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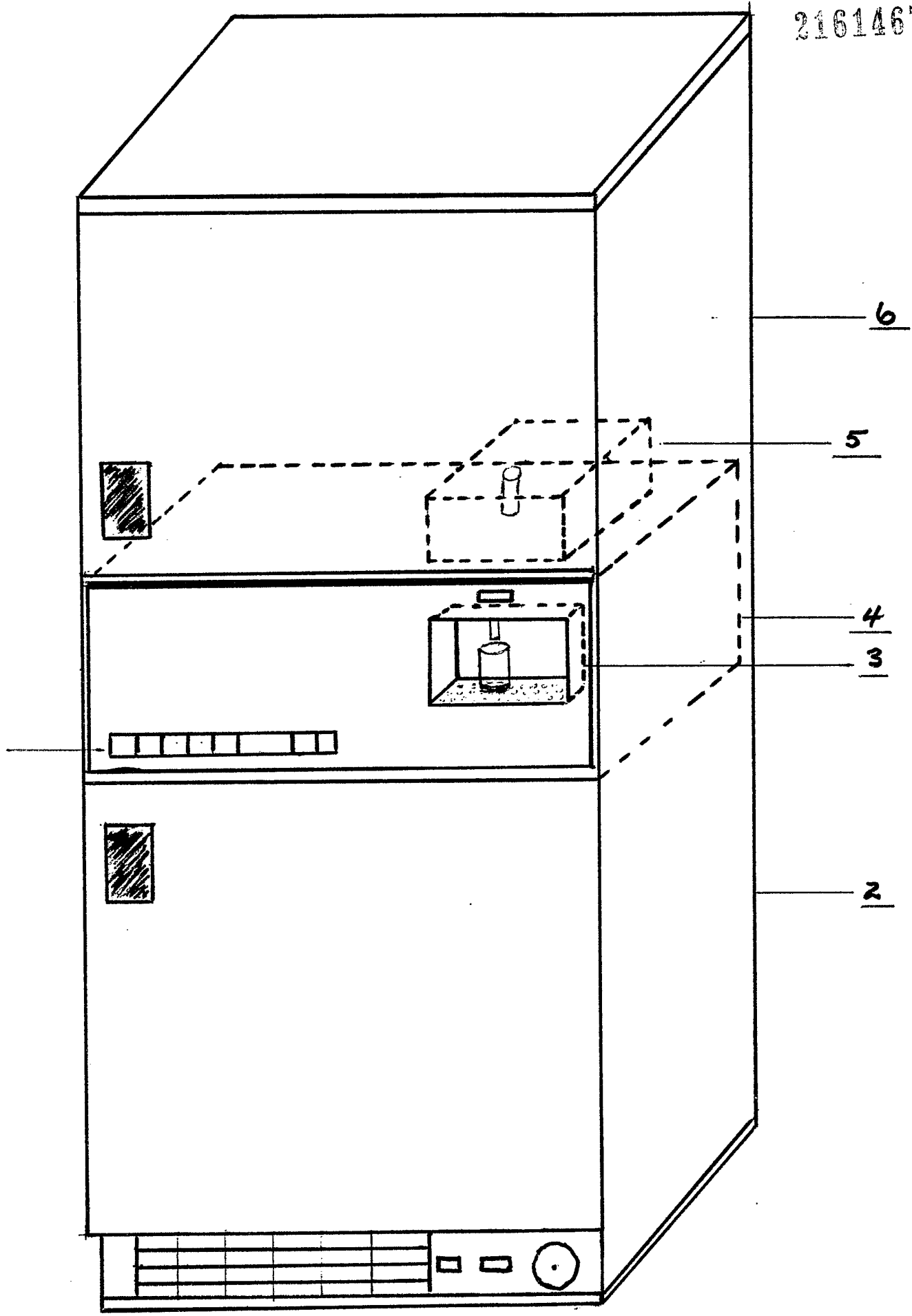
(56) Documents cited

GB A 2038795	US 4322291
EP A1 0096377	US 4069153
EP A1 0023892	US 3791790

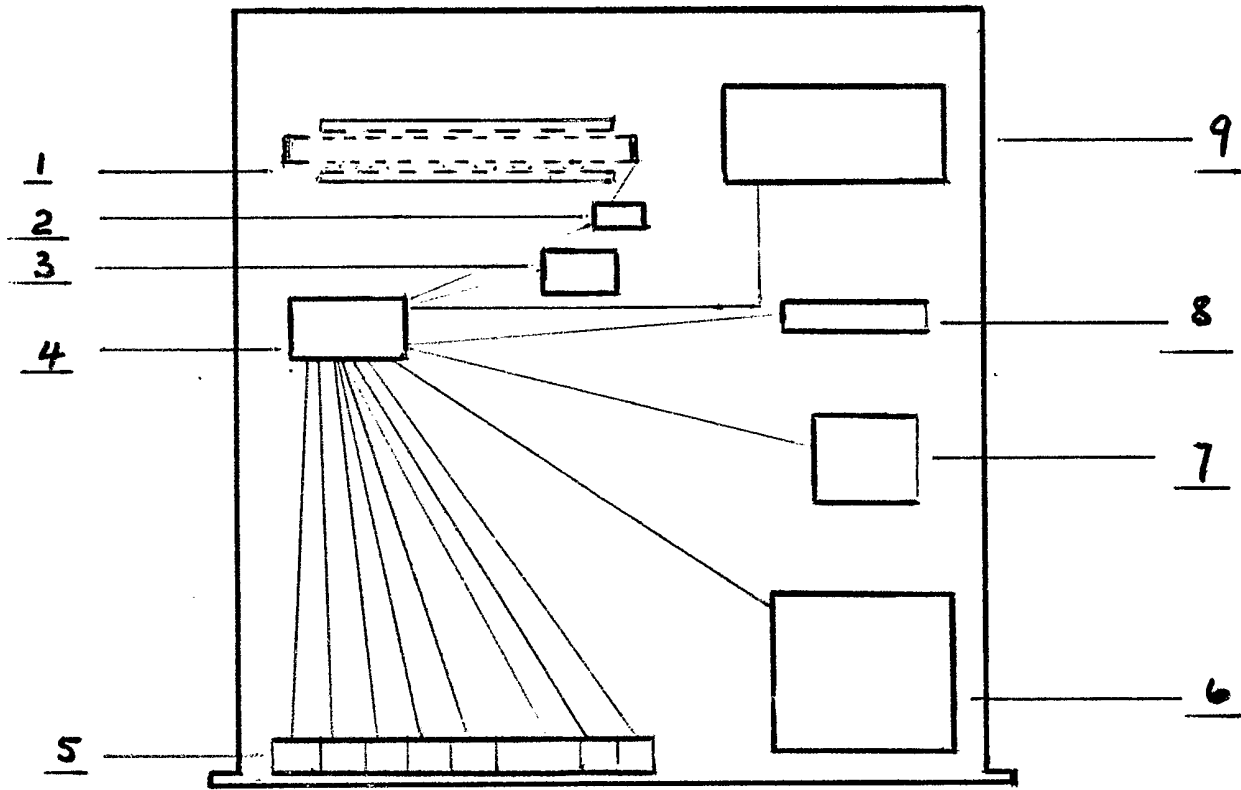
(58) Field of search
C1C

(54) **Water/purifier/sterilizer/chiller**

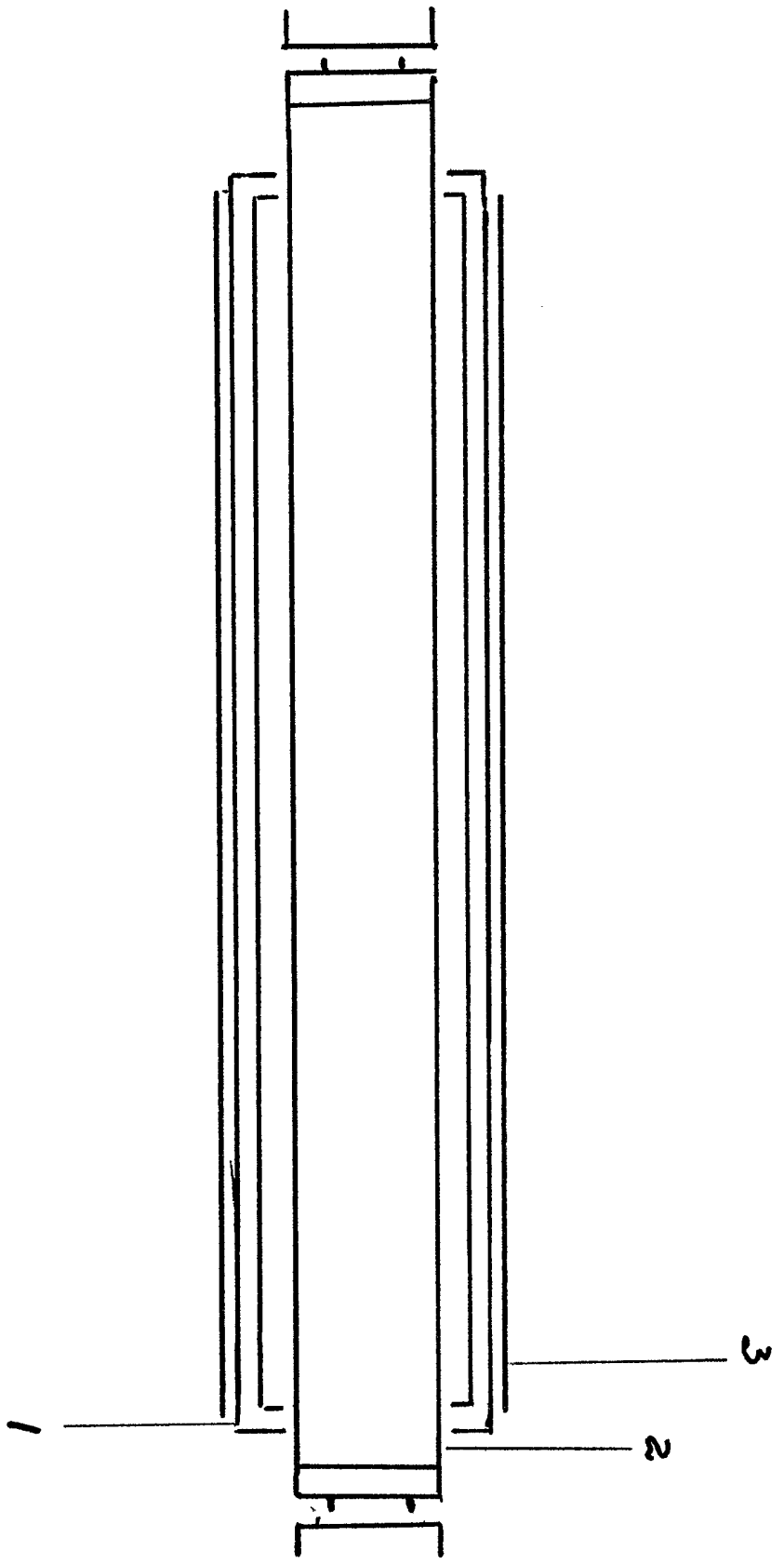
(57) The Water/Purifier/Sterilizer/Chiller can be used either as a separate unit or in conjunction with a fridge/freezer the storage vessel fitting within the refrigerator.



B



C



QUARTZ GLASS CONDENSER

SPECIFICATION

The improved version of the water purifier

5 The water is put into the container through a filter and is stored in the refrigerator unit at a temperature of under 37 degrees F. to inhibit bacteria growth.

10 It then enters another prefilter in the purifying unit before being passed on to the water steriliser UV process unit it is then pumped back into the storage vessel and the process is then repeated passing through the whole unit approx 5/6 times per hour the water is continually on the move and is oxygenated making the water more palatable. By this continuation of the sterilising process bacteria is killed and not allowed to breed.

15 The components are all linked to a Micro circuit which at any stage in the operation if any one fails it will show up a red light on the front panel and automatically cut off the whole unit. Dispensing the water is done at the press of a touch switch on the panel this also being linked through the micro circuit. It is controlled by its own on/off switch.

25 The unit is designed to slide out on nylon rollers for easy service and changing of the UV tube which should be done 6/8 monthly periods although we are in the process of developing a longer life UV tube.

A.

30 *Fridge/freezer/watrer purifier unit.*

1. Red Warning Lights for Fault and Cut Out, ON/OFF Switch Green for ON.

2. Freezer Unit.

35 3. Water Dispensing Unit Cavity with Micro Switch and Dispenser.

4. Water Purifying Unit.

5. Water Container in Refrigerator with output and input pipes to Purifier.

6. Refrigerator.

40

B.

Water purifying unt.

1. Quartz Glass Condenser with U.V.genermicidal Light tube through the centre.

45 2. U.V.Light Sensor.

3. Solenoid Valve.

4. Micro Contol Box.

5. Red Warning Lights for Fault and Cut Out, ON/OFF Switch, Green for 'ON'.

50 6. Water Dispensing Unit Cavity with Micro Switch and Dispenser.

7. Power Pump for continuous flow.

8. Thermostat.

9. Prefilter.

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The Unit is designed to slide out for easy servicing, it will be on specially designed Nylon Rollers long lasting but easily replaced.

60 **C.**

1. Quartz Glass Condenser.

2. U.V.Germicidal Lamp.

3. Condenser Cover.

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CLAIMS

1. A Water/Purifier/Sterilizer/Chiller comprising of 2 Double cylindrical condensers.
- 70 2. A Water/Purifier/Sterilizer/Chiller as claimed in claim 1 each condenser comprises of one cylinder fitting inside another leaving a cavity of 1/4" sealed at each end with an inlet pipe at the bottom and an outlet pipe at the top.
- 75 3. A Water/Purifier/Sterilizer/Chiller as claimed in claim 1 and claim 2 wherein a U.V.germicidal light tube runs through the centre and is switched on.
4. A Water/Purifier/Sterilizer/Chiller as claimed in claim 1 claim 2 claim 3 in order to move the water through the process a small electric pump is housed between the storage vessel and the first condenser.
- 80 5. A Water Purifier/Sterilizer/Chiller as claimed in claim 1 claim 2 claim 3 claim 4 the water flows from one condenser to the next condenser.
- 85 6. A Water/Purifier/Sterilizer as claimed in claim 1 claim 2 claim 3 claim 4 claim 5 has a guaze filter between the pump and the first condenser.
7. A Water/Purifier/Sterilizer as claimed in claim 1 claim 2 claim 3 claim 4 claim 5 claim 6 has a storage vessel with 2 outlet pipes and 1 inlet pipe. One outlet pipe takes the water to the dispenser and the other outlet pipe takes the water to the first condenser the inlet pipe brings the water back from the process to the storage vessel.
- 90 8. A Water/Purifier/Sterilizer/Chiller as claimed in claim 1-7 the water proceeds, inlet pipe through the chiller back into the vessel and out through the outlet pipe through the continuing purifying system.
- 95 9. A Water/Purifier/Sterilizer/Chiller substantially described in Figure 1-8 of the accompanying drawing.
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