Feb. 19, 1963 M. S. FRANKL 3,078,063

PEDESTAL BASE ASSEMBLY

Filed Nov. 25, 1960

FIG. 1

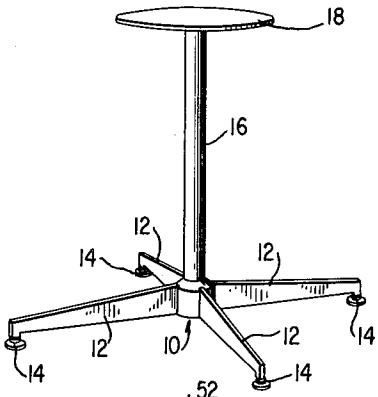


FIG. 2

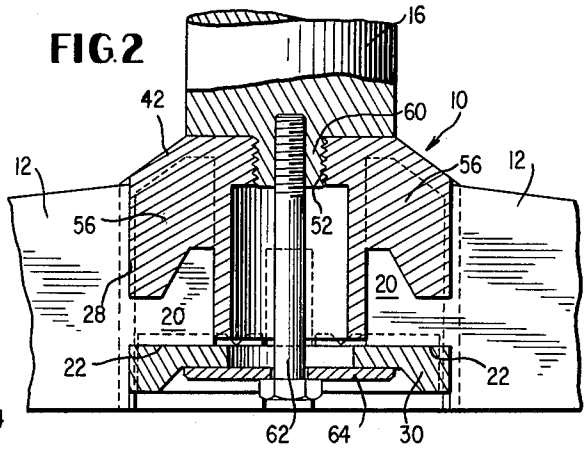


FIG. 3

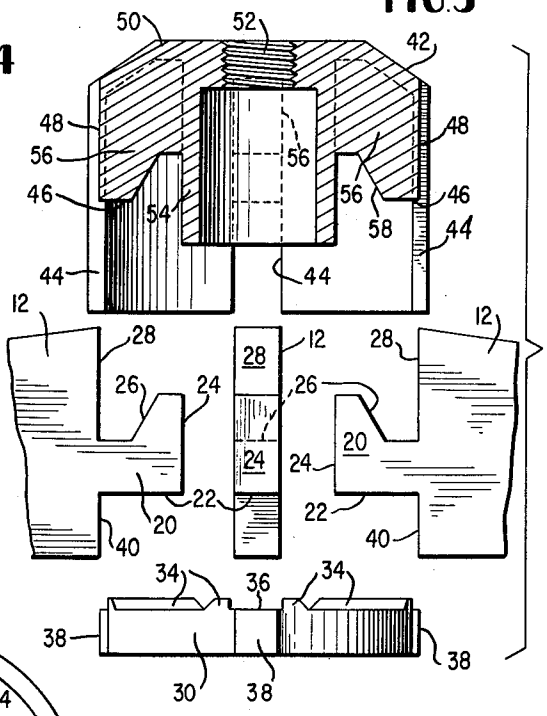


FIG. 4

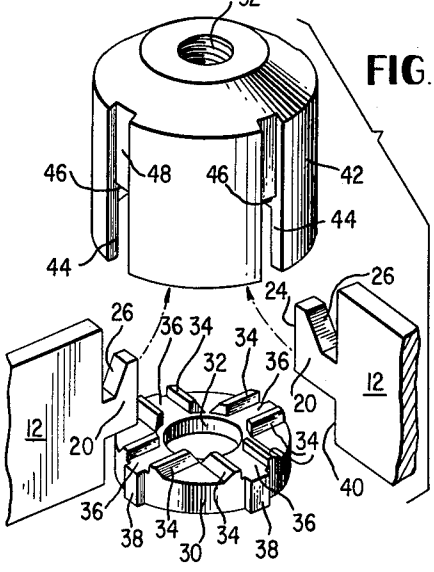
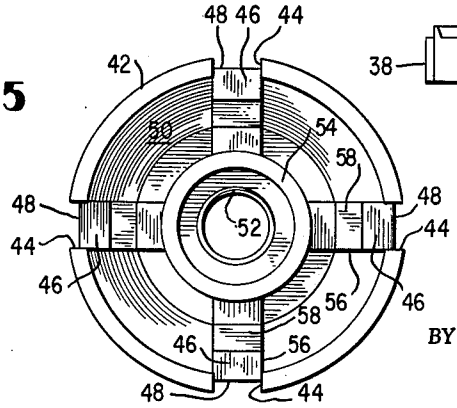


FIG. 5



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PEDESTAL BASE ASSEMBLY

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This invention relates to pedestal base assemblies, and, more particularly, to such assemblies of the type wherein a plurality of radially extending arms are joined to a central hub upon which is mounted a vertical leg or column adapted to support an element such as a table top or the like.

In assemblies with which the present invention is concerned, a vertically extending single leg or pedestal is employed to support some object which may take any of many various forms such as table tops, lamps, display fixtures, desks, swivel chairs, etc. In view of the fact that the single leg or pedestal usually supports a rather heavy or bulky object at its upper end, the center of gravity of such an assembly is at an elevated location and, in order to achieve satisfactory stability, the structure in which the lower end of the supporting leg or pedestal is mounted must either be made rather massive, to lower the center of gravity, or must have a substantial lateral extent from the pedestal axis.

Conventionally, such bases are cast as a single integral structure in order to achieve the necessary degree of structural rigidity between the various parts. For convenience in casting and subsequent handling, it is desirable that the lateral extent of an integral base assembly be minimized; however, a reduction in lateral extent requires a corresponding increase in the mass of the base assembly to maintain stability, thus increasing the material cost and shipping weight.

It is an object of the present invention to provide a knocked-down pedestal base assembly which may be readily assembled into a rigid interlocked stable structure.

It is another object of the invention to provide a pedestal base assembly which is assembled from a plurality of individual parts which may be compactly packed for shipment or storage.

The foregoing, and other objects, are achieved in a pedestal base assembly in which a plurality of elongated arm members are each formed with a tongue projecting from one end of the arm. A base plate and a cap member are formed with recesses respectively adapted to receive the lower and upper portions of the tongues to orient the tongues in symmetrical radially extending relationship. Clamping means draw the base plate and cap member toward each other to clamp the tongues into rigidly interlocked relationship with the base plate and cap member. Stability of the structure is achieved primarily by the lateral horizontal extent of the arms from the central hub. However, convenience in handling is maintained by virtue of the fact that the assembly may be readily disassembled for storage or shipment.

Other objects and features of the invention will become apparent by reference to the following specification and to the drawings.

In the drawings:

FIG. 1 is a perspective view of a pedestal base assembly embodying the invention;

FIG. 2 is a detail cross-sectional view of a portion of the structure of FIG. 1;

FIG. 3 is a view similar to FIG. 2 with certain parts separated or omitted to show the interlocking relationship between the parts;

FIG. 4 is an exploded perspective view of a portion of the assembly; and

FIG. 5 is a bottom plan view of the central hub or cap member of the assembly.

Referring first to FIG. 1, a pedestal base assembly embodying the invention is disclosed as including a central hub assembly designated generally 10, from which a plurality of like arms 12 extend in substantially horizontal, symmetrically disposed radial relationship. While the structure is shown as including four arms 12, the number of arms 12 may vary in accordance with the end use of the assembly; however, in all cases, a minimum of three arms are required and the arms should be symmetrically disposed about the axis of hub assembly 10. At the outer end of each arm 12, a vertically adjustable foot assembly 14 of conventional construction is mounted so that the assembly may be adjusted to compensate for unevenness in a floor surface. A vertically extending central leg or pedestal 16 is mounted upon and projects upwardly from hub assembly 10 and is provided at its upper end with a suitable platform such as 18 upon which a table top or other structure may be secured by any suitable means, not shown.

Arms 12 are preferably constructed from a relatively heavy sheet metal or metal plate material and, in the assembled relationship, are disposed with the general plane of the arms extending in a vertical direction. At the inner end of each arm, a tongue 20 is formed to project inwardly from the inner end of the arm. Tongue 20 is formed with a horizontally extending lower side surface 22, and a substantially vertical inner end surface 24. The upper side of tongue 20 is formed with an upwardly opening notch 26, one side of which is defined by an inner end surface 28 of arm 12.

A generally circular base plate 30, symmetrical about a vertical axis, is constructed with a central opening 32 and formed with a series of upwardly projecting lugs 34 on its upper surface which are located to define a plurality of radially extending grooves 36 in the upper surface of plate 30. The spacing between opposed pairs of lugs 34 is such that the grooves 36 are adapted to snugly receive the lower portions of tongues 20 with the lower side surface 22 of each tongue seated at the bottom of a groove 36. When the tongues are seated in the respective grooves 36, arms 12 are thus located to extend in symmetrically disposed radial relationship to the vertical axis of symmetry of base plate 30.

At the outer end of each of grooves 36, the lower surface of the groove is extended by a projection 38 which projects outwardly from the otherwise truly circular circumference of base plate 30. When tongues 20 are seated in grooves 36, the outer side surface of each projection 38 engages the lower portion 40 of the inner end of arm 12.

In addition to base plate 30, hub assembly 10 includes a hollow cylindrical cap member 42 which is open at its lower end and formed with a plurality of symmetrically disposed vertical slots 44 which extend upwardly from the lower end of the cap member to an upper edge 46 located approximately midway of the height of cap member 42. Continuing upwardly from the upper end of each slot 44, a vertical groove 48 extends up the remaining distance of the outer peripheral surface of the cap member. The width of slots 44 and grooves 48 is selected to be only slightly greater than the thickness of arms 12 so that slots 44 may receive the tongues 20 of arms 12 with surface 28 of the arms seated against the bottom of groove 48. The circular opening or recess at the bottom of cap member 42 is slightly greater than the normal diameter of base plate 30 and slightly less than the diametral dimension across base plate 30 between the radially outermost surfaces of a pair of opposed projections 38. Thus, base plate 30 is adapted to be received within the recess at the lower end of cap member 42 only when projections 38 are received within slots 44.

The upper end of cap member 42 is closed as at 50 with the exception of a central internally threaded bore

52. An inner cylindrical portion 54 is integral with and extends downwardly from top closure 50 in coaxial relationship with the outer side wall of cap member 42, to a location somewhat below the upper ends of slots 44. Extending between inner cylindrical portion 54 and the outer side wall of cap member 42 are four integral webs 56 which are aligned with and coextensive in width with the associated slots 44. The lower surface 58 of each web 56 is complementary in shape to the notches 26 in arms 12. As best seen in the cross-sectional views of FIGS. 2 and 3, the outer surface of inner cylindrical portion 54, the lower surfaces 58 of webs 56, and the bottom wall of grooves 48 are thus complementary in shape and engageable with inner end surface and notch 26 of tongue 20 and inner end surface 23 of arm 12.

The interlocking assembled relationship of arms 12, base plate 30 and cap member 42 is best shown in FIG. 2. In one form of assembly, pedestal 16 is formed with a projecting stud 60 which is threadably received in tapped bore 52 and is further provided with an internally tapped bore adapted to receive the threaded end of a clamping bolt 62. A washer 64 engaged between the head of bolt 62 and the lower side of base plate 30 is operable, upon threading bolt 62 into pedestal 16 to draw base plate 30 upwardly to rigidly clamp the projecting tongues 20 into engagement with the abutments defined by lower edge surfaces 58 of webs 56. When the various elements have been firmly clamped in the relationship shown in FIG. 2, arms 12 are firmly locked against movement relative to pedestal 16 to provide an extremely rigid and stable support for the pedestal. In the completed assembly as indicated in FIG. 2, all of the various parts are firmly interlocked with each other against relative movement.

While one embodiment of the invention has been disclosed, it will be apparent to those skilled in the art that the disclosed embodiment may be modified. Therefore, the foregoing description is to be considered exemplary rather than limiting and the true scope of the invention is that defined in the following claims.

I claim:

1. A pedestal base assembly comprising a plurality of like arms, a tongue on each arm projecting from one end of the arm and having a flat lower side surface and a notch extending downwardly with respect to the upper side surface, a base plate, means on the upper side of said base plate engageable with the lower sides of said tongues for locating said arms in symmetrically disposed radially extending relationship to said base plate, a hollow cylindrical cap member open at its lower end adapted to overlie and receive said base plate and said tongues when said tongues are engaged with said means on said base late, said cap member having a plurality of symmetrically disposed slots therethrough extending upwardly from the lower end of said member and adapted to receive said tongues, and abutment means comprising a plurality of webs within the interior of said cap member

aligned with said slots, the lower surfaces of said webs being complementary in shape to and engageable within the notches of said tongues when said tongues are received within said slot, and means for clamping said cap member, base plate and tongues into interlocked relationship with each other.

2. A pedestal base assembly as defined in claim 1 wherein said base plate is adapted to fit snugly within the lower end of said cylindrical member, and includes a plurality of projections on the circumference of said base plate engageable within the lower ends of said slots in said cylindrical member to orient said base plate within said cylindrical member.

3. A pedestal base assembly comprising a plurality of like horizontally elongated arms, each arm having a foot member at its outer end and a tongue projecting from its inner end, a base plate symmetrical about a vertical axis and having a plurality of symmetrically disposed radial grooves in its upper surface, each of said grooves being adapted to receive the lower portion of a tongue to thereby locate said arms in symmetrical radially extending relationship to the axis of said base plate, a hollow cap member having a recess in its lower end adapted to receive said base plate and said tongues when said tongues are received within said grooves in said base plate, downwardly facing abutment means in the interior of said cap member complementary in shape to the upper portions of said tongues, and clamping means for drawing said base plate upwardly within said cap member to clamp said tongues between said base plate and said abutment means.

4. A pedestal base assembly comprising a plurality of like horizontally elongated arms, each arm having a foot member at its outer end and a tongue member projecting from its inner end, each tongue member having a flat lower side surface and an upwardly opening notch in its upper side surface, a base plate symmetrical about a vertical axis and having a plurality of symmetrically disposed horizontally extending radial grooves in its upper surface, each groove being adapted to receive the lower side surface of a tongue to thereby locate said arms in symmetrical radially extending relationship to the axis of said base plate, a hollow cap member having a recess at its lower end adapted to receive said base plate and a plurality of slots extending vertically upwardly from its lower end adapted to receive the inner ends of said arms, abutment means in said cap member complementary in shape to and engageable within said notches in said tongues, and clamping means for drawing said base plate upwardly within said cap member to clamp said tongues between said base plate and said abutment means.

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