SCIENCE

Vol. 102 Friday, October 12, 1945 No. 2650 A Challenge to Civilization: Dr. NIELS BOHR 363 Discussion: The Bush Report and Senate Bills: Dr. F. R. The Role of Bacteria in the Formation and Trans-MOULTON. Proposed Unit for High Vacuum: DR. formation of Petroleum Hydrocarbons: Dr. CLAUDE SAUL DUSHMAN. Mycoflora of Buds: PAUL D. E. ZoBell KEENER Obituary: Scientific Books: Edmund Burke Delabarre: Professor R. S. Wood-John Merle Coulter: Dr. H. W. RICKETT. Soil WORTH; Frank W. Collier: Dr. James F. Couch; Ermon Dwight Eastman: Professor W. M. Lati-Fungi: Professor John N. Couch. The Blood in Children: Dr. Carl H. Smith. Books Received 384 MER. Recent Deaths Scientific Events: The Spring Meeting of the American Association for the Advancement of Science; Expedition to Nyasaland of the American Museum of Natural Science: A Weekly Journal, since 1900 the official History; Predoctoral Fellowships in the Natural organ of the American Association for the Advancement Sciences; News from Abroad of Science. Published by the American Association for the Advancement of Science every Friday at Lancaster, Scientific Notes and News Pennsylvania. Editors: Josephine Owen Cattell and Jaques Special Articles: CATTELL. Bacitracin: A New Antibiotic Produced by a Mem-Policy Committee: MALCOLM H. SOULE, ROGER ADAMS ber of the B. subtilis Group: Balbina A. Johnand Walter R. Miles. SON, HERBERT ANKER and Dr. FRANK L. MELENEY. Serologic Evidence of Cytoplasmic Interchange dur-Advertising Manager: Theo. J. Christensen. ing Conjugation in Paramecium bursaria: Profes-Communications relative to articles offered for publication SOR JAMES A. HARRISON and ELIZABETH H. FOWshould be addressed to Editors of Science, The Science Press, should be addressed to Editors of Science, The Science Fress, Lancaster, Pa.

Communications relative to advertising should be addressed to Theo. Christensen, Advertising Manager, Smithsonian Institution Building, Washington 25, D. C.

Communications relative to membership in the Association and to all matters of business of the Association should be addressed to the Permanent Secretary, A.A.A.S., Smithsonian Institution Building, Washington 25, D. C. LER. The Coagulation of Latex: Professor Wil-LIAM SEIFRIZ Scientific Apparatus and Laboratory Methods: Sedimentation of Poliomyelitis Virus by Centrifugation: Rosalie J. Silverberg. New Protection Annual subscription, \$6.00 for Field Data: John W. Brainerd Single copies, 15 cents

A CHALLENGE TO CIVILIZATION

By Dr. NIELS BOHR

COPENHAGEN

The advance of physical science which has made it possible to release vast amounts of energy through atomic disintegration has initiated a veritable revolution of human resources, presenting civilization with a most serious challenge. Man's increasing mastery of the forces of nature, which has provided ever richer possibilities for the growth of culture, may indeed threaten to upset the balance vital for the thriving of organized communities, unless human society can adjust itself to the exigencies of the situation. The great technical developments of the last century already deeply affected the social structure of every country but, evidently, we have now reached a stage which calls for a new approach to the whole problem of international relationship.

The formidable means of destruction which have

come within reach of man will obviously constitute a mortal menace to civilization unless, in due time, universal agreement can be obtained about appropriate measures to prevent any unwarranted use of the new energy sources. An agreement to this purpose will surely demand the abolition of barriers hitherto considered necessary to protect national interests but now standing in the way of common safety against unprecedented dangers. In fact, only international control of every undertaking which might constitute a danger to world security will in future permit any nation to strive for prosperity and cultural development without constant fear of disaster.

Whatever renunciations as regards customary prerogatives such regulation will involve, it should be clear to all that, in contrast to other issues where tried to do; how well he has succeeded will be determined by using the book. The reviewer expects to find the book very useful indeed and believes others will also.

JOHN N. COUCH

UNIVERSITY OF NORTH CAROLINA

THE BLOOD IN CHILDREN

Atlas of the Blood in Children. By Kenneth D. Blackfan, and Louis K. Diamond. With illustrations by C. Merrill Leister.

This well-written and beautifully illustrated book is a much needed contribution to hematology. this atlas specifically concerns the blood disorders in children, the excellent series of plates and accompanying subject material are applicable to all age periods. The preliminary text of this book comprises six chapters which serve as an explanatory and directing manual for the illustrations that follow. The first chapter deals with the morphology of normal blood cells, their derivation and hematopoietic changes, incident to growth and development. In the subsequent chapters there is a concise discussion of the common blood dyscrasias, according to the predominating blood element involved. Dr. Blackfan and Dr. Diamond demonstrate their unusual experience in pediatric hematology by their expert choice of the essentials in the description of each disease. These authors have successfully accomplished their stated purpose of merging a consideration of the morphologic changes in the blood with the associated clinical manifestations of each disease. The presentations are complete and their value has been enhanced by the inclusion of illustrative case reports.

The second section contains seventy unusual plates of superb artistry, portraying faithfully the typical cells found in the diseases described in the preceding text. A primary consideration in appraising the merits of any hematology atlas rests on the accuracy with which the author reproduces the finer morphologic details of the blood cells. Dr. Leister has achieved this goal with such perfection that the plates prepared by him will serve as an invaluable guide for all those who depend upon standard textbooks for precise identification of the cellular elements of the blood. Line drawings facing each plate permit comparison with corresponding cells and increase the usefulness of this atlas. The series of plates should prove of great practical value in a field of medicine where the correct diagnosis frequently depends upon the accurate classification of a particular type of blood cell.

It is pointed out in the preface that the text of the atlas has been kept necessarily brief. It has not been possible, therefore, to include detailed discussions of normal and pathological alterations in the blood, an outline of technical procedures, a complete bibliography and reference to some of the more recent contributions of hematology in childhood. The atlas should serve as a required companion volume for the more comprehensive works on hematology.

The authors should be complimented on the excellence of this book. Acknowledgement should also be made for the material support provided by the Commonwealth Fund in making this publication possible. This book is highly recommended for use by the medical students, pediatricians, internists and hematologists.

CARL H. SMITH

DEPARTMENT OF PEDIATRICS, CORNELL UNIVERSITY MEDICAL COLLEGE

BOOKS RECEIVED

Brunner, Edmund des. and Douglas Ensminger. Farmers of the World; The Development of Agricultural Extension. Pp. xiii + 208. Columbia University Press. \$2.50. 1945.

BURK, R. E. and OLIVER GRUMMITT. Frontiers in Chemistry; Volume 4; Major Instruments of Science and Their Applications to Chemistry. Illustrated. Pp. 151. Interscience Publishers, Inc. \$3.50. 1945.

DOWD, MARY T. and ALBERTA DENT. Elements of Foods and Nutrition. Second edition. Illustrated. Pp. xii + 357. John Wiley and Sons, Inc. \$2.25. 1945.

From Pearl Harbor into Tokyo. Illustrated. Pp. 312. Columbia Broadcasting System. 1945.

KLEINER, ISRAEL S. Human Biochemistry. Illustrated. Pp. 573. The C. V. Mosby Company. \$6.00. 1945. McDowall, R. J. S. Handbook of Physiology & Bio-

McDowall, R. J. S. Handbook of Physiology & Biochemistry. 38th edition. Illustrated. Pp. xii + 898. The Blakiston Company. \$8.00. 1944.

The Blakiston Company. \$8.00. 1944.

MATHEWS, ARTHUR GUY. Take It Easy; The Art of
Conquering Your Nerves. Illustrated. Pp. 239.

Sheridan House. \$2.98. 1945.

Observations and Results in Physical Oceanography; Scientific Results of Cruise VII of the Carnegie during 1928-1929 under Command of Captain J. P. Ault. Pp. iv + 315. Carnegie Institution of Washington. \$1.50

(paper), \$2.00 (cloth). 1945.

SCHMIEDING, ALFRED. Understanding the Child; An Introduction to Child Psychology with Comments for Workers and Parents Interested in Christian Training and Education. Illustrated. Pp. xi + 186. Concordia Publishing House. \$1.50. 1945.

SEARS, FRANCIS WESTON. Principles of Physics III; Optics. Illustrated. Pp. 323. Addison-Wesley Press, Inc. 1945.

SHEPARD, WARD. Food or Famine; The Challenge of Erosion. Illustrated. Pp. x + 225. The MacMillan Company. \$3.00. 1945.

SMYTH, HENRY D. Atomic Energy for Military Purposes; The Official Report on the Development of the Atomic Bomb under the Auspices of the United States Government, 1940-1945. Republication. Illustrated. Pp. ix + 264. Princeton University Press. \$1.25 (paper), \$2.00 (cloth). 1945.

Weissberger, Arnold. Physical Methods of Organic Chemistry. Volume I. Illustrated. Pp. vii + 736. Interscience Publishers, Inc. \$8.50. 1945.

WILLIAMS, HENRY LIONEL. The Fundamentals of Electronics and Their Applications in Modern Life. Illustrated. Pp. xi + 231. The Blakiston Company. 69¢. 1945.



BAUSCH & LOMB MICROSCOPE

AVAILABLE NOW. The model BA-8 microscope is now in production for civilian use. It is suitable, optically and mechanically, for a wide variety of work. Has built-on mechanical stage of improved design. A full-size Abbe Condenser, 1.25 N.A., is held in a full-ring mount. Positive, smooth focusing is accomplished through rack and pinion coarse adjustment and B&L patent levertype fine adjustment, with automatic take-up for wear. Standard equipment provides for magnifications from 20X to 970X. Write for Catalog D-185, "Laboratory Microscopes." Bausch & Lomb Optical Co., Rochester 2, N. Y.

BAUSCH & LOMB

ESTABLISHED 1853

