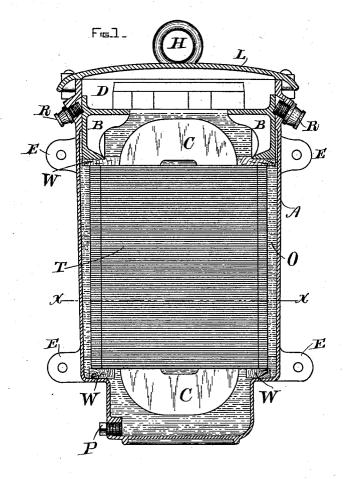
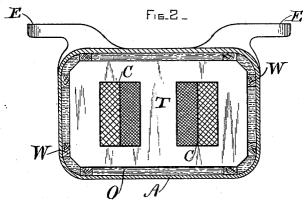
(No Model.)

## E. THOMSON. ELECTRIC TRANSFORMER.

No. 508,655.

Patented Nov. 14, 1893.





WITNESSES. a. J. Macdonald allow Elihn Thomson by Brutley Blodged Attyo

THE NATIONAL LITHOGRAPHING COMPANY,

## UNITED STATES PATENT OFFICE.

ELIHU THOMSON, OF SWAMPSCOTT, MASSACHUSETTS, ASSIGNOR TO THE THOMSON-HOUSTON ELECTRIC COMPANY, OF CONNECTICUT.

## ELECTRIC TRANSFORMER.

SPECIFICATION forming part of Letters Patent No. 508,655, dated November 14, 1893.

Application filed February 4, 1892. Serial No. 420,342. (No model.)

To all whom it may concern:

Be it known that I, ELIHU THOMSON, a citizen of the United States, residing at Swampscott, county of Essex, and State of Massachusetts, have invented a certain new and useful Improvement in Transformers, of which the following is a specification.

My present invention relates to certain improvements for boxing in electric transformers after the general manner described in Letters Patent No. 428,648, granted May 27, 1890, by which the transformer is effectually insulated from the casing and is maintained firmly in place therein.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of the transformer and casing, and Fig. 2 is a cross section of the same taken on line x, x, of Fig. 1.

The transformer itself may be of any suitable construction, that shown being a wellknown type comprising a laminated iron core T and primary and secondary windings C. The casing A is preferably of metal and presents a large surface for the radiation of heat. Its shape will be varied according to that of the transformer, but it should be enough larger than the transformer to leave a free space for the reception of oil or like fluid, seen at O, which insulates the transformer and is of service in keeping it cool by conducting the heat generated thereat to the casing from which it is radiated. A lid or cover L fits an opening in the casing making the whole water-tight and is provided with an eye-bolt H for a handle. At the bottom of the casing is a plug P, by removing which the oil or other fluid contained in the casing may be drawn off, and ears E extend out laterally and backward from the corners of the casing by which it may be secured to any desired support. The casing is so shaped at its lower end as to form ledges for supporting the transformer, and at its upper end just inside the cover l

there is placed a follower B which fits the casing as shown in Fig. 1.

Between the transformer and the casing and follower are placed blocks of wood or other insulating material W which form the immediate support for the transformer, and also insulate it effectually from the surrounding 50 metal. Insulating bushings R, extend through the casing through which are led the primary and secondary wires, and for receiving the fuses, switches, or other connectors generally used, there rests on top of the follower B a 55 porcelain plate or slab D.

By the construction described the transformer is firmly blocked in place, the porcelain plate with the electrical connections thereon is readily accessible, and the follower 60 may be easily removed through the opening in the casing covered by the lid for permitting access to the transformer itself.

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

1. The combination of a transformer and casing inclosing the same, with the follower B between the cover of the casing and transformer and serving to maintain the latter in

2. The combination of a transformer and casing therefor, with the follower B, insulating blocks separating the transformer from the casing and follower, and an insulating plate D resting on the follower, as described. 75

3. The combination of a transformer and closed casing therefor filled with oil, with the follower B and insulating blocks serving to maintain the transformer in place, as set forth.

In testimony whereof I have hereto set my 80 hand this 18th day of January, 1892.

ELIHU THOMSON.

Witnesses:

JOHN W. GIBBONEY,
BENJAMIN B. HULL.