body 10 within the recess is held against contact or electrical connection with the wall of the recess by insulating material 14 which preferably surrounds the disk portion 12 of the body. It is understood that the insulating material and body completely fills the recess 5, and the body is fixed in such position by a metal washer 15 which encircles the stem 13 of the body and seats in the enlargement 7 of the recess, the upper edge of the washer being cut away and the metal of the bolt head spun over such cut away portion as at 16 to secure the washer in place and thereby retain the body in the bolt.

The stem 13 extends above the upper surface of the bolt head and is interiorly and longitudinally cored at 17 with the diametric extent thereof reduced adjacent the bottom of the extension 11 and interiorly threaded throughout such reduced portion as at 18. A second contact member 19 is designed to be seated within the bore of the body 10, said member 19 being exteriorly threaded for coöperation with the threaded portion 18 and preferably terminating in pointed terminals 20 forming a contact point to overlie and coöperate with the point 9 of the contact section 8. As the member 19 is readily adjustable longitudinally of the body it is obvious that the point 20 may be adjusted as desired with relation to the strip 9 and thereby readily control the sensitiveness of the device. Surrounding the stem 13 and resting upon the upper surface of the bolt head is an insulating disk 21 over which is arranged a lock nut 22 to secure said disk in place, and lock the body against rotation within the nut. A binding nut 23 coöperates with the stem 13 beyond the lock nut 4, and lock nuts 24 and 25 coöperate respectively with the stem 13 and the projecting nut of the member 19 beyond the binding nut for obvious purposes.

The electric circuit includes an alarm 26, a battery 27 and circuit wires 28 and 29 all of which are of the usual or may be of any preferred construction and arrangement. One terminal of the wire 28 is secured between the binding nut 23 and lock nut 22 thereby including the contact mem-

ber 19 in the circuit. The other wire is connected beneath the head 6 of the bolt so as to include the bolt proper in the circuit. The inclusion of the bolt of course includes
5 the contact member 8 in the circuit. By this means a complete alarm circuit is provided broken only at the contacts 9 and 2 and as the journal becomes heated the member 8 in expanding closes the circuit by en-
10 gagement with the point 20, causing the alarm to sound, indicating the heated condition of the journal.

What is claimed is:

15 A circuit closing element for journal box alarm circuits comprising a member having a threaded portion for mechanical and electrical engagement with the journal box, said member having a reduced extension at the lower end which is interiorly threaded,
20 the upper end of the member being enlarged, said member being formed with an

interior opening from end to end, said opening being materially increased in size within the enlarged portion, a contact element having threaded connection with the re- 25
duced extension of the member, a spring contact strip carried by the upper end of the contact element, a body removably secured within the enlarged portion of the member and wholly insulated from said member, 30
and a second contact element longitudinally adjustable within the body for coöperation with the spring contact strip, said contact members being included in the alarm circuit. 35

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

HARRY W. FRYLING.

Witnesses:

D. B. COTTRANE,
J. M. HENDRIX.