

It possesses broad significance as another link in the chain of accumulating evidence indicating general similarity of many metabolic processes in diverse forms of life.

Dr. Wood's first contribution to this field was made in 1935, and he is one of the pioneers in opening a new avenue of study in bacterial physiology. Throughout these investigations Dr. Wood has shown himself to be a skilful and versatile investigator bringing to the solution of his problem methods and technics from several fields of scientific endeavor.

### COMMITTEE ON APPLIED MATHEMATICAL STATISTICS OF THE NATIONAL RESEARCH COUNCIL

THE Committee on Applied Mathematical Statistics of the National Research Council and its subcommittees will be concerned with problems involving personnel and organization, research and production. The services which it is prepared to render are consultation, assistance in the organization and direction of special research projects and the preparation of necessary manuals on statistical techniques.

At present, the committee is particularly interested in the use that industries and government agencies may make of statistical quality control in production. Those industries and government agencies that have been making use of statistical quality control find that it has been possible to reduce the quantity of defective material, the amount of necessary inspection, reduce the tolerance range where necessary in order to save material, and attain assurance that the quality of material that can not be inspected one hundred per cent. because of the destructive nature of the test will meet the standard specified. The general oversight of this phase of the work of the committee is in charge of Dr. Walter Shewhart.

The membership of the committee and subcommittees is as follows:

#### *Committee on Applied Mathematical Statistics:*

Luther P. Eisenhart, *Chairman*. (Chairman of the Division of Physical Sciences.)

Edward U. Condon, Westinghouse Electric and Manufacturing Company.

Lowell J. Reed, School of Hygiene and Public Health, the Johns Hopkins University.

C. F. Roos, Institute of Applied Econometrics, Inc., 500 Fifth Avenue, New York City.

W. A. Shewhart, Bell Telephone Laboratories, Incorporated.

Hugh M. Smallwood, United States Rubber Company, Eau Claire, Wisconsin.

John M. Stalnaker, Princeton University.

S. S. Wilks, Princeton University.

Sewall Wright, Department of Genetics, the University of Chicago.

#### *Liaison members:*

Victor Perlo, Office of Price Administration.

Commander Lybrand Smith (retired), Navy Department.

Herbert Stein, War Production Board.

Lieutenant Colonel John D. Witten, War Department.

#### *Subcommittee on Mathematical Statistics:*

S. S. Wilks, *Chairman*.

Churchill Eisenhart, University of Wisconsin.

W. Edwards Deming, Bureau of the Census.

#### *Subcommittee on Biology:*

Sewall Wright, *Chairman*.

Chester I. Bliss, Yale University.

John W. Gowen, Iowa State College.

George W. Snedecor, Iowa State College.

#### *Subcommittee on Chemistry:*

Hugh M. Smallwood, *Chairman*.

Warren F. Busse, B. F. Goodrich Company, Akron, Ohio.

Henry Eyring, Princeton University.

Oscar K. Rice, University of North Carolina.

Felix L. Yezley, Pioneer Instrument Division, Bendix Aviation Corporation, Bendix, N. J.

#### *Subcommittee on Medicine:*

Lowell J. Reed, *Chairman*.

John W. Fertig, College of Physicians and Surgeons, Columbia University.

Hugo Muench, Rockefeller Foundation.

Margaret Merrell, School of Hygiene and Public Health, the Johns Hopkins University.

Alan E. Treloar, School of Medicine, University of Minnesota.

## SCIENTIFIC NOTES AND NEWS

DR. RAY LYMAN WILBUR, chancellor of Stanford University, received on February 1 at the annual national dinner meeting of the American Social Hygiene Association, of which he is president, the William Freeman Snow Medal "for distinguished service to humanity." The medal was awarded "in recognition of the outstanding work he has done to protect American youth from the ravages of social disease."

DR. M. E. WEEKS and Jack Todd, of the Kentucky Agricultural Experiment Station, will receive the

King Award for the most meritorious paper presented for 1942 by the Kentucky Academy of Science for their paper, "The Determination of Magnesium as the Quinolate Using the Colorimetric Ferric Chloride Method."

STANLEY FIELD has been reelected president of Field Museum of Natural History and has begun his thirty-fifth consecutive year of service in that office.

PROFESSOR W. D. CAIRNS, of Oberlin College, has been elected president of the Mathematical Association of America. Professor C. C. MacDuffee, of

Hunter College, has been elected *second vice-president*; Professors Saunders Mac Lane, of Harvard University, and E. J. Moulton, of Northwestern University, *governors at large*, and Professor B. W. Jones, of Cornell University, *associate secretary*. On January 1, Professor W. B. Carver, of Cornell University, became secretary-treasurer. The office of the association is now in McGraw Hall, Cornell University, Ithaca, N. Y.

THE New York City branch of the Society of American Bacteriologists has elected the following officers for the year 1943: *President*, Mary B. Horton; *Vice-president*, Gustav Steffen, and *Secretary-Treasurer*, Mortimer L. Starr, department of biology, Brooklyn College.

DR. MAYO H. SOLEY, associate professor of medicine and lecturer in pharmacology, has been made chairman of the division of pharmacology at the University of California Medical School, San Francisco. He has been appointed to succeed Dr. Chauncey D. Leake, who recently became dean of the Medical School at Galveston of the University of Texas.

DR. LEO S. MASON, head of the department of chemistry at the North Texas Agricultural College, has been appointed assistant professor of chemistry at the University of Pittsburgh and senior research fellow in physical chemistry. Dr. Bernard F. Daubert, assistant professor of chemistry on leave from the College of Pharmacy of the University of Pittsburgh, has been appointed senior fellow in biochemistry at the university.

THE National Research Council announces the appointment of Dr. Douglas M. Whitaker, of the department of biology of Stanford University, as executive secretary of the Division of Biology and Agriculture. Dr. Whitaker will aid in coordinating research in biology and agriculture in relation to the war effort.

DR. THORNE M. CARPENTER, acting director of the Nutrition Laboratory of the Carnegie Institution of Washington, Boston, has been appointed director of the laboratory.

DR. ALFRED E. EMERSON, professor in the department of zoology at the University of Chicago; Dr. Charles H. Seevers, head of the department of zoology at the Central Young Men's Christian Association College of Chicago, and Alex K. Wyatt, a specialist in moths and butterflies, have become honorary associates in entomology on the staff of Field Museum of Natural History.

FREDERICK D. RICHEY, of Ashville, Ohio, has been appointed a member of the Division of Cereal Crops

and Diseases of the Bureau of Plant Industry, with headquarters at Knoxville, Tenn. He will act as coordinator for the regional corn improvement program in the South, and direct the state corn program cooperative between the Tennessee Agricultural Experiment Station and the U. S. Department of Agriculture.

DR. WILBERT MCLEOD CHAPMAN has resigned his position as director of the Washington State Shellfish Laboratory to become curator of fishes in the California Academy of Sciences, San Francisco.

DR. H. H. FOSTER, plant pathologist at the Tobacco Institute of Puerto Rico, has been appointed plant pathologist at the Truck Crops Experiment Station at Crystal Springs of the Mississippi Agricultural Experiment Station. George Y. Young, assistant plant pathologist of the Division of Cereal Crops and Diseases, Bureau of Plant Industry, has been transferred to the department of plant pathology at State College, Miss., where he will undertake investigations on diseases of corn.

BRYAN PATTERSON has been appointed curator of the division of paleontology at Field Museum of Natural History, Chicago. He has been acting curator since the retirement last year of Elmer S. Riggs, and had been previously assistant curator.

DR. ROBERT S. SHELTON has been promoted to the position of scientific director of the Wm. S. Merrell Company, pharmaceutical manufacturers of Cincinnati. He will be responsible for activities relating to research and product improvement. L. Dale Seif becomes chief chemist, and will have charge of all analytical and control work. Dr. L. V. Blubaugh has been made chief of the biological research and production departments.

DR. L. GRANT HECTOR, professor of physics at the University of Buffalo, has resigned to become director of engineering for the National Union Radio Corporation, of Newark, N. J.

DR. RICHARD S. UHRBROCK, head of the research department in the Industrial Relations Division of the Procter and Gamble Company, Cincinnati, has been appointed consultant in the training within industry program of the War Manpower Commission by Chairman Paul V. McNutt. He is developing a program for the selection of new supervisors in organizations holding war contracts.

PROFESSOR E. R. BECKER, of the department of zoology of Iowa State College, has been commissioned a captain in the Sanitary Corps of the U. S. Army.

DR. EUGENE W. SCOTT, research assistant at the Kettering Laboratory of Applied Physiology, Univer-

sity of Cincinnati, has been appointed gas officer in the Medical Division of the Office of Civilian Defense, Washington, D. C.

RICHARD F. FLINT, associate professor of geology at Yale University, an authority on glaciation, has leave of absence to accept a commission as a major in the Army Air Corps. He has been given an assignment concerned with the Arctic area with the Proving Ground Command of the Army Air Forces. His previous experience included work as senior scientist on the Byrd Expedition to Greenland in 1937, where he studied the glaciers and submarine connections between the Spitzbergen Islands and Greenland and journeyed within six hundred miles of the North Pole.

DR. HAMILTON SOUTHWORTH, assistant in medicine in the College of Physicians and Surgeons, Columbia University, has joined the staff of the Medical Division of the Office of Civilian Defense as a member of the Scientific Development and Research Section. Dr. Southworth will go to London shortly to represent the Medical Division as an intelligence officer. He has been commissioned in the U. S. Public Health Service in the grade of surgeon.

DR. FRANK E. EGLER, director of the Chicle Development Company Experiment Station and assistant professor on leave from the New York State College of Forestry, has been made senior dendrologist in the U. S. Forest Service, a war service appointment on the recently established Latin American Forest Resources Survey. He may be reached at the American Legation, San Jose, Costa Rica.

LLEWELYN WILLIAMS is leader of an expedition to make a survey in Peru in search of new supplies of cinchona bark.

DR. EUGENE L. OPIE, director of the department of pathology, Cornell University Medical College, New York, will deliver the second Edwin R. Kretschmer Memorial Lecture of the Institute of Medicine of Chi-

cago on February 26. His subject will be "The Experimental Production of Leukemia and Its Significance in Relation to the Human Disease."

DR. WILLIAM J. ROBBINS, director of the New York Botanical Garden, will deliver the fifth Harvey Society lecture of the current series at the New York Academy of Medicine on February 18. Dr. Robbins will speak on "Some Internal Factors Limiting Growth."

LIEUTENANT COLONEL PAUL F. RUSSELL, U. S. Army, chief of the Tropical Disease and Malaria Control Section of the Division of Preventive Medicine, Office of the Surgeon General, Washington, D. C., will deliver the annual Hermann M. Biggs Memorial Lecture on April 1 at the New York Academy of Medicine. His subject will be "Malaria and Its Influence on World Health."

DR. ROBERT CUSHMAN MURPHY, of the American Museum of Natural History, gave on January 20 the Schiff Foundation Lecture at Cornell University, Ithaca. With the aid of kodachrome motion picture films, the speaker discussed the marine investigations of the Diesel schooner *Askoy* in the Pacific west of Colombia, during the first half of 1941, and also described many aspects of geographic and historic interest along the little known Chocó coast between southern Panama and northwestern Ecuador.

THE *Journal* of the American Medical Association reports that the Academia Nacional de Medicina of Buenos Aires has established the Hirsch Medical Scholarships with a fund of 500,000 pesos (about \$125,000) given by Alfredo Hirsch of Buenos Aires. The work of these scholars will be carried out in the United States or in England for two years beginning by the middle of 1943. For the first ten years the scholarships will be given for studies on cancer, leprosy or infantile paralysis.

## DISCUSSION

### FURTHER COMPUTATIONS IN CHEMICAL PROGRESS

THE curve of chemical progress, based on the abstracts in *Chemical Abstracts*, and first published in *SCIENCE* for February 14, 1936, when prolonged to bring it up to date, shows important changes in slope. These changes in slope seem to indicate a close tying up of peaceful living with progress.

The full curve, shown in Fig. 1, like the curve published in 1936, is based wholly on the number of journal articles on chemistry indexed each year by the editors of *Chemical Abstracts*. Thus a little less than

8,000 journal articles were indexed in 1907, about 2,000 more the next year, and so on until 1913, when a little over 19,000 were indexed. Then the number dropped at a somewhat faster rate until 1918.

In 1919 the curve resumed its upward course at the old rate of a 2,000 increase each year, continuing, with two breaks which must be noted and explained, until a peak of almost 46,000 was reached in 1938, more than five times the rate of progress in 1907.

The curve turned completely in 1938 and plunged downward until it reached 31,000 (estimated in part) for 1942.