

**No. 870,068.**

**PATENTED NOV. 5, 1907.**

R. M. WHIPPLE.  
FIRE ALARM.

APPLICATION FILED JUNE 19, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

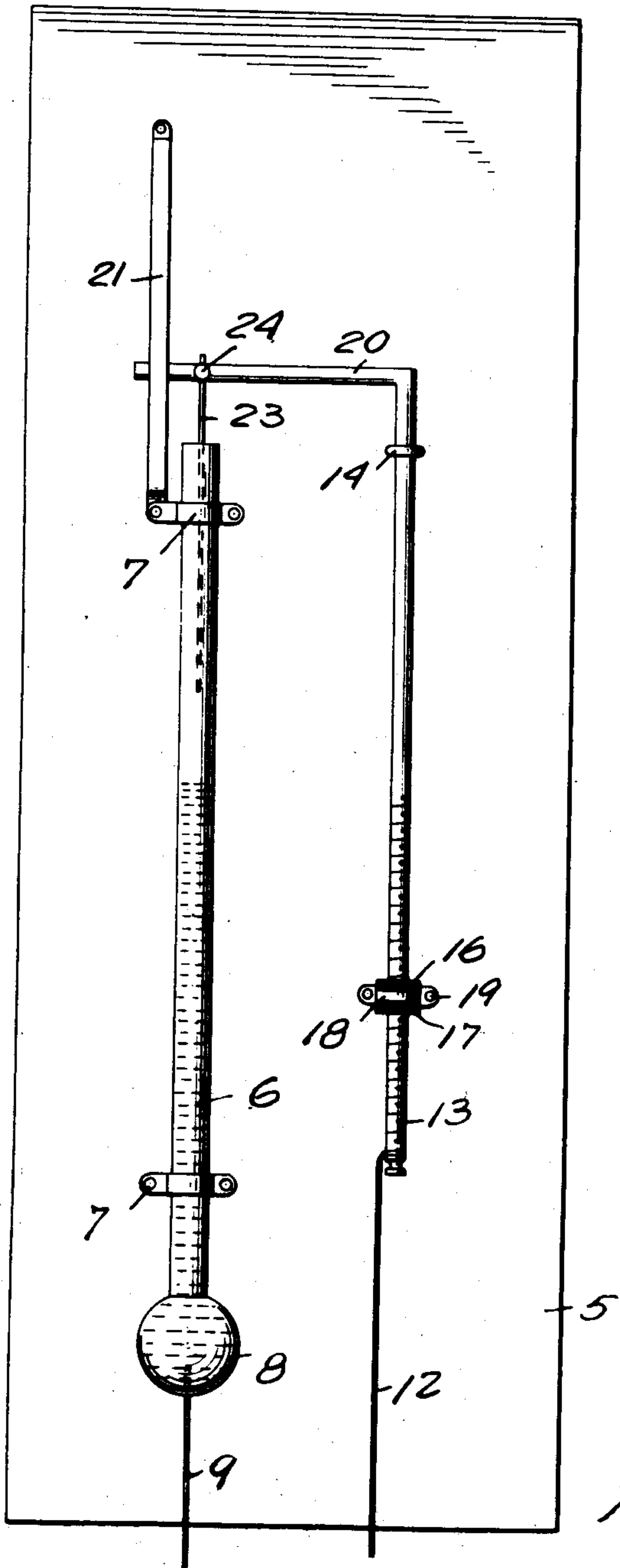


Fig. 5.

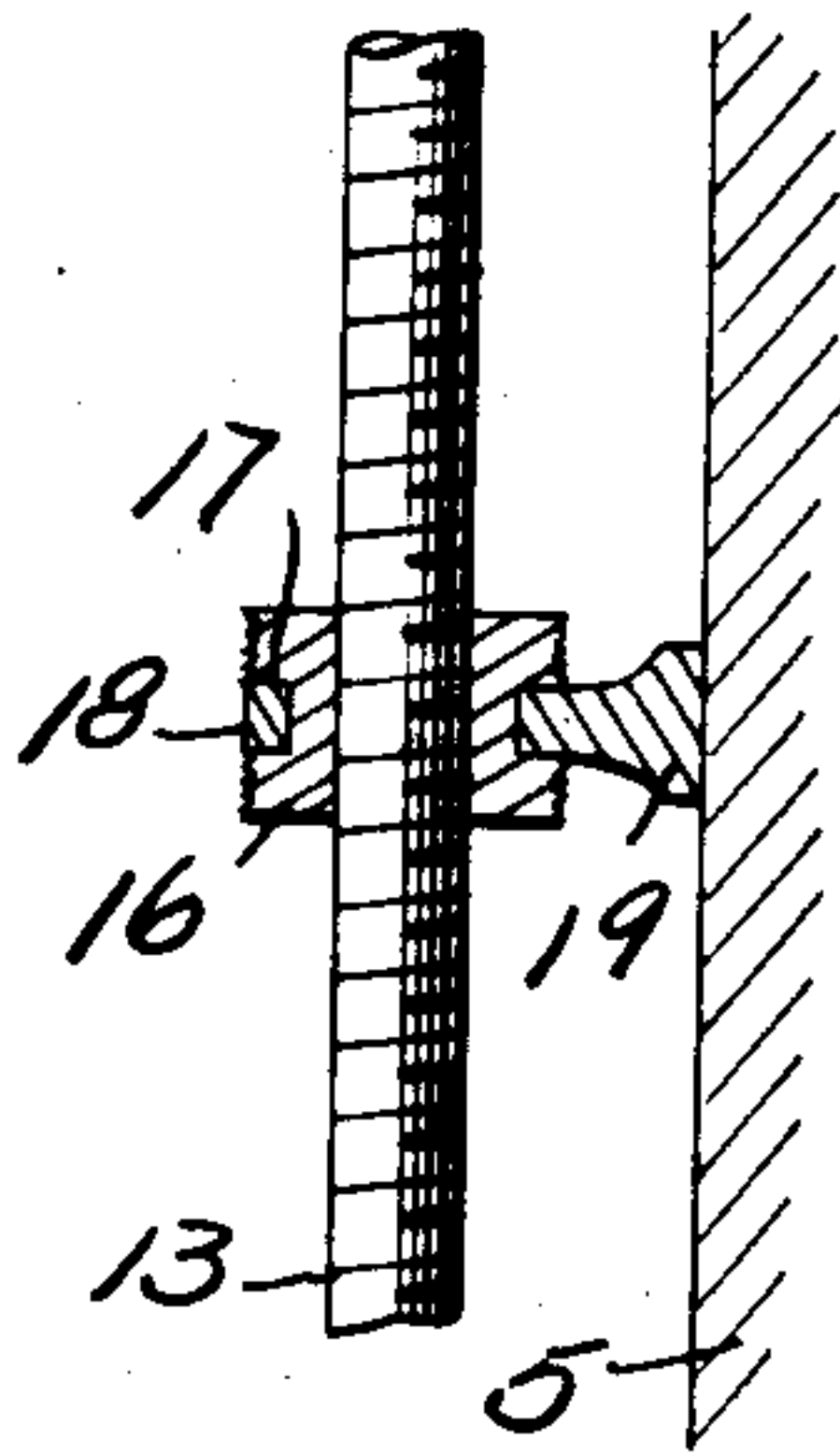


Fig. 3.

**Witnesses**

Witnesses  
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Attorney.

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2 SHEETS—SHEET 2.

Fig. 2

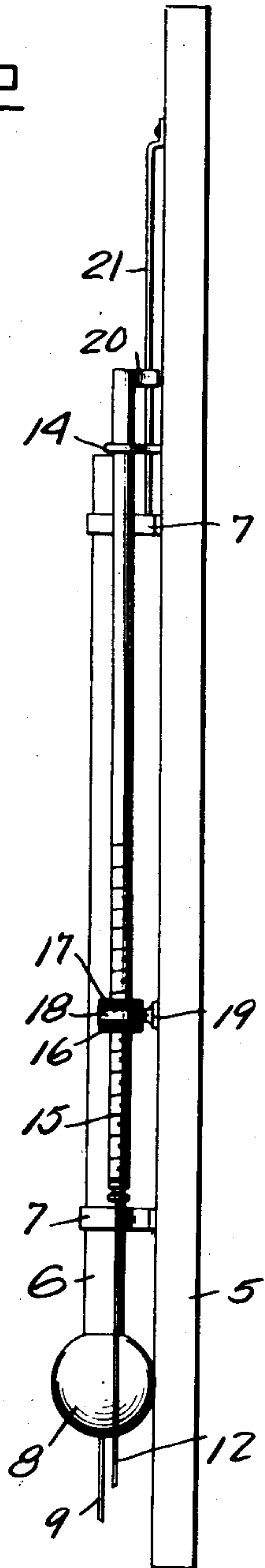
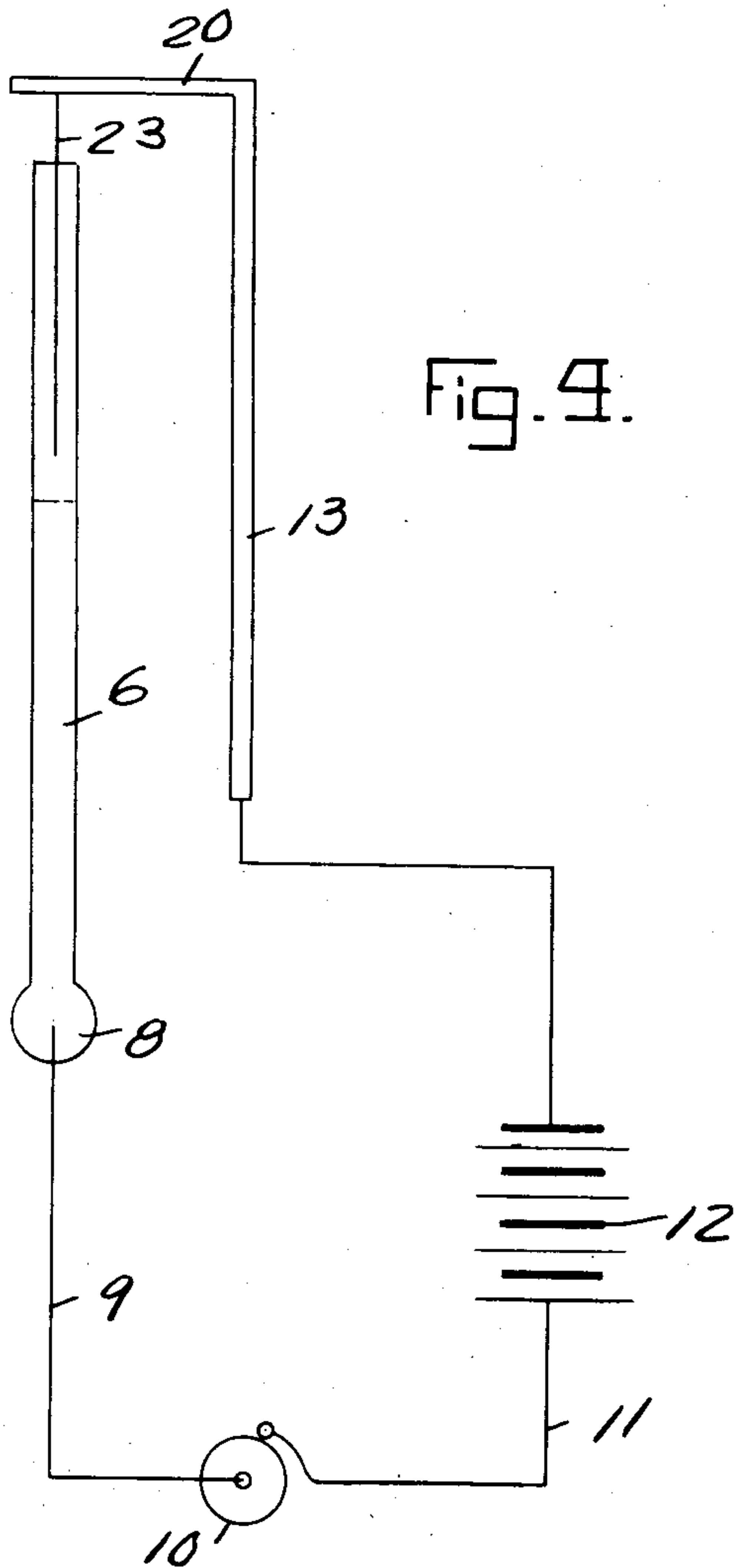


Fig. 4.



Witnesses

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# UNITED STATES PATENT OFFICE.

ROBERT M. WHIPPLE, OF MAYFIELD, IDAHO.

## FIRE-ALARM.

No. 870,068.

Specification of Letters Patent.

Patented Nov. 5, 1907.

Application filed June 19, 1907. Serial No. 379,781.

*To all whom it may concern:*

Be it known that I, ROBERT M. WHIPPLE, a citizen of the United States, residing at Mayfield, in the county of Elmore, State of Idaho, have invented certain new and useful Improvements in Fire-Alarms; and I do hereby declare the following to be 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.

10 This invention relates to fire alarms and more particularly to thermostatic alarms or in other words, that class of alarms in which an electric signal circuit is closed by the expansion of a metal under the action of heat.

15 The object of the invention is to provide an alarm of this class which while it is simple in construction, is readily adjustable to sound the alarm at any predetermined temperature.

In the accompanying drawings, Figure 1 is a view in elevation of the thermostatic device for closing the alarm circuit, Fig. 2 is a side elevation thereof, Fig. 3 is a detail vertical sectional view through the device for adjusting the thermostatic device or circuit closer, Fig. 4 is a diagrammatic view of the circuit for the 25 alarm, and, Fig. 5 is a detail vertical sectional view showing the manner of supporting one of the contact wires.

In the drawings, the device is shown as mounted upon a board 5 and comprises a tube 6 which is secured upon the board by means of clips 7, the tube being 30 open at its upper end and provided at its lower end with a bulb 8 which together with a portion of the tube, contains mercury.

A wire 9 is passed through the lower end of the bulb and into the mercury contained therein and this wire 35 leads to one binding post of an electric bell 10. A wire 11 leads from the other post of the bell and in this latter wire is interposed a battery 12, the wire being connected at its other end to the lower end of an adjusting rod 13. This rod 13 is slidably received through a bracket 40 14 upon the board 5 and is threaded as at 15 adjacent its lower end and engaged through an adjusting nut 16

which is cylindrical in form and is provided with a circumscribing groove 17 in which is received a collar 18 having an attaching portion 19 by means of which it is fixed upon the board. The nut 16 is milled and it 45 will be understood that when it is turned, the rod will be adjusted vertically. The purpose of this adjustment will be presently explained.

The upper end of the rod 13 is bent laterally as at 20 and works in a guide 21 formed by a strip which is secured upon the board in spaced relation thereto. The bent portion 20 of the rod extends above the upper end of the tube 6 and is provided with an opening 22 for the passage of a wire 23 which is held in position by means of a set screw 24 it being understood that the wire may 55 be so adjusted as to extend a greater or less distance below the said portion 20. This wire 23 extends into the bore of the tube 6 but is normally out of contact with the mercury therein, this contact being had only when the mercury has been heated to such a degree that it 60 rises in the tube to the lower end of the wire. When this occurs, the circuit is of course closed through the mercury, the wire, the rod 13, and the two wires 9 and 11, and the alarm sounded.

What is claimed is—

65 An alarm of the class described comprising a tube provided at its lower end with a bulb, an expansible fluid contained in the tube and the bulb, the fluid being a conductor of electricity, a rod provided with a threaded portion, a cylindrical nut engaged upon the threaded portion 70 of the rod and provided with a circumscribing groove, a bracket including a collar portion fitting in the groove, the rod being bent at its upper end to extend above the upper end of the tube, a wire suspended from the bent portion of the rod and extending into the tube, a conductor 75 wire leading into the bulb and into the fluid contained therein, a wire connected with the lower end of the rod, a battery interposed in one of the said wires, and an electric bell to which the wires are connected.

In testimony whereof, I affix my signature, in presence 80 of two witnesses.

ROBERT M. WHIPPLE.

Witnesses:

JAMES S. BOGART,

H. M. BRANDIN.