

modern knowledge of the endocrine action of the ovaries. Before 1917 attempts to isolate ovarian internal secretions were seriously handicapped by the lack of a specific test for what to-day is called oestrogenic action. In that year Stockard and Papanicolaou showed that the oestrous cycle in the guinea pig is associated with cyclical changes in the vaginal epithelium. Shortly afterwards Allen found that in the mouse, too, oestrus is associated with a specific vaginal phase, and from this discovery it was a short step to his and Doisy's successful application of the vaginal smear technique as a test for the oestrogenic action of ovarian extracts. Once extracts with demonstrable oestrogenic activity were made available, the door was open to the chemical isolation, analysis and synthesis of pure oestrogens. Although Allen did not share in this later chemical work, there can be little question that it would have proved impossible without the simple bio-assay method which he developed.

"Allen's second major achievement was his demonstration in 1926 of the fact that the follicular phase of the uterine cycle in monkeys and man is under the control of oestrogenic hormone. All later work on the primate cycle emerges from this finding, and Allen's own subsequent investigations have a significant place in the structure of present knowledge of the subject. His contribution does not rest here. Allen is that rare combination of research worker and administrator who is able to stimulate in younger men a strong and lasting interest in research. His laboratory is one of the most productive in the United States, and while the Baly Medal is a recognition of past work, endocrinologists the world over know that Allen's laboratory will prove no less successful in the future than it has in the past."

#### AWARDS OF THE AMERICAN CHEMICAL SOCIETY

THE Priestley Medal of the American Chemical Society was presented on September 8 to Dr. Thomas Midgley, Jr., vice-president of Ethyl Gasoline Corporation, at the opening session of the one hundred and second meeting. Dr. Midgley, discoverer of tetra-ethyl lead as an anti-knock agent in gasoline, was honored for outstanding achievement in chemical science.

The \$1,000 prize in pure chemistry, awarded annually to a chemist under thirty-six years of age, and sponsored this year by Alpha Chi Sigma, the national scientific fraternity, was presented to Dr. Karl A. Folkers, of the Merck and Company, Inc., for important contributions in the field of organic chemistry.

Dr. Folkers has isolated many rare alkaloids from tropical plants and has conducted intensive research in the fields of vitamins and pyrimidines.

Professor William Lloyd Evans, of the Ohio State University, president of the society, made the presentations. In an address accepting the Priestley Medal, which is awarded once every three years, Dr. Midgley, who is chairman of the board of directors of the society, gave a demonstration of spectacular industrial developments arising from research with which he has been associated during the past twenty years.

By means of an actual gasoline engine, chemical apparatus, motion pictures and slides, Dr. Midgley demonstrated the effect of anti-knock material in a running engine; the non-toxic, non-inflammable properties of certain organic fluorides largely responsible for a great portion of the air-conditioning industry; the experiments through which he and his associates discovered that rubber containing oxygen could be vulcanized by the addition of Grignard reagents, and the process of commercially extracting bromine from sea water.

His discovery in 1922 of tetra-ethyl lead as an anti-knock agent was made after he and his colleagues in the General Motors Research Laboratories had tried more than 33,000 different chemical compounds without success. Dr. Midgley was born in Beaver Falls, Pa., in 1889 and is a graduate of Cornell University. He holds the Nichols Medal of the New York Section of the society, and the Perkin Medal of the Society of Chemical Industry. The honorary degree of doctor of science was conferred upon him by Wooster College. He is a fellow of the American Association for the Advancement of Science. In September, 1940, Dr. Midgley was stricken with infantile paralysis. Despite his disability, however, he is actively participating in the convention proceedings.

Dr. Folkers was born in Decatur, Ill., in 1906. He received the degree of bachelor of science with honors from the University of Illinois in 1928, and the degree of doctor of philosophy in 1931 from the University of Wisconsin. He was a teaching assistant in 1928 and a research assistant and fellow in 1929-31 at the University of Wisconsin, and a post-doctorate research fellow in organic chemistry from 1931 to 1934 at the Sterling Chemistry Laboratory of Yale University. He is the author and co-author of many publications in the field of organic chemistry. He joined Merck and Company in 1934, and four years later was appointed assistant director of research. Dr. Folkers was co-recipient in 1940 of the Mead Johnson and Company Award for research on the vitamin B complex.