Claims

What is claimed is:

1. A safety belt automatic adjustment apparatus comprising:

a safety belt buckle fastening assembly;

a safety belt retractor comprising

a rotating shaft;

a first ratchet connected to an end of the rotating shaft;

a second ratchet connected to another end of the rotating shaft; and

a restraining assembly comprising a first restraining component for selectively engaging with or separating from the first ratchet and a second restraining component for selectively engaging with or separating from the second ratchet; and

a linking component installed between the safety belt buckle fastening assembly and the safety belt retractor, the safety belt buckle fastening assembly driving the linking component, wherein

the linking component drives the first restraining component to engage with or separate from the first ratchet, and a rotation in a first direction of the rotating shaft is restrained when the first ratchet is engaged with the first restraining component, and

the linking component drives the second restraining component to engage with or separate from the second ratchet, and a rotation in a second direction opposite to the first direction of the rotating shaft is restrained when the second ratchet is engaged with the second restraining component.

2. The safety belt automatic adjustment apparatus of claim 1, wherein the safety belt retractor further comprises a retractor installation component, and wherein the first restraining component is installed on the retractor installation component in a swingable manner for selectively engaging with or separating from the first ratchet.

3. The safety belt automatic adjustment apparatus of claim 2, wherein the first restraining component is resiliently installed on the retractor installation component by a first resilient component.

4. The safety belt automatic adjustment apparatus of claim 1, wherein the safety belt retractor further comprises a retractor installation component, and wherein the second restraining component is installed on the retractor installation component in a swingable manner for selectively engaging with or separating from the second ratchet.

5. The safety belt automatic adjustment apparatus of claim 4, wherein the second restraining component is resiliently installed on the retractor installation component by a second resilient component.

6. The safety belt automatic adjustment apparatus of claim 1, wherein a first end of the linking component is fixed on the safety belt buckle fastening assembly, and a second end of the linking component abuts against the first restraining component.

7. The safety belt automatic adjustment apparatus of claim

6, wherein an abutting surface is formed on the second end of the linking component, and a mating surface is formed on the first restraining component for abutting against the abutting surface.

8. The safety belt automatic adjustment apparatus of claim 1, wherein the safety belt buckle fastening assembly comprises:
an installation component;
a rotary shaft installed on the installation component; and
an insertion component connected to the rotary shaft.

9. A child safety seat comprising:
a safety belt; and
a safety belt automatic adjustment apparatus comprising:
a safety belt buckle fastening assembly ;
a safety belt retractor for retracting the safety belt, the safety belt retractor comprising
a rotating shaft;
a first ratchet connected to an end of the rotating shaft;
a second ratchet connected to another end of the rotating shaft; and
a restraining assembly for restraining a movement of the safety belt in a predetermined direction, the restraining assembly comprising a first restraining component for selectively engaging with or separating from the first ratchet and a second restraining component for selectively engaging with or separating from the second ratchet; and
a linking component installed between the safety belt buckle fastening assembly and the safety

belt retractor, the safety belt buckle fastening assembly driving the linking component so as to restrain or release the safety belt winding around the safety belt retractor, wherein

the linking component drives the first restraining component to engage with or separate from the first ratchet, and a rotation in a first direction of the rotating shaft is restrained when the first ratchet is engaged with the first restraining component, and

the linking component drives the second restraining component to engage with or separate from the second ratchet, and a rotation in a second direction opposite to the first direction of the rotating shaft is restrained when the second ratchet is engaged with the second restraining component.

10. The child safety seat of claim 9, wherein the safety belt retractor further comprises a retractor installation component, and wherein the first restraining component is installed on the retractor installation component in a swingable manner for selectively engaging with or separating from the first ratchet.

11. The child safety seat of claim 10, wherein the first restraining component is resiliently installed on the retractor installation component by a first resilient component.

12. The child safety seat of claim 9, wherein the safety belt retractor further comprises a retractor installation component, and wherein the second

restraining component is installed on the retractor installation component in a swingable manner for selectively engaging with or separating from the second ratchet.

13. The child safety seat of claim 12, wherein the second restraining component is resiliently installed on the retractor installation component by a second resilient component.

14. The child safety seat of claim 9, wherein a first end of the linking component is fixed on the safety belt buckle fastening assembly, and a second end of the linking component abuts against the first restraining component.

15. The child safety seat of claim 14, wherein an abutting surface is formed on the second end of the linking component, and a mating surface is formed on the first restraining component for abutting against the abutting surface.

16. The child safety seat of claim 9, wherein the safety belt buckle fastening assembly comprises:

an installation component;

a rotary shaft installed on the installation component; and

an insertion component connected to the rotary shaft and for connecting with a safety belt buckle, wherein the safety belt buckle is connected to the safety belt.