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ABSTRACT

Hitherto, a cooking apparatus and a preservative food preparing apparatus have been known and practically used exclusively for the purpose of cooking foods or preparing preservative foods. There has been an increasing demand for a cooking-and-preservative food preparing apparatus.

To meet this demand, a heating, cooking, and sterilizing apparatus according to the present invention is constructed as follows: a horizontal type of cylindrical heating-and-cooking oven 1 has numerous nozzles 7 provided therein. These nozzles 7 are connected to the outlet 37 of a heat exchanger 25 positioned outside of the oven 1, and the bottom of the oven 1 is connected to the inlet 38 of the heat exchanger 25 via a return pipe 43, which is fixed to the bottom of the oven 1, thus forming a circulation line between the oven 1 and the heat exchanger 25. A circulation pump 40 is included in the circulation line. First and second tanks 42 and 51 are connected at their outlets to the drawing side of the circulation pump 40, and at their inlets to the discharging side of the circulation pump 40 in such a way that the first and second tanks 42 and 51 may be selectively connected to the heat exchanger 25. A washing water tank 67 is selectively connected to the first and second tanks 42 and 51, and the oven 1 can be connected to a compressed air supply source 19 and an inert gas source. The oven is equipped with different sensors 9 to 12 for monitoring some factors. A control section is responsive to the signals from these sensors 9 to 12 for controlling the temperature of the heat exchanger 25 and the inner pressure of the oven 1, and for permitting the nozzles 7 to eject an aqueous seasoning solution, steam, hot water or cooling water according to the software program installed in the control section.



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