United States Patent [19]

Barecki

[11] **3,729,226**

[45] **Apr. 24, 1973**

[54] **SINGLE PEDESTAL TRANSIT CHAIR**

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[73] Assignee: **American Seating Company,** Grand Rapids, Mich.

[22] Filed: **June 4, 1971**

[21] Appl. No.: **149,947**

[52] **U.S. Cl.** **297/232,** 297/445, 248/188.8

[51] **Int. Cl.**.....**A47c 3/00**

[58] **Field of Search**.....297/248, 232, 445; 248/188.1, 188.8, 361, 188.7, 188.9, 188; 108/150; 211/182; 287/189.36 F, 56; 52/127

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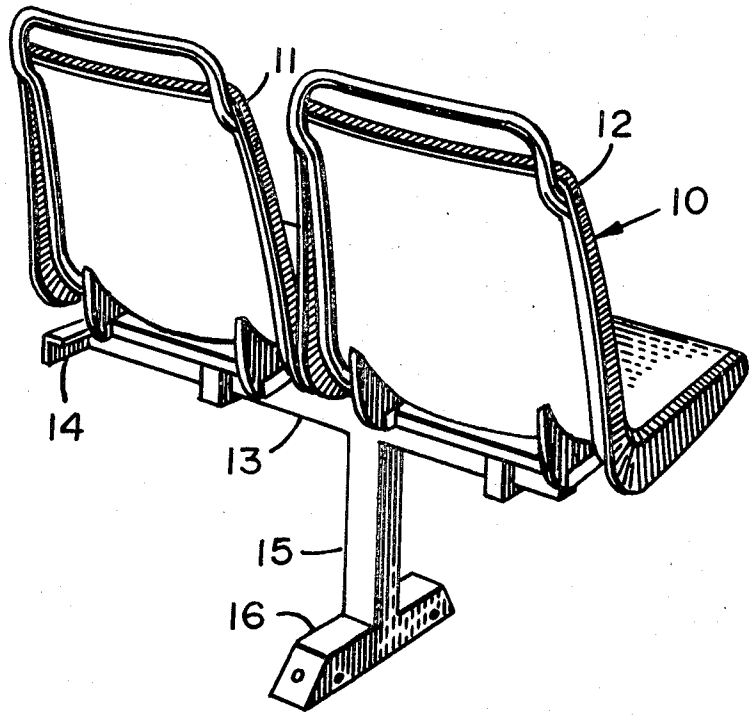
Primary Examiner—Francis K. Zugel

Attorney—Dawson, Tilton, Fallon & Lungmus

[57] **ABSTRACT**

A transit chair has a beam supporting two seats and has a side rail for attachment to the side of a vehicle, the beam being supported about midway by a single pedestal which is carried on a hollow foot extending longitudinally of the vehicle floor, the foot being provided at its ends with bolt openings for receiving bolts anchoring the foot to the floor and the foot being cut away along an angle above the openings to provide vertical access for a socket wrench, the ends of the foot being releasably closed by a closure cap having releasable wing lugs interlocked with side openings in the foot.

6 Claims, 6 Drawing Figures



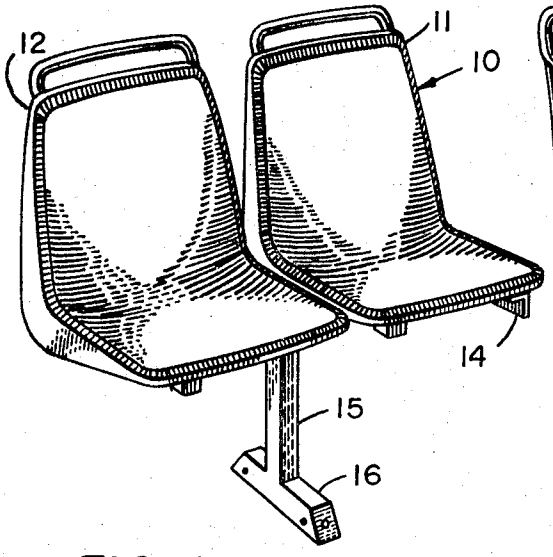


FIG. 1

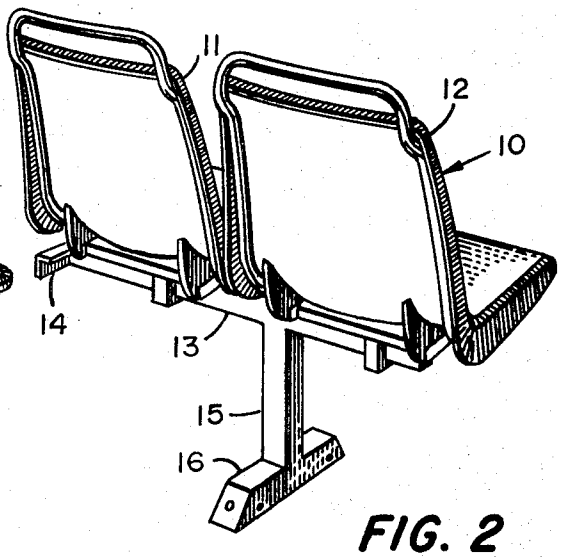


FIG. 2

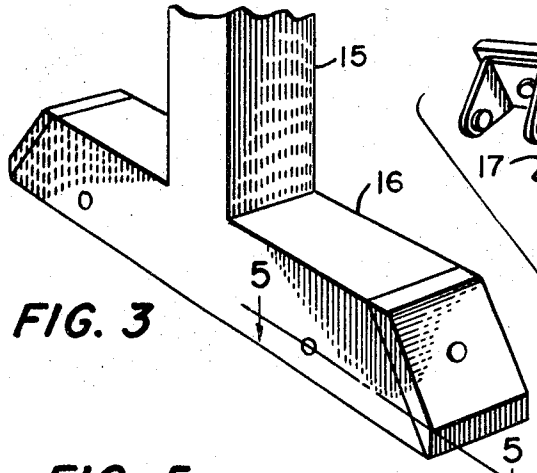


FIG. 3

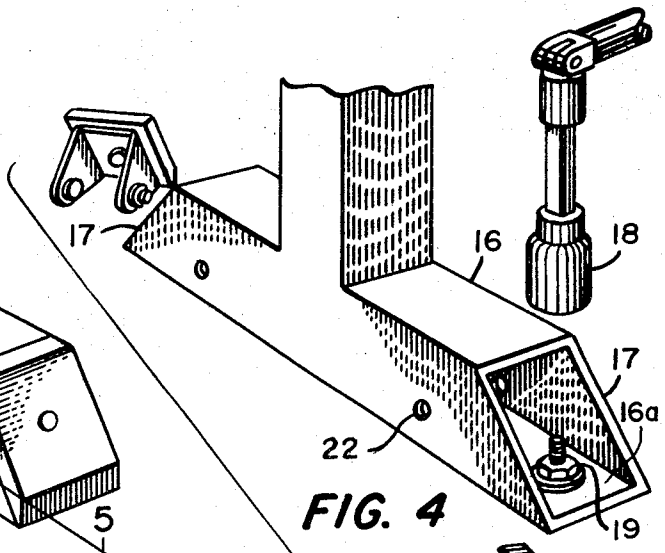


FIG. 4

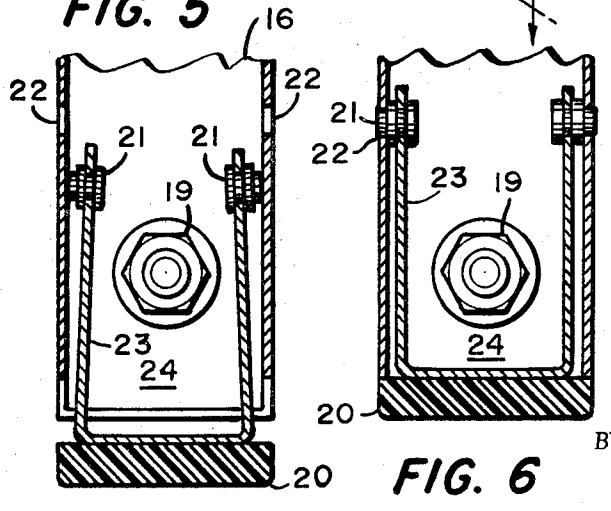
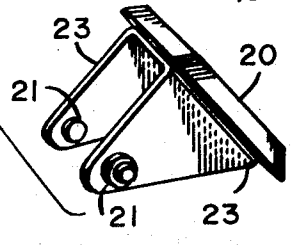


FIG. 5

FIG. 6



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SINGLE PEDESTAL TRANSIT CHAIR

BACKGROUND AND SUMMARY

In buses, planes, and other vehicles, there is a need for sturdy support means for chairs, while at the same time providing maximum clearance between the chairs and the vehicle floor which permits quick and easy floor cleaning, leg room, and storage space. I have discovered that the above can be accomplished by supporting a pair of seats upon a cross beam which can be secured on one side to a side wall of the vehicle and supporting the beam about midway with a single pedestal having an elongated hollow foot extending in a direction longitudinally of the vehicle floor, while also providing a foot structure which can be firmly locked to the floor through exposed ends of the hollow foot while providing closures which can be removed from time to time when the fastening means must be retightened. An elongated hollow foot has its bottom ends provided with openings for receiving bolts, the ends of the foot being cut away at an angle to provide vertical access for a socket wrench, releasable closure caps being provided for the ends of the foot.

DRAWING

In the accompanying drawing,

FIG. 1 is a perspective view of the front side of a transit chair providing two-passenger seats;

FIG. 2, a rear perspective view of the chair shown in FIG. 1;

FIG. 3, a broken perspective view on an enlarged scale of the foot of the pedestal;

FIG. 4, an exploded perspective view of the foot structure shown in FIG. 3 but with the end caps removed to expose the attachment means and to provide vertical clearance for a socket wrench;

FIG. 5, a broken sectional view, the section being taken as indicated at line 5—5 of FIG. 3, the end cap being partially pressed into the hollow foot; and

FIG. 6, a view similar to FIG. 5 but showing the end closure cap locked in place.

DETAILED DESCRIPTION

In general, I have provided a two-seat chair structure carried by a beam, the beam being supported about midway by a single pedestal having at its bottom an elongated hollow foot, the foot extending longitudinally or lengthwise of the vehicle so as to prevent any swaying of the chair during the starting and stopping of the coach. The elongated foot has its end portions cut away to provide vertical access to bolts passing through the bottom ends so that the foot can be firmly anchored to the vehicle floor and later retightened should the bolts work loose. Closure cap means are provided for closing the end openings with wing lugs which snap into holes in the sides of the foot so that the caps can be removed for such tightening operations at later times.

Referring to the drawing, the transit chair **10** comprises two separate seat structures **11** and **12** mounted on a beam **13**. The beam may be attached to the wall of the coach or vehicle by use of a short length of angle iron **14**. The beam is supported by a single column pedestal **15** located about midway between the seats to afford maximum leg room without depriving the chair of the needed support.

The pedestal **15** is attached to the floor by the use of the elongated tube or foot **16** which extends in a direction longitudinally of the coach floor and includes a flat bottom plate **16*a*** resting on the vehicle floor and secured to it. In the illustration given, the foot is substantially square in cross section and has its ends **17** cut away at an angle preferably about 45° to permit the use of a socket wrench **18** to tighten the attachment nuts or bolts **19** which are received in bolt holes at each end of the bottom plate **16*a***. Hence, the fastening bolts are located in fore and aft positions relative to the single vertical column **15**, and they extend at least partially within the hollow foot member **16**.

End caps **20** are locked in place automatically by having two shoulder rivets or lugs **21** snap into receiving holes **22** as the two spring fingers or wings **23** of the end cap are pressed inside the foot tube and along its bottom edge **24**. When locked in place, the shoulder rivets or lugs hold the end cap **20** firmly against the opening **17** at each end of the foot **16**. To remove the cap, the rivet lugs **21** should be pressed inwardly to clear the openings **22** and the closure then withdrawn. This structure prevents unauthorized removal. If desired, a special tool may be employed for simultaneously pushing the shoulder rivets inwardly on each side of the holes and thus facilitating the removal of the caps.

While in the foregoing specification I have shown structure in considerable detail for the purpose of illustrating phases of 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 my invention.

I claim:

1. A multiple-passenger transit vehicle chair comprising: a chair frame with an aisle side and a wall side, said frame supporting a plurality of passenger chairs side-by-side, mounting means on said wall side of said frame for securing said frame to a vehicle wall; a single pedestal cooperating with said wall to support said frame, said pedestal being spaced at an intermediate location between said wall side and said aisle side of said frame and including an upright column rigidly connected at its top to said frame; a hollow tubular foot member integral with the bottom of said column and extending forwardly and rearwardly therefrom, said foot having a generally flat bottom plate resting on the floor of said vehicle and provided with a bolt hole adjacent each end thereof to receive floor fastening bolts securing said foot to the vehicle floor at forward and rearward positions relative to said column, said tubular foot member further defining forward and rear access apertures adjacent their associated bolt holes to permit access to said fastening bolts when they are received in said bolt holes; said first and second closure means removably attached to said foot to cover said access apertures of said foot member respectively and cooperating with said hollow foot member to enclose said fastening bolts when said closures are assembled to said foot while permitting unrestricted tool access to said fastening bolts when said closures are removed.

2. The structure of claim 1 wherein said column of said pedestal is located at the approximate longitudinal and transverse center of the seat portion of said frame and wherein said mounting means comprises flange

means attached to said frame for securing the same to the vehicle wall.

3. The structure of claim 1 wherein said tubular foot member has a rectilinear cross section with open forward and rear ends providing said access apertures, said access apertures extending at an inclination relative to the horizontal from the bottom plate of said foot member upwardly and toward said column member, thereby permitting vertical as well as side tool access.

4. The structure of claim 1 wherein said frame comprises a cross beam extending longitudinally of said chair, and wherein said mounting means comprises a rail carried by said cross beam, said structure further comprising a pair of seats mounted upon said cross beam in side-by-side relation.

5. The structure of claim 3 wherein said closure means comprise first and second end plates covering respectively said front and rear inclined access apertures of said hollow rectilinear foot member.

6. A two-passenger transit vehicle chair comprising: a chair frame with an aisle side and a wall side, first and second chairs carried by said frame in side-by-side relation; mounting means securing the wall side of said frame to an upright vehicle wall; a single pedestal supporting said frame and including an upright column member connected to said frame at its approximate longitudinal midpoint and an integral hollow tubular foot member extending fore and aft of said chair from the bottom of said column member, said wall mounting means and said pedestal being the only support for said frame and said chair, said foot having a generally rectilinear cross section and having forward and rear open ends defining forward and rear access apertures, each of said open ends being inclined from the bottom of said foot upwardly and toward said column; first and second fastening bolts attaching said foot member to said floor of said vehicle at locations adjacent respectively said forward and rear access apertures, said bolts extending at least partially within said hollow foot member; and first and second cover members releasably attached to said hollow foot member to cover respectively said forward and rear access apertures, said access apertures extending from the side of an associated fastening bolt over and above the same to permit unrestricted tool access to a fastening bolt when the associated cover is removed.

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UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 3,729,226

DATED : April 24, 1973

INVENTOR(S) : Chester J. Barecki

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 2, line 38 after "supporting" insert ---seating means for accommodating---;

Column 2, line 38 change "passenger" to ---passengers--- and delete "chairs";

Column 2, line 57 delete "said" and insert therefor ---and---.

Signed and Sealed this

seventeenth Day of *February 1976*

[SEAL]

Attest:

RUTH C. MASON
Attesting Officer

C. MARSHALL DANN
Commissioner of Patents and Trademarks