

J. MORWITZ.
 APPARATUS FOR CONDENSING ELECTRICITY.
 APPLICATION FILED DEC. 2, 1904.

Fig. 1.

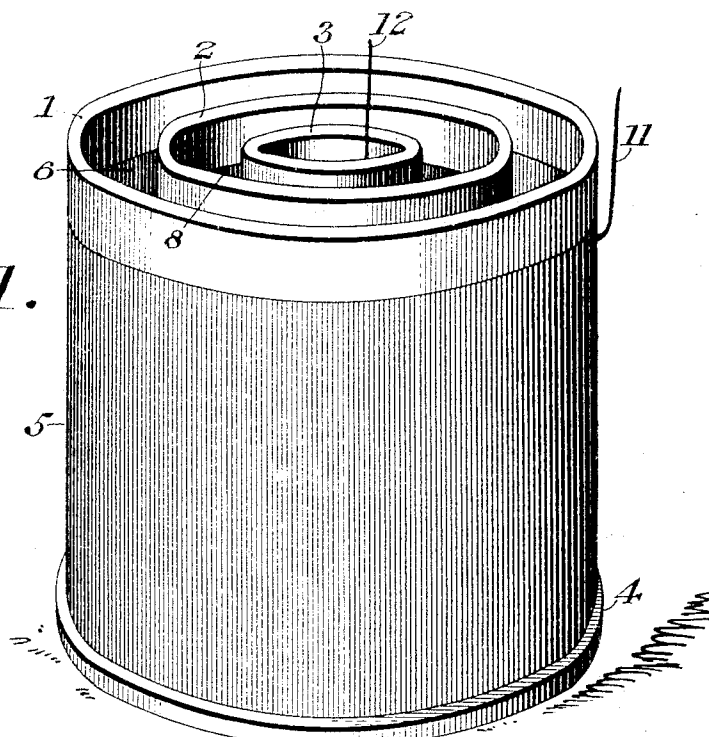
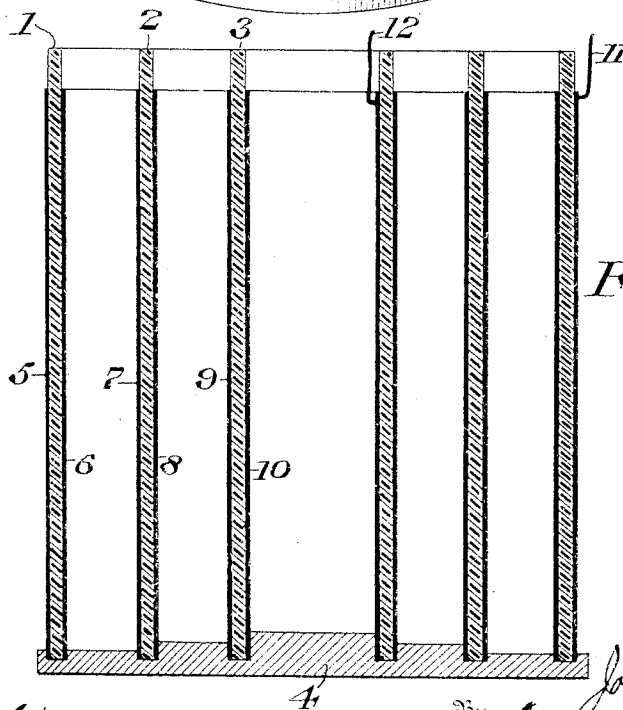


Fig. 2.



Witnesses

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JOSEPH MORWITZ, OF PHILADELPHIA, PENNSYLVANIA.

APPARATUS FOR CONDENSING ELECTRICITY.

SPECIFICATION forming part of Letters Patent No. 792,443, dated June 13, 1905.

Application filed December 2, 1904. Serial No. 235,196.

To all whom it may concern:

Be it known that I, JOSEPH MORWITZ, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Apparatus for Condensing Electricity, of which the following is a specification.

The object of my invention is to produce a condenser which shall operate both to store electrical energy and to increase the intensity of the charge.

A further object of my invention is to bind successive inclosed charges of electricity of greater density by an initial charge of relatively lower density.

In the drawings, Figure 1 represents a perspective view of one form of my invention. Fig. 2 represents a vertical cross-section through the center of Fig. 1.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 designates the outer shell or support of my condenser, here shown and preferably of cylindrical shape, most desirably constructed of paper permeated with resin or paraffin or coated with lacquer. It may, however, be of glass, ebonite, mica, or other dielectric. Within this wall are placed successive and inclosed or partly-inclosed shells, here shown as but two in number—namely, 2 and 3. These walls are supported upon any suitable non-conducting base 4 for convenience. For purpose of illustration the walls are here shown as spaced considerably and correspondingly few in number; but it will be evident that they may be placed quite close together and the number increased indefinitely, if desired.

Upon the outer and inner cylindrical faces 1, 2, and 3 are placed successive coatings, as of tin-foil or other thin metal, constituting, respectively, coverings 5, 7, and 9 and linings 6, 8, and 10. The outer covering 5 is connected with a source of electricity by a terminal 11, and the inner lining 10 is connected by a suitable terminal 12 with the earth or the opposite pole of said source of electricity.

In operation the charge of electricity, preferably from a frictional machine, Ruhmkorff coil, or another condenser, is communicated to the outer coating 5, while the inner coating is connected, preferably, to the ground, so that the outer coating 5 induces a charge of opposite kind upon the enjoining lining 6, which in turn induces a charge of like character to the initial charge upon coating 7, and so on, the final charge induced upon the inner lining 10 being drawn from the earth and being opposite in character to the initial supply. It will be evident that each induced charge will be a quantity corresponding to the initial charge, but will be distributed upon successively a smaller area than that of the initial charge, with the result that the density of charge will be increased successively, the charge reaching its highest concentration upon the innermost lining.

It will be evident that various changes may be made by those skilled in the art which may come within the scope of my invention, and I do not, therefore, desire to be limited in every instance to the exact construction herein shown and described.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a condenser, an outer coating and a plurality of successively-inclosed cylindrical dielectrics and coatings.

2. In a condenser, a plurality of concentric continuous supports, arranged one within another, and coatings thereon.

3. In a condenser, a plurality of disconnected concentric continuous coatings adapted to hold charges of alternate character.

4. In a condenser, a plurality of dielectric supports and a plurality of inductively-arranged metallic coatings of different size upon each support.

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Witnesses:

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