

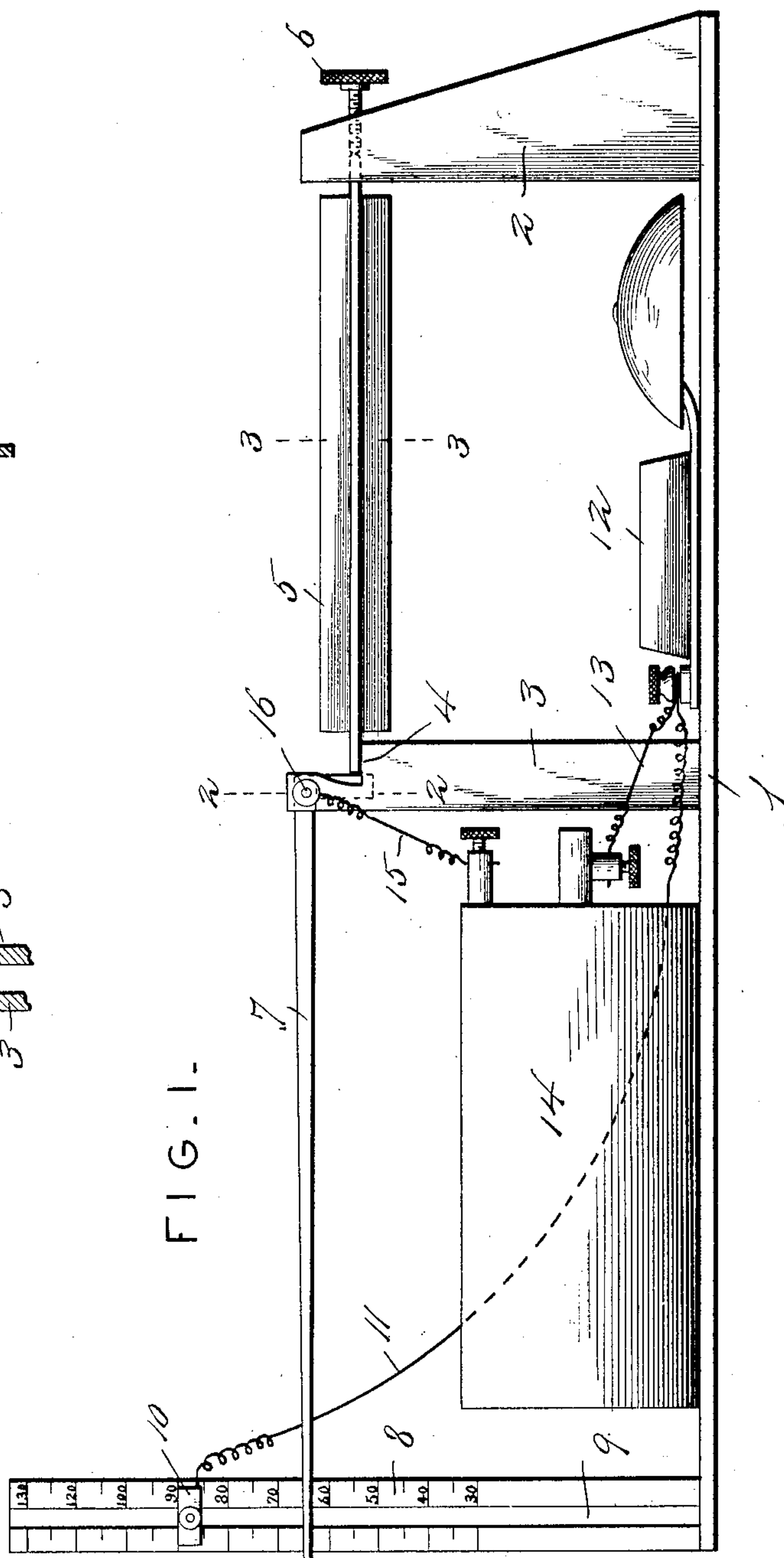
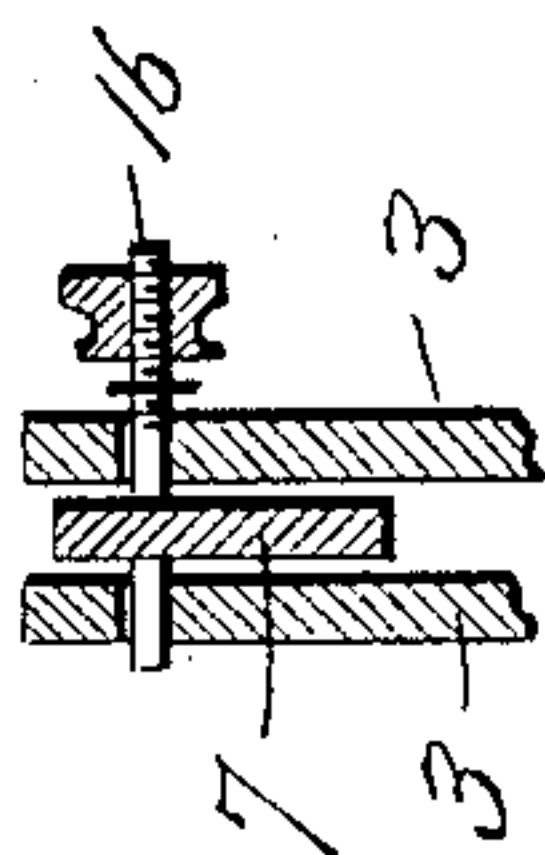
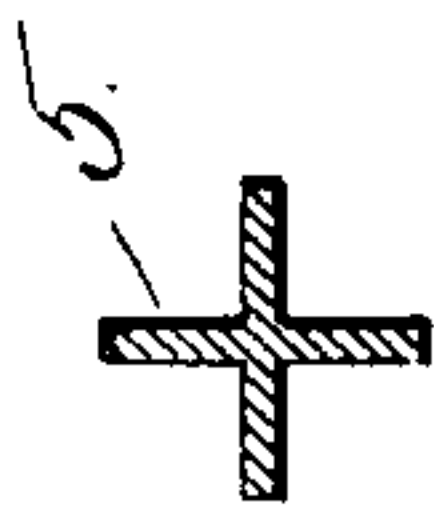
No. 751,362.

PATENTED FEB. 2, 1904.

J. L. WARD.
THERMOSTAT.

APPLICATION FILED JULY 9, 1903.

NO MODEL.



Inventor

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Witnesses

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334

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JOHN L. WARD, OF ORD, NEBRASKA.

THERMOSTAT.

SPECIFICATION forming part of Letters Patent No. 751,362, dated February 2, 1904.

Application filed July 9, 1903. Serial No. 164,873. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. WARD, a citizen of the United States, residing at Ord, in the county of Valley and State of Nebraska, have
 5 invented new and useful Improvements in Thermostats, of which the following is a specification.

My invention relates to new and useful improvements in thermostats; and its object is
 10 to provide a simple and inexpensive device operated by the expansion and contraction of one of the parts thereof and adapted to automatically sound an alarm when the surrounding temperature reaches a predetermined de-
 15 gree.

The invention consists in providing a standard which is graduated to indicate degrees and has an adjustable contact-plate which is arranged in a circuit including an alarm and
 20 a battery. A lever which is fulcrumed at a point between its ends is provided and is adapted to be moved into contact with the plate, and thereby complete a circuit and cause the sounding of the alarm. This lever is oper-
 25 ated by an expansible strip of novel form.

The invention also consists in providing an expansible bar so constructed as to cause the same to be quickly affected by the heat of the surrounding atmosphere.

30 The invention also consists in the further novel construction, combination, and arrangement of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which—

35 Figure 1 is a front elevation of the apparatus. Fig. 2 is a section on line 2 2, Fig. 1; and Fig. 3 is a section on line 3 3, Fig. 1.

Referring to the figures by numerals of reference, 1 is a base having standards 2 and 3
 40 thereon, the last-mentioned standard being cut away at its upper end, as shown at 4, to form a ledge for the support at one end of an expansible bar 5, which is in the form of a cross in cross-section and is adjustably mounted by
 45 means of the thumb-screw 6 in the standard 2. A bell-crank lever 7 is fulcrumed in the forked upper end of the standard 3, and the short arm thereof contacts with the end of the bar 5, while the long arm extends across one face of
 50 a standard 8, having graduations thereon for

indicating the degrees of temperature. This standard is slotted longitudinally, as shown at 9, and arranged within the slot is an adjustable contact-plate 10, which is connected by means of a wire 11 to an alarm 12, preferably
 55 in the form of an electric bell. A wire 13 serves to connect this alarm to one pole of a battery 14, and another wire, 15, connects the other pole of the battery to the pivot-pin 16 of the bell-crank lever 7.

The apparatus herein described is adapted to be placed in any desired position, and when the temperature rises to the degree indicated by the contact-plate 10 the bar 5 will be expanded sufficiently to swing the bell-crank lever
 65 upon its pivot-pin 16 and upward into contact with the plate 10. A circuit will thus be promptly established from the battery to the alarm 12. By forming the bar 5 in the manner shown and described the area presented to
 70 the atmosphere is increased, and therefore the action of the heat upon the bar is accelerated. It will of course be understood that the plate 10 can be adjusted to a desired point upon the standard 8, so as to cause the alarm to be
 75 sounded when any predetermined temperature is reached.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that
 80 modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes and alterations as may fairly fall within the scope of my inven-
 85 tion.

Having thus described the invention, what is claimed as new is—

1. The combination with a graduated standard having an adjustable contact-plate there-
 90 on; of a bell-crank lever, an expansible bar contacting with and adapted to operate the bell-crank lever, and an alarm and battery, said alarm and battery being included in an electric circuit with a contact-plate and lever.

2. The combination with a graduated standard, of an adjustable contact-plate secured thereto, a bell-crank lever, an expansible bar contacting therewith and adapted to operate
 100 the same, an alarm, a battery, said alarm and

battery being included in a circuit with the bell-crank lever and contact-plate, and means for adjusting the expansible bar.

5 3. The combination with a base having stand-
ards thereon, of an expansible bar loosely sup-
ported in the standards, means for adjusting
said bar longitudinally, a bell-crank lever piv-
oted upon one of the standards and contacting
with the expansible bar, graduated standards,
10 a contact-plate adjustably secured thereto in
the path of the bell-crank lever, said contact-
plate and lever being included in an electric
circuit containing a source of electricity and
an alarm.

15 4. The combination with a base, of stand-
ards thereon, an expansible bar loosely mount-
ed upon the standards and cross-shaped in sec-
tion, means for adjusting the bar longitudi-

nally, a bell-crank lever pivotally mounted on
one of the standards and contacting with the 20
expansible bar, a graduated standard, a con-
tact-plate adjustably connected thereto in the
path of the bell-crank lever, an alarm and a
battery, said alarm and battery being included
in a circuit with the contact-plate and the bell- 25
crank lever.

5. In a device of the character described, a
bar formed of expansible material and cross-
shaped in cross-section.

In testimony whereof I affix my signature in 30
presence of two witnesses.

JOHN L. WARD.

Witnesses:

ORLA S. GOODRICH,
C. G. STARR.