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Gallo

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[54] **CRYPT WALL CONSTRUCTION HAVING REMOVABLE FRONTS SECURED BY CONCEALED FASTENERS AND METHOD OF CONSTRUCTION**

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[51] **Int. Cl.** **E04h 13/00;** E04b 2/88

[58] **Field of Search** 52/585, 136, 137, 139, 52/378, 379, 585, 98, 509, 309, 283, 747, 235

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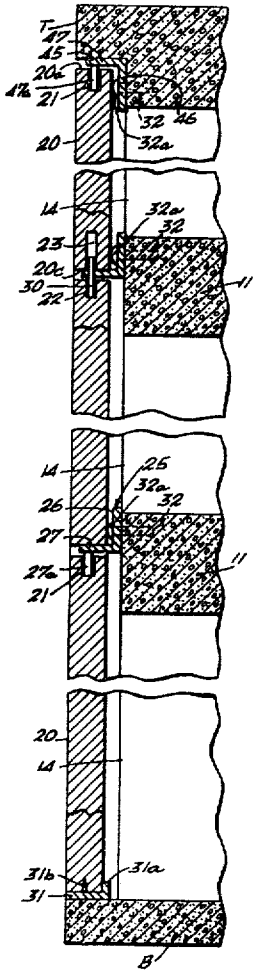
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Attorney, Agent, or Firm—Erwin M. Barnett

[57] **ABSTRACT**

A vertical wall of a burial crypt mausoleum has a front for each crypt removably and replaceably mounted by concealed brackets which support a relatively upper tier of fronts and retain a relatively lower tier in co-planar alignment. Gravity locatable pins extend between and engage aligned seats formed in adjacent top and bottom edges of the fronts and retain the lower portion of each front in said co-planar alignment, each pin being severable for removal of its upper front. The bottom edge seat is sized for complete retraction of the pin therein for clearance when replacing such upper front, the pin dropping by gravity into the relatively shallow seat of the opposing top edge.

6 Claims, 8 Drawing Figures



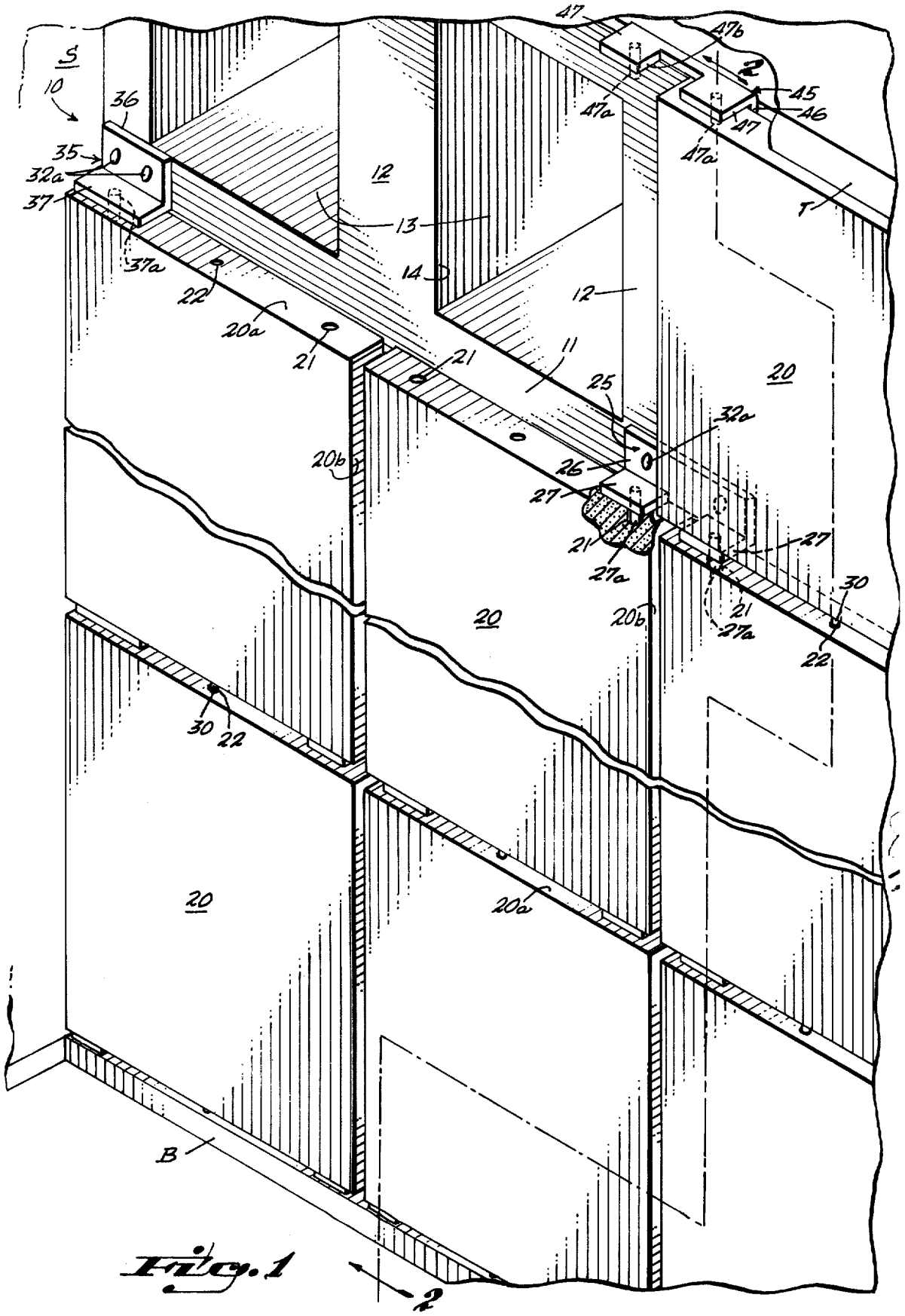

S
10
36
35
32a
37
37a
22
20a
21
12
13
14
11
47
47b
47a
45
46
T
25
26
27
27a
20
20b
30
B
2

Fig. 1

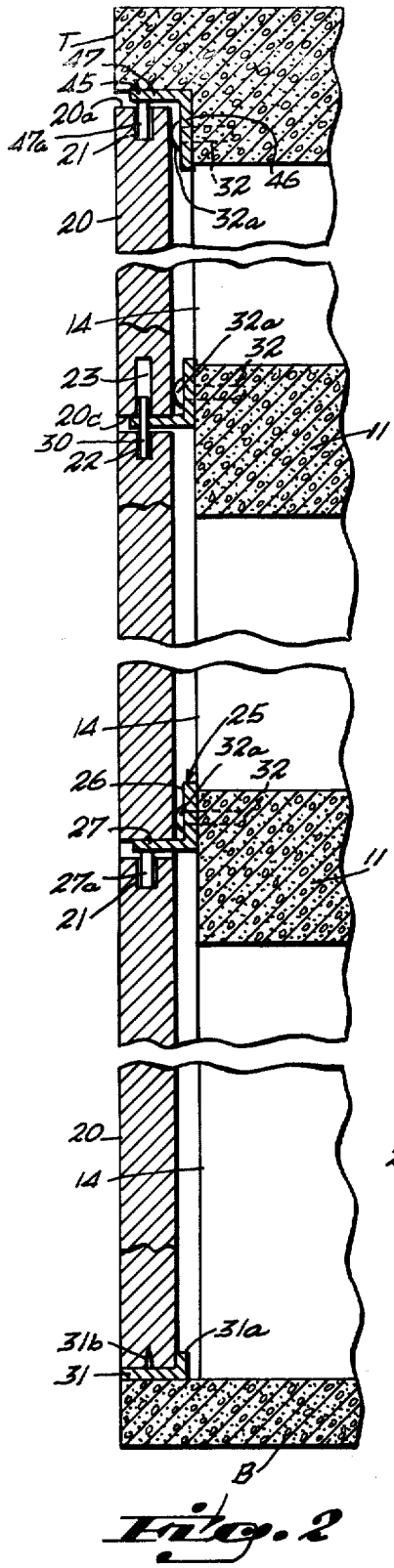


Fig. 2

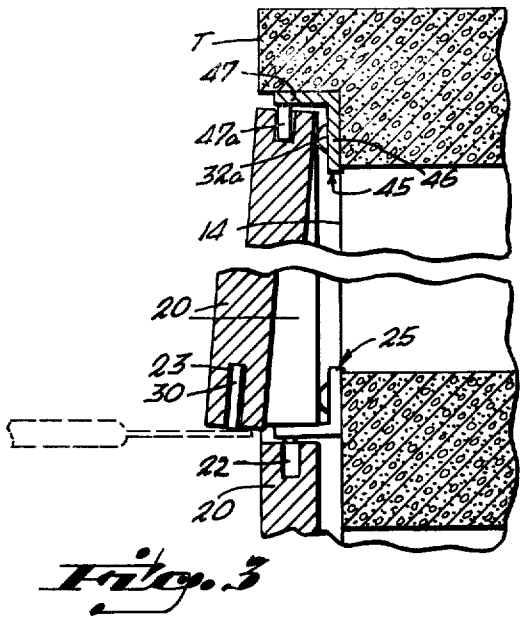


Fig. 3

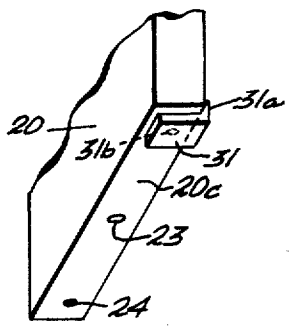


Fig. 4

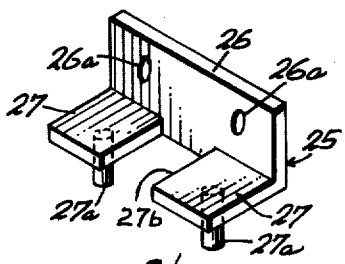


Fig. 5

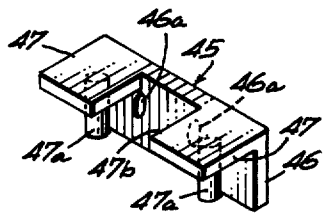


Fig. 6

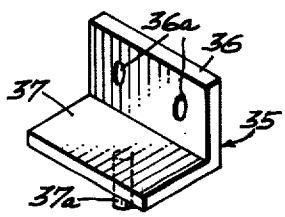


Fig. 7

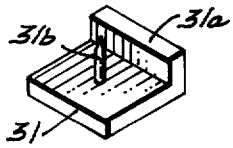


Fig. 8

CRYPT WALL CONSTRUCTION HAVING REMOVABLE FRONTS SECURED BY CONCEALED FASTENERS AND METHOD OF CONSTRUCTION

BACKGROUND OF THE INVENTION

1. Field of the invention

The invention relates generally to burial vaults having a plurality of open front compartments providing crypts arranged in horizontal rows and vertical tiers, and is directed to a method of construction and means for removably fastening a face plate or front of marble or the like material to each crypt in a co-planar relation, each front serving to conceal one, or, in the case of husband and wife, two adjacent compartments, and being individually removable and replaceable, and cooperating with adjacent fronts to provide a decorative vertical wall structure. In more particularity the invention applies to crypts of relatively small size used as depositories for the remains after cremation.

2. Description of the Prior Art

The invention seeks to correct disadvantages of prior art practices and devices, as for example, the requirement for exterior fastening means which not only provide attractive nuisances enabling easy removal of the fronts by playful vandals, but which also lack the trim and attractive appearance of a massive marble wall free of corner holders, failure to ensure true alignment of each individual front with those adjacent, use of female fastening members designed to be preset in poured concrete which may be improperly oriented when the concrete sets or become filled with concrete or other foreign matter, all of which contribute to unnecessary time loss to correct the defect and in many cases rendering proper installation of the fronts impossible. There is also a long felt need to simplify the fittings used and methods employed in the installation of the removable fronts as a finished wall, all of which is provided by this invention.

SUMMARY OF THE INVENTION

Among the objects of the invention is to provide an improved method for installing a vertical wall of the character described having concealed mounting means which are accessible for selective removal and replacement of an individual front after completion of the wall. The method permits rapid construction by craftsmen, elimination of the various impediments and costly annoyances hereinbefore described and is achieved by the novel coaction between a bracket of relatively simple structure and a gravity positioned locator pin.

The invention features right angular brackets which fasten to the crypt and provide horizontal ledges for supporting the fronts of a relatively upper tier, and projecting downwardly from the ledges to engage upper edges of the fronts of a relatively lower tier and for removably securing the lower tier fronts in a predetermined vertical plane coinciding with that of the overall vertical wall and preventing forward tilting movement out of said plane. The lower portions of each of the fronts which rest on the ledges are retained in alignment with the fronts of the lower tier by pins extending therebetween and located in aligned seats, the seats formed in the lower portion of the upper tier fronts being deeper than those of the cooperating upper portion of the lower tier fronts to permit retraction of the pins therein. The cutting of a pin at its midportion between an upper and lower front releases the former for removal and subsequent replacement in the manner hereinafter described.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a fragmentary perspective view of a compartmented crypt structure of a wall of a mausoleum illustrating the installation of fronts or closure panels for each of the crypts as a vertical wall, portions being broken away and indicated in phantom to show underlying structure.

FIG. 2 is a vertical section taken along line 2—2 in FIG. 1 showing details of the bracket and pin elements comprising the concealed mounting for the fronts embodying the invention.

FIG. 3 is a vertical section similar to the upper part of FIG. 2 but showing one of the fronts being replaced, a putty knife, illustrated in broken lines, serving to retain the pin in a retracted position while the front is being swung into vertical position on the support bracket.

FIG. 4 is a fragmentary perspective view of the bottom edge of a front being prepared for installation on the lowermost tier showing one of a pair of spacers secured in position.

FIG. 5 is a perspective view of a bracket embodying the invention.

FIG. 6 is a perspective view of a bracket modified for top tier use.

FIG. 7 is a perspective view of a bracket modified for opposite ends of tier use, and

FIG. 8 is a perspective view of the spacer shown in FIG. 4 mounted on the bottom edge of a front for lowermost tier use.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring in detail to the drawings, **10** generally denotes a mausoleum structure divided by horizontal and vertical partitions **11** and **12** into vertically disposed tiers of crypts **13** having open front ends **14** upon which closure panels or fronts **20** are removably mounted by concealed brackets **25** and pins **30** in co-planar relation forming an overall decorative vertical wall.

Each front **20** may be made of marble, a simulated marble or any like material and has a top edge **20***a* formed with a pair of seats **21**, each being located a predetermined relatively short distance inwardly of an opposite side edge **20***b*, and a center depression or bore **22**. Bottom edge **20**c of front **20** is likewise formed with a center bore **23** located in axial alignment with bore **22**, and is approximately twice the depth of the latter as shown in FIGS. **2**, **3**, and **4**.

Each bracket **25** is seen in FIGS. **1**, **2**, and **5** to be L-shaped in cross-section having a vertical member **26** formed with a pair of spaced openings **26***a* for receiving expansion bolts **32** therethrough, and a horizontal member **27** formed with a pair of spaced downwardly extending projections or lugs **27***a* sized and positioned to engage seats **21** of fronts **20**. Horizontal member **27** may have a midportion cut out at **27***b* resulting in two separate portions each carrying a lug **27***a* permitting individual adjustability to differences in size and configuration of two adjacent marble fronts **20**. A pin **30** extends vertically between each pair of adjacent and aligned center bores **22** and **23**, resting on the bottom

of bore 22 while extending only partially into the full depth of bore 23.

Fronts 20 of the lowermost or bottom tier which rests on a suitable horizontal support, such as base B shown in FIGS. 1 and 2, may each have a pair of spacers or feet 31 attached to bottom edge 20c. As shown in FIGS. 2 and 8, each spacer 31 may be formed with an upstanding ledge 31a which extends along the rear surface of front 20 serving as an alignment means. An upstanding prong 31b may also be provided for engaging an opening 24 formed in bottom edge 20c. Spacers 31 may also be secured in position by a suitable cement or adhesive.

As will be clear from FIG. 1, the opposite endmost fronts 20 of each tier adjacent a side wall S is supported and engaged by a single lug end bracket 35. As seen in FIG. 7, bracket 35 is generally L-shaped having vertical member 36 formed with a pair of openings 36a for non-pivotal attachment to the crypt partition by a pair of expansion bolts 32. Horizontal member 37 carries downwardly projecting lug 37a aligned to engage the seat 21 of the end front 20 adjacent side wall S.

To provide for a proper fit of the top tier of fronts 20 beneath a horizontal trim member T or the like, bracket 25 may be slightly modified into bracket 45. As seen in FIGS. 1, 2, and 6, bracket 45 has vertical and horizontal members 46 and 47, the latter being cut out at midportion 47a, similar to bracket 25, but with the pair of lugs 47a projecting in front of vertical member 46. Openings 46a in member 46 are offset to clear lugs 47a for access by a hammering tool to expansion bolts 32 used in mounting the brackets. Brackets 25, 35, and 45 may be made of brass or other corrosion resistant metal.

The simple method for the initial installation of the complete wall of fronts 20 contemplates need for only such basic tools as masonry bits, electric drill and a hammering implement. Fronts 20 may be delivered to the site either predrilled with all required seats and openings and those fronts 20 intended for the bottom tier fitted with spacers 31, or the necessary drilling and other preparation of fronts 20 for mounting may be done, using a suitable jig, template or guide, at the site as the installation progresses.

Base B is prepared for receiving the bottom tier of fronts 20 thereon by drilling bores, each comparable to bore 22, at predetermined locations to align with the center bores 23 of the fronts 20 comprising the bottom tier for receiving the respective aligning pins 30 therein.

Beginning at one end of the base B, fronts 20 may be placed in position with a pin 30 inserted to extend between each base bore and its cooperating center bore 23. A bracket 25 is then positioned to extend between two adjacent fronts 20, lugs 27a being inserted into their respective seats 21. In this manner the location of holes to align with openings 26a to receive expansion bolts 32 is easily determined and their drilling in the crypt partition accurately accomplished. Expansion bolts 32 are then inserted through openings 26a into the drilled holes and secured in position by hammering thereon in the well understood manner to complete the mounting of bracket 25. End brackets 35 are positioned, holes drilled and brackets secured in the same manner as brackets 25.

Fronts 20 of all tiers above the bottom tier are directly supported on their bottom edges 20c by a supporting ledge formed by the upfacing surface of horizontal members 27 and 37 of brackets 25 and 35 of the tier immediately below. The vertical wall is built and the fronts 20 installed tier by tier in substantially the same manner as described for the bottom tier except for the top tier which requires brackets 45 to be mounted on the crypt structure prior to placement of the fronts 20. A pair of top tier end brackets (not shown) are also pre-mounted. These end brackets resemble brackets 35 by having a single lug and a pair of openings in the vertical member and like bracket 45 have the lug extending in front of the vertical member. Mounting of the top tier fronts to complete the vertical wall is accomplished in the same manner as the replacement of fronts 20 hereinafter described.

A feature of the invention is the ease with which a front 20 may be selectively removed for access to its crypt and then replaced. The pin 30 located at the bottom of the front 20 selected for removal is severed so that the lower end of the front is free to be eased outwardly to clear the front beneath and then lowered to disengage lugs 27a or lugs 47a, when removing a top tier front, from seats 21. To replace front 20, as will be clear from FIG. 3, a new pin 30 is inserted into bore 23 and retained therein by a suitable instrument, such as a putty knife, while the removal steps are performed in reverse, namely, aligning seats 21 with lugs 27a or 47a, moving front 20 in its slightly tilted position upwardly for complete engagement of lugs 27a or 47a in seats 21, and then easing the lower end of front 20 rearwardly into position on horizontal members 27 of brackets 25, or onto base B when a bottom tier front is being replaced. Upon removal of the putty knife, pin 30 will drop by gravity into bore 22 locking the lower portion of front 20 in place.

When made of a metal, such as brass, pin 30 may be severed by a metal saw which can be readily manipulated in the separation between the upper and lower fronts. Pin 30 may instead be made of a thermoplastic resin which can easily be cut in two by a blade heated by a propane burner to the necessary temperature for melting the plastic.

As will be clear from FIGS. 2 and 3, heads 32a of expansion bolts 32 project from vertical members 26 and 36 to the plane of the rear surface of fronts 20, serving as stops or abutments against excessive rearward movement of the lower ends of fronts 20 thereby cooperating with pins 30 in retaining fronts 20 in the desired vertical plane against rearward pressure and also facilitating alignment of bores 23 with 22 in the replacement of any of the fronts 20. Likewise, a suitable stop (not shown) may be attached to base B to engage the rear surface of fronts 20 of the bottom tier.

The crypt wall construction having fronts removably secured by concealed fasteners is seen to achieve the several objects of the invention and to be well adapted to meet conditions of practical use. As various possible embodiments might be made in this invention, and as various changes might be made in the disclosed construction, it is to be understood that all matter herein set forth and shown in the accompanying drawings are to be interpreted as illustrative and not in a limiting sense.

What is claimed is:

1. A method of constructing a wall of individually removable fronts for a burial crypt structure in vertical tiers comprising the steps of forming spaced seats and

a center bore in the top edges and a center bore in the bottom edges of the fronts, the bores being in alignment and the bottom bore having a depth about twice that of the top bore, installing the fronts, tier by tier commencing at the bottom, said installation including the steps of locating adjacent fronts on previously installed brackets of a lower tier by means of pins extending between said center bores, positioning brackets having means for engaging seats of said adjacent fronts on the top edges thereof, drilling holes in the crypt structure to register with openings in said bracket for fastening the latter thereto, inserting expansion bolts through said bracket openings and into said holes, and expanding the bolts to secure the bracket to the crypt structure.

2. The method defined in claim 1, including the steps of severing the pin extending from the bottom of a front to be removed, moving the front outwardly at its lower end and then downwardly at an incline to disengage the seats from the upper retaining brackets thereby completely removing the front for access to its crypt, then positioning another pin in said bottom bore, retaining the pin in a substantially fully retracted position while reengaging the seats, moving the front upwardly at an incline and rearwardly into vertical position and releasing the pin to drop into the top bore of the panel beneath.

3. A vertical wall of a burial crypt mausoleum having fronts for each crypt removably and replaceably mounted by concealed brackets, said brackets having horizontal members for supporting the fronts of a relatively upper tier on bottom edges thereof against vertical displacement and downward projections engaging upper edges of the fronts of a relatively lower tier against outward horizontal displacement, the lower portion of each of the fronts which rest on said horizontal members being retained in alignment with the fronts of the lower tier against outward horizontal displacement by pins extending between said upper and bottom edges and spaced from said brackets (therebetween), said pins, (and) fronts and brackets being constructed and arranged for said removal of (the) an upper front by severing of the pin by a tool inserted between said upper and lower front to release the bottom portion of said upper front for swinging said bottom edge outwardly to clear the lower tier front permitting disengagement of the upper edge from said downward projections by an obliquely downward movement of said front and subsequent replacement with aid of a new pin.

4. A vertical closure wall for a burial crypt mausoleum comprising a plurality of fronts each having a top edge formed with a seat adjacent each opposite side edge thereof and a bore located in a midportion of said top edge between said seats and a bottom edge formed with a bore in alignment with said top edge bore, said fronts being individually removable and replaceable for access to a compartmented crypt structure therebehind, a tier of L-shaped brackets, each bracket comprising a vertical member formed with openings for receiving bolts therethrough for attachment to a vertically disposed support surface of said crypt structure, a horizontal member extending from each of said bracket vertical members, projecting means extending vertically downward from each of said bracket horizontal members at a predetermined distance from said vertical members to determine a single vertical plane, a first tier of said fronts, each having a top edge seat thereof engaged by one of said projecting means and permitting disengagement by an obliquely downward movement of said front, the horizontal members of the brackets located between adjacent fronts having double projecting means spaced apart for engaging the respective seats of said adjacent fronts and being formed with cut-out midportions between their projecting means for separate adjustibility to each of said adjacent fronts, said horizontal members of all of said brackets providing ledge means supporting a second tier of said fronts in co-planar relation on said bottom edges of the latter against vertical displacement, a second tier of said L-shaped brackets attached to said support surface with the projecting means thereof in said single vertical plane and engaging said top edge seats of said second tier of fronts, said projecting means and seat engagement retaining an upper portion of each of the fronts in co-planar relation against horizontal movement out of said vertical plane and aligning said bores of the first tier fronts with those of the second tier fronts, pins extending between each pair of aligned bores to retain the bottom portion of the fronts in said vertical plane against horizontal outward movement, the top edges of the fronts of said first tier and the bottom edges of the fronts of the second tier being spaced apart sufficiently for access to said pins by a cutting tool whereby the severing of one of said pins releases its second tier front for swinging outwardly to clear the first tier front for said removal.

5. The vertical closure wall defined in claim 4, in which said bottom edge bores are about twice the depth of said top edge bores for complete retraction of said pins therein during replacement of the front.

6. The vertical closure wall defined in claim 3, in which said pins are made of a thermoplastic resin and said severing is accomplished by a heated blade.

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