

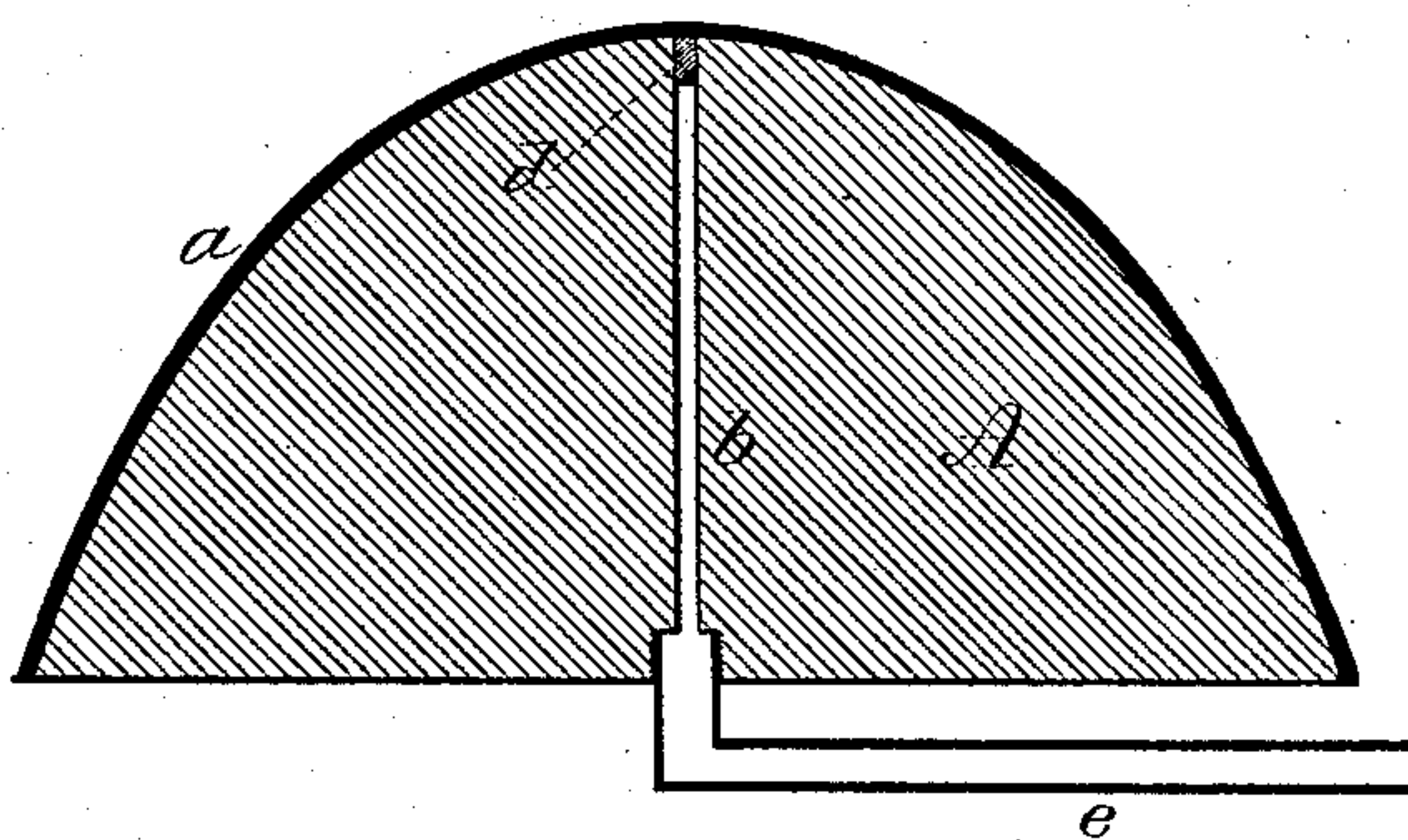
(No Model.)

W. WALLACE.

PROCESS OF MANUFACTURING ARTICLES BY ELECTRO DEPOSITION
OF METALS UPON FORMS.

No. 290,949.

Patented Dec. 25, 1883.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM WALLACE, OF ANSONIA, CONNECTICUT.

PROCESS OF MANUFACTURING ARTICLES BY ELECTRO-DEPOSITION OF METALS UPON FORMS.

SPECIFICATION forming part of Letters Patent No. 290,949, dated December 25, 1883.

Application filed November 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WALLACE, of Ansonia, in the county of New Haven and State of Connecticut, have invented a new Improvement in the Process of Manufacturing Articles by Electro-Deposition of Metal upon Forms; and I do hereby declare the following, when taken in connection with accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification; and represents a vertical section through a form and the metal deposited thereon, as in the manufacture of locomotive head-light reflectors.

This invention relates to an improvement in the manufacture of that class of articles which are made by electro-depositing metal upon forms of the required shape. In the usual process of manufacturing such articles, a form of the required shape is subjected to the electro-depositing operation until the requisite amount of metal is deposited thereon. Suppose, for illustration, it be a locomotive-reflector. The exterior surface of the form A, Fig. 1, represents the shape of the interior of the reflector. Upon this surface metal is deposited, as indicated by solid black *a*. The metal deposited, the article thus produced must be removed from the form, and this is usually done by applying a force to the edge of the article. The metal is in the closest possible proximity to the form, and will adhere thereto, so that a great force is required to remove it, and in so removing many articles are destroyed.

To obviate this difficulty is the object of my invention; and it consists in subjecting the metal so deposited upon the form to a pressure of fluid introduced between the outer surface of the form and the inner surface of the metal deposited, as more fully hereinafter described.

I make a small opening, *b*, through the form extending to some point or points in the outer surface of the form, and which will be inside the article deposited thereon. The hole at the surface of the form I close by a slight filling of wax, *d*, or otherwise, so as to preserve the perfect surface of the form. Then, after the metal is deposited in the usual manner, and as before described to produce the article, I remove the wax and apply fluid under pressure—say water—led to the opening, say, through a tube, *e*. The water thus forced starts the metal from the form and forces its way over the entire surface of the form, and thereby so gradually removing the deposited metal or article as not to injure it in the slightest degree.

Instead of water, any known fluid may be employed; but it should be of such a nature as to readily flow and make its way between the outer surface of the form and the inner surface of the metal deposited thereon. I have illustrated this one form, believing that to be sufficient to enable those skilled in the art to apply my invention to the removing of articles irrespective of their shape from forms upon which the metal may have been deposited.

I claim—

The herein-described improvement in the manufacture of articles by electro-deposit of metal upon forms, consisting in subjecting the article on the form to a pressure of fluid introduced between the outer surface of the form and the inner surface of the article, whereby said article is removed from the form, and substantially as described.

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Witnesses:

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