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### Some advantages

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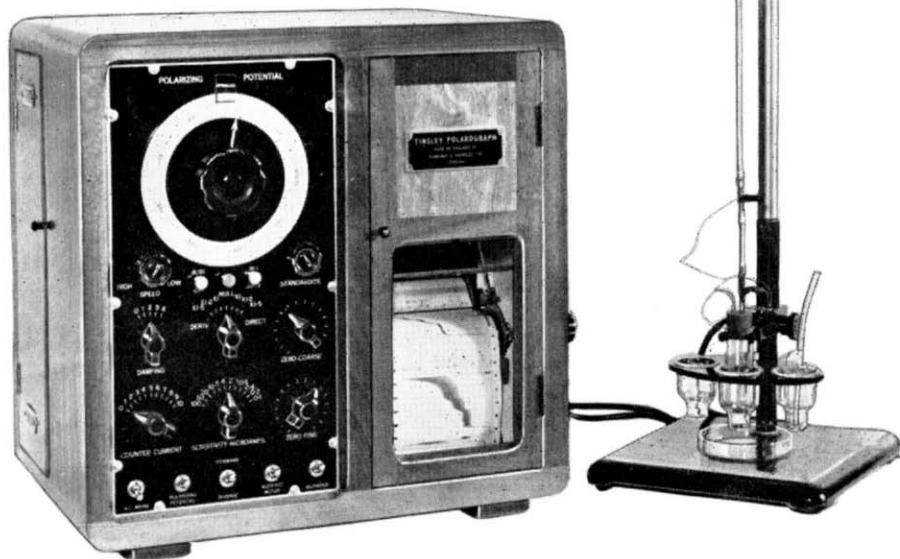
Adaptability: Analysis of metals, inor-

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Write for Publication AJ/064 to INSTRUMENTS DIVISION

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**PYE UNIVERSAL pH METER CAT. No. 11067**

The Pye Universal pH Meter combines extreme accuracy, stability and simplicity of operation. The reading is given directly on a large meter of scale length  $4\frac{1}{2}$  inches. The range is 0-8 and 6-14 pH units; each division is 0.1 pH and readings can be estimated to 0.01 pH. Millivolt ranges can also be selected: 0-800 and 600-1400 mV.

Normally there are only two controls to adjust each day and the readings are almost entirely unaffected by wide mains supply variations. Zero stability is  $\pm 0.02$  pH for mains voltage variations of  $\pm 15$  per cent and frequency variations of  $\pm 3$  c/s. Circuit accuracy is such that the response is stable and linear to  $\pm 0.1$  per cent under the above conditions of mains variation. Instrument sensitivity is 100 microamps/pH and external indicators and controllers can be plugged in without disturbing the panel meter. A total resistance up to 10 kilohms may be used. Both automatic and manual slope correction over the range 0-100°C. is provided.

A versatile electrode kit is supplied and a wide range of pH electrodes is also manufactured for special applications.

**DYNACAP pH METER CAT. No. 11087**

Chemists have long awaited a pH Meter of this calibre: the use of a dynamic capacitor in the input stage provides exceptional zero stability, linearity and accuracy. Full advantage of this circuit is taken by the provision of expanded scales. The absence of grid current eliminates errors normally encountered when using robust (high resistance) electrodes. Absence of grid current is also important when operating over a wide range of temperature.

Basic scaling of the meter gives two main ranges of 0-10 and 4-14 pH units on a 5 inch scale. This can be expanded to give, in effect, a scale length of 35 inches, allowing excellent discrimination: a lower scale reads from 0-2.0 pH units each division being 0.02 pH; the range switch will select sub-ranges of 0-2 pH, 2-4 pH, 4-6 pH etc.

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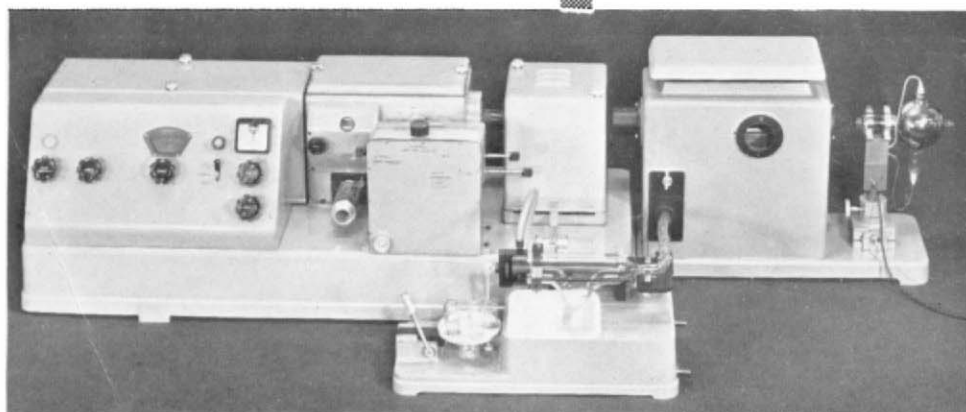
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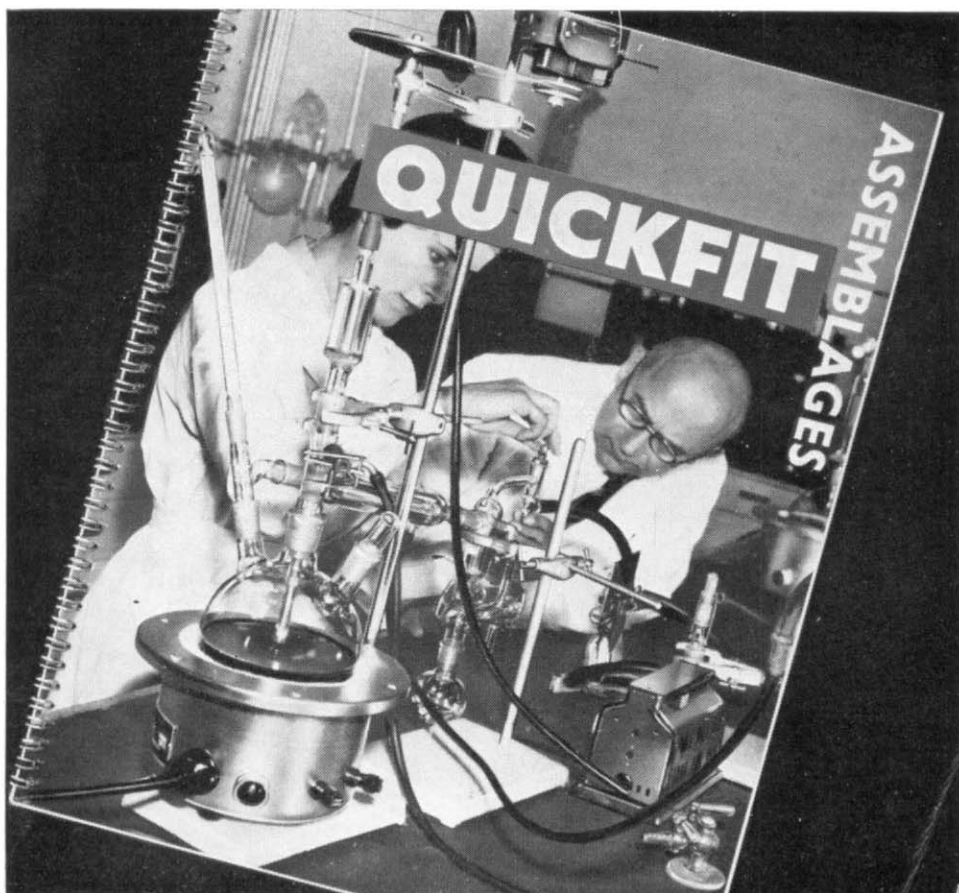
Lead	50 p.p.m.
Magnesium	0.1 p.p.m.
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Zinc	0.1 p.p.m.
Mercury	50 p.p.m.
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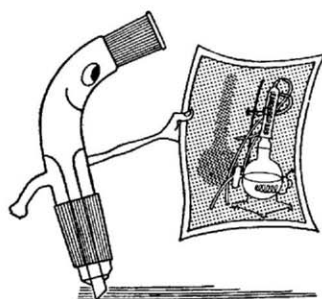
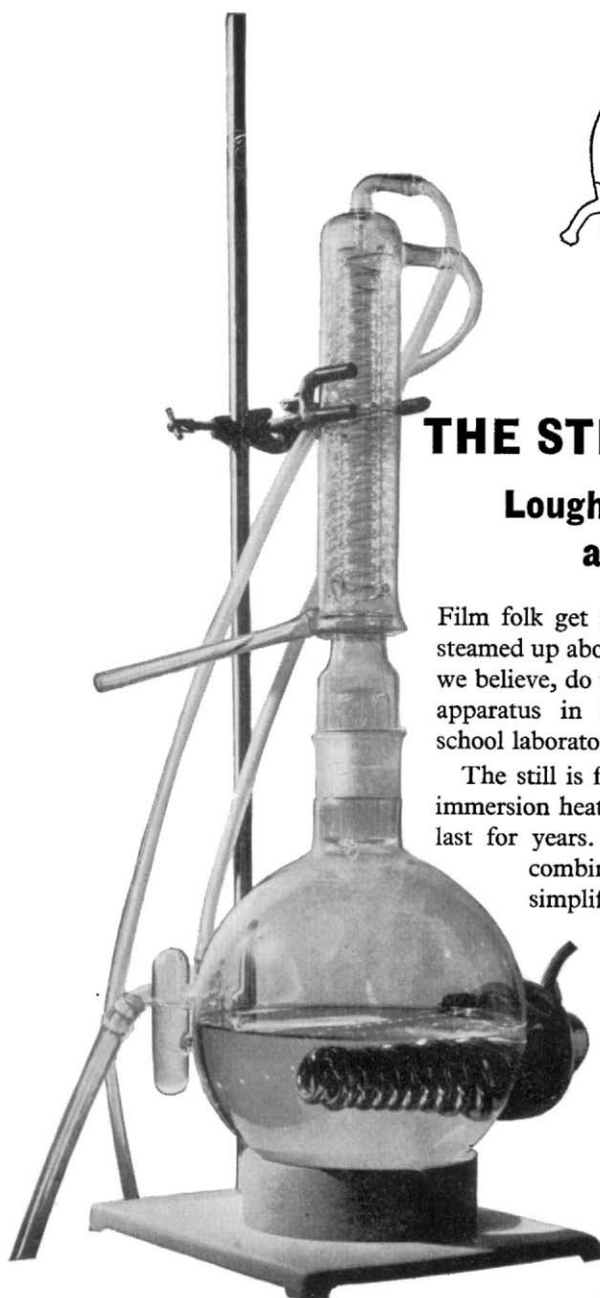
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August, 1959]

THE ANALYST

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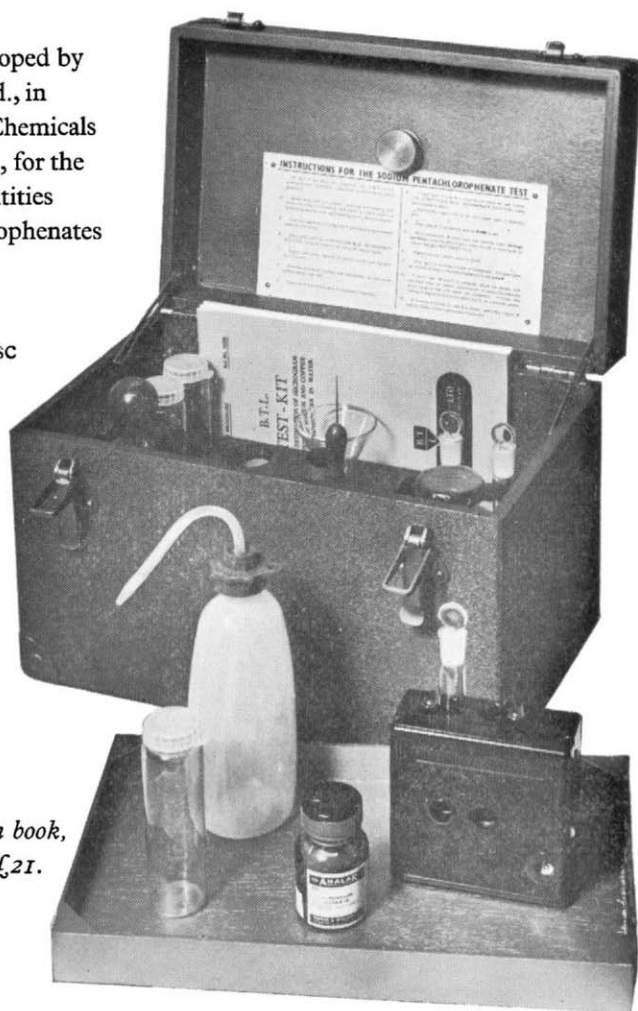
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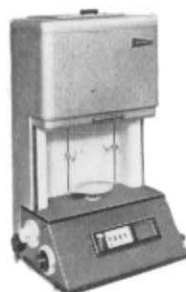
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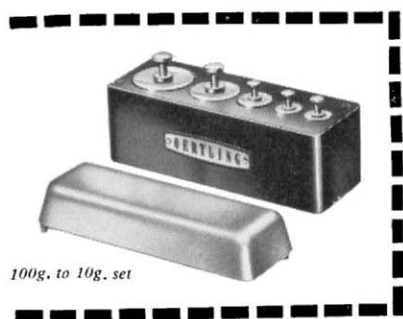
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