ministrative staffs of the museum and forwarded to the board of trustees. It is suggested that a suitable tablet in memory of Dr. Kunz should be installed in the Morgan Memorial Hall.

A MEMORIAL to Sir Andrew Balfour at the London School of Hygiene and Tropical Medicine was unveiled on October 6 by the Earl of Athlone, chancellor of the University of London.

SCIENTIFIC EVENTS

THE MOUNT ST. KATHERINE OBSERVATORY OF THE SMITHSONIAN INSTITUTION

DR. CHARLES G. ABBOT, secretary of the Smithsonian Institution, announces the establishment of a solar observatory on the summit of Mt. St. Katherine in the Sinai desert.

The decision to establish the observatory on this desolate peak, rising 8,540 feet above sea level out of the desert, concludes, temporarily at least, a long search for the highest, driest accessible spot in the eastern hemisphere. In this search the possibilities of the high mountain tops of three continents have been surveyed.

Last year the institution abandoned its station on Mt. Brukkaros in south West Africa after making observations there for five years. At the time of its establishment it was the best that could be found in a country with stable political conditions, but it became steadily apparent that the errors due to unavoidable natural conditions—haze and terrific winds—were too great to make the observations fully satisfactory.

Alfred F. Moore, of the Smithsonian staff, finally turned to the Sinai desert when he was unable to find a suitable station on the African continent. He climbed Mt. St. Katherine and took observations for more than 100 days on the summit. These were judged sufficiently satisfactory to warrant the setting up of a permanent station, for which funds have been provided.

Mt. St. Katherine is about 12 miles south of Mt. Sinai, whose summit tradition accepts as the place of the revelation described in Exodus. The Biblical account, however, is vague and there has been considerable dispute among scholars. There has been a persistent tradition linking the Biblical story with the higher mountain. The nearest neighbors of the Smithsonian astronomers will be the monks of the great monastery of St. Katherine, 10 miles below on the mountain side.

For years the astrophysical observatory of the Smithsonian Institution, under the direction of Dr. Abbot, has been measuring daily the amount of solar radiation in different parts of the western hemisphere —at Washington, Table Mountain in California and Mt. Montezuma, Chile. The observations must be made with extreme accuracy under the most favorable conditions and it is essential to find a mountain in a desert where the water vapor is at a minimum and where there is a minimum of dust.

Mt. Montezuma in Chile is considered an almost ideal site. But the combination is hard to find in the Old World. In addition to the physical requirements for satisfactory observations endurable living conditions for the observer are necessary and it is essential that there be stable political conditions.

Mt. St. Katherine comes close to satisfying conditions. The monks of the neighborhood are friendly. There is very little moisture in the air. The winds are light and Mr. Moore's observations established that they generally blow from the Mediterranean Sea at the north, rather than from the dusty deserts to the eastward and westward.

THE NEW CRYOGENIC LABORATORY OF THE CALIFORNIA INSTITUTE OF TECHNOLOGY

THE new cryogenic or low temperature laboratory under construction at the California Institute of Technology is designed to produce comparatively large quantities of liquid hydrogen and helium at low cost. Science Service reports that the output is expected to be about five liters of liquid hydrogen an hour at a cost of $2.00 per liter. The plant in Berlin, which is the largest in the world, can produce twenty liters an hour.

There are so far only four European cryogenic laboratories and four in America, one at the Bureau of Standards in Washington, D. C., one in Berkeley, California, a third in Toronto, Canada, and a fourth at the Johns Hopkins University. Russia is planning a large plant in Charkow, France intends to install one in Paris, and Göttingen is about to build one also.

Professor A. Goetz, who is responsible for the Pasadena low temperature work, recently inspected European equipment. He observes that the first consideration in the design of a cryogenic plant is the danger of explosions due to the presence of liquid hydrogen. Accidents, sometimes involving fatalities, have occurred in different laboratories in the past, but they are avoidable. In fact, the oldest cryogenic laboratory, which is at Leiden, Holland, has been in daily operation since its opening by K. Onnes twenty years ago. Since his death a few years ago, its traditions have been carried on by De Haas. In all that time there has never been a single explosion.

The new laboratories all have elaborate safety systems. In Cambridge there are miners' lamps of the type invented by Sir Humphry Davy a hundred years ago. These are installed in corners of the ceiling where hydrogen is most likely to collect. Six per cent. or more of hydrogen in the air is a violently explosive mixture and can tear a closed building to bits. When one per cent. exists these lamps give a signal which automatically throws open all doors and windows.

In the German Physikalische Technische Reichsanstalt, which corresponds to U. S. Bureau of Standards at Washington, the cryogenic laboratory has a very light roof merely resting over the building. In case of an explosion this roof would be blown off before a high pressure could be built up.

At the Pasadena laboratory the room in which the hydrogen is liquefied has no sharp corners. All are carefully rounded and the ceiling slopes upward toward the window, which runs from floor to ceiling and is almost half as wide as the room. This window is to be kept open at all times of the year.

DEDICATION OF THE JENKINS LABORATORY AT THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION

THE Jenkins Laboratory of the Connecticut Agricultural Experiment Station, New Haven, was dedicated on October 11, with tributes to the late Dr. E. H. Jenkins, director from 1900 to 1923, for whom the building was named. Dr. E. M. East, of Harvard University, who was at one time a member of the Connecticut station staff, praised Dr. Jenkins as "one of the great men of our generation."

"His most brilliant success was as director of this station," Dr. East said in his address, entitled "Edward H. Jenkins—The Man and the Public Servant." "In this capacity his work was so distinctive that he deserves, and is accorded, a collaborator's share in its entire output of scientific work. . . . Is it not just as well to have a little hero worship for that rare type of individual, the unselfish comrade who never lets you down?"

Dr. J. G. Lipman, director of the New Jersey Agricultural Experiment Station, spoke on "The Agricultural Station as a Public Service Institution." He commented on the question of agricultural research and over-production of crops that "If the truth must be told, the Experiment Station can furnish knowledge, but it can not furnish wisdom."

Governor Wilbur L. Cross, of Connecticut, formerly dean of the Yale University Graduate School, traced briefly the beginnings of the Connecticut station as a "Yale institution," and recalled his thirty-five years' acquaintance with Dr. Jenkins.

Concluding the program, Dr. E. M. Bailey, station chemist, presented a bronze tablet in memory of Dr. Jenkins, given by present and past members of the staff, and the building was thrown open for inspection. Elijah Rogers, of Southington, a fruit-grower and vice-president of the board of control of the station, presided. William L. Slate, director, extended greetings.

The new laboratory, which was built by appropriation of the General Assembly, houses the departments of entomology, plant breeding, botany and forestry, and provides individual laboratories for research workers. It is 124 by 45 feet in size, and is two stories in height, with a big light basement.

SCIENTIFIC NOTES AND NEWS

DR. W. W. CAMPBELL, emeritus director of the Lick Observatory and emeritus president of the University of California, is spending the winter in Washington in order that, as president of the National Academy of Sciences, he may be in touch with the administration of the academy and of the National Research Council.

ARTHUR KEITH, geologist of the U. S. Geological Survey from 1894 until his recent retirement, has been elected chairman of the finance committee of the American Association for the Advancement of Science to succeed the late Dr. George K. Burgess, director of the Bureau of Standards.

HENRI LOUIS LE CHATELIER, the French chemist, celebrated his eighty-second birthday on October 8.

DR. NIELS BOHR, professor of physics at the University of Copenhagen, expects to visit the United States in the summer of 1933.

THE honorary degree of doctor of science has been conferred by Dartmouth College on S. Prentiss Baldwin, who is founder and director of the Baldwin Bird Research Laboratory, and research associate in biology in the Graduate School of Western Reserve University.

DR. FRANCIS M. WALTERS, JR., of the staff of the bureau of metallurgical research at the Carnegie Institute of Technology, was presented with the Howe Medal for 1932 by the American Society of Steel Treating at a dinner held on October 6 in Buffalo as a part of the National Metals Congress. The medal was awarded for an article on "The Alloys of Iron, Manganese and Carbon," a study which was con-