ANCHORAGE FOR CHURCH PEW

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ABSTRACT OF THE DISCLOSURE

An anchorage for supporting a pew, above a floor, on a stud projecting upwardly from the floor.

Carpentered church floors, with the pews resting thereon, are rapidly being introduced, and are presenting new pew stability and securement problems.

The conventionaltype of anchor means for church pews are of the draw-down type designed for drawing the pew legs down toward the floor thereby tending to squeeze or compress any carpeting disposed therebetween.

After a lapse of time, such compressed carpet areas under the legs lose a great measure of their supporting resilience, and, coupled with the live load downward thrust imposed by persons sitting on the pew further compressing such carpeted areas, results in a clearance between the anchor nut and the adjacent abutting pew leg portion, whereby such clearance permits an objectionable play or movement of the pew.

Consequently the pew becomes loosely mounted and subject to unwanted upward, downward and sidewise movement.

The purpose of this invention is to provide an improved concealed anchor means for church pews by which the pews are positively secured against looseness in any direction, thereby eliminating the objectionable looseness inherent in the presently known pew anchorage.

An object of this invention is the provision of a pew anchorage means for positively and rigidly securing a pew to a floor projecting from the floor;

Another object is to provide new anchorage means for positively supporting a pew on rigid studs projecting from a floor;

Still another object of this invention is the provision of pew anchorage means adapted to compensate for floor level variation, for scribing error, or for a slight bow in the length of the backrest of the pew.

Other specific objects, and many of the attendant advantages, of this invention will be readily appreciated as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings in which like reference numerals designate like parts throughout the figures thereof and wherein:

FIG. 1 is a front elevation view of a church pew;

FIG. 2 is a side elevation view of the church pew shown in FIG. 1;

FIG. 3 is an enlarged cross-section view taken on line 3—3 of FIG. 1;

FIG. 4 is a front elevation view of the church pew portion shown in FIG. 3;

FIG. 5 is a fragmentary section view taken on line 5—5 of FIG. 3;

FIG. 6 is a fragmentary section view taken on line 6—6 of FIG. 4; and

FIG. 7 is an exploded isometric view of the anchor elements, per se.

Referring now to the drawings, wherein like reference characters designate like or corresponding parts throughout the several views, there is shown a church pew generally indicated at 10 resting on a carpet 11 covering a floor 12.

Said pew comprises a pair of spaced ends or legs 13 and 14 supporting a seat 15 and backrest 16 routed and secured in the legs as at 17 and 18, respectively.

The floor 12 can be of any suitable floor material such as concrete or wood, or the like.

The floor covering or carpet 11 is of the usual resilient or compressible type such as textile fabric, cork, or the like, and may include a cushion pad or underlay, such as sponge rubber, or the like, not shown.

However, the invention is not limited to the use with resilient floor coverings. The invention is also applicable with hardwood floor coverings, such as ceramic tile, linoleum, vinyl or asphalt tile laid on original base floors, such as of concrete or wood. In fact, the invention is also applicable where the pew is resting directly on a base floor such as of concrete or wood, without any intervening floor covering.

In view of the fact that the support legs are similar, the application of the present anchorage to only one of the legs is deemed sufficient to a full disclosure. Also, in view of the fact that all such anchors are similar, the detailed description of only one anchor shall suffice.

The anchor means for anchoring the legs 13 and 14 of pew 10 to the carpet 11 covered floor 12 comprises a pair of such spaced anchor means at the lower end portion of each support leg, such as indicated generally at 19 and 20, and 21 and 22, respectively, at the toe and heel portions thereof.

In the application of such anchor means to pew leg 13, vertical bores such as indicated at 23 are provided at the heel and the toe thereof, commencing at the bottom of said leg and extending upwardly therefrom a predetermined distance to receive and accommodate a rigid elevator stud such as indicated at 24, hereinafter described.

A second bore such as indicated at 25, lateral to first bore 23, is provided in said pew leg 13, the axis of said second bore intersecting the axis of first bore 23 substantially intermediate the ends of said first bore; and said lateral bore commencing at and being normal to the inner face 26 of said pew leg 13.

The lateral bore 25 communicates with vertical bore 23, and extends beyond said bore, and terminates short of the outer face 27 of said leg 13.

A sleeve 28 is snugly received in said lateral bore, said sleeve having its inner end abutting the terminus of said lateral bore, and its outer end extending flush with the inner face of leg 26.

A diametral bore 29 is provided through said sleeve 28, said diametral bore being disposed coaxial with vertical bore 23 and of a size to receive stud 24 therethrough.

The inner periphery of sleeve 28 is threaded to receive a cup-point, hex-socket, set screw 31, or the like. When said set screw 29 is operatively engaged against stud 24, its outer end is likewise substantially flush with the outer end of sleeve 28, to present a flush arrangement of the sleeve and set screw with the inner face of leg 13.

To secure the sleeve fitted pew to a concrete floor, conventional concrete floor anchor studs 24, suitably spaced to register with the pair of vertical bores 23 in the pew legs, are fixed or embedded in and project from said floor a predetermined distance. Expansion shield type studs received in suitable bores in said floor have been found satisfactory. However, the invention is not limited to such expansion shield studs.

In the event the pew is supported on a wood floor, the studs can comprise a standard hanger bolt screwed into the floor, or a wood screw such as a number sixteen wood
screw screwed into the floor and having its head removed, or the like.

Obviously, the size of the stud will vary with the load it is to carry or hold.

Should the concrete or wood floor be covered with a floor covering, apertures are provided in the floor covering to permit the studs to project therethrough.

To secure the pew to the studs, the pew is lowered over the studs, the studs entering the vertical bore 23 present in the bottoms of the legs 13 and 14. Continued lowering of the pew permits the studs to pass through diametral bores 29 in sleeves 28 and into the upper portions of vertical bores 23, respectively. Further lowering disposes the pew on the floor or floor covering. Set screws 31 are then tightened against studs 24 to lock and hold the pew firmly fixed to the studs 24. Because the pew is thus rigidly fixed and supportable on studs 24 by means of set screw 31, any additional live load downward thrust by persons sitting on the pew is likewise positively supported on studs 24; whereas with the conventional draw-down type of pew anchoring means, the resilient carpeting under the pew legs tends to compress, due to the additional imposed live load, resulting in a clearance and loosening of the pew mounting.

The length dimensions of the vertical bore 23 and the projecting stud 24 received therein, are such, that when the pew is disposed resting on the floor or floor covering, a clearance exists between the top of said stud and the end of said bore. Said clearance is provided to preclude the stud abutting or bottoming on the end of bore 23.

Furthermore, the stud 24 is of a length to extend through diametral bore 29 in sleeve 28 and into the upper portion of vertical bore 23 to engage and interlock with the inner periphery of said upper portion to provide greater securement stability, and to provide a measure of stud extension to be used in compensating for floor level variation, and the like, as aforementioned.

In long pew construction, at least one intermediate leg is included, such as indicated at 29. Such intermediate leg is also provided with the anchor means heretofore described, and generally indicated at 31, one at the toe or front of the leg and one at the heel or rear of the leg.

In the event of a shortage error in scribbling the bottom of said intermediate leg to the floor, such error can be compensated for by fixing such leg elevated above the floor, a suitable and compensatory distance, by means of the set screw 31.

Also, in the event the backrest of an installed pew is found to be bowed backwardly, such bow can be substantially removed by loosening the set screws in the anchorages of said intermediate leg, and tilting the pew forwardly by applying a force to the back of the pew at such intermediate leg, the intermediate leg pivoting on its toe held in contact with the floor. This operation requires that the end legs of the pew be held in their installed fixed position. When the bow is thus suitably removed, the set screw in the rear anchorage is tightened to hold the intermediate leg in such tilted position, that is, to hold the heel of said leg elevated above the floor. With the toe of the leg held in contact with the floor, the set screw in the front anchorage is then tightened. Thus such anchorages function to hold a bowed backrest in a straight line.

While the novel means of this invention was described herein as applied to a church pew, it is obviously not limited thereto. The anchor means herein disclosed has like application to any structure requiring fixation to a floor, ceiling, such as, equipment, furniture, seating, or the like.

Some characteristic features of this invention are the provision of positive pew anchorage means wherein the pew is rigidly supported on studs projecting from the floor; the provision of pew anchorage means of the positive stud support type including set screws for fixing a pew leg elevated above the floor to compensate for floor level variation, for scribbling error, or for unwanted bow in the backrest.

Obviously many modifications and variations of the present invention are possible in the light of the above teachings. It is therefore to be understood, that within the scope of the appended claims, the invention may be practiced otherwise than as specifically described.

What is claimed and desired to be protected by Letters Patent of the United States is:

1. In the combination of a floor, a piece of furniture having legs, a floor covering intervening between the legs and the floor and anchors spanning between the legs and the floor and through the floor covering, said anchors comprising studs set in said floor and supporting the ends of said legs in spaced relation to the floor and independently of the intervening floor covering, each said leg having a bore extending along the length thereof and receiving said stud and a second bore transverse to and intersecting the first mentioned bore, locking means disposed in said transverse bore in engagement with the walls thereof and with said stud to fix said leg on said stud.

2. The combination of claim 1 in which said locking means comprises a threaded sleeve having a diametral cross bore aligned with the bore in which the stud is received, and a set screw in said sleeve to engage the stud.

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