

THE MONTH AT CALTECH

Smog Progress

SPEAKING AT THE ANNUAL meeting of the American Chemical Society in Los Angeles last month, Dr. A. J. Haagen-Smit, Professor of Bio-Organic Chemistry at the Institute, predicted that 50 percent of the present smog menace in this area will be banished by the middle of 1955.

Because of the cooperation of oil refineries, said Dr. Haagen-Smit, the amount of smog produced daily has already dropped from 1800 to 1600 tons. In two more years, he anticipates another decrease of 400-500 tons. "This rate of decrease," he said, "will cut eye irritation materially as the companies cut out more 'swimming' oil tanks and adjust their tanks.

"We now get about 800 tons of smog daily from automobile exhausts and 800 tons from industry."

Also, last month, Dr. Haagen-Smit witnessed a demonstration of a new device intended to eliminate materials from automobile exhausts that cause the worst part of our smog problem.

Called the Oxy-Catalyst Muffler, the device replaces regular mufflers in cars, and takes carbon monoxide and fumes out of spent gasoline—thus preventing it from contributing the hydrocarbons in smog that irritate the eyes and lungs.

The muffler was invented by Dr. Eugene Houdry of Philadelphia—who also perfected the refinery cracking process that has been blamed for adding to Los Angeles' smog. It contains porcelain, coated with catalytic aluminum and platinum alloys. Now undergoing tests in the County Air Pollution Control laboratories, the muffler, at present, is effective only on white gasoline.

"When it is perfected to do the same on leaded gasolines," says Dr. Haagen-Smit, "we will have the means at hand for bringing the end of smog problems much closer, if our public representatives can induce the public to cooperate."

Caltech on TV

CALTECH IS COOPERATING with some 20 other colleges and universities on a television educational project which will get under way next fall. It will consist of a weekly series of filmed programs showing research activities at various schools. The series, to be known as "The Search," will start on the CBS television network on October 1, and run for at least 26 weeks.

Typical projects already scheduled for broadcast are

"The Old Folks," a study in geriatrics by the University of Chicago; "Great Issues," a Dartmouth College course designed to make students aware of global cross-currents of thought; the Massachusetts Institute of Technology's "Labor-Management Institute"; and "Oceanography" at Columbia University.

Caltech's subject, still to be decided, may concern research with the 200-inch telescope, the new electron synchrotron, or work in aeronautics and jet propulsion, or the life sciences.

Pauling's Peregrinations

DR. LINUS PAULING, Chairman of the Division of Chemistry and Chemical Engineering of the Institute, left this month for a five-week visit to Europe and the eastern United States.

He was scheduled to visit protein research groups in London and Cambridge, England, enroute to Brussels, Belgium, to attend the 9th triennial Solvay Congress starting April 6. Topic of the Congress is "Chemistry of Proteins," and Dr. Pauling will report recent Caltech findings regarding the molecular structure of proteins (*E&S*—February, 1953).

Dr. Pauling will return to this country in time to deliver the Treat B. Johnson Lectures in chemistry at Yale University, April 16-21.

On April 17 he will attend the annual Page One Ball of the Newspaper Guild of New York at the Astor Hotel, where he will receive one of the Guild's annual Page One awards for "opening the way to understanding the structure of the substance of life, the protein molecule." Others to receive awards this year include Judge Learned Hand, actor Victor Moore and author Carl Sandburg.

Dr. Pauling will also attend the meetings of the American Philosophical Society, of which he is a vice-president, and of the National Academy of Sciences, in Philadelphia and Washington, respectively. He returns to Pasadena May 6 after delivering the Foster Lectures in chemistry at the University of Buffalo.

Sloan Scholarships

THE ALFRED P. SLOAN Foundation of New York announced a new National Scholarship program last month which provides for a minimum of 25 scholarships to be awarded for undergraduate study at Caltech, the Carnegie Institute of Technology, Cornell University, or the

CONTINUED ON PAGE 34

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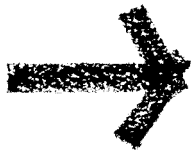


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|--------------------|------------|------|
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| EDWARD I. BROWN | BS ME & AE | 1943 |
| ROBERT DE VAULT | MS AE | 1952 |
| JAMES F. DRAKE | MS AE | 1948 |
| JOHN A. DRAKE | MS | 1943 |
| LORNE C. DUNSWORTH | MS AE | 1948 |
| ROBERT E. FISHER | MS AE | 1942 |
| MALCOLM S. HARNED | MS AE | 1948 |
| WILLIAM H. HENLY | BS ME | 1951 |
| THOMAS E. HUDSON | MS ME | 1946 |
| HENRY A. LONG | MS ME | 1950 |
| ROY E. MARQUARDT | MS AE | 1942 |
| GEORGE MORGAN | BS ME | 1949 |
| RICHARD K. NUNO | BS | 1951 |
| MERLE SMALLBERG | BS ME | 1942 |
| NORMAN SVENDSEN | MS AE | 1942 |
| DON L. WALTER | MS | 1941 |
| EUGENE ZWICK | BS | 1948 |
| JAMES BRAITHWAITE | MS AE | 1940 |
| MARVIN RUDIN | BS ME | 1949 |
| WILLIAM WOODSON | MS EE | 1949 |

THE MONTH . . . CONTINUED

Massachusetts Institute of Technology. The scholarships will provide up to \$2,000 a year for four years of study.

The purpose of the program, according to Alfred P. Sloan, Jr., President of the Foundation, is "to find and gather together on each of these four campuses outstanding representatives of American youth, regardless of their economic background, who show exceptional scientific promise. We are as anxious to find the so-called 'rich' boy as we are the 'poor' boy; it is the man that is important."

Basic to its national program, he said, is the belief of the Foundation that:

"1. Vigorous private education at all levels is vital to the health of the American way of life and the American educational system and that, consequently, American business has a responsibility to support private education.

"2. There is a constant and ever-expanding need in our society for leaders of high character, sound personality, and exact training who have been imbued with the ideals inherent in our American spiritual and political heritage. We believe private institutions are particularly successful in developing this kind of man.

"3. Philanthropic organizations, business, and individuals should, in making grants of all kinds to education, take into account the fact that tuition and fees paid by students do not cover the cost of education and overhead."

Union Carbide Scholarships

THE UNION CARBIDE and Carbon Corporation announced a new scholarship program this month which gives Caltech 16 new undergraduate scholarships. The scholarships will cover tuition and provide allowances for books and required fees for four years of undergraduate study. The Union Carbide Educational Fund will also match each scholarship with a \$600 grant-in-aid annually to the Institute.

Caltech and Pomona College are the only two California institutions among the 24 in the country chosen to participate in this program, which is to include some 400 scholarships at an estimated yearly cost of \$500,000.

Eight of Caltech's 16 scholarships will be awarded for the coming school year. Four three-year scholarships will go to qualified freshmen, when they become sophomores next September; and four four-year scholarships will go to qualified students who have already applied for scholarships and for admission to Caltech next year. The deadline for new applications for the 1953-54 school year had already passed when Union Carbide announced its new scholarship program, but students who seek admission as freshmen for 1954-55 and succeeding years may apply directly for the four-year Union Carbide Scholarships. Four are to be awarded to incoming freshmen each year.