The medal of the American Society of Mechanical Engineers to James E. Gleason, president, the Gleason Works, Rochester, N. Y., "for service to the cause of safer and better transportation."

The Holley Medal to Dr. Carl Edvard Johannson, Eskilstuna, Sweden, "in recognition of his pioneer work in the development of basic measuring gages," which are used throughout the world by machine and engine manufacturers.

The Worcester Reed Warner Medal to Dr. Rupen Eksergian, Edw. G. Budd Mfg. Co., Philadelphia, Pa., "for influential engineering papers of permanent value published in the *Transactions* of the American Society of Mechanical Engineers.

The Pi Tau Sigma Medal to John I. Yellott, assistant professor at Stevens Institute of Technology, Hoboken, N. J., with the citation, "outstanding young mechanical engineer of 1939."

The Charles T. Main Award of $150 to James R. Bright, Swampscott, Mass., graduate of Lehigh University, and now a student engineer, General Electric Co., for his paper, "The Economics of Investment in New Manufacturing Equipment—With Concrete Cases."

The Undergraduate Student Award of $25 to David T. James, Modeltown, N. Y., graduate of Michigan State College and now cadet engineer, E. I. du Pont de Nemours and Co., Niagara Falls, N. Y., for his paper, "Bells—Concerning Their Tones."

AWARD OF THE WILLARD GIBBS MEDAL

DR. VLADIMIR N. IPATIEFF, who came to this country from Russia in 1931, has been awarded the Willard Gibbs Medal of the Chicago Section of the American Chemical Society for 1940. The citation referred to him as "occupying a place of the first order in modern chemistry."

Dr. Ipatieff is internationally known for chemical discoveries basic to petroleum refining and to the organic synthesis of artificial rubber and of many other industrial products. He is now professor emeritus of Northwestern University, where he directs research in catalytic high pressure syntheses, and director of chemical research in the Riverside, Ill., laboratories of the Universal Oil Products Company.

In announcing the award Dr. Cary R. Wagner, chairman of the Chicago Section and of the Medal Jury, gave the following account of Dr. Ipatieff's work:

Dr. Ipatieff's chemical achievements in the field of catalysis and high pressure synthesis date from 1897. During the World War, Dr. Ipatieff was in charge of all chemical work for the Russian Government, with the rank of general and after the revolution he became president of the Central Chemical Bureau and founder of the High Pressure Research Institute. For this work he received the Lenin prize.

Dr. Ipatieff's work is of the same high order as that of the other European Willard Gibbs Medalists, who have included Mme. Marie Curie, of France; Svante Arrhenius, of Sweden; Sir James Irvine, of Scotland, and Dr. Richard Willstaetter, of Munich.

His discoveries of catalytic dehydration, hydrogenation, dehydrogenation and polymerization have placed his work in a commanding position for the past four decades and are the basis for many industrial processes, particularly in the refining of petroleum and synthesis of hydrocarbons.

Between 1900 and 1933 his researches were published almost entirely in Russian and German publications. In the last eight years he has been able to start research afresh in a new land with results that have been very far-reaching. His newer researches have extended the chemistry of the hydrocarbons greatly. He has developed a polymerization process to make high octane gasoline.

In 1897 in the laboratory of Professor Adolf von Bayer, Ipatieff synthesized for the first time isoprene, building stone of the complex rubber molecule, thus making possible the later synthesis of artificial rubber. In 1901 he began research in catalytic reactions under high pressures while working in the laboratory of the Academy of Artillery in St. Petersburg. He noticed, in 1901, the effect of catalysts on the decomposition of compounds, especially alcohols under high pressures and elevated temperatures. Simultaneously he discovered a method of making olefins from alcohols by passing the latter over alumina, a catalyst. Olefins have become the "raw" material for many organic compounds. The discovery was of very great industrial importance.

Dr. Ipatieff in 1903 and 1904 experimented extensively with the use of high pressures in the hydrogenation of various organic compounds, and these experiments were the forerunner of the Bergius process by which motor fuel is produced from coal. In 1905 he first introduced high pressures in polymerization of ethylene and other olefins. Continuing studies of polymerization in the presence of various catalytic agents, he found a catalyst which allows the transformation of a portion of the olefin-containing gases from cracking operations into an excellent high octane gasoline.

The work of Dr. Ipatieff in catalysis during the last thirty-five years enriched science by several major discoveries. He discovered several new catalytic agents, such as iron, zinc, manganese and their dioxides, important in the manufacture of dyes and fuels. He also first indicated the action of promoters, substances which aid catalysts, on the accelerated activity of catalytic agents. He has developed the chemistry of the paraffin hydrocarbons, compounds from which motor fuels and lubricants are made.

RECENT DEATHS

DR. WILFRED THOMAS DAWSON, professor of pharmacology in the School of Medicine of the University of Texas, died on September 19. He was forty-four years of age and had been connected with the School of Medicine since 1925. He was appointed to the professorship of pharmacology in 1927.

DR. NELSON FITHIAN DAVIS, professor of biology and head of the department of biology of Bucknell University from 1907 to 1937, died on November 11 at the age of sixty-seven years.