Claims

Claim 1: A vehicle, comprising a front wheel assembly, a rear wheel assembly, a handle assembly connected to the front wheel assembly, a frame assembly having an end connected to the handle assembly and another end connected to the rear wheel assembly, a shock-absorbing device disposed on the front wheel assembly and/or a shock-absorbing assembly disposed on the rear wheel assembly to reduce the vibration of the vehicle, wherein the shock-absorbing device is disposed on the front wheel assembly, the front wheel assembly further includes a front fork and a front wheel group, the shock-absorbing device is coupled between the front fork and the front wheel group, the shock-absorbing device is formed with an opening, and the opening is facing or opposite to the rear wheel assembly after the shock-absorbing device is coupled between the front wheel assembly and the front fork;

the shock-absorbing device includes a first damping sheet, a second damping sheet and a stress sheet, the stress sheet is curved and located between the first damping sheet and the second damping sheet for connecting the first damping sheet and the second damping sheet; the direction perpendicular to the first damping sheet is defined as the first direction, two opposite sides of the shock-absorbing device are defined by an axis formed on the junction of the first damping sheet and the stress sheet, the axis is parallel to the first direction, the stress sheet is disposed on one side of the opposite sides, the end of the second damping sheet away from the stress sheet and the first damping sheet are disposed on the other side of the opposite sides, and a gap is defined between the end of the second damping sheet away from the stress sheet and the end of the first damping sheet away from the stress sheet, so that the opening is formed between the first damping sheet and the second damping sheet.

Claim 2 :The vehicle as defined in claim 1, wherein the stress sheet includes a first stress connecting portion and a second stress connecting portion, the second stress connecting portion connects with the first stress connecting portion and the second damping sheet, the first stress connecting portion extends in the first direction away from the second damping sheet to connect the second stress connecting portion and the first damping sheet, a height difference is defined between a first junction where the first stress connecting portion and the first damping sheet meet and a second junction where the first stress connecting portion and the second stress connecting portion meet.

Claim 3: The vehicle as defined in claim 1, wherein the front fork includes a front fork shaft portion and a damper connecting portion, the front fork shaft portion connects to the handle assembly, the angle between the horizontal plane and the contacting surface of the first damping sheet and the damper connecting portion is defined as α, and α satisfies $0°\leq\alpha\leq60°$.

Claim 4 : The vehicle as defined in claim 4, wherein the direction of the first damping sheet is defined as a second direction, the second direction is perpendicular to the first direction, the angle between the second direction and the tangent of the first stress connecting portion is defined as β, β satisfies $90°<\beta\leq180°$, the second damping sheet is curved, the angle between the second direction and the tangent direction of any point on the second damping sheet is defined as γ, and γ satisfies $25°<\gamma<90°$.

Claim 5: The vehicle as defined in claim 4, wherein the height difference is between 12mm and 18mm, the projection length of the first stress connecting portion in the second direction is between 12mm and 18mm, the projection length of the second damping sheet in the second direction is between 70mm and 120mm.

Claim 6: The vehicle as defined in claim 1, wherein the rear wheel assembly is provided with the shock-absorbing assembly, the shock-absorbing assembly includes a damper member, the damper member includes a positioning section, a damper section and a connecting section which are sequentially connected, the positioning section is connected to a frame, the connecting section is connected to a wheel assembly, a shortest distance from one end of the damper section to the other end is L, a shortest extension length of the damper section is S, and L to S is between 1:(1.16-2).

Claim 7: The vehicle as defined in claim 6, wherein the damper section includes a first transition portion, a buffer portion, a second transition portion and a damper portion, which are smoothly connected together and integrally formed, the end of the first transition portion away from the buffer portion is connected to the positioning section, the buffer portion is connected to the frame, the end of the damper section away from the second transition is connected to the connecting section, the first transition portion, the second transition portion, and the damper portion are wavy or curved, and the buffer portion has a planar structure.

Claim 8: The vehicle as defined in claim 6, wherein the damper section is provided with at least three arched projections, the openings of two adjacent arched projections are different in direction.

Claim 9: The vehicle as defined in claim 7, wherein the damper section is provided with at least four arched projections, and the openings of two adjacent arched protrusions are facing the same direction.

Claim 10: The vehicle as defined in claim 7, wherein the length ratio of the buffer portion to the first transition portion to the second transition portion to the damper portion is 1:(2-3.5):(1.2-2):(5.5-7), the angle between the tangent of the first transition portion and the horizontal line is between 0° and 55°, the angle between the tangent of the second transition portion and the horizontal line is between 0° and 50°.

Claim 11: The vehicle as defined in claim 7, wherein the length ratio of the buffer portion to the positioning portion is 1:(2-6), and the length ratio of the second transition portion to the first transition portion to the damper portion is 1:(1-3):(2.8-6).

Claim 12: The vehicle as defined in claim 9, wherein the arched projections located between two ends of the damper portion are facing a same direction.

Claim 13: The vehicle as defined in claim 1, wherein the vehicle is a scooter.