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CONCEALED FASTENING FOR SEAT ENDS

Filed Nov. 23, 1966

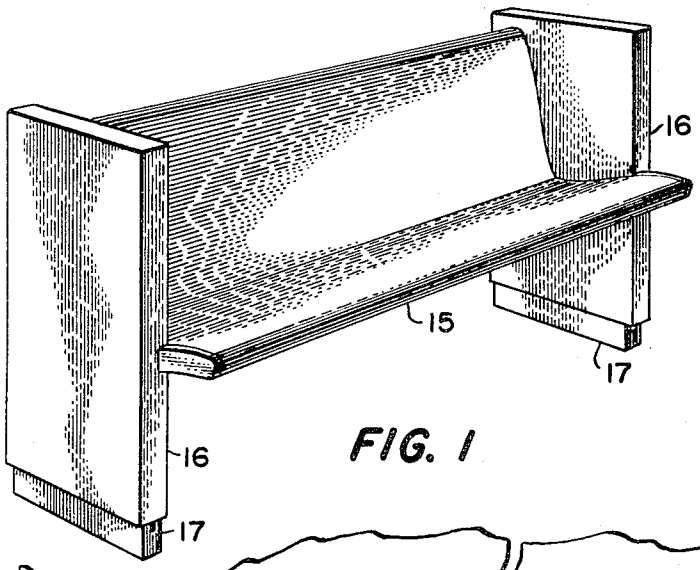


FIG. 1

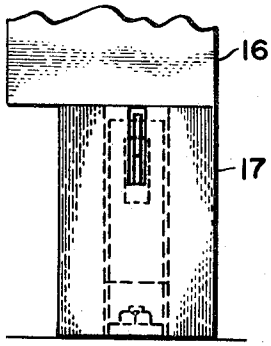


FIG. 2

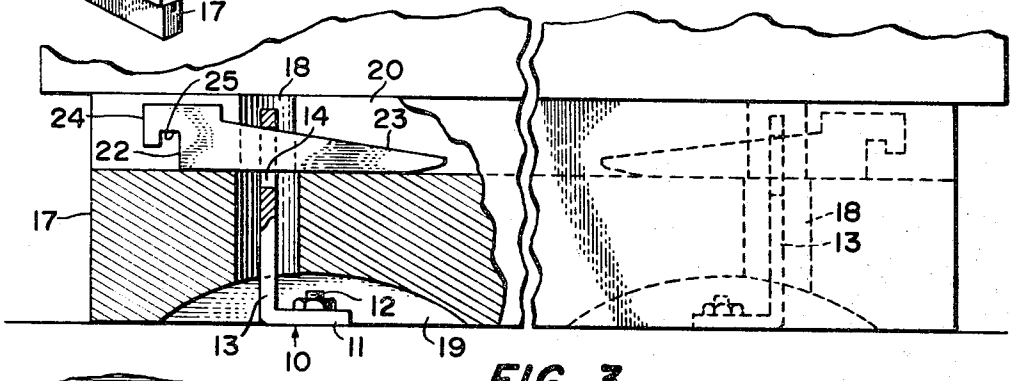


FIG. 3

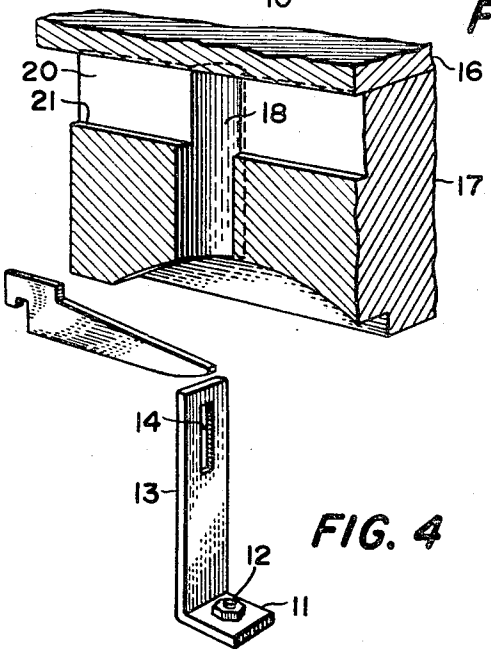


FIG. 4

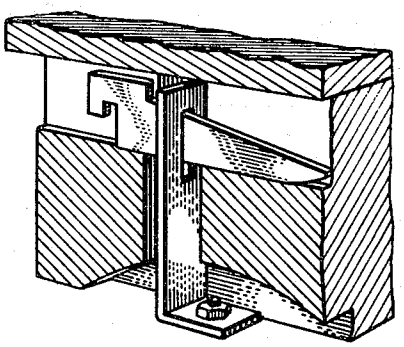


FIG. 5

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CONCEALED FASTENING FOR SEAT ENDS

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ABSTRACT OF THE DISCLOSURE

A pew has an end panel resting upon the floor and having a pair of vertical passages receiving upright blades secured to the floor and provided with vertical slots. In the panel there is a transverse key slot extending through the vertical passages and preferably through the panel and tapered wedges extend through each end of the slot and engage the slots of the blades. The panel is provided with a base of reduced cross section with the upper panel portion extending over and partially concealing the ends of the key slot.

This invention relates to concealed fastening for seat ends, and more particularly to fastenings for pews, benches or seat structures having panel ends resting on the floor.

Exposed floor fastenings for pews, benches or other seats are not only unsightly but interfere with the use of vacuum cleaners and cleaning implements. However, at the same time, a problem is presented in that floors are often slightly uneven, and it is of great importance to anchor the pew ends, etc., firmly against the floor.

An object of the present invention is to provide secure fastening means while at the same time concealing the means within the pew or seat ends. A still further object is to provide such fastening means mainly within the interior of the seat ends while at the same time permitting removal of such fastening means when necessary. Yet another object is to provide fastening means anchored to the floor and received within openings within the pew or seat end base while providing intersecting slots in the base of the pew end panel and driven wedge means therein for rigidly wedging the panel against the floor. Other specific objects and advantages will appear as the specification proceeds.

The invention is shown, in an illustrative embodiment, by the accompanying drawing, in which—

FIG. 1 is a perspective view of a typical wooden pew with floor length pew ends or panels; FIG. 2, a broken front edge view of the pew panel portion resting on the floor; FIG. 3, a side view of the lower portion of the pew end or panel; FIG. 4, an exploded perspective view of the fastening means and a fragment of the pew end; and FIG. 5, a perspective view of the structure shown in FIG. 4 with the fastening means shown in assembled relation.

In the illustration given, **10** designates a floor-held anchor having an angle portion **11** apertured to receive a bolt **12** which extends into the floor. It will be understood that the flange **11** may be secured to the floor by a wood screw, bolt, or other similar means, and in the case where the flange is secured to a concrete or stone floor by the usual lead anchor or other device. The anchor **10** is provided with a vertically-extending blade **13** provided near its top with a vertical slot **14**.

The pew or bench **15** is provided with ends or end panels **16**, and each of the end panels is shown provided with a base **17** of reduced cross section. Each base **17** is provided with a vertical passage **18** for receiving the blade **13** of the floor fastener **10**. In the structure shown, a recess **19** is formed in the lower portion of the base **17**

at each end to receive the anchor flange **11**. If the anchor member **10** should be secured within concrete or other structure without employing a flange **11** so that the only protruding portion is a blade **13**, it will be understood that the recess **19** may be omitted and the recess **18** may simply be extended to the bottom of the base **17**.

A large transverse slot or key slot **20** is formed in the upper portion of the base **17** and extends through the center of the passage **18**, as shown best in FIGS. 2, 3 and 4, the lower edge of the slot providing a bearing surface **21**.

While the panel **16** may be formed of one piece extending all the way to the floor and the openings **18** and **20** formed therein, we prefer to form the end panel of the pew, etc. in two pieces, with the base **17** drilled and milled separately to form the slots **18**, **19** and **20** and then secured to the panel **16** by adhesive or other suitable means. There is the further advantage that in this procedure the base **17** can be formed in smaller cross section and with the upper edges of the larger panel **16** projecting over the base and partially concealing the key openings **20**.

We prefer to form the keyhole slot or transverse slot **20** all the way through the base **17** so that two vertical passages **18** may be utilized for receiving two anchor blades **13**, as shown best in FIG. 3.

For securing the base portion **17** tightly against the floor, we provide a wedge member **22** and insert the same through the opposite ends of the base **17** and within the slots **14** of the anchor blades **13**, as shown best in FIG. 3. Each wedge **22** is provided with a horizontal lower surface adapted to engage the bearing surface **21** of the slot **20** and with an upper tapered edge **23** adapted to engage the upper edge of the slot **14** in blade **13**. We provide the wedge member **22** with a raised head **24** provided with an undercut slot **25**. The slot **25** provides a shoulder which may be engaged with a wire or drawbar (not shown) for removing the wedge. The raised head **24** of the wedge member **22** acts as a stop, contacting blade **13** if it is inserted to full depth so that the wedge cannot fall into the hole or recess **18**.

Operation

In the operation of the structure, two spaced fasteners **10** are secured to the floor by any suitable means and provide spaced upwardly-extending blades **13**. The pew or seat is lifted to bring the end panels downwardly over the blades **13** so that they are received within passages **18** in the end panels. The wedges **22** are then driven through the opposite ends of key slot **20** to engage the slots **14** in each of the blades **13**, thus pulling the end panel tightly against the floor. In this operation, the lower horizontal surface of the wedge **22** slides along the bearing surface **21** of key slot **20** while the upper tapered surface **23** engages the metal edge of the member **13** at the top of slot **14**. If it should be desired to detach the seat from the fastening elements, this can be accomplished by the use of a wire or lever engaging slot **25** of the wedge head **24** to withdraw the wedge.

In the foregoing structure, the only visible evidence of the fastening means is the edges of slot **20** extending below the overhanging portion of end panel **16**. At the same time, the small openings **20** permit ready removal of the wedges **22** when this is desired. By providing the two anchor blades **13** at the ends of the base **17** of each floor panel **16**, it is found that the pew is firmly wedged against the floor in spite of small irregularities in the floor surface.

While in the foregoing specification, we have set out a specific structure in considerable detail for the purpose of illustrating the invention, it will be understood that such details may be varied widely by those skilled in the art without departing from the spirit of our invention.

We claim:

1. In combination with a floor-held anchor having an upright blade provided with a vertical slot, a seat having an end panel resting upon the floor and having a vertical passage receiving said blade, said panel having a transverse key slot extending through said vertical passage, and a wedge having a lower edge bearing against the panel at the lower edge of said key slot and against the blade at the upper edge of said vertical slot for wedging said panel against the floor, said panel being provided with a base of reduced cross section which is provided with said vertical passage and said transverse slot, the base being united to the upper panel structure with the upper panel structure extending over and partially concealing said key slot.

2. The structure of claim 1 in which said key slot extends all the way through said panel from end-to-end.

3. In combination with a pair of spaced floor-held anchors having upright blades provided with vertical slots, a pew having an end panel resting upon the floor and having a pair of vertical passages receiving said blades, said panel having a transverse key slot extending through said vertical passages, and tapered wedges extending through each end of said transverse slot and engaging the slots of said blades and the lower edge of said keyway slots.

4. The structure of claim 3 in which the end panel is provided with a base of reduced cross section and in which said base is provided with vertical passages and with a transverse key slot extending through the upper edge of the base, said upper panel portion extending over and partially concealing the ends of said key slot.

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