

that the same vitamin which restored normality to the biochemistry of the tissue *in vitro* would rapidly cure the opisthotonos in the pigeon showing symptoms. Hence there was a direct connexion between these central symptoms and a fault in the enzyme system of the brain, due to lack of the vitamin. The only other tissue from the avitaminous bird in which these vitamin effects had been demonstrated *in vitro* experimentally was the kidney. This perhaps helped to explain oedema. Increased lactic acid could also be explained by this scheme when it was realized that pyruvate accumulated in the blood in B₁ avitaminosis in both pigeons and rats, because pyruvic acid was known to block the oxidation of lactate. The abnormal appearance of pyruvate was soon stopped by giving the animal vitamin B₁. The increased pyruvate in blood did not necessarily coincide precisely with the induction of the symptoms, but it was wrong to consider the symptoms as induced by the pyruvate. It was not yet certain whether the known biochemical fault in brain and kidney would explain the increased pyruvic acid in the blood, or whether there were still other unknown disturbances concerned.

The above gave a clear and logical picture of abnormalities in the avitaminous animal, with two exceptions: (1) the initial failure in appetite, occurring long before any other avitaminous manifestations; and (2) the increases in sugar tolerance found in the terminal stages of vitamin B₁ deficiency together with occasional disturbances in the regulation of the storage of glycogen in the liver. If these changes were considered to be primary defects due to lack of vitamin, then there was some other biochemical system, as yet unknown, with which vitamin B₁ acted; but if they were secondary to the initial fault in the brain, then some of them became intelligible. They would be the results of dysfunction of the essential brain cells concerned in carbohydrate regulation. This formed a useful working hypothesis.

Dr. B. S. Platt said there were substances normally present in human blood which bound bisulphite. They were found in increased amounts in the blood of cases of fulminating beriberi. Pyruvic acid was one of these substances. Increased amounts of it were shown to occur in trichloroacetic extracts of blood, urine, and cerebrospinal fluid taken from patients with fulminating beriberi. In uncomplicated cases of fulminating beriberi with increased amounts of pyruvic acid normal levels were restored in the course of ten to fifteen hours after intravenous administration of 5 mg. of pure vitamin B₁. It had been shown that vitamin B₁ was concerned in the intermediate metabolism of carbohydrates. Changes in amounts of metabolites in the blood in states of vitamin B₁ deficiency were considered to be evidences of disturbances arising in tissues whose carbohydrate metabolism involved vitamin B₁. The operation of some factors—fever, increased intake of carbohydrates, muscular effort—which were known to affect metabolism in the body led to accumulation of pyruvic acid in the blood in states of vitamin B₁ deficiency. It was suggested that the effects of accentuating factors contributed to the development of the various clinical types of beriberi. These effects might be of more importance in this respect than the differences in the grade of vitamin B₁ deficiency. When accentuating factors were minimal it was probable that well-defined changes only appeared after a comparatively long period of deficiency. Changes secondary to the failure of various organs and associated disease modified the clinical picture of beriberi. The effects of treatment with vitamin B₁ must be assessed with cognizance of the fact that damage to tissues might ensue, especially in long-term deficiency, which could not be repaired merely by correcting the vitamin deficiency.

Miss HARRIETT CHICK said that the work just presented was very encouraging, inasmuch as it gave overwhelming evidence that vitamin B₁ had everything to do with the development and symptomatology of beriberi—at least in this particular form. She asked why the therapeutic results in the past had been so contradictory. Professor

HAWES, in reply, pointed out that defective standardization and insufficient dosage accounted for this.

Dr. J. BARCROFT ANDERSON referred to Dr. Rowland's work, which had shown that continued deficiency of the vitamins of grain germ resulted in a diminution in the size of nerve cells and fibres, reduced unstriated muscle to one-third of its bulk in the intestine of rats, and produced degenerative changes in the kidney. Sir LEONARD ROGERS asked if the effect of B₁ injections had been determined in infantile beriberi. Dr. PLATT said that infantile beriberi was probably the purest form of B₁ deficiency. Dr. WILLIAM HUGHES said the therapeutic results were excellent in children; after 1,500 units were injected it took about three days before the child cried.

Dr. H. M. SINCLAIR asked if the neuritis in beriberi was due to a deficiency of B₁ and whether it responded to therapy. Professor HAWES, in reply, said that in only a few cases was the nervous condition cured dramatically; in many cases the symptoms persisted for months. Obviously another factor was involved in the neuritis. In regard to infantile beriberi it was easier to give injections of B₁ to the mothers before childbirth and when breast-feeding the baby to prevent attacks. The mothers frequently had no signs of beriberi, yet the infants might develop an acute attack and die.

Local News

SCOTLAND

Empire Exhibition, Glasgow, 1938

The Scottish Committee of the British Medical Association has co-operated with the Department of Health for Scotland in arranging for a demonstration of "The Contribution of Scotland to Medicine" at the forthcoming Empire Exhibition in Glasgow. This demonstration will be largely historical in character and will deal with the part played by individuals, medical schools, and hospitals. A special subcommittee has already held several meetings. The Scottish Secretary (Dr. R. W. Craig, 7, Drumsheugh Gardens, Edinburgh) will be glad to hear from any member of the Association who is prepared to lend interesting relics or photographs.

Edinburgh University

The Senatus Academicus of Edinburgh University at a meeting on February 11 awarded the Cameron Prize for 1938 to Karl Landsteiner, M.D. Vienna, a member of the Rockefeller Institute for Medical Research, New York, in recognition of his researches on iso-haemagglutinins and blood groups, and for the influence of his discoveries on the practice of therapeutic blood transfusion. The Senatus also awarded the Straits Settlements Gold Medal to Thottakat Bhaskara Menon, M.D. Madras, D.Sc., for the excellence of his thesis on "Pathological Studies on Splenomegaly."

Scottish Committee on Nursing

The Departmental Committee on Nursing, which is inquiring into the recruitment and the terms and conditions of service of nurses in Scotland, has held two further meetings. At these meetings oral evidence was given by representatives of the Scottish Branch of the Queen's Institute of District Nursing, the Scottish Matrons' Association, Edinburgh Corporation, the Astley Ainslie Institution, Edinburgh, the General Board of Control for Scotland, Stirling Royal Infirmary, and Fife County Council.

Glasgow Western Infirmary

At the annual meeting of contributors to Glasgow Western Infirmary on February 11, when Sir John Stewart presided, Sir Henry Mehan said that the managers had in view the building of an extension to accommodate paying patients such as the other two infirmaries of Glasgow had. There was no possibility, however, of this being done at present owing to lack of funds. The report of the Infirmary showed that maintenance expenditure amounted to £104,349 and ordinary income to £77,860, the deficit being met from unrestricted capital. During the year new heating plant was completed and heavy payments were made in extensions of the pathological block, laundry, and x-ray departments. The number of patients treated was 13,465, an increase of 272 on the previous year. The average number of patients per day was 661. Out-patients numbered 52,447, of whom 12,734 were casualty cases, and 14,657 were treated in the radiological department. The radium department served a large area, and the National Radium Commission had expressed its approval of the organization at the Infirmary by allocating three grammes of radium. It was hoped that the Gardiner Institute of Medicine would be completed for the beginning of the winter session 1938-9.

ENGLAND AND WALES

Hospital Almoners' Association

The annual dinner of the Hospital Almoners' Association took place on February 5 at St. Ermin's Restaurant, London. Miss Macintyre, chairman of the association, presided. The principal speaker was Sir E. Farquhar Buzzard, Regius Professor of Medicine at Oxford University and president of the Institute of Hospital Almoners, who, in proposing the toast of the association, spoke of the days before the introduction of almoners into the hospitals and the difference which their coming had made to medical work. He spoke also of the future development and extension of the social work and the possibility of the collected experience being a valuable contribution to sociological research. Mrs. A. W. Tomkins, assistant almoner, St. Thomas's Hospital, responded for the association. Mr. H. Chitty, honorary surgeon to the Bristol Royal Infirmary, replied to the toast of "The Guests," which was proposed by Miss M. Streatfield, assistant secretary of the Institute of Hospital Almoners. Among other guests present were Dr. Margaret Hogarth, assistant medical officer of health to the London County Council; Mr. E. Ridley, director of public assistance to the Middlesex County Council; Dr. Stallybrass, deputy medical officer of health for Liverpool and vice-president of Liverpool Medical Institute.

Institute of Ray Therapy

The hopes and plans of many months, and indeed of years, were brought to fruition on February 5, when an extension of the Institute of Ray Therapy in Camden Road, London, was opened by the Princess Royal. This "hospital for electro-physical treatment," which is its subtitle, was opened eight years ago, but hitherto its excellent work has been done under extremely cramped conditions. The new wing affords adequate, if not abundant, space, and it is declared that the hospital is now equal to anything of its kind in this country or on the Continent. Some account was given of the project when its purpose was announced at an earlier function (*Journal*, April 24, 1937, p. 884). The first floor of the extension provides for treatment by diathermy of several patients at a time. There is a section for the older forms of treatment by medical electricity, but with up-to-date appliances, and another section furnished with much

interesting apparatus for physical and remedial exercises. The ground floor is also to be equipped for electrotherapy when funds are available.

On the occasion of the opening the Princess Royal was received by the Mayor of St. Pancras, the president of the Institute, Lord Horder, and the hon. medical director, Dr. William Beaumont. After a number of presentations had been made, including the chairman of the governors, Lord Sempill, and the chairman of the medical advisory committee, Sir Robert Stanton Woods, a short address was read to the Princess by Lord Horder in asking her to declare the extension open. Lord Horder pointed out that the general hospitals, limited as they were by space and funds, could provide only for those conditions which were their first concern, such as acute illnesses, serious accidents, and complex and obscure diseases. They were unable to deal with many of the chronic diseases which gave rise to a great amount of incapacity. Illnesses which caused only partial incapacity had been sadly neglected in the past. Here was the value of the Institute of Ray Therapy, which filled many gaps and afforded treatment for minor ailments which reduced the efficiency of the worker. It aimed to prevent such ailments from becoming major maladies.

"We in the medical profession," Lord Horder continued, "know that in our history occasions arise when the clamour of the public brings about the adoption and amplification of certain methods of treatment which would otherwise remain of theoretical interest only. We recognize that to a great extent it is this urge which has been responsible for the great expansion, during the last few years, of physical medicine. No more striking argument could be put forward for the need of this institution than the fact that we are gathered to-day to see the opening of this extension, made necessary by the demand for still more accommodation and still greater advances in these methods, although already three thousand and more treatments are being given every week."

After the Princess Royal had declared the building open a prayer of consecration was offered by the Archbishop of York, a "human account" of the work of the Institute was given by Lord Sempill, and then an old patient and a present patient offered purses on behalf of old and present patients respectively, and other gifts were made. The Princess spent some time inspecting the new wing, and manifested particular interest in the gymnasium, the various electrical appliances, and the labour-saving devices to ease the work of the nursing staff. One feature of the new building is its admirable lighting by very large windows.

Scientific Treatment of Delinquency

The Institute for the Scientific Treatment of Delinquency has acquired a house, No. 8, Portman Street, W., for the purpose of a clinic, and the opening ceremony took place on February 9 in the presence of the Mayor of St. Marylebone, representatives of the Home Office, and a number of prominent magistrates and medical men. The clinic contains departments for vocational guidance, graphological research, intelligence tests, and the measurement of temperament, for which last purpose an instrument known as the McDougall-Schuster dotting machine excited some interest. The clinic is intended to be used for investigation into the various forms of mental maladjustment. About seven years ago a scientific investigation was carried out on a number of prisoners in Holloway by a psychologist on behalf of the Medical Research Council, with assistance from the Home Office. As a result it was considered desirable to have a permanent centre for the examination and treatment of cases of anti-social conduct, especially among young people coming into conflict with the law, and the movement just started has been widened into an organization for research into the causes, treatment, and prevention of anti-social conduct of all kinds.

Lord Roche, Lord Justice of Appeal, in declaring the clinic open, said that in his view the first function of such an institute was to determine with more certainty than

could be done at present into which of the categories of criminals a convicted person was properly to be placed, whether he belonged at the one extreme to those who offended against the law because of a weakness or infirmity which might be cured, or, at the other, to those who were determined to live preying on society. The second function was, by the care and skill of psychiatrists, to endeavour to remove the cause which had led the offender to commit the offence. His own experience of seventeen years as a judge in the King's Bench Division, spending a considerable proportion of his time trying criminal cases on Assizes and at the Central Criminal Court, was that administrators of the law badly needed such an institute and could derive essential help from it. He hoped that those in judicial authority would increasingly seek the aid of the right judgment which such an institute could in appropriate cases afford. Lord Roche went on to say that there was a certain suspicion of "odium medicum" attaching to this as to all comparatively new branches of medical science. "There is a certain justification for this attitude in general because new developments have a way of attaching to them exponents who make extravagant claims or may be even charlatans. Believe me, there is nothing of the sort here. This Institute is administered and served by men of high scientific attainments, having the honesty and humility that impel them to recognize and observe the due limits of their science and their art. You need have no fear that you are supporting cranks or charlatans; the whole thing rings true." He added that one of the great merits of the new home of the Institute was that it seemed in its arrangement and appearance to wear the respectable air of a series of adequate consulting rooms. Dr. E. T. Jensen, chairman of the Institute, in expressing thanks to Lord Roche, suggested that this movement was only on the threshold of what might prove to be a large national institute of criminology. Dr. Denis Carroll described the work of the Institute, of which he had been one of the chief directive forces. The courts referred to the Institute a number of delinquents, who were tested for intelligence and in other respects, and an impartial review was given to the court as to the delinquent's mental state and its relevance to the offence with which he was charged. Some were found to be suffering from various diseases, physical or mental, and among the mental conditions certain eccentricities and some instances of psychopathic personality were to be classed. Of some 500 persons seen since the Institute began its work roughly one-half had been treated in one way or another. It was necessary to wait at least ten years before talking about successes, but so far only twenty relapses were known. Dr. Edward Glover, chairman of the Scientific Committee of the Institute, also spoke to a vote of thanks, after which the building was inspected by the large company present.

Co-ordination of Newcastle Hospitals

Newcastle-upon-Tyne, following the example of a number of other large provincial centres such as Manchester and Liverpool, has set up a Newcastle Hospitals Joint Advisory Board, with representation on it of the municipality, the voluntary hospitals, and King's College. At the opening meeting Lord Eustace Percy, Rector of King's College, was chosen to be its first chairman. The purpose of the board is to act as a joint body for consultation between the corporation and the voluntary hospitals, and it is empowered to advise the constituent bodies on all matters affecting the hospital services of the city, both municipal and voluntary, so as to promote the best use of all available hospital facilities in the development of an efficient service for the city as a whole. Matters to be discussed may include the provision of new in-patient, out-patient, and casualty facilities and new bed accommodation, buildings, and equipment, and the extension of existing facilities; the principles underlying the medical and surgical staffing of hospitals concerned; financial arrangements between municipal and

voluntary hospitals for services undertaken; medical education and research; and "all matters of common interest to municipal and voluntary hospitals, whether directly or indirectly connected with the hospital services." The founder members, elected for three years, are the Lord Mayor and nine other members of the City Council, together with the medical officer of health, Dr. John A. Charles; Lord Eustace Percy, Sir Robert Bolam, Professor R. Bramble Green, and Mr. H. B. Saint, representing King's College; Sir Ralph Mortimer, Professor W. E. Hume, Mr. F. C. Pybus, Dr. S. Whately Davidson, Councillor W. Cook, and Mr. J. H. Burn, representing the Royal Victoria Infirmary; Dr. W. MacMurray, the Hospital for Sick Children; Professor R. P. Ranken Lyle, the Princess Mary Maternity Hospital; Mr. L. H. Booth, the Eye Hospital; Mr. S. Phillips, the Throat, Nose and Ear Hospital; and Dr. J. C. Spence, the Babies' Hospital and Mothercraft Centre. The board has power to co-opt, without voting power, any persons possessing special knowledge which would be of material assistance to the board or its subcommittees.

Bradford Health Services

At a public dinner in Bradford last week the Lord Mayor, Alderman H. Hudson, asked if any city in the kingdom could equal Bradford's record as a pioneer in matters pertaining to the health and well-being of the people. In 1920, ten years before any county borough or county council possessed such a hospital, Bradford opened a municipal general hospital. It appointed a school medical officer in 1894, thirteen years before Parliament made such appointments compulsory. As long ago as 1904 Bradford was agitating for powers to feed children who went to school underfed, and when the Education (Provision of Meals) Act, 1906, became law Bradford was the first authority to put it into effect. In 1907 the first open-air school in England was opened there; the first municipal maternity hospital was opened there more than twenty years ago; and municipal midwives were appointed in the city in 1917. Bradford used to have a school for blind children, but as a result of the vigorous steps taken the school had been closed because blindness among children in Bradford was now rare.

Fracture Services

Sir Kingsley Wood, the Minister of Health, recently visited Ipswich and inspected the council's housing estate, the health clinic, and other institutions, and performed the opening ceremony for the new orthopaedic out-patient department and fracture clinic at the East Suffolk and Ipswich Hospital. Speaking at the Town Hall, Sir Kingsley said that a substantial proportion of incapacity in the community was represented by fractures and allied injuries caused by accidents, whether in industry, on the road, or in the home. To-day well over 200,000 fractures were treated annually in hospitals up and down the country. It was of first importance that the organization should be improved and the best and most modern forms of treatment devised and made available. Throughout the country fracture services were needed which would place within the reach of every injured person the benefit of treatment. By this means we could mitigate suffering, reduce the period of disablement, and do much to secure restoration of working capacity. There was a general demand for a better service, inasmuch as only about a quarter of the cases treated were dealt with in departments organized in accordance with modern principles. Industry was particularly interested in this development because experience had shown that the period of disability could be enormously reduced by modern methods of treatment. Workers could be saved much suffering and discomfort and the employers saved much dislocation of their business. He was glad to know that in a number of leading industries of the country financial support was being given to schemes for improved fracture services.

could ring up relatives four counties away (telephone number and exact name not known) to ask permission for the anaesthetic before doing anything else.

Lest Mr. Clarke should fear that I have hindered the flow of patients through what he would consider the proper channels, I would hasten to point out that on the slightest pretext I attempt to throw the burden on to the broad, competent, and obliging shoulders of my surgical colleagues—whatever happens I want my alibi watertight. In spite of my lack of special training, my judgment is extraordinarily good, because not once have I heard a surgeon complain that the condition was too trivial to benefit from his wide experience, or that I should have sent it back to be dealt with by the general practitioner; in fact I have always been given to understand that he was just the man for the job.—I am, etc.,

February 9.

B.M./MC5W.

A Word of Caution

SIR,—The Council of the Medical Defence Union is somewhat disturbed at the continuing volume of requests it receives for advice and assistance from practitioners who have entered into contracts with a body known as the Consolidated World Research Society Limited. On a previous occasion a report appeared in your columns (February 13, 1937, p. 337) as to certain action taken by our solicitors arising from representations made to a practitioner on completion of a contract with the above-mentioned society. Perhaps it would be useful to quote a few sentences from that report:

In December last the Consolidated World Research Society Limited instituted proceedings against a medical man practising in Sussex claiming the sum of £18 said to be due under a contract signed by this doctor for the supply of the *Consolidated Encyclopaedia*. The conduct of the defence was assumed by the Medical Defence Union, and a defence was filed repudiating liability on the ground that the defendant had been induced to enter into the contract "by fraud and wilful misrepresentation by the plaintiffs' representative." A few days before the date for the hearing notice was given on behalf of the plaintiff of the withdrawal of the claim.

Members of the Medical Defence Union are requested to communicate with its Secretary before entering into any contract with the Consolidated World Research Society, whilst, at the same time, it would be desirable to indicate the scope and character of the representations made by any representative employed by the above society when canvassing on its behalf.—I am, etc.,

ROBERT FORBES,
Secretary.

49, Bedford Square, W.C.1.

Universities and Colleges

UNIVERSITY OF CAMBRIDGE

A public lecture will be given in the Physiological Department on Monday, February 21, at 5 p.m., by Professor Simon Flexner, formerly director of the Rockefeller Institute for Medical Research. His subject is epidemic poliomyelitis and epidemic encephalitis.

During the month of January titles of the degrees of M.B., B.Chir. were conferred by diploma on A. C. Clark and V. E. A. Sykes (Newnham College), and of M.B. on G. E. Grove (Girton College).

The following candidates have been approved at the examination indicated:

DIPLOMA IN MEDICAL RADIOLOGY AND ELECTROLOGY.—*Part I*: F. Bush, S. J. H. Douglas, Heather D. Dowling, T. Fichardt,

Kathleen M. Henderson, T. H. Hills, F. B. Kiernander, O. C. Levine, K. Lumsden, R. L. Mansi, A. M. Mansour, J. Morton, R. S. Padaki, C. N. Pulvertaft, S. J. R. Reynolds, Alice M. Ross, A. Smerasuta, C. G. Talwalkar, S. Ei Din H. El Taoudi, W. E. McL. Topping, L. Werbeloff, M. A. A. Zohdy.

UNIVERSITY OF LONDON

UNIVERSITY COLLEGE HOSPITAL MEDICAL SCHOOL

The Sydney Ringer Memorial Lecture will be delivered by Professor J. H. Gaddum at University College Hospital Medical School, University Street, Gower Street, W.C., on Tuesday, March 8, at 5 p.m. His subject is "Ephedrine." The chair will be taken by Sir Henry Dale, F.R.S., and the lecture is open to all qualified practitioners and medical students.

Amendment of Regulations

Amended regulations for the Academic Postgraduate Diploma in Public Health (*Red Book*, 1937-8, pp. 649-52) have been approved for examinations in and after 1939. Copies may be obtained from the Academic Registrar, London University, Bloomsbury, W.C. Revised regulations for the External Diploma in Public Health have been approved, and will be published in the *Blue Book* in September.

Appointment of Representatives

Mr. John Fawcett, F.R.C.S., has been appointed governor of Alleyn's College, Dulwich, in the place of the late Sir Andrew Taylor, and Professor W. W. Jameson representative of the University at the Health Congress of the Royal Sanitary Institute at Portsmouth, July 11 to 16.

UNIVERSITY OF DURHAM

At its meeting on February 11 the Senate conferred the title of Emeritus Professor on Professor H. J. Hutchens, M.R.C.S., L.R.C.P., D.P.H., on the occasion of his resignation from the Heath Professorship of Comparative Pathology.

UNIVERSITY OF SHEFFIELD

At its meeting on February 11 the University Council received notification of payment by the Sheffield City Council of £11,998 as grant to the Faculties of Arts, Pure Science, Medicine, and Law for the year ending March 31.

A special degree congregation will be held on Monday, March 21, at 3 p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND

A meeting of the Council was held on February 10, with the President, Sir Cuthbert Wallace, Bt., in the chair.

The Hallett Prize was presented to Bertram Alfred Edward Johns of Birmingham.

Diplomas

Diplomas of Fellowship were granted to Frederick Charles Durbin of St. Thomas's Hospital and Denis Frederic Elison Nash of St. Bartholomew's Hospital.

Diplomas of Membership were granted to the 159 candidates whose names were given in the report of the meeting of the Royal College of Physicians of London published in the *Journal* of February 5 at page 317; as were the names of the twelve candidates who have been granted Diplomas in Public Health, and the names of the four candidates who have been granted Diplomas in Tropical Medicine and Hygiene.

Diplomas in Medical Radiology were granted, jointly with the Royal College of Physicians, to D. M. Harper, T. Lodge, and J. T. McGinn.

It was reported that at the recent Primary Fellowship examinations held over-seas eleven candidates out of seventy-six were successful in India and five out of fifteen in Cairo.

Mr. Eardley Holland was reappointed to represent the College on the Central Midwives Board, and Mr. Sampson Handley and Mr. Graham Simpson were appointed to represent the College on the Committee on the Geographical Distribution of the Industrial Population.

Museum Demonstrations

A course of museum demonstrations in the theatre of the College begins on February 28, when Mr. L. W. Proger will show new specimens. Mr. Proger will repeat this demonstration on March 7 and 14. On March 4 Dr. A. J. E. Cave will speak on anatomy of the tongue, on March 11 on anatomy of the diaphragm, and on March 18 on anatomy of the skin. All the demonstrations commence at 5 p.m., and are open to advanced students and medical practitioners.