the north and south polar regions within the next two years for the inclusion of physicists in the parties, to make still further cosmic ray measurements.

PRESENTATION OF THE PERKIN MEDAL TO DR. BURGESS

THE Perkin Medal, bestowed annually on "the American chemist who has most distinguished himself by his services to applied chemistry," has been awarded for 1932 to Dr. Charles Frederick Burgess, president of C. F. Burgess Laboratories, Inc., for "a lifetime of accomplishment" in this field.

The medal will be presented at a joint meeting of the Society of Chemical Industry, the American Chemical Society, the Electrochemical Society, and the Société de Chimie Industrielle at 8:30 P. M. on January 8, at the Hotel New Yorker.

Dr. Burgess will speak on "Research 'for Pleasure or for Gold.'" Howard F. Weiss, of New York, will describe the achievement of the medalist, and Professor Marston T. Bogert, of Columbia University, will present the medal. Dr. Allen Rogers, of Pratt Institute, Brooklyn, chairman of the American Section of the Society of Chemical Industry, which awards the medal, will preside.

The work of Dr. Burgess in applied chemistry and electrochemistry, done chiefly at Madison, Wisconsin, embraces for the most part the fields of electrolysis, electrolytic iron and its alloys, the metallurgy of zinc, the corrosion of iron and other metals, and the development of the dry cell.

He devised a method and apparatus for sterilizing liquids with nascent chlorine which has been used in Madison hospitals to treat badly infected wounds and gangrene, and by explorers for sterilizing drinking water. This method bears some relation to the successful chlorine sterilization treatments later used during the war.

Dr. Burgess was born June 5, 1873, in Oshkosh, Wisconsin. In 1895 he was graduated in electrical engineering from the University of Wisconsin, where he served as instructor and assistant professor for five years following his graduation. There he established a course in applied electrochemistry, the first in the United States and later he established the chemical engineering course. In this academic atmosphere he demonstrated that scientific research was of the highest value to industry. In 1910 he established the C. F. Burgess Laboratories to demonstrate the marketability of chemical research.

Dr. Burgess's early work in applied electrochemistry became of industrial importance. He devised a simple electrochemical method for removing the surplus brazing metal from the brazed iron bicycle frame. He demonstrated the commercial utility of the electrolytic cleaner, universally adopted for cleaning metals preparatory to electroplating, and perfected the fused salt aluminum electrolytic rectifier, since manufactured extensively.

In 1904 Burgess and Hambuechen presented their paper on "Electrolytic Iron" which has been the basis for the commercial production of electrolytic iron both in the United States and France. Shortly afterward Dr. Burgess was given a grant of $10,000 by the Carnegie Institution to continue this work. This grant resulted in an extensive research on electrolytic iron and its alloys, several thousand of which were made and investigated.

The work of Dr. Burgess in corrosion has been of importance in its commercial aspects. He applied the principle of over-voltage to dry cell construction when the price of zinc mounted rapidly during the war. He substituted terne and tin plate for the zinc bottoms in dry cells at a considerable saving in cost.

He did a large amount of work on stray current electrolysis and made surveys in many cities in the United States. Dr. Burgess has done a considerable amount of work in improving hot galvanizing and electrogalvanizing. He was granted a patent in 1908 for separating articles in the electric furnace to prevent their fritting together in the intense heat of the reaction zone. This method is now used extensively in electric furnace practice.

Other achievements of Dr. Burgess are the electrochemical production of white lead and chrome yellow, electroplating on aluminum, and a method for soldering aluminum. He devised methods of roasting zinc ores and then concentrating magnetically. He succeeded in having gas put on a heating value basis in Wisconsin, the first state to adopt this standard. During the war, he was instrumental in devising on a large scale successful methods for producing and purifying silicon and titanium tetrachlorides. In the dry battery field he has made many contributions.

Dr. Burgess is also president of the Burgess Battery Company, the Burgess Building Company, the Burgess-Parr Company and the Burgess Dry Cells, Limited, of Winnipeg. The five companies of which he is the head are the outgrowth of his effort to carry chemical engineering research to industry. They employ more than 1,000 workers and turn out about $6,000,000 of products annually.

The Perkin Medal was founded in 1906 at the time of the Perkin semi-centennial celebration of the coal-tar discoveries, the first medal being awarded to Sir William H. Perkin himself.

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A FULL account of the New Orleans meeting of the American Association for the Advancement of Sci-