

logical subjects of near term significance. Studies on process control computerization, undersea technology, urban mass transit, medical electronics, water desalination, air and water pollution control, metal working, total energy systems, information retrieval, and educational technology have been issued.

Additional assignments have included research work on shipyard diversification, the dissemination of NASA generated technology to private industry, commercial construction forecasting, and the technological forecasting studies dealing with petroleum products and markets.

From 1961 to 1965, Mr. Darnay was a member of the embarking staff of J. F. Pritchard & Company, an international process engineering and construction firm. He was responsible for promotion planning, market research, technical writing budget management, and public relations.

From 1956 to 1961, Mr. Darnay served in the United States Army as a Civil Affairs Specialist, Military Government Section, on the divisional level. Later he was assigned assistant to the commanding general of division artillery, involved in liaison work with the German community and German military forces in United States Army, Europe. He was decorated with the Commendation Ribbon for outstanding work.

Mr. Darnay attended Rockhurst College and the University of Maryland (overseas campus) where he studied history and economics.

Mr. Darnay is a member of the American Economic Association.

STATEMENT OF ARSEN J. DARNAY, JR., PROJECT LEADER, MIDWEST RESEARCH INSTITUTE, KANSAS CITY, MO.

Mr. DARNAY. Mr. Chairman and members of the subcommittee, my name is Arsen Darnay. I am a project leader with Midwest Research Institute. It is a pleasure to appear before you with this statement, which will outline in brief form the role packaging plays in solid waste.

Packaging and the solid waste problem are closely linked in the public view, and this with good reason. Discarded packages are visible all around us. It is impossible to take a stroll through city streets, drive in the country, walk in a park, or ride a boat on our rivers and lakes without encountering the tell-tale signatures of our affluence: discarded cans and bottles, cigarette packs and paper sacks, candy wrappers and similar objects. It is not surprising, therefore, that packaging materials are placed high on the list of items which create esthetic blight.

Until recently, no systematic analysis of the relationship between packaging and solid waste has been undertaken. About 9 months ago, a study was initiated at Midwest Research Institute, under contract to the Public Health Service, solid wastes program, to develop some clear-cut definitions of the role packaging plays in solid waste at the present—and will play in the year 1976. I directed that study, and this morning I should like to share some of our conclusions with you.

VARIOUS ASPECTS OF PACKAGING

Both packaging and solid waste disposal are complex activities. Consequently, the interaction of the two is difficult to discuss with precision. Packaging plays not one but several roles in waste disposal, depending on which part of the system we are looking at. One important overall observation, however, can be made. The aims of packaging and solid waste disposal are mutually exclusive, on the whole. The packager wants a container which will not burn, break, crush, degrade, or dissolve in water. The waste processor wants a package