No. 815,111. PATENTED MAR. 13, 1906.

T. A. MYERS & W. M. CLEMANS.

THERMOSTATIC ALARM.

APPLICATION FILED AUG. 25, 1905.

Fig 1

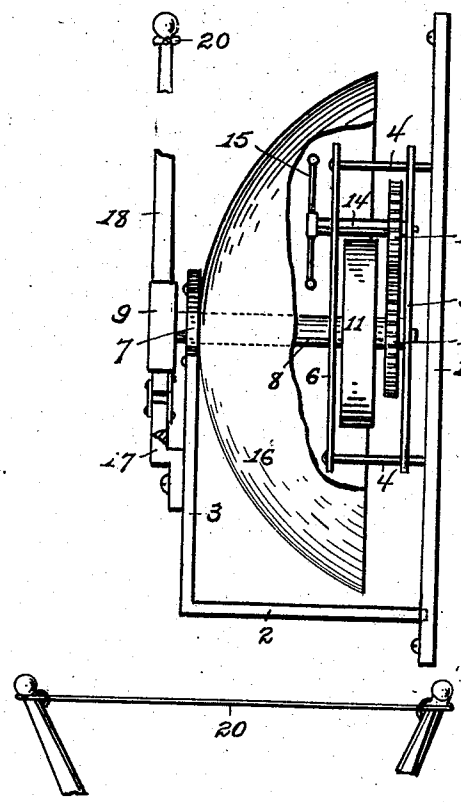
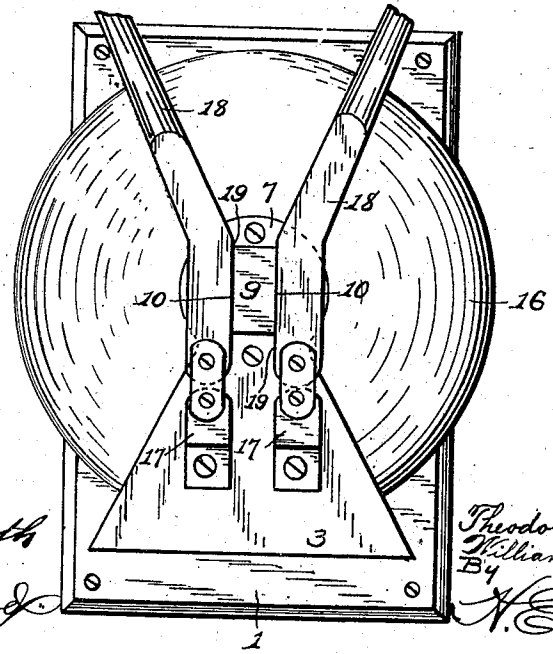


Fig 2



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UNITED STATES PATENT OFFICE.

THEODORE A. MYERS AND WILLIAM M. CLEMANS, OF WHEELING, WEST VIRGINIA, ASSIGNORS OF ONE-THIRD TO CHARLES C. SCHMIDT, OF WHEELING, WEST VIRGINIA.

THERMOSTATIC ALARM.

No. 815,111. Specification of Letters Patent. Patented March 13, 1906.

Application filed August 25, 1905. Serial No. 275,728.

To all whom it may concern:

Be it known that we, THEODORE A. MYERS and WILLIAM M. CLEMANS, citizens of the United States of America, and residents of Wheeling, county of Ohio, and State of West Virginia, have invented certain new and useful Improvements in Thermostatic Alarms, of which the following is a specification.

Our invention relates to new and useful improvements in fire-alarms, and more particularly to a thermostatic alarm; and it consists in the particular construction, arrangement, and combination of parts which will hereinafter be fully described.

The object of the invention is to provide an alarm which is particularly adapted for residences and which is extremely simple in its construction and inexpensive to manufacture and, further, to provide an alarm which is little liable to become out of order, since none of its parts are such as to be affected by age or by atmospheric changes.

In describing the invention in detail reference is herein had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of the invention, a portion of the bell being broken away to more clearly illustrate the alarm mechanism; and Fig. 2 is a front elevation of the invention.

Referring to said drawings, in which like reference-numerals designate like parts throughout the several views, 1 indicates a plate for securing against a wall or in other convenient upright position within a building. Suitably secured to said plate 1 near its lower end is a bracket consisting of a substantially horizontal portion 2 and a vertical portion 3, the latter standing substantially parallel to said plate at a sufficient distance therefrom to admit of the alarm mechanism proper being mounted between it and said plate.

With their ends mounted in the face of the plate 1 is a plurality of posts 4, having rigidly mounted thereon two parallel vertical plates 5 and 6. Journaled at its inner end in said plate 5 and at its front end in a collar 7, with which the vertical portion 3 of the bracket terminates, is a stem or spindle 8, having upon its extreme outer end a head 9 with flat faces 10 on opposite sides thereof.

An encircling coil-spring 11, interposed between the plates 5 and 6, is attached to said stem or spindle 8. Rigidly secured upon said stem at or near its inner end is a spur-wheel 12, which meshes with a pinion 13, provided upon a shaft 14, which carries upon its outer end a bell-hammer 15, said shaft being journaled in said plates 5 and 6, as shown. A bell 16 is suitably mounted upon said collar 7 to be engaged by said bell-hammer 15. Secured upon the outer face of said vertical portion 3 of the bracket are two lugs 17, to each of which is pivotally attached the lower end of an arm 18. Said arms 18 are adapted to grip the head 9 of the stem or spindle 8 to firmly hold said stem or spindle against the tension of the spring 11, and for the purpose each arm is provided with a vertical edge 19, said edges being adapted for closely engaging the flat faces 10 of the head 9. Said arms are bent outward at a slight angle to the vertical, as shown, and connecting the upper ends thereof is a fusible wire 20.

To set the alarm for use, the spindle 8 is turned, by means of the head 9, to wind up the spring 11. When the spring is wound up, the arms 18 are raised until the flat faces 10 of said head are gripped by the vertical edges 19 thereof, when the free ends are connected by the fusible wire 20. When the said wire 20 is contacted by flame or is subjected to a high degree of heat, it melts, allowing the arms 18 of their own weight to drop, releasing the spindle 8. Said spindle, actuated by the spring 11, is caused to revolve, and through the spur-wheel, pinion, and shaft 14 the hammer 15 is caused to revolve and to beat against the bell, sounding an alarm.

It will be seen from the foregoing that the device is extremely simple in its construction and is consequently little liable to become out of order. Further, since the fusible wire is not affected by age or by atmospheric changes it is apparent that the device cannot be otherwise than reliable at all times.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a thermostatic fire-alarm, a suitably-mounted spindle, an encircling coil-spring connected with said spindle, a head carried by said spindle, a bell, a bell-hammer, mechanism intermediate said spindle and said bell-

hammer whereby when the former is released the latter is caused to sound an alarm upon the bell, and means for holding said spindle against the tension of said spring, said means comprising pivoted upright arms for embracing said head on opposite sides thereof, and a fusible wire connecting the free ends of said arms, substantially as described.

2. In a thermostatic fire-alarm, a revoluble spindle carrying a head having opposite flat faces, a coil-spring encircling said spindle and adapted for actuating said spindle to revolve, a bell, a bell-hammer, means intermediate said spindle and said bell-hammer whereby when the former is revolved the latter is actuated to beat upon the bell, and means for normally holding said spindle against the tension of said spring, said means consisting of two substantially upright arms pivoted at their lower ends below the head of said spindle and firmly engaging the flat faces of the head, and a fusible wire connecting the upper, or free, ends of said arms, substantially as described.

3. In a thermostatic fire-alarm, the combination with a bell, bell-hammer, and an alarm-train leading to said bell-hammer, of a revoluble spindle in operative engagement with said alarm-train, a spring for actuating said spindle to revolve, a head carried by said spindle, pivoted arms embracing said head to hold said spindle against the tension of said spring, and a fusible wire connecting said arms, said arms being adapted, when released by the fusing of the wire, to release said spindle, substantially as described.

Signed by us in the presence of two subscribing witnesses.

THEODORE A. MYERS.
WILLIAM M. CLEMANS.

Witnesses:
THOMAS D. BENNETT,
JOHN P. KINDELBERGER.