collection by the university of a similar amount by June, 1930. This is the first step toward the realization of a plan which will require for its completion the addition of approximately $9,000,000 to the resources of the university. About $1,000,000 will be appropriated for a new building for graduate instruction and research. The remainder will be used for the endowment of the teaching staff and equipment. It has been decided to undertake both the academic and financial development in three stages requiring capital amounts of $3,000,000 each. It was the opinion of the experts who made the survey which resulted in this action that the development of modern science required the establishment of divisions covering border fields of inquiry, and that Cornell University presented an excellent opportunity for this development.

In making the announcement President Farrand said:

> The formulation of the plan is based primarily on the outstanding contributions of the college of agriculture to biological science. The general field which is to be studied, the middle ground between the physical and biological sciences, is one of the most inviting areas open to investigation. While both groups of scientists have each been making additions to knowledge of great significance in their respective sciences, they have been coming face to face with problems which demand close collaboration.
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> The study of the physical sciences has been comparatively independent of the help of the biologist, but biological research is more and more leading into regions where further investigation becomes a problem for the physical scientist.
>
> Thus far there has been too little organized effort on the part of those working in either of these two great fields to collaborate in applying the methods of the physical sciences to the study of biological phenomena, and, what is more important, in applying physical principles to the interpretation of those phenomena.
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> On the one hand, the biologist has found his time so occupied with his own researches that he has had little opportunity to study and assimilate the essentials of the underlying sciences of chemistry, physics and mathematics that are applicable to his problems. On the other hand, the student of physical sciences, especially during the last two decades, has found his own problems of atomic structure and the nature of matter so absorbingly interesting that he has given little thought to his obligation to collaborate with the biologist in studying those problems which are of obvious interest to both groups.
>
> Our plan involves the strengthening of our provisions for the basic sciences of physics, of chemistry and of biology in its various phases, with the particular purpose of coordinating and concentrating the attack on the border fields between the sciences. It is proposed to crown this coordinating development by creating a center for research in general physiology which shall embrace and emphasize the fields of biophysics and biochemistry and the varied aspects of the problem of organic function.
>
> This constitutes one of the most important opportunities in the history of Cornell and should engage the enthusiastic support of its friends in bringing the plan to successful operation.

THE THIRTEENTH SUMMER MEETING OF THE AMERICAN MATHEMATICAL ASSOCIATION

ACCORDING to an announcement in the journal of the association the thirteenth summer meeting will be held at the University of Colorado, on Monday afternoon and Tuesday morning, August 26–27. A program of interest to college and university teachers of mathematics is being prepared. It will include the retiring presidential address of Professor W. B. Ford. Immediately following this meeting and lasting for the remainder of the week, there will be a colloquium and summer meeting of the American Mathematical Society. The colloquium will consist of a series of five lectures, beginning Tuesday afternoon, by Professor R. L. Moore, of the University of Texas, on "Point-set Theory." On Thursday afternoon, Professor Virgil Snyder will give his address as the retiring president of the society on "The Problem of Cubic Variety in Four-way Space."

This meeting will offer an unusual opportunity to combine mathematical activities with a pleasant outing. Boulder is a beautiful city with a population of about 15,000, delightfully located at the entrance to the Rocky Mountains. Since it is not a summer resort, prices are reasonable. A fifteen minutes' walk from the campus takes a person into wooded canyons and foothills; an auto ride of less than one hour, into the high mountains. Boulder is one and one half hours' bus ride from Denver, which has excellent railroad connections with all parts of the country.

Wednesday will probably be devoted to an all-day excursion into the elevated and scenic Estes Park and Rocky Mountain Park region. Other short trips and typical western outings are being planned. The committee on arrangements is making thorough preparations for entertaining visitors, and will be glad to assist any who may wish to spend a part or all of their summer in the beautiful Rocky Mountain region. The University of Colorado maintains a recreation office during the summer session; this is to be continued during the meetings, and the director, Professor C. A. Hutchinson, places the resources of his bureau at the services of members and their families. He will be glad to give any information and advice concerning board and lodging to members who may consider bringing their families earlier than the meeting to enjoy a prolonged stay in Colorado, or who

may wish to stay after the meeting. Addresses and prices of rooms or furnished houses in the city, or of cabins in the mountains, may also be secured from Professor Hutchinson. Lodging for the period of the meetings will be provided in the fraternity and sorority houses at a price not to exceed $1.00 per night per person, except that a limited number of single rooms will be available at $1.25 per night per person.

The full program of the association meeting will be sent to the members in July with a post card for making reservations.

SCIENTIFIC NOTES AND NEWS

CHARLES FRANCIS BRUSH, of Cleveland, distinguished as the inventor of the arc light, died on June 15 at the age of eighty years.

DR. NATHANIEL LORD BRITTON has asked to be relieved from his duties as director-in-chief and secretary of the board of managers of the New York Botanical Garden. Since 1896, the date of the establishment of the garden on the initiative of Dr. Britton, he has served as director, and now having reached the age of seventy years desires to spend more time in research in tropical America. His resignation as director will be considered by the board of scientific directors, of which Professor R. A. Harper is chairman, while his resignation as secretary will be taken up by the board of managers, of which Professor Frederic S. Lee is president.

ON the occasion of the retirement of Dr. William H. Welch, of the Johns Hopkins University Medical School, from the presidency of the Maryland State Board of Health, with which he had been connected for thirty-one years, Governor Ritchie spoke of "the outstanding service which Dr. Welch has rendered to Maryland through personal interest, wise counsel and the time and attention he has given so generously and over so long a period to the State Department of Health." Dr. Thomas S. Cullen, professor of clinical gynecology in the Johns Hopkins University, will succeed Dr. Welch.

A PLAQUE of David Starr Jordan, chancellor emeritus of Stanford University, has been made by Carleton B. Angell, to be hung in one of the halls of the new museum building of the University of Michigan. At a dinner last year in Tokyo of Stanford graduates, under the chairmanship of Yakanosuke Fukukita, of the class of 1904, at which about sixty Japanese were present, it was decided to secure and forward to Dr. Jordan a work of art symbolic of his efforts for world unity and peace. This gift arrived in due time. It is mainly of bronze with gold and silver overlays and consists of the figure of a dove, almost life-size, perched on an old broken temple-roof tile out of which a plant has grown. The piece is accompanied by a teak-wood stand for its suitable display.

PROFESSOR EDWARD WILBER BERRY, professor of paleontology in the Johns Hopkins University, has been appointed dean and provost in succession to Dr. Joseph S. Ames, whose election to the presidency was announced last week.

YALE UNIVERSITY has conferred the degree of doctor of science on Dr. Arthur Holly Compton, professor of physics at the University of Chicago, and on Dr. William Hallock Park, professor of bacteriology and hygiene in the University and Bellevue Medical College of New York University. The doctorate of laws was conferred on William Henry Carmalt, a member of the faculty of the Yale School of Medicine from 1876 to 1907. Richard Thornton Fisher, director of the forest school of Yale University, was made master of science.

DEGREES conferred by New York University include the doctorate of laws on Dr. Robert A. Millikan, director of the Norman Bridge Laboratory of Physics of the California Institute of Technology; the doctorate of science on Dr. William H. Wilmer, director of the Wilmer Ophthalmological Institute of the Johns Hopkins University, and the doctorate of commercial science on Mr. James H. McGraw, the publisher.

DR. WILLIAM T. BOVIE, professor of biophysics at Northwestern University, has received the honorary degree of doctor of science from Albion College. President John L. Seaton, in conferring the degree, characterized Dr. Bovie as "a brilliant teacher of biophysics and a leader in scientific research, a recognized authority on the therapeutic effects of light, and an inventor of electrical instruments destined to revolutionize the practice of surgery."

DR. KIRTLEY F. MATHER, professor of geology and chairman of the department, Harvard University, received the honorary degree of doctor of science from his alma mater at the ninety-eighth annual commencement of Denison University. Dr. Mather was commencement speaker, his topic being "The Quest Eternal."

THE doctorate of laws was recently conferred on Dr. E. W. Allen, chief of the office of experiment stations, U. S. Department of Agriculture, by the University of Missouri. Dr. Allen has for many years had charge of the administration of the federal laws (Hatch, Adams and Purnell Acts) providing for agricultural research at the state agricultural experiment stations and of the activities of the office of experiment stations in promoting such research.