The honors heaped upon him are literally too numerous to mention. Probably the one he appreciated most was the degree of doctor of science awarded him in 1927 by Wooster College, in the town where he had been born and had lived as a child and young man, and where his father, Elias

Compton, had been dean and professor of philosophy.

His place is secure as one of the great American physicists of the 20th century. SAMUEL K. ALLISON

Enrico Fermi Institute for Nuclear Studies, University of Chicago, Chicago, Illinois

Reference and Note

- 1. It is interesting to note the completely independent rebirth of this idea in the semiclassical interpretation of the angular distributions resulting from the Butler stripping process in nuclear reactions; the necessary length is supplied by the diameter of the target nucleus on whose surface the reaction is supposed to take place.
- A. H. Compton, X-rays and Electrons (Van Nostrand, New York, 1926).

News and Comment

Who Runs America? An examination of a Theory that Says the Answer Is a "Military-Industrial Complex"

The farther reaches of the political spectrum have been fertile ground for theories on how we got into the Cold War and how we can get out intact.

Grouped under headings of left and right, the theories conflict in substance, but they do have in common the assumption that we have come to our present plight because-whatever the appearances may be—the decisionmaking process is controlled by unseen people who have usurped our constitutional processes. Thus, on the one hand, we have the theory that the Soviet Union runs the placement service for the American foreign policy apparatus and, on the other, we are offered the hypothesis that this same apparatus is dominated by moneyed people who learned "I hate Russia" before they learned "Momma."

Those who feel at home on the middle ground of the spectrum have not been laggard in producing or accepting theories of the Cold War's origins, but they generally have failed to make use of the "invisible forces" concept. This, however, has changed of late, and the principal credit belongs to no one more radical than former President Eisenhower, who, with a few cryptic words, transformed an otherwise unnoteworthy farewell address into the most quoted of that genre since George Washington advised his countrymen not to get mixed up with foreigners.

Eisenhower began by pointing out that a standing military establishment was unknown in the United States until after World War II, and he warned that its influence—"economic, political, even spiritual—is felt in every city, every State House, every office of the Federal government."

While the state of the world makes this establishment necessary, he said, "in the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist."

Eisenhower was not the first to offer this view, but he was an unlikely source of such pronouncements, and a common reaction was that if Eisenhower says this is a serious problem it must indeed be a very serious problem. Various writers immediately dug into the subject, producing a great deal of material which clearly demonstrated that military men and the people from whom they buy their equipment had become quite intimate during 15 years of Cold War and had not been confining their energies to the production of hardware.

At present, the most prominent and angry product of this research is *The Warfare State*, by Fred J. Cook [Macmillan, \$4.95 (376 pages)], an expansion of Cook's work, *Juggernaut: The Warfare State*, which filled a special 60-page supplement of the *Nation* for 28 October 1961. It is Cook's thesis,

says Bertrand Russell in a foreword, "that the 'military industrial complex' has become so powerful in the United States that it dominates the Government and is, at the same time, so insane that it is quite ready to advocate what is called a 'pre-emptive' attack against the Soviet State." Russell can be accused of stretching Cook's thesis to fit his own well-advertised conclusions, but it is only a slight stretch, since Cook himself hedges only occasionally in attributing overwhelming power to the "military-industrial complex." He does conclude with the hope that perhaps the tide is turning, but the hedgings and hope are insignificant in relation to the whole work, which abounds with statements such as, "There is hardly an area in our lives today in which the military influence is anything less than supreme," ". . . the entire economy and self-interest of the nation have been chained to the chariots of war," and "The picture that emerges is the picture of a nation whose entire economic welfare is tied to warfare."

This is the sort of stuff that might easily be expected to arouse skepticism, but the reviews-outside of military, quasi-military, and right-wing journals—have generally ranged from courteous to enthusiastic. The New York Times said, for example, that Cook was "perhaps a bit too shrill" and had failed to prove that the militaryindustrial process exercised any illicit power in government, but the reviewer. who covers the Defense Department for the Times, was by no means harsh. In the Saturday Review, former Congressman Charles O. Porter warmly embraced Cook's thesis, describing it as "timely and fully documented." He added that "it indicts a number of our leading citizens, principally military and industrial leaders, on charges of selfishly and recklessly changing our nation from a peace-loving democracy into a state bent on a holy war to extend the capitalist system."

Cook has no difficulty demonstrating

that the military and industry have become intertwined and have rooted themselves deeply into the American landscape: the Defense Department employs 3.5 million people and has a payroll double that of the automobile industry; four million people are directly employed in defense industry; 100 corporations receive 75 percent of defense procurement contracts, and these corporations now employ 1400 retired officers of the rank of major and up, including 261 generals or officers of flag rank. Many communities have become heavily dependent on military payrolls, among them, for example, San Diego, where 82 percent of all manufacturing jobs were in the aircraft missile industry in 1959.

From these facts, he moves to the heart of his thesis, which is that military men and industrialists helped produce the Cold War through their pathological aversion to the Soviet Union, and that now that they have enthroned themselves in the Cold War atmosphere, they successfully resist any attempts at a rapprochement with the Soviet Union. They succeed, he contends, because the economic welfare of the nation is tied to the prospect of war, and they are abetted in maintaining their dominance by a public relations apparatus that fills the press with war hawk material.

The measure of their success, he charges, is visible in many places, but most notably in U.S. failure to show a more compromising attitude toward a nuclear test ban and disarmament, in the fierce politicking that greets efforts to reduce defense expenditures in any locality, and in the growth of the radical right.

These, among others, Cook contends, are the visible outcroppings of the power wielded by an alliance that has come, in his view, to dominate the American government. Cook, thus, is offering a theory of omnipotent, unseen force, deducing its existence from the effects he attributes to it: He thereby invites the test of whether his theory can account for a number of things that have happened in the long and sorry history of the Cold War, in addition to those happenings that fit his theory.

For example, if the military-industrial complex is as dominant and as pathological as he claims it is, why wasn't the Soviet Union destroyed when the United States enjoyed an atomic monopoly? Why wasn't the complex able to save General MacArthur when

Truman decided that the time had come to assert the supremacy of the civilian over the military? If the complex is dominant and infused with right-wing thinking, how do we account for General Walker's rapid transit from divisional headquarters to the psychiatric examining room?

If we accept Cook's contention that defense spending is so entrenched in American economic life, how do we account for the fact that between the Korean War and July 1960, Michigan's share of military prime contracts dropped from 9.5 to 2.7 percent; Illinois, Ohio, Indiana, and Wisconsin together had a total of 21.9 percent, which dropped to 9.1 percent. The nationwide total for defense spending went up, of course, but these areas, which are fully able to raise their voices in American politics, have suffered the effects of what, from their standpoint, might just as well have been a disarmament agreement.

If the military-industrial complex is dominant, why did the United States abstain from nuclear testing during the 3-year informal moritorium? Most military leaders were in agony over this decision, but it was not until the Soviets led the way that the United States resumed testing.

If Cook's theory of dominance is valid, why is the Air Force receiving only a fraction of the space funds that it requests? Why is the administration able to resist demands for a production program for the RS-70?

If the radical right is as potent as Cook makes it out to be, why did all three Birch Society candidates lose out in the congressional elections? Gerrymandering unquestionably had something to do with their misfortune, but what is gerrymandering to an overwhelming political tide?

And whatever happened to the radical right? Where is it?

If the military-industrial complex is running the show, how do we account for who's muzzling whom these days? Military men now can barely say the pledge to the flag without checking the text with the Pentagon's civilian bosses.

Cook contends that the dominance of the complex was demonstrated when "Congress, by the narrowest of votes," approved the establishment of the Arms Control and Disarmament Agency. The vote, as a matter of fact, was 290 to 64 in the House and 73 to 14 in the Senate. If we were to conclude that a narrow vote signified the dominance of the complex, are we to conclude that an overwhelming vote signifies its weakness?

Cook notes that the Foreign Policy Research Institute has proposed that we spend Russia into the ground by raising our military budget to \$65 billion a year. Since the budget is only a little over \$50 billion, what are we to conclude about the influence of the Institute? We might conclude that it has some dangerous notions, but that is quite different from concluding that it is shaping the nation's policies.

Finally, the political roots of the American test-ban position are many, deep, and not altogether clear, but the forces conjured up by Cook can legitimately cry "Foul" when he attributes to them parentage for the present watered-down position and some of its predecessors. The United States has come a long way on the test-ban issue and at present would happily sign a treaty if the Soviet Union were willing to run the risk of having a few non-Communists tramping across its soil perhaps a dozen times a year.

There is no doubt that the existence of a vast military establishment creates problems that severely strain this nation's governmental processes. But to conclude, as Cook does, that "there is hardly an area in our lives today in which the military influence is anything less than supreme" is to waste energy in a search for a political phantom.—D. S. GREENBERG

Announcements

The National Science Foundation has been designated by President Kennedy to correlate federal activities in the International Year of the Quiet Sun (IQSY), which will take place from 1 January 1964 through 31 December 1965. (It is expected that solar activity will be at a minimum during this period.) The U.S. program will consist of synoptic observations in solar activity, geomagnetism, aurora and airglow, ionosphere, cosmic rays, and meteorology, and studies of the sun, the interplanetary medium, solar-terrestrial relationships, and aeronomy.

NSF, working with the Office of Science and Technology, will assume responsibility for assuring that IQSY activities are consonant with the overall U.S. scientific program; it will also handle budgetary arrangements for any additional activities required beyond