We Claim:

1. A manually actuated valve assembly comprising:

a valve body defining a flow passage and carrying a valve seat;

a valve member assembled with the valve body to seal against the valve seat in a closed position and to permit fluid flow past the valve seat in an open position;

an actuator housing assembled with the valve body;

an actuator stem having an upper stem portion coupled with a lower stem portion by a coupling, the upper stem portion including an upper threaded end threadably assembled with the actuator housing, the upper stem portion being threadably adjustable with respect to the actuator housing for axial movement of the actuator stem between an actuator stem first position that corresponds to said open position and an actuator stem second position that corresponds to said closed position;

an actuator drive member coupled to said upper stem portion and rotatable between a first drive member position and a second drive member position to move said actuator stem between said actuator stem first position and said actuator stem second position;

a biasing spring disposed in the actuator housing, wherein the biasing spring engages the lower stem portion of the actuator stem to bias the lower stem portion toward the valve seat;

wherein said actuator drive member is rotatable between a first stop position corresponding to a fully open valve position, and a second stop position corresponding to a fully closed valve position, wherein the coupling between the upper stem portion and the lower stem portion is configured to provide an over-travel condition between said actuator drive member and said actuator stem configured to provide a closed valve condition at a predetermined rotational position of the actuator drive member that is offset from the second stop position;

wherein when the actuator drive member is in the predetermined rotational position, a first closing force is applied to the lower stem portion exclusively by the biasing spring, and when the actuator drive member is in the second stop position, a second closing force is applied to the lower stem portion by the upper stem portion; and

wherein the upper stem portion comprises a lower end portion have a diameter smaller than a diameter of the upper threaded end, the lower end portion extending through an opening in a spring bearing portion of the actuator housing and through the biasing spring, with the biasing spring having a diameter smaller than the diameter of the upper threaded end.

2. The manually actuated valve assembly of claim 1, wherein the biasing spring diameter is larger than an outer diameter of the lower stem portion.

3. The manually actuated valve assembly of claim 1, wherein the spring bearing portion of the actuator housing comprises a retaining ring secured with a central bore of the actuator housing.

4. The manually actuated valve assembly of claim 1, wherein the actuator drive member includes a splined projection received in a splined recess in the upper threaded end of the upper stem portion for axial movement of the upper stem portion with respect to the actuator drive member.

5. The manually actuated valve assembly of claim 1, wherein the coupling comprises a lower threaded end of the upper stem portion and an upper threaded end of the lower stem portion.

6. The manually actuated valve assembly of claim 1, wherein the biasing spring extends over the coupling to surround the coupling.

7. The manually actuated valve assembly of claim 1, wherein said actuator drive member is rotatable one quarter turn between the first stop position and the second stop position.

8. The manually actuated valve assembly of claim 7, wherein the coupling is configured to provide a closed valve condition at a rotational position of the actuator drive member that is 20 degrees from the second stop position.

9. The manually actuated valve assembly of claim 7, wherein the actuator stem is configured to provide a fully open valve condition at a rotational position of the actuator drive member that is 20 degrees from the first stop position.

10. The manually actuated valve assembly of claim 1, wherein said valve member comprises a diaphragm.

11. The manually actuated valve assembly of claim 10, further comprising a button disposed between the diaphragm and a lower end of the lower stem portion.

12. The manually actuated valve assembly of claim 1, wherein said upper stem portion is threadably coupled to said actuator housing with a first thread orientation and said coupling comprises a second thread orientation that is opposite said first thread orientation.

13. The manually actuated valve assembly of claim 1, wherein the actuator stem is configured to provide a fully open valve condition at a rotational position of the actuator drive member that is a predetermined angle from the first stop position.

14. A manually actuated valve assembly comprising:

a valve body defining a flow passage and carrying a valve seat;

a valve member assembled with the valve body to seal against the valve seat in a closed position and to permit fluid flow past the valve seat in an open position;

an actuator housing assembled with the valve body;

an actuator stem having an upper stem portion coupled with a lower stem portion by a coupling, the upper stem portion including an upper threaded end threadably assembled with the actuator housing, the upper stem portion being threadably adjustable with respect to the actuator housing for axial movement of the actuator stem between an actuator stem first position that corresponds to said open position and an actuator stem second position that corresponds to said closed position;

an actuator drive member coupled to said upper stem portion and rotatable between a first drive member position and a second drive member position to move said actuator stem between said actuator stem first position and said actuator stem second position;

a biasing spring disposed in the actuator housing, wherein the biasing spring engages the lower stem portion of the actuator stem to bias the lower stem portion toward the valve seat;

wherein said actuator drive member is rotatable between a first stop position corresponding to a fully open valve position, and a second stop position corresponding to a fully closed valve position, wherein the coupling between the upper stem portion and the lower stem portion is configured to provide an over-travel condition between said actuator drive member and said actuator stem configured to provide a closed valve condition at a predetermined rotational position of the actuator drive member that is offset from the second stop position;

wherein when the actuator drive member is in the predetermined rotational position, a first closing force is applied to the lower stem portion exclusively by the biasing spring, and when the actuator drive member is in the second stop position, a second closing force is applied to the lower stem portion by the upper stem portion;

the manually actuated valve assembly further comprising an anti-rotation device that prevents the lower stem portion from rotating when the actuator stem is axially moved between the actuator stem first position and the actuator stem second position, wherein the anti-rotation device comprises a hex portion of the lower stem portion received in a hex-shaped opening in the actuator housing.

15. A manually actuated valve assembly comprising:

a valve body defining a flow passage and carrying a valve seat;

a valve member assembled with the valve body to seal against the valve seat in a closed position and to permit fluid flow past the valve seat in an open position;

an actuator housing assembled with the valve body;

an actuator stem having an upper stem portion coupled with a lower stem portion by a coupling, the upper stem portion including an upper threaded end threadably assembled with the actuator housing, the upper stem portion being threadably adjustable with respect to the actuator housing for axial movement of the actuator stem between an actuator stem first position that corresponds to said open position and an actuator stem second position that corresponds to said closed position;

an actuator drive member coupled to said upper stem portion and rotatable between a first drive member position and a second drive member position to move said actuator stem between said actuator stem first position and said actuator stem second position;

a biasing spring disposed in the actuator housing, wherein the biasing spring engages the lower stem portion of the actuator stem to bias the lower stem portion toward the valve seat;

wherein said actuator drive member is rotatable between a first stop position corresponding to a fully open valve position, and a second stop position corresponding to a fully closed valve position, wherein the coupling between the upper stem portion and the lower stem portion is configured to provide an over-travel condition between said actuator drive member and said actuator stem configured to provide a closed valve condition at a predetermined rotational position of the actuator drive member that is offset from the second stop position;

wherein when the actuator drive member is in the predetermined rotational position, a first closing force is applied to the lower stem portion exclusively by the biasing spring, and when the actuator drive member is in the second stop position, a second closing force is applied to the lower stem portion by the upper stem portion; and

wherein the actuator drive member is secured to the upper stem portion by a bolt.