

(No Model.)

H. B. COX.
THERMO-ELECTRIC GENERATOR.

No. 535,490.

Patented Mar. 12, 1895.

Fig 1

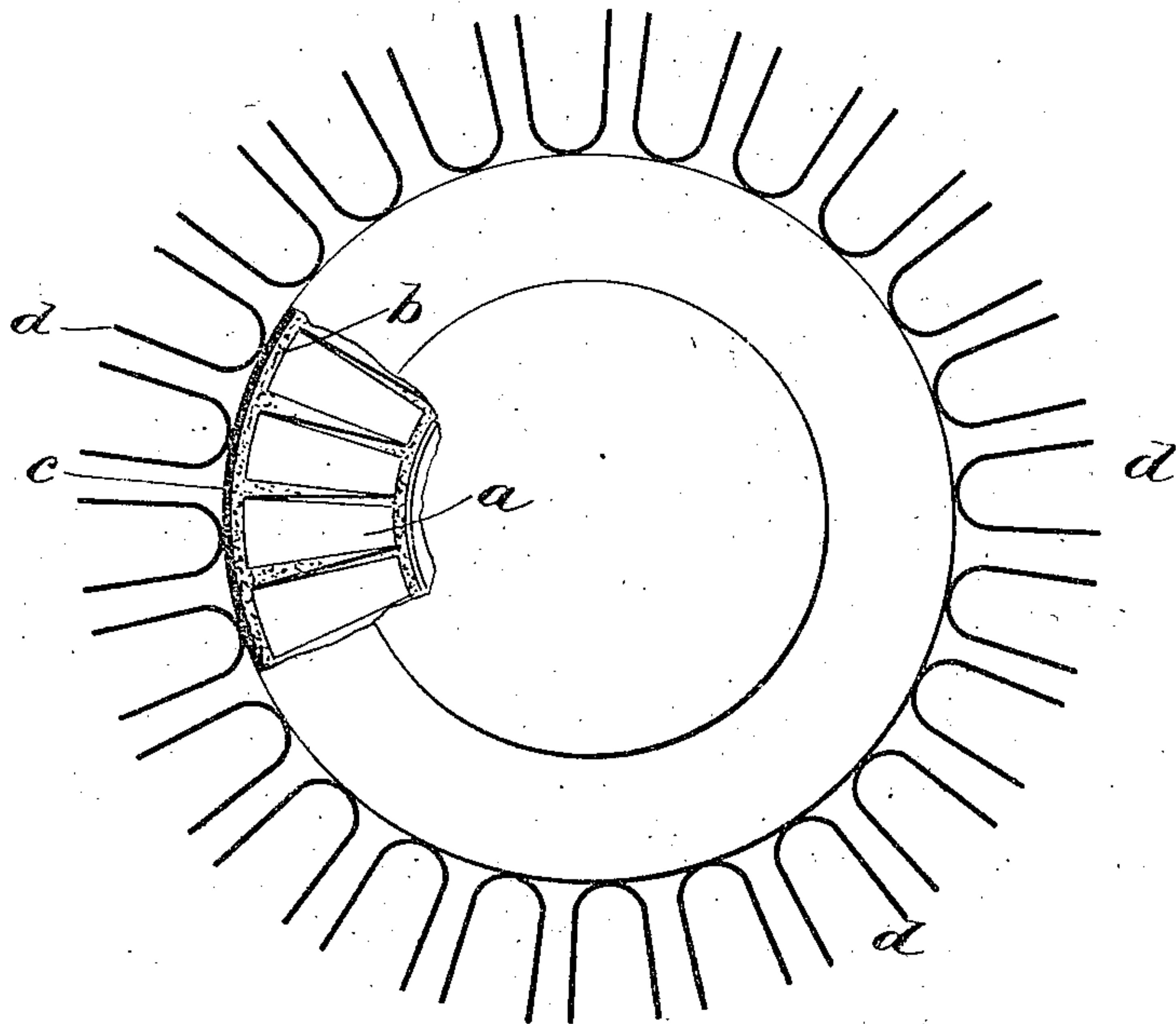
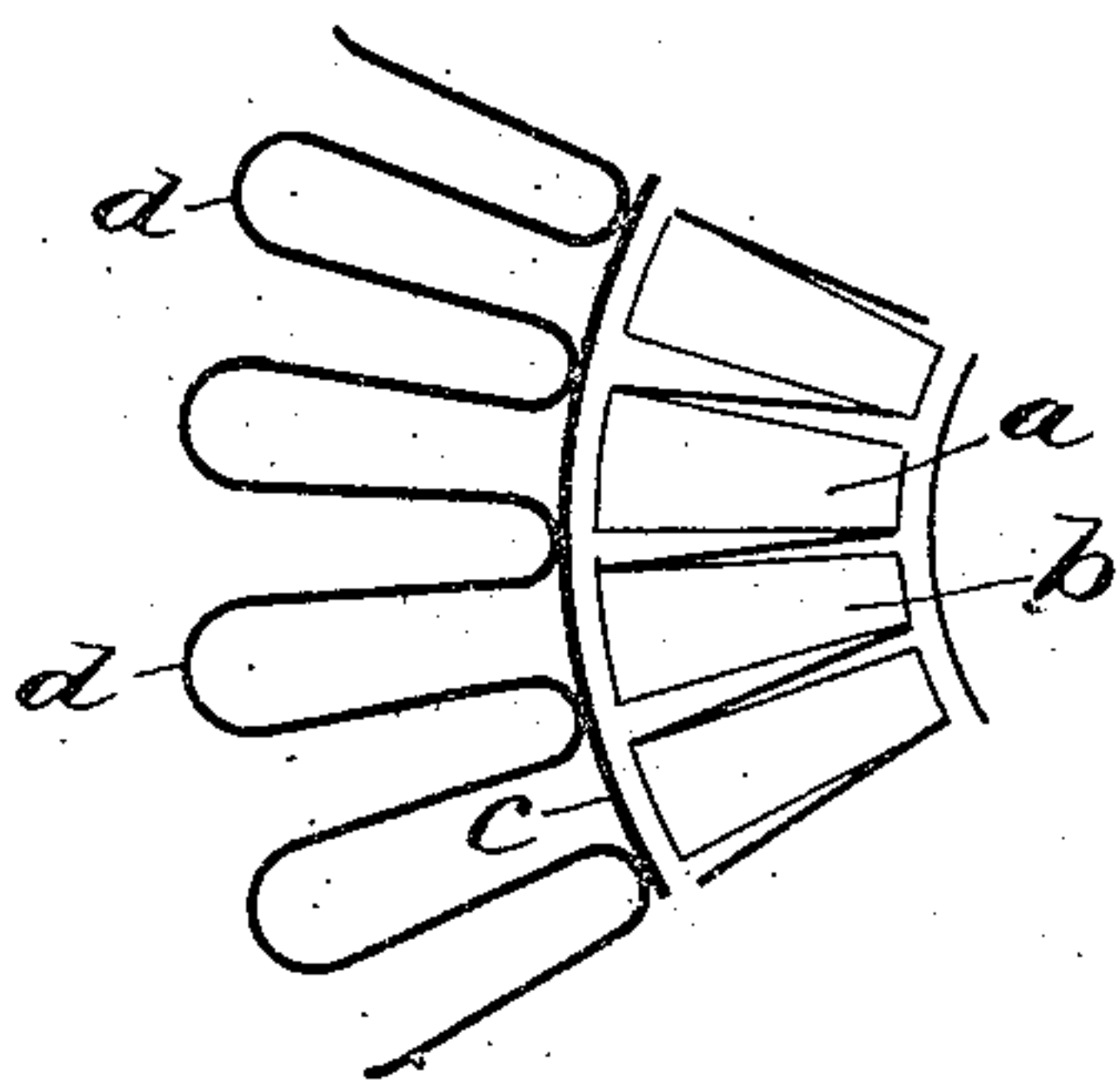


Fig 2



WITNESSES:

Hubert E. Peck
C. M. Werle

INVENTOR
Harry B. Cox
BY
O. E. Dyer
ATTORNEY.

UNITED STATES PATENT OFFICE.

HARRY BARRINGER COX, OF HARTFORD, CONNECTICUT.

THERMO-ELECTRIC GENERATOR.

SPECIFICATION forming part of Letters Patent No. 535,490, dated March 12, 1895.

Application filed March 8, 1893. Renewed August 14, 1894. Serial No. 520,330. (No model.)

To all whom it may concern:

Be it known that I, HARRY BARRINGER COX, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Thermo-Electric Generators; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to certain improvements in thermo electric generators.

The object of the invention is to provide in an improved manner thermo electric piles with radiators whereby the potential in the circuit will be increased.

The invention consists in certain novel features of construction and in combinations of parts more fully described hereinafter and particularly pointed out in the claims.

Referring to the accompanying drawings:—

Figure 1 is a cross section of a thermo electric pile. Fig. 2 is a detail sectional view of a modification.

In the drawings the reference letter *a*, indicates a series of connected thermo electric couple connected preferably in ring form, a number of rings being placed together to form a pile in open or cylindrical form. The heat is applied to the interior of the pile. The rings after being suitably secured together are preferably coated at their inner and outer ends with some suitable fire proof material, such as fire clay, which is then baked, hardened or vitrified to form a hard coating *b* on the inner and outer faces of the pile. The outer surface of this hard cylinder is then provided in some suitable manner with a metallic jacket *c*. The outer ends of the thermo elements are the cool portions of the circuit

while the inner ends thereof constitute the head portions of the circuit. In order to increase the difference in temperature between the inner and outer surfaces of the pile, the outer surface of the pile or generator is provided with suitable outwardly projecting radiators *d*. These radiators preferably extend out from the outer metallic jacket of the pile, and rapidly conduct off the heat from the pile.

I do not wish to limit myself to any peculiar construction of radiator or any peculiar manner of arranging or connecting the same.

In Fig. 1, the radiators shown consist of U shaped strips of metal suitably secured at their bent ends to the metallic jacket so that the legs of the U project radially from said jacket.

In Fig. 2 the radiators are formed by a corrugated strip of metal secured around the pile so that the corrugations project outwardly and radially from the pile.

Having thus fully described my invention, what I desire to secure by Letters Patent of the United States is—

1. A thermo electric pile provided with the outwardly projecting radiators from its outer surface independent of the elements of the thermo couples, substantially as described.

2. A thermo electric pile having the exterior metal jacket and the series of radiators extending outwardly therefrom, substantially as described.

3. A thermo electric generator having the exterior coating and the exterior radiators, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

HARRY BARRINGER COX.

Witnesses:

E. HENRY HYDE, Jr.,
J. L. FENN.