

column was attached at (D) and the solvent forced through the system with nitrogen. Nitrogen flow was continued until the entire system was dry.

Columns were coated in a similar manner except that a solution of the stationary phase was introduced instead of the pure solvent. In coating a 250-ft. column of 0.020 in. inside diameter, 50 ml of a 20 % solution of the stationary phase provided sufficient material and a nitrogen pressure of 80-100 lbs./sq. in. was adequate. The column was coated in stages to prevent substrate plugging of the capillary. The lower valve was opened for 2 min followed by opening of the upper valve facilitating distribution of the material through the column. The process was repeated until substrate appeared at the open end. Nitrogen gas was permitted to flow through the column for several minutes to evaporate the solvent. The column described has been cleaned and coated several times and each time a total of the 15 min was required for the entire procedure. If it is desired, the column can be equilibrated by allowing nitrogen to flow through it for a longer period of time.

The device was cleaned without disassembly of the reservoir. The nitrogen inlet was removed, the reservoir filled with solvent as described above and flushed using laboratory air pressure. The process was repeated at least 3 times to give satisfactory results.

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<sup>2</sup> S. R. LIPSKY, R. A. LANDOWNE AND J. E. LOVELOCK, *Anal. Chem.*, 31 (1959) 852.

<sup>3</sup> A. ZLATKIS AND J. E. LOVELOCK, *Anal. Chem.*, 31 (1959) 620.

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## **Apparatus for extraction of compounds from paper chromatograms**

It is frequently necessary to extract the compounds separated on a paper chromatogram for further examination, for example by ultra-violet or infra-red spectrophotometry.

The apparatus described in this note (see Fig. 1) is simpler than those given by WYATT<sup>1</sup> and DENT<sup>2</sup>, and can be used with volatile extracting solvents. A number may be compactly mounted in a rack for simultaneous extractions.

It is readily assembled from standard interchangeable glass joints, *i.e.*: Quickfit and Quartz Ltd. B19 test tube MF/24/2/6, a B19/B24 connecting bend (stillhead) SH1/23 and a B24 socket SRB/24 which has been drawn out and sealed as shown in the diagram.

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The spot, with a small part of the surrounding paper, is cut out of the chromatogram, shaped to a point and attached to a paper wick (see Fig. 2). The paper is then

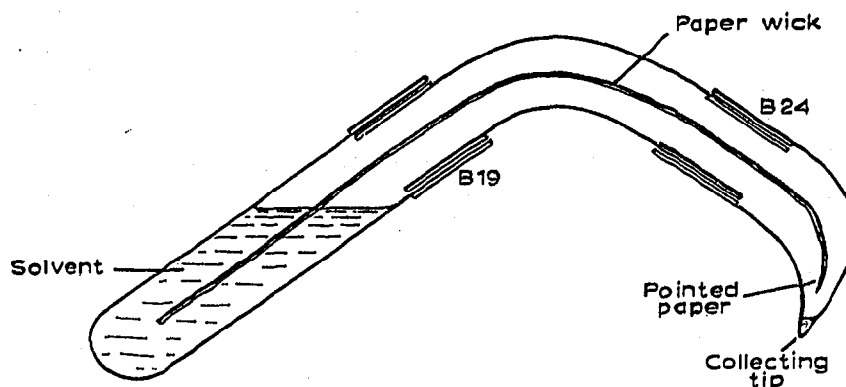


Fig. 1.

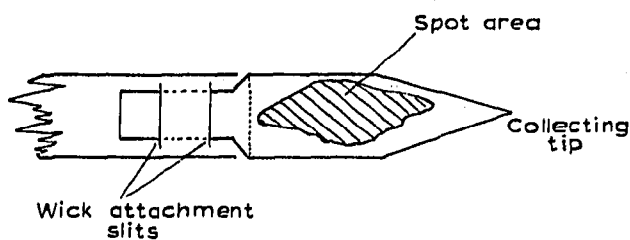


Fig. 2.

inserted into the apparatus and left to elute, the wick dipping into solvent in the B19 test tube and the paper point directed towards the tip of the B24 receiver. After two or three drops of solvent have fallen into the collecting tip, the spot should have been extracted and the receiver can be removed and stoppered until required.

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