their location, treatment and charting, systems of clipping, weighing, value and limitations.

3. Methods of studying plant development for seasonal use and other purposes, autecology-phenology and life histories; value and methods; period studies, panel exclosures, and other methods including procedure, measurements, equipment, value and limitations.
4. Utilization and palatability, methods of measuring and computing for different kinds of vegetation.
5. Methods for controlling the grazing factor, including isolation transects, permanent exclosures and inclosures, intermediate control inclosures and exclosures, and other fenced plots.
6. Instrumentation, essential facts to measure, instruments and analysis correlation, and presentation of data.
7. Methods of studying the influence of grazing on saw timber types.
8. Methods of studying inter-relation between grazing and erosion.
9. Methods of studying animal life, including livestock, rodents, big game, upland game birds and other birds and animals.
10. Terminology—suggestions regarding standardization—(a) standard terms, (b) open terms.
11. Plant nomenclature—(a) scientific names, (b) common names.
12. Compilation and analysis of range research data with special attention given to the use of statistical methods.

The committee hopes to prepare a detailed account covering the various topics for discussion at the meeting. In order to do this it is necessary to have available outlines of the various methods in use by different investigators. The committee would be glad to receive any suggestions as to points to be discussed and would especially like to have each investigator submit outlines or other descriptions of methods used in range research.

It would greatly facilitate matters if every one would send the secretary his own name and address and the names and addresses of others who might be interested in order that subsequent announcements may be properly sent.

THE AMERICAN INSTITUTE OF PHYSICS

PLANS for formation of a consolidated scientific organization to be known as the American Institute of Physics have been made public by Dr. Karl T. Compton, president of the Massachusetts Institute of Technology.

Both science and the public are to be served. The institution will bring together several scientific organizations now separate but having common interests. It will also knit together a great group of men in industrial laboratories and manufacturing plants who, as physicists, play a most fundamental rôle in modern industry, but who have not heretofore constituted a well-recognized unit. Also in schools and colleges, local or student branches of the institute may be found. For the public there will be a press department to explain some of the fascinating laboratory happenings which often remain masked behind unfamiliar scientific words. This will include cooperation with the press and contacts with local groups interested in physics.

The plans were started jointly by the American Physical Society, the Optical Society of America and the Acoustical Society of America. The Society of Rhedology has also joined in the movement to establish the institute and several other national as well as some local organizations have expressed interest in joining or becoming affiliated with it.

Dr. Compton is chairman of the governing board of the institute, which has been set up jointly by the cooperative societies to work out the organization problems. The secretary of the board is Dr. George B. Pegram, head of the department of physics and formerly dean of engineering in Columbia University. Other members include directors and leaders in some of the largest industrial research laboratories as well as university men.

The productivity of American research physicists has increased so rapidly that the present means of publication of their results have been quite overstrained. Hence one immediate objective of the cooperating societies is to achieve through the new institute unified and enlarged publications for research results and other information in physics, including abstracts of all published work in physics over the world. In this publication to cover the field of physics it is expected to attain a high standard of completeness and promptness. The Chemical Foundation, Inc., of New York, has offered to undertake the handling of the business end of the publication.

HONORARY DEGREES CONFERRED BY COLUMBIA UNIVERSITY

THE recipients of the honorary degrees of doctor of science at the recent commencement of Columbia University with the formulae used by President Nicholas Murray Butler in conferring the degrees were:

JAY DOWNER, chief engineer of the Westchester County Park Commission—Native of Iowa; graduated at Princeton University with the class of 1905; for some twenty years associated as planner and leader with the development of the neighboring county of Westchester; a singularly high type of public servant, endowed with that vision and courage which multiply

the force of his engineering ability and which so well equip him with the skill to unite the useful and the beautiful.

LUTHER PFAHLER EISENHART, dean of the faculty of Princeton University—Native of Pennsylvania; studying first at Pennsylvania College and then at the Johns Hopkins University; preparing himself by intensive work in mathematics for the scholarly labors which he now pursues; trusted and competent adviser of undergraduate youth; a powerful force in the work of the Princeton University of to-day, that sister university and honored neighbor which, like our own King's College, traces its origin to an original charter granted by authority of George II.

CHARLES JUDSON HERRICK, professor of neurology in the University of Chicago—Native of Minnesota; trained at the University of Cincinnati, at Denison University and at Columbia; eagerly pursuing advanced study and research in his chosen field with marked success; recipient of many honors from his fellowmen of science; fertile and suggestive writer on biological and neurological topics; for well-nigh a quarter century a distinguished member of the University of Chicago.

ARTHUR DEHON LITTLE, chemical engineer—Native of Massachusetts; a captain in the organization and direction of research in the science of chemistry in all its manifold revelations; covering in his field of interest and influence almost every aspect of chemical engineering practice; fertile in invention, practical in application and a genuine leader in the preservation and advancement of that organized body of knowledge which we know as science; one who, as even Sir Humphry Davy would admit, pursues science with true dignity.

SCIENTIFIC NOTES AND NEWS

THE annual list of honors conferred on the occasion of King George's birthday included the Order of Merit on Sir William Henry Bragg, Fullerian professor of chemistry and director of the Royal Institution.

LORD RUTHERFORD has been elected president for the year 1931–32 of the British Institute of Physics.

DR. JAMES HENRY BREASTED, director of the Oriental Institute of the University of Chicago, has been elected a foreign member of the Bavarian Academy of Sciences.

ON the occasion of the fifty-ninth annual commencement of Stevens Institute of Technology at Hoboken, New Jersey, the doctorate of science was conferred on Dr. Karl T. Compton, president of the Massachusetts Institute of Technology, who delivered the commencement address.

AT the recent commencement of Wake Forest College, the degree of D.Sc. was conferred on Dr. Hubert Royster, lecturer in Duke University, formerly dean of the Raleigh division of the Medical School of the University of North Carolina.

DR. PHILIP FOX, director of the Adler Planetarium, Chicago, received an honorary doctorate from the Kansas State Agricultural College on the occasion of its sixty-eighth annual commencement in May 28.

THE University of Göttingen has renewed after fifty years the doctorate degree of Dr. Stephen Moulton Babcock, professor of agricultural chemistry at the University of Wisconsin. In transmitting the renewed diploma through Professor Karl Freudenberg, who is the Carl Schurz professor of chemistry at the university, Dr. Wilhelm Seedorf, dean of the University of Göttingen, called special attention to the fact that the work of Dr. Babcock has been of great significance to German agricultural scientists, and that his work is held in very high esteem. The diploma, presented to Dr. Babcock in the presence of a group of his immediate associates and friends, reads as follows: "Under the jurisdiction of his excellency, the rector, Johannes Behm, the mathematical and natural science faculty of the George August-University renews through its dean, Professor Dr. Wilhelm Seedorf, the diploma of doctor of philosophy degree, dated February 28, 1879, granted to Mr. Stephen Moulton Babcock, the extraordinarily distinguished investigator in the chemistry and bacteriology of milk and therefore of agriculture in general, and extends its heartiest greetings and wishes for a continued happy old age."

AT the commencement exercises of Tuskegee Institute, at Tuskegee, Alabama, a bronze bas-relief was unveiled of Dr. George W. Carver, director of the Agricultural Experiment Station at Tuskegee and consulting chemist. Dr. Carver has been working in botany and agricultural chemistry at Tuskegee for thirty-five years.

THE council of the British Institution of Electrical Engineers has made, as reported in *Nature*, the following award of premiums for papers read during the session 1930–31, or accepted for publication: the institution premium to Commendatore G. Bianchi, Ayrton premium to R. Grierson, John Hopkinson premium to J. W. Rissik and H. Rissik, Kelvin premium to B. L. Goodlet, F. S. Edwards and F. R. Perry, Paris premium to P. J. Ryle, and extra premiums to W. E. M. Ayres; R. M. Charley; H. S. Carnegie; D. B. Hoseason; Dr. J. J. Rudra and Professor Miles Walker; Professor W. Cramp and A. P.