

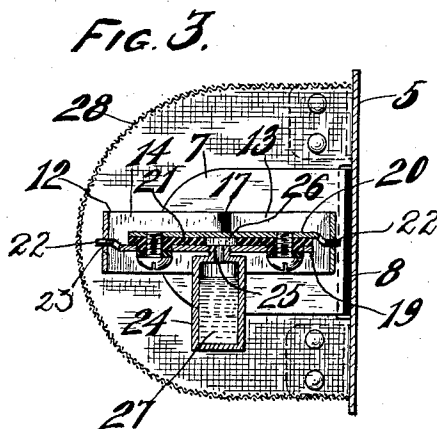
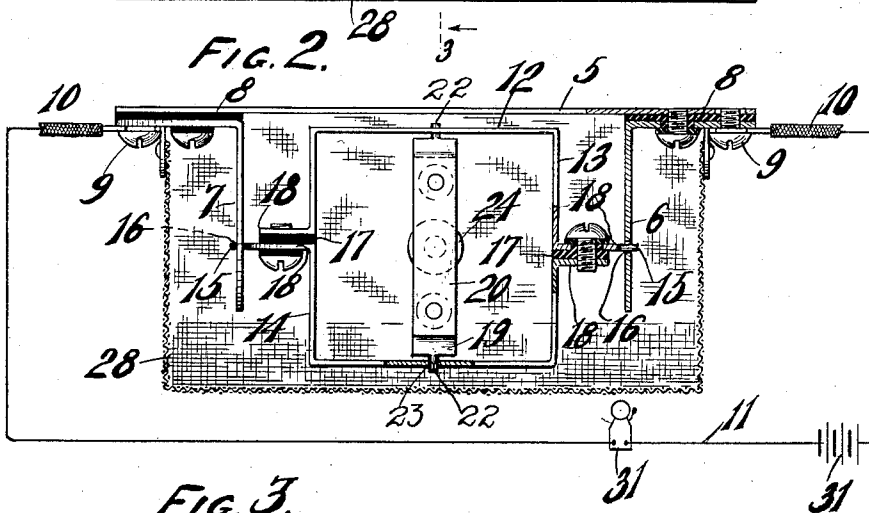
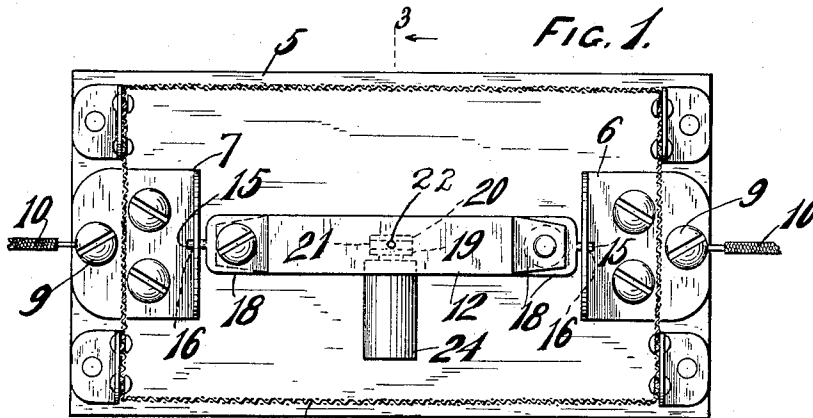
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FIRE ALARM.

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1,014,922.

Patented Jan. 16, 1912.



WITNESSES.

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FIRE-ALARM.

1,014,922.

Specification of Letters Patent.

Patented Jan. 16, 1912.

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To all whom it may concern:

Be it known that we, RUDOLF URCHNIAK and GEORGE WERHNJAK, subjects of the Emperor of Austria-Hungary, residing in Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Fire-Alarms, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention relates to improvements in thermostatic alarms and more particularly to alarms which are adapted to automatically sound an alarm or give a signal at a distant point when the temperature in the vicinity of the position of the device rises above a certain predetermined degree.

It is one of the objects of this invention to provide a thermostatic alarm which is simple in construction and operation and which is adapted for continuous use.

A further object of the invention is to provide a thermostatic alarm in which the actuating portion of the device is adapted to remain in a perpendicular position regardless of the angle at which the alarm is fastened to a support.

A further object of the invention is to provide a thermostatic alarm which may be covered to guard against accidental or malicious injury.

With the above and other objects in view the invention consists of the thermostatic alarm and its parts and combinations as set forth in the claims, and all equivalents thereof.

In the accompanying drawing in which the same reference characters indicate the same parts in all of the views, Figure 1 is a front view of the thermostatic alarm, the cover being shown in section; Fig. 2 is a top view thereof shown in connection with a diagrammatic view of an electric circuit including an alarm bell, parts of the device being in section; and Fig. 3 is a central sectional view taken on line 3—3 of Fig. 1.

Referring to the drawing the numeral 5 indicates the base of the alarm and 6 and 7 respectively the angle brackets or electric terminals projecting therefrom. These brackets or terminals are insulated from the base by insulating strips 8 and are provided with terminal screws 9 for connection with the wires 10 of an electric circuit 11. A rectangular metal frame 12 formed of two half

sections 13 and 14 is pivotally mounted in the projecting ends of the angular brackets 6 and 7 by means of trunnions 15 provided on the ends of the sections and which extend through openings 16 in the brackets. These half sections each form an electrical connection with one of the brackets and are insulated from each other by insulating pieces 17 interposed between the overlapping ends 18 of said sections. The rectangular frame 12 carries and has pivotally connected thereto a pair of contact members 19 and 20 respectively. These members are insulated from each other by the insulating piece 21 which is interposed between the overlapping inner end portions of the contact members and the outer ends of said members have trunnions 22 formed thereon which extend into openings 23 of the frame sections. As the axis of the pivotal connection of the contact members with the rectangular frame extends at right angles with relation to the pivotal connection of said frame with the angular brackets 6 and 7 a universal joint connection is formed between the contact members and the brackets so that the mercury tube or receptacle 24 depending from the contact member 19 will always depend vertically therefrom regardless of the angle of the position of the base. The contact member 19 is in electrical contact with the frame section 14 and the contact member 20 is in similar contact with the frame section 13 and by forming an electrical contact between the two contact members 19 and 20 an electrical circuit is completed between the respective members of the device. The mercury tube or receptacle 24 is threaded medially into the contact member 19 and is provided with an opening 25 which is in register with an opening 26 in the insulating piece to permit the mercury 27 within the tube, when subjected to a predetermined degree of heat, to expand and flow through the openings in the tube and the insulating piece and form an electrical connection between the two contact members.

A cover 28 formed of screen material or of perforated metal and supported by corner brackets 29 extends over the universal joint construction of the alarm but is free from contact therewith and serves to prevent accidental or malicious injury thereto. The electrical circuit may consist of the battery 30 and the bell 31 electrically connected

as shown or it may be connected in various other well known ways.

From the foregoing description it will be seen that the thermostatic alarm is very simple in construction and operation and that it may be placed in any position or angle desired without interfering with its operation when subjected to a predetermined temperature.

What we claim as our invention is:

1. A thermostatic alarm, comprising a support, electric terminals carried thereby and insulated from each other, and thermostatically controlled contacts having a universal jointed connection with the terminals for completing an electric circuit through said terminals when subjected to a predetermined degree of heat.

2. A thermostatic alarm, comprising a support, electric terminals carried thereby and insulated from each other, contact members insulated from each other and having a universal jointed connection with the terminals, and a thermostatic means for forming an electrical connection between the contacts to complete an electric circuit through the terminals when subjected to a predetermined degree of heat.

3. A thermostatic alarm, comprising a support, electric terminals projecting therefrom and insulated from each other, contact members insulated from each other and having a universal jointed connection with the terminals, a tube open at one end and carried by one of the contact members, and a material within the tube which will expand and flow through the open end of the tube and form an electrical connection between the contacts when subjected to a predetermined degree of heat.

4. A thermostatic alarm, comprising a base, angle brackets projecting therefrom and insulated from each other, a frame pivotally connected to the brackets, said frame formed of two sections insulated from each other and each section having an electrical connection with one of the brackets and insulated from the other bracket, contact members pivotally connected to the frame in a line transverse to the pivotal connection of the frame with the brackets, said contact members being insulated from each other and each member having an electrical connection with one of the frame sections and

insulated from the other frame section, and a thermostatic means for forming an electrical connection between the two contact members when subjected to a predetermined degree of heat.

5. A thermostatic alarm, comprising a base, angle brackets projecting therefrom and insulated from each other, a frame pivotally connected to the brackets, said frame formed of two sections insulated from each other and each section having an electrical connection with one of the brackets and insulated from the other bracket, contact members pivotally connected to the frame in a line transverse to the pivotal connection of the frame with the brackets, insulating material provided with a medial opening interposed between the contact members to insulate said members from each other, each contact member being electrically connected with one of the frame sections and insulated from the other frame section, a tube open at one end and carried by one of the contact members, the open end of said tube being in register with the medial opening of the insulating material, and a material within the tube which will expand and flow through the open end of the tube and through the medial opening of the insulating material and contact with the contact member other than the contact member which carries the tube for electrically connecting the two contact members together.

6. A thermostatic alarm, comprising a support, electric terminals projecting therefrom and insulated from each other, contact members insulated from each other and having a universal jointed connection with the terminals, a tube open at one end and carried by one of the contact members, a material within the tube which will expand and flow through the open end of the tube and form an electrical connection between the contacts when subjected to a predetermined degree of heat, and a perforated cover for said alarm.

In testimony whereof, we affix our signatures, in presence of two witnesses.

RUDOLF URCHNIAK.
GEORGE WERHNJAK.

Witnesses:

J. P. BEUSCHER,
HERBERT MINCKVITZ.