ing results, but it may be possible in the future to link them with histochemical investigations.

The third section is the most useful to the haematologist for it provides a résumé of current therapeutic trends. Inevitably this must date rapidly, but this is a standard risk for all major textbooks and Dr. Hayhoe's approach, by discussing the underlying motivation, provides a sound stem upon which newer therapy may be grafted.

The fourth section refers to clinical aspects. Reading through these chapters reinforces the view that any one classification can never adequately embrace this group of pathological states, but Dr. Hayhoe makes a sporting attempt in his final figure where every condition is brought into one major scheme.

This book can very thoroughly be recommended for all haematologists. Of particular value is the very adequate bibliography.

Dr. Hayhoe ends his book with a brief attempt at definition. '... the leukaemias are proliferative diseases falling within the general category of neoplasia in its widest sense, but very possibly due to an externally determined imbalance between the forces controlling leucopoiesis, although in some cases the proliferation may become autonomous'. It will be interesting to see how this definition stands when, in due course, this volume progresses to a second edition. It might be helpful on such an occasion for the author to summarize each chapter, giving his own views on the material analysed and presented. This would provide a more personal touch to this first-class review of a very difficult subject.

J. L. STAFFORD

A SYMPOSIUM ON pH AND BLOOD GAS MEASUREMENT: METHODS AND INTERPRETATION. Edited by Ronald F. Woolmer, assisted by Joy Parkinson. (Pp. viii + 210; 48 figures. 30s.) London: J. & A. Churchill. 1959.

This is a record of the symposium held under the auspices of the Ciba Foundation in December 1958, and includes the nine papers given and the discussions which followed. The subjects were methods of estimating blood pH and deriving pCO₂ by the Henderson-Hasselbalch equation; the more recent method of deriving pCO₂ from estimations of the pH of plasma as collected and after equilibration with gas mixtures of known pCO₂ (thereby dispensing with the need to estimate total plasma CO₂); the determination of mixed venous and arterial pCO₂ by rebreathing techniques; the use of blood O₂ and CO₂ electrodes; and the clinical significance of the values obtained.

The contributors are all experts in their particular fields, and the book assembles a great deal of useful information which is widely scattered in the journals. It is concerned primarily with respiratory disorders of acid-base balance and with the problems of the anaesthetist, but there is much of interest to the clinical pathologist who investigates acid-base disturbances of any sort.

G. K. MCGOWAN

A Ciba Foundation Symposium on CONGENITAL MALFORMATIONS. Edited by G. E. W. Wolstenholme and Cecilia M. O'Connor. (Pp. xii + 308; 91 figures. 45s.) London: J. & A. Churchill. 1960.

This volume is very welcome with the increasing interest

in the nature and incidence of congenital malformations. A chapter on the probable incidence of malformations in the general population is followed by a discussion of genetical causes, and an account of chromosome abnormalities recently discovered. Environmental factors receive due consideration and are succeeded by a series of accounts of experimental procedures. Malformations have been induced by a wide variety of substances including antimetabolites, such as 6-mercaptopurine, and the antibiotic actinomycin D. Many general pathologists will find this work fascinating since probably few realize its extent. Not only have malformations been induced by these chemicals, but there is in addition evidence that other substances can modify their effect. It therefore cannot be long before this experimental work leads to new information of great practical value in clinical medicine.

The standard of production is well up to the high level which we have come to expect from other monographs of symposia held by the Ciba Foundation. The discussions are of the greatest interest and value and reflect much credit on the editor.

G. J. CUNNINGHAM

CANCER PROGRESS 1960. Edited by Ronald W. Raven. (Pp. XV + 242 + Index; 45 figures. 60s.) London: Butterworth. 1960.

Excellent written throughout, this progress volume contains brief but interesting accounts of current research in malignant disease and many valuable critical reviews of topical subjects, all well garnished by recent references given with full titles. Of particular interest to clinical pathologists are the articles on tumour virology, bone marrow replacement therapy, circulating free cancer cells, mammary sarcomas, industrial aspects of respiratory tract carcinoma, clinical and metabolic aspects of carcinoid tumours, and chemotherapy of malignant disease including lymphoma and leukaemia.

The real purpose of this book, however, is to acquaint workers in clinical and non-clinical fields with modern trends in cancer diagnosis, treatment, control and research, including social and statistical studies. To achieve this aim the editor, in addition to his original team of experts in most aspects of the cancer problem, has elicited the aid of several internationally acknowledged authorities as advisory editors. In attaining the set objective so successfully the editor and his collaborators are to be highly commended.

R. WINSTON EVANS

CHOLERA: ITS PATHOLOGY AND PATHOGENESIS. By S. N. De. (Pp. xi + 141; 50 figures. 25s.) Edinburgh: Oliver and Boyd. 1961.

The first three chapters of De's book review the history of cholera and of investigations on it both in Europe and in India. Though commonly called 'asiatic', there is some doubt as to the real origin of the disease and considerable doubt whether the 1817 pandemic really represented its first invasion of Europe. The epidemiology of present-day cholera in Calcutta is then described, with several charts to illustrate seasonal variation.

The pathology of the disease is described and illustrated, and this is followed by an account of De's own work, some hitherto unpublished, on the experimental reproduction of the disease in rabbits. De believes that an exotoxin plays an important part. The last four chapters revert to the review style and describe the process of infection and the factors thought to lead to the various clinical facets of the disease.

Altogether the book makes interesting reading; for further search in the literature, each chapter is provided with a long list of references. The illustrations include several good portraits of the pioneers of cholera study and many that reveal the major hygienic problems of Calcutta even now.

R. E. O. WILLIAMS

BASIC PROBLEMS IN NEOPLASTIC DISEASE

Columbia University College of Physicians and Surgeons is sponsoring a three-day symposium on 'Basic Problems in Neoplastic Disease', to be held on 12, 13, and 14 March 1962.

Sessions will be held on 'Nucleic Acid Structure and Synthesis', 'Viral and Genetic Studies', 'Protein Synthesis', 'Antibody Structure and Function' and on clinical aspects of the biochemistry, pathological-physiology, morphology, and therapy of cancer.

The symposium is open without fee. For details concerning the meeting, including application to attend sessions, write to the Institute for Cancer Research, Columbia University College of Physicians and Surgeons, 630 West 168th Street, New York 32, New York.

Broadsheets prepared by the Association of Clinical Pathologists

The following broadsheets (new series) are published by the Association of Clinical Pathologists. They may be obtained from Dr. R. B. H. Tierney, Pathological Laboratory, Boutport Street, Barnstaple, N. Devon. The prices include postage, but air mail will be charged extra.

3 The Detection of Barbiturates in Blood, Cerebrospinal Fluid, Urine, and Stomach Contents. 1953. L. C. NICKOLLS. 1s. 4 The Estimation of Carbon Monoxide in Blood. 1953. D. A. STANLEY. 1s. 5 The Identification of Reducing Substances in Urine by Partition Chromatography on Paper. 1953. G. B. MANNING. 1s. 6 The Paul-Bunnell Test. 1954. R. H. A. SWAIN. 1s. 7 The Papanicolaou Technique for the Detection of Malignant Cells in Sputum. 1955. F. HAMPSON. 1s. 10 Mycological Techniques: (1) Collection of Specimens. 1956. R. W. RIDDELL. 1s. 11 Mycological Techniques: (2) Cultural Isolation. 1956. R. W. RIDDELL. 1s. 12 Techniques for Demonstrating L.E. Cells. 1956. J. V. DACIE and L. S. SACKER. 1s. 13 The Identification of Serotypes of <i>Escherichia coli</i> Associated with Infantile Gastro-enteritis. 1956. JOAN TAYLOR. 1s. 14 The Determination of Serum Iron and Serum Unsaturated Iron-binding Capacity. 1956. ARTHUR JORDAN. 1s. 16 Preservation of Pathological Museum Specimens. 1957. L. W. PROGER. 1s. 17 Cultural Diagnosis of Whooping-cough. 1957. B. W. LACEY. 1s. 18 The Rose-Waaler Test. 1957. C. L. GREENBURY. 1s. 19 The Laboratory Diagnosis of Fibrinogen Deficiency. 1958. R. M. HARDISTY. 1s.	20 Investigation of Porphyrin/Porphyrin. 1958. C. RIMINGTON. 1s. 21 Quantitative Determination of Porphobilinogen and Porphyrins in Urine and Faeces. 1958. C. RIMINGTON. 1s. 22 Investigation of Haemolytic Anaemia. 1959. J. SELWYN. 1s. 23 The Dried Disc Technique for Bacterial Sensitivity Tests. 1959. R. W. FAIRBROTHER and J. C. SHERRIS. 1s. 24 Safe Handling of Radioactive Tissues in the Laboratory and Post-mortem Room. 1959. R. C. CURRAN. 1s. 26 The Periodic Acid-Schiff Reaction. 1959. A. G. E. PEARSE. 1s. 27 The Laboratory Detection of Abnormal Haemoglobins. 1960. H. LEHMANN. 1s. 28 Daily Fatty Acid Excretion. 1960. A. C. FRAZER. 2s. 29 The Preparation of Bone for Diagnostic Histology. 1960. D. H. COLLINS. 2s. 31 Investigation of Haemorrhagic States with Special Reference to Defects of Coagulation of the Blood. 1961. E. K. BLACKBURN. 4s. 32 Detection of Resistance to Streptomycin, P.A.S., and Isoniazid in Tubercle Bacilli. 1961. R. CRUICKSHANK and S. M. STEWART. 2s. 34 Titration of Antistreptolysin O. 1961. H. GOODER and R. E. O. WILLIAMS. 2s. 35 The Estimation of Faecal 'Urobilinogen.' 1961. C. H. GRAY. 2s.