

in the foreign policy of the United States and in that of the Soviet Union suggest that the relative nuclear and conventional power position of states is not necessarily related to their pursuit of an ambitious foreign policy of expansion or of a modest policy of maintaining the *status quo*.

Perhaps the most interesting feature of the book is its detailed discussion of the emergence of checks and balances in political structures and the conflicts of opinion and policy in the United States among the President, the Congress, the Atomic Energy Commission (supposedly an independent agency but sometimes bowing to the President, sometimes to the Congress), and the Joint Congressional Atomic Energy Committee, with varying policies according to the fluctuation of party majorities and the efficiency of the President in resolving his conflict with Congress. Also, of great interest, is the conflict in opinion and policy between the members of NATO which was exhibited in the British opposition to a forward United States policy in Indo-China in 1953, in the opposition of the United States to the forward Anglo-French policy at Suez in 1956, in the aloofness of the United States and the United Kingdom from French policy in Algeria during the hostilities after 1955, and in the French and British insistence on independent nuclear deterrents against the United States effort to develop a joint NATO deterrent after 1961.

Finally, Nieburg calls attention to the checks and balances that have developed within the world community as a whole—the United Nations policy of collective security which embraces disarmament, a United Nations force, the International Atomic Energy Agency, the test-ban treaty, and general agreements for international trade and development; the policies of collective defense alliances, especially the NATO and the Warsaw countries, which fluctuate between the attainment of positions of superior strength, stable nuclear deterrence, and local deterrents with conventional forces; and the national policies of independent nuclear capability, bilateral atoms-for-peace agreements, nonrecognition of ideologically opposed governments, and national commercial policies of freer trade, embargo, discrimination, and exclusive customs unions.

The emergence of these checks and balances at all levels of government,

as war and revolution receded into the background, tended to frustrate the success of any clear-cut policy seeking rational adaptation to changing conditions, whether that policy was universal, regional, or national. But perhaps these same checks and balances made for static or even dynamic stability. Such stability is generally a function of great complexity of the equilibrium of forces in any situation, mechanical, biological, social, or political, but it is always vulnerable to extreme changes in conditions.

The book deserves study as an illustration of the complexity of the world—of the conflicting opinions and policies of men, nations, and international organizations in a period of transition and of the details of debate and action by which history has been made in the nuclear age. The book is for the specialist rather than the casual reader, and would have profited by a more elaborate index of the subject matter. Footnotes indicate the extensive sources utilized by the author, which do not, however, include currently classified material. The author says in his preface that he declined to apply for security clearance, which was suggested by an official of the defense department, because he “wished to be free of any official restraint in drawing and publishing” his conclusions, and because he “believed that the open record would reveal the politics and purposes of security policy without access to the secrets themselves” (p. vi).

## Pharmaceutical Sciences

**Medical Pharmacology.** Principles and concepts. Andres Goth. Mosby, St. Louis, Mo., ed. 2, 1964. 585 pp. Illus. \$11.75.

In a few more than 500 pages Andres Goth surveys the various drug groups and their principal members. His book is simply written, in an informal, chatty style—a pleasant contrast to the devious, labored writing where one forbidding paragraph after another discourages further reading.

The volume is arranged in about a dozen sections, which have general headings like psychopharmacology, anesthetics, metabolic and endocrine agents, and chemotherapy. These systematically cover their respective fields

in a traditional manner. In chapters within the sections the subject is usually introduced with a page of general discussion, followed by consideration of the drugs individually. The usual mode of presentation is as follows: An interesting note on history; the chemical relationships; very brief consideration of the mode of action; more on metabolic course and toxicity; and then a touch on therapy. The discussions are as up-to-date as possible considering the meteoric rise and fall characteristic of the paths of individual drugs today.

All told, the second edition of *Medical Pharmacology* should be useful to students and practitioners. No particular faults call for criticism; perhaps the diagrams are at times enough more complicated than the text to invite the selection of simpler illustrations in future editions.

WINDSOR CUTTING

*Laboratory of Experimental  
Therapeutics, Stanford University*

## Alfred Russel Wallace

**Biologist Philosopher.** A study of the life and writings of Alfred Russel Wallace. Wilma George. Abelard-Schuman, New York, 1964. xiv + 320 pp. Illus. \$6.

Even among biologists, few now know more about Alfred Russel Wallace than that he formulated a theory of natural selection independently of Darwin. In fact, as Wilma George (Mrs. G. M. J. Crowther) makes clear, Wallace made important early studies of several branches of evolutionary biology. His work on zoogeography was most voluminous and has best stood the test of time. Some of his papers on animal coloration and patterns were, however, more original or, at least, less directly Darwinian.

Wallace was right in his own judgment that most of his scientific work was an expansion or a gloss on Darwin's. (The same could be said, without depreciation, of numerous studies of evolution at the present time.) Although he had no delusions in this field, he had an ample number in others. He wrote and worked ardently in favor of land nationalization, socialism, and spiritualism and in opposition to vaccination. Whatever one may think of these causes, Wallace's support