J. R. ANTHONY.

WATER-PROOF CELLAR-BOTTOMS.

No. 195,471. Patented Sept. 25, 1877.

Fig: 1.

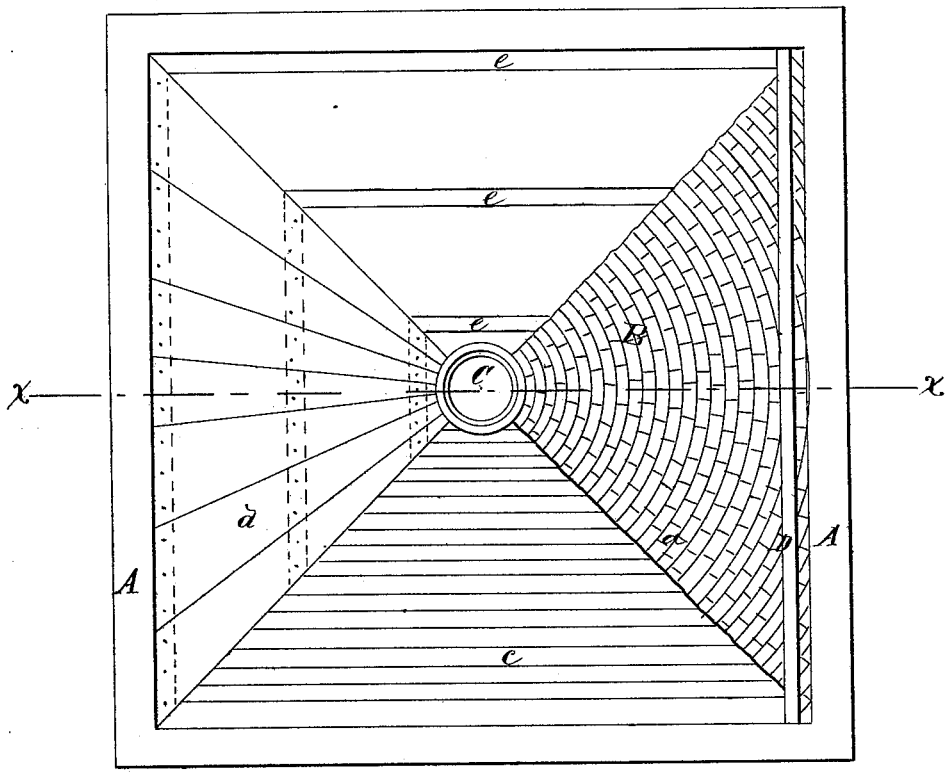
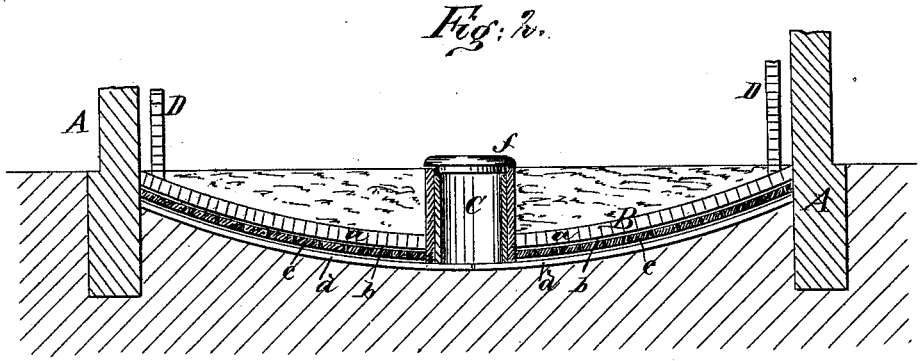


Fig: 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES R. ANTHONY, OF CEDAR RAPIDS, IOWA.

IMPROVEMENT IN WATER-PROOF CELLAR-BOTTOMS.

Specification forming part of Letters Patent No. **195,471**, dated September 25, 1877; application filed June 30, 1877.

To all whom it may concern:

Be it known that I, JAMES R. ANTHONY, of Cedar Rapids, in the county of Linn and State of Iowa, have invented a new and Improved Cellar-Bottom, of which the following is a specification:

Figure 1 is a plan view of my improved cellar-bottom. Fig. 2 is a transverse section on line *x x* in Fig. 1.

Similar letters of reference indicate corresponding parts.

The invention will first be described in connection with the drawing, and then pointed out in claim.

In the drawing, A is an ordinary cellar-wall, and B the water-proof bottom, which, in the present case, consists of an arch composed of a course of bricks, *a*, laid upon a bed, *b*, of water-proof cement, which bed is supported by laths *c*, laid upon tapering boards *d* that converge toward the center of the arch, and are laid upon timbers *e* that are embedded in the earth.

A well, C, is formed at the center of the arch, and provided with a water-tight cover, *f*. Upon the inverted arch thus formed a vertical wall, D, is built, a short distance from the wall A. This wall is coated on its outer side with water-proof cement. Earth is placed over the inverted arch and leveled, and upon it a floor is laid.

The bottom herein described is designed for wet and springy ground and for quicksand.

In constructing the bottom, the timbers *e* are first laid, and upon them the tapering boards *d* are placed, a small distance apart. Laths *c* are nailed transversely to the said boards, and upon the laths a layer, *b*, of water-proof mortar or cement is laid, into which the bricks *a* are embedded.

The spaces between the boards *d* lead to the well C, and the water that rises while the bottom is in process of construction escapes to the well, and may be removed in any convenient manner.

The wall D should be continued upward above high-water line, and it may with advantage be carried to the same height as the outer wall.

I do not limit myself to any particular form of arch, as it may be varied to adapt it to different circumstances. The sides may be either curved or straight, inclining downward toward the center.

The upward pressure of the water is effectually resisted by the form of the bottom and the water-proof material of which it is made.

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

A cellar-bottom consisting of an inverted arch composed of brick *a*, set in a bed, *b*, of water-proof cement, supported on laths *c*, the latter resting upon strips or boards *d* arranged at intervals and converging to a central well, C, as and for the purpose specified.

JAMES R. ANTHONY.

Witnesses:

HOMER C. MOREHEAD,

A. ST. CLAIR SMITH.