A micro-Kjeldahl method, adapted from a combination of the methods of King, Haslewood and Delory[3,4], and of Miller and Miller[5], was applied to individual samples of cerebro-spinal fluid and also to bulked samples. The figures for protein concentrations thus obtained were used to calibrate the dichromate standard. Unfortunately, owing to pressure of other work, it was not possible to devote as much time to this work as was desirable. The factor (1·6) relating dichromate colour to xanthoproteic colour cannot, therefore, be assumed to be absolutely accurate, but is not likely to be far wrong. In only a small proportion of the samples did the factor differ greatly from 1·6. This seems to justify the assumption that, although the colour developed in the test is dependent on the presence of phenyl groups in the protein, the proportion of these is substantially constant in the proteins of the cerebro-spinal fluids tested.

The factor 6·25 was used to convert the Kjeldahl nitrogen figures into protein figures. This assumption can only be checked by isolating and purifying the protein from cerebro-spinal fluid.

It is hoped to check and undertake a more detailed study of the method when an opportunity arises. However, as I can find no previous reference to a similar method, it appears desirable that these preliminary findings be made known so that other workers might be able to examine the method.

I wish to express my thanks to Dr. G. F. Saunders for indispensable help in obtaining samples of cerebro-spinal fluid and for his interest and constructive criticism, to Dr. G. Tooth for first bringing to my notice the need for a simple method of estimating proteins, and to Dr. J. G. S. Turner, director of Medical Services, Gold Coast, for permission to submit this note for publication.

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2 : 3 Dimercaptopropanol (B.A.L.) and Methyl Iodide Intoxication

Lewis[1] has reported the inhibition of SH enzymes by methyl bromide. It is therefore of interest to note that we have found a similar effect with methyl iodide.

Kerateine was prepared from sheep's wool by the method of Goddard and Michaelis[2]. A 0·2 per cent solution of kerateine in 0·1 *M* sodium carbonate was exposed to an atmosphere containing 10 mgm. of methyl iodide per litre, and a progressive decrease in the colour given with sodium nitroprusside was noted.

A suspension (0·5 per cent) of urease was made up (1) in distilled water, (2) in 0·98 *N* methyl iodide, and (3) in 0·98 *N* methyl alcohol/potassium iodide mixture. After standing four hours, 15 ml. of the urea/phosphate mixture of Sumner[3] was added to each. The mixtures were allowed to stand at room temperature, 21° C., and at intervals samples were withdrawn and ammonia determined with Nessler's reagent. An inhibition of about 50 per cent was found with the methyl iodide mixture, whereas the methyl alcohol/potassium iodide mixture was as active as the control, showing that the inhibition is due to the methyl iodide molecule as a whole.

Inhibition of urease by methyl iodide

Mixture	Ammonia (mgm./ml. reaction mixture)		
	At 20 min.	At 40 min.	At 60 min.
1	2·1	3·75	5·8
2	1·25	1·75	2·25
3	1·9	3·2	6·0

These results led us to try the effect of B.A.L. in methyl iodide poisoning in mice. A dose of 50 mgm. B.A.L. per kilo body-weight administered before exposure gives complete protection from a concentration which would otherwise be lethal for all the animals in a group; but B.A.L. given immediately after exposure has only slightly prolonged the time of survival.

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Estimation of Digestibility of Grazed Pasture from Fæces Nitrogen

In a recent communication in *Nature*, Raymond[1] has proposed a method of estimating the nitrogen content and the related nutritive value of pasture herbage consumed by grazing sheep from the nitrogen content of the resulting fæces. While this relationship should prove very useful in sheep nutrition studies, it appears likely, on the basis of work carried out at this Station[2,3], that a still more precise expression of the nutritive value of the herbage can be obtained from the data used by Raymond. It is the purpose of this communication to describe how the organic matter digestibility of pasture can be calculated from the nitrogen content of the fæces.

As a result of an analysis of the data from digestibility trials carried out at widely dispersed centres in New Zealand, a hypothesis was set up to the effect that the nitrogen excreted in sheep fæces per unit intake of pasture organic matter is constant. Knowing the value of this constant (C), and the concentration of nitrogen in the ash-free fæces (n per cent), the amount of organic matter in the herbage giving rise to 100 gm. of fæces organic matter will then be $100n/C$ and the digestibility will be given by

$$D = \left[\frac{\frac{100n}{C} - 100}{\frac{100n}{C}}\right] \times 100 = 100\left[1 - \frac{C}{n}\right]. \qquad (1)$$

The value of C calculated from the data under analysis was 0·83 ± 0·102 gm. nitrogen per 100 gm. of pasture organic matter consumed. These data were collected from fifty-two digestibility trials[2] covering pastures ranging in organic matter digestibility from 50 to 85 per cent and in protein content from 10 to 36 per cent (dry matter basis).