(including the first strap 51301 and the second strap 51302) are connected to two connecting portions 1224 (also named hooking portions) of the animal carrier 100 disposed on a side away from the seat backrest CSB of the vehicle seat CS, respectively. It may be understood that in this case, the first connectors 512 of the two restraint straps 513 are spaced apart from each other in the longitudinal direction D1.

[0161] Referring to FIG. 6 and FIG. 7, when the animal carrier 100 has engaged with the base B0 (the base B0 has been installed on and fixed to the vehicle seat in advance), one end of each of the restraint straps 513 (including the first restraint strap 51301 and the second strap 51302) is fixedly connected to the side of the second bracket 122 of the animal carrier 100 away from the seat backrest CSB through the engagement of each first connector 512 with the corresponding connecting portion 1224. The other end of each of the restraint straps 513 passes over the long side 1211 of the first bracket 121 away from the seat backrest CSB and then extends backward and toward the top of the vehicle seat CS, thereby allowing the second connector 524 of the extension strap 521 to be connected to the first fixing point.

[0162] In an embodiment, the length of each of the restraint straps 513 (including the first strap 51301 and the second strap 51302) is constant, and the user can pull the adjusting end of the extension strap 521 to change the position of the length adjuster 527 relative to the extension strap 521, thereby adjusting the effective use length of the extension strap 521, so that the fixing strap assembly 500 is tensioned, thereby adjusting an overall strap length of the fixing strap assembly 500 to adapt to the position of the fixing point on the car. Alternatively, in other embodiments, the length of the extension strap 521 may be constant, and the user adjusts the length of the first strap 51301 and the second strap 51302 by using the length adjuster, thereby adjusting the overall strap length of the fixing strap assembly 500 to adapt to fit the fixing point on the top or at the bottom of the rear seat of the car. The specific structure of the length adjuster and the length adjustment manner of the connecting webbing combining with the length adjuster are common knowledge known by those skilled in the art and will not be described repeatedly herein.

[0163] In an embodiment, the fixing strap assembly 500 may further include a supporting structure 514 (shown in FIG. 6). The supporting structure 514 is connected between the first strap 51301 and the second strap 51302. For example, the supporting structure 514 is a supporting mesh fabric and is connected, for example by sewing, between the first strap 51301 and the second strap 51302. In some embodiments, the supporting mesh fabric has, for example, a trapezoidal shape. Thus, the supporting structure 514 can prevent the animal carried on the animal carrier 100 from rolling over when a speed of the vehicle suddenly changes, and can protect the animal from being injured when the speed of the vehicle suddenly changes or during a collision of the car. Moreover, the supporting mesh fabric will not obstruct a view of a driver or a caregiver, so that the driver or the caregiver can observe a real-

thereby improving the stability of the animal carrier in the car. Referring to FIGS. 17 and 18, which illustrate structural schematic views of an animal carrier 100 according to embodiments of a fifth aspect of the present disclosure. If there is no conflict, the animal carrier 100 of the embodiments has a configuration and a structure similar to those of the animal carrier 100 of the aforementioned embodiments, and includes: the bearing portion 110 (the supporting plate), the bracket device 120 and components thereof, and the restraining device 130, etc. It should be understood that for the sake of simplicity of the drawings and clear illustration, the bearing portion (the supporting plate) is not shown in these figures, and only the detailed structure of the bracket device 120 is shown.

[0193] As shown in FIG. 17, in an embodiment, the animal carrier 100 is placed flat on the vehicle seat CS, and a long side of the bearing portion (i.e., the long side 1211 of the first bracket) abuts against the seat backrest CSB. In an embodiment, the animal carrier 100 can be fixed to the vehicle seat CS by means of a pulled-out vehicle seat belt 170 (e.g., a seat belt of a rear seat) in combination with the bracket device 120 of the animal carrier 100.

[0194] Referring to FIG. 17, the animal carrier 100 includes two second brackets 122 on the left and right sides. The second bracket 122 on the left side of the seat CS is connected to the third bracket 123 through two first fixing components 124 on the front and rear sides, and the two first fixing components 124 are the first fixing component 1242 on the left front side and the first fixing component 1244 on the left rear side. The second bracket 122 on the right side of the seat CS is also connected to the third bracket 123 through two first fixing components 124 on the front and rear sides, and the two first fixing components 124 are the first fixing component 1241 on the right front side and the first fixing component 1243 on the right rear side. In addition, each second bracket 122 is also connected to the third bracket 123 through a corresponding second fixing component 125. Specifically, the second bracket 122 on the left side of the seat CS is connected to one short side of the third bracket 123 through the second fixing component 1252 on the left side, and the second bracket 122 on the right side of the seat CS is connected to the other short side of the third bracket 123 through the second fixing component 1251 on the right side.

[0195] Specifically, the vehicle seat belt 170 is generally divided into a shoulder belt 171 and an abdominal belt 172 (or a waist belt) by a seat belt buckle, and the seat belt buckle is configured to be buckled with a seat belt female buckle on the seat. FIG. 17 illustrates how the vehicle seat belt 170 fixes the animal carrier 100 by taking the vehicle seat belt 170 on the right side of the vehicle as an example.

[0196] In an embodiment, after being pulled out, the shoulder belt 171 extends forward (i.e., in the direction the vehicle travels), and after abutting against the long side 1211 of the first bracket 121 away from the seat backrest CSB, and the shoulder belt 171 extends to a position below the first bracket 121 and the second bracket 122, and guided by the second fixing component 1252 on

mechanism 33 may be disposed on the first bracket 121 or the third bracket 123, or on any other suitable position on the second bracket 122. The strap-guiding mechanism 33 may be disposed close to the long side of the animal carrier 100 and configured for guiding each restraint strap 513. The restraint strap 513 passes through the corresponding strap-guiding mechanism 33 to engage with a fixing position of the animal carrier 100, thereby effectively preventing the carrier 100 from sliding left and right on the vehicle seat CS.

[0217] For example, as shown in FIG. 23, after the two first connectors 512 are connected to the second fixing points (for example, but not limited to, the ISOFIX sockets) on the vehicle seat, the two restraint straps 513 extend forward from the left and right sides of the bottom of the third bracket 123 (i.e., the two restraint straps 513 extend forward from the side of the third bracket 123 away from the bearing portion 110) respectively, and pass through the left and right strap-guiding mechanisms 33 of the bracket device 120 respectively, and then extend upward and backward, and finally are connected to the first fixing point on the vehicle by the second connector 524, thereby fixing the carrier 100 to the vehicle seat 600. It may be understood that, in some embodiments, when the restraint strap assembly 51 and the extension strap assembly 52 are separated from each other, the first connectors 512 of the two restraint straps 513 may be connected to the second fixing points respectively, and then each restraint strap 513 is positioned in a corresponding strap-guiding mechanism 33; and the second connector 524 of the extension strap 521 is connected to the first fixing point, and then the first engaging member 511 is connected to the second engaging member 523, and the length of the extension strap is adjusted by the adjuster 522.

[0218] For the structure of the strap-guiding mechanism 33, reference may be made to embodiments of a ninth aspect below.

[0219] Ninth Aspect

[0220] Referring to FIGS. 24 to 29, a carrier (also named an animal carrier) according to embodiments of a ninth aspect of the present application includes a bracket device 300 and a plurality of strap-guiding mechanisms 33. The plurality of strap-guiding mechanisms 33 are disposed on the bracket device 300 and configured to engage with the fixing strap assembly 500. The fixing strap assembly 500 passes through the plurality of strap-guiding mechanisms 33 and is connected to the bracket device 300 and the vehicle seat CS detachably, thereby fixing the bracket device 300 on the vehicle seat CS better and preventing the bracket device 300 from sliding forwards and backwards and left and right easily.

[0221] As shown in FIGS. 28 and 29, in an embodiment, the bracket device 300 may have a structure similar to a stretcher, which includes a first bracket 32, a third bracket 34, and a supporting plate 36 located between the first bracket 32 and the third bracket 34. The supporting plate 36 may be an implementation of the bearing portion, and an upper surface of the supporting plate 36 may be used

[0228] The extension strap assembly 52 includes an extension strap 521, an adjuster 522 (also named an adjusting part), a second engaging member 523 (also named a second buckle), and a second connector 524 (also named the fixing hook). The extension strap 521 is, for example, a webbing, one end of which is connected to the second engaging member 523. The second engaging member 523 is detachably connected to the first engaging member 511. The adjuster 522 is arranged on the extension strap 521 and configured to adjust the available length of the extension strap 521. The second connector 524 disposed at the other end of the extension strap 521 is substantially a hook, which can be detachably engaged with a suitable structure on the vehicle seat (for example, a connecting bar on the top or on the back side of the vehicle seat CS), thus fixing the bracket device 300 on the vehicle seat CS. The structure connected to the second connector 524 may be named the first fixing point. It may be understood that in some embodiments, the adjuster 522 can also be omitted.

[0229] Referring to FIGS. 29 to 33, the strap-guiding mechanism 33 includes a shell body 33A, and the shell body 33A includes a bottom shell 331 and a face shell 332. The bottom shell 331 can be fixed to the fixing plate 326 of the first bracket 32, for example, with a screw. The face shell 332 can be installed on the bottom shell 331 with a fastener, for example, a screw. The bottom shell 331 and the face shell 332 jointly define a channel 330 for allowing the restraint strap 513 of the fixing strap assembly 500 to pass through. The channel 330 has a first port 3301 and a second port 3302. When the fixing strap assembly 500 fixes the bracket device 300 to the vehicle seat CS, the restraint strap 513 can pass through the first port 3301 and the second port 3302. Referring to FIG. 30, in an embodiment, the first port 3301 and the second port 3302 are both disposed on the face shell 332. In some other embodiments, the first port 3301 and the second port 3302 can be jointly defined by, for example, the bottom shell 331 and the face shell 332.

[0230] Referring to FIG. 27, FIG. 29 and FIG. 30 again, the blocking portion 345 of the third bracket 34 is disposed close to the face shell 332. Therefore, after the restraint strap 513 passes through the second port 3302, under a blocking effect of the blocking portion 345, it is easier for the restraint strap 513 to pass through a gap between the third bracket 34 and the supporting plate 36, and is not easy to pass through the outside of the third bracket 34. It may be understood that in other embodiments, such as shown in FIG. 43, the blocking portions 345 may also be omitted, and in this case, the restraint strap 513 can also pass through the outside of the third bracket 34 away from the supporting plate 36.

[0231] Referring to FIGS. 29 to 31, in some embodiments, the channel 330 further has a lateral inlet 3303. The lateral inlet 3303 is connected to both the first port 3301 and the second port 3302, and the lateral inlet 3303 has a guiding slope 3304. By arranging the lateral inlet 3303 and the guiding slope 3304, the restraint strap 513 can easily slide from a side into the channel 330.

[0232] Referring to FIG. 27 and FIG. 29 again, two restraint straps 513 pass through a pair of strap

Claims

1. A carrier, comprising:

a bracket device, comprising a first bracket and a third bracket; and

a strap-guiding mechanism, arranged on the first bracket or the third bracket, wherein the strap-guiding mechanism is configured to engage with a fixing strap assembly to fix the bracket device to a vehicle seat, the strap-guiding mechanism comprises a shell body, the shell body defines a channel, and the channel has a first port and a second port for allowing the fixing strap assembly to pass through.

2. The carrier according to claim 1, wherein the bracket device further comprises a supporting plate; the third bracket is located below the first bracket; and the supporting plate is located between the first bracket and the third bracket.

3. The carrier according to claim 1 or 2, wherein

the channel further comprises a lateral inlet, the lateral inlet is connected to the first port and the second port, and the lateral inlet has a guiding slope; and/or

a first rib and a second rib are arranged on opposite side walls of the channel respectively, and the first rib and the second rib are alternately arranged in an extending direction of the fixing strap assembly.

4. The carrier according to any one of claims 1 to 3, wherein

tether-guiding mechanisms are arranged in pairs to engage with two restraint straps of the fixing strap assembly respectively;

the channel further comprises a lateral inlet, and the lateral inlet is connected to the first port and the second port; and

opening directions of lateral inlets of the strap-guiding mechanisms arranged in pairs face away from each other.

5. The carrier according to any one of claims 1 to 4, wherein a plurality of fixing plates are symmetrically arranged on the first bracket; the carrier comprises a plurality of strap-guiding mechanisms; and each strap-guiding mechanism is arranged on a corresponding fixing plate, or two ends of each strap-guiding mechanism are arranged on two opposite fixing plates respectively.

6. The carrier according to claim 5, wherein each fixing plate is inclined in a direction closing to the third bracket.

7. The carrier according to any one of claims 1 to 6, wherein each strap-guiding mechanism is arranged on the first bracket and is inclined in a direction closing to the third bracket.

8. The carrier according to any one of claims 2 to 7, wherein a portion of the fixing strap assembly is configured to pass between the third bracket and the supporting plate.

9. The carrier according to any one of claims 1 to 8, wherein the strap-guiding mechanism is arranged on the first bracket, and the third bracket comprises a blocking portion opposite to the strap-guiding mechanism, and the blocking portion is configured to stop a portion of the fixing strap assembly from passing through an outside of the third bracket.

10. The carrier according to any one of claims 1 to 9, wherein

the fixing strap assembly comprises a restraint strap assembly, and the restraint strap assembly comprises two restraint straps, a first connector arranged at one end of each restraint strap, a supporting structure located between the two restraint straps, and a third connector connected to the supporting structure; and

a connecting portion is arranged on the bracket device, and the third connector is detachably connected to the connecting portion.

11. The carrier according to claim 10, wherein:

the fixing strap assembly further comprises a reinforcing strap arranged on the supporting structure, and the reinforcing strap is connected to the third connector; and/or

the fixing strap assembly further comprises a second connector, and the second connector is configured to be connected to a first fixing point on or behind the vehicle seat; and the first connector is configured to be connected to a second fixing point on the vehicle seat.

12. The carrier according to any one of claims 1 to 9, wherein the fixing strap assembly comprises a restraint strap assembly; the restraint strap assembly comprises two restraint straps, a first connector arranged at one end of each restraint strap, a supporting structure located between the two restraint straps, and a supporting bar located between the two restraint straps; and the supporting bar is disposed on at least one side of the supporting structure.

13. The carrier according to claim 12, wherein

日-shaped buckles are arranged at two ends of the supporting bar for allowing the restraint straps to pass through respectively; and/or

the supporting structure comprises receiving portions disposed at edges thereof, and the restraint straps and/or the supporting bar are configured to pass through the receiving portions respectively.

14. The carrier according to claim 12, wherein the fixing strap assembly further comprises a second connector, and the second connector is configured to be connected to a first fixing point on or behind the vehicle seat; and the first connector is configured to be connected to a second fixing point on the vehicle seat.

15. The carrier according to claim 14, wherein

the restraint strap assembly comprises a first engaging member, and the first engaging member is connected to another end of each restraint strap; and

the fixing strap assembly further comprises an extension strap assembly; the extension strap assembly comprises an extension strap, an adjuster arranged on the extension strap, a second engaging member, and the second connector; and the second engaging member is detachably connected to the first engaging member.

16. The carrier according to any one of claims 2 to 9, wherein a portion of the fixing strap assembly is located outside the third bracket away from the supporting plate.

17. A carrier, comprising:

a bracket device, comprising a first bracket, a third bracket located below the first bracket, and a supporting plate located between the first bracket and the third bracket; and

a strap-guiding mechanism, arranged on the supporting plate, wherein the strap-guiding mechanism is configured to engage with a fixing strap assembly to fix the bracket device to a vehicle seat.

18. The carrier according to claim 17, wherein the strap-guiding mechanism comprises a bottom shell and a face shell connected to the bottom shell; the bottom shell is fixed on the supporting plate; and the face shell is fixed to the third bracket.

19. The carrier according to claim 17, wherein

two opposite fixing plates are arranged on the third bracket, the carrier comprises two strap-guiding mechanisms, and a face shell of each strap-guiding mechanism is fixed to a corresponding fixing plate; and/or

each strap-guiding mechanism further comprises a positioning seat arranged on the supporting

plate, and a bottom shell is fixed to the positioning seat.

20. A carrier, comprising a bracket device, wherein the bracket device comprises a first bracket, a second bracket, and a third bracket located below the first bracket; the second bracket is connected to the first bracket and the third bracket; and a strap-guiding mechanism is arranged on the second bracket, and the strap-guiding mechanism is configured to engage with a fixing strap assembly to fix the bracket device to a vehicle seat.