CLAIMS

1. A support structure which, when assembled, comprises:

at least one spring;

a spring seat located on and in contact with the one spring;

a case located below the spring seat, and having a pair of side surfaces having a protruding edge portion that protrudes in a direction away from a central axis of the spring and a bottom surface; and

a universal lock device arranged between the spring seat and the protruding edge portion, which compresses the spring and is fastened to both the spring seat and the protruding edge portion while the spring is in a non-moving state,

wherein the spring moves when the universal lock device is released from fastening to at least one of the spring seat and the protruding edge portion.

2. The support structure according to claim 1,

wherein the universal lock device includes a spacer having a plurality of washers between the spring seat and the protruding edge portion.

3. The support structure according to claim 1,

wherein the spring seat has a pair of side surfaces that sandwich the spring and an upper surface, and

the pair of side surfaces sandwich both sides of the protruding edge portion.

4. A support structure which, when assembled, comprises:

at least one spring;

a spring seat on the spring, and

a case located below the spring seat, and having a pair of side surfaces having a protruding edge portion in a direction away from a central axis of the spring and a bottom surface,

wherein the spring seat has a pair of side surfaces that sandwich the spring and an upper surface,

the pair of side surfaces sandwich both sides of the protruding edge portion, and

the spring seat has a protruding portion that protrudes in a direction away from the central axis of the spring from the upper surface and shares a hole in the upper surface.

5. The support structure according to claim 4, further comprising:

at least one limit stop fastened to the upper surface of the spring seat and the protruding edge portion of the case.

6. The support structure according to claim 4, further comprising:

a stopper that extends below the protruding edge portion and is fastened to a side surface of the spring seat,

wherein the side surface of the spring seat has a notch with a width greater than the outer shape of the spring.

7. The support structure according to claim 1, further comprising:

a pair of side plates fastened onto the spring seat, sandwiching the spring, and having a bent portion below the protruding edge portion,

wherein the protruding edge portion is located between the spring seat and the bending portion.

8. The support structure according to claim 1, further comprising:

a guide located on the bottom surface of the case and arranged inside the spring.

9. The support structure according to claim 1,

wherein the bottom surfaces are separated from each other.

10. The support structure according to claim 1,

wherein the bottom surfaces are separated from each other, and the separated bottom surfaces have curved surfaces that follow the outer shape of the springs, respectively, and

the curved surfaces sandwich the spring.

11. A support structure which, when assembled, comprises:

at least one spring;

a spring seat on the spring;

a pair of support frames located below the spring seat, sandwiching the spring and fastened to each other, and

a limit stop fastened onto the spring seat and sandwiching the pair of support frames.

12. The support structure according to claim 11, further comprising:

a base sandwiched between the pair of support frames below the spring seat,

wherein the limit stop includes a stopper that fastens the pair of support frames below the base.

13. The support structure according to claim 12, further comprising:

a pair of universal lock devices located between the spring seat and the base and sandwiching the spring.

14. The support structure according to claim 13,

wherein the universal lock device includes a spacer having a plurality of washers between the spring seat and the base.

15. The support structure according to claim 12,

wherein the spring seat has a protruding portion having at least one hole that overlaps the base in a top view.

16. The support structure according to claim 11,

wherein the pair of support frames have a hook arranged inside the spring.