

H. FURLANI.
AUTOMATIC FIRE ALARM.
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925,575.

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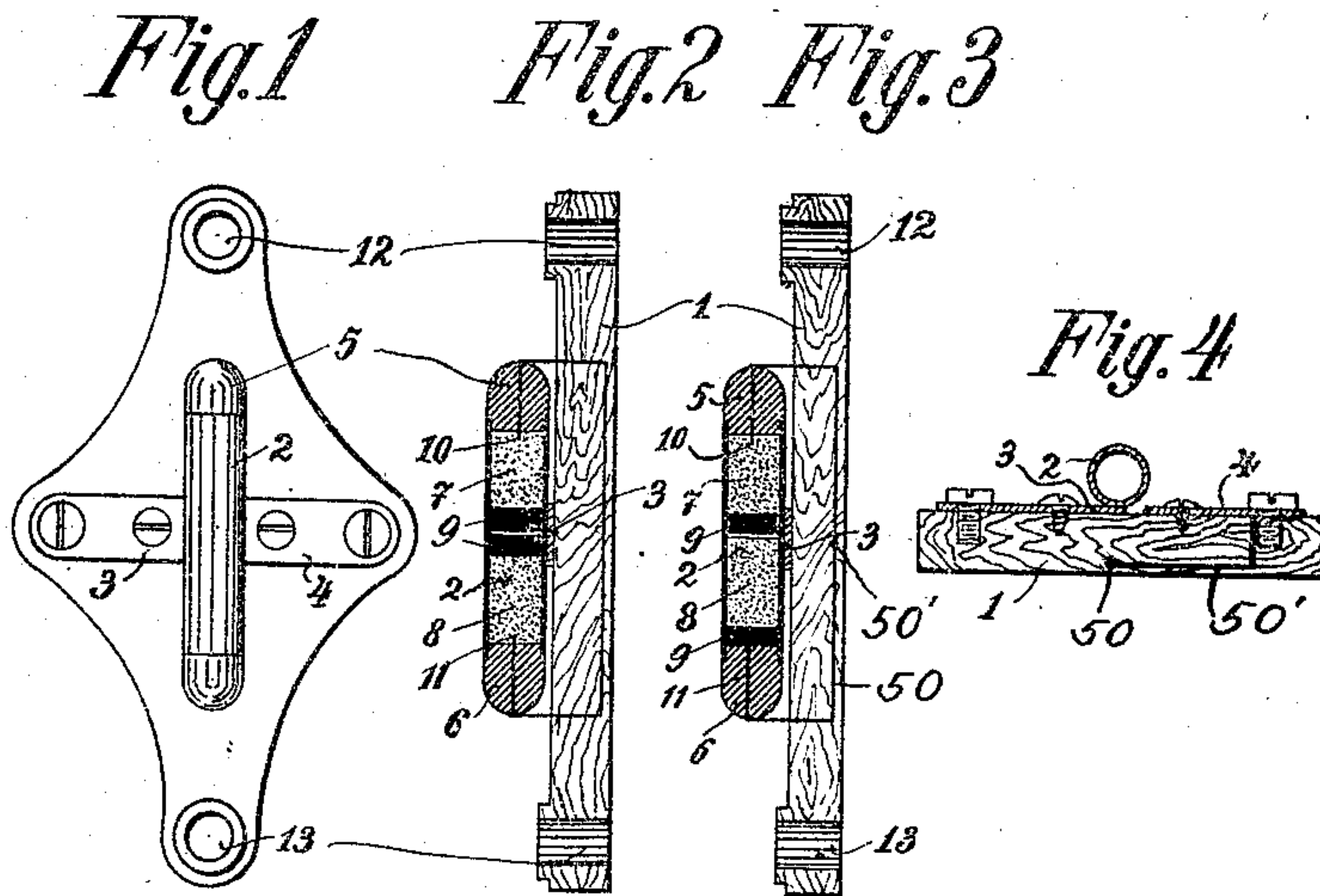
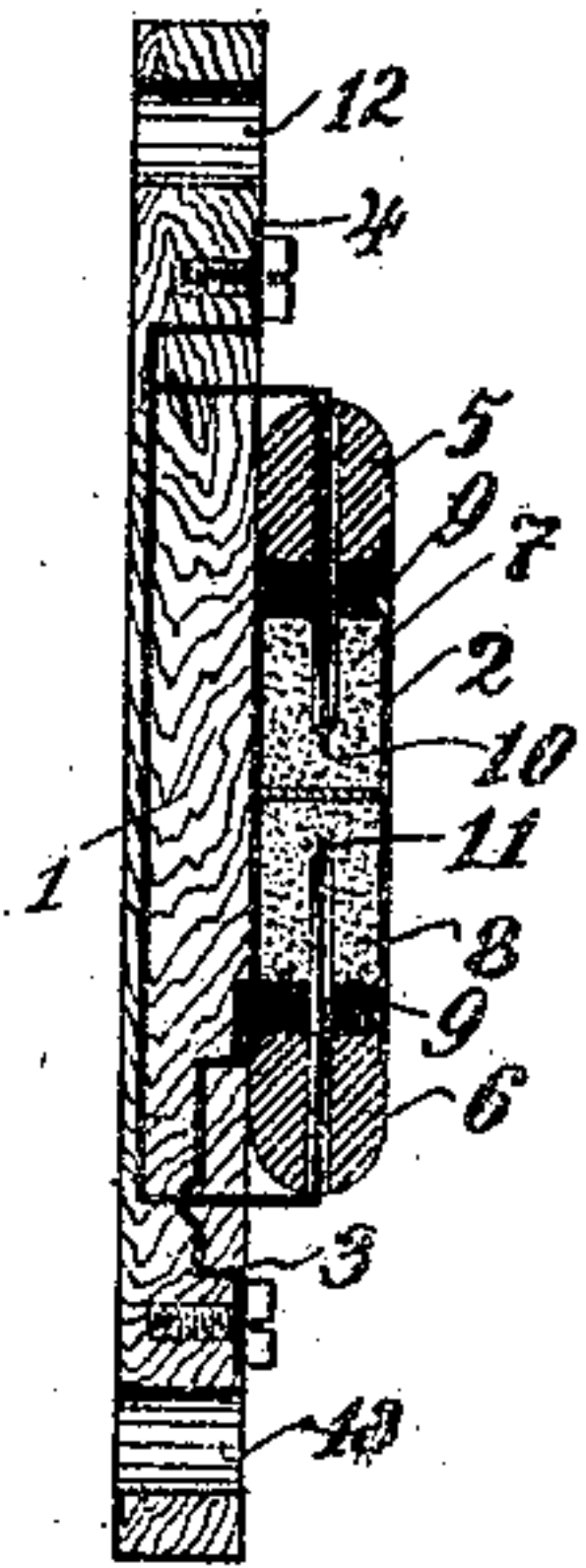


Fig.5



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AUTOMATIC FIRE-ALARM.

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To all whom it may concern:

Be it known that I, HERMANN FURLANI, a subject of the Emperor of Austria-Hungary, and residing at Pirano, in the Coast Province of Austria-Hungary, have invented certain new and useful Improvements in Automatic Fire-Alarms, of which the following is a specification.

This invention relates to an electric fire alarm, set in operation by the fusing of an insulated mass disposed between conductive members, the particular object of the invention being to provide a device of this character comprising a structure adapted to be inverted and so arranged that when the structure is maintained in one position, the melting of a mass fusible at a comparatively low temperature will set the alarm in operation, and when maintained in a reverse position, the melting of a mass at a considerably higher temperature will set the alarm in operation, whereby in one and the same structure means are provided for protecting goods inflammable at varying temperatures. Further objects and advantages of the invention will be set forth in the detailed description which now follows.

Referring to the drawing, Figure 1 is a front elevation of a device constructed in accordance with the invention, Fig. 2 is a vertical section thereof, Fig. 3 is a vertical section after one of the fusible masses has been melted, Fig. 4 is a horizontal section, and, Fig. 5 is a vertical section of a modified form of the device.

Like numerals designate corresponding parts in all of the figures of the drawing.

Referring to the drawing, the numeral 1 designates an insulating back plate adapted to be inverted at will and to be hung upon the wall of a room in either position. This back plate is pierced at 12 and 13 to facilitate hanging it in either position desired. A metallic tube 2 is connected to a binding plate 3, the back plate also supporting a binding plate 4. The ends of the tube 2 are plugged by insulating plugs 5 and 6 through which ends 10 and 11 of an electrical conductor 50 pass. This electrical conductor is connected to the binding plate 4 by branch conductor 50' (see Fig. 4). The tube is divided into two parts by a central wall, one compartment of the tube containing an insulating mass 8 fusible at about 75° F. and

the other compartment containing an insulating mass 7, fusible approximately at 120° F. On each side of the partition or wall is provided a drop of mercury 9, the insulating masses 7 and 8 maintaining these drops of mercury out of contact with the points 10 and 11 of conductor 50.

In the form of the device shown in Fig. 5, the parts are all the same and have been given the same reference numerals except that the ends 10 and 11 of the conductors are brought to a point adjacent the central partition plate of tube 2 and the insulating masses 7 and 8 maintain the drops of mercury adjacent the plugs 5 and 6. It will be apparent therefore, that when the lowermost drop of mercury shown in Fig. 2 is permitted to descend, by the melting of the mass 8, until it reaches the end of the conductor 11, an electric circuit will be completed, for one of the wires, not shown, of an electric circuit is to be attached to the binding plate 3 and the other wire thereof is to be attached to the binding plate 4. The circuit will therefore be completed through binding plate 3, tube 2, lowermost mercury drop 9 and conductor 50 to binding plate 4. Of course just exactly the same thing happens at the other end of the tube when the tube is inverted, the only difference being that it requires a different degree of heat to bring about the completion of the circuit.

In Fig. 5, the two terminals of the electric circuit are indicated at 3 and 4 and the wires 10 and 11 are a part of the conductor 50 connected directly to the terminal 4. Terminal 3, upon the other hand is directly connected to tube 2. Therefore, when the uppermost drop of mercury in this figure descends, and establishes communication between the point 10 and the tube 2, it is apparent that an electric circuit will be completed between the terminals 3 and 4.

From the foregoing description it will be seen that simple and efficient means are herein provided for accomplishing the objects of the invention, but while the elements shown and described are well adapted to serve the purposes for which they are intended, it is to be understood that the invention is not limited to the precise construction set forth, but includes within its purview such changes as may be made within the scope of the appended claim.

Having described my invention, what I claim is:

An automatic fire alarm comprising a conductive tube, electric terminals projecting
5 into each end thereof and insulated therefrom, and movable conductive material normally maintained out of contact with said electric terminals by separated fusible masses disposed at opposite ends of said tube and

10 fusible at different temperatures, and an invertible back plate upon which said tube is mounted.

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

HERMANN FURLANI.

Witnesses:

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