

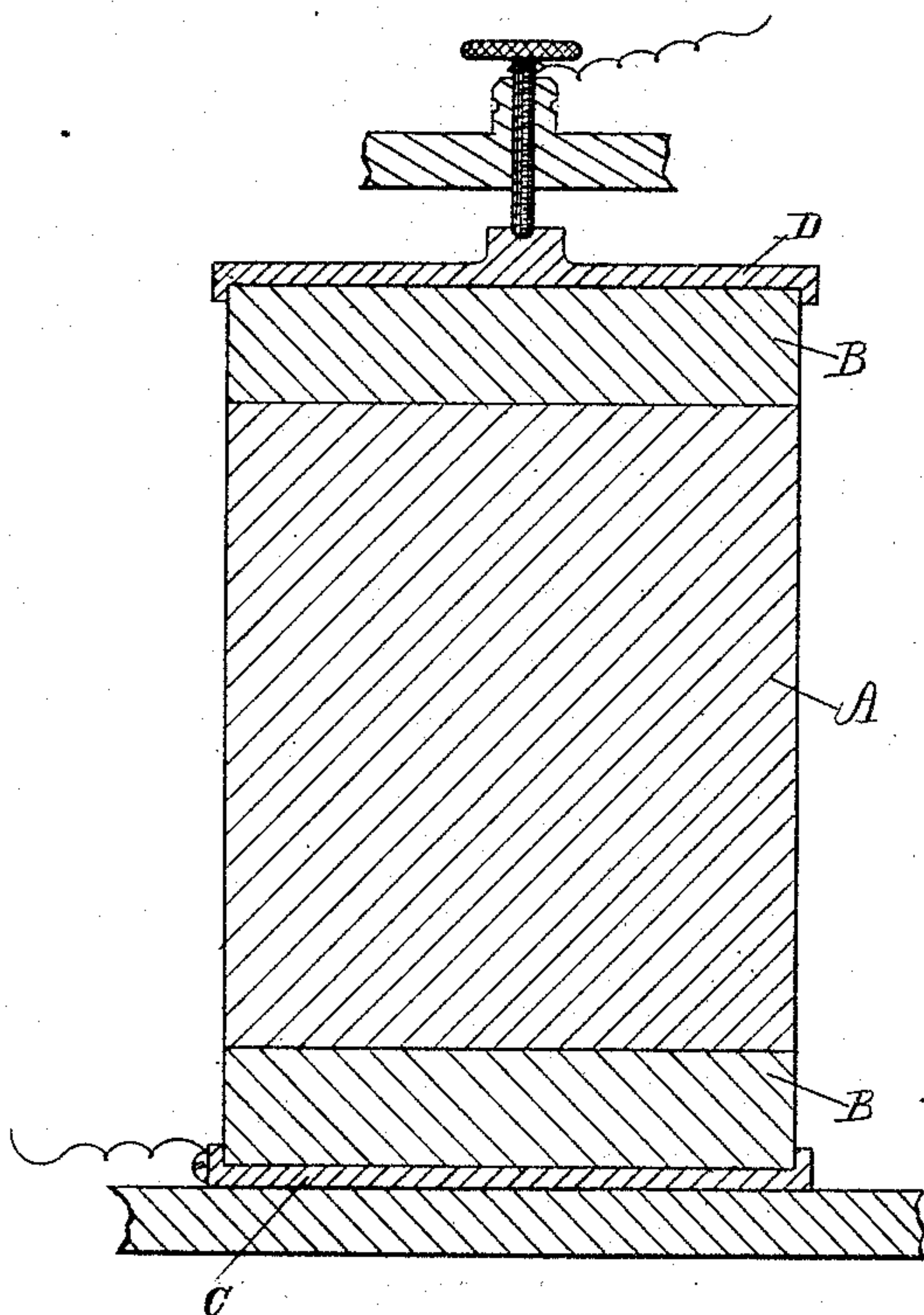
(No Model.)

M. M. M. SLATTERY.

RESISTANCE BLOCK FOR ELECTRIC CIRCUITS.

No. 354,257.

Patented Dec. 14, 1886.



Witnesses.

Robert Wallace.
M. C. Thompson

Inventor

Marmaduke M. M. Slattery.
by H. H. Macleod.
his atty

UNITED STATES PATENT OFFICE.

MARMADUKE M. M. SLATTERY, OF WOBURN, MASSACHUSETTS, ASSIGNOR
TO THE SUN ELECTRIC LIGHT COMPANY, OF SAME PLACE.

RESISTANCE-BLOCK FOR ELECTRIC CIRCUITS.

SPECIFICATION forming part of Letters Patent No. 354,257, dated December 14, 1886.

Application filed October 29, 1885. Serial No. 181,228. (No model.)

To all whom it may concern:

Be it known that I, MARMADUKE M. M. SLATTERY, of Woburn, county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Resistance-Blocks for Electric Circuits, of which the following is a full, clear, concise, and exact description, reference being had to the drawing accompanying and forming a part hereof, in which is shown a vertical section of a convenient form of my resistance-block.

The object of my invention is the production of an economical and efficient resistance medium or block for an electric circuit; and it consists, chiefly, in the peculiar composition of matter, hereinafter described, of which the body of the block is composed, and, further, in the arrangement of this composition in the block between terminal layers of different character, as hereinafter more fully described.

The shape of my resistance-piece is obviously immaterial. I have shown it in the form of a cylindrical block, A. The central portion of this block is composed of conducting material mixed with non-conducting refractory material in varying proportions. The precise ingredients are unimportant; but I have generally used carbon as the conducting material, and wood ashes or plaster-of-paris as the non-conducting material. These I mix together thoroughly in a powdered or comminuted condition, with sufficient moisture to make them readily cohere into a mass. I then make a similar mass, wholly of conducting material—as carbon—and when I mold the block into shape, which is done by compressing it within a mold of the proper form, I put a layer of the pure carbon mass on top,

and another layer below the composition mass, and then press the whole into shape. If the shape desired be that of a cylinder, as shown, the composition mass will make up the middle of the cylinder, as at A, and the pure carbon will form the ends B B.

A greater or less resistance may be obtained by varying the proportions of conducting and non-conducting material, an increase of non-conducting material proportionately giving a block of greater resistance. In this manner a block of any given resistance may be easily constructed.

The block may be mounted in any suitable manner. I have shown it supplied with terminal pieces or caps C D, which may be of carbon or other suitable material.

I do not desire to limit myself to the precise method of constructing the block or treating the materials, as these may be varied. For example, the block may be made by mixing the ingredients with molasses or sugar, and then baking or carbonizing the mass.

What I claim is—

1. A resistance-block of conducting and non-conducting materials, intimately mixed, combined with terminal pieces or caps of conducting material, between which the said block is held, substantially as set forth.

2. A resistance-block having a body composed of conducting and non-conducting materials, as described, inclosed between layers of conducting material, substantially as set forth.

MARMADUKE M. M. SLATTERY.

Witnesses:

WM. A. MACLEOD,
ROBERT WALLACE.