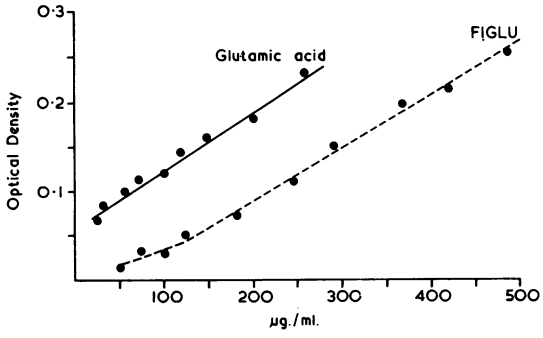

FIG. 2. *Increasing concentrations of FIGLU and glutamic acid plotted against optical densities of eluates from FIGLU and glutamic acid spots.*

FIGLU spots were plotted against the concentration. The graph obtained (Fig. 2) shows a straight line except for very low concentration near the limit of sensitivity. Glutamic acid dilutions gave a similar curve.

My thanks are due to Mr. P. H. Motivala for his technical assistance.

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CORRECTIONS

On page 222 of the paper 'Histology of the aortic media in dissecting aneurysm' by Gerald Manley (*J. clin. Path.*, **17**, 220-224) the two parts of Fig. 2 have been interchanged.

Figure 1 on page 244 of the paper by M. Patricia Jevons and M. T. Parker, 'The evolution of new hospital strains of *Staphylococcus aureus*' (*J. clin. Path.*, **17**, 243-250) has been printed upside down.

On page 301 of the paper 'A shortened automated procedure for the determination of alkaline phosphatase' by Joyce L. Bell and M. Collier (*J. clin. Path.*, **17**, 301-303) under Reagents '1-aminoantipyrine' please read 'Dissolve 1 g. 4-aminoantipyrine in 1 l. distilled water'

A new system for rapid haemoglobin estimations and leucocyte counts

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Blood samples are usually diluted 1 in 200 for the estimation of haemoglobin and 1 in 500 when counting leucocytes in the Coulter counter. These procedures are performed separately and require two tubes and two diluting pipettes. The purpose of this paper is to describe a system which enables the haemoglobin estimation and leucocyte count to be made from the one diluted sample. The system dispenses with the need for pipettes and diluting tubes and enables both examinations to be completed in less than 40 seconds.

PRINCIPLE

To enable both the haemoglobin estimation and leucocyte count to be made from the one dilution it was necessary to increase the dilution for haemoglobinometry to 1 in 500. Compensation for this was made by increasing the light path in the haemoglobinometer from 10 to 25 mm. The sample of blood is first diluted with N/150 ammonia directly into the haemoglobinometer tube using an automatic dispenser. This lyses the red cells and also causes some swelling of the leucocytes. Without delay the sample is further diluted by adding a saline solution of sufficient strength to make the whole mixture isotonic. This saline diluent also contains saponin to ensure adequate stromatolysis. The leucocytes quickly return to their former size and remain stable. The haemoglobin concentration is read in a photoelectric colorimeter as oxyhaemoglobin and the leucocytes are counted in a Coulter automatic cell counter.

APPARATUS

A standard type of rotary specimen mixer is followed by a Trimatic[1] dispenser fitted with pumps suitable for removing a 40 c.mm. sample of blood and delivering 10 ml. of diluent. Next to the dispenser is a 10 ml. semi-automatic pipette[2] fitted with a small plastic tube in place of the needle thus reducing frothing. It is set to deliver 10 ml. A Spectronic 20 spectrophotometer, fitted with an adaptor to give a 25 mm. light path, is used to measure haemoglobin. This adaptor is a standard accessory. Leucocytes are counted in a Coulter cell counter model A.

REAGENTS

The diluent used in the Trimatic dispenser is N/150 ammonia and in the semi-automatic pipette is 1·7%

[1]Manufactured by Research Specialities Corp. U.S.A. Model No. 2642.
[2]Manufactured by Becton, Dickinson & Co., Cat. No. 1271.

Received for publication 23 October 1963.