

## Dietary Standards

IN December 1935, a Commission of Experts (Technical Commission) appointed by the Health Committee of the League of Nations issued its London Report on the "Physiological Bases of Nutrition" (see NATURE, Feb. 1, p. 176). The publication of this report was followed by its communication for study to representative learned societies, social studies institutions and health administrations in various countries. Observations received from such sources indicated general approval of the purpose and content of the report. Several suggestions were made, however, regarding details which might deserve further consideration. These were examined at a further meeting of the Technical Commission at Geneva in June last, with the result that a revised edition of its report has now been published\*.

The most noticeable changes in the new edition are those which amplify the previous sections dealing with the feeding of children. The general principles of infant feeding are dealt with in greater detail. Such topics are now included as the use of heated milk to prevent milk-borne infections, the methods of preventing nutritional anæmia and the special requirements of premature infants. Dietary schemes are now included for children in the age groups 5-7 years and 12-14 years as well as for those in the younger groups. Incidentally, the energy allowances for children in the age groups 1-2 years and 2-3 years have now been slightly raised. A further alteration of note concerns the energy allowances for adults. It may perhaps be remembered that in the original report an allowance of 2,400 calories a day was suggested for men and women alike, with supplements for muscular activity varying according to the severity of the work performed. In the revised edition, the basal allowance is the same, but the supplements are increased, so that for light work the new scale allows up to 75 calories per hour of work in place of 50, for moderate work 75-100 calories in place of 50-100, for hard work 150-300 instead of 100-200 and for very hard work 300 calories and upwards instead of 200 and upwards.

Certain general principles regarding the choosing of suitable dietaries are set forth in greater detail in the new edition. The modern conception of 'protective' foods is elaborated; the term is defined as including foods which are especially rich in those nutrient principles (good protein, vitamins and minerals) in which the chief foods of any geographical area are deficient. Good protein might thus be a valuable protective food in an Asiatic diet but not in a Western diet where a scarcity of it is comparatively rare. Attention is directed to the value of lightly as opposed to heavily milled cereals as a source of iron and vitamin B<sub>1</sub>, and to butter in preference to other common fats because of its richness in vitamin A. The consumption of excessive amounts of sugar is condemned for the reason that it tends to lessen the proportion of protective foods in the diet as a whole. Lastly, the Commission has added to its list of problems requiring serious study the investigation of the optimum amount of milk required by human beings at different ages.

\* "Report on the Physiological Bases of Nutrition." Revised and amplified at the meeting held at Geneva, June 4-8, 1936. *Quarterly Bulletin of the Health Organisation, League of Nations*, 5, 391 (London: George Allen and Unwin, Ltd., 1936).

## Educational Topics and Events

CAMBRIDGE.—The Vice-Chancellor gives notice that the professors of physiology (Sir Joseph Barcroft), social anthropology (Prof. T. C. Hodson) and zoology (Prof. J. Stanley Gardiner) are due to retire on September 30, 1937.

Prof. Th. Von Kármán, of the California Institute of Technology, has been appointed Rouse Ball lecturer for the year 1936-37.

The following have been approved for the degree of Sc.D.: W. L. Edge, of Trinity College, and Dr. R. G. W. Norrish, of Emmanuel College.

At Clare College, E. N. Willmer, of St. John's College, University lecturer in physiology, has been elected into an official fellowship.

At Newnham College, the Henry Sidgwick Memorial Lecture will be delivered on November 28 at 5 p.m. by Lord Rutherford. The subject of the lecture is "Modern Alchemy".

The Adams Prize is open to the competition of all persons who have at any time been admitted to a degree in the University. Women are also eligible. The subject proposed for the period 1937-38 is the distributional properties of functions of statistical variables.

LONDON.—The following degrees have been conferred: D.Sc. (Economics) on R. P. Tripathi, an internal student, of the London School of Economics; D.Sc. on E. E. Jelley, an external student, and D.Sc. (Engineering) on R. W. Bailey, an external student.

OXFORD.—W. D. Hambly, of Jesus College, has been granted the degree of D.Sc. for his work in social anthropology.

Dr. J. A. Douglas has been appointed deputy for the professor of geology during the vacancy.

THE bicentenary of the University of Göttingen will be celebrated in the last week of June 1937.

THE International Congress on Technical Education which was to have been held in Rome on May 28-30 but was indefinitely postponed will take place there on December 28-30. The Congress is under the auspices of the Bureau international de l'enseignement technique, 2 Place de la Bourse, Paris, from which further information can be obtained.

THE following scholarships, which are tenable for three or four years, according to the length of the course at the university selected, will be offered by the Institution of Naval Architects for competition in 1937: *Naval Architecture*: Martell, £130 per annum; Trewent, £125 per annum; Denny, £75 per annum. *Marine Engineering*: Parsons, £150 per annum; Yarrow, £100 per annum; Denny, £75 per annum. Full particulars may be obtained from the Secretary of the Institution of Naval Architects, 2 Adam Street, Adelphi, London, W.C.2.

ADULT education offers to a community suffering from the lag of the social sciences behind the advance of the natural and technological sciences and threatened by consequent social disorganization a potent remedial instrument. It has, to use a metaphor popularized by Sir Josiah Stamp *a propos* of the "impact of

science" in his address to the British Association, a high potential value as a 'shock-absorber'. This has been recognized in the United States, and is one of six reasons assigned by Dr. Floyd W. Reeves, professor of education in the University of Chicago, for the recent rapid expansion in adult education in the United States, the other reasons, less significant and compelling, being: activities of the American Association for Adult Education, organized in 1926; increased leisure; need for retraining for new occupations resulting from technological progress; Thorndike's exposure of the fallacy that adults rapidly lose ability to learn; and the success of a widespread drive to promote parent-education so as to facilitate the introduction of reforms in school-teaching methods, notably in methods of teaching how to read. Dr. Reeves is consultant and was director of personnel to the Tennessee Valley Authority, and he has contributed to *School and Society* (Aug. 29) a paper on adult education as related to the T.V.A. In the co-operative commonwealth administered by this body, its adult educational programme holds a key position. In the systematic employment in this field of four new instruments—the public library, radio, visual education and public affairs forums—the authority is pre-eminent among educational agencies. A three-weeks observational tour revealed great keenness among the learners, numbering more than 25,000, and a high standard of efficiency among the teachers, more than half of whom give their services without pay in their spare time. Concerning adult education in the country as a whole, Dr. Reeves quotes statistics indicating that the participants in 1934 numbered more than twenty-two million.

## Science News a Century Ago

### A Balloon Voyage from England to Germany

THERE were several notable balloon voyages in 1836, but none of them excited greater interest than that by Charles Green in the great Nassau balloon from the Vauxhall Gardens to Weilburg, in the Duchy of Nassau, on November 7–8, 1836. The balloon had a full equipment of scientific instruments, provisions for a fortnight and an apparatus with which it was hoped to be able to keep the balloon afloat if it was necessary to come down on the surface of the sea.

With two companions, Green ascended at 1.30 p.m. on Monday, November 7, and landed at Weilburg at 7.30 a.m. on Tuesday, November 8. When he passed over Dover, a message for the Mayor was sent down in a parachute. Writing of the episode in the *Athenæum*, "W. P." said: "We look forward with some anxiety to the receipt of a more detailed account of this interesting adventure, the perfect accomplishment of which must have realized the most sanguine expectations of the gentlemen who undertook it. It is no matter of wonder that it should have excited the public attention with such a lively interest, for to say the least of it, it has furnished a fact which is quite new in the history of man—that of his having travelled a distance of from four to five hundred miles in the short space of eighteen hours, or in other words, having travelled, in that period, a distance which is not usually accomplished in six times as many hours".

### The Human Brain

IN a review in the *Athenæum* of November 12, 1836, of "The Human Brain, its Configuration, etc., illustrated by references to the Nervous System of the Lower Animals", by Samuel Solly, the writer said: "This is a scientific book by a scientific man, and written rather for the profession than the public. We hope, however, that every day will bring physiology more within the range of general education, and that future generations will know something more of themselves, physically as well as morally, than their ancestors did, in the ignorant past. . . . Hitherto as he himself firstly observes, the information conveyed of the anatomy of the brain, by systematic works, has amounted to little more than a vain catalogue of names, applied to parts, without reference to their structure, their functions, or even their analogies in the nervous system of the lower animals. . . . That Mr. Solly should have abandoned this method, and broken through a long night of ancient usage, to proceed in a truly scientific plan . . . is good *prima facie* evidence in favour of his mental qualifications for the task he has undertaken; and his perpetual reference to comparative anatomy shows an equal contempt for the spirit of routine, which has so long possessed the medical constituted *corps* of London. . . ."

Samuel Solly (1805–71), the author of the book, had been trained under Benjamin Travers (1783–1858), surgeon to St. Thomas's Hospital, London, and was elected a fellow of the Royal Society in 1837.

### Identification of the Body of Charles I

IN a lecture on this subject delivered at the Aldersgate School of Medicine and reported in the *London Medical Gazette* of November 12, 1836, Dr. William Cummin gave the following account of the identification of the remains of Charles I, when a search conducted by Sir Henry Halford was made for them at St. George's Chapel, Windsor: "The particular vault in which the coffin was deposited had long remained unknown, though it was understood to be the one in which Henry VIII and one of his wives were laid. Accident led to its detection. A scroll with name and date served in some measure to authenticate the outer covering; but the examination of the head left not a doubt of the identity of the royal remains. Upon disengaging the face from the cere-cloth, which had been lined with an unctuous and resinous substance, apparently with a view to exclude the external air, the complexion of the skin was found to be dark and discoloured. The forehead and temples had lost little or nothing of their muscular substance; the cartilage of the nose was gone; but the left eye in the first moment of exposure was open and full, though it vanished almost immediately; and the pointed beard, so characteristic of the period of the reign of King Charles, was perfect. The shape of the face was a long oval; many of the teeth remained; and the left ear in consequence of the interposition of the unctuous matter between it and the cere-cloth was found entire. The countenance, in short, notwithstanding its disfigurement bore a strong resemblance to the coins, the busts and especially to the pictures of Charles the First by Vandyke. Finally the fourth cervical vertebra was found divided transversely—the corresponding surfaces being smooth, betokening that they had been separated by a heavy sharp instrument."