



head are shown below the dotted horizontal lines in the sketches. Type 1 is quite compact; the expansive medium is a liquid, F, with its vapor phase, standing over mercury, G, as shown. The liquid should boil 5–10° above the bath temperature (carbon disulfide is suitable for 35–40°), and a small bubble of air is included to preserve the vapor phase. The sensitivity of this type is about $\pm .01^\circ$, but a 5 mm change in barometric pressure may change the temperature 0.3°.

Type 2 is filled completely with a liquid of high coefficient of expansion, e.g., ethyl acetate. It is not influenced by changes in barometric pressure; the sensitivity is $\pm .03^\circ$, but may be improved to $\pm .01^\circ$ by inserting metal foil or wire gauze in the bulb.²

Type 3 is recommended for large baths where high sensitivity ($\pm .003^\circ$) with ease of alteration of temperature setting is desired. The setting is changed by transferring solvent in the reservoir, H, to or from the expansion bulb through a capillary (1 mm internal diameter) bend, K, which is closed by mercury from the manometer, I, during operation. The stopcock, J, which sustains the mercury column, does not leak, since it only comes in contact with mercury. For quite large baths (100 liters), the diameters of the tubing used in the control head should be multiplied by one and one-half. A rubber sleeve is slipped over the water-filled portion of the control head immersed in

the bath to prevent undesirable heat loss from the bath to the stem.

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USE OF LATEX DRY ADHESIVE FOR KYMOGRAPH PAPER

SURFACES that stick fast to "themselves," but to nothing else, are familiar in envelopes where a turned-down margin separates the latex-treated flaps before use. Adhesion is immediate without moistening.

In the class laboratory we have found during two years' experience much satisfaction in the use of a similar method for wrapping kymograph cylinders. The liquid preparation can be rapidly applied with a brush to a large number of sheets. These are laid out on the bench so that each projects beyond the next a half-inch or more according to the circumference of the drum used, which must of course determine the appropriate coincidence. After drying in place, the set of sheets is inverted and the opposite ends are similarly treated. Stacked flat, the sheets can not adhere; but a sheet wrapped about the drum is firmly sealed in place by mutual contact of the prepared surfaces. The latex seal resists the heat of smoking and does not loosen, yet is readily separated for clean handling of the completed record. Sheets remain adhesive after months in storage. The method not only saves time for the student, but contributes distinctly to neatness in technique.

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BOOKS RECEIVED

- FREUD, SIGMUND. *Moses and Monotheism*. Pp. 218 + vi. Knopf. \$3.00.
- GREEN, CHARLOTTE H. *Trees of the South*. Pp. xiv + 551. Illustrated. University of North Carolina Press. \$2.50.
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² R. D. Stiehler, SCIENCE, 83: 40, 1936.