ABSTRACT

A pole assembly for a curtain includes a pole module, two end caps mounted on the pole module, and two connecting members each mounted between the pole module and a respective one of the end caps to connect the pole module and the respective end cap. The pole module has two opposite ends each provided with a mounting portion. The pole module has a side each provided with a guide track. Each of the connecting members is mounted on the respective mounting portion of the pole module and is secured in the guide track of the pole module. Each of the two end caps has an end portion provided with a mounting head mounted on the respective mounting portion of the pole module.
CURTAIN POLE ASSEMBLY

BACKGROUND OF THE INVENTION

[0001] Field of the Invention

[0002] The present invention relates to a pole assembly and, more particularly, to a pole assembly for a curtain and the like.

[0003] Description of the Related Art

[0004] A conventional pole assembly for a curtain in accordance with the prior art shown in FIGS. 7 and 8 comprises a pole module 40 and two end caps 42 mounted on two opposite ends of the pole module 40. The pole module 40 includes two poles 41 which are detachably connected with each other to reduce the volume of the pole module 40 before assembly so as to facilitate transportation of the pole module 40. Each of the two poles 41 of the pole module 40 has a substantially semi-circular shape and has a hollow inside. The two poles 41 of the pole module 40 have different diameters so that the two poles 41 of the pole module 40 are directly connected with each other. Each of the two end caps 42 has an end portion provided with a mounting groove 421 mounted on the pole module 40 and provided with an insert 422 inserted into the pole module 40 to attach each of the two end caps 42 to the pole module 40. However, the two poles 41 of the pole module 40 have different diameters so that one of the two end caps 42 cannot be mounted on the pole module 40 easily and quickly, thereby causing inconvenience to a user in assembly of the pole assembly. In addition, each of the two poles 41 of the pole module 40 is a hollow body so that the pole module 40 has a weaker strength and is easily deformed or bent due to a larger force.

BRIEF SUMMARY OF THE INVENTION

[0005] In accordance with the present invention, there is provided a pole assembly for a curtain, comprising a pole module, two end caps mounted on the pole module, and two connecting members each mounted between the pole module and a respective one of the two end caps to connect the pole module and the respective end cap.

[0006] The pole module has two opposite ends each provided with a mounting portion for mounting a respective one of the two end caps and a respective one of the two connecting members. The pole module has a side each provided with an elongate guide track. Each of the two connecting members is mounted on the respective mounting portion of the pole module and is secured in the guide track of the pole module. Each of the two end caps has an end portion provided with a mounting head mounted on the respective mounting portion of the pole module.

[0007] Each of the two connecting members has an end face provided with two screw holes. The mounting head of each of the two end caps has a side provided with a threaded rod screwed into one of the two screw holes of the respective connecting member so that the mounting head of each of the two end caps is locked onto the respective connecting member.

[0008] The primary objective of the present invention is to provide a curtain pole assembly that is assembled easily and quickly.

[0009] According to the primary advantage of the present invention, when the mounting head of each of the two end caps is mounted on the respective mounting portion of the pole module, the threaded rod of each of the two end caps is directly screwed into one of the two screw holes of the respective connecting member so that the mounting head of each of the two end caps is directly locked onto the respective connecting member and is mounted on the respective mounting portion of the pole module easily and quickly.

[0010] According to another advantage of the present invention, each of the two connecting members is mounted on the respective mounting portion of the pole module and is secured in the guide track of the pole module to reinforce the strength of the pole module.

[0011] Further benefits and advantages of the present invention will become apparent after a careful reading of the detailed description with appropriate reference to the accompanying drawings.

DETAILED DESCRIPTION OF THE INVENTION

[0012] FIG. 1 is a perspective view of a pole assembly for a curtain in accordance with the preferred embodiment of the present invention.

[0013] FIG. 2 is a partially exploded perspective view of the pole assembly for a curtain as shown in FIG. 1.

[0014] FIG. 2a is a locally enlarged view of a connecting member of the pole assembly for a curtain as shown in FIG. 2.

[0015] FIG. 3 is a side cross-sectional view of the pole assembly for a curtain as shown in FIG. 1.

[0016] FIG. 4 is a partially front cross-sectional view of the pole assembly for a curtain as shown in FIG. 1.

[0017] FIG. 5 is an exploded perspective view of a pole assembly for a curtain in accordance with another preferred embodiment of the present invention.

[0018] FIG. 6 is a side cross-sectional view of the pole assembly for a curtain as shown in FIG. 5.

[0019] FIG. 7 is a partially exploded perspective view of a conventional pole assembly for a curtain in accordance with the prior art.

[0020] FIG. 8 is a partially front cross-sectional assembly view of the conventional pole assembly for a curtain as shown in FIG. 7.

[0021] Referring to the drawings and initially to FIGS. 1-4, a pole assembly for a curtain in accordance with the preferred embodiment of the present invention comprises a pole module 10, two end caps 30 mounted on the pole module 10, and two connecting members 20 each mounted between the pole module 10 and a respective one of the two end caps 30 to connect the pole module 10 and the respective end cap 30.

[0022] The pole module 10 includes a plurality of poles 11 which are detachably connected with each other to reduce the volume of the pole module 10 before assembly to facilitate transportation of the pole module 10. Each of the poles 11 of the pole module 10 has a substantially semi-circular shape and has a hollow inside. Each of the poles 11 of the pole module 10 has at least one connecting portion 111, and the connecting portions 111 of the poles 11 are connected with each other to connect the poles 11 of the pole module 10 together.

[0023] The pole module 10 has two opposite ends each provided with a mounting portion 112 for mounting a respective one of the two end caps 30 and a respective one of the two connecting members 20. The mounting portion 112 of the pole module 10 has a substantially semi-circular cross-sectional shape. The pole module 10 has a side each provided...
with an elongate guide track 113. The guide track 113 of the pole module 10 extends longitudinally through a whole length of the pole module 10 for mounting a curtain cloth (not shown). The guide track 113 of the pole module 10 is defined by two opposite guide rails 114 of the pole module 10.

[0024] Each of the two connecting members 20 is mounted on the respective mounting portion 112 of the pole module 10 and is secured in the guide track 113 of the pole module 10. Each of the two connecting members 20 has an end face provided with two screw holes 23. The end face of each of the two connecting members 20 is flush with an end face of the respective mounting portion 112 of the pole module 10.

[0025] Each of the two connecting members 20 has two opposite slideways 21 mounted in the guide track 113 of the pole module 10. Each of the two slideways 21 of each of the two connecting members 20 is slidably mounted on a respective one of the two guide rails 114 of the pole module 10. The two slideways 21 of each of the two connecting members 20 are parallel with each other and are in line with each other.

[0026] Each of the two connecting members 20 is locked onto the pole module 10 by a locking screw 223 and a washer 222. Each of the two connecting members 20 has a side provided with a mounting recess 22 (see FIG. 2a) for mounting the locking screw 223 and the washer 222 and provided with a screw bore 221 connected to the mounting recess 22. The screw bore 221 of each of the two connecting members 20 has a size smaller than that of the mounting recess 22 and is located at a central portion of the mounting recess 22 for screwing the locking screw 223. The mounting recess 22 of each of the two connecting members 20 is connected to each of the two slideways 21 and each of the two guide rails 114 of the pole module 10 so that each of the two guide rails 114 of the pole module 10 is extended into the mounting recess 22 of each of the two connecting members 20.

[0027] The washer 222 is received in the mounting recess 22 of each of the two connecting members 20 and is located between the locking screw 223 and each of the two guide rails 114 of the pole module 10 so that each of the two guide rails 114 of the pole module 10 is pressed by the washer 222 and the locking screw 223 and is locked in a respective one of the two slideways 21 of each of the two connecting members 20, and so that each of the two connecting members 20 is locked onto the pole module 10. The locking screw 223 is in turn extended through the mounting recess 22 of each of the two connecting members 20, the washer 222 and the guide track 113 of the pole module 10 and is screwed into the screw bore 221 of each of the two connecting members 20 as shown in FIG. 3 to press the washer 222 toward each of the two guide rails 114 of the pole module 10.

[0028] Each of the two end caps 30 has an end portion provided with a mounting head 31 mounted on the respective mounting portion 112 of the pole module 10. The mounting head 31 of each of the two end caps 30 has a side provided with a threaded rod 32 screwed into one of the two screw holes 23 of the respective connecting member 20 so that the mounting head 31 of each of the two end caps 30 is locked onto the respective connecting member 20. The mounting head 31 of each of the two end caps 30 has an inside provided with a mounting groove 311 mounted on the respective mounting portion 112 of the pole module 10. The mounting groove 311 of each of the two end caps 30 has a substantially circular shape. The threaded rod 32 of each of the two end caps 30 is located at a central portion of the mounting groove 311.

[0029] Referring to FIGS. 5 and 6, each of the two connecting members 20 has a face provided with a fixing hole 24 for fixing a fastening nut 241. The fixing hole 24 of each of the two connecting members 20 is connected to the screw bore 221 so that the screw bore 221 of each of the two connecting members 20 is connected between the mounting recess 22 and the fixing hole 24. The fixing hole 24 of each of the two connecting members 20 has a substantially hexagonal shape and has a size greater than that of the screw bore 221. The fastening nut 241 is screwed onto the locking screw 223 so that each of the two guide rails 114 of the pole module 10 and each of the two connecting members 20 are clamped between the locking screw 223 and the fastening nut 241 solidity and stably.

[0030] Accordingly, when the mounting head 31 of each of the two end caps 30 is mounted on the respective mounting portion 112 of the pole module 10, the threaded rod 32 of each of the two end caps 30 is directly screwed into one of the two screw holes 23 of the respective connecting member 20 so that the mounting head 31 of each of the two end caps 30 is directly locked onto the respective connecting member 20 and is mounted on the respective mounting portion 112 of the pole module 10 easily and quickly. In addition, each of the two connecting members 20 is mounted on the respective mounting portion 112 of the pole module 10 and is secured in the guide track 113 of the pole module 10 to reinforce the strength of the pole module 10.

[0031] Although the invention has been explained in relation to its preferred embodiment(s) as mentioned above, it is to be understood that many other possible modifications and variations can be made without departing from the scope of the present invention. It is, therefore, contemplated that the appended claim or claims will cover such modifications and variations that fall within the true scope of the invention.

1. A pole assembly for a curtain, comprising:
   a pole module;
   two end caps mounted on the pole module; and
   two connecting members each mounted between the pole module and a respective one of the two end caps to connect the pole module and the respective end cap;
   wherein the pole module has two opposite ends each provided with a mounting portion for mounting a respective one of the two end caps and a respective one of the two connecting members;
   the pole module has a side each provided with an elongate guide track;
   each of the two connecting members is mounted on the respective mounting portion of the pole module and is secured in the guide track of the pole module;
   each of the two end caps has an end portion provided with a mounting head mounted on the respective mounting portion of the pole module.

2. The pole assembly for a curtain of claim 1, wherein each of the two connecting members has an end face provided with two screw holes;
   the mounting head of each of the two end caps has a side provided with a threaded rod screwed into one of the two screw holes of the respective connecting member so that the mounting head of each of the two end caps is locked onto the respective connecting member.

3. The pole assembly for a curtain of claim 2, wherein the mounting head of each of the two end caps has an inside provided with a mounting groove mounted on the respective mounting portion of the pole module.
4. The pole assembly for a curtain of claim 3, wherein the threaded rod of each of the two end caps is located at a central portion of the mounting groove.

5. The pole assembly for a curtain of claim 3, wherein the mounting portion of the pole module has a substantially semi-circular cross-sectional shape; the mounting groove of each of the two end caps has a substantially circular shape.

6. The pole assembly for a curtain of claim 1, wherein each of the two connecting members has two opposite slideways mounted in the guide track of the pole module.

7. The pole assembly for a curtain of claim 6, wherein each of the two slideways of each of the two connecting members is slidably mounted on a respective one of the two guide rails of the pole module.

8. The pole assembly for a curtain of claim 6, wherein each of the two connecting members is locked onto the pole module by a locking screw and a washer.

9. The pole assembly for a curtain of claim 8, wherein the guide track of the pole module is defined by two opposite guide rails of the pole module; each of the two connecting members has a side provided with a mounting recess for mounting the locking screw and the washer and provided with a screw bore connected to the mounting recess; the mounting recess of each of the two connecting members is connected to each of the two slideways and each of the two guide rails of the pole module; each of the two guide rails of the pole module is extended into the mounting recess of each of the two connecting members; the washer is received in the mounting recess of each of the two connecting members and is locked between the locking screw and each of the two guide rails of the pole module; each of the two guide rails of the pole module is pressed by the washer and the locking screw and is locked in a respective one of the two slideways of each of the two connecting members; the locking screw is in turn extended through the mounting recess of each of the two connecting members, the washer and the guide track of the pole module and is screwed into the screw bore of each of the two connecting members to press the washer toward each of the two guide rails of the pole module.

10. The pole assembly for a curtain of claim 2, wherein the end face of each of the two connecting members is flush with an end face of the respective mounting portion of the pole module.

11. The pole assembly for a curtain of claim 6, wherein the two slideways of each of the two connecting members are parallel with each other and are in line with each other.

12. The pole assembly for a curtain of claim 9, wherein the screw bore of each of the two connecting members has a size smaller than that of the mounting recess and is located at a central portion of the mounting recess for screwing the locking screw.

13. The pole assembly for a curtain of claim 9, wherein each of the two connecting members has a face provided with a fixing hole for fixing a fastening nut; the fastening nut is screwed onto the locking screw.

14. The pole assembly for a curtain of claim 13, wherein each of the two guide rails of the pole module and each of the two connecting members are clamped between the locking screw and the fastening nut; the fixing hole of each of the two connecting members is connected to the screw bore; the screw bore of each of the two connecting members is connected between the mounting recess and the fixing hole.

15. The pole assembly for a curtain of claim 13, wherein the fixing hole of each of the two connecting members has a substantially hexagonal shape and has a size greater than that of the screw bore.

16. The pole assembly for a curtain of claim 1, wherein the guide track of the pole module extends longitudinally through a whole length of the pole module; the pole module includes a plurality of poles which are detachably connected with each other; each of the poles of the pole module has a hollow inside; each of the poles of the pole module has at least one connecting portion; the connecting portions of the poles are connected with each other to connect the poles of the pole module together.

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