No. 828,356. PATENTED AUG. 14, 1906.

A. E. WATTS.

FIRE ALARM.

APPLICATION FILED JULY 13, 1905.

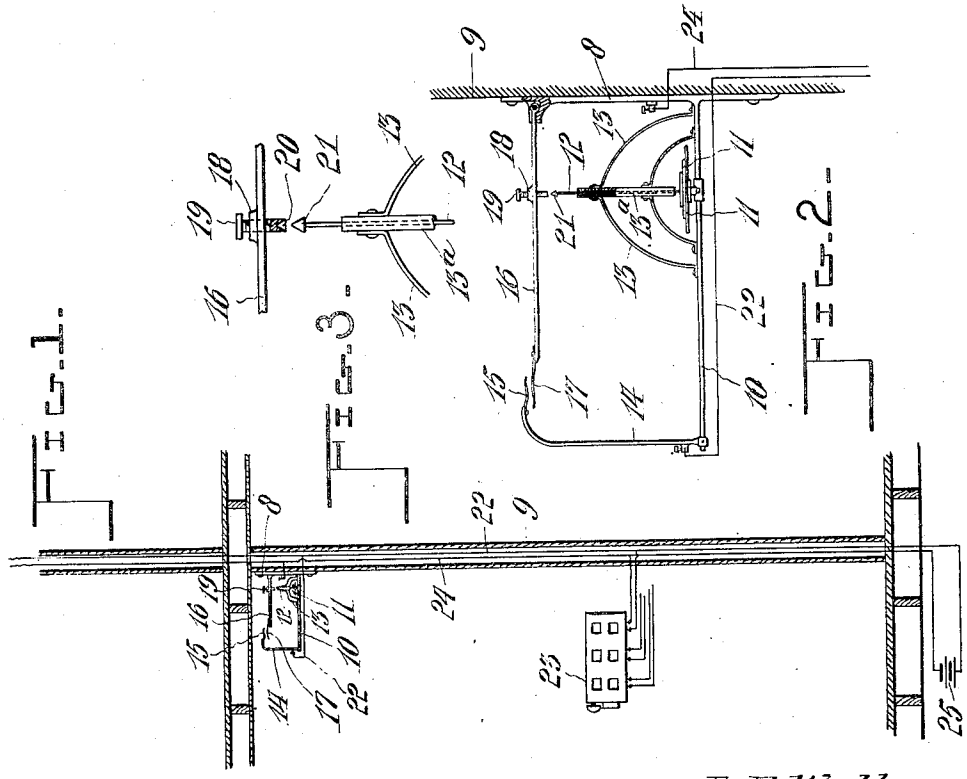

FIG. 1.

FIG. 3.

FIG. 2.

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FIRE-ALARM.

No. 828,356. Specification of Letters Patent. Patented Aug. 14, 1906.

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To all whom it may concern:

Be it known that I, ALFRED EDWARD WATTS, a subject of the King of England, residing at Wattsburg, in the district of Kootenay, in the Province of British Columbia, Dominion of Canada, have invented certain new and useful Improvements in Fire-Alarms; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to automatic fire-alarms.

The object of my invention is to provide a simple and inexpensive apparatus by means of which when a change of temperature occurs in an apartment such change may be noted at a given point removed from the apartment and by which an alarm may be given showing the location of the apartment in which the change of temperature occurs; and my invention consists of the construction, combination, and arrangement of parts, as herein illustrated, described, and claimed.

In the accompanying drawings, forming a part of this application, I have illustrated one form of embodiment of my invention, in which drawings similar reference characters designate corresponding parts, and in which—

Figure 1 is a vertical section through a portion of a building, showing the application of my invention. Fig. 2 is a side elevation of the supporting-bracket and movable parts of my invention. Fig. 3 is a fragmentary detail in enlarged side elevation.

Referring to the drawings, 8 designates a bracket secured in any suitable way to a wall 9 and provided with an extension 10, preferably integral therewith. Suitably supported on the extension 10 is a plurality of disks 11, formed from an expansible metal, which will readily expand and contract under the action of atmospheric variations of temperature. Disposed on the disks 11 is an expansible metal rod 12, supported by the grooved members 13, which engage the plates 13^a, encircling said rod 12. The outer end of the extension 10 is provided with a conductor 14, provided on its free extremity with a contact-point 15, preferably of a flexible character. Hinged to the bracket 8 at a suitable distance above the extension 10 is an arm 16, provided on its free extremity with a contact 17, preferably of a flexible character, and provided intermediate of its ends with a boss 18, having an opening provided with interior screw-threads, through which is projected a screw 19, provided at its lower end with a recess 20, adapted to engage over the point 21 of the upper end of the rod 12. From the conductor 14 there is carried a line 22 to an annunciator 23, disposed at any suitable point and of the ordinary form of construction, which may be purchased on the open market. From the contact 17 on the hinged extension 16 is run a line 24 to said annunciator, said line being in electrical connection with a battery 25 and the circuit being closed by the contact-points 15 and 17. In the operation of the device a change of temperature causing the disks 11 to expand forces the point 21 of the rod 12 into the recess 20 of the screw 19 and carries the hinged extension upward until the contact-point 17 thereon strikes the contact-point 15 of the conductor 14, and thereby closes a circuit, said circuit actuating the annunciator 23 in the well-known manner.

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

1. In an apparatus of the character described, the combination comprising a bracket having a rigid arm thereon, a plurality of disks on said arm, a rod disposed on the disks, rod-supporting members carried by the rigid arm, an arm hinged to said bracket, an adjustable member on said hinged arm and adapted to contact with said rod, and an annunciator in electrical connection with said arms.

2. In an apparatus of the character described, the combination comprising a bracket having a rigid arm thereon provided with a contact-point, a plurality of disks on said arm, a rod disposed on the disks, grooved rod-supporting members carried by the rigid arm, an arm hinged to said bracket provided with a contact-point, an adjustable member on said hinged arm and adapted to contact with said rod, and an annunciator in electrical connection with said arms.

3. In an apparatus of the character described, the combination comprising a bracket having a rigid arm thereon, a plurality of ex-

pansible disks on said arm, an expansible rod disposed on the disks, grooved rod-supporting members carried by the rigid arm, plates carried by the supporting members and adapted to support the rod, an arm hinged to said bracket, a screw projected through said hinged arm and provided with a recessed end adapted to contact with said rod and an annunciator in electrical connection with said arms.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

ALFRED EDWARD WATTS.

Witnesses:

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EDWD. ELWELL.