hands and feet among various peoples, due to specialized uses. A graphic portrayal of the main divisions of the human race is presented in another case by means of thirty-seven photographs of the more important types, arranged geographically, with their suggested basic relationships indicated. Skulls of a number of these types are also exhibited.

A fourth case is devoted to the methods of head and body deformation practised by many peoples. These include scarification, tattooing, binding of feet, artificial deforming of skulls, filing of teeth, piercing of noses with such things as bone pins, stretching of the neck by encircling it with metal rings placed one above the other, increasing the size of the lips by the insertion of wooden disks, and other acts to produce a grotesque appearance.

In the fifth case is a series of endocranial casts of brains of monkeys, apes, other animals and various modern peoples. These are accompanied by drawings illustrating the location of the brain, the areas associated with the various functions, racial types of skulls and the position of the bones inside the body. The operation of trepanning, as practised by various peoples over thousands of years, is illustrated by skulls showing the hole in the skull bone. The piece of bone thus removed was often worn as an amulet by prehistoric peoples.

THE AMERICAN TYPE CULTURE COLLECTION

IN 1925 the American Type Culture Collection, originally maintained by the American Museum of Natural History and temporarily at the Army Medical Museum in Washington, was established in the McCormick Memorial Institute in Chicago. It is administered by a committee representing the Society of American Bacteriologists, the American Phytopathological Society, the Society of Pathologists and Bacteriologists, the Society of American Zoologists and the McCormick Institute.

The collection maintained at the McCormick Institute contains at the present time about 1,300 cultures representing all branches of bacteriology. In addition, connections have been established with other laboratories which have made a large number and variety of bacteria, yeasts and fungi available for distribution.

In the nine years that the collection has been under the present management over 34,000 cultures have been distributed. The greater part of these have gone to institutions mostly for teaching purposes, but the calls for cultures for industrial purposes have increased materially. The collection has been able to be of additional service by obtaining cultures for special purposes from laboratories in this country and Europe.

The collection was established on a limited grant

from the Rockefeller Foundation, but since the expiration of this fund it has been supported by the income from the sale of cultures supplemented by a small grant from the Society of American Bacteriologists and a few contributions from industrial companies. Under these conditions it has been necessary to exercise rigid economy in the management of the collection, but this has been done without any serious impairment of its efficiency and only a small reduction in the number of available cultures.

At the same time it was necessary to increase the price of cultures and this has, as would be expected, caused a falling off in the number of cultures sold. The depressed business conditions have also affected their sale adversely, but in spite of these unfavorable conditions nearly 3,000 cultures were distributed in the past year and the committee was able to meet all obligations and finish the year with a small balance.

It has never been the desire of the committee to make the collection self-supporting. It is believed that a more useful purpose can be served by maintaining a larger collection, including those species for which there is not enough demand to make their maintenance profitable. It is the aim of the committee to make available to the investigator and teacher authentic cultures of the greatest range possible of bacteria, yeasts and fungi. When funds are available protozoa will be added.

Since, under present conditions, it seems possible to provide this service only through the sale of cultures, it is hoped that those interested will call the attention of their friends and correspondents to the service offered by the collection, which may be addressed at 637 South Wood Street, Chicago, Illinois.

THE CHICAGO FIELD CONFERENCE ON EARTH HISTORY

WITH a field trip on Saturday, May 12, in the region south of Chicago, the State Geological Survey will inaugurate its fifth annual series of earth history field conferences for science teachers of Illinois.

Six of these trips are given in various parts of the state each year as a free extension service, hundreds of people participating in these educational excursions.

During 1933 more than 700 teachers and others interested in natural science attended trips held in the vicinities of Kankakee, Gibson City, Macomb, Belleville, Granville and Galena. The Galena trip, held in October, attracted 258 persons.

The excursions are planned and conducted by geologists on the staff of the Geological Survey, and supply authoritative information on the geology, geologic history, physiography and mineral resources of local areas throughout the state.

All the trips are held on Saturdays and begin at

9:00 A. M. Central Standard Time. Those who attend provide their own means of transportation and bring packed lunches.

The complete schedule for 1934 is as follows:

- (1) Region south of Chicago—May 12 Group meets at Thornton Community High School
- (2) Ottawa region—May 19 Meeting place, Ottawa Township High School
- (3) Savannah region—September 22 Meeting place, Savannah High School

- (4) Lawrenceville region—September 29 Meeting place, Lawrenceville High School
- (5) Havana region—October 6 Meeting place, Havana High School
- (6) Hardin County region—October 13 Meeting place, Rosiclare High School

Further information regarding individual trips may be secured by addressing Don L. Carroll, Associate Geologist, State Geological Survey, Urbana, Illinois.

SCIENTIFIC NOTES AND NEWS

Dr. ARTHUR H. COMPTON, professor of physics at the University of Chicago, has been appointed George Eastman visiting professor at the University of Oxford during the academic year 1934–35.

Dr. Paul S. Epstein, professor of mathematical physics at the California Institute of Technology, has been appointed non-resident lecturer in physics for the summer session of Cornell University. He will give a course on the modern applications of thermodynamics.

PROFESSOR J. C. McLennan, emeritus professor of physics at the University of Toronto, will deliver the twenty-fifth Kelvin lecture before the British Institution of Electrical Engineers on April 26, taking as his subject "Electrical Phenomena at Extremely Low Temperatures."

THE doctorate of laws was recently conferred by Stanford University on Dr. James Rowland Angell, president of Yale University, and on Dr. Edmund Taylor Whittaker, professor of mathematics at the University of Edinburgh.

Dr. Harry Friedenwald, emeritus professor of ophthalmology, University of Maryland School of Medicine, Baltimore, was the guest of honor at a dinner given by his associates on February 3. About forty physicians were present, including members of the staff of the Baltimore Eye, Ear and Throat Hospital, with which Dr. Friedenwald has been associated for thirty-six years.

SIR HENRY WELLCOME, of London, has been awarded by the New York Branch of the American Pharmaceutical Association the Remington Honor Medal for 1934 in recognition of his researches in pharmacy and medicine and his ethnological and archeological investigations. This medal, the highest honor conferred by the profession of pharmacy in the United States, is awarded annually "to the man or woman who has done the most for American pharmacy during the preceding year or whose efforts during a number of years have culminated during the year in

results considered most important and advantageous for the profession." Sir Henry is the fourteenth recipient of the award.

THE Duddell Medal has been awarded by the Physical Society, London, to Harold Dennis Taylor for his work in the invention and design of optical instruments. The medal is given "to persons who have contributed to the advancement of knowledge by the invention or design of scientific instruments, or by the discovery of materials used in their construction."

THE Keith Prize for the period from 1931 to 1933 has been awarded by the council of the Royal Society of Edinburgh to Dr. A. Crichton Mitchell, for his work on "The Diurnal Incidence of Disturbance in the Terrestrial Magnetic Field," and the Neill Prize to Dr. G. W. Tyrrell, for his contributions to the geology and petrology of sub-arctic and sub-antarctic lands.

AWARDS of the Royal Medals of the Royal Geographical Society have been made as follows: Founder's Medal to Mr. Hugh Ruttledge, for his journeys in the Kumaon and Garwhal Himalaya extending over eight years and his leadership of the Mount Everest Expedition, 1933. Patron's Medal to Captain Ejnar Mikkelsen, for his explorations in the Arctic between 1900 and 1912 and for his work in Eskimo resettlement on the East Coast of Greenland. Medals awarded by the council are: Victoria Medal to Edward Heawood, for his eminence in the history of geography and cartography and his devoted service to the society as its librarian. Murchison Grant to John Rymill, for his work in Greenland and leadership of the party after the death of H. G. Watkins on his second expedition. Back Grant to Dr. D. N. Wadia, for his studies of the Himalayan axis and other problems of Indian geomorphology of importance to geographers. Cuthbert Peek Grant to Edward Shackleton, to assist him in his proposed expedition to Ellesmere Land. Gill Memorial to W. B. K. Shaw, for his explorations and studies in the Libyan desert.

PROFESSOR H. ROSENBERG, director of the Astronomical Observatory in Kiel, has been appointed