cate measurements agreed within 3 per cent. (Table 1).

The method as described for measuring the area of a portion of the pinna is applicable to other irregular surface areas as well.

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MELTING POINT APPARATUS

FOR years the senior author has sought for a melting-point apparatus that could be assembled from standard stock glassware and that would yield dependable results with the minimum of effort. We find the following design meets these requirements and possesses certain definite advantages. For example:

(1) A triple-wall air bath is used, minimizing errors due to heat losses and eliminating inflammable or corrosive bath liquids.

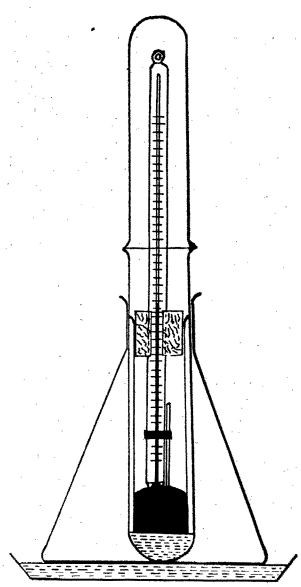

FIG. 1

(2) The thermometer is entirely enclosed, thus obviating uncertain stem corrections.

(3) No stirrer is required.

(4) By surrounding the thermometer bulb with mercury the same temperature is insured for both thermometer and capillary melting tube.

(5) The low cost permits duplication of units to meet the needs of any laboratory.

The apparatus consists of a 250 ml E. flask, pyrex, fitted with a 25 × 200 mm pyrex test-tube, selected so that it will barely pass through the neck of the former, through which it is inserted. A pinch of fine sand is put in the bottom of this test-tube, on which rests a second pyrex test-tube, 18 × 150 mm. The small test-tube contains fifty grams of mercury. In its mouth is a one-hole cork slotted so that the thermometer can be read over the entire scale. A third test-tube 25 mm in diameter is chosen of such length that it will accommodate the thermometer when placed over it to form a closed chamber with the first tube.

A strip of transparent Cellophane tape holds the two test-tubes in alignment. A shallow sand-bath is placed under the flask. The capillary melting tube is adjusted so that the top of its contents extend 1–2 mm above the mercury level, just opposite the thermometer bulb.

The following are typical results, using a stock thermometer:

Benzoic acid, C. P., Eimer and Amend, marked	122
Found	121.7
	121.9
Hydroquinone, Eastman developer, Literature	171.
Found	169.5
Catechol, Merck, resublimed, Literature,	104, 105.
Found	104.2

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