

## REVIEWS OF BOOKS : BOEKRESENSIES

A NEW TEXT-BOOK OF PHYSIOLOGY

*Text-book of Medical Physiology.* By Arthur C. Guyton, M.D. Pp. xiv + 1030. Illustrations, 577 figs. \$13.50. Philadelphia and London: W. B. Saunders Company. 1956.

*Contents:* Part I. Cellular Physiology and Introduction to Human Physiology. 1. Developmental and Cellular Physiology. 2. The Internal Environment and the Philosophy of its Control. Part II. Nerve and Muscle Physiology. 3. Membrane Potentials and Action Potentials. 4. Function of Nerves and of the Myoneural Junction. 5. Function of Skeletal and Smooth Muscle. 6. Cardiac Muscle and its Rhythmic Contraction. 7. The Heart as a Pump and the Cardiac Cycle. 8. Dynamics of Systemic Blood Flow. 9. Capillary Dynamics. 10. Blood Volume and its Automatic Regulation. 11. Extracellular and Interstitial Fluids; The Lymphatics; Edema. 12. The Special Fluid Systems of the Body—Pleural, Pericardial, Synovial, Peritoneal, Ocular, and Cerebrospinal. 13. Cardiac Output, Venous Pressure, and their Interrelationships. 14. Arterial Pressure Pulses: Systolic and Diastolic Pressures. 15. Regulation of Mean Arterial Pressure. 16. Hypertension. 17. Circulatory Shock and the Physiologic Basis of its Treatment. 18. The Pulmonary Circulatory System. 19. The Coronary Circulation. 20. Blood Flow Through Special Areas of the Body. 21. Auscultation and Dynamics of Valvular and Congenital Heart Defects. 22. Cardiac Failure. 23. The Normal Electrocardiogram. 24. Cardiac Arrhythmias and their Electrocardiographic Interpretation. 25. Electrocardiographic Interpretation in Cardiac Myopathies—Vectorial Analysis. Part IV. Body Fluids and the Kidneys. 26. Relationship of Extracellular to Intracellular Fluids. 27. Excretory Function of the Kidney. 28. Control Systems of the Kidney—Regulation of the Extracellular Fluid. 29. The Physiology of Kidney Disease. 30. Acid-Base Balance of the Body Fluids. Part V. The Blood Cells, Immunity, Clotting, and Blood Types. 31. The Red Blood Cells, The Anemias, and Polycythemia. 32. Leucocytes and Inflammation; Agranulocytosis and Leukemia. 33. Immunity and Allergy. 34. Blood Coagulation and Hemostasis. 35. The Blood Groups and Transfusion. 36. The Mechanics of Respiration. 37. Physical Principles of Gaseous Exchange. 38. Transport of Oxygen and Carbon Dioxide Throughout the Body. 39. The Control of Respiration. 40. Physiology of Respiratory Disorders and Their Therapy. 41. Aviation and Deep-Sea Diving Physiology. Part VII. Neurophysiology. 42. The Central Nervous System Ganglion and Basic Neuronal Circuits. 43. The Somesthetic Sensations. 44. Pain—Referred Pain, Visceral Pain, and Headache. 45. Function of the Spinal Cord and Cord Reflexes. 46. Functions of the Hindbrain—Central Facilitation and Inhibition; Equilibrium. 47. The Motor and Premotor Systems of the Central Nervous System. 48. Function of the Basal Ganglia and the Cerebellum. 49. Integrative Functions of the Cerebral Cortex. 50. The Autonomic Nervous System. 51. Sleep, Brain Waves, Epilepsy, Emotions, and Psychosomatic Disorders. Part VIII. The Special Senses. 52. The Optics of Vision. 53. The Retina. 54. The Neurophysiology of

Vision. 55. The Physiology of Hearing and its Abnormalities. 56. The Sensations of Taste and Smell. Part IX. Digestion, Metabolism, and Energy. 57. Motor and Secretory Functions of the Gastrointestinal Tract—the Mouth and the Esophagus. 58. The Stomach, Pancreas, and Biliary System. 59. Motor and Secretory Functions of the Small and Large Intestines. 60. Digestion, Absorption, and Metabolism of Carbohydrates. 61. Digestion, Absorption, and Metabolism of Fats. 62. Digestion, Absorption, and Metabolism of Proteins. 63. Enzymatic Transfer of energy from Foodstuffs to Functional Elements of the Cells: Chemistry of Muscular Contraction. 64. Vitamin and Mineral Metabolism. 65. Dietary Balances, Basal Metabolic Rate, Starvation, and Obesity. 66. Body Temperature, Temperature Regulation, and Fever. Part X. Endocrinology. 67. Introduction to Endocrinology—The Pituitary Hormones; The Pineal Body and the Thymus. 68. Insulin and Diabetes. 69. The Thyroid Hormone—Thyroxin. 70. The Adrenocortical Hormones. 71. Bone, Parathyroid Hormone, Vitamin D, and Calcium and Phosphate Metabolism. 72. Reproductive Functions of the Male, and the Male Sex Hormones. 73. Sexual Functions in the Female, and the Female Sex Hormones. 74. Pregnancy and Lactation. Part XI. Radiation. 75. Nuclear Physics, X-rays, and their Relationships to the Human Body. Index.

It is difficult nowadays to justify the publication of yet another text-book of human physiology. This new book by Guyton has little to add to the story as already told in the established text-books, but it tells the story well. Unlike most of the large standard works today it is a one-author text-book and it does achieve the uniform perspective which the author claims for it and which justifies its existence.

General principles are stressed, particularly the principles of homeostasis and of the oscillation of normal control mechanism which is associated with delayed response and a high amplification-factor. The book caters for modern preoccupations in its sections on aviation physiology, on the biological effects of ionizing radiation, and on psychosomatic disorders. There are no serious omissions and each chapter ends with a useful list of references, particularly to review articles.

The emphasis throughout is on applied physiology. Pathological conditions are described in terms of their disordered physiology and their treatment is described in terms of applied pharmacology. The text is up to date but the author's views, especially on medicine and surgery, are sometimes heterodox

and he fails to emphasize in such cases that the view expressed is not generally accepted.

The style is clear and the illustrations well chosen. The format is of the high standard one expects from the W. B. Saunders Company. This is a good text-book of applied physiology but it is less suitable for the student of physiology than for the student of medicine or the medical postgraduate.

A.W.S.

## MEDICAL PHILOLOGY

*Medical Terms—Their Origin and Construction.* Second Edition. By Ffrangcon Roberts, M.A., M.D., F.F.R. Pp. viii + 88, 6s. net. London: William Heinemann Medical Books Ltd. 1956.

*Contents:* Part I. 1. Introduction: The irrational element. The immortality of words. The unthinking acceptance of words. Looseness of expression. Semantic devices. Etymological errors. Grammar and spelling. American usage. Reform of nomenclature. 2. The Sources of Medical Words: Anglo-Saxon, Graeco-Roman, Romance. Modern inventions. Arabic. Modern German. 3. The persistence of Primitive Conceptions: Soma, psyche, pneuma. Humoral theory. Feelings and emotions. 4. The Principles of Derivation: Association. Change in meaning; contraction, expansion, transfer, reversal. Words of obscure or unknown origin. Words derived from mythology and history. 5. Word-construction: Combining forms. General terms. Rules of construction. Part II. 1. Greek and Latin Anatomical Synonyms. 2. Resemblance. 3. Diminutives. 4. Receptacles, Cavities. 5. Membranes and Partitions. 6. Openings and Communications. 7. Texture, Fabrics. 8. Air, Breath. 9. Fluids. 10. Animals. 11. Plants. 12. Substances. 13. Quantity. 14. Numbers. 15. Paired and Unpaired. 16. Size. 17. Form, Shape. 18. Colour. 19. Hardness, Softness, Thickness, Thinness. 20. Surface. 21. Identity. 22. Human Relations. 23. Position. 24. Relative Position. 25. Cortex and Medulla. 26. Arrangements, Distribution. 27. Approximation, Separation. 28. Visibility. 29. Sounds. 30. Temperature. 31. Time. 32. Relative Time. 33. Speed. 34. Tension. 35. Expansion, Contraction. 36. Stimulation. 37. Change, Modification. 38. Goodness, Badness; Ease, Difficulty. 39. Movement, Transport. 40. Sensation, Feeling Affection. 41. Special Senses. 42. Cutaneous Sensations. 43. Mental States. 44. Growth, Reproduction. 45. Nutrition, Digestion, Excretion. 46. Construction, Destruction, Obstruction. 47. Violence, Danger, Attack. 48. Protection. 49. Wasting, Decay, Death. 50. Pharmaceutical Abbreviations. 51. Additional Synonyms. 52. Words not to be Confused. Index of Words. Index of Subjects.

Two years have passed since the first edition of this book appeared and its apparent popularity has made a second edition necessary. It was my privilege to review the book when it first appeared and I stated then that I considered it to be a useful contribution which would be appreciated by students of all kinds. I still think so.

A.H.T.

## HAEMATOLOGY

*Practical Haematology.* (Second Edition.) By J. V. Dacie, M.D. (Lond.), M.R.C.P. (Lond.). Pp. vii + 229, with 43 illustrations. 20s. net. London: J. & A. Churchill Ltd. 1956.

*Contents:* 1. Collection of Blood and Normal Values. 2. Basic Haematological Techniques: I. 3. Basic Haematological Techniques: II. 5. Use of Basic Haematological Techniques in Clinical Medicine. 6. Supplementary Optical and Staining Techniques. 7. Bone-marrow Biopsy. 8. Laboratory Methods Used in the Investigation of the Haemolytic Anaemias. 9. L.E. Cells and Leucocyte Agglutinins. 10. Investigation of the Haemorrhagic Disorders. 11. Blood Groups and the Laboratory Aspects of Blood Transfusion. 12. Miscellaneous Tests. 13. Appendices: 1. Preparation of Certain Reagents. 2. Preparation of Glassware. 3. Methods of Cleaning Slides and Apparatus. 4. The Sterilization of Syringes and Needles.

It is only 5 years since the 1st edition of this eminently practical little book first appeared but such has been the progress in haematology that this new edition is more than called for. Dr. Dacie has revised and rewritten the whole book and has succeeded, as in the 1st edition, in making it a very valuable laboratory manual. Haematology is now such a broad field that the day of the 'complete haematologist'—an expert in all fields of haematology—has gone for ever. Despite this the author displays a mastery of the whole subject. One expects the section on haemolytic mechanisms to be good—it is after all, the author's own special field. But he displays the same degree of excellence in the rest of the book, whether it be in the description of basic haematological techniques, haemorrhagic disorders, or blood groups and blood transfusions.

A few minor suggestions for the 3rd edition may not be out of place. Giemsa's solution is commonly used for staining thick smears for malaria parasites, especially in areas where the problem arises infrequently, and at least merits a mention. The study of the buffy layer is becoming a more widely used test in conditions other than those causing the L.E. phenomenon and could profitably be discussed. The danger and ubiquity of silicone in a 'coagu-

lation laboratory' needs greater emphasis. It can play havoc with tubes which are not meant to be siliconed, e.g. those used to measure coagulation time and prothrombin consumption. The recommendation to citrate the serum if there is to be delay in measuring serum prothrombin in the prothrombin consumption test is not sound; it does not always stabilize the amount of prothrombin for later testing. All these are very minor criticisms.

This inexpensive book is invaluable in any haematological laboratory and will undoubtedly be every bit as much a success as the 1st edition proved to be.

C.M.

## NURSING

*Gullan's Theory and Practice of Nursing.* Seventh Edition. Revised by Marion E. Gould, D.N. Pp. xvi + 244. Illustrations 2. 18s. net. London: H. K. Lewis & Co. Ltd. 1956.

*Contents:* I. Surgical Technique. II. Food and Feeding of Patients. III. Elementary Diets. IV. Digestion. V. Absorption. VI. Defaecation and Examination of Stools. VII. Enemata. VIII. Artificial Feeding. IX. Lavage and Douching. X. Blood. XI. Blood-supply to the Tissues. XII. The Pulse. XIII. Respiration. XIV. Temperature. XV. Baths, Spongings, Packs. XVI. Micturition and Catheterization. XVII. Administration of Drugs. XVIII. External Local Applications. XIX. Acute Infectious or Contagious Diseases. XX. The Enteric Group. XXI. Infective Diseases of Respiratory Tract and Lungs. XXII. Acute and Chronic Heart Diseases. XXIII. Notes on Gynaecology. XXIV. Notes on Surgical Nursing. XXV. Radiotherapy. XXVI. Hints on Private Nursing. Appendix I: Weights and Measures. Appendix II: Solutions and Lotions in Common Ward Use. Appendix III: Dangerous Drugs and Poisons and Pharmacy Acts. Appendix IV: Food Tests and Digests. Appendix V: Recommended Dietary on USA and League of Nations Health Report. Appendix VI: Guide for Nurses in the Examination of Urine. Appendix VII: Abbreviations in Prescriptions. Index.

When Miss Gullan first produced her book in 1920 it was designed to summarize the instruction given to nurses in training at the Nightingale School of St. Thomas' Hospital, London. As such, the chapters were to form a base on which the nurse was required to build from the detail she obtained in her lectures and in the wards. The value of the work is obvious from the fact that it is still popular after 36 years of life and is now in its 7th edition. It has been continually revised to bring it up to date and besides routine revisions this present edition includes a new chapter on Radiotherapy.

Sister tutors will know the value of this book, and it can be recommended to all who teach nurses as a sound basis on which to build up lectures. The student nurse with initiative will also find it profitable, provided she realizes that she must use it in conjunction with her lecture and demonstration notes.

Miss Gullan has retired after long service to nursing and has made over the proceeds from royalties of this and subsequent editions to the Nightingale Fund Council.

A.H.T.

## PRACTICE OF MEDICINE, BY MANY AUTHORS

*The Practice of Medicine.* Edited by John S. Richardson, M.V.O., M.A., M.D. (Cantab.), F.R.C.P. Pp. viii + 1075, 86 illustrations. 40s. net. London: J. & A. Churchill Ltd. 1956.

*Contents:* 1. The Nature of Disease—Dr. Denis Hill. 2. Antibacterial Drugs—Dr. C. M. Fletcher. 3. Diseases of the Respiratory System—Dr. C. M. Fletcher and Dr. Howard Nicholson. 4. The Cardiovascular System—Dr. Raymond Daley. 5. The Alimentary Tract—Dr. A. C. Dornhorst. 6. Disorders of the Liver and Pancreas—Dr. A. C. Dornhorst. 7. Fluid and Electrolyte Disturbances and their Correction—Dr. A. C. Dornhorst. 8. Renal Disorders—Dr. A. C. Dornhorst. 9. Diabetes Mellitus—Dr. K. O. Black. 10. Nutrition—Dr. H. E. de Wardener. 11. Storage Diseases—Dr. H. E. de Wardener. 12. The Endocrine Glands—Dr. J. S. Richardson. 13. Diseases of the Nervous System—Dr. Helen Dimsdale. 14. Psychiatry—Dr. Denis Hill. 15. Diseases of the Blood—Dr. J. L. Pinniger. 16. Disorders of Pigment Metabolism—Dr. H. E. de Wardener. 17. Diseases of Bone—Dr. H. E. de Wardener. 18. Immunity and Allergy—Dr. H. J. Wallace. 19. Sarcoidosis—Dr. H. J. Wallace. 20. Collagen Diseases—Dr. H. J. Wallace. 21. The Rheumatic Diseases—Dr. J. S. Richardson. 22. The Infectious Fevers—Dr. B. D. R. Wilson. 23. Tropical Diseases—Professor A. W. Woodruff. 24. Venereal and Allied Diseases—Dr. C. S. Nicol. 25. Poisons—Dr. J. S. Richardson. 26. The Management of Terminal Disease—Dr. J. S. Richardson and Dr. Dudley Baker. Appendix. Index.

As will be seen from the list of chapter titles and contributors, this book has been written by teachers of medicine from London hospitals. They are, for the most part, engaged in the practice of general medicine as well as in a speciality, and their object has been to set out the principles which underlie the practice of medicine in a form suitable for those who will be entering general practice. In this they have succeeded and the result will be of benefit to

undergraduates and to those general practitioners who desire some extra revision-reading.

Underlying the clinical description of conditions, emphasis is placed on the various factors which may modify the pattern—social, economic, physical and mental.

While rare conditions are not overlooked, the commonly occurring disorders receive the greatest attention. The whole work has a sound practical basis, is interesting and satisfying, and there is little doubt that it will have an assured place in medical literature.

A.H.T.

#### ANNUAL EPIDEMIOLOGICAL AND VITAL STATISTICS

*Annual Epidemiological and Vital Statistics, 1953.* Pp. 572. £2 10s. Geneva: World Health Organization. Bilingual edition (French and English). Local sales agent: Van Schaik's Bookstore (Pty.) Ltd., P.O. Box 724, Pretoria. 1956.

*Contents:* Introduction. Part I. Vital Statistics and Causes of Death. Population. Vital Statistics. Causes of Death. Part II. Cases of and Deaths from Notifiable Diseases. Annex. Alphabetical Indexes: of countries and territories; of subjects.

WHO has just published its 6th annual volume of epidemiological vital and health statistics, a work which contains information relating to the various countries and territories of the world for the year 1953.

In this volume of more than 570 pages, 74 tables give details of the most important aspects of the health situation in all parts of the world—population composition, vital statistics, causes of death, incidence of communicable diseases and their seasonal fluctuations.

Users of this annual series are able to follow, year by year, the progress of hygiene and the evolution of the health situation in various countries. In addition to the subjects for which detailed information is usually given in all the volumes in this series—diseases of childhood, cancer and tuberculosis, for example—the present work contains hitherto unpublished data on mortality from cardiovascular diseases, a topic in which scientific circles are at present taking an ever-increasing interest.

The abundance and diversity of the data included in its pages, as well as the clearness of presentation, make this volume an inexhaustible source of information for all those who are interested in the study of what the sociologist Quételet once called '*physique sociale*'.

#### COMPOSTING

*Composting: Sanitary Disposal and Reclamation of Organic Wastes.* By Harold B. Gotaas. Pp. 205, 49 figures. £1. 5s. (French edition in preparation.) Geneva: World Health Organization. 1956. Local sales agent: Van Schaik's Bookstore (Pty.) Ltd., P.O. Box 724, Pretoria.

*Contents:* Preface. Introduction. 1. Decomposition of organic matter. 2. Sanitary and agricultural importance. 3. Historical development. 4. Raw material: quantity and composition. 5. Fundamentals. 6. Methods and planning for cities. 7. Methods for villages and small towns. 8. Methods for individual farms. 9. Manure and night-soil digesters for methane recovery on farms and in villages. References. Index.

'Throughout most of the period of the recorded history of man some association between disease and man's waste products has been thought to exist. Since man began to plant in order to harvest needed foods, he has also associated these waste products with the fertility of the soil and the harvest'. These opening words of Dr. Gotaas's book show that the sanitary and agricultural importance of organic wastes is no new discovery; yet, as the author goes on to say, 'it is only a little more than a century since basic knowledge and a true understanding of the processes involved began to be acquired'.

While much has been written about the fertilizing value of organic wastes, few publications have at the same time dealt thoroughly with the question of the danger to public health inherent in the disposal of wastes on to the land. This book, emphasizing as it does the principles underlying the safe disposal of community wastes and relating them to the factors governing the recovery of nutrients from the soil, therefore meets a very real need. All concerned with the problems of disposal and reclamation—farmer and municipal authority alike—will find it an instructive and practical guide.

After describing briefly the processes involved in the decomposition of organic matter and summarizing the public health and economic aspects of composting, the author reviews the historical development of composting methods, from the earliest simple techniques up to the most modern mechanized processes. A short chapter on the analysis of various types of wastes comes next, followed in its turn by a long and detailed discussion of the many factors affecting the production of good compost. The author then proceeds to describe in detail the methods of composting recommended for large towns, for villages, and for individual farms, illustrating his descriptions liberally with diagrams and photographs.

Dr. Gotaas concludes his comprehensive book with an interesting chapter on the recovery of methane from the digestion of manure and night-soil. Here, after discussing the development and usefulness of methane plants, he gives details of the design and operation of some simple installations suitable for farms and villages.

#### EXPERT COMMITTEE ON TRACHOMA

*Expert Committee on Trachoma, Second Report. No. 106.* Pp. 20. 1s. 9d. Available also in French and Spanish. Geneva: World Health Organization. 1956. Local Sales Agent: Van Schaik's Bookstore (Pty.) Ltd., P.O. Box 724, Pretoria.

*Contents:* 1. Etiology of trachoma and laboratory research. 2. Definition, diagnosis, and differential diagnosis of trachoma and non-trachomatous follicular conjunctivitis. 3. Regional differences in the epidemiology and clinical aspects of trachoma. 4. Recent advances in the treatment of trachoma, with special reference to methods suitable for mass-treatment campaigns. 5. Criteria of cure of trachoma. 6. The planning of anti-trachoma projects and their integration in general public-health services. 7. Appraisal of control projects. 8. International coordination of research on trachoma. 9. Miscellaneous. Annex. Differential diagnosis of non-trachomatous follicular conjunctivitis.

Definite advances have been made during the last few years towards the control and eventual elimination of trachoma as a public health problem. These advances are reviewed and evaluated and guide-lines for further research are established in this report of the WHO Expert Committee on Trachoma.

To clarify previously conflicting opinions amongst specialists in different countries on the diagnosis of trachoma, the report gives a definition of the disease and sets forth the criteria of diagnosis, including differential diagnosis. An annex presents, in tabular form, the differential diagnosis of non-trachomatous follicular conjunctivitis.

Preliminary research on the local epidemiology of trachoma and associated infections is required for adequate planning of control measures. The report suggests the adoption of a standard method for epidemiological surveys and gives details of a proposed standardized plan for the collection of certain data in order to determine the trachoma index and the general pattern of disease in the community.

A scheme of treatment based on the use of antibiotic ointment, combined, when necessary, with the administration of sulfa drugs, was recommended in the first report of the Expert Committee on Trachoma, which was published nearly four years ago. The present report notes that the results of subsequent trials have fully confirmed the efficacy of this type of treatment, and that satisfactory results have also been obtained from antibiotics other than those originally recommended.

The report continues with a discussion of the criteria of cure, admitting that there is as yet no sure method of determining whether the causative agent is destroyed or merely rendered inactive. Different criteria are specified, applicable to mass campaigns and to individual cases and immigration requirements.

After devoting some space to the planning of anti-trachoma projects, the report concludes with a request for further research on the virological, bacteriological, cyto-bacteriological, epidemiological, and therapeutic aspects of trachoma, as well as for exchange of information and of material for laboratory studies.

#### FOOD HYGIENE

*Food Hygiene—Fourth Report of the Expert Committee on Environmental Sanitation—Technical Report Series No. 104.* Pp. 28. 1s. 9d. Available also in French and Spanish. Geneva: World Health Organization. 1956. Local Sales Agent: Van Schaik's Bookstore (Pty.) Ltd., P.O. Box 724, Pretoria.

*Contents:* 1. Introduction. 2. The importance of food in protecting health. 3. Principles applicable to the control of foods commonly known to have carried

disease. 4. Problems peculiar to various areas of the world in maintaining sanitary food-handling procedures. 5. Commercial and communal feeding. 6. General objectives. 7. Technical and administrative procedures for improving conditions. 8. Personnel. 9. Suggested role for WHO in the field of food hygiene.

Ill health and human suffering resulting from the consumption of infected and contaminated food remains a public health problem of world-wide importance. The task of formulating general principles of food hygiene is undertaken in this report of a WHO Expert Committee and in addition, the problems peculiar to various areas of the world are reviewed, and guidance for the planning of food-hygiene programmes in areas at different stages of development is given.

Many foods may be the vehicle of disease, and the report discusses in some detail the control of the most important, viz., milk and milk products, meat, fish (including shellfish), and vegetables and fruits commonly eaten raw.

The problems in maintaining sanitary food-handling procedures are reviewed. This section covers such subjects as improper methods in the production of food; unsatisfactory processing procedures; and the dangers of storing, delivering, and displaying food without adequate precautions. Consideration is also given to the food-hygiene problems presented by commercial and communal feeding.

The report then turns to the planning of food-hygiene programmes, and to the technical and administrative procedures for improving conditions. In underdeveloped areas, the programmes are usually faced with problems of public inertia and apathy, with woeful sanitary conditions and practices, and with shortage of adequate means. A start, however, must be urged; and the report recommends that the first step should be the development of a trained field staff, followed by the complementary services. In rapidly developing, and in highly developed areas, the situation is usually encouraged—inertia has been overcome and poverty, ignorance, and disease are on the wane. Food hygiene programmes must keep pace with these changes; more advanced training should be given to field staff, health education of the public improved, research work developed, and higher standards set for food production and processing. Legislation should be flexible enough to keep pace with scientific and technical advances.

The report also discusses personnel requirements and outlines the training of health inspectors, on whom the bulk of the work in promoting food hygiene will fall.

#### PROFESSIONAL AND TECHNICAL EDUCATION

*Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel—Third Report.* Technical Report Series No. 109. Pp. 19. 1s. 9d. Available also in French and Spanish. Geneva: World Health Organization, 1956. Local Sales Agent: Van Schaik's Bookstore (Pty.) Ltd., P.O. Box 724, Pretoria.

*Contents:* 1. General. 2. Health services for which auxiliary health workers are needed. 3. Types and levels of auxiliary health workers. 4. Training of auxiliary personnel. 5. Utilization of auxiliary personnel. 6. Voluntary auxiliary health workers. 7. Nomenclatures and terminology. 8. Conclusions.

Auxiliary health workers are playing an increasingly important and responsible part within the general scheme of health services, at times being called upon to perform tasks usually entrusted to fully qualified professional personnel. What this problem means in terms of selection and training is fully discussed in the third report of the WHO Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel.

Before examining the question of training, the report enumerates the basic health services of a community and under a classified list of professional personnel describes the type and level of auxiliary worker required.

In a discussion of training problems, useful suggestions are advanced on the selection of students and teaching personnel, location and type of institution, length of training, and curriculum content.

A commentary on the relationship of auxiliary to fully qualified professional workers offers advice on the ways and means of avoiding discord between the two types of personnel during the course of their joint work. Such questions as titles, grading, status and supervision are discussed in this connexion.

After a detailed account of assignment and conditions of service, a description is given of the kind of assistance which WHO and

other international organizations may be able to provide in the training of auxiliaries.

In recognizing the present and future importance of health auxiliaries, this report has attempted to show the need for careful selection, adequate training, suitable employment, fair remuneration, and, above all, rightful recognition of this type of worker as an indispensable member of the health team. It should be of value to all those concerned with forming a competent body of health auxiliaries.

#### A GERMAN X-RAY ATLAS OF BONE DISEASES

*Röntgenologische Differentialdiagnose Der Knochenerkrankungen.* By Dr. Hans Hellner and Dr. Hanno Poppe. Pp. 903, with illustrations. DM 270. Herdweg: Georg Thieme Verlag, 1956.

*Contents:* Schädel. Halswirbelsäule. Brustwirbelsäule. Thorax. Obere Extremität. Lendenwirbelsäule. Becken. Oberschenkel. Unterschenkel. Allgemeine differential diagnostische Gesichtspunkte. Topographische Skizzen der häufigsten Knochenerkrankungen. Enzyklopadie. Sachverzeichnis.

This book, which is an X-ray atlas of 903 pages, is a departure from the usual radiological book printed in Germany, in that the X-ray pictures are printed as negatives (i.e. identical to the X-ray films seen on the viewing box). This departure follows the practice customary in British and American books.

The book is extremely well written in a very lucid style. Each page has a large X-ray picture, and beneath it a short description of the essential history, symptoms, X-Ray findings and differential diagnosis.

The differential diagnosis of the most frequent and important bone-diseases is stressed.

There are about 850 X-ray pictures, taken from over 500 patients. These were selected from 75,000 X-ray reports in which the exact diagnosis was verified.

The authors stress in particular the early diagnosis of benign and malignant bone-tumours, so that by an early and exact diagnosis early treatment can be instituted.

The book is very practical. The adequate index makes it easy to find the X-ray picture of a condition. A special section is devoted to differential diagnosis.

At the end of the book are printed full-page topographical sketches of the skeleton, showing the various sites of the most frequent bone-diseases.

Inflammatory conditions, rare infective conditions and parasitic conditions are brought into the book in so far as the differential diagnosis is concerned.

This book should be translated so that English-speaking colleagues may also take advantage of it. The book has been of great interest to the reviewer, and one cannot do justice to it in a short review. The authors are to be congratulated on their production of an excellent book which should be read by all German-reading radiologists.

H.C.P.

#### COLLAGEN DISEASES

*Collagen Diseases.* By John H. Talbott, M.D. and R. Moleres Ferrandis, M.D. Pp. xv+232. 30 Illustrations + 16 Colour Plates. \$6.50. Grune & Stratton, Inc. 1956.

*Contents:* Preface. Colour Plates. Introduction. Systemic Lupus Erythematosus. Historical. Incidence. Relation to Other Collagen Disorders. Etiology and Pathogenesis. Pathology. Clinical Findings. Laboratory Findings. Diagnosis. Clinical Course. Treatment. Polyarteritis. Historical. Incidence. Relation to Other Collagen Disorders. Etiology and Pathogenesis. Pathology. Clinical Findings. Laboratory Findings. Diagnosis. Clinical Course. Treatment. Dermatomyositis. Historical. Incidence. Relation to Other Collagen Disorders. Neoplastic Disease and Dermatomyositis. Etiology and Pathogenesis. Pathology. Clinical Findings. Laboratory Findings. Diagnosis. Clinical Course. Treatment. Systemic Scleroderma. Historical. Incidence. Relation to Other Collagen Disorders. Etiology and Pathogenesis. Pathology. Clinical Findings. Laboratory Findings. Diagnosis. Clinical Course. Treatment. Thrombotic Thrombocytopenic Purpura. Historical. Incidence. Relation to Other Collagen Disorders. Etiology and Pathogenesis. Pathology. Clinical Findings. Laboratory Findings. Diagnosis. Clinical Course. Treatment. Bibliography. Index.

This little monograph sets out to describe some of the rarer collagen diseases. It is only in very recent times that these diseases have begun to be recognized with any degree of frequency, many clinicians even today being ignorant of their existence. While, strictly speaking, the term collagen disease includes both rheuma-

toid arthritis and rheumatic fever, the authors have omitted these from the discussion because they are well known. It is not easy to say what should have been included since the distinctions between the different conditions in the group are not always clear cut. One is a little surprised, for instance, to find thrombotic thrombocytopenic purpura included in the chosen few, but its inclusion is probably correct and is likely to be justified as knowledge increases. The other 4 conditions discussed form a compact little group.

Each condition is considered in the orthodox way. The historical background is reviewed. Then follows incidence, etiology, pathology, leading on to clinical findings, diagnosis,

course and treatment. The literature has been extensively covered, there being no fewer than 540 references, which have been chosen from a number at least 5 times as many. The handling of the subject-matter is orthodox and non-controversial. The opinions expressed are in keeping with modern thought.

So diverse is the clinical picture in this group of diseases, with so many organs and systems being involved, that clinicians will be grateful for this comprehensive cover of the subject. Here they will find the incidence of the rarer presentations of the disease as well as the more common. For this reason, more than any other, are they likely to welcome this book.

C.M.