connection with the tectonic and petrological problems of the igneous and metamorphic rocks of northern Scotland.

STAPLEDON, SIR R. G., professor of agricultural botany and director of the Welsh Plant Breeding Station, Aberystwyth, distinguished as the founder of the Welsh Plant Breeding Station where, with a team of workers, he has undertaken studies of far-reaching importance on the improvement of pastures.

TURNBULL, H. M., professor of morbid anatomy and director of the Bernhard Baron Institute of Pathology, London Hospital, distinguished for his work on morbid histology, particularly in relation to vascular disease, encephalitis, toxic hepatitis, diseases of bone, and normal and abnormal haemopoiesis.

TURNER, E. E., head of the department of organic chemistry, Bedford College, London, distinguished for his contributions to the stereochemistry of organic compounds, especially in connection with asymmetry in derivatives of diphenyl and with dissymmetry in the phenoxarsines.

WIGGLESWORTH, V. B., reader in medical entomology, London School of Hygiene and Tropical Medicine, distinguished for his researches on insect physiology, especially in relation to digestion, tracheal respiration, excretion and possible endocrine secretion.

WILLIAMS, E. J., professor of physics, University of Wales, Aberystwyth, distinguished for his researches on the passage of electric particles through matter, and on individual collision processes, which have provided evidence for the existence of the heavy electron.

THE ESTABLISHMENT OF AN INSTITUTE OF TECHNOLOGY AT NORTHWESTERN UNIVERSITY

THE trustees of Northwestern University have approved the establishment of an Institute of Technology which is to be conducted on the cooperative basis under which students will spend alternate periods, in school and in industries. This plan was originated by Professor Herman Schneider,[1] of the University of Cincinnati, and has now been adopted in a number of schools.

The institute has been made possible by the offer of the Walter P. Murphy Foundation, an Illinois corporation founded by Walter Patten Murphy, a Chicago manufacturer of railway equipment, to build and equip the unit, the total cost of which will be approximately $6,500,000. It will provide for about eight hundred students in the departments of civil, mechanical, electrical and chemical engineering.

Work on the physical plant will commence immediately. It will house the institute as well as the present departments of physics and chemistry of the university. The new unit will be built at Evanston on the land immediately to the south of the present men's quadrangles. It will have a frontage of approximately five hundred feet along Sheridan Road.

[1] Dr. Schneider died on March 28.

The school will adopt the cooperative plan of engineering education now in operation at several leading engineering schools. It will be conducted in conjunction with the other schools and departments of the university, and will share their present social, academic and research facilities.

It will embrace a research laboratory and, at the outset, four main divisions: civil, mechanical, electrical and chemical. Provision has been made, however, for adding more divisions, particularly those of applied arts, economics, metallurgy and aeronautics. Other departments and bureaus of research will be set up from time to time as deemed advisable to meet educational and engineering needs.

A careful check-system of selecting freshmen will be adopted at the outset, to provide a student body of exceptional intelligence and capabilities. Although entrance requirements will be high, other factors such as aptitude for work, character, resourcefulness, personality, will also bulk large in the selective process.

The courses will be designed so that each student will be provided with the necessary elements of a true liberal education. Training in the arts and social sciences, as well as in mathematics and the basic physical sciences, will be rigorously required.

The students' advisers will have ample time for frequent interviews with each student, to study his development and to help him to solve his problems. Each student will have careful supervision while he is working in industry. Care will be taken not to place too many students in a single firm, in order that they may receive more adequate individual supervision.

Students will be afforded ample opportunities to engage in social, athletic and intellectual activities outside the classroom. They will live in dormitories occupied by students from other schools during the period of work in industry as well as during that spent on the campus.

The progress and expansion of the new school will be subject to close scrutiny, and changes in curriculum and organization will be made slowly as time and differing conditions require.

Dr. Walter Dill Scott, president of the university, has made the following statement:

> Northwestern University and its trustees are exceedingly grateful for this munificent gift and the trust that has been placed with this institution.
>
> The foundation's decision to establish this institute of technology at Northwestern is motivated by a desire to make the greatest possible contribution to the social, industrial and educational advancement of this nation. They have made this decision after a long, exhaustive survey by a corps of men who personally investigated institutions and educational plans from coast to coast before recommending the establishment of the new institute at Northwestern.

The school's purpose will be to produce men of social vision and sound training, who have a definite understanding of the problems awaiting them in industry and society. This program will be accomplished through joint action with the industries of Chicago and the Midwest in the cooperative plan of education.

I am convinced that this plan—whereby the student works concurrently in industry and in the university—is ideally suited to train engineers. However, though we shall begin work immediately, so that the new school will be ready by next year, the program will be developed gradually, and will always be flexible enough to meet changing conditions.

Not only as president of Northwestern University, but as a citizen of Chicago and Evanston, I rejoice at this great forward step, which I am enabled to announce during my last year as president. I am sure that it will have a profound influence on education and industry in America.

This new school is significant for Chicago because it will enable us to create here one of the world's great centers for engineering education and research. It is significant for industry because it will develop men who, through careful selection and rigid training, offer greatest promise of making contributions to industry and the engineering profession. It is significant for the engineering student because it is designed to furnish a training that will develop him to his maximum possibilities.

That we are exceedingly grateful to the Walter P. Murphy Foundation for having selected Northwestern University as the agent for carrying out this great educational program goes without saying. We pledge the cooperation of every department of the university toward making the new school a great center for engineering training and research.

SCIENTIFIC NOTES AND NEWS

ATTENTION has already been called in SCIENCE to the program of the spring meeting of the American Chemical Society, which will be held in Baltimore from April 3 to 7. Professor Charles A. Kraus, of Brown University, will preside. Dr. J. C. W. Frazer, Baker professor of chemistry at the Johns Hopkins University, is honorary chairman of the meeting, and Dr. John C. Krantz, Jr., professor of pharmacology in the Medical School of the University of Maryland, is general chairman. A general meeting will be held on the afternoon of April 3, at which addresses will be given by Dr. Vincent du Vigneaud, of Cornell University Medical College, on "Isotopes as a Tool in the Study of Intermediary Metabolism" and by Dr. Harold R. Moulton, president of the Brookings Institution, on "The Chemical Industry and the Economic System."

THE Franklin Medal of the Franklin Institute of the State of Pennsylvania has been awarded to Dr. Edwin Powell Hubble, of Mount Wilson Observatory, Pasadena, Calif., and posthumously to Dr. Albert Sauveur, late emeritus professor of metallurgy and metallography of Harvard University. The medal is awarded to Dr. Hubble "in recognition of his extensive study of the nebulae, particularly those outside our galaxy, as a result of which the dimensions of observed space have been greatly increased." The award to the late Dr. Albert Sauveur is made "in recognition of his outstanding work in the science of metallography, and of his many contributions to this branch of metallurgy which have been in a large measure responsible for changing the heat treatment of steel from an art to a science."

THE Western New York Section of the American Chemical Society has announced the award of the Jacob F. Schoellkopf Medal for 1939 to Charles F. Vaughn, of the Mathieson Alkali Works, in recognition of his work "in the graphitization of carbon, his successful development and operation of the Castner mercury cell where all others failed, and his unqualified ability as an executive and administrator, placing him in the front rank of those who have made lasting contributions to the chemical industry."

A DINNER was held on March 28 in honor of Dr. Carl Beck, formerly professor of surgery at the Chicago College of Physicians and Surgeons, now the College of Medicine of the University of Illinois, in recognition of his seventy-fifth birthday and the completion of fifty years in the practice of medicine.

THE twenty-fifth anniversary of Director Frederick M. Gaige as a member of the staff of the Museum of Zoology of the University of Michigan was commemorated by the establishment of the Frederick M. Gaige Research Fund, recently accepted by the regents. The income from this gift, to which more than fifty separate donors have contributed the sum of $1,558, will be used for the promotion or publication of research carried out in the museum.

THE Hallett prize of the Royal College of Surgeons, London, was presented on March 9 to Dr. Alfred McKee Large, of Toronto.

THE Academy of Sciences at Halle has awarded the Carus Medal to Dr. Otto Grosser, professor of anatomy at the German University of Prague. The Forel prize and plaque have been awarded to Dr. Ernst Gabriel, of the University of Vienna.

THE University of Liverpool will confer in May the doctorate of science on Dr. Martin Knudsen, professor of physics in the University of Copenhagen and chief