

the other to do the same in all instances, military as well as civil. In short, by isolating the control of peaceful uses of atomic energy from the control of atomic energy for military purposes, attempts at the former goal have been rendered relatively sterile and futile. The strong motivations which exist for accepting military controls have been rendered irrelevant to the civil situation. This leaves no strong motive of national interest operating in favor of international control of the Atoms-for-Peace program.

Yet the Commission in its report says, "We strongly urge the United States to make the International Atomic Energy Agency the focal point and major instrumentality of its activity in support in the development of the peaceful uses of atomic energy in other countries. In specific terms, the United States should give priority to the Agency rather than to bilateral or regional arrangements." I can see little force in the arguments educed for such a policy; this policy would lead every agreement with our friends into a maelstrom of quibbling in an agency where representatives of the Soviet Union and the neutralist countries also sit. It is hard to see why we should invite all the difficulties entailed in taking action under such unfavorable circumstances when there are opportunities for easy cooperation opened up by the effective unity within the Western alliance and similar groupings. The argument in favor of channeling activities through the IAEA amounts essentially to a demand that we set an example for the Soviet Union because it might then, also voluntarily, use the IAEA for the operation of the Soviet atomic cooperative programs. Example setting is, unfortunately, flimsy strategy in international affairs.

In closing, let me emphasize that the alternatives are not restricted to setting an example by actions that are contrary to national interest on one hand or by engaging in a suicidal, nuclear balance-of-power game on the other. Nuclear energy clearly requires international control. We will have to accept the imposition of such controls upon us as a price for imposing them upon others. The interest that nations have in survival is likely to produce whatever world-wide agreements are, in fact, reached. It is not at all clear that quarantining certain subordinate, though still important, areas of inter-

national relations from infection with the great issues of war, peace, and power conflict is possible, or even, if possible, likely to be constructive.

Nor is it clear that piecemeal reductions of tensions improves the chances for peace. It is not clear that piecemeal restrictions on atomic capabilities or even atomic weaponry, for example, reduce the likelihood of atomic catastrophe. It is most probable that such functions are nonlinear, nonmonotonic, and discontinuous, and if that is so, one cannot assume that a small sacrifice designed to promote a little progress toward international control of peaceful atomic energy activities will, at the same time, be a step toward preventing an atomic holocaust. The case must be established, if at all, by close reasoning about the particulars of the international bargaining situation.

While these issues are not faced in the present volume, the historical record is clearly and accurately stated. Scientists concerned with defense and atomic energy matters will find this case study both instructive and informative.

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Bigger's Handbook of Bacteriology. For students and practitioners of medicine. Seventh edition by F. S. Stewart, Williams and Wilkins, Baltimore, Md., ed. 7, 1959. x + 611 pp. Illus. + plates. \$8.

Since the last edition of this excellent *Handbook* (1949), the many advances made in several of the fields of bacteriology have necessitated revision of much of the original text. New sections have been added on virology and chemotherapy, as well as new chapters on disinfection, antigens and antibodies, hypersensitivity, bacterial classification, and streptococci and coliform bacteria.

A great deal of technical material included in the earlier editions, which was of value to the laboratory technician, has been deleted. The chapters on pathogenic fungi and protozoa have been omitted, because it was felt that these specialized subjects required specialized treatment.

While the text has been increased by approximately 100 pages, the *Handbook* was held to Bigger's objective (ex-

pressed in the preface to the first edition)—to present "all the more important facts relating to bacteria as far as they affect man" in a small volume.

While this text is primarily intended for students of medicine, it appears to offer a wealth of material for the student nurse.

The illustrations and plates are excellent.

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Immunity and Virus Infection. A symposium. Victor A. Najjar, Ed. Wiley, New York; Chapman and Hall, London, 1959. viii + 262 pp. Illus. \$10.50.

This book contains 20 papers presented in May 1958 at Vanderbilt University during a symposium planned by the department of microbiology as a tribute to the interests of a distinguished guest, Sir MacFarlane Burnet. Besides being devoted to the disciplines of immunology and virology, the volume has no formal organization, and it includes a variety of topics. It begins with a brilliant and provocative discussion of the clonal selection theory of antibody production by Burnet. Antibody production and the related problems of immunological tolerance and allergy are discussed by several participants. The other immunological topics included are separation and purification of antibodies, properdin, rheumatoid γ -globulins of high molecular weight, and genesis of fever in infection. The section on virology (also introduced by Burnet) begins with a highly speculative paper on trends in virus research. Luria, in the same vein, attempts a new definition of viruses, based on recent findings in genetics. Three papers deal respectively with the purification of viruses, the role of phage in the toxigenicity of *Corynebacterium diphtheriae*, and virus infection by "naked" ribonucleic acid. The three final papers are devoted to the problems associated with vaccination against poliomyelitis with inactivated or live attenuated virus, and to the effect of vaccination on the epidemiology of the infection.

The method of presentation varies considerably, too. A few authors discuss specific problems, but most summarize and discuss recent developments, while some thoroughly review old as well as new lines of investigation and provide