

The World. *Who are the men who shape our world? Since the dawn of history the answer always has been the politician—and, occasionally, the soldier and the priest. This still highly tenable point of view pervades most of the important books we review this week, including Edward R. Stettinius, Jr.'s report on "Roosevelt and the Russians," Drew Middleton's "Struggle for Germany," and Howard K. Smith's "State of Europe," discussions of the dilemma of the Continent today; and Herbert Evatt's "The Task of Nations," an outline of the U. N.'s prospects. Yet in our generation another calling has begun to help shape our destiny. In "Modern Arms and Free Men," Vannevar Bush lucidly presents a scientist's views on peace and war.*

Our Technological Future

MODERN ARMS AND FREE MEN.
By Vannevar Bush. New York:
Simon & Schuster. 273 pp. \$3.50.

By LOUIS N. RIDENOUR

VANNEVAR BUSH, more than any other man who ever lived, has been concerned with the management of large-scale research. In recent years he has supervised the application of science to warfare, which is one of the most prominent novelties of our time. His experience in scientific management includes positions of the first rank in a university (as vice president and dean of engineering at the Massachusetts Institute of Technology), in an endowed research foundation (as president of the Carnegie Institution of Washington), in part-time Government service (as a member and as chairman of the National Advisory Committee on Aeronautics), and in full-time Government service (as head of the National Defense Research Committee and its successor agency, the Office of Scientific Research and Development). This impressive career culminated with Dr. Bush's appointment as the first chairman of the Research and Development Board, the agency of the Department of Defense which is charged with the supervision of all military research and development, and the integration of that work into the planning of the armed services.

"Modern Arms and Free Men" is an examination of how modern science and the democratic process, both agencies of profound and rapid change, are affecting the nature of war. On this point Bush advances two conclusions to whose support the argument of the book is devoted:

I believe, first, that the technological future is far less dreadful and frightening than many of us

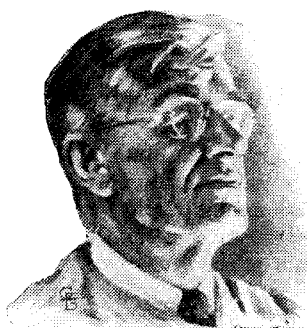
have been led to believe, and that the hopeful aspects of modern applied science outweigh by a heavy margin its threat to our civilization. I believe, second, that the democratic process is itself an asset with which, if we can find the enthusiasm and the skill to use it and the faith to make it strong, we can build a world in which all men can live in prosperity and peace.

To document these conclusions, Bush first examines the nature of the

two world wars and of the period between them, not in political or strategic terms, but rather in terms of the role that applied science played in fighting the wars and in affecting military thinking during the inter-war period. Such considerations are then extended to and beyond the present time, to answer the question: what is the probable nature of future war?

Some of the military judgments and estimates which Bush advances are at considerable variance with current popular concepts of future war. He dismisses at once, of course, the idea that any future war would instantly and inevitably mean the destruction of civilization. But (and this is more unusual) he is distinctly of the belief that the ascendancy of the offensive in warfare, so prominent in World War II, is now at or near its end. He expects that the defense may regain the lead it had in the First World War.

Not everyone will agree with parts of the detailed argument, but Bush's experience has been so great that any disagreement must rest on the most careful examination of facts and trends. One of the most interesting predictions is that air defense will progress more rapidly and effectively



THE AUTHOR: When prominent isolationists here began bleating about the invincibility of Nazi Germany and were all for throwing in the British sponge, Vannevar Bush, then chairman of the National Advisory Committee on Aeronautics, hurriedly smoothed out a blueprint for mobilizing American scientists he and a few fellow educators had been mulling over, and rushed to the White House. Immediately accepted, the plan evolved into the Office of Scientific Research and Development, and Dr. Bush,

as administrator, with a yearly purse of some \$135,000,000, became the most empowered scientist in the world—the first civilian technician ever admitted to the highest war councils. To OSRD he summoned in all 30,000 physicists, chemists, engineers, and doctors. From OSRD came radar and submarine fighting devices, amphibian trucks, armored cars, rockets, penicillin and cortisone, non-extinguishable fire bombs, insect bombs, and atomic bombs. Since 1939 Dr. Bush has also been president of the Carnegie Institution in Washington, directing inquiries on everything from the wanderings of the magnetic north pole to bacterial mutations. Priorly he was dean of engineering and vice president of the Massachusetts Institute of Technology, where he developed the differential analyzer, a mechanical brain considered invaluable in laboratory technology. To Bush, son of a Universalist preacher and grandson of a Cape Cod whaler, a Yankee respect for "human enterprise" comes as naturally as an affinity for gadgetry, fishing boats, and farms. And prospects of a Socialized USA worry him more than another war. "The dangers of rushing headlong into a full welfare state are very practical and very immediate," he warns. "Yet there is a more subtle danger than this. . . . A passion for personal security is an opiate which tends to destroy the virile characteristics which have made us great."

—R. G.

than will strategic air offense. This conclusion is based on a belief in the proximate development of anti-aircraft guided missiles having murderous effectiveness against piloted subsonic bombers. Bush relegates to the more distant future the offensive missile of inter-continental range, adequate accuracy, and supersonic velocity, against which defense is difficult or impossible.

Bush points out that the problem of coping with the tremendously improved modern submarine is the most pressing immediate naval responsibility, and suggests flatly that the Navy get on with it, rather than engage in its current jealous bickerings over responsibility for other roles.

Having analyzed warfare from the technical standpoint, Bush turns to a comparison of the totalitarian Communist dictatorship with the free democracy of this country. He points out clearly and well the tremendous strength of democracy as opposed to totalitarianism: absurd ideas and incompetent men can be wholly immune to criticism or change in a dictatorship; they are never so immune in a democracy.

In his discussion of the elements of national strength, Bush puts heavy emphasis on education. His main thesis is the oft-neglected one that we have achieved equality of educational exposure at the expense of equality of educational opportunity. It ought to be possible for a youth of superior talents, whatever his family's wealth or social position, to have access to a superior education. Unfortunately, this simple, obvious, and democratic notion is actually opposed by many of those professionally concerned with education. Bush advances and defends it compellingly.

Another element vital to the national strength is adequate military planning. If we overdo our military preparations we may damage our economy; if we underdo them we may invite attack. Worst of all, if we cling blindly to outmoded notions in a changing world, we may pay heavily for our blindness. Bush does not underestimate the difficulties of proper planning, but he is confident that they can be overcome.

All in all, this is a remarkable book. Its abiding faith in democracy and progress is inspiring to those who contemplate the uneasy future. Its technical and military estimates and assessments are bold, clear, and provocative. Probably no one concerned with the nation's strength and welfare will agree uniformly with Bush's assertions as made in this book, but no one so concerned can afford to ignore them.

Garden of Solidarity

THE AMERICAS: *The Search for Hemisphere Security.* By Laurence Duggan. New York: Henry Holt & Co. 242 pp. \$3.

By DUNCAN AIKMAN

THESE days something of a bear market prevails in inter-American relations. The republics from the Rio Grande to Patagonia, whose good will, prosperity, and understanding the United States cultivated during World War II, both expensively and romantically, have been treated since V-J Day not unlike an ambitiously planned subdivision after the city begins to grow in another direction.

This doesn't mean that the garden of Western Hemisphere solidarity—as the Latin Americans are fond of calling it—has been allowed to go back to the jungle. Both in a public- and a private-investment way much greater funds have gone into keeping its fences and communications in repair than ever happened in peace times before the 1940's. So have greater efforts at economic organization and political conciliation by United States diplomats.

But chiefly these have been maintenance rather than new promotion or construction operations. Latin America has lost the grip on the national imagination which it had in the years when there was always the chance that the Nazis would jump from Dakar to the bulge of Brazil, and begin bombing the Panama Canal from convenient land bases. The Latin American countries, having declined into a remote secondary front in the great twentieth-century war between Kremlin Marxism and its opponents, have lost many of the emotional ties with the United States which proceeded from their hopes of the Good-Neighbor policy's generosity.

The late Laurence Duggan's book, which he had virtually completed at the time of his death last December, wastes little time deploring this situation. Instead, it offers a sense-making blueprint for the United States in its inter-American relations regardless of the intensity with which they are conducted. From the man who in his short but brilliant career in the State Department rose to be both chief of the Division of American Republics and political adviser to the Secretary of State on Inter-American Affairs, it is a lastingly useful testament.

A part of the blueprint has to do with profiting by the mistakes which

Washington's policy-makers made when the Good-Neighbor policy was operating at its more or less frantic wartime tensions. The United States, for instance, should in Mr. Duggan's view have accepted the services of more American military contingents, token or otherwise, on the European fighting fronts. It should have found a way to give the Latin Americans a voice in the planning operations for the United Nations which took place in the 1944 Dumbarton Oaks Conference. It should not have tried to deal with unfriendly dictatorial regimes in Argentina and Bolivia through futile non-recognition rebuffs and political operations strongly suggesting interventions in the Hemisphere neighbors' domestic politics. It should not have tried to keep the American grocery store's coffee prices down by "sweating it out of" Latin America's coffee plantation labor from Mexico to Brazil.

In the postwar world it should not discourage Chilean copper imports when the United States already is down to a twenty years' ore supply. It should not "try to fortify the inter-American system by capitalizing on the fear of Soviet influence which possesses the Latin American oligarchies." Such a course merely builds up Latin America's more authoritarian dictators, while further poisoning relations with the Soviet Union, besides.

In more general terms, Mr. Duggan offers these prescriptions: The United States in Latin America should encourage the breaking up of huge feudal estates still cultivated by peon labor and help further "industrial development which will undermine the framework" of semi-feudal agrarian society. It should support the organization of trade unions with the right of collective bargaining. Its policy-makers should realize that present

threats to political democracy in Latin America are only surface manifestations of the underlying conflict between the old social order and the new middle-class and workers' movements which spring from an economy in transition. . . . It is well and good that we should attempt to cure political diseases—if we are sure that we have the right medicine—but it will be much better to create such healthy conditions that our neighbors will not catch them.

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