

In the citation read by William Lloyd Evans when Midgley received the latter of the two degrees was the following:

The research work of Mr. Midgley has received wide recognition, as is evidenced by the great number of distinctions which have come to him from those groups best qualified to evaluate his contributions to human knowledge. Through experience, the layman will also testify his indebtedness to one who has contributed so greatly to more pleasant and efficient living. He has made science a liberator, and we rejoice with him in the satisfactions that must be his in seeing the fruits of his labor. Posterity will acknowledge their permanent value.

Some of the fruits of his labor are these: the millions of horsepower added to automobile engines, and particularly to aircraft engines in this war, by his discovery of the antiknock agent, tetraethyl lead, and by the impetus he gave to getting bromine out of the sea as a needed complement to lead in gasoline; the big boost given to refrigeration and air conditioning by his discovery of a non-inflammable and completely nontoxic refrigerant, as well as the unforeseen but fortunate dividend from that advance of the great usefulness of the same nontoxic gas for dispersing insect repellents in the atmosphere of the living quarters of our soldiers in tropical countries; and the employment given to thousands of people by the new industries which, through his discoveries, he did so much to bring into being.

Midgley had a large part in the business side of these endeavors too. He was vice-president of the Ethyl Corporation, and of Kinetic Chemicals, Inc. (freon). He was also a director of the Ethyl-Dow Chemical Company (bromine from the sea). Midgley was particularly effective in selling the products of research to people. Something of his ability in salesmanship or showmanship has been seen by those who have heard him present papers at scientific meetings. In giving his first paper on the antiknock agents, for instance, he made striking demonstrations of knock and of its removal by antiknock agents, both in a glass tube and in an engine. Also in reporting on his discovery of the fluorine-containing refrigerants he demonstrated both their nontoxic and their non-inflammable properties by breathing in some of the vapor and exhaling it softly to extinguish a burning candle.

Midgley was a firm believer in the value of scientific societies. He was a member of the American Association for the Advancement of Science, the American Chemical Society, the American Institute of Chemical Engineers, the Society of Automotive Engineers, the American Society for Testing Materials and the So-

ciety of Sigma Xi, as well as of several other organizations. He was particularly active in the American Chemical Society. He served on its committees, he took part in local section affairs, he became a member of the board of directors in 1930 and chairman of the board in 1934, and he was president of the society in 1944. Speaking in 1937 of Midgley's large service to the American Chemical Society, Robert E. Wilson said this: "Having served as fellow director and under his chairmanship during the past five years of heavy stress for professional societies as well as business organizations, I can testify that his work and judgment have been invaluable to that organization."

Midgley was, of course, a strong believer in research also. In a paper presented less than a month before his death he said, "I am of the opinion that, as time goes on, more and more research of the fundamental type will be necessary." And, as an insurance that there will be trained men to conduct such research, he advocated that "by ample fellowships both in size and number, it (industry) should encourage many young men to remain in educational work."

The period of Midgley's researches covered only twenty years. But into these twenty years he compressed an immense amount of activity. Even after an attack of poliomyelitis in 1940 had made him a semi-invalid, he continued his interest and activity in the field of research, as well as his large service as an executive officer of the American Chemical Society and of other organizations. And this was in entire keeping with the intensive and remarkably useful life he lived. As a closure for his presidential address, "Accent on Youth," presented before the American Chemical Society less than two months before he died, Midgley used an original poem, of which these were the last two lines:

Let this epitaph be graven on my tomb in simple style,
"This one did a lot of living in a mighty little while."

CHARLES F. KETTERING

RESEARCH LABORATORIES DIVISION,
GENERAL MOTORS CORPORATION,
DETROIT

RECENT DEATHS

DR. JOHN MADISON FLETCHER, professor of psychology at Tulane University, died on December 12 at the age of seventy-one years.

DR. HOWARD ADAMS DOBELL, head of the department of mathematics at the State College for Teachers at Albany, N. Y., died on December 8 at the age of forty-eight years.