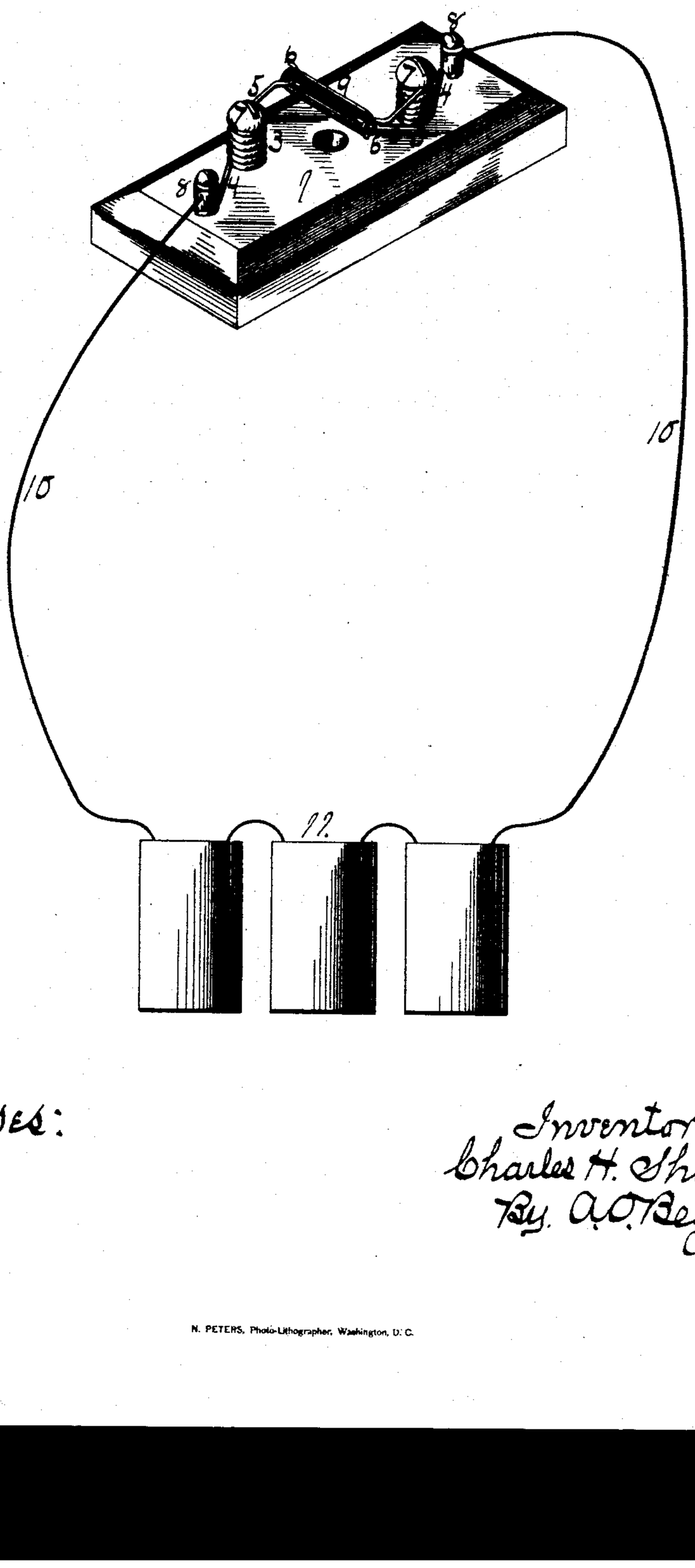
(No Model.)

# C. H. SHAFFER.

## THERMOSTATIC ALARM.

No. 413,568. Patented Oct. 22, 1889.




Witnesses:
E. Behel.
J. S. Clark

Inventor:
Charles H. Shaffer.
By A. O. Behel.
Atty.

# UNITED STATES PATENT OFFICE.

CHARLES H. SHAFFER, OF ROCKFORD, ILLINOIS.

## THERMOSTATIC ALARM.

SPECIFICATION forming part of Letters Patent No. 413,568, dated October 22, 1889.

Application filed May 24, 1889. Serial No. 311,984. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. SHAFFER, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Electrical Thermostats, of which the following is a specification.

The object of this invention is to construct a thermostat having a base of insulating material, which supports spring-arms that are held against their spring force by a link of fusible alloy, so that when the link is in position a circuit is established, and upon the melting of the link the circuit is broken.

The figure represented in the accompanying drawing is an isometrical view of my improved thermostat, showing its connection with a battery.

The base portion 1 of the thermostat may be of any suitable material with a central opening 2, through which a screw may be passed to secure it in position. Upon the upper face of this base portion are secured two like halves of the spring-arms of the thermostat. These spring-arms consist of a center coil 3, a lower tangential arm 4, and an upper tangential arm 5, having its free end in hook form, as shown at 6. Through the center of the coil a screw 7 is passed into the base portion, and holds it in its upright position. The end of the arm 4 is in eye form, and a binding-post 8 passes through said eye, thus holding that end of the coil stationary, with two of the spring-arms arranged as shown in the drawing. The hooked ends of the arms 5 will be in opposite directions. A link 9 of fusible alloy placed on said hooked ends will connect the spring-arms. From the binding-posts 8 a link-wire 10 connects the thermostat with a battery 11, of any number of jars, of the closed-circuit variety.

When the parts are in the position shown in the drawing, the circuit through the thermostat will be complete upon the melting of the link 9, and the arms 5 will be disconnected, thus breaking the circuit. The action of the coil 3 tends to embed the arms in the link, thus making a positive connection.

By employing a link of fusible alloy the current may be re-established by simply placing a link on the projecting arms of the thermostat. A supply of said links may be kept on hand. These links may be made to melt at the required temperature, which varies in different localities.

It is evident that one arm of the thermostat may be stationary and the other of spring material connected by a link of fusible alloy and still be within the scope of my invention.

I claim as my invention—

1. An electrical thermostat composed of a base, circuit-wires connected to said base, and a detachable link of fusible alloy connecting the circuit-wires, substantially as set forth.

2. An electrical thermostat composed of a base, spring-arms secured to said base, and a link of fusible alloy connecting said arms, the said link being provided with seats for the reception of the spring-arms, and held detachably in place by the arms, substantially as set forth.

3. An electrical thermostat composed of a base, spring-arms secured to said base, a link of fusible alloy connecting the inner ends of the arms, and the outer ends connected to binding-posts, the link being held in close electrical contact with the arms by the spring-tension of the arms, substantially as set forth.

CHARLES H. SHAFFER.

Witnesses:
A. O. BEHEL,
E. BEHEL.