

E. HARKNESS.
Vault.

No. 201,413.

Patented March 19, 1878.

Fig. 1.

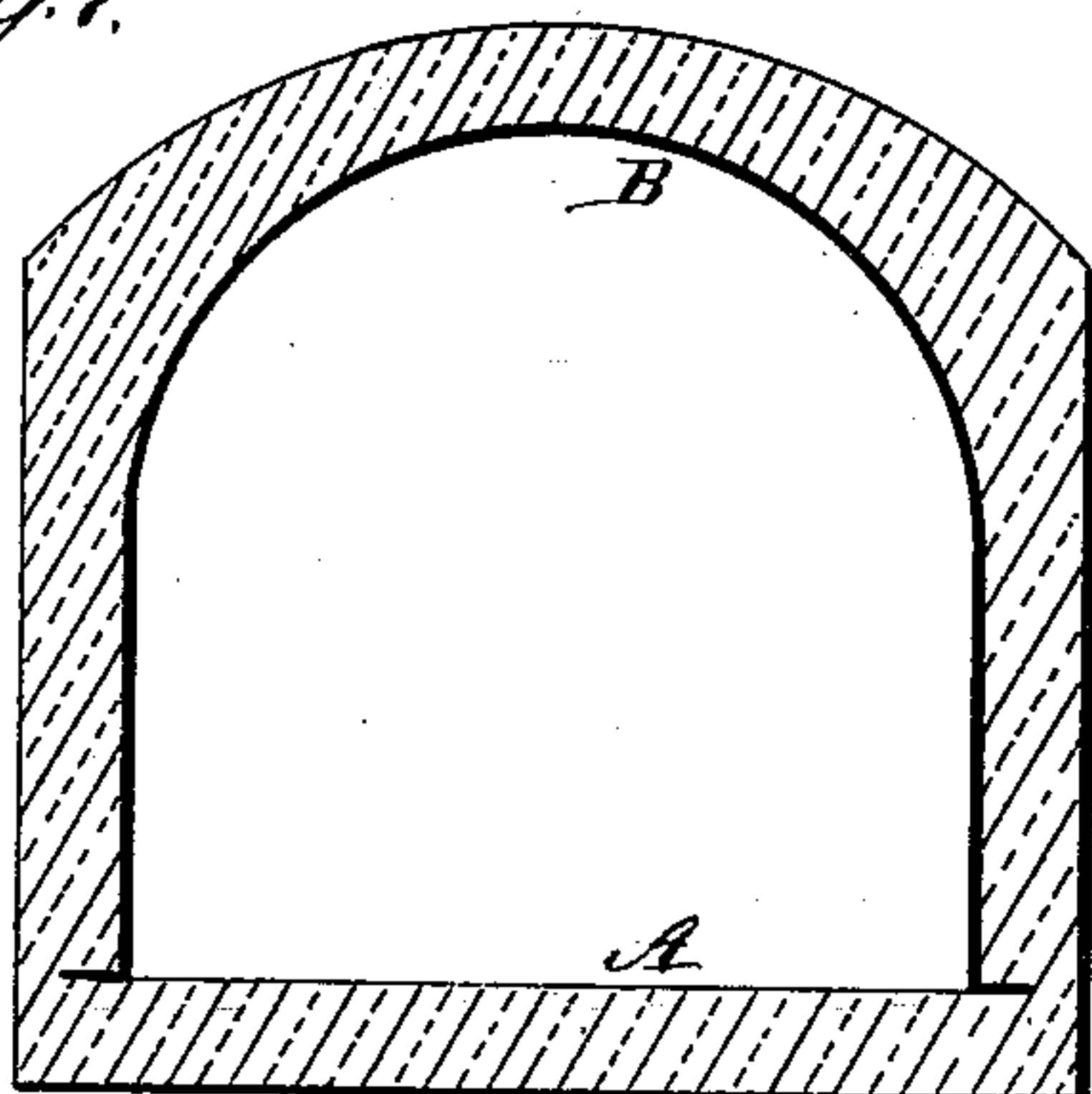


Fig. 2.

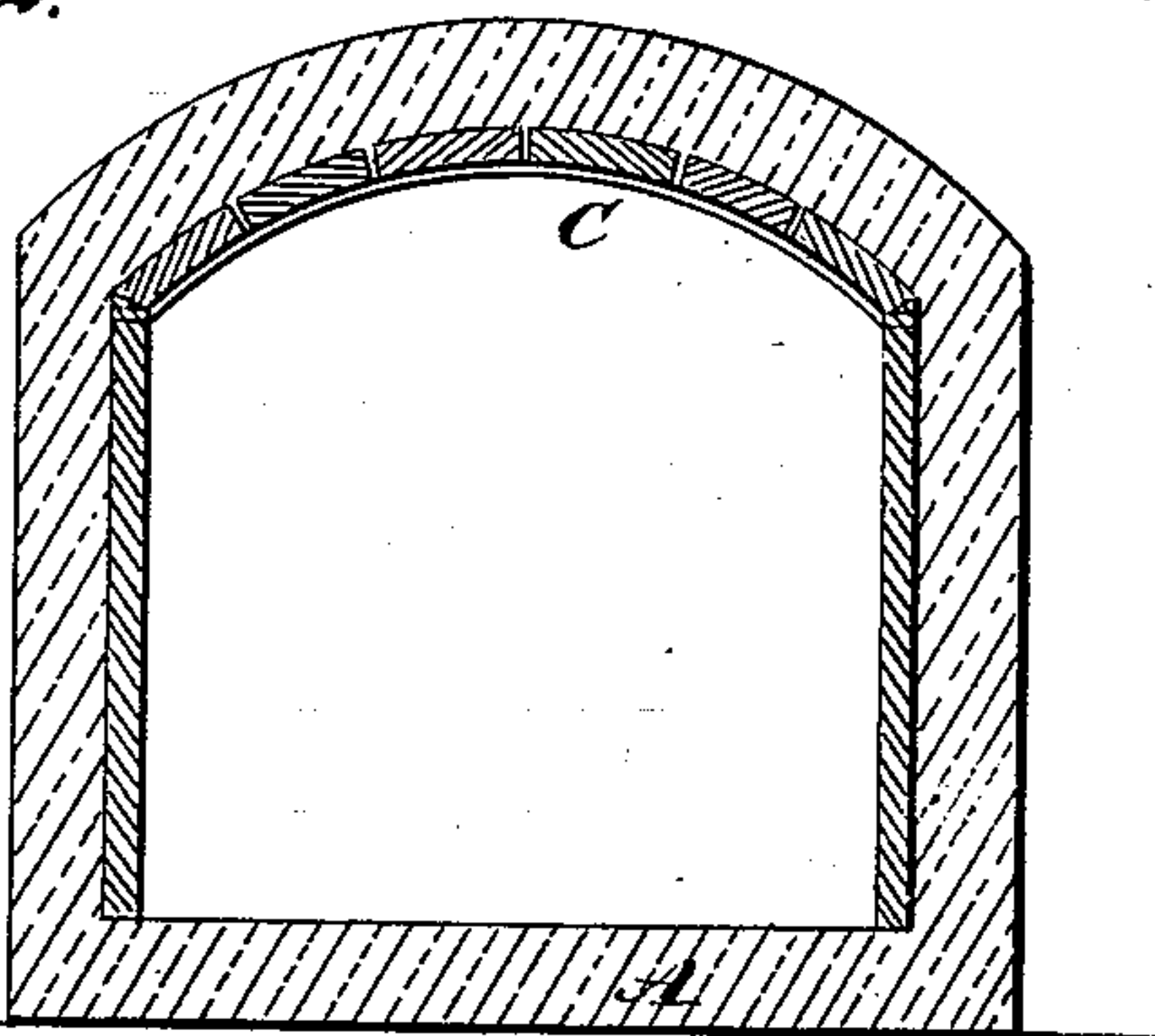


Fig. 3.

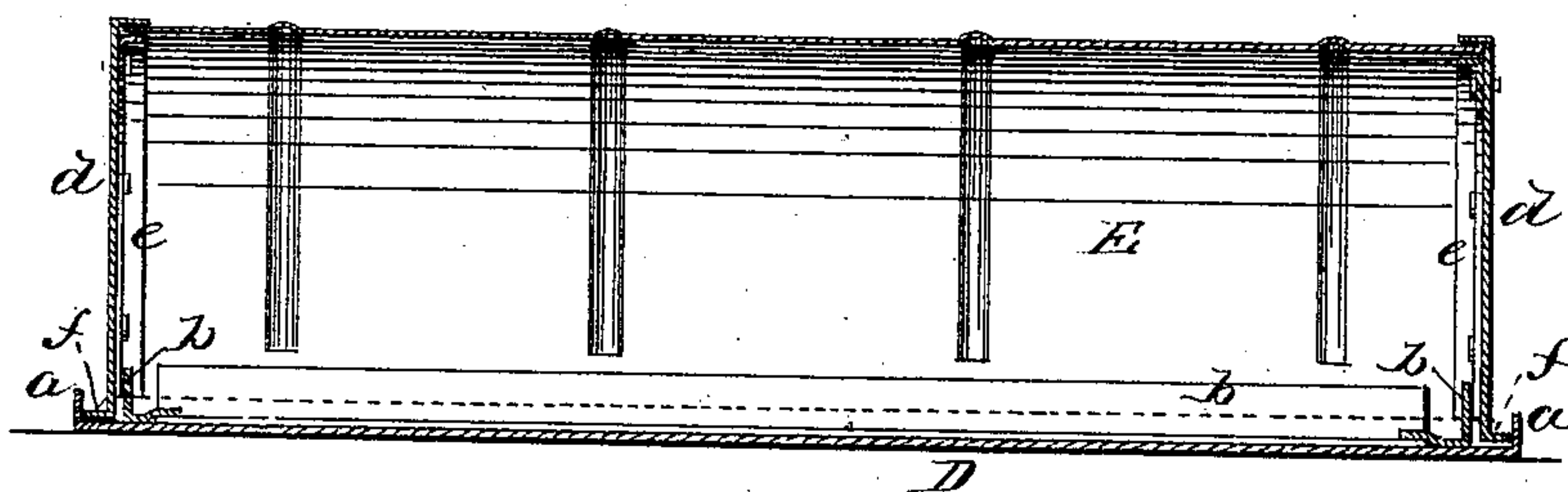
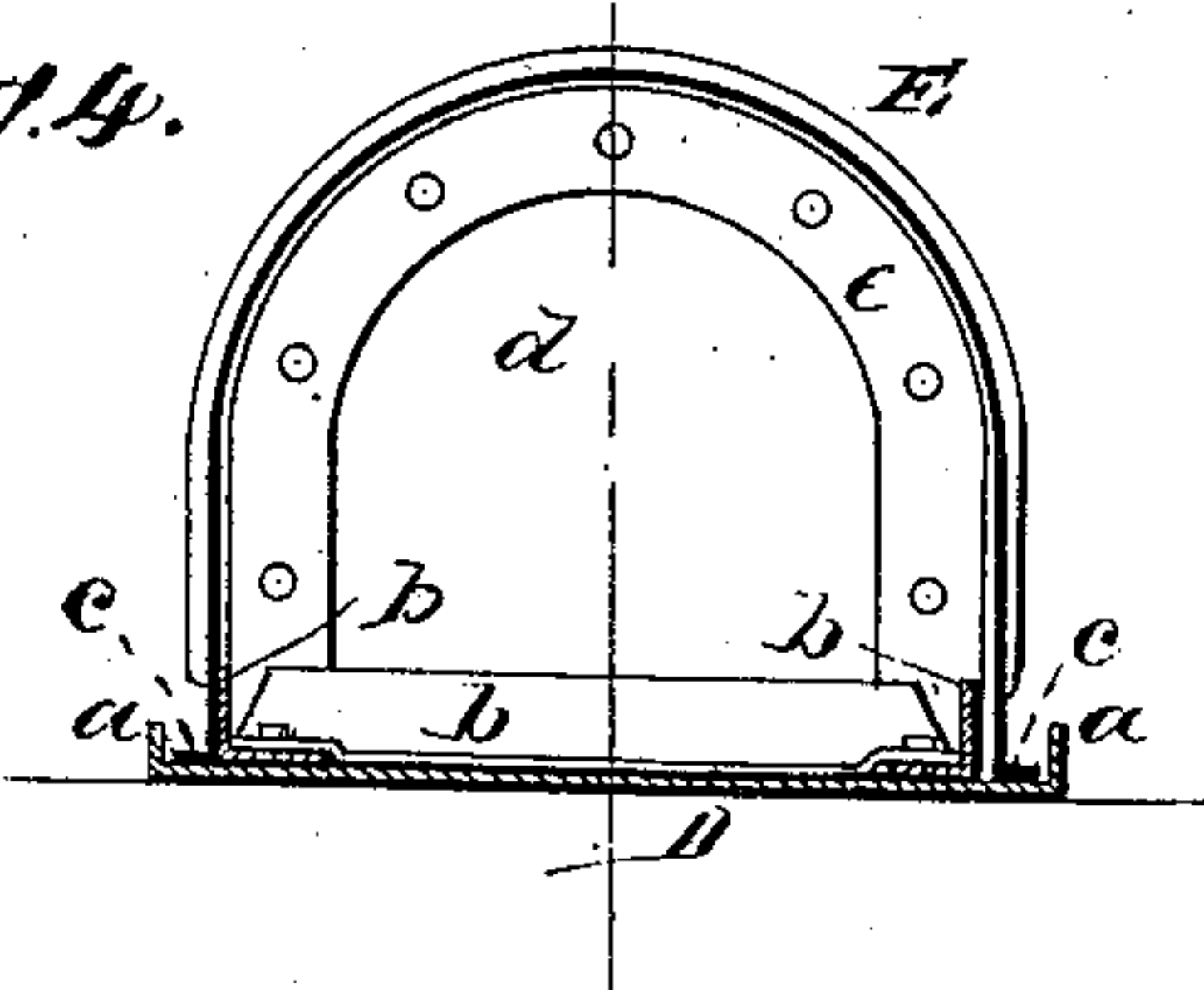


Fig. 4.



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UNITED STATES PATENT OFFICE.

EDWIN HARKNESS, OF VINCENNES, INDIANA.

IMPROVEMENT IN VAULTS.

Specification forming part of Letters Patent No. **201,413**, dated March 19, 1878; application filed January 19, 1878.

To all whom it may concern:

Be it known that I, EDWIN HARKNESS, of Vincennes, in the county of Knox and State of Indiana, have invented a new and Improved Vault, of which the following is a specification:

Figure 1 is a transverse section of a concrete vault built over a sheet-iron form. Fig. 2 is a transverse section of a concrete vault formed over a wooden support. Fig. 3 is a longitudinal section of a sheet-iron vault, and Fig. 4 is a transverse section of the same.

My invention relates to vaults for burial purposes; and it consists in a vault made in the grave over a sheet-iron or wooden form, which contains the burial-casket. It also consists in a sheet-metal vault of novel construction, which is permanently closed after the casket is placed in the grave.

Similar letters of reference indicate corresponding parts.

In carrying out my invention I form in the bottom of the grave a floor, A, of concrete, made of any of the well-known kinds of hydraulic cement and clean sand. Upon this floor the casket is placed, and covered with either the sheet-metal arch B or the wooden arch C, and the concrete is applied to the arch, forming a complete hermetically-sealed vault, which will resist the action of both time and the elements, and has sufficient strength to support the superimposed earth, and prevent the caving in of the grave, and the consequent tipping of tombstones.

If it is desired to make the top of the vault removable, the sides of the vault may be built up to where the top joins it, when the top of the walls may be covered with paper or other thin material that will render the top removable.

In Figs. 3 and 4, D represents a sheet-metal bottom, which is provided with a flange, *a*, around its outer edge, and with a vertical ledge or flange, *b*, a short distance from the edge, which consists of angle-iron riveted to the bottom.

The main body of the sheet-metal vault consists of one or more pieces of metal, E, ribbed

or corrugated, and bent into the form of an arch. A flange, *c*, is turned on its edges, which is received between the flange *a* and ledge *b* on the bottom.

Heads *d* are fitted to the ends of the sheet-metal arch, which have a flange turned on them that fits over the outside of the sheet-iron arch, and have a piece, *e*, of angle-iron riveted to them inside of the arch. The lower edge of each head has formed on it a flange, *f*, which is received between the flange *a* and angle-iron *b* of the bottom.

The bottom is first placed in the grave, and the casket is placed upon it. The sheet-iron arch E is then put in its place, and the head or end pieces are put on. The flange *a* is now turned down tightly over the flanges *c f* by means of a special tool.

If desired, this vault may be closed before placing it in the grave.

The bottom of this sheet-metal vault may, if desired, be bedded in concrete, and the arch may be covered with the same material. This would make a vault that would be practically indestructible.

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

1. The method of forming a concrete vault by first forming in the grave a concrete floor, and placing thereon a form of wood or iron over the casket, and building upon the form the sides, ends, and top of the vault, substantially as herein shown and described.

2. The method of rendering the top separable from the walls by placing on the walls a layer of paper or other similar material, and building thereon the cover of the vault, as herein shown and described.

3. A sheet-metal vault consisting of the bottom D, having flanges *a b*, the corrugated and flanged top E, and the flanged end pieces *d*, substantially as herein shown and described.

EDWIN HARKNESS.

Witnesses:

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