CLAIMS

I claim:

1. A shock absorbing grip assembly comprising:
a) one or more slotted grip end clamps;
b) one or more cavities in said slotted grip end clamps;
c) a grip sleeve, wherein said grip sleeve includes one or more protruding engagement members, and further wherein said grip sleeve and protruding engagement members are constructed of material that allows for independent movement from a handle or handlebar when mounted to the handle or handlebar, wherein said one or more protruding engagement members mates within said cavities in said slotted grip end clamps; and
d) an outer grip which covers said grip sleeve;
wherein said grip end clamp suspends said grip sleeve from contact with the handle or handlebar, whereby said grip sleeve has torsional, rotational, linear and axial shock absorbing capacity when mounted to the handle or handlebar.

2. A shock absorbing grip assembly according to claim 1, including one or more elastomeric isolator inserts, housed within the cavities of said grip end clamp, that suspend said grip sleeve apart from the handle or handlebar when said clamp is mounted.

3. The shock absorbing grip assembly according to claim 2, including one or more tuning washers positioned between said grip sleeve and said slotted grip end clamp, wherein as more tuning washers are placed between said sleeve and said clamp, said tuning washers decrease the distance said protruding engagement members travel into said cavities housing said elastomeric isolator inserts, thereby adjusting the shock absorbing capacity of the grip assembly.

4. The shock absorbing grip assembly according to claim 2, wherein said one or more elastomeric isolator inserts housed within each of said one or more cavities in said first and second slotted grip end clamps are constructed of varying durometer elastomer material, and thereby adjust the shock absorbing capacity of the grip assembly.

5. The shock absorbing grip assembly according to claim 2, wherein said one or more cavities includes four cavities and one or more elastomeric isolator inserts includes four inserts and said one or more protruding engagement members includes four protruding engagement members.

6. The shock absorbing grip assembly according to claim 2, wherein said one or more cavities includes one cavity and one or more elastomeric isolator inserts includes one insert and said one or more protruding engagement members includes one protruding engagement members.

7. The shock absorbing grip assembly according to claim 6, wherein said one elastomeric isolator insert is secured within said one cavity by one or more alignment posts located within said cavity of said clamp housing said insert.

8. The shock absorbing grip assembly according to claim 2, wherein said one or more cavities includes four cavities and one or more elastomeric isolator inserts includes four inserts and said one or more protruding engagement members includes eight protruding engagement members.

9. The shock absorbing grip assembly according to claim 2, wherein said one or more cavities includes eight cavities and one or more elastomeric isolator inserts includes eight inserts in the form of O-rings, and said one or more protruding engagement members includes eight protruding engagement members.

10. The shock absorbing grip assembly according to claim 1, including one or more tuning washers positioned between said grip sleeve and said slotted grip end clamp, wherein as more tuning washers are placed between said sleeve and said clamp, said tuning washers decrease the distance said protruding engagement members travel into said cavities, thereby adjusting the shock absorbing capacity of the grip assembly.

11. The shock absorbing grip assembly according to claim 1, wherein said slotted grip clamps are secured to the handlebar using a screw.

12. The shock absorbing grip assembly according to claim 11, wherein said slotted grip clamps include anti-rotation and lateral movement compression grooves to secure said clamp to the handlebars when said clamp is mounted and said screw is tightened.

13. A method of making a shock absorbing grip assembly comprising:

a) providing one or more slotted grip end clamps;

b) providing one or more cavities in said slotted grip end clamps;

c) providing a grip sleeve, wherein said grip sleeve includes one or more protruding engagement members, and further wherein said grip sleeve and protruding engagement members are constructed of material that allows for independent movement from a handle or handlebar when mounted to the handle or handlebar, wherein said one or more protruding engagement members mates within said cavities in said slotted, grip end clamps; and

d) providing an outer grip which covers said grip sleeve;

wherein said grip end clamp suspends said grip sleeve from contact with the handle or handlebar, whereby said grip sleeve has torsional, rotational, linear and axial shock absorbing capacity when mounted to the handle or handlebar.

14. The method for making a shock absorbing grip assembly according to claim 13, including one or more elastomeric isolator inserts, housed within the cavities of said grip end clamp, that suspend said grip sleeve apart from the handle or handlebar when said clamp is mourned.

15. The shock absorbing grip assembly according to claim 14, including one or more tuning washers positioned between said grip sleeve and said slotted grip end clamp, wherein as more tuning washers are placed between said sleeve and said clamp, said tuning washers decrease the distance said protruding engagement members travel into said cavities housing said elastomeric isolator inserts, thereby

adjusting the shock absorbing capacity of the grip assembly.

16. The method for making a shock absorbing grip assembly according to claim 14, wherein said one or more elastomeric isolator inserts housed within each of said one or more cavities in said first and second slotted grip end clamps are constructed of varying durometer elastomer material, and thereby adjust the shock absorbing capacity of the grip assembly.

17. The method for making a shock absorbing grip assembly according to claim 14, wherein said one or more cavities includes bur cavities and one or more elastomeric isolator inserts includes four inserts and said one or more protruding engagement members includes four protruding engagement members.

18. The method for making a shock absorbing grip assembly according to claim 14, wherein said one or more cavities includes one cavity and one or more elastomeric isolator inserts includes one insert and said one or more protruding engagement members includes one protruding engagement member.

19. The method for making a shock absorbing grip assembly according to claim 18, wherein said one elastomeric isolator insert is secured within said one cavity by one or more alignment posts located within said cavity of said clamp housing said insert.

20. The method for making a shock absorbing grip assembly according to claim 14, wherein said one or more cavities includes four cavities and one or more elastomeric isolator inserts includes four inserts and said one or more protruding engagement members includes eight protruding engagement members.

21. The method for making a shock absorbing grip assembly according to claim 14, wherein said one or more cavities includes eight cavities and one or more elastomeric isolator inserts includes eight inserts in the form of O-rings, and said one or more protruding engagement members includes eight protruding engagement members.

22. The method for making a shock absorbing grip assembly according to claim 13, including one or more tuning washers positioned between said grip sleeve and said slotted grip end clamp, wherein as more tuning washers are placed between said sleeve and said clamp, said tuning washers decrease the distance said protruding engagement members travel into said cavities, thereby adjusting the shock absorbing capacity of the grip assembly.

23. The method for making a shock absorbing grip assembly according to claim 13, wherein said slotted grip clamps are secured to the handle or handlebar using a screw.

24. The method for making a shock absorbing grip assembly according to claim 23, wherein said slotted grip clamps include anti-rotation and lateral movement compression grooves to secure said clamp to the handle or handlebar when said clamp is mounted and said screw is tightened.