No. 677,640. Patented July 2, 1901.

W. A. CREW.

SARCOPHAGUS.

(Application filed May 11, 1900.)

(No Model.)

Fig. 1

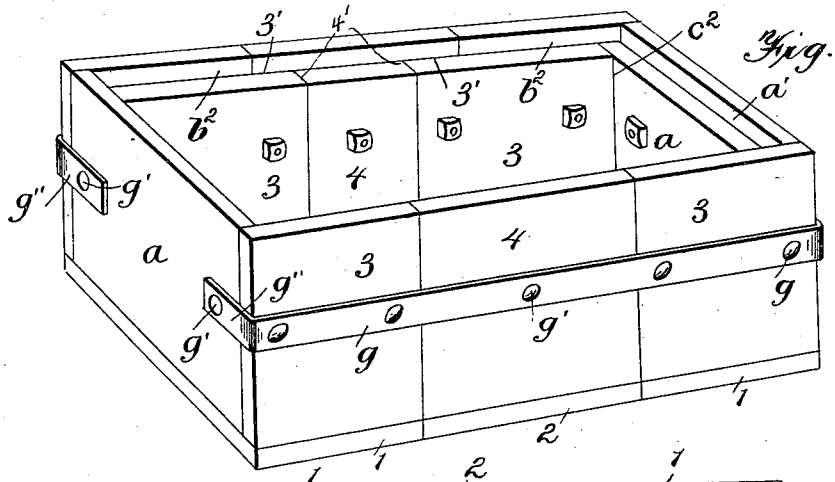


Fig. 2

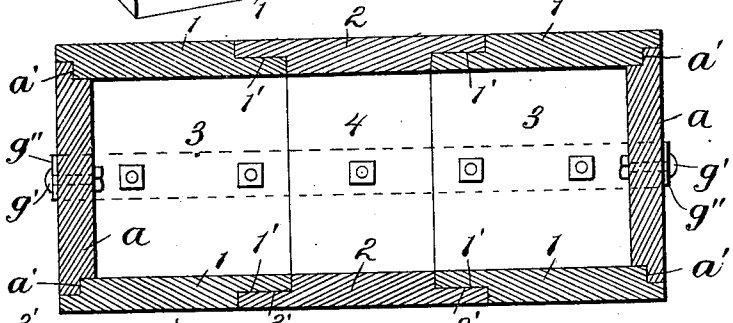


Fig. 4

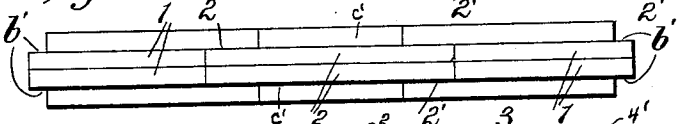


Fig. 5.

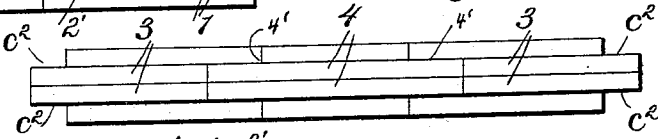


Fig. 6.

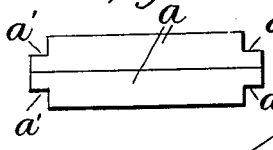
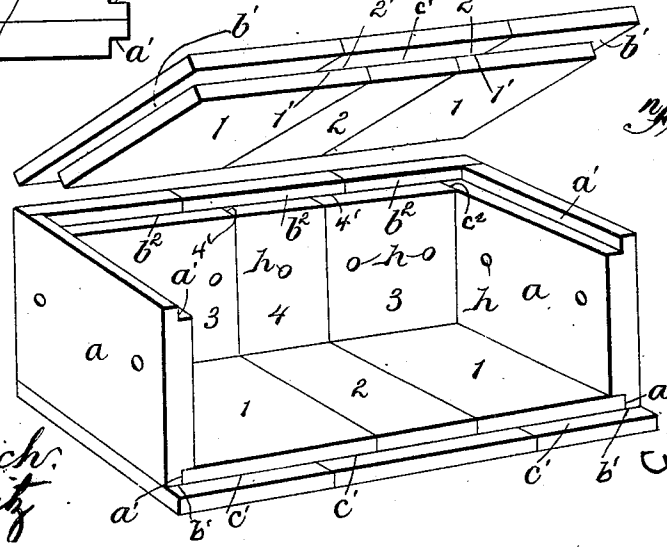


Fig. 3.



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SARCOPHAGUS.

SPECIFICATION forming part of Letters Patent No. 677,640, dated July 2, 1901.

Application filed May 11, 1900. Serial No. 16,330. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ANDREW CREW, a citizen of the United States, residing at Salisbury, Wicomico county, State of Maryland, have invented certain new and useful Improvements in Sarcophagi; and I do hereby 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.

This invention relates to certain improvements in sarcophagi; and the objects and nature of my invention will be clearly understood by those skilled in the art in the light of the following description of the accompanying drawings.

My invention consists in certain novel features in construction and in combinations and in arrangements of parts, as more fully and particularly set forth and specified hereinafter.

Referring to the accompanying drawings, Figure 1 is a detail perspective view of the vault with the cover removed, showing the side ties secured in place. Fig. 2 is a longitudinal vertical sectional view with the cover in place. Fig. 3 is a perspective view of the vault with the top and side removed, the top being shown in bottom perspective raised above the vault. Figs. 4, 5, and 6 are edge views showing how the blocks making up the vault can be packed or crated for shipping.

The vault is composed of a number of interlocking flat blocks or plates, each being preferably molded solid of Portland cement or other suitable equivalent material, and in building up the vault these blocks can be held together by suitable means—for instance, they can be united at their meeting or overlapping edges by suitable cement or mortar to form waterproof joints, if so desired, although my invention is not so limited.

In the specific example shown in the drawings the bottom, top, and two sides of the vault are composed of three blocks each, and two end blocks are employed, making a vault composed of fourteen flat blocks. In the construction shown the top and bottom are alike and interchangeable and are constructed of interchangeable blocks. The two sides are interchangeable and likewise similarly constructed of interchangeable blocks. The two end blocks are also alike and interchangeable. I show the sides, top, and bottom, each composed of three blocks, two of which are alike and interchangeable, and it is obvious that the top and bottom of the two sides or all of said walls can be each composed of two of said blocks, omitting one of the two similar blocks in each.

The top, bottom, side, and end walls of the completed cement vault have the smooth plain inner and outer faces and are flat, and each wall is usually some four inches in thickness, more or less.

The side, top, and bottom walls of the completed vault lap over the edges of the end blocks, so that the edges of the end blocks are surrounded, and the end edges of said walls extend flush with the outer flat faces of said end blocks. The top and bottom walls also lap over the longitudinal top and bottom edges of the side walls, so that the longitudinal side edges of said top and bottom walls extend outwardly above and below the side walls and are about flush with the flat outer faces of the side walls.

The end blocks are similar in construction and shape, and hence both are designated by the same reference-letter *a*. Said end blocks are shown rectangular in shape, with the parallel flat faces. The vertical end edges are shown flat and at right angles to the inner and outer flat faces, although my invention is not limited in this particular. The parallel top and bottom edges of each end block are correspondingly and longitudinally rabbeted along their inner corners, as shown at *a'*. Where the end blocks are formed four inches thick, each rabbeted portion is formed about two inches wide and two inches deep and extending horizontally from vertical edge to vertical edge of the block, thus forming each rabbeted edge with two flat faces in different planes and each two inches in width.

The ends of the top and bottom walls of the vault are correspondingly rabbeted (see *b' b'*) horizontally across their inner corners, and where said top and bottom walls are formed four inches thick each said rabbeted portions will be of the same dimensions as the rabbeted portions *a'* of the end blocks. Thus in the completed vault the projecting edges of the

top and bottom walls will rest on the topmost edges of the end blocks, flush with the flat outer faces of said end blocks, while the flat faces of the rabbeted portions of said end blocks will abut against the inner flat faces of said top and bottom walls inwardly beyond the rabbeted portions b' thereof. The side walls also have their parallel longitudinal top and bottom edges rabbeted longitudinally at their inner corners, (see c',) said rabbeted portions being usually two inches by two inches where the side walls are four inches thick.

The longitudinal side edges of the top and bottom walls are correspondingly and longitudinally rabbeted at b^2, so that the rabbeted portions of the longitudinal edges of the side walls are firmly seated against the inner faces of the top and bottom walls inwardly beyond the rabbeted edges b^2, while the projecting longitudinal edges of the side walls rest in the rabbeted portions c' of the top and bottom walls. The side walls are hence gripped between the top and bottom walls, with the outer longitudinal edges of the top and bottom walls approximately flush with the outer faces of the side walls. The vertical end edges of the two side walls are shown longitudinally rabbeted (at c^2) at their inner corners to receive the vertical edges of the end blocks. These end rabbeted portions c^2 are usually in depth equal to the full thickness of the end blocks, so as to receive the flat edges of said end blocks, with the inner faces thereof abutting against the inner edges of the said rabbeted portions c^2 and the outer ends of the side walls overlapping the vertical edges of the end blocks and the vertical edges of the side walls approximately flush with the flat outer faces of the end blocks.

The top and bottom walls are each composed of three flat rectangular blocks 1 2 1—that is, these two walls are composed of six blocks, of which number four (blocks 1) can be made in the same mold and two (blocks 2) can be made in the same mold, differing in certain respects from the mold for blocks 1. The same explanation applies to the formation of the side walls, as each side wall is built up of three flat rectangular blocks 3 4 3—that is, the two side walls are composed of six blocks, four of which (blocks 3) can be made in one mold and two of which (blocks 4) can be made in another mold. These blocks 1 2 3 4 are all usually made solid and four inches (more or less) thick, and each wall, with its parallel flat faces, is formed of three such blocks overlapping at their meeting edges. The blocks 1 3 at their edges which meet the blocks 2 4, respectively, are rabbeted at 1′ 3′, respectively, entirely across along the outer faces of the blocks. In depth each rabbeted portion is usually about one-half the thickness of the block, while in width said rabbeted portion is usually equal to the thickness of the block—say about four inches. The rabbeted edges preferably have flat plain faces, as shown. The intermediate blocks 2 4 are correspondingly rabbeted at 2′ 4′, respectively, across both side edges at the inner sides thereof, said rabbeted portions being of the same width and depth as the rabbeted edges 1′ 3′. The said blocks thus have extended overlapping bearing-faces and form the walls with the plain parallel practically unbroken inner and outer faces.

The blocks of the side walls are preferably molded with holes h completely therethrough, preferably near their upper ends, and so arranged that the holes are all arranged approximately in the same horizontal plane. Bars g are arranged along the outer side faces of the sides and secured thereto by bolts g' or other fastening means passed through said holes h and suitably secured therein, as by threaded ends or nuts. These bars g preferably have angular or bent or inturned ends g'', lapping around the ends of the vault, as shown, transversely of the outer faces of the end blocks c.

When the vaults are built up in excavations in loose or sandy soil, the walls of the excavation are liable to cave in against the vertical walls of the vault before the cover is applied thereto, and hence cause said side and end wall blocks to fall or tilt inwardly. I obviate this difficulty by providing the means just described to tie and lock said sides together and prevent the end blocks falling outwardly and the side blocks falling inwardly. These tie-rods are applied after the vault has been built up in the excavation and, if desired, can be removed after the top or cover has been placed in position and before the excavation is filled, although the tie-rods can be allowed to remain on the vault. However, I do not in all instances wish to limit my invention to the tie-rods. After the top has been placed in position there is no danger of any blocks of the vault tilting inwardly or becoming displaced, as all of the side and end blocks press inwardly against flat abutting shoulders at their top, bottom, and side edges, and a structure of great strength and durability is produced. The blocks can be produced at a very low cost and can be easily and quickly set up in the excavation without skilled labor.

As all of the blocks making up the vault are flat, without side projections, they may be easily manufactured as packed together for crating and shipment, and hence the vault is readily portable, particularly in view of the fact that corresponding blocks are interchangeable and but five forms or types of blocks are employed in the entire structure.

Advantages are attained by correspondingly rabbeting the meeting edges between the top and bottom walls and the side and end walls, as tight joints are thus formed. The side and end walls abut against solid shoulders and are held against inward collapsing, and also the top wall is provided with

a most strong and rigid support to uphold the heavy load of earth piled thereon when the excavation is filled.

Heretofore grave-vaults have been built up in sections formed of hollow tiles with angular corner-pieces forming the ends and parts of the sides, the sections of the walls being tongue-and-grooved together. I make no claim herein for such a construction of vault, as my invention differs materially therefrom, as is clearly pointed out in the claims. I also make no claim to the old style of grave-vault made of interlocking or overlapping drain-tiles.

I attain great and material advantages by forming my vault-sections of flat rectangular blocks, so that they can be easily shipped, as hereinbefore set forth.

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

1. The grave-vault consisting of similar flat end blocks, similar side, top and bottom walls, said side walls composed of flat rectangular interchangeable blocks having rabbeted overlapping vertical edges, the top and bottom walls composed of flat rectangular interchangeable blocks having rabbeted overlapping edges, the vertical end edges of the side walls being rabbeted, and said end blocks fitted in said rabbeted portions and between said side walls, whereby the end blocks and side walls are braced against inward movement, the top and bottom edges of the end blocks and side walls being rabbeted throughout, as described, the side and end edges of the top and bottom walls being similarly rabbeted throughout, the flanges of the top and bottom walls overlapping the top and bottom edges, respectively, of the side walls and end blocks, and the unrabbeted portions thereof resting in the rabbeted portions of said side walls and end blocks, whereby the side and end walls are braced against inward tilting and the top and bottom walls each have a double seat on the end blocks and side walls, substantially as described.

2. The grave-vault composed of the ends, sides, and top and bottom walls, the top and bottom walls being formed of overlapping sections, interchangeable with each other, the end walls being formed of the solid blocks, the side walls being formed of the interchangeable sections overlapping each other as described, the side sections being formed with the holes therethrough, the rods extending along the exterior of the sides and overlapping the end blocks, and the securing-bolts passed through said bars and through the holes of the sides and secured to keep the side blocks from falling outward, said blocks making up the vault formed rectangular with the flat parallel faces, whereby the blocks can be easily crated for shipment, substantially as described.

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

WILLIAM ANDREW CREW.

Witnesses:
HARRY W. RUARK,
ISAAC H. WHITE.