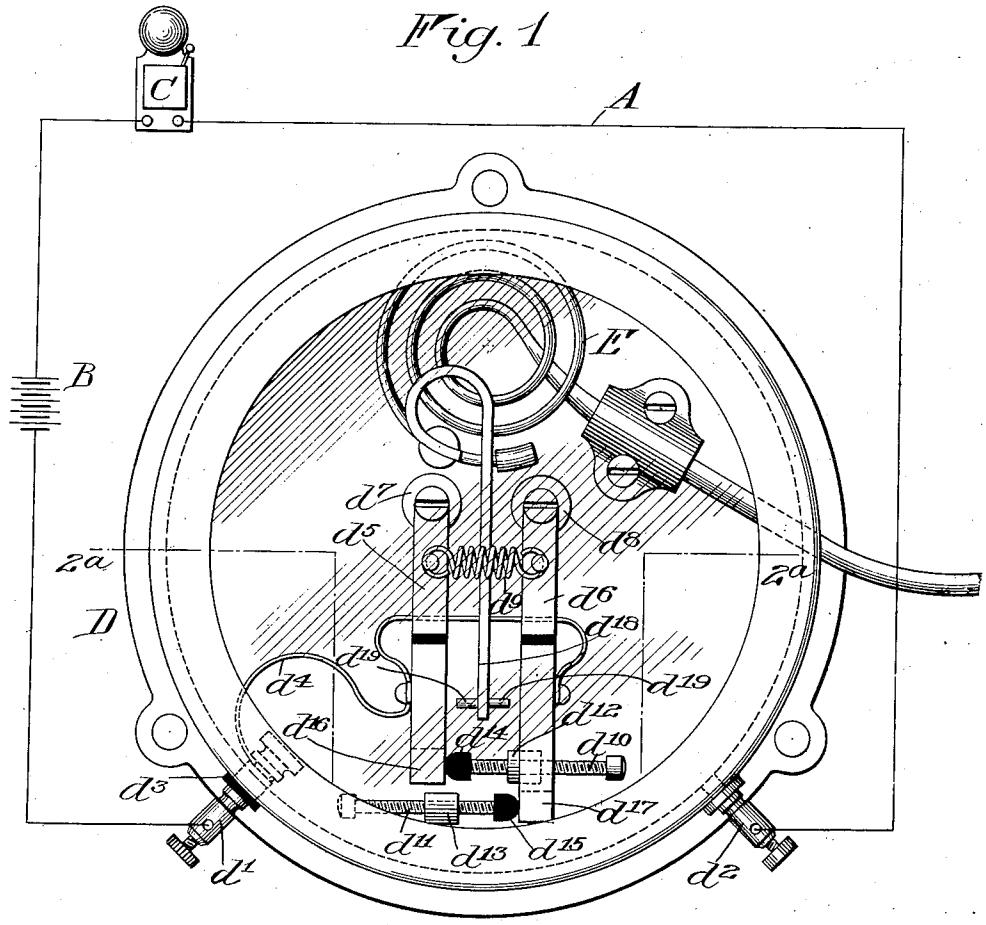
H. Y. NORWOOD.

INDICATING MECHANISM.

APPLICATION FILED MAR. 17, 1914.

1,250,209. Patented Dec. 18, 1917.

Fig. 1



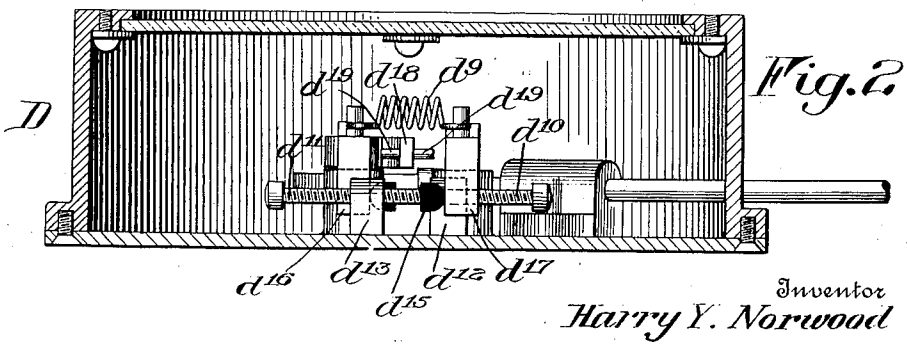


Fig. 2

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Witnesses

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UNITED STATES PATENT OFFICE.

HARRY Y. NORWOOD, OF ROCHESTER, NEW YORK, ASSIGNOR TO TAYLOR INSTRUMENT COMPANIES, OF ROCHESTER, NEW YORK, A CORPORATION OF NEW YORK.

INDICATING MECHANISM.

1,250,209. Specification of Letters Patent. Patented Dec. 18, 1917.

Application filed March 17, 1914. Serial No. 825,408.

To all whom it may concern:

Be it known that I, HARRY Y. NORWOOD, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Indicating Mechanism; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My invention relates to indicating mechanisms, and more particularly to the class of devices for indicating temperature by giving an alarm or signal of some sort when the temperature reaches a predetermined point, and it has for its purpose to improve the construction of such mechanisms by affording an arrangement of parts that will successfully withstand the various tests to which the machine may be subjected. A more specific and further object of my invention is to improve the construction of the contact member or members with which the circuit closer coöperates, so that the latter will not be liable to any strain in coming into engagement with the contact member. To these and other ends the invention consists of certain improvements and combinations of parts all as will be hereinafter more fully described, the novel features being pointed out in the claim at the end of the specification.

In the drawing:

Figure 1 is a plan view of an apparatus constructed in accordance with a preferred embodiment of my invention, and

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

Similar reference characters throughout the views indicate the same parts.

In the present embodiment of the invention, A indicates an electrical circuit including the battery B and the indicator or alarm device C. The circuit is connected with a box or casing which contains the temperature controlling mechanism, and is normally open until the temperature reaches a predetermined point, whereupon the circuit is closed by means which will presently be described. D is the box or casing referred to, preferably constructed of metal and thereby affording a conducting medium. d' and d^2 are binding posts arranged on the casing D and to which the circuit A is connected, the binding post d' being insulated from the casing by suitable insulating material, d^3. A conductor d^4 leads from the binding post d^3 to a pair of contact members or arms d^5 and d^6, which are pivotally mounted upon standards or posts d^7 and d^8. The contact arms d^5 and d^6 include outer end portions which are insulated from their inner ends, and lie in the path of the circuit closer to be described presently. The contact arms are thus movably supported and are connected by yieldable means, preferably in the form of a spring d^9, which serves to normally draw them together. The movement of the contact members toward each other is limited by suitable stop devices which are preferably adjustable and to this end I provide a pair of threaded posts d^{10} and d^{11}, adjustably mounted on standards d^{12} and d^{13}, and having insulated ends or caps d^{14} and d^{15} coöperating with legs or extensions d^{16} and d^{17} on the contact members. d^{18} is the circuit closer which may be provided with suitable pins or projections d^{19} for engagement with the contact members, and it is suitably mounted upon a heat controlled element E, which for the purposes of the invention, might be any other movable or changeable device adapted to be controlled by certain varying conditions. In the present instance, it comprises a flexible coil that is hollow and contains an expansible fluid depending for its action upon the temperature to which it is subjected. The coil E is delicately constructed, and can not safely be subjected to any undue strain, such as would occur if the circuit closer, which it carries, engages a rigid and fixed contact, particularly if the parts are under the influence of an abnormal temperature. It is for this purpose that I have provided means for permitting the contact to yield, and thus enable further movement of the circuit closer when operated by excessive temperatures, while at the same time permitting the parts to operate under normal conditions in an efficient and accurate manner. By means of the adjustable stop devices for the contact members, it is possible to vary the tension of the yieldable means controlling them, and also to vary the extent of movement of the circuit closer.

In the operation of the mechanism, current passes from the binding post d^2 to the casing and thence to the circuit closer d^{18}.

When the latter is actuated to engage either contact member, the circuit is closed through the conductor d^4, binding post d', and battery B causing the signal or indicator C to operate. In case the circuit closer is actuated by an excessive temperature, sufficient to move it beyond the normal position of the contact member, the latter will yield and permit such movement, the spring d^9 being of a very light character and offering but slight resistance to the force exerted by the circuit closer.

I claim as my invention.

The combination with a circuit closer movable in opposite directions to alternately engage a pair of contact members, said contact members being pivotally mounted and arranged on opposite sides in the path of and normally spaced from the circuit closer, yieldable means connected to the contact members actuating them toward each other and permitting abnormal movement away from each other, and adjustable stop devices coöperating with and limiting the movement of the contact members toward each other.

HARRY Y. NORWOOD.

Witnesses:
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