"The immediate adoption by the Health Ministry of measures to enable and encourage local authorities to supply or aid the supply of homes intended for uncertifiable mental cases and free from connection with lunacy would prove an enormous boom, not only to doctors and patients, but also to patients' friends and to the community at large, including especially those classes of ex-Service men whose nerves have been temporarily unhinged and shaken through the intense severity of the conflict in which they have recently been engaged. If all such patients, civilian or military, were intercepted on the downward track, the gain to the nation would be incalculable, not to speak of the gain to the overburdened taxpayer arising from an eventual material reduction in our ever-increasing and unproductive asylum expenditure."—*Daily Telegraph*, November 29th, 1920.

THE LATE DR. C. A. MERCIER.

THE testamentary dispositions of Dr. C. A. Mercier, who died on September 1st, 1919, contain an offer, when the sum has accumulated, of £20,000 in the first place to the University of London for the endowment of a professional chair of Rational Logic and Scientific Method. Dr. Mercier's scheme is as follows:

"The purpose of this foundation is that students may be taught, not what Aristotle or anyone else thought about reasoning, but how to think clearly and reason correctly; and to form opinions on rational grounds, the better to provide that the teaching shall be of this character, and shall not degenerate into the teaching of rigid formulæ and worn-out superstitions, I make the following conditions:

"The professor is to be chosen for his ability to think and reason and to teach, and not for his acquaintance with books on logic, or with the opinions of logicians or philosophers. Acquaintance with the Greek and German tongues is not to be an actual disqualification for the professorship, but in case the merits of the candidates appear in other respects approximately equal, preference is to be given first to him who knows neither Greek nor German; next, to him who knows Greek but not German; next to him who knows German but not Greek; and last of all, to a candidate who knows both Greek and German.

"The professor is not to devote more than one-twelfth of his course of instruction to the logic of Aristotle and the schools, nor more than one-twenty-fourth to the logic of Hegel and other Germans. He is to proceed upon the principle that the only way to acquire an art is by practising it under a competent instructor. Didactic inculcation is useless by itself. He is, therefore, to exercise his pupils in thinking, reasoning, and scientific method as applied to other studies that the students are pursuing concurrently, and to other topics of living interest.

"Epistemology and the rational grounds of opinion are to be taught. The students are to be practised in the arts of defining, classifying, and the detection of fallacies and inconsistencies.

"The principle of causation is to be taught as a process occurring in Nature and applicable to material things, and not as a notion in the minds of philosophers.

"Subject to these requirements, a wide discretion is to be allowed to the lecturer."

CORRESPONDENCE.

To the Editors of the JOURNAL OF MENTAL SCIENCE.

SIRS,—I have read your Editorial comments upon my criticism elsewhere of the causes of the appalling death-rate among the patients in the asylums of this country, as published in the Report of the Board of Control, dated 1919, and which I attribute in the main to inadequacy and meagreness of the food, and therefore to insufficient vitamines.

May I say that neither you nor anyone else quotes the average calories allotted to patients in the asylums, and you appear desirous of effecting a compromise between the two methods of regarding a dietary, *viz.*, providing an adequate supply of vitamines—which are possibly some activators to produce the synthesis of other nutrient bodies—and determining a dietary upon a caloric value.

I have been long of the opinion that the basis upon calories has been found wanting, chiefly because the human organism is something more than a mechanical laboratory. Pure protein, fat, carbohydrates, salts and water, though supplying the full caloric needs of a dietary, are yet insufficient for growth and for maintaining energy. In Hopkins' experiments with rats which were fed on a caloric basis, they ceased to grow until fresh milk was supplied, which indicated that in spite of full caloric value, some factor in the diet—the vitamines—was nevertheless indispensable for health. This factor probably forms only a small fraction of the food; its chemical nature is unknown, and even its physiological function. All we do know is that it is soluble in water and in alcohol, and that it is destroyed by boiling as well as by long keeping. Its nature may be of two or more kinds—one for growth and one for nutrition; at any rate it is only to be found in fresh foods, mainly meat, milk, butter and fruit. The food-deficiency diseases have already demonstrated to us the need for giving this factor consideration in the feeding of large communities for a long time.

In dealing with calories, energy is measured from the amount of heat required for the complete combustion of food as recorded in a calorimeter, whilst no allowance is made for the quality of the food, the power of the person's digestion, or his capacity for assimilating different kinds of food. Even animal and vegetable proteins may vary greatly in their readiness for assimilation, and therefore in their power of supplying nutrition. In estimating the caloric value it is assumed that because the whole of the constituents of food are completely oxidised in a calorimeter, the whole potential energy thus obtained is available for nutrition, which is not the case. The food of asylum patients even before the war was not of the highest quality. The authorities dared not feed the most subordinate members of the staff as they fed the patients; they would mutiny if the attempt were made. And it would be absurd to suggest that the poor food supplied to patients possessed the average caloric value; and although the bread given to them was what is described as "middlings," it was healthy because the outer husks contained the vitamines.

The heat-value of the food when metabolised within the body therefore does not by any means represent the caloric value registered in a calorimeter; and so discontented have practical people become as to the results of basing a dietary upon its caloric value, that although the value of the ordinary diet is given as 3,500 calories—and I should like to know the average calories allotted to the inmates of asylums!—we had to increase this average during the South African War to 3,900, and in the late war to 4,000 to 5,000 calories, the men being much better in consequence, and it is conclusive that laboratory experiments for a short time cannot be accepted as the basis of what is suitable for the dietary of a mixed sick community for long periods. The discontent with calories has extended so widely that an entirely new method of calculation has been suggested to estimate a satisfactory dietary, *viz.*, the *Nem* method, founded upon the unit of a glass of milk—100 *nems* or a hectonem—based upon the relation between the sitting height, the weight of the body and the surface of the alimentary canal, which have been expressed in a simple formula by Pirquet.

You know, Sirs, that all the patients in the various mental hospitals without exception are of the "sick" class, and that for this class in particular a diet in excess of the actual bodily needs is necessary, there is need for an abundance of good food to aid the restorative powers of the body, and a further supply to act as a reserve of energy to resist the invasion of infections of various kinds, from which they succumbed during the war in colossal numbers—a death-rate which, I fear, has been unparalleled since the darkest days of the history of the insane.

I do not say there were not reasons for curtailing the dietary to help to save the country. I merely state a fact that the appalling mortality of the poor insane was intimately connected with the deficiency of vitamines, *i.e.*, with the deficiency of

fresh food, and that the deaths occurred from an insufficient and a poor dietary. To suggest other causes is to trifle with the issue.

105, Harley Street, London, W.

I am, your obedient servant,
ROBERT ARMSTRONG-JONES.

[Soldiers' diet in hospital: Lowest caloric value sanctioned during the war, 2,700
" " " " Highest " " " " " 3,832
Soldiers' diet—front-line troops . . 4,000 calories

L.C.C. Mental Hospital Dietary .	Males unemployed .	2,468 to 2,542	"
" " " " .	" employed .	2,829 to 2,903	"
" " " " .	Females unemployed .	2,025 to 2,255	"
" " " " .	" employed .	2,476 to 2,646	"

Men—sedentary	2,500 to 2,800 calories	E. I. Spriggs, M.D.
" labourers	3,500 "	
" heavy work	4,000 "	
Women—light work . . .	2,000 to 2,200 "	
" heavy work . . .	2,800 "	

EDS.]

OBITUARY.

KORBINIAN BRODMANN.

The death of Brodmann is a grievous loss to neurology and psychiatry, not only in Germany but throughout the world. From a memoir by Nissl in the first volume of the *Arbeiten aus der Deutschen Forschungsanstalt für Psychiatrie in München* we glean the following information about him. He was the son of a farmer at Liggersdorf, in Hohenzollern, and was born on November 17th, 1868. After studying medicine at Munich, Würzburg, Berlin and Freiburg, he gained his qualification in 1895. In 1896 he became an assistant at the Nervenheilanstalt, Alexanderbad, then under the direction of Oskar Vogt. In 1897–8 he worked for a year at the Pathological Institute at Leipzig. He was an assistant medical officer at the Psychiatric Clinic at Jena (1898–1900), and at the Asylum at Frankfurt (1900–1). From 1901 to 1910 he was an assistant in the Neurobiological Institute of the Berlin University under Vogt. From 1910 to 1916 he was a medical officer of the Psychiatric Clinic at Tübingen, and during the war served voluntarily as a medical officer of a military reserve hospital at Tübingen until May, 1916, when he was appointed by Pfeiffer to a newly-created anatomical post at the Landesheilanstalt, Nietleben, near Halle. To Pfeiffer belongs the credit of giving Brodmann such an appointment and such material means as would enable him to continue his researches: until now he had never had an assured social position. At Nietleben he married. In April, 1918, he moved to Munich, having been chosen by Kraepelin to be head of the Department of Topographical Histology in the new German Institute of Psychiatric Research. Happy in his recent marriage and in his new post, and full of plans for work, he was stricken with severe septic poisoning, and after a few days' illness died on August 22nd, 1918. "By his death," says Nissl, "the great hopes we had built on his appointment have been brought to nought. And the saddest thing is that in a certain sense his loss is irreparable. Germany has no second investigator possessing Brodmann's knowledge of the cell architecture of the cerebral cortex, or his ability to put that knowledge to use."

As an investigator Brodmann stands, of course, upon the shoulders of those who preceded him, first among whom must be mentioned Meynert (1868), Betz (1874), and Bevan Lewis (1878, 1880). But such technique as those men could command was so crude that for many years nothing more was discovered, and no further progress was possible until the introduction of a selective stain for nerve-cells. Nissl's method of staining with methylene blue opened the way for a fresh advance. The first investigations of the cell-architecture of the cortex by means of selective cell-staining were those of Hammarberg (1895) and Schlapp (1898). In 1900 Shaw Bolton described two different types of structure in the cortex of the human occipital lobe, mapped out the calcarine area, and made the observation that the line of Gennari with the granules immediately above and below it,