CLAIM(S):

1. An outlet for a point of use shower or a faucet, the shower or faucet including an attachment head, and a sterilizing grade water filter device comprising a porous sterilizing grade water filter, a water effluent portion, and a side wall having an external surface; the filter device being in fluid communication with, and removably connected to, the shower head or the faucet head, and the outlet; the outlet comprising:

an outlet housing comprising a polymeric shell comprising a side wall having a side wall inner surface and a side wall outer surface, a bottom wall having an inner face, an outer face, and a plurality of outlet ports, each port comprising an opening allowing water flow from the inner face through the outer face, and a cavity defined by the side wall inner surface and the bottom wall inner face, wherein both the side wall outer surface and the bottom wall outer face contact environmental air surrounding the shower head or the faucet head, and;

a hydrophobic porous disc contained in the cavity of the polymeric shell, the porous disc comprising a plurality of pores and having an upstream surface and a downstream surface, the downstream surface facing the inner face of the bottom wall; and,

wherein the side wall inner surface of the shell includes a mounting element releasably engageable with the external surface of the side wall of the filter device, the outlet cavity being suitable for receiving at least a portion of the filter device.

2. The outlet of claim 1, wherein, when the outlet is engaged with the filter device, a predominantly non-linear fluid flow path is defined from the water effluent portion of the water filter device through the hydrophobic porous disc and through the opening(s) in the outlet ports.

3. The outlet of claim 1 or 2, wherein the inner face of the bottom wall further comprises a plurality of upwardly facing projections, and a portion of the downstream surface of the hydrophobic porous disc contacts the projections.

4. The outlet of any one of claims 1-3, wherein the upstream surface of the hydrophobic porous disc is spaced away from the water effluent portion of the filter device.

5. The outlet of any one of claims 1-4, wherein the hydrophobic porous disc comprises a hydrophobic bacteriostatic porous disc

6. The outlet of any one of claims 1-5, wherein the bacteriostatic porous disc includes bacteriostatic particles.

7. The outlet of any one of claims 1-6, wherein the polymeric shell includes bacteriostatic particles.

8. An outlet and water filter device for a point of use faucet or a point of use shower comprising:

the outlet of any one of claims 1-7; and,

a sterilizing grade water filter device comprising a porous sterilizing grade water filter, a water effluent portion, and a side wall having an external surface comprising threads;

wherein the side wall inner surface of the shell includes threads releasably engageable with the threads on the external surface of the side wall of the filter device, the outlet cavity receiving at least a portion of the filter device.

9. The outlet and water filter device of claim 8, wherein the sterilizing grade water filter device comprises a housing comprising a bottom wall having an outer edge, the side wall having an internal surface and the external surface comprising threads, and the water effluent portion, wherein the water effluent portion is between the outer edge of the bottom wall, and the internal surface of the side wall.

10. The outlet and water filter device of claim 8, wherein the sterilizing grade water filter device comprises a housing comprising a bottom wall comprising the water effluent portion, and the side wall having the external surface comprising threads.

11. A water sterilizing filter device comprising:

a porous water sterilizing filter comprising at least one porous element; and,

a housing containing the filter and providing a fluid flow path through the filter, the housing comprising an inlet and a water effluent portion and defining the fluid flow path between the inlet and the water effluent portion, wherein the housing comprises a bottom

wall having an outer edge, a side wall having an internal surface and the external surface comprising threads, and the water effluent portion, wherein the water effluent portion is between the outer edge of the bottom wall, and the internal surface of the side wall.

12. A water sterilizing filter device comprising:

a porous water sterilizing filter comprising at least one porous element; and,

a housing containing the filter and providing a fluid flow path through the filter, the housing comprising an inlet and a water effluent portion and defining the fluid flow path between the inlet and the water effluent portion, wherein the housing comprises a bottom wall comprising the water effluent portion, and a side wall having the external surface comprising threads.

13. A point of use shower or faucet tap system comprising:

the outlet and water filter device of any one of claims 8-10; and,

a shower head or a faucet tap head, engageable with the outlet and water filter device.

14. The system of claim 13, further comprising a safety retainer for releasably locking the filter device to the shower attachment head or the tap attachment head, the safety retainer comprising a handle and a pin, wherein the pin engages with a safety retainer receptacle;

wherein the shower attachment head or the tap attachment head further comprises the handle and pin; and, the filter device housing comprises the safety retainer receptacle.

15. The system of claim 13 or 14, wherein the shower attachment head or the tap attachment head further comprises a display for notifying the user as to when the filter device and or outlet was installed and/or for notifying the user as to when the filter device and/or outlet should be replaced.

16. A method of dispensing water, the method comprising passing the water through the outlet of any one of claims 1-7, the water and water filter device of any one of claims 8-10, the water sterilizing device of claims 11 or 12, or the system of any one of claims 13-15.

17. A method for reducing retrograde contamination, the method comprising engaging the outlet of any one of claims 1-7 with a point of use shower or faucet including a sterilizing grade water filter device and a shower attachment head or faucet attachment head, wherein engaging the outlet includes providing a hermetic seal between the outlet and the filter device, and also includes providing a tight seal between the outlet and the shower attachment head or faucet attachment head; and,

dispensing water through the shower or faucet and through the filter device and outlet.

18. The method of claim 17, further comprising monitoring the time of use of the outlet and/or filter device.

CLAIM(S):

1. An outlet for a point of use shower or a faucet, the shower or faucet including an attachment head, and a sterilizing grade water filter device comprising a porous sterilizing grade water filter, a water effluent portion, and a side wall having an external surface; the filter device being in fluid communication with, and removably connected to, the shower head or the faucet head, and the outlet; the outlet comprising:

an outlet housing comprising a polymeric shell comprising a side wall having a side wall inner surface and a side wall outer surface, a bottom wall having an inner face, an outer face, and a plurality of outlet ports, each port comprising an opening allowing water flow from the inner face through the outer face, and a cavity defined by the side wall inner surface and the bottom wall inner face, wherein both the side wall outer surface and the bottom wall outer face contact environmental air surrounding the shower head or the faucet head, and;

a hydrophobic porous disc contained in the cavity of the polymeric shell, the porous disc comprising a plurality of pores and having an upstream surface and a downstream surface, the downstream surface facing the inner face of the bottom wall; and,

wherein the side wall inner surface of the shell includes a mounting element releasably engageable with the external surface of the side wall of the filter device, the outlet cavity being suitable for receiving at least a portion of the filter device.

2. The outlet of claim 1, wherein, when the outlet is engaged with the filter device, a predominantly non-linear fluid flow path is defined from the water effluent portion of the water filter device through the hydrophobic porous disc and through the opening(s) in the outlet ports.

3. The outlet of claim 1 or 2, wherein the inner face of the bottom wall further comprises a plurality of upwardly facing projections, and a portion of the downstream surface of the hydrophobic porous disc contacts the projections.

4. The outlet of any one of claims 1-3, wherein the upstream surface of the hydrophobic porous disc is spaced away from the water effluent portion of the filter device.

5. The outlet of any one of claims 1-4, wherein the hydrophobic porous disc comprises a hydrophobic bacteriostatic porous disc

6. The outlet of any one of claims 1-5, wherein the bacteriostatic porous disc includes bacteriostatic particles.

7. The outlet of any one of claims 1-6, wherein the polymeric shell includes bacteriostatic particles.

8. An outlet and water filter device for a point of use faucet or a point of use shower comprising:

the outlet of any one of claims 1-7; and,

a sterilizing grade water filter device comprising a porous sterilizing grade water filter, a water effluent portion, and a side wall having an external surface comprising threads;

wherein the side wall inner surface of the shell includes threads releasably engageable with the threads on the external surface of the side wall of the filter device, the outlet cavity receiving at least a portion of the filter device.

9. The outlet and water filter device of claim 8, wherein the sterilizing grade water filter device comprises a housing comprising a bottom wall having an outer edge, the side wall having an internal surface and the external surface comprising threads, and the water effluent portion, wherein the water effluent portion is between the outer edge of the bottom wall, and the internal surface of the side wall.

10. The outlet and water filter device of claim 8, wherein the sterilizing grade water filter device comprises a housing comprising a bottom wall comprising the water effluent portion, and the side wall having the external surface comprising threads.

11. A water sterilizing filter device comprising:

a porous water sterilizing filter comprising at least one porous element; and,

a housing containing the filter and providing a fluid flow path through the filter, the housing comprising an inlet and a water effluent portion and defining the fluid flow path between the inlet and the water effluent portion, wherein the housing comprises a bottom wall having an outer edge, a side wall having an internal surface and the external surface comprising threads, and the water effluent portion, wherein the water effluent portion is between the outer edge of the bottom wall, and the internal surface of the side wall.

12. A point of use shower or faucet tap system comprising:

the outlet and water filter device of any one of claims 8-10; and,

a shower head or a faucet tap head, engageable with the outlet and water filter device.

13. The system of claim 12, further comprising a safety retainer for releasably locking the filter device to the shower attachment head or the tap attachment head, the safety retainer comprising a handle and a pin, wherein the pin engages with a safety retainer receptacle;

wherein the shower attachment head or the tap attachment head further comprises the handle and pin; and, the filter device housing comprises the safety retainer receptacle.

14. The system of claim 12 or 13, wherein the shower attachment head or the tap attachment head further comprises a display for notifying the user as to when the filter device and or outlet was installed and/or for notifying the user as to when the filter device and/or outlet should be replaced.

15. A method of dispensing water, the method comprising passing the water through the outlet of any one of claims 1-7, or the water and water filter device of claims 8-10, or the water sterilizing device of claim 11, or the system of any one of claims 12-14.

16. A method for reducing retrograde contamination, the method comprising engaging the outlet of any one of claims 1-7 with a point of use shower or faucet including a sterilizing grade water filter device and a shower attachment head or faucet attachment

head, wherein engaging the outlet includes providing a hermetic seal between the outlet and the filter device, and also includes providing a tight seal between the outlet and the shower attachment head or faucet attachment head; and,

dispensing water through the shower or faucet and through the filter device and outlet.

17. The method of claim 16, further comprising monitoring the time of use of the outlet and/or filter device.