

(No Model.)

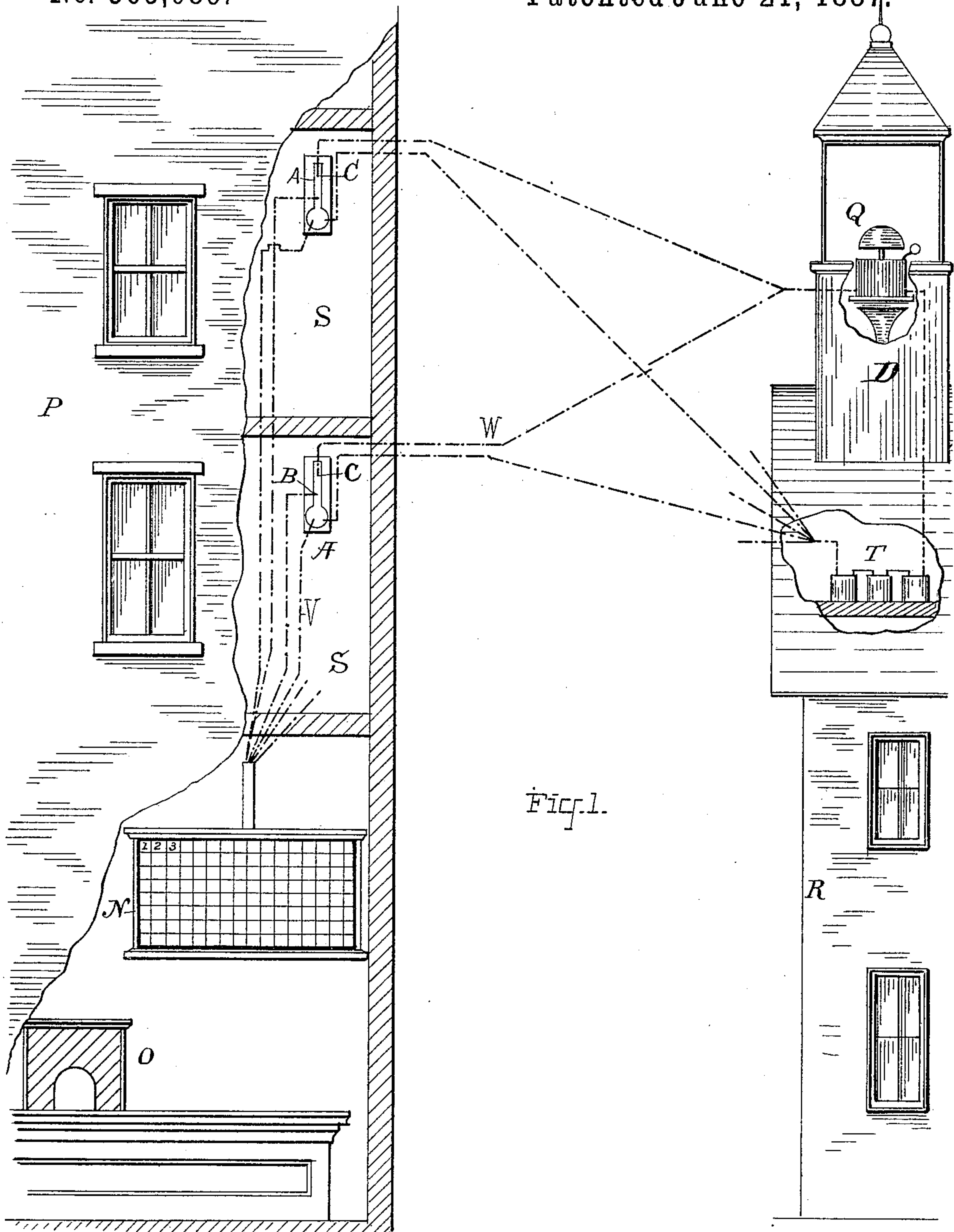
3 Sheets—Sheet 1.

A. E. MORRISON.

TEMPERATURE ALARM SYSTEM.

No. 365,089.

Patented June 21, 1887.



ATTEST:

*J. A. Mudd*

*Edward P. Thompson*

INVENTOR:

*Albert E. Morrison*

By *W. J. Johnston*

*Attorney.*

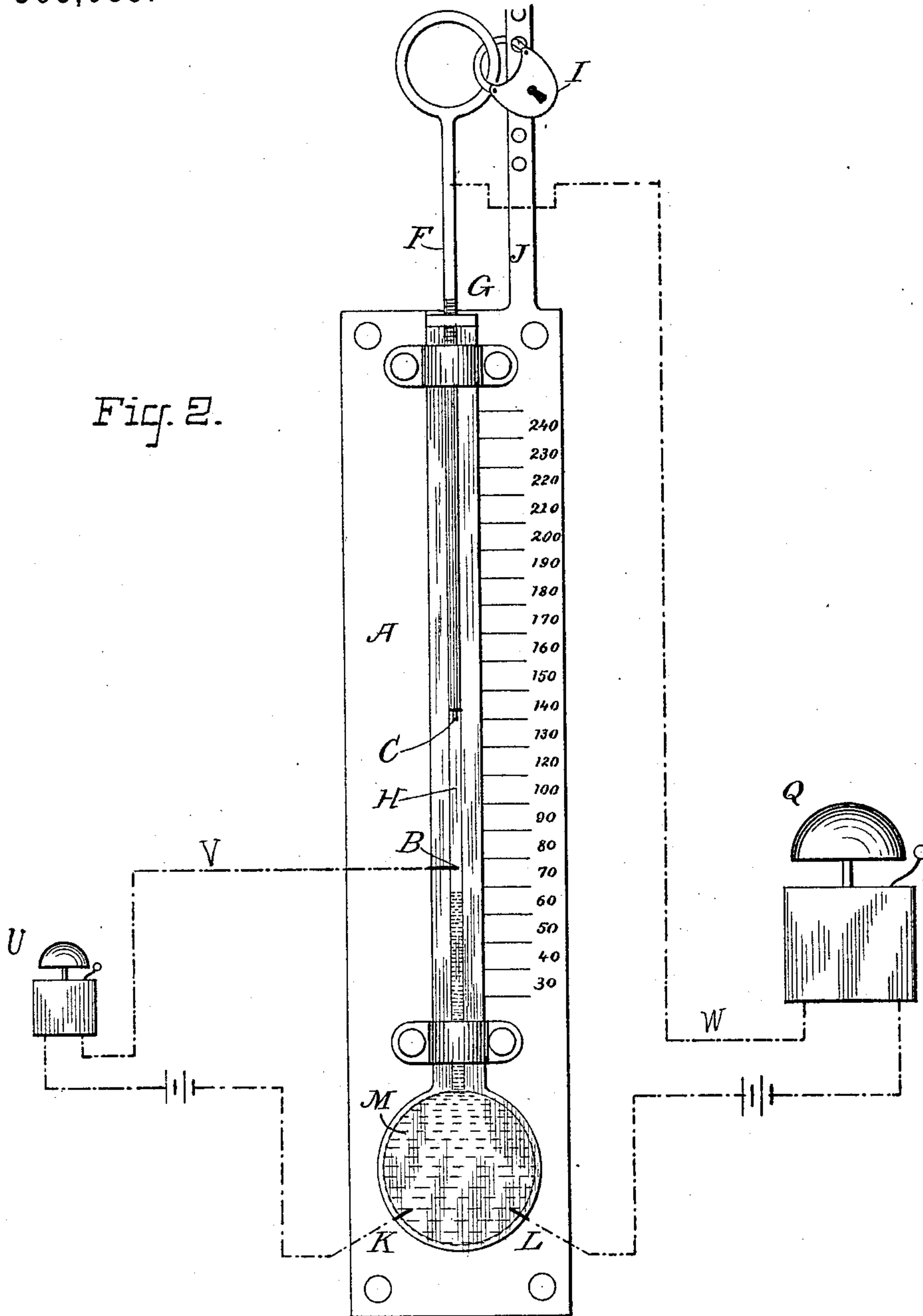
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3 Sheets—Sheet 2.

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No. 365,089.

Patented June 21, 1887.



ATTEST:

*J. A. Mudd*

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INVENTOR:

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3 Sheets—Sheet 3.

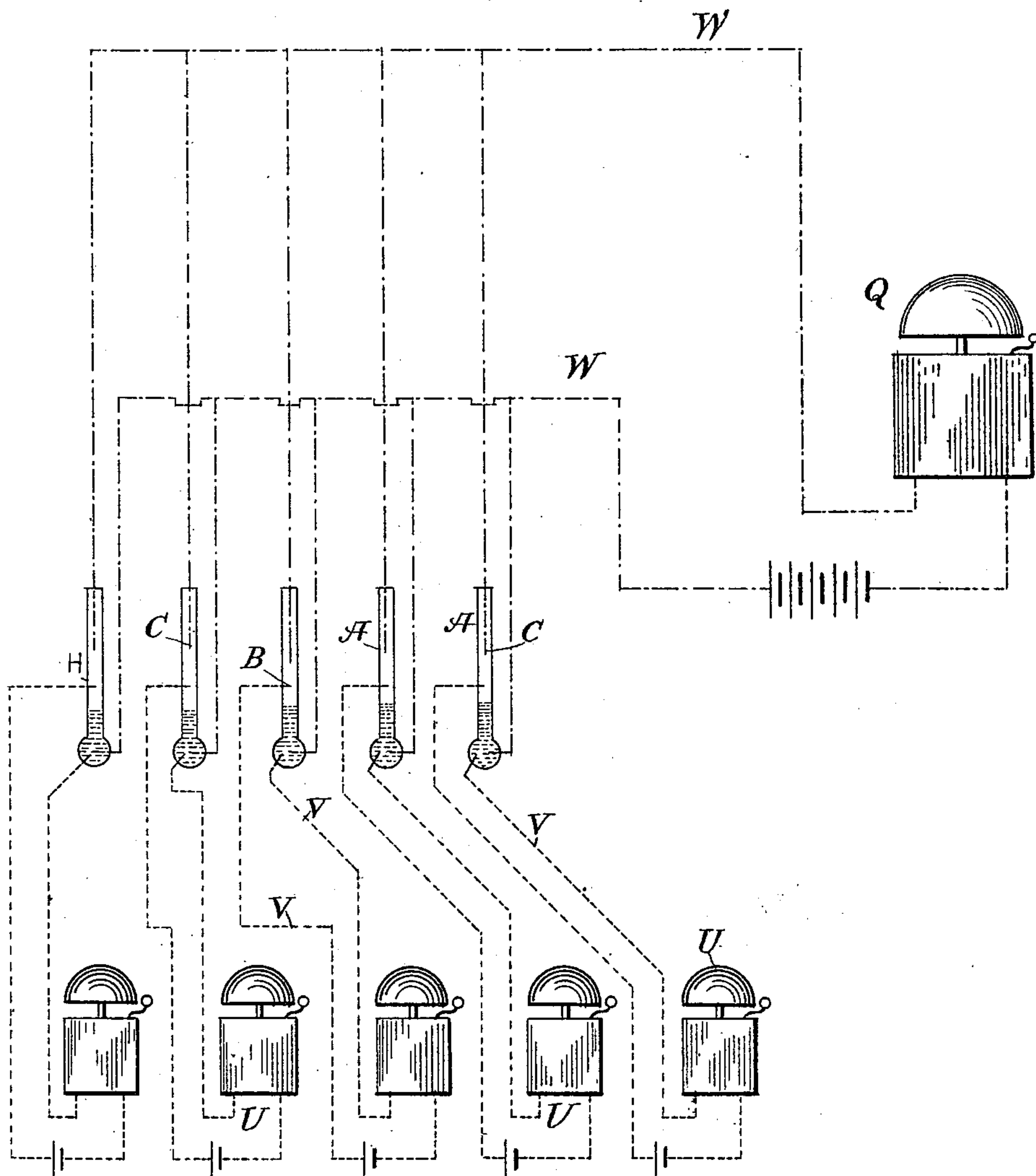
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Fig. 3.



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# UNITED STATES PATENT OFFICE.

ALBERT E. MORRISON, OF CHARLOTTETOWN, PRINCE EDWARD ISLAND,  
CANADA.

## TEMPERATURE-ALARM SYSTEM.

SPECIFICATION forming part of Letters Patent No. 365,089, dated June 21, 1887.

Application filed June 1, 1886. Serial No. 203,713. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT E. MORRISON, a subject of the Queen of Great Britain, and a resident of Charlottetown, Prince Edward Island, Canada, have invented certain new and useful Improvements in Temperature-Alarm Systems, described, claimed, and shown in the following specification, claims, and drawings.

The object of my invention is to provide improved means for indicating at a distance the temperature of a room or hall of a building, and also to automatically signal not only the temperature too high for comfort and health, but also the dangerous temperature which occurs upon the buildings catching fire.

The system consists of the combination of a telethermometer or electric thermostat, two circuits thereto, and of automatic means for announcing not only the abnormal temperature, as when furnace coal is being wasted by keeping the room too warm, but also that abnormal temperature at which buildings are apt to catch on fire.

In order to illustrate the practical manner of carrying out the invention and to enable others to construct and use the same, drawings are hereunto annexed and described, in which similar characters of reference represent corresponding elements.

Figure 1 is a general view of the system, shown part in cross-section. Fig. 2 is a detail view of the thermostat and the electric circuits, and Fig. 3 shows several thermostats and the manner of electrical connection.

The system consists of the combination of a thermostat comprising a thermometer in whose tube are two contact points or terminals, B and C, of two electric circuits, V and W, respectively, the one, B, being fixed at a temperature, say of 65°, or summer heat, and the other, C, being adjustable at higher temperatures—say at or about 140°—and secured to a screw-rod, F, screwing into the nut G at the top of the thermometer-tube H, and provided with a locking device—such as a padlock, I—connecting said tube and a fixed projection, J, provided with a series of holes adjacent thereto, the other terminals, K and L, of said circuits being the mercury, M, or similar liquid of said thermometer, and said circuits including the one an annunciator, N, located in the office O

of a hotel, P, or similar building, and the other an electric bell, Q, or similar signal in the town-hall R or city fire department.

In Fig. 1 are shown two thermostats, A, located in two rooms, S, and electrically connected with the annunciator N, located in the central room or office, O, and a town-hall provided with a suitable battery, T, and electric bell Q. In Fig. 3 the several thermostats A are in series with the bells U and in parallel with the bell Q, the former being in the circuits V and the latter in the circuit W. The bells U may be a substitute for the annunciator N, and may be distinguished by the different sounds given forth, they being constructed of metal of different thicknesses. When an increase of temperature expands the mercury M to 65°, one of the bells U rings, or the annunciator N signals that in a particular room of the house the temperature is unnecessarily warm, so that the source of heat is regulated to prevent further increase of temperature, so that fuel may not be wasted, and so that the occupants of the room may not complain. Should at any time the room catch on fire, then will the temperature increase very rapidly, so that not only will one of the bells ring as before, but will keep on ringing in spite of any attempt at regulation of the heating system of the building, but will almost instantly cause the bell Q to ring as an indication that a building is burning.

The invention is not limited to the precise construction hereinbefore described and shown, as it is evident that many modifications may be made therein without departing from the spirit of the invention.

It is evident that any electric signal or annunciator of any form may be substituted for bell Q in the town-hall, so that the particular building which is in danger may be known simultaneously with the signal.

Having now stated the object of the said invention, having described its practical realization by reference to the accompanying drawings, having particularly ascertained the manner in which the same operates to accomplish the said object, what I consider to be novel and original, and therefore claim as my invention, is—

1. In a temperature electric-signal system,



the combination of a thermostat and two electric circuits, each containing an electric signal and said thermostat, the said thermostat consisting of a thermometer, the mercury in  
5 whose bulb constitutes one terminal of said circuits, and contact-points located at different heights in the stem of said thermometer constituting the other terminals of said circuits.

2. In a temperature-alarm system, the combination of a central annunciator located in  
10 the office of a hotel or similar building, a fire-alarm electric bell or similar signal located in the city fire department, thermostats located in the rooms or halls of said building, and  
15 two electric circuits, the one including said annunciator and normally open at all temperatures below a contact-point fixed at, say, 65°, or summer heat, and the other including said  
20 bell and normally open at all temperatures below a contact-point normally adjustable at a higher temperature, substantially as and for the purpose mentioned.

3. In a temperature-alarm system, the combination of a central annunciator located in  
25 the office of a hotel or similar building, a fire-alarm electric bell or similar signal located in the city fire department, two electric circuits, the one including the said annunciator and

thermostat and the other including said bell and said thermostat, the said thermostat consisting  
30 of the combination of a thermometer whose mercury or other fluid constitutes the terminals of both circuits, and whose tube contains the other terminals, one of which is fixed at  
35 a certain degree, say summer heat, and the other of which is adjustable at a higher degree, and is provided with a suitable locking device, as and for the purpose described.

4. In a temperature-alarm system, a thermostat consisting of a thermometer bulb and  
40 tube, a base-plate therefor, a rod adjustable in said tube, a ring upon the upper end of said rod, a projection provided with holes adjacent to said ring and secured to said base-plate, a  
45 locking device connecting said ring and said projection, and an electric-signal circuit normally open and including said rod and the mercury of said thermometer, substantially as  
and for the purpose described and shown.

Witness my signature this 25th day of May, 50  
1886.

ALBERT E. MORRISON.

Witnesses:

T. C. JAMES,

H. E. HENDERSON.