WHAT IS CLAIMED IS:

1. A non-aerosol foam pump (112, 212) for use in association with an unpressurized liquid container (114) and a foaming element (136, 248), the non-aerosol foam pump (112) being arranged for use with soap comprising suspended mechanical scrubbers therein, the non-aerosol foam pump (112) comprising:

a liquid piston pump portion (116, 216) having a liquid chamber (120, 220) with a liquid internal volume and a shuttle liquid piston, wherein the shuttle liquid piston includes a liquid piston portion (121, 221) and a shuttling liquid piston (122, 223) and the liquid piston portion (121, 221) slidingly engages the shuttling liquid piston (122, 223), the liquid chamber (120, 220) being in flow communication with the unpressurized liquid container (114) and in flow communication with the foaming element (136, 248);

an air pump portion (118, 218) having an air chamber (124, 224) with an air internal volume, the air chamber (124, 224) in flow communication with the foaming element (136, 248); and

wherein the non-aerosol foam pump (112, 212) has an activation stroke activating the liquid piston pump portion (116, 216) and the air pump portion (118, 218) and a return stroke and during the activation stroke the air internal volume is reduced and during a beginning stage of the activation stroke the liquid piston portion (121, 221) slides relative to the shuttling liquid piston (122, 223) such that the liquid internal volume of the liquid chamber (120, 220) remains the same and during a later stage of the activation stroke the liquid piston portion (121, 221) engages the shuttling liquid piston (122, 223) so that the liquid internal volume of the liquid chamber (120, 220) is reduced.

2. The non-aerosol foam pump of claim 1, wherein the air pump portion (118, 218) further comprises an air piston (126, 226).

3. The non-aerosol foam pump of claim 2, wherein the air piston (126, 226) is operably connected to the shuttle liquid piston, such that the shuttle liquid piston is actuated upon actuating the air piston (126, 226).

4. The non-aerosol foam pump of claim 3 wherein the air piston (126, 226) includes the liquid piston portion (121, 221) that slidingly engages the shuttling liquid piston portion (122, 223).

5. The non-aerosol foam pump of claim 3, wherein the shuttle liquid piston extends coaxially within the air pump portion (118, 218), and the air piston (126, 226) is attached to the liquid piston portion (121, 221).

6. The non-aerosol foam pump of any one of claims 1 to 5, wherein liquid chamber (120, 220) is co-axial with the air chamber (124, 224).

7. The non-aerosol foam pump of any one of claims 1 to 6 further including a liquid outlet valve (138, 238) between the liquid chamber (120, 220) and the foaming element (136, 248).

8. The non-aerosol foam pump of any one of claims 1 to 7 wherein the foaming element (136) includes a sparging element (148), a foaming element air chamber

(150) in flow communication with the air chamber (120) and a foaming chamber (152) in flow communication with the liquid chamber (120) and wherein air is pushed from the foaming element air chamber through the sparging element into the foaming chamber.

9. The non-aerosol foam pump of any one of claims 1 to 8 wherein the foaming element (136) is a first foaming element and further including a second foaming element (136) and wherein liquid from the liquid chamber is in flow communication with the first and second foaming element and air from the air chamber is in flow communication with the first and second foaming element and wherein the first foaming element and second foaming element each have exit channels that merge into a merged flow channel and into an exit nozzle.

10. The non-aerosol foam pump of any one of claims 1 to 9 further including a dispenser (170) for housing the liquid pump portion, the air pump portion and the unpressurized liquid container.

11. The non-aerosol foam pump of claim 9 wherein the first foaming element and the second foaming element each include a sparging element, a foaming element air chamber in flow communication with the air chamber and a foaming chamber in flow communication with the liquid chamber and wherein air is pushed from the foaming element air chamber through the sparging element into the foaming chamber.

12. A non-aerosol foam pump (112, 212) for use in association with an unpressurized liquid container and a foaming element, the non-aerosol foam pump

being arranged for use with soap comprising suspended mechanical scrubbers therein, the non-aerosol foam pump (112, 212) comprising:

a liquid pump portion (116, 216) having a liquid chamber (120, 220) with a liquid internal volume and a shuttle liquid piston (222), wherein the shuttle liquid piston includes a shuttle portion (121, 221) and a main portion (122, 223) and the shuttle portion slidingly engages the main portion, the liquid chamber being in flow communication with the unpressurized liquid container and in flow communication with the foaming element;

an air pump portion (118, 218) having an air chamber (124, 224) with an air internal volume, the air chamber in flow communication with the foaming element; and

wherein the non-aerosol foam pump has an activation stroke activating the liquid pump portion and the air pump portion and a return stroke and during the activation stroke the air internal volume is reduced and during a beginning stage of the activation stroke the shuttle portion slides relative to the main portion such that the liquid internal volume of the liquid chamber remains the same and during a later stage of the activation stroke the shuttle portion engages the main portion so that the liquid internal volume of the liquid chamber is reduced.