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Abelman

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[54] **BENCH STRUCTURE**

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[52] **U.S. Cl.**..... **297/440,** 297/248, 297/411, 297/416, 297/422, 297/457

[51] **Int. Cl.**..... **A47c 7/00,** A47c 1/16, A47c 7/54

[58] **Field of Search**..... 297/454, 251, 248, 297/243, 418, 5, 422, 118, 421, 332, 440, 457; D6/60, 61, 63, 194, 195; 52/68, 49

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[57] **ABSTRACT**

A joining pedestal for benches assembled in line and formed with seats and back rests. The pedestal has a lower post with a wide top to seat meeting end-portions of adjoining bench seats; and such portions have setbacks to receive the shank of an upper pedestal portion. The latter seats at the rear in setbacks of the back rests continued upwardly from those of the seats. The upper pedestal portion is tapered in forward direction to form an arm rest. Before assembling the pedestal and bench end-portions as stated, the joining areas are coated with an adhesive.

6 Claims, 4 Drawing Figures

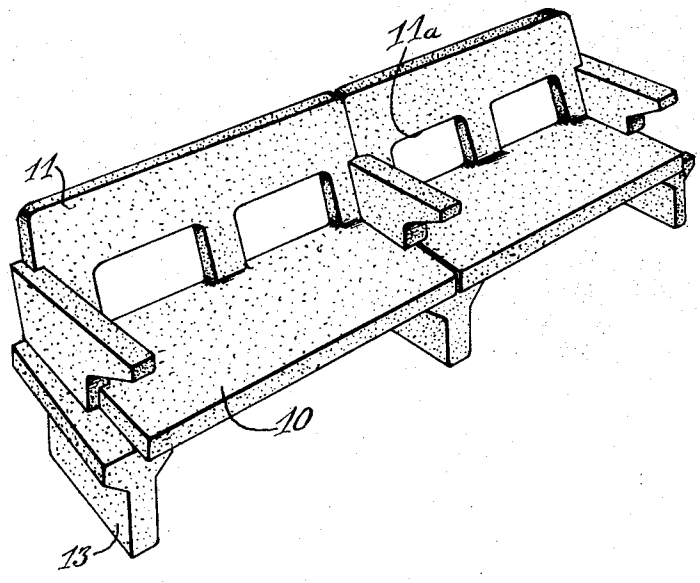


Fig. 1.

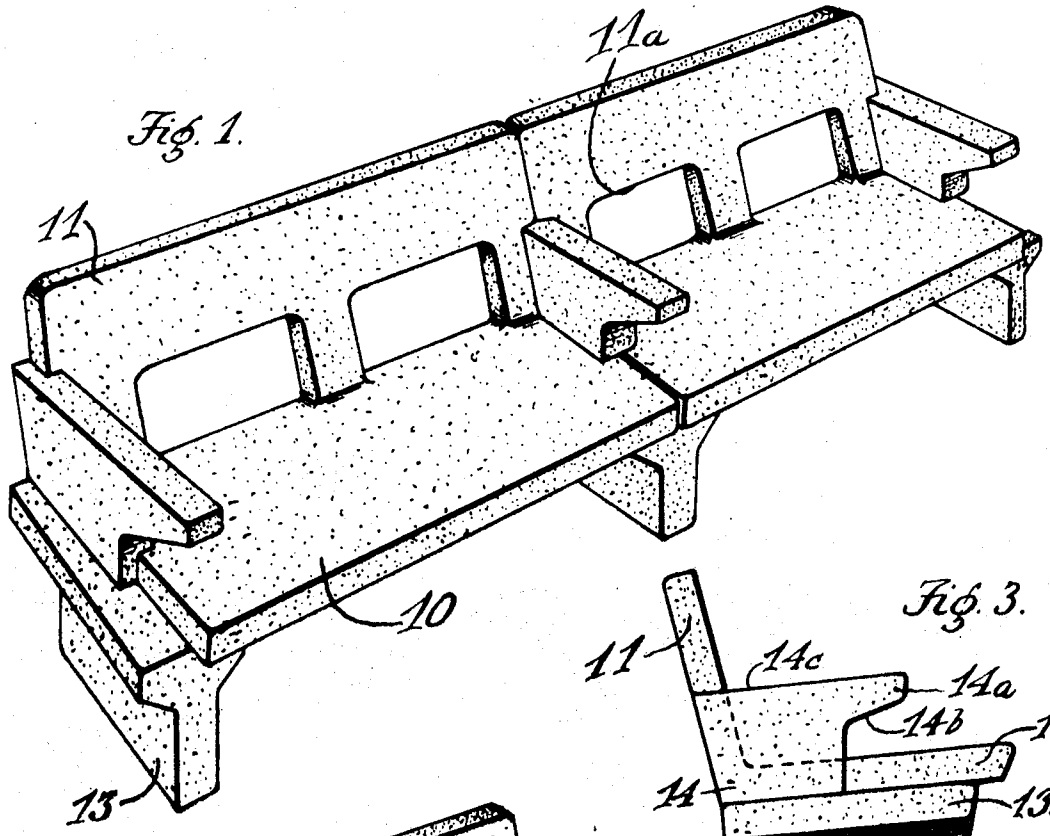


Fig. 3.

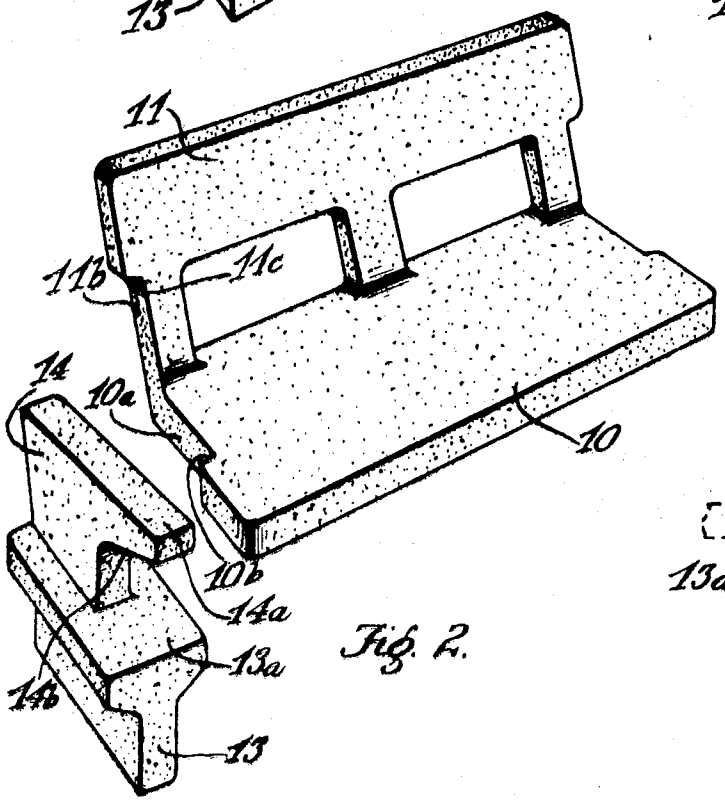
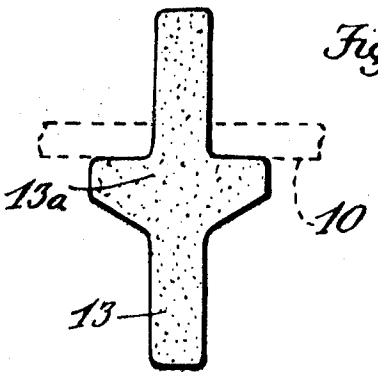


Fig. 2.

Fig. 4.



BENCH STRUCTURE

My invention relates to outdoor benches of stone or concrete which extend in multiple, and more particularly to the means which join the benches in endwise succession. Since the manufacture and assembly of benches in this class is costly when mechanical joining means — such as bolts and holes made for them — are used, it is one object of the present invention to join the benches economically by shaping them endwise to fit a novel and simple joining medium, the interposition of an epoxy cement at the joints serving to secure the benches together firmly and permanently.

A further object is to provide a pedestal for joining benches endwise which conforms to the design of the same.

A still further object is to provide a joining pedestal which combines an arm rest with a support for the end portions of adjacent benches.

Another object is to provide interlocking means between the benches and intermediate joining pedestals which prevent the benches from moving out of line with the pedestals.

An additional object is to design the pedestal as a one-piece unit which receives very simple end-formations of adjacent benches to fit the pedestal to the same.

A final object is to provide a pedestal which may be used either as an intermediate support for benches joined end-wise, or as a support for either or both ends of a single bench or the ends of a row of benches.

A better understanding of the invention may be gained by reference to the accompanying drawing, in which

FIG. 1 is a perspective view of benches in line showing the application of the novel joining pedestal;

FIG. 2 is a similar view of the pedestal in separated relation to a bench;

FIG. 3 is an end view from the left-hand side of FIG. 1; and

FIG. 4 is a rear view of a pedestal at the joint.

Referring specifically to the drawing, **10** denotes the seat of a typical stone or concrete outdoor bench. The seat usually has a decline toward the back, as noted in FIG. 3; and it rises at the rear with a tilted back rest **11**, the angles of the seat and back rest combining to lend comfort to the bench occupants. The back rest is preferably of open construction — as indicated at **11***a* — to promote drainage and provide seating comfort.

It is customary in joining benches end-to-end to provide an intermediate support for their adjacent end-portions. In the present case the support is a concrete post **13** which extends crosswise of the bench seats, and is formed with a widened top **13***a*. The latter receives the end-portions of adjacent bench seats in substantially meeting relation as indicated in FIG. 1, providing a wide support for the same as indicated in FIG. 4.

FIG. 2 shows that a shank **14** rises from the rear portion of the post top **13***a;* and that the shank has a top portion **14***a* tapered forwardly at **14***b* to form an arm rest. While the shank **14** is of reduced depth, it is noted that the arm rest **14**a extends toward the front of the bench to provide a long arm support.

It is noted that the end portions of the bench seat and back rest are cut with communicating setbacks **10***a* and **11***b*. Thus, while the seats and back rests of adjacent benches meet substantially in front and at the top, the setbacks **10**a and **11**b form clearances to receive the

arm rest shank **14** between them as shown in the center of FIG. **1.** This makes for a close fit of the joining pedestal with the benches adjacent to it. Also, the set backs have a stop **10***b* in front and one **11***c* at the top. The stop **10***b* locks the bench against creeping rearwardly when occupants sit back. The stop **11**c furnishes an added support for the back rest on the arm rest, since this stop meets the unyielding resistance of the arm rest top when the back rest receives rearward tilting strains.

In assembling adjoining benches with the pedestal interposed, an epoxy cement components from deposited on the joining surfaces of the components; and it is only necessary to gather these with some pressure in order to secure a proper fit between them. While the cement may be relied upon to keep the bench compononetsfrom coming apart, the nature of the bench joints and the weight of the components will insure the stability and safety of the benches.

It is further apparent that the novel pedestal has the added advantage of utmost simplicity by being made in one piece, while possessing the functional attributes and advantages described above. Further, the pedestal and its joining relation also have the advantage of economy, since no holes have to be made in any part and no bolts or other fastenings applied which might cause injury to occupants, get loose, or stain the benches with rust after rainy weather. Further, the pedestal is also usable as a support for either or both ends of a single bench or at the ends of a row of benches, as suggested in FIG. **1.** Finally, the invention provides a multiple outdoor bench which uses ready-made components, secures them firmly and permanently, and lends the benches a neat appearance.

I claim:

1. In a bench structure having a unitary back and seat section and a combined arm rest and pedestal extending cross-wise of said section to receive and support one end of said section, the improvements comprising a pedestal having a projection extending laterally from each vertical face of the pedestal to receive and support one end of a said section on each side of said pedestal, the arm rest extending forward from the rear face of the pedestal and upwardly from said lateral projections to receive one of said back and seat sections on each side thereof; a cut-out section in each end of said back and section comprising a set back in the back portion of said section adjoining a set back in said seat portion of said section, each said cut-out section receiving a said arm rest in mating engagement and locking said back and seat section to said combined arm rest and pedestal.

2. A bench structure according to claim **1** wherein the said combined pedestal comprises a vertically rising post having a lateral extension on each side to form a widened top surface to supportingly receive one end portion of said unitary section on each side of said post and the arm rest comprises a shank seg-ment centrally positioned on the widened top surface and extending upwardly from the rear portion of the widened top surface in the vertical plane of the said post and having a top portion extending forwardly and having a top surface forming an angle with said back, the length of the top portion being greater than the back to fore depth of the shank segment.

3. A bench structure according to claim **1** wherein the length of said first set back is substantially equal to the said depth of said shank segment, the length of said

second set back is substantially equal to the height of said shank segment, the depth of said set backs being substantially equal to one-half the thickness of said shank segment.

4. A bench structure according to claim **3** wherein the surface of said first stop matches the front surface of the fore-part of said shank segment to prevent rearward lateral and piv-otal movement of said section when said pedestal is place in said first set back and the surface of said second stop matches the top surface of said top portion to prevent forward movement of said section.

5. A bench structure according to claim **1** further compris-ing means to retain said pedestal and said section in said mat-ing and self-locking engagements.

6. A bench structure comprising a unitary seat and back section and a combined arm rest and support pedestal extend-ing cross-wise of the said section to lockingly receive and sup-port each end of said unitary section, said combined pedestal comprising a vertically rising post having a widened surface in the mid-portion of

said post to supportingly receive one end portion of a said unitary section on each side of said post and the are rest comprising a shank segment extending upwardly from the rear portion of the widened surface of the said post and having a top portion extending forwardly beyond the forward face of the shank segment, the top surface of said portion forming an angle with the back, said each end having a first set back in the seat portion forming a first stop, the surface of said first stop matching the front surface of the said shank segment, and a second set back in the adjoining back portion communicating with the first set back and forming a second stop, the surface of said second stop matching the surface of said top portion, said set backs and said stops forming a cut-out section on each end portion to receive a said arm rest in mating and self-locking engagement therewith to prevent movement of said section when said end of a said section is supportingly engaged with said pedestal.

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