

R. Poole,

Casting Chilled Plates.

N^o 24,976.

Patented Aug. 2, 1859.

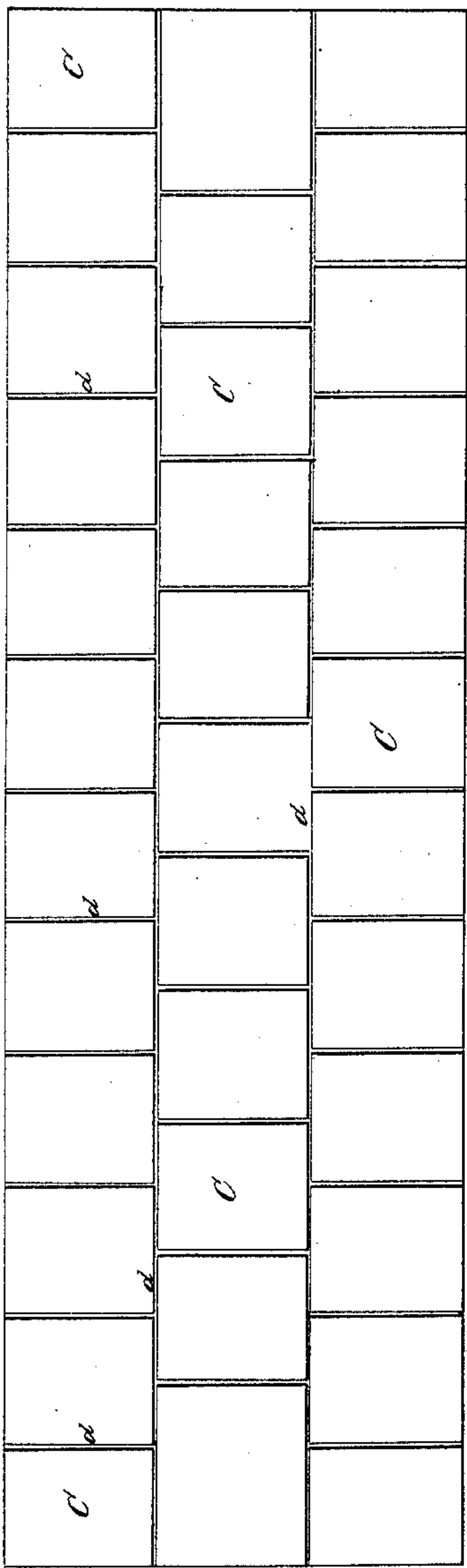


Fig. 1

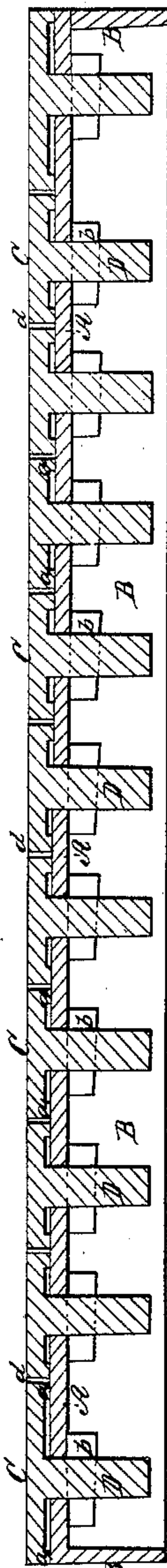


Fig. 2

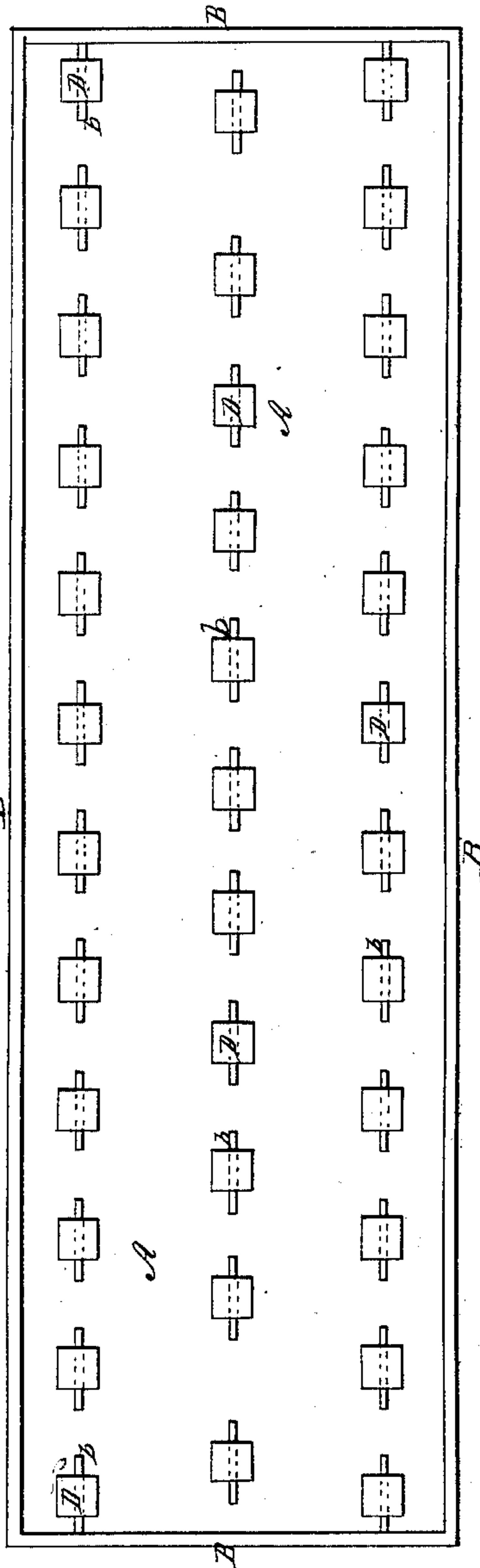


Fig. 3

Witnesses;
John A. Taylor
John S. Hopper

Inventor;
R. Poole

UNITED STATES PATENT OFFICE.

ROBERT POOLE, OF BALTIMORE, MARYLAND, ASSIGNOR TO HIMSELF AND
GERMAN H. HUNT, OF SAME PLACE.

IMPROVEMENT IN CASTING CHILLED PLATES.

Specification forming part of Letters Patent No. **24,976**, dated August 2, 1859.

To all whom it may concern:

Be it known that I, ROBERT POOLE, of Baltimore, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Casting Chilled Plates; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a top view of the chill used in casting chilled plates. Fig. 2 represents a longitudinal vertical section through the same. Fig. 3 represents a bottom view of said chill.

Where large chilled plates of a smooth and even surface are to be cast, the chill is very liable to warp when the metal is run onto it, by reason of the sudden expansion of the chill. The object of my invention is to prevent any such warping; and my invention consists in making the chill in sections, and in leaving small spaces filled with sand or other material between the sections, which leaves them sufficient room to expand without warping.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents a cast-iron bed-plate, which is formed with flanges or sides B, by which it is supported.

C represents the sections which constitute the chill, each of which is formed with a flat rectangular head, which is smoothly planed, and on the lower side of which are flanges *a*, which rest upon the bed-plate A. The square shanks D of the sections C pass through holes of the bed-plate, and they are secured to the

latter by means of the wedges *b*. The surfaces of the sections are planed off, so that they shall be even when they are secured to the bed-plate, and the holes through which the shanks pass are at such distances from each other as that a small space, *d*, shall be left between all the sections composing the chill, whereby they are free to expand without warping.

The spaces *d* between the chill-plates C are filled with sand or other yielding material, so that the face of the plate to be cast may not show the marks of the spaces of the chill, and thus when the chill expands by the heat of the metal which has been run on to it it will not warp, and the plate will be a perfect one. The form of the sections, or the sand-joints between them, is immaterial, so long as a suitable compensation is allowed to them, or so that the expansion may take place without turning up or warping the surface, said expansion expending itself in closing the sand-joints. I thus make chilled plates for safes, vaults, and other purposes with flat surfaces and without any warpings.

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

Making the chill for casting plates in sections, when said sections are secured to a bed-plate, in such a manner as to leave spaces between them, which are filled with sand or other yielding material, substantially in the manner and for the purpose described.

ROBT. POOLE.

Witnesses:

JOHN A. TYLER,
JOHN S. HARPER.