on a strict application of this formula, very many inmates of our mental hospitals would have to be held " responsible " for any criminal act which they might commit. In practice much depends upon the direction in which public sympathy (as represented by the jury) runs. In many cases, such as that of the murder of a child by its mother, this sympathy is for the accused, and the McNaughton rule is interpreted very loosely. In such a case as that of Higgins, the natural indignation at the murder of two school-children turns the scale in the other direction.

Occasional Notes.

Committee on Dietaries in Mental Hospitals.

THE Report of the Departmental Committee appointed with the approval of the Minister of Health by Sir F. J. Willis, Chairman of the Board of Control (England and Wales), to consider the dietaries in the county and borough mental hospitals, has been issued, and can be had from His Majesty's Stationery Office.

In reviewing the Board of Control's Report for 1919 we said: ". . . there is no question in our opinion that the dieting of the insane is a matter of the greatest importance in their treatment. The primary importance of vitamines is unquestioned, nor should the question of calories be neglected. But mankind cannot live on vitamines or calories alone, or both combined, if due regard is not paid to the appetite, cookery, digestibility, personal diathesis. Mass-feeding and *ad hoc* drastic weekly purging has no regard for the well-recognized tendency to neuro-vascular abdominal disturbances and colitic affections in those suffering from mental diseases and the neuroses"; and again, " It is a subject worthy of careful investigation and experiment, and economic factors such as cost, or the farm account, though important, are secondary matters."

Although the Committee in considering the dietaries were primarily to inquire into " what changes, if any, are desirable, and whether a minimum dietary should be fixed," their work has covered much wider ground, and embraced the supply, preparation, cooking and distribution of food, administrative improvements in kitchen control and equipment, finance, and other very important germane matters. In fact, in many respects the Committee's lines of investigation were those we have urged on the Board, and we are glad they have taken this wide view of their reference. Their report is all the more valuable for being comprehensive. No aspect of the

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subject has been omitted or neglected. They called in the aid of expert scientific opinion whenever it seemed advantageous, and received oral evidence from medical superintendents, clerks and stewards, persons in control of kitchens, managers and engineers and cooks experienced in conducting large catering establishments, and from business men supplying kitchen equipment. Mental hospitals, general hospitals and catering establishments of various kinds were visited.

The Committee, as would be expected, first called for and received copies of the mental hospital dietaries then in use, which they reduced to calorie values, and submitted their results to the Quantitative Nutritional Committee of the Medical Research Council for examination and interpretation. The generally accepted calorie food requirements of the normal adult then were taken as a basis, and by anthropometric and other data their applicability to the insane ascertained, such conclusions being checked by special experiments in basal metabolism conducted at Springfield Mental Hospital. At the same time information as to the cost of existing mental hospital dietaries was obtained.

Thus equipped the Committee prepared a model dietary which they think scientifically adequate to meet the requirements of the insane, and which at the same time does not materially increase the present expenditure under this head. This they circularized round the mental hospitals for critical examination and opinion, and asking at the same time for an estimate of the cost of carrying out their proposals.

An account of their labours embodying their final conclusions and recommendations with several appendices fills a volume of 130 pages, and approximately 60,000 words. There are several plates and illustrations. The main report is divided into six sections, which deal respectively with the details concerning existing mental hospital dietaries, the dietetic needs of the insane, the model dietary, administrative improvements in kitchen control and equipment necessary to carry out the model dietary, the cost of the adoption of the model dietary, and conclusions and recommendations. There are eight appendices, the most important being the model dietary in detail, a report on the rate of basic metabolism of the insane, and a paper conveying anthropometric data concerning the insane.

It would be impossible in an "Occasional Note" or review to discuss adequately the endless number of important issues raised by the report; nor do we see any particular advantage in so doing.

Many, if not the majority of matters dealt with, can be viewed

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from many different standpoints according as they are likely to affect individual mental hospitals situated in different districts, and with different potentialities and possibilities. There are, however, a number of matters of general applicability—guiding principles and suggestions—which are summarized in the Committee's conclusions and recommendations. Their importance demands some comment and a place in our pages.

The Committee's conclusions concerning existing dietaries are:

(1) That there is an undesirable inequality in the construction of dietary scales throughout mental hospitals, some being well balanced and thoughtfully designed, whilst others impressed us as lacking in ingenuity.

(2) That an unsatisfactory irregularity exists in the quantities of some staple articles of food supplied, a bare majority of diets being approximately correct in this particular (*i.e.*, supplying an average quantity), whilst the remainder were either obviously deficient or possibly excessive.

(3) That insufficient attention is paid to palatability and attractiveness, especially in the matter of the provision of a reasonable variety of dishes, breakfasts and teas providing the most common evidence of this defect.

(4) That although the details with which we were provided did not enable us to construct an absolutely reliable arithmetical estimate of the value of each diet scale (in terms of proteins, fats, carbohydrates and calories), the result of analysis proved useful as confirmatory evidence, in cases where other indications suggested inadequacy or excess.

(5) That it proved especially difficult for us to ignore the great difference that exists between dietaries showing the lowest and highest calorie values respectively, justifying a suspicion that the supply of food in the former is insufficient. This conclusion received support from the increased incidence of tuberculosis amongst males in the 12 institutions providing dietaries of the lowest arithmetical value.

(6) That there seems to be some ground for suggesting that mental hospital dietaries may be deficient in certain accessory food factors (vitamines), probably deficient in fat-soluble A, and possibly also in water-soluble B.

(7) That, when markets are available, some modification in the usual methods adopted for obtaining supplies is desirable, with a view to securing a greater variety of meat foods, with due regard to economy.

(8) That every effort should be made to maintain a sufficient supply of high-grade milk, the daily amount provided being

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inadequate in some mental hospitals and unduly restricted in others, and that, in order to secure good quality, especially in the matter of fat content, routine analysis is essential.

(9) That there are grounds for the suggestion that the complete substitution of margarine for butter has eliminated one of the most valuable sources for the supply of fat-soluble A, and that the partial reinstatement of butter is desirable.

(10) That some institution dietaries would be improved by the more frequent and regular supply of fresh (especially green) vegetables, and fruit, and that, in order to carry this into effect, the close co-ordination that exists in many institutions between the farm management and the person responsible for kitchen supply should be universal.

(11) That although some mental hospital kitchens have been kept up to date, there are still many that are so inadequately equipped as to be incapable of anything more than the simplest routine cookery, whilst there are a large number that would be capable of still better work if provided with improved facilities.

(12) That there is need for greater attention, in many institutions, to kitchen organization, methods of transport, and ward equipment, in order that the supply of hot food to patients may be secured.

(13) That there is reason to believe that smooth working, efficiency and economy would result from the placing of all duties relating to the supply, preparation and distribution of food under the supervision of one individual, who should be responsible for their proper execution.

The results of the Committee's investigations into the net energy requirements of male and female patients in mental hospitals in terms of calorie values are :

Males—	Calories.
11 hours' sleep at 71·1 (basal metabolism)	782
8 hours awake at 92·4 (basal + 30 *per cent.*)	739
5 hours' work, *viz.*, 5 hours basal = 356 + 400 calories	756
	2,277
Add for locomotion	300
	2,577
Add 10 *per cent.*	258
Total	2,835

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Females—

11 hours' sleep at 59·4 (basal metabolism)	653
8 hours awake at 77·2 (basal + 30 *per cent.*)	618
5 hours' work, *viz.*: 5 hours basal, 297 + 400 calories	697
	1,968
Add for locomotion	300
	2,268
Add 10 *per cent.*	227
Total	2,495

Or approximately 2,800 for males and 2,500 for females.

These are standard minimum figures applicable to the ordinary patient, including the sick and infirm.

The model dietary, the details of which will be given later, has this minimum standard for a basis. The question of the advisability of diets of different energy values for workers and non-workers is discussed at length by the Committee.

They express themselves as not satisfied that reliance should be placed upon additional food as a bait to induce patients to employ themselves, and suggest the establishment of a token system, which would enable patients to purchase luxuries, such as tobacco, sweets, etc. Additional calories are only required by individual patients who are really actively employed. Without committing ourselves to the necessity of a token system we thoroughly agree with this view. They divided the mental hospital population into two categories: (*a*) hard workers, moderate workers, light workers, non-workers (mental reasons), and turbulents; (*b*) debilitated, the sick and bedridden. They estimated that 75 *per cent.* belonged to (*a*), and it is to these that their model dietary applies. Thus it became necessary to make an adjustment of the standard minimum figures in respect of the 25 *per cent.* (*b*) infirm, especially as from 50 to 60 *per cent.* of the 75 *per cent.* (*a*) were actively employed. They therefore added 15 *per cent.*, which brought up their estimates of the physiological requirements of the persons to whom the model dietary applies to males—3,220 calories; females—2,875 calories. The daily nutritive and calorie values of the model dietary are as follows:

Sex.	Proteins (grm.)	Fats (grm.).	Carbo-hydrates (grm.).	Energy values in calories.
Males	97	123	417	3,255
Females	89	118	370	2,978

which closely approximates the Committee's basic estimates.

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For some months many of the matters dealt with by the Committee were the subject of investigation by the medical superintendents of the London County Mental Hospitals, which led ultimately to the Council adopting in July, 1923, the dietary and diet administration outlined in a report published in our October issue of 1923 (pp. 586–591). The results of two or more independent investigations on the same subject are always interesting and instructive.

This new London dietary is applicable to all patients except those sick and infirm and others needing special dietary (including recent acute cases, etc.). It is provided, however, that certain deductions should be made in the case of non-working patients who do not, for other reasons, need all the energy values supplied by the scale. The daily nutritive and calorie values of the London dietary can be expressed as follows :

Sex.	Proteins (grm.).	Fats (grm.).	Carbo-hydrates (grm.).	Energy values in calories.
Males	110	90·85	517·48	3,417·5
Females	100·75	88·45	479·06	3,199·6

These figures are inclusive of 10 *per cent.* undigested and wasted.

The London report says : " Under the proposed scale a male working patient is to be provided with the energy and nutritional value of 3,075·75 and a female of 2,879·64 calories a day, and a non-working male patient is to have 2,750·85 and a female 2,527·74 calories a day, after deducting 10 *per cent.* undigested and wasted. Bearing in mind, however, that on an average at least 60 *per cent.* of patients on ordinary diet are working patients, it is suggested that the minimum daily calorie value, including 10 *per cent.* waste, over a week's issues when calculated on the total number of patients on ordinary diet should not fall below males 3,200, females 3,000 —figures which compare with those given by various dietetic authorities which are quoted above."

It will thus be seen that there is not a startling difference in the conclusions and the principles on which they are based of these two bodies on these aspects of the subject.

We now reproduce the Committee's diet scale in detail :

THE MODEL DIETARY.

FOR ADULT PATIENTS DURING WINTER MONTHS (OCTOBER TO MARCH, INCLUSIVE).

Breakfast.

Males	6 oz. bread	daily.
Females	5 oz. bread	
Tea, coffee or cocoa	1 pint	
Margarine or butter	½ oz.	

With one or other of the following extras.

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Galantine of beef, brawn (beef or pork), veal loaf, breakfast sausage, corned beef, bacon, rissoles, black pudding, fish cakes, kedjeree, kipper, bloater, haddock, egg, marmalade, jam, cheese, macaroni cheese, or porridge.

The allowance for each patient for breakfast every other day is 2 oz. of any of the above-mentioned prepared meats, 4 oz. dried fish, or 1 oz. cheese or jam.

On alternate days with the above ½ pint porridge shall be supplied during the winter months.

The rotation of the breakfast meal shall be altered each month when the sequence of dinner meals is reconsidered.

Butter should be mixed with margarine in the proportion of 25 *per cent.* of the former to 75 *per cent.* of the latter, or be given (½ oz.) in place of margarine at seven breakfasts or teas (at least) during each two weeks.

Summer.—Porridge may be dropped entirely during the months April to September inclusive, and its place taken in sequence by stewed fruit, marmalade, jam, or one or other of the "extras" mentioned above. In no case should breakfast consist of a beverage and bread and margarine (or butter) only.

Dinners.

October–March.

—	Allowances.		Remarks.
	Males.	Females.	
Meat, uncooked, and including bone	*6 oz.	*5 oz.	—
Bacon, boiled, ditto	3 ,,	2½ ,,	—
Fish (including bone-cleaned, ready for cooking)	8 ,,	7 ,,	—
Rabbit or meat pie *or* pudding	20 ,,	17 ,,	See formulæ.
Soups	1 pint	1 pint	,,
Stews	1 ,,	1 ,,	,,
Potatoes—			
Only with fish	9 oz.	7 oz.	Unpeeled and uncooked.
In addition to fresh vegetables with roast or boiled meat dinner	7 ,,	6 ,,	,,
With stew	8 ,,	8 ,,	,,
Fresh vegetables—i.e., greens, carrots, parsnips, turnips, onions, etc.	6 ,,	6 ,,	,,
Bread	2 ,,	2 ,,	—
Puddings (flour), such as jam, treacle, raisin, currant, date, fig, ginger, bread, etc.	8 ,,	8 ,,	See formulæ.
Puddings (milk) — rice, sago, tapioca, semolina	½ pint	½ pint	,,
Bread and cheese—			
Bread	2 oz.	2 oz.	—
Cheese	1½ ,,	1½ ,,	—

Alternative dinner dishes, more or less dependent upon local taste, are hot pot, cottage pie, shepherd's pie, sea pie, liver and bacon, pork and beans, sausages, curried meat or rabbit, haricot ox tails, tripe and onions, etc.

* If ovens of known temperature are used, and proper care is taken in carving, these figures should be equivalent to more than 3 ozs. and 2½ oz. of cooked meat for males and females respectively. These amounts are for roast, boiled, or steamed meat dinners. If ordinary coal ranges or gas ovens are used for cooking, a larger amount of raw material will probably be required to yield the same result.

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An apple, orange or banana should be given for dessert at least twice a week throughout the winter months.

Summer.—During the months April to September, inclusive, some of the hot dinners should be replaced by cold, accompanied by salads, lettuces, radishes, tomatoes, etc. Fresh fruit puddings or stewed fruit should be substituted for some of the heavier suet puddings on other than soup days, and fresh uncooked fruit should be regularly supplied when obtainable at reasonable cost.

Tea.

October–March.

Males	5 oz. bread	daily.
Females	3 oz. bread	
Cake	3 oz.	
Margarine or butter	½ oz.	
*Tea	1 pint	

* Cocoa or coffee may be issued if preferred.

With one or other of the following extras.

Jam or marmalade, 7 times per fortnight	1 oz. each patient.	
Meat or fish paste, bloater, or shrimp and salmon, etc., 7 times per fortnight	½ ,, ,,	

The supply of cake should be varied, being made either with currants, sultanas, raisins or carraway seeds. Scones, buns or oatmeal biscuits of the same weight may be issued in lieu.

If preferred, the orange or apple suggested as an addition to the dinner meal may be given for tea twice weekly, replacing the meat or fish paste on these days.

Summer.—During summer months the jam or pastes should be replaced by fresh vegetables or fruit. Lettuces, onions, tomatoes, radishes, watercress, mustard and cress or beetroot are desirable foods, for the regular provision of which arrangements should be made.

DIETARY SCALES.

Tables follow which show a sequence of dinner meals for male and female patients, respectively, covering a period of four weeks. They are designed to demonstrate in the clearest manner possible the amount and kind of food that, in our opinion, should be provided for this particular meal (during winter months) in order to secure sufficiency and variety. It is suggested that the order of these meals should be changed at the end of each four weeks, so that no particular dish can become associated with any particular day.

The Committee estimate that, given adequate kitchen equipment and economical methods of purchase, the cost of the model dietary per head per day for patients in county mental hospitals should not exceed 8·5 pence and for those in borough institutions not more than 8·75 pence, or 4*s.* 11½*d.* and 5*s.* 1¼*d.* per head per week respectively.

The general report closes with a list of conclusions and recommendations:

1. That there should be more uniformity in the construction of mental hospital dietary scales, especially in regard to—

(*a*) the character of food given;

(*b*) its total amount;

(*c*) the amounts of certain staple articles of diet; and—

(*d*) the avoidance of monotony.

2. That the average calorie values of dietaries for ordinary patients in mental hospitals (including workers, and excluding those on substituted diets) should not fall below 3,220 for males and 2,875 for females.

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In the notice of the London Mental Hospital Dietary it was stated that it enunciated certain important principles and methods of dietary administration. These express our own views and are as follows :

(*a*) It fixes a minimum value of the daily nourishment to be given generally to patients who are not specially and individually dieted.

(*b*) It provides machinery for variation (i) to prevent monotony, (ii) to suit groups of patients, *viz.*, epileptic, working, chronic, turbulent, etc.

(*c*) It provides machinery to deal with the waste of food because of its unpopularity and without deteriorating the food value of the total issues.

(*d*) It leaves to the individual hospital the selection or creation of recipes, menus, and methods of distributing food.

(*e*) It provides machinery for the supervision of the nourishment of the patients by the Committee of Management.

(*f*) The issues, being based on the requirements of 100 patients per week, will allow of economy being effected for bulk feeding as experience of the scale is gained. These issues can be varied from time to time by the Mental Hospital Committee without any disturbance of general principles and methods of administration. Thus any scale of issues or formulæ or menus can be readily carried out by a mere adjustment of the scale appended to the dietary.

We think that diet construction, so long as the diet is of adequate energy and vitamine value and is attractive and appetizing, is of secondary importance to diet administration. Any diet regulations designed to be applicable to the whole country should be limited to important principles and methods such as formulated above. Individual hospitals and authorities responsible would work out their own salvation in these matters, having regard to the varying local conditions and types of patients. Rigid diet scales and menus, we hope, will soon become things of the past.

3. That to insure the presence in dietaries of necessary accessory food factors (vitamines) there should be a partial reinstatement of butter as a regular article of diet, a supply of milk in greater quantity, an increased provision of green and other vegetables, a more common use of eggs, a free administration of salads and fresh fruit, and a more general use of wholemeal or germ bread.

In the body of the report the Committee say : " We would also urge that butter should be substituted for some of the margarine now issued. In recommending a 25 *per cent.* substitution, as minimum, we have been influenced by contingent cost ; but for this we should have been tempted to advocate a more radical change. We

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think, however, that if the 25 *per cent.* substitution is adopted, the regular supply of milk increased, eggs given occasionally, green vegetables made a regular issue, and the use of uncooked green food and fruit encouraged, all reasonable vitamine requirements should be met."

4. That, as these improvements would be secured by the adoption of our suggested model dietary, and as, under proper conditions, the cost of this dietary at present prices should not exceed 8½d. per head per day for county mental hospitals and 8¾d. for borough institutions, we commend its general adoption in public mental hospitals, with such modifications as may be necessary to meet varying local conditions.

5. On grounds of economy as well as efficiency it is important—

(*a*) To establish a unified food department in each institution, under a competent and responsible head, for dealing with the supply, cooking, distribution, and service of food. (In the text the steward is recommended for the post.)

(*b*) To provide each institution with adequate kitchen equipment.

(*c*) To endeavour to secure, as kitchen workers, the services of persons more highly skilled in cookery by making these posts more remunerative and attractive. This refers more particularly to the responsible head. And—

(*d*) To pay greater attention in many hospitals to other points dealt with in the body of this report relating to the cooking, distribution and service of food.

6. That substantial economies can be secured by paying greater attention to the terms of specifications and contracts, and by taking more advantage of wholesale markets.

7. That, in regard to food expenditure, separate accounting, as between patients and staff, should be the rule in all mental hospitals.

8. That it would be a great advantage if an officer skilled in these details could be appointed on the Board of Control staff temporarily, to advise and assist local authorities in regard to the adoption of the model dietary.

In conclusion we congratulate the Committee on the results of their heavy labours. They have spared no time or trouble in their endeavour to arrive at a real solution of a question which is of the vast importance to those who are being cared for in the public mental hospitals. Nothing but good can come from a careful

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study of their report, and though it cannot be expected that their recommendations will be generally adopted in their entirety, we have no doubt that many of them will, and that the information collected by them will be of the greatest value and assistance to hospital committees and medical superintendents and others responsible for the welfare and treatment of the mentally afflicted.

Part II.—Reviews.[1]

Addresses to Mental Nurses: A Series of Fifteen Lectures delivered to the Nursing Staff of the Retreat, York, by Various Authorities. Edited and arranged by BEDFORD PIERCE, M.D.Lond., F.R.C.P. Lond. London: Baillière, Tindall & Cox, 1924. Demy 8vo. Pp. viii + 285. Price 7*s.* 6*d.* net.

It was a happy thought which led Dr. Bedford Pierce to collect, edit, and publish these remarkable addresses, for it would indeed have been a calamity had they remained hidden in the archives of the Retreat and not given out to the nursing world to act as "beacon lights," guiding the footsteps of all those ambitious of attaining the spirit as well as the art of mental nursing.

He is deserving, too, of the appreciation of nurses generally, of medical men, and of the public, who are all given the opportunity of becoming acquainted with the innermost and, in a sense, the sacred thoughts of men whose whole lives have been devoted to psychiatry. What subject is of more absorbing interest than the study of that highest expression of human nature—the mind,—or of such importance to the individual and to the nation as the comforting and healing of the mind diseased and mental hygiene?

Incidentally these addresses also reveal the fact that men of broad outlook, sympathy and tenderness, and of great understanding have in the past led us and still lead us. Some in their ignorance think otherwise and not always are they thus described, but we have good reason to be proud of our leaders and grateful for their guidance and inspiration.

Again, this book can be regarded as a monument to the work of that great English pioneer of modern psychiatry—Tuke, of the Retreat at York. It is truly appropriate that those who have since been in the van of the fight against the centuries-old attitude of superstition and apathy to the mentally afflicted should make a pilgrimage to the Mecca of our vocation to give utterance to those watchwords and experiences a knowledge of which is of such importance to the "rank and file," without whose whole-hearted and intelligent co-operation the mind-doctor would be helpless.

On this occasion it is not strictly our purpose to criticize. These addresses are by members of our Association, or were while they lived. Their words embody all that our Association stands for,

[1] We regret that owing to the indisposition of a reviewer several important reviews are not completed and are held over until our next number.—EDS.

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