

in the seminiferous tubules in quite early cases of schizophrenia. The work in America has led to no coherent theoretical interpretation; we are left with a jigsaw puzzle as apparently meaningless as ever. The one general finding, which repeats itself over a large number of functions, is that schizophrenics are less reactive than the normal; they can even stand much higher levels of physiological stress. One test, which involved breathing warmed moist oxygen, caused collapse in a quarter of the normal controls but was survived by the schizophrenics without notable distress.

Dr. Hoskins alienates the reader by devoting two out of his three lectures to general considerations without much relevance or interest and by a style which is stilted, pompous, and sometimes absurd: "It is a well-known apparent paradox that preceding acrimony enhances the vividness of connubial empathy." The book's principal fault is that figures and tables are generally eschewed; for these the worker, who might otherwise have found it invaluable as a convenient source of reference, must turn to the original papers given in the bibliography. A disappointing inconclusiveness pervades this work.

ELIOT SLATER.

### BACTERIAL ADAPTATION

*The Chemical Kinetics of the Bacterial Cell.* By C. N. Hinshelwood, F.R.S. (Pp. 284; 79 figures and one plate. 20s.) Oxford: Clarendon Press. 1946.

This is a rarity among scientific works, for it is neither a textbook nor a comprehensive monograph. It is a reflective book—the author himself calls it an essay—in which he has brought together certain concepts of physical chemistry and selected data (mostly his own) on bacterial growth and adaptation in order, as he says, to see what the composition looks like. The adaptation of bacteria to drugs and to new sources of nutrient is of such intrinsic interest for the study of cell processes, apart from its medical importance, that the reflections of a distinguished physical chemist who has been applying the methods and concepts of his own subject to it for some ten years are something of an event. The author regards adaptation of bacterial cells as an automatic response to an altered environment; changed reaction velocities, resulting from the inhibition of one or more enzymic processes, lead to the establishment of new enzyme balances, either in the sense that the proportion of an inhibited enzyme to other enzymes is altered or that alternative enzymic routes, which in the unadapted cell were relatively unimportant, come to play a major role. These ideas are applied quantitatively and with relatively simple mathematical treatment, to such phenomena as lag, growth rate, reversion, and cross adaptation. The influence of natural selection, though it is not regarded as the primary factor, must be superimposed upon other adaptive mechanisms.

Underlying these ideas is an original conception of how enzymes increase in amount in the growing cell; by analogy with some inorganic catalytic reactions it is suggested that enzymes increase their substance by removing suitable protein fragments from substrate molecules, leaving residues which act as intermediates in further enzymic reactions, thus: enzyme + substrate = expanded enzyme + intermediate. The initiation of this process is thought to be due to the attraction which an established protein pattern must exert on protein fragments of like constitution, just as a crystal facilitates crystallization from a solution by providing a lattice on which fresh molecules can orient themselves. This conception of an autolytic process is illuminating from several points of view: it obviously links up with the ideas of Fildes and Woods on what have come to be called "metabolic antagonists"; also established protein patterns are seen to be the inheritance which daughter cells receive from their parent. The book abounds in suggestive ideas, and tribute must be paid to the skill and economy with which the author has presented his reflections; one reader at least has derived both aesthetic pleasure and intellectual excitement from its perusal.

H. R. ING.

*A Primer for Diabetic Patients* (8th edition, W. B. Saunders, 9s.), by Russell M. Wilder, M.D., F.A.C.P., contains the substance of the instruction given to patients in the diabetic school of the Mayo Clinic. A list of questions to test the patient's knowledge follows each chapter.

### BOOKS RECEIVED

[Review is not precluded by notice here of books recently received]

*A Synopsis of Anaesthesia.* By J. Alfred Lee, M.R.C.S., L.R.C.P., M.M.S.A., D.A. (Pp. 254. 12s. 6d.) London: Simpkin Marshall. 1947.

Designed as a summary of current teaching and practice for the student, house-man, and practitioner. Includes chapters on the use of curare, complications of anaesthesia, and shock.

*Biochemistry of Cancer.* By J. P. Greenstein, Ph.D. (Pp. 389. \$7.80.) New York: Academic Press. 1947.

Includes sections on the induction of tumours, attempts at control of tumour induction and of tumour growth, and the properties of tumours.

*Radiology for Medical Students.* By F. J. Hodges, M.D., I. Lampe, M.D., and J. F. Holt, M.D. (Pp. 424. 37s. 6d.) London: H. K. Lewis. 1947.

An American outline of the use of x rays for diagnosis and therapy; intended for medical students; many skiagrams reproduced.

*Diagnostic Neuro-Chirurgie.* By J. Guillaume and J. Sigwald. (Pp. 457. 500 francs.) Paris: Presses Universitaires. 1947.

After discussing the anatomy and physiology of the brain the authors describe the various cerebral neoplasms. Chapters on the investigation of the brain and spinal cord follow.

*The Anatomy of the Nervous System.* 8th ed. By S. W. Ranson, M.D., Ph.D., revised by S. L. Clark, M.D., Ph.D. (Pp. 532. 32s. 6d.) London: W. B. Saunders. 1947.

This profusely illustrated American textbook has been rewritten in parts and new material added; gross descriptive anatomy is now included in one section.

*Dimensions of Personality.* By H. J. Eysenck, Ph.D., et al. (Pp. 308. 25s.) London: Kegan Paul, Trench, Trubner. 1947.

A team of psychologists and psychiatrists has examined 10,000 normal and neurotic subjects in an endeavour to define the dimensions of the personality by means of quantitative procedures.

*An Integrated Practice of Medicine.* By H. T. Hyman, M.D., 4 vols. and index. (Pp. 4,131. £12 10s.) London: W. B. Saunders. 1946.

This American work is designed for the general practitioner. Includes new colour photographs and 318 tables of differential diagnosis.

*The Rhesus Factor.* By G. Fulton Roberts, M.A., M.B. (Pp. 47. 3s. 6d.) London: William Heinemann Medical Books. 1947.

An account in simple terms of the rhesus factor, with illustrative case histories and a chapter on the treatment of its effects.

*Introduction à la Criminologie.* 2nd ed. Vol. I. By Dr. E. de Greeff. (Pp. 414. No price.) Brussels: Duculot. 1947.

After a chapter on the criminal's environment the author discusses his anatomy, physiology, and personality. There is a concluding chapter on homicide.

*A Psychology of Growth.* By B. I. Beverly, M.D. (Pp. 235. 12s. 6d.) London: McGraw-Hill Book Company. 1947.

An account of mental development from infancy to adolescence; intended primarily for the instruction of nurses.

*Ego, Hunger and Aggression.* By F. S. Perls, M.D. (Pp. 273. 12s. 6d.) London: George Allen and Unwin. 1947.

The author, a practising psycho-analyst, criticizes orthodox psycho-analysis and introduces semantics and holism. Intended for general practitioners as well as psychiatrists.

*Gynaecological and Obstetrical Pathology.* 2nd ed. By E. Novak, A.B., M.D., F.A.C.S. (Pp. 570. 37s. 6d.) Philadelphia and London: W. B. Saunders. 1947.

The author has revised the text in this edition and added over 100 new illustrations, some in colour.

*Diseases of the Skin.* 5th ed. By J. H. Sequeira, M.D., F.R.C.P., F.R.C.S., J. T. Ingram, M.D., F.R.C.P., and R. T. Brain, M.D., F.R.C.P. (Pp. 782. 63s.) London: J. and A. Churchill. 1947.

This edition includes new material on chemotherapy, industrial dermatoses, and tropical diseases. Many illustrations, some in colour.

problems, and made most of his contributions to medical literature in this field. During the 1914-18 war he served with the Eastern Mounted Brigade Field Ambulance and attained the rank of lieutenant-colonel. He took part in the Gallipoli landing, and served later in France and Belgium. From 1909 onwards Dr. Archibald was an active member of the Order of St. John. He was a divisional surgeon in 1912, a county surgeon in 1934, and a year or so later he became a knight of the Order. For twenty-six years he was a member of the British Medical Association, being chairman of the Bedford Division in 1928-9.

## Medico-Legal

### NO DIVORCE FOR NEUROSIS

[FROM OUR MEDICO-LEGAL CORRESPONDENT]

The Divisional Court gave an interesting decision in the divorce appeal *Leng v. Leng* (1946, 2 All E. R. 590). The Matrimonial Causes Act, 1937, allows divorce for three years' desertion. The law has long recognized a state of "constructive" desertion in which the matrimonial offence consists in compelling the other party to the marriage to live separately.

Mrs. Leng left the home, taking the child with her, and promptly issued a summons before the stipendiary magistrate for maintenance. She gave evidence of a good deal of personal unkindness, one act of violence, continuous nagging, and oft-repeated orders to "clear out." The husband was obviously highly neurotic. He had had several gastric operations. The magistrate found that the wife had had to put up with conduct which sufficiently justified her in leaving home and made a separation order, but he hoped that within a few days the husband and wife would become reconciled for the benefit of the child. Accordingly the husband did not appeal. He wrote his wife an affectionate and repentant letter and visited her twice, but she refused to come back. To the friend who accompanied the husband on the second visit she said she would be a fool to prefer an allowance of £3 10s. a week with a house to look after to a payment of £2 10s. a week under the order with no obligations. The husband applied to the justices to discharge the separation order, but they refused on the ground that owing to his neurotic condition the parties could not live happily together; that the husband would have difficulty in making serious decisions; that his neurosis would injure the health of the wife and the child; and that the wife, in view of her previous experience, was justified in refusing to go back. The husband appealed to the Divisional Court.

Lord Merriman, the President, pointed out that if the Court upheld the justices' refusal to discharge the order, the wife could come back in two and a half years and obtain a divorce. That would mean that by a judgment of a court of justice neurosis was made a ground for divorce. He declined to be a party to any such judgment. Considering the rigorous restrictions on divorce for insanity, no court had the right to say that the neurotic condition of the husband and nothing else made him a deserter. Justices, he continued, really must apply their minds to the law as laid down in the Act and in decisions of the Divorce Court, and not invent reasons of this sort for disrupting married life, bearing always in mind that the marriage vow was expressed to prevail "in sickness and in health." Mr. Justice Byrne agreed.

### A FORGOTTEN TOURNIQUET

The governors of the Oldham Royal Infirmary admitted liability in a claim by a widow at Manchester Assizes on March 17 for damages for the death of her husband aged 53. He had fractured his wrist at work in Nov., 1944, and a bone graft became necessary. A graft was taken from his shin on Oct. 4, 1945, and eleven hours after the operation, although he had been in great pain for a long time, someone discovered that the tourniquet round his thigh had not been removed. Even then further delay took place before a surgeon was called to give him a blood transfusion, and he died next day. Counsel said that there was no system by which tourniquets were checked. Mr. Justice Singleton awarded £4,000 damages and costs.

## Universities and Colleges

### UNIVERSITY OF LONDON

Alfred Schweitzer, M.D., Ph.D., has been appointed to the University Readership in Experimental Physiology tenable at University College, from Oct. 1; he has also had conferred on him the degree of D.Sc.

John Ritchie Gilmour, M.R.C.S., L.R.C.P., has been appointed to the University Readership in Morbid Anatomy tenable at London Hospital Medical College, from Oct. 1.

### UNIVERSITY OF MANCHESTER

*Research Centre for the Study of Chronic Rheumatism*

Under the scheme recently approved for the establishment of a research centre for the study of chronic rheumatism, the Council of the University has appointed Prof. S. L. Baker, M.Sc., Ph.D., M.R.C.S., L.R.C.P. as pathological director of the centre with the title of Professor of Osteo-Pathology. Prof. Baker will begin his new duties on a date to be arranged. The Council also hopes to make the appointment of the clinical director of the centre at an early date.

The Department of Industrial Health in the Faculty of Medicine of the University will in future be described as "The Nuffield Department of Occupational Health." The following appointments to the staff, among others, have been made: *Lecturers in Occupational Health*: Thomas Bedford, D.Sc., Ph.D., S. B. Davis, B.M., B.Ch., Alice D. K. Peters, B.M., B.Ch. *Lecturer in Medicine*: C. S. D. Don, M.D., M.R.C.P. *Lecturer in Urological Surgery*: D. S. Poole Wilson, M.Ch., F.R.C.S.

### UNIVERSITY OF EDINBURGH

A series of lectures on the history of medicine will be given by Dr. Douglas Guthrie in the physiology classroom of the University at 5 p.m. on the following dates: April 17, 21, and 28; May 5, 12, and 26; and June 2, 9, and 16. Guest lectures will be delivered by Sir Arthur MacNalty on May 16 and by Sir Henry Bashford on May 23. The lectures are free to all matriculated students and to the staff of the University; and to others on payment of a fee of 10s. in lieu of matriculation. Details will be published in the diary column of the *Supplement* week by week.

### UNIVERSITY OF LEEDS

The following candidates have been approved at the examinations indicated:

M.D.—G. R. Fryers, W. L. Hardman, R. F. Lawrence, R. Orton, R. G. Paley, W. Robinson, H. R. Rollin, S. Smith, C. Stringfellow, G. H. Templeman.  
FINAL M.B., CH.B.—*Part III (Medicine, Surgery, Obstetrics and Gynaecology, Therapeutics)*: <sup>1</sup>Emma M. H. Albinson, <sup>1</sup>R. E. Coupland, <sup>1</sup>Charlotte Feldman, <sup>1</sup>R. M. Gaunt, <sup>1</sup>G. W. Lewis, <sup>1</sup>V. H. Redcliffe, <sup>1</sup>G. Wilson, Alice M. Clulow, Florence J. Cook, J. P. F. Cook, J. S. Crawford, Diana J. Haiste, G. B. C. Harrop, R. A. Holman, J. R. Jolly, Evelyn R. Lewis, D. H. Miller, N. E. Nathanson, A. P. Phillips, Dorothy R. Russ, Catherine R. Rycroft, J. H. W. Smith, P. M. Smith, Joan C. Stephens, Elaine M. Sunderland, J. N. S. Taylor, L. Vinegrad, Joan L. Walls, H. M. White. *Part I (Pathology and Bacteriology, Pharmacology)*: N. V. Addison, T. Barker, H. Black, Jeanne E. Boocock, Josephine J. Borman, <sup>3</sup>J. R. Bowker, J. D. Brackenridge, J. V. Chippindale, A. N. G. Clark, Hazel M. Coleridge, J. M. Critchley, J. D. Crossland, C. R. Cumming, <sup>4</sup>M. Dales, Ilene I. Dunn, J. P. Falkingham, Kathleen Gillen, Roxie Glossop, <sup>4</sup>E. W. Green, R. D. Haigh, D. C. Hall, H. M. Hardy, R. High, Jean Hislop, T. B. Hogarth, Margaret E. Johnson, Mary Lloyd-Evans, T. K. Marshall, E. Menchovsky, C. H. Morris, Joy A. R. Penistone, Sarah L. S. Phillips, Marjorie Pitman, <sup>4</sup>Sheila M. W. Pittock, P. D. Roberts, J. S. Robertson, M. S. Salinsky, Etienne L. Sandford, Kathleen Scott, D. M. Serr, J. H. Shoesmith, M. H. Singer, W. M. Sutcliffe, J. S. Washington, Isobel V. Watson, Barbara Welburn, A. B. Wharton, D. M. Williamson, Dorothy L. Wood, J. C. Woodrow, D. P. Wright.

<sup>1</sup>With second-class honours. <sup>2</sup>Distinction in Medicine and Therapeutics. <sup>3</sup>Distinction in Pathology and Bacteriology. <sup>4</sup>Distinction in Pharmacology.

### ROYAL COLLEGE OF PHYSICIANS OF LONDON

Dr. J. Purdon Martin, F.R.C.P., will deliver the Lumleian Lectures on Tuesday, April 15, and Thursday, April 17, at 5 p.m., at the College (Pall Mall East, S.W.). His subject is: "Consciousness and its Disturbances considered from the Neurological Aspect."

### ROYAL COLLEGE OF SURGEONS OF ENGLAND

An Imperial Cancer Research Fund Lecture will be delivered at the College (Lincoln's Inn Fields, W.C.) by Dr. James Craigie, F.R.S., on Wednesday, April 16, at 3.30 p.m. His subject is "Relationships of Virus and Host-cell, with Reference to Latent and Cryptic Infections." The lecture is open to medical practitioners, scientists, and advanced students.