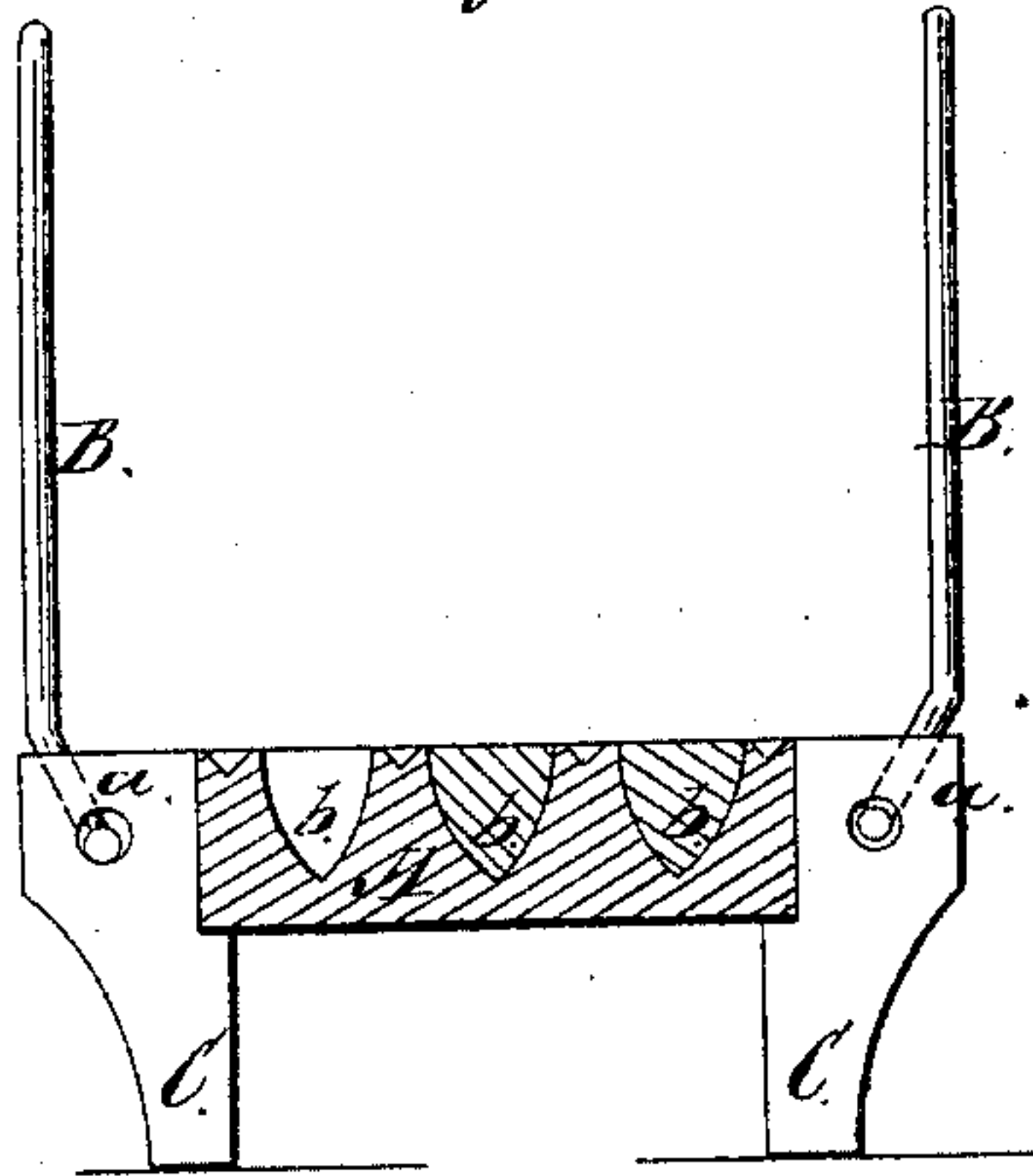


*J. Cartwright,  
Casting Solder.*

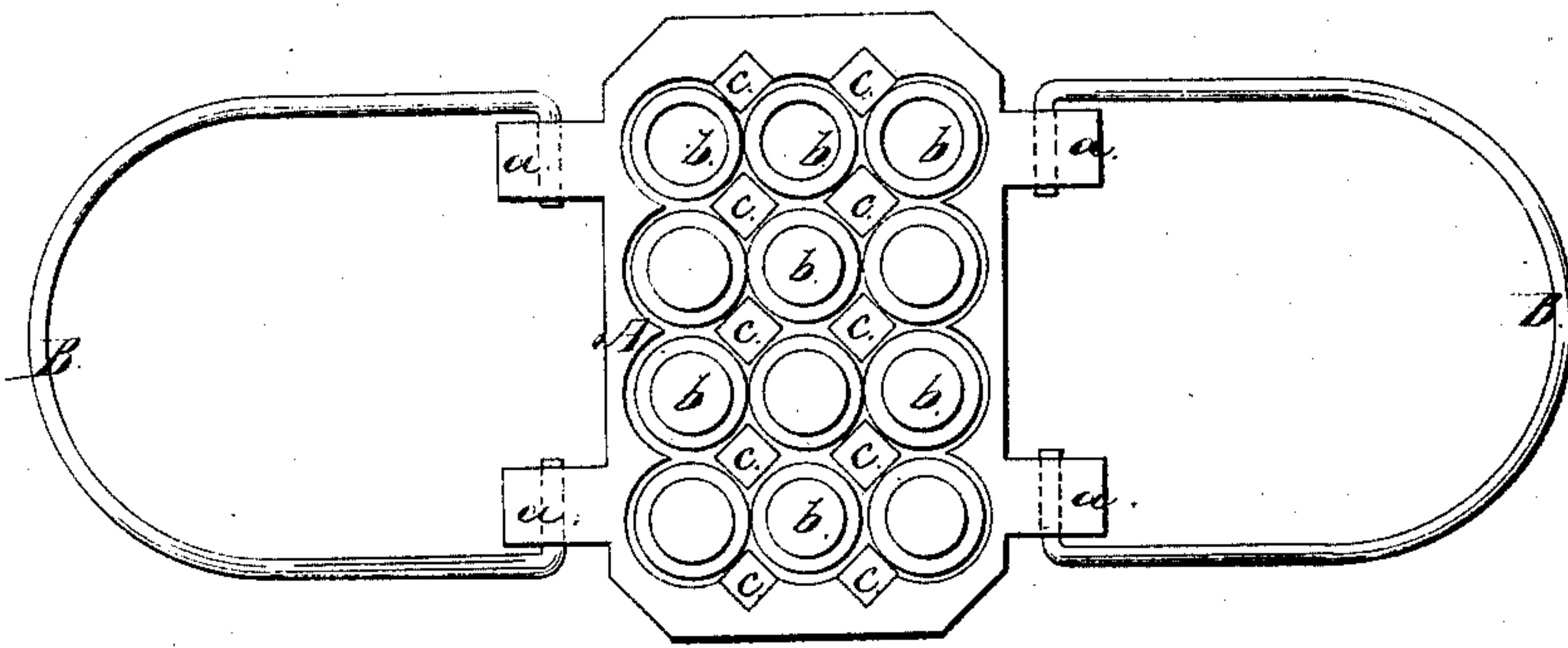
*N<sup>o</sup> 45,668.*

*Patented Dec. 27, 1864.*

*Fig: 1.*



*Fig: 2.*



*Witnesses:*

*Henry Morris  
C. L. Gophlett*

*Inventor:*

*James Cartwright  
J. S. Munroe  
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# UNITED STATES PATENT OFFICE.

JAMES CARTWRIGHT, OF SOUTH READING, ASSIGNOR TO HIMSELF AND H. C. SWEETSER, OF BOSTON, MASSACHUSETTS.

## IMPROVED DROP-PLATE FOR CASTING SOLDER.

Specification forming part of Letters Patent No. 45,668, dated December 27, 1864.

*To all whom it may concern:*

Be it known that I, JAMES CARTWRIGHT, of South Reading, in the county of Middlesex and State of Massachusetts, have invented a new and Improved Mold for Casting Drops for Soldering and other Purposes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a transverse vertical section of my invention; Fig. 2, a plan or top view of the same.

Similar letters of reference indicate like parts.

This invention consists in a plate provided with a series of cavities corresponding in size and shape to the drops to be cast, and suspended from suitable bails or handles, in combination with legs and air-channels passing through the plate between the cavities, in such a manner that by dipping said plate into a kettle containing molten metal all the cavities are filled, and when taken out of said kettle and placed on one side the air has free access to all parts of the plate, and the drops in the cavities will cool rapidly, thus allowing the plate to be used over and over again in rapid succession.

It consists, also, in producing soldering-drops by casting them in suitable molds, in contradistinction to the ordinary way of cutting them from the bars, and thereby saving a considerable amount of metal.

A represents a plate made of cast-iron or other suitable material, and provided with four ears, *a*, perforated with holes to receive the ends of the bails B.

C are legs which are cast solid with said plate or otherwise firmly attached to it, and these legs serve to elevate the plate sufficiently high above the ground to give the air free access to the under side of the same if it is placed flat down upon a table or other surface.

The body of the plate A is provided with a series of cavities or mold-holes, *b*, which correspond in shape and size to the soldering-

drops required, and the spaces between the said mold-holes are perforated with apertures *c*, to allow of a free circulation of the air between said mold-holes and to assist in the cooling of the plate and drops. The edges of the mold-holes are slightly raised above the surrounding surface of the plate, and they are slightly tapering, to conduct the surplus metal toward the apertures *c*.

The plate A is designed to be used by dipping or plunging into the molten metal, and when the drop-holes are filled it is taken out and set away to cool. When cool, the drops are emptied out and the plate can be immediately redipped.

The usual way of making soldering-drops is by cutting them from the bars, and such drops will naturally vary in size, and consequently will cause a great waste in solder. By the use of my plates the drops will all be of uniform size, and the mold-holes can be easily gaged so that they produce drops of a correct size for certain classes of work. For different kinds of work plates with different-sized mold-holes must be provided.

My drop-plate will be of particular advantage for manufacturers of tin cans, such as are generally used for putting up fruits or other preserves, or for tin boxes, such as blacking-boxes; but they can also be used with advantage for casting drops of other metal beside solder, and for other purposes.

By having on hand ten or twelve plates the operation of casting drops can be accomplished very expeditiously, as the first plate will cool by the time the last one has been dipped in the molten metal, and the work can thus be continued without interruption.

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

The employment or use of the drop-plate A, provided with mold-holes *b*, and air-channels *c*, in the manner and for the purpose substantially as herein shown and described.

JAMES CARTWRIGHT.

Witnesses:

EDWARD MANSFIELD,  
HORACE A. MANSFIELD.