

Atomic Bomb Scientists: Memoirs, 1939-1945. Edited by Joseph J. Ermenc. (Westport, Connecticut: Meckler Corporation, 1989. 385 pp. Index. \$120.00.)

Twenty-five years ago Joseph J. Ermenc, a professor at Dartmouth College, began to conduct a series of interviews with a few of the men who had been involved in one way or another with uranium fission. Some of the interviews have been published in this book. To call these men "Atomic Bomb Scientists" is something of a misnomer. General Leslie Groves is probably the only one of them who ever saw an atomic bomb and he, of course, was an administrator, not a scientist. Nevertheless, because Ermenc sought out people who had done early work on fission in Europe as well as America, who had worked at Chicago and Berkeley and Oak Ridge, the book brings a new perspective to an ever-fascinating history.

One question dealt with in these tapes certainly remains a subject of lively current concern. Why did the Nazis not even come close to making an atomic bomb? The interview with Werner Heisenberg, the Nobelist in charge of the German project, is not only the longest one in the book; it is the most interesting. In the course of time, Heisenberg offered many justifications for the failure of his project but, as the years went by, he did not always say quite the same thing. Here, in 1967, his tone is frankly defeatist. He says that being convinced Germany was going to lose the war, he felt that he simply did not have the time to make a bomb. This is a story told with a less lofty moral tone than the one he would adopt in later years to the effect that bomb making was so distasteful to him that he did not even try.

Paul Harteck, who worked in Hamburg, has a different explanation for the Nazi failure. He blames the poor performance on bad management and bad politics, citing the lack of coordination and even distrust between theoretical and experimental physicists. He mentions, among other unfavorable conditions, racial laws which excluded gifted scientists from the German endeavor and a government lukewarm to what it called "Jewish Physics."

Very different from the Germans are the confident voices of the Americans Ermenc interviewed, General Groves, C. E. Larson, Art Snell, and others. One is reminded of the enormous effort of the United States where every ounce of available silver in the country was commandeered, where five hundred centrifuges costing ten million dollars were fabricated in a hurry, where twenty-five thousand workers were employed at Oak Ridge alone. Success, however, lay in more than government support. As opposed to Heisenberg's dismissal of the task as simply impossible, Larson speaks of Ernest Lawrence's tremendous enthusiasm as he approached the job of isotope separation, and Lawrence's disdain for ordinary difficulties which, Larson says, was infectious and brushed off on his co-workers.

This is a worthwhile book which is complementary to the many excellent books on the dramatic exploitation of the atom.

Jane S. Wilson
Ithaca, New York