which might be caused by water in an experimental room is probably greater than that which could be caused by fire.

All piping, all power conduits and all the fume ducts are run exposed so that they may be easily added to, repaired, or changed. Ceiling heights are such as to render this exposure unobjectionable. The exceptions to this are in the main entrance hall in the center of the building and in the permanent lecture rooms or offices and library, in which cases the piping is concealed.

It is expected that the final cost of the laboratories will be approximately $1,146,000, including architects' and engineers' fees and an allowance of $125,000 for laboratory tables, furniture and shop machinery. If the cubage of the building is figured to the bottom of the mat over the tops of the piles, it amounts to 1,367,000 cu. ft., from which the cost of the building and equipment is estimated at $.83 per cubic foot. The building will be completed in May and the research apparatus will be moved into it during the summer, so that it is expected to have the laboratory in full operation beginning with next October.

The funds for the building were provided in a gift by Mr. George Eastman for educational buildings when needed, with the proviso that these funds could be used as endowment until the buildings were needed. Mr. Lammot du Pont has contributed an amount equal to the interest on the cost of the building for two years, in order to expedite its construction.

The architects of the building were Coolidge and Carlson. The engineers were Charles T. Main, Inc. The building committee consisted of Everett Morss and Charles T. Main. All construction work was carried on under the direction of Stone and Webster.

OBITUARY

ALBERT PERRY BRIGHAM

ALBERT PERRY BRIGHAM, geographer, geologist, educator and humanist, died in Washington, D. C., on March 31, in the seventy-seventh year of his age. Born in Perry, New York, on June 12, 1855, and surrounded in his youth by the rich fossiliferous horizons of the Genesee Valley, what was more natural than that his alert and inquiring mind should be early aroused to an interest in geology. Later, having the good fortune to attend a series of lectures in geology in his college days, given by a man with keen insight into nature and with a rich philosophy, Brigham's interest in the subject was deepened.

But it was many years before he could yield to the urge and enter into training for what proved to be his life work. After graduating as valedictorian of his class and with high honors in classics, he trained to be a minister, and for nearly ten years was a successful pastor in Stillwater and Utica, New York. That pastoral duties did not check his following his avocation is indicated by the fact that his first paper, entitled "The Geology of Oneida County," was published in 1888, three years before he resigned his pastorate and entered the Harvard Graduate School.

This turning point in his career was the result of his experience in a summer vacation in 1889, when he attended the six weeks' Harvard field course in geology. Here he came under the influence of those master teachers of their day, Nathaniel Southgate Shaler and William Morris Davis, who, with Robert Tracy Jackson, the paleontologist, were later his teachers in his year at Harvard. Here, in a group which included Tarr, Westgate, Marbut, A. H. Brooks, Ward and the writer, he first had his interest aroused in physiography of the lands and for several years Brigham's publications and public addresses were largely devoted to physiographic topics.

Returning to Colgate University, his alma mater, as professor of geology in 1892 and until his retirement in 1925, he taught many generations of youth geology and geography, and, what is more, so gained their confidence and affection as to be a vital influence in their lives. With the eagerness of youth, which abided through life, Brigham at once began to be of the widest service to his science. A clear thinker, vigorous and fearless of speech, with a personality that won the confidence of his hearers, Brigham soon became in demand as a speaker to audiences of teachers and laymen. A regular attendant and contributor at professional meetings, his reputation grew apace, and when the Association of American Geographers was formed in 1904 it was just as natural to turn to Brigham for the secretaryship as it was to make the founder, Professor Davis, the first president.

For nine years Brigham guided the destinies of this little group of geographers who were bound together only loosely by any common interests. He contributed regularly to the programs a series of papers which indicate the gradual transfer of his major interest from physiography to economic geography and later to the human side of the subject. He also found time to take an active part in the work of the New York State Science Teachers Association, serving one year as president, and for eleven years was chief examiner on geography for the College Entrance Ex-

amination Board. He was also examiner for the New York State Education Department for several years.

These many duties did not interfere with his productive work, as is indicated by the fact that more than eighty major titles in science and education have come from his pen in the last forty-four years. These include articles on geology, geography and education and books for young and old in a wide field. High-school texts in geology, physical geography, with G. K. Gilbert, commercial geography and a series of elementary school texts, with C. T. McFarlane, were supplemented by books in the relation of geography and history and culminated in his volume on the United States based on a series of lectures at London.

For fourteen years Brigham taught in summer schools in this country and for five in England. He attended and took part in several geographical congresses and visited Europe many times. His acquaintance was wide and his many and varied contributions to all phases of geography made him one of the best known geographers of the world.

Honors came rapidly to him for many years. He served one year as president of the Association of American Geographers immediately after his retirement as secretary. He was also president of the National Council of Geography Teachers. His alma mater, as well as Syracuse University and Franklin College, conferred honorary degrees upon him. But the compliment that he prized most was the number of the Annals of the Association of American Geographers that was issued on his seventy-fifth birthday. Here his colleagues and friends paid measured tribute to Brigham—the man, the geologist, the physiographer, the human geographer, the educator and the geographer-envoy from America to Europe. In these several papers, accompanied by a bibliography, is a summary—an appraisement of Brigham's life work to 1930, written with the restraint necessary in writing to the living. Between the lines one can see the affectionate regard and the honor that each writer, speaking for his colleagues, felt for Brigham. This volume was a deserved and yet inadequate tribute that may be summarized in the recent words of one of the younger men who said, "He was a Grand Man in the earth sciences."

His spirit will carry on, and like that of any great teacher or leader, his work will bear results for many generations yet to come. He honored the sciences to which he devoted the major part of his life, and the honors his colleagues naturally bestowed upon him were truly earned.

RICHARD ELWOOD DODGE

SCIENTIFIC EVENTS

SYMPOSIA AT THE SYRACUSE MEETING OF THE AMERICAN ASSOCIATION

PROGRAM plans for the association's approaching meeting at Syracuse, New York, June 20 to 25, 1932, are rapidly nearing completion. It is expected that the final program will include addresses on subjects of general interest by outstanding scientists in the fields of mathematics, physics, engineering, chemistry, botany, medicine, psychology and education. The association's sections are arranging a scientific session devoted to symposia on timely subjects and also a number of field trips. Program features include the following: Mathematics—invited addresses by four mathematicians of national reputation and a symposium on "The Teaching of Mathematics" (jointly with the Section of Education) with an address by Dr. E. R. Hedrick; Physics—symposium on "The Nature of Light," a joint session with chemists and biologists for a symposium and a general address by Dr. W. F. G. Swann on "Cosmic Rays"; Chemistry—symposium with biologists and physicists on "The Effect of X-rays on Biological Life" and a regional meeting of the American Chemical Society; Geology and Geography—symposia on (1) "Paleozoic Stratigraphy of New York," (2) "Physiography near Syracuse including Glacial Problems," (3) joint session with engineering section on "Aerial Photographic Surveying and Mapping," and conducted geological excursions; Zoology—symposium at joint sessions with chemists and physicists on "The Effect of X-rays on Biological Life" and a series of conducted field trips and a meeting of the Ecological Society of America; Botany—meetings of the Botanical Society of America and other societies and a series of field trips; Anthropology—symposium on Far Eastern Problems; Psychology—symposia on (1) "Industrial Psychology" (jointly with Engineering Section); (2) "Social Statistics" (jointly with Economics, Sociology and Statistics Section); (3) "Mental Hygiene" and a two-day meeting of the Upper New York psychologists; Economics, sociology and statistics—symposia on (1) "Demand and Supply," (2) "Money and Interest" and (3) "Social Statistics," and meetings of the Econometric Society and the American Statistical Association; Engineering—(1) Symposia on "Aerial Photographic Surveying and Mapping," (2) "Industrial Engineering" and (3) "Industrial Psychology" (jointly with the Section of Psychology) and a general address by Dr. J. O. Perrine on "Television"; Medical sciences—several symposia on subjects to be announced later and meetings of the Society for Experimental