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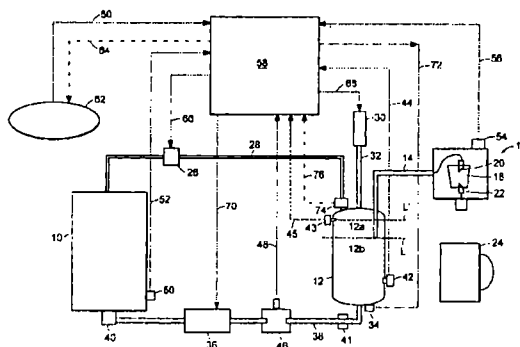
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(54) Title: SYSTEM FOR DISPENSING METERED VOLUMES OF HEATED WATER TO THE BREW CHAMBER OF A SINGLE BEVERAGE BREWER



(57) Abstract: A system for dispensing a metered volume of heated water to the brew chamber (16) of a single serve beverage dispenser. The system includes a storage tank (10) for containing a supply of unheated water and a dispensing tank (12). A delivery line (14) communicates with the brew chamber and with the dispensing tank at an intermediate level (L) demarcating the interior of dispensing tank into upper and lower compartment (12a, 12b). The volume of the upper compartment (12a) is equal to the metered volume. A vent valve (26) communicates via a vent line (28) with the upper compartment. A supply line (38) connects the storage tank (10) to the lower compartment (12b). An air pump (30) is arranged to deliver pressurized air to the upper compartment. A water pump (36) in the supply line is arranged to deliver water from the storage tank to the lower compartment. A heater (34) for heating water received in the dispensing tank. A sensing mechanism for generating control signals indicative of the level and temperature of water in the dispensing tank. A controller (58) enabled by control signals generated by the sensing means and operative in response to a brew signal (60) for operating the air and water pumps (30, 36) in conjunction with the opening and closure of the vent valve to fill the upper compartment with heated water displaced from the lower compartment and to discharge the thus displaced heated water from the upper compartment to the brew chamber.

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ACTION

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SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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