these (and happily still with us) was Professor H. E. Armstrong. Mr. Gladstone was admitted on May 19, 1881 (Mr. Spottiswoode was president), on which occasion William Crookes read a paper, "On Discontinuous Phosphorescent Spectra in High Vacua." It fell to Mr. Asquith, in 1912, as Prime Minister, to propose "The Royal Society" at the Guildhall banquet held in connection with the two hundred and fiftieth anniversary of the Royal Society. Mr. Baldwin was formally admitted by Sir Ernest Rutherford, and a similar act when extended to Mr. Macdonald (following election) will provide the circumstance (we think without precedent) of the admission of two Prime Ministers during one presidency. The only Prime Ministers for more than half a century who have not been fellows of the Royal Society by special election or otherwise are Sir Henry Campbell-Bannerman, Mr. Lloyd George and Mr. Bonar Law.

THE ALASKA AGRICULTURAL COLLEGE AND SCHOOL OF MINES

A STATEMENT in regard to the work of the Alaska Agricultural College and School of Mines for the year 1928–1929 has been issued by the Department of the Interior. It is reported that the Bureau of Biological Survey under cooperative arrangement with the college has made very satisfactory progress with its studies in crossbreeding reindeer and caribou. It is also conducting feeding experiments with reindeer to determine the feasibility of "topping off" reindeer before the slaughtering season during later summer. Carrying capacity studies to determine actual acreage requirements of reindeer on various types of forage and plant studies to ascertain the effect of climate on forage growth have been initiated. In order to determine the digestive reaction of the reindeer to different natural forage types, digestive samples and forage samples are being collected for chemical analysis.

In connection with the projects of the Biological Survey, six pasture areas totaling 813 acres have been fenced with net wire and an additional area of 432 acres is now in process of fencing. A herd of 18 caribou and reindeer was pastured and 7 fawns were born last year. In cooperation with the Alaska Game Commission, 3 buffalo were also pastured in these corrals.

The cooperative work with the U. S. Bureau of Mines ever since the Fairbanks Station of the bureau was moved to the college has been highly satisfactory. Mineral determinations are made free of charge and for assays a nominal charge only is made.

The college is said to be strategically situated for carrying on seismological observations in liaison with other observatories throughout the world. The U. S. Coast and Geodetic Survey designed a seismograph for this service.

During the winter of 1928–29 scientific observations of the aurora were inaugurated. The preliminary observations were conducted by V. R. Fuller, professor of physics. The International Geodetic and Geophysical Union at its general assembly in Prague, Czechoslovakia, in 1927 emphasized the need for auroral observation in Alaska, and during April, 1929, the National Research Council indorsed the establishment of such an observatory at the college. The rapid commercial development of radio communication affords an immediate practical aspect to the investigation. A fund of $10,000 was recently donated to the college by the Rockefeller Foundation for this work.

Mr. Otto William Geist embarked on a two years' expedition to St. Lawrence Island collecting anthropological and ethnological specimens for the college. Previous collections made by Mr. Geist in the Bering Sea area have enriched the college museum collection by more than 7,000 items. As a result of his work the college will have an exceptional collection of Arctic specimens and in addition there will be much duplicate material for exchange purposes with other museums. Unfortunately this collection can not be properly exhibited until the college secures a fireproof museum building.

THE UNIVERSITY OF MICHIGAN EXPEDITION TO THE SAN CARLOS MOUNTAINS

AN intensive natural history survey of the San Carlos Mountains of Mexico will be undertaken this summer by a party of investigators from the University of Michigan. The region to be studied is an isolated range of mountains situated about eighty miles south of the Rio Grande, forty miles inland from the Gulf of Mexico and twenty-five miles east of the Sierra Madre front. In this area it is proposed to correlate the distribution of the living flora and fauna with the geologic formations. The San Carlos Range is well adapted for this type of investigation, because of its isolation and relief and because of the diverse types of rock formations exposed. Professor Harley H. Bartlett, head of the department of botany, and Professor Lee R. Dice, curator of mammals in the Museum of Zoology at the university, will study the flora and fauna.

The geology of the San Carlos Mountains is varied and therefore offers in a relatively small area an opportunity for intensive study in several branches of earth science. Professor Edson S. Bastin, head of the department of geology at the University of Chicago, will investigate the ore deposits. He will be assisted by Mr. George W. Rust, a graduate student of the de-

partment. Study of the igneous rocks will be carried on by Dr. Edward H. Watson, of the Johns Hopkins University. The stratigraphy and structure of the mountains will be studied by Professor Lewis B. Kellum and Mr. Ralph W. Imlay, of the University of Michigan.

The survey of the San Carlos Mountains with a view to coordinating detailed studies made by specialists in several branches of natural science was planned by Professor Kellum who made a preliminary reconnaissance of the district several years ago.

The party will spend the months of July, August and September in the field. They will make the entire trip from Michigan to Mexico and return by automobile. Each member will work independently and will have with him a mobile camp outfit. The cars can be used in the mountains between points suitable for camps. Side trips into the less accessible portions of the range must be made on horseback and on foot.

The execution of this project has been made possible by grants of $2,500 from the National Research Council and $2,000 from the Faculty Research Fund of the University of Michigan. The scientific results of the expedition will be published as a University of Michigan publication.

PLANS FOR THE NEW BIOLOGICAL LABORATORY AT HARVARD UNIVERSITY

PLANS for the new Harvard biological laboratory have been made public by the architects, Messrs. Coolidge, Shepley, Bulfinch and Abbott, and it was announced at the same time that work on two of the three wings of the building will be started in the early fall. The building of the third wing will wait on the raising of further sums of money. It is believed that this building, when completed, will be the finest and most scientifically equipped laboratory for biological research and study that has as yet been erected in this country.

The new building will be on Divinity Avenue, Cambridge, between the Farlow Herbarium and the Semitic Museum, and adjoining the present University Museum. When completed it will form a quadrangle, balancing that of the University Museum.

Designed as a research laboratory, the building will afford scientifically arranged quarters for the four departments of the division of biology, including botany, physiology and zoology and the Bussey Institution. The architecture is in the modernized Georgian style, in keeping with the surrounding buildings. It is five stories high, with red brick exterior walls on a reinforced concrete frame and white steel casement fenestration.

Two wings of the building, the right and center wings, with a combined length of approximately six hundred feet, will be constructed at this time. The left wing will be part of the proposed future addition, and with its completion a quadrangular court will be formed.

The interior of the building will provide the most complete and comprehensive facilities for the exacting and innumerable experiments of modern biological research. There are convenient laboratories of one, two, three and four units furnished with every imaginable service, rooms where the temperature can be kept indefinitely at any desired stage, rooms far underground where no outside sound can penetrate, aquarium rooms, excellently equipped photographic studios and dark rooms.

Lecture and seminar rooms are conveniently situated on all floors and in addition an auditorium seating a hundred and fifty is placed opposite the main entrance lobby. Not the least of the difficulties encountered in providing for the great numbers of laboratories and lecture rooms was the question of ventilation. An elaborate system of ducts, operated by machines on soundproof platforms in the top story, changes the air in the entire building continuously.

A large greenhouse is provided upon what would ordinarily be the roof, with arrangements for sun-seeking and shade-seeking plants and stone walls with water running down them for such plants as make their homes in water.

An unusual feature is a frieze running around the building above the upper tier of windows, formed of projecting copper-covered bosses, each showing one of the symbols of biological science.

SCIENTIFIC NOTES AND NEWS

HARVARD UNIVERSITY at its commencement exercises on June 19 conferred honorary degrees with the following citations: William Morton Wheeler—Eminent as zoologist and dean of the Bussey Institution, profound student of the social life of insects, who has shown that they also can maintain complex communities without the use of reason.—Doctor of Science. Karl Taylor Compton—A professor of physics, renowned for his contributions to its latest mysteries, the new president of the Massachusetts Institute of Technology.—Doctor of Laws.

UNION COLLEGE has conferred honorary degrees on Dr. Albert Wallace Hull, research physicist at the Research Laboratories of the General Electric Company,