expansion direction.

With reference to Figs. 5 and 7, each canopy clamping member 14 comprises an elongated upper clamping member 15 and an elongated lower clamping member 16. The elongated upper clamping member 15 comprises an elongated top panel 152, two side panels 154 and an elongated engaging channel 158. The elongated top panel 152 has a bottom surface. The side panels 154 respectively extend downwardly from two sides of the bottom surface of the top panel 152, and each side panel 154 has a free end provided with an engaging segment 156. Preferably, the engaging segments 156 on the free ends of the side panels 154 are hooks or protrusions. The elongated engaging channel 158 is defined between the bottom surface of the top panel 152and the two side panels 154. The elongated lower clamping member 16 is detachably connected with the upper clamping member 15 to clamp a corresponding canopy element 12 in cooperation with the upper clamping member 15. The lower clamping member 16 comprises an elongated body 162 and two engaging segments 164. The elongated body 162 is inserted into the engaging channel 158 in the upper clamping member 15 and has two sides. The engaging segments 164 are formed respectively on the two sides of the elongated body 162 and are engaged with the engaging segments 156 on the free ends of the side panels 154 of the upper clamping member 15. The engaging segments 164 on the lower clamping member 16 may be grooves.

With reference to Figs. 1 to 3, the at least one guiding cable 20 is disposed above the canopy devices 10 and extends along the expansion direction. Preferably, multiple guiding cables 20 may be implemented, and the amount of

side tabs 336 of the upper base 33, and each pivotal hole 337 has a diameter larger than that of the holding hole 334. A connection groove 338 is defined through the bottom panel 332 and one of the side tabs 336 and has two ends communicating respectively with the holding hole 334 and the pivotal hole 337 in the side tab 336 in which the connection groove 338 is defined. A holding hole 354 is defined through the upper base panel 352 of the lower base 35. Two pivotal holes 357 are respectively defined through the side tabs 356 of the lower base 35, and each pivotal hole 357 has a diameter larger than that of the holding hole 354 in the upper base panel 352. A connection groove 358 is defined through the upper base panel 352 and one of the side tabs 356 and has two ends communicating respectively with the holding hole 354 and the pivotal hole 357 in the side tab 356 in which the connection groove 358 is defined. The diameter of the connection cable 37 is smaller than widths of the connection grooves 338, 358 in the upper base 33 and the lower base 35. The upper ball head 372 has a diameter being smaller than the diameter of the pivotal holes337 in the side tabs 336 of the upper base 33 and being larger than the diameter of the holding hole 334 of the upper base 33. The lower ball head 374 has a diameter being smaller than the diameter of the pivotal holes 357 in the side tabs 356 of the lower base 35 and being larger than the diameter of the holding hole 354 of the lower base 35.

Accordingly, to connect the top end of the connection cable 37 with the upper base 33, the upper ball head 372 is inserted through the pivotal hole 337 in the side tab 336 with the top segment of the connection cable 37 extending through the connection groove 338 in the upper base 33. Because the upper ball

WHAT IS CLAIMED IS:

1. A canopy assembly comprising:

at least one canopy device being expandable along an expansion direction, and each one of the at least one canopy device comprising

a canopy element; and

multiple canopy clamping members mounted on the canopy element, being parallel with each other and perpendicular to the expansion direction, and including a first canopy clamping member in front of the other canopy clamping members along the expansion direction;

at least one guiding cable disposed above the at least one canopy device and extending along the expansion direction;

at least one connection device connected respectively with the at least one canopy device and mounted moveably on the at least one guiding cable, and each one of the at least one connection device comprising

at least one connection assembly, and each one of the at least one connection assembly connected with the first canopy clamping member of a corresponding one of the at least one canopy device and comprising

a lower base connected securely with the first canopy clamping member of a corresponding one of the at least one canopy device; and

a connection cable having a top end and a bottom end connected with the lower base; and

an upper base connected with the top end of the connection cable; and

a driving device connected with the at least one connection device to drive the at least one canopy device to expand along the expansion direction and comprising

at least one transmission assembly respectively connected securely with the at least one connection device, and each one of the at least one transmission assembly comprising

a driving wheel connected with and driven by a driving member;

a driven wheel; and

a transmission element formed as a loop, mounted around the driving wheel and the driven wheel, and connected securely with the upper base, wherein

each canopy clamping member has at least one lower base element mounted on a top of the canopy clamping member;

each one of the lower base element of each canopy clamping member has a roller mounted in the lower base element and mounted rotatably on one of the at least one guiding cable; and

the lower base of each one of the at least one connection assembly of each one of the at least one connection device is connected pivotally with one of the at least one lower base element on the first canopy clamping member of a corresponding one of the at least one canopy device.

2. The canopy assembly as claimed in claim 1, wherein each canopy clamping member comprises

an elongated upper clamping member comprising

an elongated top panel having a bottom surface;

two side panels respectively extending downwardly from two sides of the bottom surface of the top panel, and each side panel having a free end provided with an engaging segment; and

an elongated engaging channel defined between the bottom surface of the top panel and the two side panels;

an elongated lower clamping member detachably connected with the upper clamping member to clamp a corresponding canopy element incooperation with the upper clamping member and comprising

an elongated body inserted into the engaging channel in the upper clamping member and having two sides; and

two engaging segments formed respectively on the two sides of the elongated body and engaged with the engaging segments on the free ends of the side panels of the upper clamping member.

3. The canopy assembly as claimed in claim 1 or 2, wherein

the upper base of each one of the at least one connection assembly of each one of the at least one connection device comprises

a bottom panel having a top; and

two side tabs respectively formed on and protruding upwardly from two sides of the top of the bottom panel;

the lower base of each one of the at least one connection assembly of each one of the at least one connection device comprises

an upper base panel having a top and a bottom; and

two side tabs respectively formed on and protruding downwardly from two sides of the top of the upper base panel; and

each one of the at least one lower base element of each canopy clamping member of each one of the at least one canopy device comprises

a lower base panel being rectangular in shape and having two pairs of opposite sides;

two upper side tabs respectively formed on and protruding upwardly from one of the pairs of the opposite sides of the lower base panel and pivotally connected with the side tabs of the lower base respectively; and

two lower side tabs respectively formed on and protruding downwardly from the other one of the pairs of the opposite sides of the lower base panel and connected with a corresponding one of the canopy clamping members; and

the roller in each one of the at least one lower base element of each canopy clamping member of each one of the at least one canopy device is mounted rotatably in the lower base element and between the upper side tabs of the lower base element; and

the connection cable of each one of the at least one connection assembly of each one of the connection device is connected between the bottom panel of the upper base of the connection assembly and the upper base panel of the lower base of the connection assembly.

4. The canopy assembly as claimed in claim 3, wherein

the upper base of each one of the at least one connection assembly of each one of the at least one connection device further comprises

a holding hole defined through the bottom panel of the upper base and having a diameter;

two pivotal holes respectively defined through the side tabs of the upper base and each having a diameter larger than the diameter of the holding hole; and

a connection groove defined through the bottom panel and one of the side tabs of the upper base and having a width and two ends communicating respectively with the holding hole and the pivotal hole in the side tab in which the connection groove is defined;

the lower base of each one of the at least one connection assembly of each one of the at least one connection device further comprises

a holding hole defined through the upper base panel of the lower base and having a diameter;

two pivotal holes respectively defined through the side tabs of the lower base and each having a diameter larger than the diameter of the holding hole in the upper base panel; and

a connection groove defined through the upper base panel and one of the side tabs of the lower base and having a width and two ends communicating respectively with the holding hole and the pivotal hole in the side tab in which the connection groove is defined;

the connection cable of each one of the at least one connection assembly of each one of the at least one connection device has

a diameter smaller than the widths of the connection grooves in the upper base and the lower base of the connection assembly;

an upper ball head formed on the top end of the connection cable and having a diameter being smaller than the diameter of the pivotal holes in the side tabs of the upper base of the connection assembly and being larger than the diameter of the holding hole of the upper base of the connection assembly; and

a lower ball head formed on the bottom end of the connection cable and having a diameter being smaller than the diameter of the pivotal holes in the side tabs of the lower base of the connection assembly and being larger than the diameter of the holding hole of the lower base of the connection assembly.

5. The canopy assembly as claimed in claim 4, wherein

each one of the at least one connection assembly of each one of the at least one connection device further comprises

a transmission-connecting base pivotally connected with the upper base of the connection assembly, mounted between the side tabs of the upper base of the connection assembly, and connected securely with the transmission element of a corresponding one of the at least one transmission assembly.

6. The canopy assembly as claimed in claim 5, wherein the transmission element of each one of the at least one transmission assembly comprises

a chain segment; and

a cable segment connected with the chain segment to form the transmission element as a loop;

the driving wheel of each one of the at least one transmission assembly is a sprocket wheel engaged with the chain segment of the transmission assembly.

7. The canopy assembly as claimed in claim 6, wherein

the transmission-connecting base of one of the at least one connection assembly of each one of the at least one connection device is composed of two half base elements connected with each other and clamping the cable segment of the transmission element of a corresponding transmission assembly.

8. The canopy assembly as claimed in claim 6, wherein

the transmission-connecting base of one of the at least one connection assembly of each one of the at least one connection device has multiple chain-connecting tabs formed on and protruding from a top of the transmission-connecting base and engaged with the chain segment of the transmission element of a corresponding transmission assembly.

9. The canopy assembly as claimed in claim 1 or 2, wherein

each canopy clamping member is curved;

each one of the at least one connection device has three connection assemblies including

a middle connection assembly connected with a middle of a corresponding first canopy clamping member; and

two side connection assemblies connected respectively with two ends of the corresponding first canopy clamping member;

the transmission device comprises three transmission assemblies including

a middle transmission assembly connected with the middle connection assembly of the at least one connection device; and

two side transmission assemblies connected with the side connection assemblies of the at least one connection device; and

the transmission device further comprises a simultaneous transmission assembly mounted between the middle transmission assembly and the side transmission assemblies to drive the transmission assemblies to move simultaneously and comprising

a simultaneously driving wheel connected co-axially with the driving wheels of the side transmission assemblies;

a simultaneously driven wheel connected co-axially with the driving wheel of the middle transmission assembly; and

a simultaneous element mounted around and connected with the simultaneously driving wheel and the simultaneously driven wheel.

10. The canopy assembly as claimed in claim 9, wherein

the simultaneously driving wheel and the simultaneously driven wheel are sprocket wheels; and

the simultaneous transmission element is a chain.