Instrument Issue

SCIENCE

24 October 1958

Volume 128, Number 3330

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Control housing, $6\frac{3}{4}$ inches wide $\times 4\frac{5}{8}$ inches deep $\times 5\frac{1}{2}$ inches high, contains stirring motor, thermoregulator with temperature indicator dial graduated from 15 to 95°C and pilot lamp, and has built-on clamp for attachment to vessels with wall thickness up to $1\frac{1}{4}$ inches.

The helical, bimetallic sensing element, stirrer, aspirator tube and 1000-watt tubular immersion heater are integrally attached beneath the housing. Heater is wound in a coil which encircles the six-blade propeller of stirrer and tip of aspirator tube.

Stirring motor, 1/20 h.p., is fan cooled, induction type, with self-lubricating bearings, suitable for continuous use. Immersed parts,

with exception of bimetallic helix, are nickel plated. Housing is finished with glossy, green hammered effect.

Overall dimensions $6\frac{3}{4}$ inches wide $\times 7$ inches deep $\times 11\frac{1}{2}$ inches high. When mounted, the unit projects $4\frac{1}{2}$ inches beyond inner edge of bath and extends $5\frac{5}{8}$ inches below rim. For proper operation, bath must be filled to within 2 inches of rim. Tubulation for connection of pump to external apparatus is $\frac{3}{8}$ -inch outside diameter.

Method of Use. In use it is necessary only to set the control pointer at desired temperature on dial. A second pointer, driven by the bimetallic helix, continuously indicates the bath temperature. Suction produced by stirring action at tip of aspirator tube, contracts a plastic bellows, closing a switch which turns on the heater. Expansion of helix rotates the indicating pointer until it reaches selected temperature on dial, at which point a valve is opened, inflating the bellows and shutting off the heater. Heater is also automatically shut off if stirrer or aspirator pump is not operating properly, or if water level of bath should fall below aspirator tube.

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