

(No Model.)

J. G. GRAY.
GRAVE VAULT.

No. 478,102.

Patented July 5, 1892.

Fig. 1

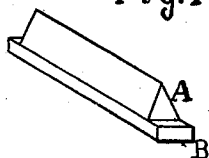


Fig. 2

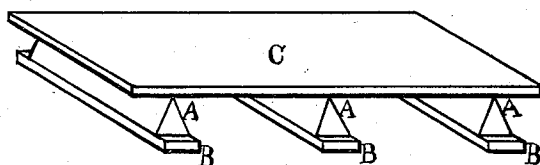


Fig. 3

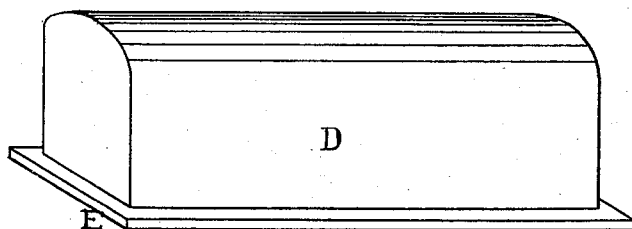


Fig. 4

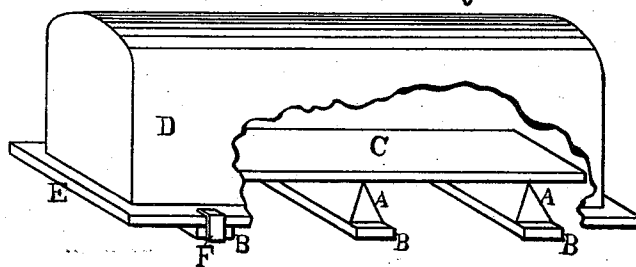


Fig. 5

Witnesses.

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JOHN G. GRAY, OF CONNERSVILLE, INDIANA.

GRAVE-VAULT.

SPECIFICATION forming part of Letters Patent No. 478,102, dated July 5, 1892.

Application filed April 30, 1891. Serial No. 391,168. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. GRAY, a citizen of the United States, residing at Connorsville, in the county of Fayette and State of Indiana, have invented certain new and useful Improvements in Grave-Vaults; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of my invention is to completely and totally protect the coffins and caskets containing the dead in graves from water without having the vaults hermetically sealed, first, by utilizing the philosophical principle that water will not rise in a tube, vessel, or vault closed at the top and open at the bottom higher than a fractional part of its altitude, according to the height of the water from the open bottom standing on the outside and around the tube, vessel, or vault, owing to the presence and resistive force of the air in the same; and by experiment it is shown that in a perpendicular tube, vessel, or vault closed at the top and open at the bottom with water standing six (6) feet above the open bottom and on the outside and around the same the air on the inside of the tube, vessel, or vault will be compressed about one-fifth ($\frac{1}{5}$) of its volume and about one-fifth ($\frac{1}{5}$) of the height of the tube, vessel, or vault on the inside, and if said tube, vessel, or vault is thirty (30) inches from bottom to top on the inside and under the above pressure of water the water will rise on the inside of the same about one-fifth ($\frac{1}{5}$) of its height, or about six (6) inches; second, by employing narrow and limited surfaces to preclude water rising in the vault by capillary attraction; third, in securing a permanently level and correct position of the coffin or casket cover with the platform holding the coffin or casket; fourth, by extending the exterior surface of the coffin or casket cover in such a manner as to receive the full weight of the earth placed upon it; fifth, by combining the weight of the supports and the weight resting upon them with the weight of the coffin or casket cover. I attain these ob-

jects by the devices illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of one of the supports upon which the platform holding the coffin or casket rests and also upon which the coffin or casket cover rests. Fig. 2 is a view in perspective of the platform upon which the coffin or casket rests, itself resting upon the supports. Fig. 3 is a perspective view of the coffin or casket cover which fits over the platform, incloses the coffin or casket, and rests upon the end projections of the supports. Fig. 4 shows in perspective a metal clamp which is used to secure the supports to the coffin or casket cover. Fig. 5 is a perspective view showing the coffin or casket cover, a portion of it cut away and the several devices all placed in their proper positions to secure protection from water.

Similar letters refer to similar parts throughout the several views.

The support A (shown in Fig. 1) is so constructed that while the bottom rests on the ground with a broad surface the top presents a diminished and limited surface, upon which the platform C rests, as shown in Fig. 2. The lower part of the support projects out at the ends to a distance equal to the thickness of the walls of the coffin or casket cover D and as much farther as desired, and on these projections B the coffin or casket cover D rests. The height of the support A from the projections B is governed by the altitude of the coffin or casket cover D on the inside, and the length of the support A is determined by the exterior width of the coffin or casket cover D.

The platform C (shown in Fig. 2) is a plain slab and its length and breadth are determined by the length and breadth of the coffin or casket cover D on the inside. It rests upon the supports A A A, as shown.

Fig. 3 shows the coffin or casket cover D. The ends, sides, and top are all joined together air-tight, while the bottom is open. On the outside and at the bottom of the coffin or casket cover D a flange E, being an extension of the walls of the same, projects out at right angles with its walls as far as desired. Said coffin or casket cover sits over the platform C and rests upon the projections B B B.

Fig. 4 is the metal clamp F, a U-shaped de-

vice which fits under the projection B and over the flange E to bind the support A and the coffin or casket cover D together.

In Fig. 5, D is the coffin or casket cover. C is the platform upon which the coffin or casket rests. A A are the supports. B B B are the end projections of said supports. E is the flange, and F is the metal clamp as it is employed to secure the supports A A to the coffin or casket cover D.

To carry my invention into effect, the supports A (three or more in number) are placed horizontally and on a level across the bottom of the grave—one in the middle and one near each end. The bottoms of said supports rest on the ground and the same extend up in the cap or cover D above the point to which water will rise. The platform C is placed across the tops of these supports, and the coffin or casket is set upon said platform. The coffin or casket cover D is then placed over the platform C and rests on the projections B B B. The metal clamps F are adjusted to the flange E and the projections B B B, binding the coffin or casket cover D and the supports A A A together. The resistive force of the air in said coffin or casket cover prevents water from rising to the platform C, upon which the coffin or casket rests. The supports A A A, having small and limited surfaces where they come in contact with the platform C, preclude the possibility of water rising by capillary attraction from the supports A A A to the platform C. The projections B B B are arranged so as to afford a level and correct position of the coffin or casket cover D with the platform C. First, the flange

E, projecting out from the bottom of the coffin or casket cover D, increasing the exterior surface and the capacity of said coffin or casket cover to receive the weight of the earth placed upon it, and, second, the metal clamps F, combining the weight of the supports A A A and the weight resting upon said supports with the weight of the coffin or casket cover D, both act mutually to prevent said coffin or casket cover from being raised or lifted by the pressure of water which may rise in the grave.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The coffin or casket cover D, made airtight, provided with flanges E, in combination with the platform C and the supports A A A, provided with projections B B B, as and for the purposes set forth and described.

2. The coffin or casket cover D, made airtight, provided with flanges E, the supports A A A, provided with projections B B B, the platform C, the clamps F, all combined and operating in the manner and for the purpose herein set forth and described.

3. The coffin or casket cover D, made airtight, in combination with the supports A A A, provided with projections B B B, in the manner and for the purpose shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN G. GRAY.

Witnesses:

L. L. BROADDUS,
FINLY H. GRAY.