CLAIMS

1. A windshield suspension device, comprising: a mounting seat arranged on two sides of the bottom of a vehicle frame and a connecting member arranged in the middle of the bottom of the vehicle frame, wherein a middle bearing is vertically arranged in the middle of the connecting member, a middle supporting shaft is pivotably and coaxially inserted into the middle of the middle bearing, a top end of the middle supporting shaft is fixed to the bottom of an inner compartment of a vehicle, and a bottom end of the middle supporting shaft is fixed to an inner wall of the bottom of a windshield of the vehicle; and

an end bearing arranged vertically is hinged to an inner side of the mounting seat, an end supporting shaft is pivotably and coaxially inserted into the middle of the end bearing, an elastic buffer member, arranged in a width direction of the vehicle frame, is connected between the end bearing and the connecting member, and a sleeve which is extendable and retractable in the width direction of the vehicle frame is sleeved outside the elastic buffer member.

2. The windshield suspension device according to claim 1, wherein the sleeve comprises an inner sleeve body hinged to the end bearing and an outer sleeve body hinged to the middle bearing, an inner end of the inner sleeve body is inserted into an outer end of the outer sleeve body, an outer wall of the inner sleeve body fits an inner wall of the outer sleeve body, and the outer wall of the inner sleeve body is axially movable relative to the inner wall of the outer sleeve body.

3. The windshield suspension device according to claim 2, wherein a dust cover which is axially extendable and retractable is coaxially sleeved on an outer circumference of a matching surface of the outer sleeve body and the inner sleeve body.

4. The windshield suspension device according to claim 1, wherein an upper boss is provided at a top end of the middle bearing, and an upper locking pin detachably connected to the inner compartment is inserted into the upper boss; and

a lower boss is provided at a bottom end of the middle bearing, and a lower locking pin detachably connected to the windshield is provided on the lower boss.

5. The windshield suspension device according to claim 1, wherein two opposite supporting lugs which are respectively aligned and fitted with two ends of the end supporting shaft are vertically arranged on an inner wall of the mounting seat, the two ends of the end supporting shaft respectively penetrate through and extend out of the corresponding supporting lugs vertically, a limiting pin is provided on a bottom extending end of the end supporting shaft, and a limiting boss which cooperates with the corresponding supporting lug is provided on a top extending end of the end supporting shaft.

6. The windshield suspension device according to claim 1, wherein the elastic buffer member is a spring or a leaf spring.

7. A rail vehicle, comprising a vehicle frame, inner compartments and a windshield sleeved outside ends of two adjacent inner compartments, wherein the rail vehicle further comprises a windshield suspension device, and the windshield suspension device is the windshield suspension device according to any one of claims 1 to 6.