We claim:

1. A spring return cartridge for a rotary actuated valve, the spring return cartridge comprising:

a torsion spring having a spring-loaded intermediate portion extending between first and second end portions; and

a spring carrier sleeved with the torsion spring and having a first portion rotationally fixed with the first end portion of the torsion spring, and a second portion rotatably coupled with the second end portion of the torsion spring, such that the second end portion of the torsion spring is rotatable with respect to the spring carrier, and with respect to the first end portion of the torsion spring, between first and second rotational limit positions, with the intermediate portion of the torsion spring biasing the torsion spring second end portion to the first rotational limit position and maintaining a spring-loaded condition in the first rotational limit position.

2. The spring return cartridge of claim 1, wherein the first end portion of the torsion spring includes at least one fastener hole aligned with a corresponding fastener hole in the first portion of the spring carrier, with a fastener installed through the aligned fastener holes to rotationally secure the first end portion of the torsion spring to the first portion of the spring carrier.

3. The spring return cartridge of claim 1, wherein the second end portion of the torsion spring includes at least one fastener hole aligned with a corresponding slot in the second portion of the spring carrier, with a fastener installed in the fastener hole and extending through the slot to rotatably secure the second end portion of the torsion spring to the second portion of the spring carrier.

4. The spring return cartridge of claim 1, wherein the first end portion of the torsion spring comprises a first end collar providing one or more attachment points to the first portion of the spring carrier.

5. The spring return cartridge of claim 4, wherein the first end collar is integrally formed with the torsion spring intermediate portion.

6. The spring return cartridge of claim 1, wherein the second end portion of the torsion spring comprises a second end collar providing one or more attachment points to the second portion of the spring carrier.

7. The spring return cartridge of claim 6, wherein the second end collar is integrally formed with the torsion spring intermediate portion.

8. The spring return cartridge of claim 1, wherein the torsion spring is sleeved within the spring carrier.

9. The spring return cartridge of claim 1, wherein the torsion spring comprises a helical spring.

10. The spring return cartridge of claim 1, wherein the first portion of the spring carrier comprises a lower end portion of the spring carrier and the second portion of the spring carrier comprises an upper end portion of the spring carrier.

11. The spring return cartridge of claim 1, wherein the spring carrier is integrally formed with the torsion spring.

12. The spring return cartridge of claim 1, wherein the torsion spring comprises a spiral spring, with the first end portion of the torsion spring comprising an outer radial portion of the spiral spring and the second end portion of the torsion spring comprising an inner radial portion of the spiral spring.

13. The spring return cartridge of claim 1, wherein the second end portion of the torsion spring comprises a shaft surrounded by the spring-loaded intermediate portion of the torsion spring.

14. The spring return cartridge of claim 13, wherein the spring carrier includes an inner peripheral first interlock portion and the shaft includes an outer peripheral second interlock portion radially aligned with the first interlock portion, such that the first and second interlock portions

engage each other to define the first and second rotational limit positions of the torsion spring second end portion.

15. The spring return cartridge of claim 14, wherein the first interlock portion comprises at least one radially inward extending projection and the second interlock portion comprises at least one arcuate recess receiving the at least one radially inward extending projection.

16. The spring return cartridge of claim 15, wherein the at least one radially inward extending projection comprises a pin installed through a hole in the spring carrier second portion.

17. The spring return cartridge of claim 15, wherein the at least one radially inward extending projection is integrally formed with the spring carrier second portion.

18. The spring return cartridge of claim 13, wherein the shaft includes a lower bore portion for receiving a valve stem of the rotary actuated valve when the spring return cartridge is installed on the rotary actuated valve.

19. The spring return cartridge of claim 14, wherein the shaft includes an upper stem extension configured for attachment to a valve handle.

20. The spring return cartridge of claim 1, wherein the spring-loaded intermediate portion and the first and second end portions of the torsion spring are formed as a monolithic component.

21. The spring return cartridge of claim 1, wherein the spring carrier is assembled with the torsion spring.

22. The spring return cartridge of claim 1, wherein one of the first and second end portions of the torsion spring comprises a ring-shaped collar providing a plurality of attachment points to a corresponding one of the first and second portions of the spring carrier.

23. A spring return cartridge for a rotary actuated valve, the spring return cartridge comprising:

a torsion spring having an outer radial first end portion and an inner radial second end portion;

a spring carrier surrounding the torsion spring and rotationally fixed with the outer radial first end portion; and

a shaft surrounded by the torsion spring and rotationally fixed with the inner radial second end portion;

wherein the spring carrier is rotatably coupled with the shaft such that the shaft is rotatable with respect to the spring carrier between first and second rotational limit positions, with the torsion spring biasing the shaft to the first rotational limit position and maintaining a spring-loaded condition in the first rotational limit position.

24. A spring return handle arrangement for assembly with a valve, the spring return handle arrangement comprising:

a spring return cartridge comprising:

a torsion spring having a spring-loaded intermediate portion extending between first and second end portions; and

a spring carrier sleeved with the torsion spring and having a first portion rotationally fixed with the first end portion of the torsion spring and attachable to a valve body of the valve, and a second portion rotatably coupled with the second end portion of the torsion spring;

a user graspable valve handle; and

a stem secured with the spring return cartridge, the stem including an end portion attachable to the valve handle and a stem interlock portion configured to interlock with a spring interlock portion on the second end portion of the torsion spring;

wherein the stem interlock portion comprises a radially extending annular shoulder on the stem and the spring interlock portion comprises a radially extending annular counterbore in the second end portion of the torsion spring, the annular counterbore receiving the annular shoulder for mating engagement therewith.

25. The spring return handle arrangement of claim 24, wherein the shoulder and the counterbore comprise interlocking ridged surfaces.

26. The spring return handle arrangement of claim 24, wherein the shoulder surface and the counterbore surface comprise knurled surfaces.

27. The spring return handle arrangement of claim 24, further comprising a nut threadable with the stem end portion and configured to be tightened against the spring interlock portion to maintain interlocking engagement between the spring interlock portion and the stem interlock portion.

28. The spring return handle arrangement of claim 24, wherein the stem comprises a stem extension having a lower bore configured to receive a valve stem of the valve.

29. The spring return handle arrangement of claim 24, wherein the second end portion of the torsion spring includes at least one fastener hole aligned with a corresponding slot in the second portion of the spring carrier, with a fastener installed in the fastener hole and extending through the slot to rotatably secure the second end portion of the torsion spring to the second portion of the spring carrier.

30. The spring return handle arrangement of claim 24, wherein the first portion of the spring carrier includes an internal, female threaded portion for threaded engagement with a male threaded portion of the valve body of the valve.