under consideration. Thus the following order applies within well-defined limits of cathode speed, cathode film pH and current density: zinc, copper, iron, nickel —that is, first zinc, then copper, then iron, then nickel can be plated out.

In conclusion, we strongly recommend the high-speed cathode to all interested in the electrodeposition of those metals and alloys which have to date not been produced from aqueous solutions in solid, adherent, compact and metallic form.

SCIENTIFIC EVENTS

ASCENT OF THE RUSSIAN STRATOSPHERE BALLOON

A SPECIAL cable to *The New York Times,* dated from Moscow on June 26, reports that a surprise flight of a Soviet stratosphere balloon on June 26 reached a height of almost ten miles.

The flight, which was entirely for scientific purposes with no attempt to break altitude records, was reported to have been entirely successful.

The balloon was the U. S. S. R. 1-Bis. It took off from the Kuntzevo military airfield on the outskirts of Moscow at 5:25 and landed at 8 A. M. on a collective farm at the village of Trufanoff, near Tula, 115 miles south of Moscow.

The balloon was the one in which Commander Prokofieff ascended 19,000 meters [62,335 feet] in 1933. Although it had the same gas bag—one of 24,000 cubic meters' capacity, the gondola had been largely reconstructed, strengthened and equipped with the latest scientific equipment.

The balloon contained two Wilson cameras for photographing the path of electrons. These had been built by Professor Alexander Verigo, chief physicist of the Department of Radioactivity and Cosmic Rays at the Geophysical Laboratory in Leningrad, who took observations on the flight. The other equipment included ionization cameras with which he observed the secondary emanations produced by cosmic rays in aluminum and lead, a spectrograph to measure the brightness of the skies and thermographs for measuring outside temperatures.

Besides Professor Verigo those aboard were K. I. Zille, a graduate of the Red Army air academy and one of the most experienced Soviet aeronauts, and J. G. Prilutsky, an engineer, also Red Army trained.

The *Times* states that although there was no announcement of the flight until it had been successfully completed, the balloon and crew had been in readiness to ascend for three days. Clouds and unfavorable winds prevented the take-off until June 26.

From beginning to end of the flight the balloon was in radio communication with the ground. The balloon's radio station was called "Luna" and the earth station "Venus." The radio transmitted word that the balloon was ascending at the rate of five meters (16.4 feet) a second, which slackened to three meters as it reached higher altitudes.

THE HARVARD DREDGING EXPEDITION ALONG THE ATLANTIC COAST

THE dredging expedition undertaken by Harvard University was done on Georges Bank, about 120 miles east of Nantucket Island, Massachusetts, under the direction of Henry C. Stetson, research associate in paleontology, Museum of Comparative Zoology. It will be continued this summer in the Hudson River submarine channel off New York Harbor and in the submarine valleys off the Maryland coast. One of the Maryland coast valleys is the deepest yet found along the Atlantic shore, dropping 9,000 feet below sea level.

Fossils were taken by the expedition from the sides of the Georges Bank valleys, which extend more than a mile below sea level on the edge of the continental shelf. The evidence uncovered is said to confirm the generally supported theory that the deep ocean valleys cutting into the continental shelf were formed by rivers which flowed into the Atlantic before the continental shelf sank below the ocean.

The boat employed by the expedition was the *Atlantis,* of the Woods Hole Oceanographic Institute, an auxiliary steel ketch, 142 feet overall. The dredge used is of the scraper type, of ¾-inch steel plates, with sharp cutting edges.

Eleven successful hauls were made. The middle and upper parts of the valleys between 2,100 and 600 feet were found to be the best areas. Here the walls were either steep enough to prevent the deposition of recent sediment or else the mantle was thin enough to be penetrated. The lower parts of the valleys have gentler grades and the fill of unconsolidated material covers the bed rock so deeply that no rock was found exposed.

In one of these valleys the expedition dredged at a depth of 1,956 to 1,578 feet a coarse sandstone containing fossil mollusks, which Dr. Lloyd W. Stephenson, of the U. S. Geological Survey, has assigned to the Upper Cretaceous period, about 105,000,000 years ago.

From another valley, between 1,968 and 1,740 feet below the sea level, came a greensand, which Dr. Joseph A. Cushman, lecturer on micro-paleontology

at Harvard, has analyzed and has found to contain foraminifera which makes this formation the equivalent of the Buliminia zone of the Navarro of Texas, which is likewise Upper Cretaceous. No material not definitely glacial or recent was found below 1,620 feet.

ELECTION OF OFFICERS OF THE AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS

AT the meeting at Ithaca of the American Institute of Electrical Engineers, E. B. Meyer, chief engineer of the Public Service Electric and Gas Company of Newark, N. J., was elected president for the coming year. The other officers elected were: *Vice-presidents,* W. H. Harrison, Philadelphia; Mark Eldredge, Memphis; R. H. Fair, Omaha; N. B. Hinson, Los Angeles; C. V. Christie, Montreal; *Directors,* C. R. Jones, New York; W. B. Kouwenhoven, Baltimore; G. C. Shaad, Lawrence; *National Treasurer,* W. I. Slichter, New York (reelected).

These officers together with the following holdover officers will constitute the Board of Directors for the next administrative year, beginning on August 1: J. Allen Johnson (retiring president), Buffalo; J. B. Whitehead, Baltimore; F. O. McMillan, Corvallis; F. J. Meyer, Oklahoma City; G. G. Post, Milwaukee; R. H. Tapscott, New York; W. H. Timbie, Cambridge; F. Malcolm Farmer, New York; N. E. Funk, Philadelphia; H. B. Gear, Chicago; P. B. Juhnke, Chicago; G. A. Kositzky, Cleveland; Everett S. Lee, Schenectady; A. H. Lovell, Ann Arbor; L. W. W. Morrow, New York, and A. C. Stevens, Schenectady.

The annual report of the Board of Directors, presented at the meeting, showed a total membership on April 30 of 14,253. In addition to three national conventions and two district meetings, 1,507 meetings were held during the year by the local organizations of the institute in the principal cities and educational institutions in the United States, Canada and Mexico.

THE RETIREMENT OF PROFESSOR GLENN W. HERRICK, OF CORNELL UNIVERSITY

APPROXIMATELY seventy friends and associates of the department of entomology of Cornell University attended a dinner given in honor of Professor Glenn W. Herrick, of the class of '96, who retired from active teaching in June after more than twenty-five years' service.

Speakers at the dinner included Dr. Liberty Hyde Bailey, emeritus, formerly dean of the College of Agriculture; Professor Simon H. Gage, '77, histology and embryology, emeritus; Dean Cornelius Betten, of the university faculty, and Professor Percival J. Parrott, Grad. '06, vice-director of the State Experiment Station at Geneva. Professor James G. Needham, Ph.D., '98, was toastmaster and read many letters and telegrams from friends unable to be present. Professor Herrick is retiring from teaching to devote more time to research and writing. He spoke briefly of the mixed emotions of the occasion.

Since 1909 he has taught the courses in economic entomology in the College of Agriculture. He returned to Ithaca then as assistant professor, from having been professor of biology and director of the State Experiment Station of Mississippi and later of Texas. In 1912 he was appointed professor of economic entomology and entomologist to the Experiment Station. Recently he has devoted himself especially to the study of insect pests of shade trees, and the University Press is to publish in August his book, "Shade Trees and Their Insect Enemies." He has written many bulletins and numerous other books; among them, "A Text-book of Zoology," "Insects of Economic Importance," "Manual of Injurious Insects," "Insects Injurious to the Household and Annoying to Man," and he collaborated with John H. Comstock, '74, and Anna Botsford Comstock, '79, on their "Manual for the Study of Insects." For several years before it was turned over to the university, Professor Herrick was secretary of the Comstock Publishing Company.

Professor Herrick is a member and former president of the American Association of Economic Entomologists, a member of the American Association for the Advancement of Science, a fellow of the Entomological Society of America, of the Biological Society of Washington, D. C., and of Société Linnéenne de Lyon. He is a member of Quill and Dagger, Sigma Xi and Alpha Gamma Rho.

THE PALISADE INTERSTATE PARK

AT the thirty-fifth anniversary luncheon of the commissioners of the Palisade Interstate Park, the offer of John D. Rockefeller, Jr., of seven hundred woodland acres along the crest of the Palisades from the New Jersey end of the George Washington Bridge to the New York State line was accepted and will be maintained as a park.

According to *The New York Times,* present plans are for the establishment of a continuous park and parkway between the bridge and the state line, a distance of thirteen miles, occupying 1,200 acres of land. Mr. Rockefeller's gift includes about 60 per cent. of this area. The commissioners already hold an additional 16 per cent., leaving 24 per cent., all of it fronting on the Palisades, to be acquired.

South of Palisade Avenue, which runs east and west through Englewood and Englewood Cliffs, the Rockefeller property lies between Hudson Terrace and the edge of the cliffs to a point 2,500 feet below the George Washington Bridge. North of Palisade Avenue it lies