

(No Model.)

E. N. DICKERSON.
THERMO-ELECTRIC ELEMENT.

No. 433,451.

Patented Aug. 5, 1890.

Fig. 1.

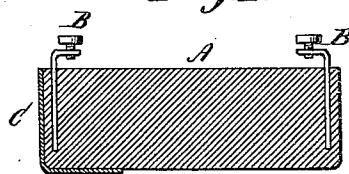
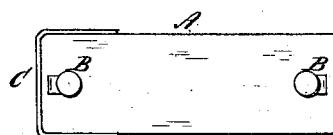


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

EDWARD N. DICKERSON, OF NEW YORK, N. Y.

THERMO-ELECTRIC ELEMENT.

SPECIFICATION forming part of Letters Patent No. 433,451, dated August 5, 1890.

Application filed February 27, 1890. Serial No. 341,944. (No model.)

To all whom it may concern:

Be it known that I, EDWARD N. DICKERSON, of the city, county, and State of New York, have invented a new and useful Improvement in Thermo-Electric Elements, of which the following is a full, true, and exact description, reference being had to the accompanying drawings.

In the operation of thermo-electric elements it is exceedingly important that the element should be highly heated at one point of connection, so that its heat shall approach the melting-point. The metals ordinarily employed are liable to fusion at comparatively low temperatures.

I have devised a construction of thermo-electric element by which the end of the element is protected, while at the same time the ordinary insulation between the protecting cover and the element is dispensed with.

My invention will be readily understood from the accompanying drawings, in which—

Figure 1 shows a vertical section, and Fig. 2 a plan.
25 A represents the body of the element, which

is preferably composed of an alloy of sixty per cent. of antimony and forty per cent. of zinc; B, the electrodes or connections, preferably composed of nickel or nickeline; C, the protecting metallic casing, ordinarily made of iron, which protects the end of the element but extends only a part of the way over the surface of the element: The heat is of course applied to the protecting end.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a thermo-electric element, the combination of a comparatively fusible metal with a practically infusible cover surrounding one end of the same only, thereby avoiding the necessity of insulation between the cover and the element, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

E. N. DICKERSON.

Witnesses:

ANTHONY GREF,
HARRY CONSTANT.