1. A self chilling beverage container having an over pressure relief valve therein comprising:

a container for receiving a beverage;

a heat exchange unit having compacted carbon therein for adsorbing pressurized carbon dioxide gas secured to said container and disposed therein in contact with the beverage;

a valve cup secured to said heat exchange unit; and

a valve mechanism secured to said valve cup, said valve mechanism including a hollow cylindrical housing, having an inner wall and a housing base defining an opening therethrough, a first valve having a hollow valve stem disposed within said hollow housing and having an outer wall and an actuator rod defining an elongated opening communicating with the atmosphere through which said pressurized carbon dioxide gas flows and a valve stem base defining an orifice therethrough, a first spring valve disposed within said hollow valve stem and including a sealing plug seated over the orifice in said valve stem base, a second spring in series with said first spring seated between said sealing plug and a surface of said hollow interior of said valve stem biasing said sealing plug toward said orifice in said valve stem base to close said second valve, said orifice in said valve stem base being continuously exposed to said pressurized carbon dioxide gas in said heat exchange unit.

2. A container as defined in Claim 1 wherein a first passageway for flow of the pressurized carbon dioxide gas is defined between an inner wall of said hollow housing and an outer wall of said hollow valve stem, said passageway communicating with the opening in said housing base, said first passageway being opened by moving said valve stem against the bias of said first spring toward an open position, said second valve remaining static relative to said valve stem.

3. A container as defined in Claim 2 wherein a second passageway for flow of the pressurized carbon dioxide gas is defined by said sealing plug moving away from said orifice in said valve stem base responsive to the pressure of said pressurized carbon dioxide gas exceeding a predetermined level, said valve stem remaining static relative to said housing.

4. A container as defined in Claim 3 wherein clearance is defined between said sealing plug and an inner surface of said hollow valve stem to provide the second passageway.

5. A container as defined in Claim 4 wherein said hollow housing includes a top surface defining a plurality of castellations, the pressurized medium flowing through said castellations into the interior of said container when said pressurized medium is injected into said container.

6. A container as defined in Claim 2 wherein said actuator rod defines a plurality of openings therein interconnecting said first passageway with said elongated opening.

7. A container as defined in Claim 6 which further include a seal surrounding said actuator to close the plurality of openings in said actuator rod when said valve stem is in its closed position.

WHAT IS CLAIMED IS:

1. A valve mechanism for use with a container housing a pressurized medium comprising:

a hollow housing;

a first valve disposed within said housing operable to inject a pressurized medium into said container and to release the pressurized medium from said container; and

a second normally closed valve disposed within said housing operable in response to the pressure of said pressurized medium reaching a predetermined level to open a flow path for said medium to exhaust to the atmosphere to relieve the excess pressure.

2. A valve mechanism as defined in Claim 1 wherein said first valve includes a hollow valve stem having an actuator rod defining an elongated opening communicating with the atmosphere through which said pressurized medium flows and a valve stem base defining an orifice there through, said second valve being disposed within said hollow valve stem.

3. A valve mechanism as defined in Claim 2 wherein said hollow housing includes a housing base defining an opening there through, a first spring seated between said housing base and said valve stem biasing said valve stem toward a closed position.

4. A valve mechanism as defined in Claim 3 wherein said second valve includes a sealing plug seated over the orifice in said valve stem base, a second spring seated between said sealing plug and a surface of said hollow interior of said valve stem biasing said sealing plug toward said orifice in said valve stem base to close said second valve, said orifice in said valve stem base being continuously exposed to said pressurized medium in said container.

5. A valve mechanism as defined in Claim 4 wherein a first passageway for flow of the pressurized medium is defined between an inner wall of said hollow housing and an outer wall of said hollow valve stem, said passageway communicating with the opening in said housing base, said first passageway being opened by moving said valve stem against the bias of said first spring toward an open position, said second valve remaining static relative to said valve stem.

6. A valve mechanism as defined in Claim 5 wherein a second passageway for flow of the pressurized medium is defined by said sealing plug moving away from said orifice in said valve stem base responsive to the pressure of said pressurized medium exceeding a predetermined level, said valve stem remaining static relative to said housing.

7. A valve mechanism as defined in Claim 6 wherein clearance is defined between said sealing plug and an inner surface of said hollow valve stem.

8. A valve mechanism as defined in Claim 7 wherein said hollow housing includes a top surface defining a plurality of castellations, the pressurized medium flowing through said castellations into the interior of said container when said pressurized medium is injected into said container.

9. A valve mechanism as defined in Claim 5 wherein said actuator rod defines a plurality of openings therein interconnecting said first passageway with said elongated opening.

10. A value mechanism as defined in Claim 9 which further include a seal surrounding said actuator to close the plurality of openings in said actuator rod when said valve stem is in its closed position.