of the oxygen content of liquid steel. In this connection non-aging steels have been produced which have superior properties to the ordinary structural steels with regard to the ductility of the steel and its ability to withstand high temperature heat treatment without detriment to its physical properties. This work will be described by Dr. Charles H. Herty, Jr., director of cooperative research, and his assistants.

Following the presentation of papers members of the board will hold the annual business meeting. In the evening an informal dinner will be held at the Hotel Schenley with Dr. Thomas S. Baker, president of the Carnegie Institute of Technology, presiding. The speaker for this meeting will be announced later.

These annual meetings of the board have grown in importance each year, and at the last meeting, despite business conditions and the slackening of industrial research, more than four hundred persons attended.

THE CENTENNIAL OF THE BASIC LAWS OF FARADAY

SEPTEMBER 12 marked the hundredth anniversary of Michael Faraday's discovery of the two basic laws of electrochemistry: Faraday observed that the amount of metal or gas produced at the cathode during electrolysis was directly proportional to the amount of current passing through the cell. The internationally accepted value of the ampere is based on this cell. Faraday furthermore found that upon connecting several cells in series, these cells containing different metal solutions, the amount of metal deposited upon the first cathode was equivalent to that of the second cathode, and this in turn equivalent to that of the third cathode and so on. Or, in other words, the same quantity of electricity sets free the same number of equivalents of substances at the electrodes.

The Electrochemical Society celebrated this centennial on the evening of September 8, the day that had been set aside by the Century of Progress Exposition at Chicago as "Faraday Day." Members and guests gathered in the large auditorium of the Illinois Host Building. Among those present was Mrs. Walter S. Faraday, of Chicago, widow of a grandnephew of Michael Faraday; Professor Robert S. Hutton, Goldsmiths' professor of metallurgy, University of Cambridge, England, and a charter member of the society, gave the principal address. Dr. Hutton reviewed the remarkable career of Faraday, illustrating his address with a series of reproductions of the pages of Faraday's note-book and diary.

Dr. George W. Vinal, of the Bureau of Standards, displayed a number of different types of coulometers which were exact replicas of those used and designed by Faraday. Dr. Vinal also demonstrated the laws of Faraday, using solutions of copper and of silver.

At this meeting the Edward Goodrich Acheson Medal and \$1,000 prize were bestowed upon Dr. Colin G. Fink.

RECENT DEATHS

GEORGE HENRY PERKINS, vice-president emeritus of the University of Vermont and dean emeritus of its department of the arts and sciences, died suddenly on September 12. He would have been eighty-nine years old on September 25. When he gave up teaching this summer he had been a member of the faculty for sixty-four years. Dr. Perkins had been state geologist since 1898 and was Howard professor of natural history from 1869 to 1931.

DR. JOHN C. SHEDD, professor of physics in Occidental College from 1916 to 1930, and professor emeritus for the last three years, died on May 20, at the age of sixty-four years.

•DR. CHARLES LEWIS BEACH, president emeritus of Connecticut State College, formerly professor of dairy husbandry at the University of Vermont, died at Storrs on September 15, at the age of sixty-seven years. He had been ill for some years and resigned the presidency in 1928.

DR. RAMSAY WRIGHT, who retired in 1912 as professor of biology at the University of Toronto, died on September 6, in Worcestershire, England, at the age of eighty-one years.

DR. WALTER GROSS, professor of pathology and pathological anatomy in the medical faculty at Münster, committed suicide on September 15.

SCIENTIFIC NOTES AND NEWS

DR. FRANK BLAIR HANSON, professor of zoology at Washington University, St. Louis, has been appointed assistant director of the Natural Science Division of the Rockefeller Foundation. Dr. Hanson returned from Paris a year ago after a two-years leave of absence, during which time he was fellowship administrator in Europe of the Rockefeller Foundation.

PROFESSOR HEZZLETON E. SIMMONS, head of the department of chemistry and a specialist in rubber technology at the University of Akron, has been ap-