

of latitude, at the meeting of the International Astronomical Union, Cambridge, England, July, 1925. (3) The International Astronomical Union, assembled in congress at Cambridge (July 14-22, 1925), thanks the superintendent of the Coast and Geodetic Survey of the United States of America for his efforts towards the reestablishment of the latitude station at Gaithersburg (U. S. A.) and hopes that he will continue his efforts because of the very great importance of the resumption of observations at that station. (4) The International Astronomical Union, assembled in congress at Cambridge (July 14-22, 1925), thanks the superintendent of the Coast and Geodetic Survey of the United States of America for his efforts which established Ukiah as a permanent latitude station, under the direction of the Coast and Geodetic Survey.

THE council of the British Institution of Civil Engineers has made the following awards for the session 1924-1925 in respect of selected engineering papers, published without discussion: A Telford Gold Medal to Dr. Andrew Robertson (Bristol); a Telford Gold Medal and the Indian Premium to Mr. S. A. S. Bunting (Bombay); Telford Premiums to Messrs. A. D. Swan (Montreal), C. H. Crutwell (New Ferry), J. W. McLaren (Newfoundland) and J. L. Hodgson (Eggington), and a Webb Prize to Mr. A. R. Johnson (Penang); and in respect of papers read at students' meetings in London or by students before meetings of local associations during the same session: The James Forrest Medal and a Miller Prize to Mr. E. J. Rang (Tynemouth), and Miller Prizes to Messrs. D. Lloyd (Liverpool), H. F. Lea (Birmingham), H. A. Macnab (Glasgow), T. W. March (Rochester), C. R. Smith (Manchester) and W. C. Knill (Gateshead-on-Tyne).

A NEW Micronesian-Polynesian Hall, containing one of the most extensive collections from those two Pacific island regions in existence, was opened by the Field Museum of Natural History on November 2. The hall includes a large Maori collection presented by Arthur B. Jones, a Fiji collection made by A. B. Lewis, assistant curator of Melanesian ethnology while on a Joseph N. Field expedition in the South Seas, and several collections purchased by the museum. It is on the ground floor of the museum just off the Egyptian Hall. Outstanding in the hall is a great Maori council house from New Zealand, 60 feet long, 20 feet wide and 14 feet high on the inside. It is probably the largest thing of its kind in any museum, and is one of the less than a dozen such houses in existence. The house, once used by the chiefs of a powerful tribe, is hand-carved and painted inside and out.

THE American Museum of Natural History, in co-operation with the commission of the Interstate Pali-

sades Park, conducted this summer an interesting and successful experiment in out-of-door education under the direction of Dr. Frank E. Lutz. "Nature trails" were opened to the public in the Harriman State Park near Tuxedo, N. Y. One was a "training trail" along which were labels that did more than merely give the names of things; it was as though "a friend somewhat versed in natural history were taking a walk with you and pointing out interesting things along the way." On the other, the "testing trail," were merely numbered questions about the trees, shrubs and other things. Visitors were invited to test their knowledge and were scored according to the correct answers on file at the station for the study of insects, in connection with which this work was done.

ACCORDING to *Industrial and Engineering Chemistry*, at the September meeting of the Philadelphia section of the American Chemical Society, Dr. Walter T. Taggart, who is chairman of the committee to arrange for the September, 1926, meeting of the American Chemical Society in Philadelphia, outlined some features that had already been prepared for the comfort of the society. The meeting will be held from September 6 to September 10, and promises to be the largest meeting that the American Chemical Society has ever held. Besides being the fiftieth anniversary of the founding of the American Chemical Society, it will be held in connection with the Sesqui-Centennial Exhibition in Philadelphia, and will be followed by the International Congress of Pure and Applied Chemistry in Washington, D. C., one week later.

UNIVERSITY AND EDUCATIONAL NOTES

THE department of biological chemistry at the Harvard Medical School will receive \$100,000 under the terms of the will of Dr. Richard D. Bell, who was assistant professor in the department.

THE General Education Board, of New York, has given the sum of \$700,000 to the University of Virginia School of Medicine, which is half the amount needed for the erection and equipment of the new buildings planned. The gift is conditional upon the appropriation of \$250,000 by the state and the raising of \$450,000 by the university.

PLANS for a new pharmacy building at the University of Illinois, to be erected at Champaign at a cost of \$375,000, have been approved by the university trustees.

PROFESSOR JOHN A. ALDRICH, formerly of Washburn College, Kansas, has been appointed professor of physics and astronomy at Oglethorpe University in Georgia. He succeeds John W. West, who last spring

was appointed president of North Georgia Agricultural College at Dahlonega.

DR. GEORGE A. BAITSELL has been promoted to an associate professorship of biology at Yale University.

DR. MARGARET L. CAMMACK, instructor in biochemistry at Columbia University, has been appointed associate professor of home economics at the University of Arizona. Dr. Cammack will have charge of nutrition work.

DR. EDWARD P. PHELPS, formerly of Cornell University, has been appointed associate professor of chemistry at Marshall College.

DR. CARL R. FELLERS, associate professor of food preservation at the University of Washington, has been appointed research professor of horticultural products at the Massachusetts Agricultural College and Experiment Station.

DR. H. ROGERS, professor of experimental pathology at the University of Paris, has been appointed to the chair of physiology in the university.

DISCUSSION AND CORRESPONDENCE

THE MUSIC OF THE AMERICAN INDIANS

A RECENT article in *SCIENCE* directed attention to the similarity of Chinese and Indian languages. Certain peculiarities of the music of the American Indians may be interesting in this connection. The peculiarities were observed among the Papago and Makah, in my study of Indian music for the Bureau of American Ethnology, and resemble the music of certain regions of Europe and Africa. Three of these unusual peculiarities will be described.

Among the Papago of southern Arizona I heard a high *drone* sung by two or three women, during part of a song. The occasion was a dance held by the Indians on Christmas night, more than seventy miles from a town and near the Mexican border. When recording songs among the Makah on Cape Flattery I asked whether they used this drone. The reply was: "Makah women sometimes sing the drone if they are not sure of a song and are asked to help in the singing, but the Quileute women do it a great deal and call it the 'metal pitch' because it is like a piece of metal which can give only one pitch." George Kennan noted this drone and wrote of it as follows: "In some parts of European Russia, and all over the eastern Caucasus, in the wild recesses of the mountains where the native music had not felt the modifying influence of European culture, I heard songs with this peculiar droning accompaniment." He states that the drone was usually the initial tone of the melody and suggests that it may have been sustained in order to enable the singers to return to the original

pitch when repeating the song. A further suggestion is that the drone of the bagpipe may have been an imitation of the vocal drone. Among the American Indian tribes cited the drone appeared to be an embellishment to the singing and the ability to give it was regarded as a musical accomplishment. So far as known, this peculiarity has not been noted by other students of Indian music, and I have not found it among other than these tribes. Inquiry has not been made among the Indians of California. If they also have the drone, and if it reduces in importance from the north toward the south, this peculiarity may have an interesting bearing upon the migration of early Americans.

A resemblance was found between certain very old Papago songs and certain Arab songs which I obtained from Arabs of the Sahara Desert who were temporarily in this country with a Garden of Allah company. The resemblance was noted between songs of the desert journeying of Elder Brother (Montezuma) and the songs of the Arabs when travelling across the desert on their camels, loaded with bags of coffee. These groups of songs have a peculiar swaying rhythm in a slow tempo, difficult to describe but different from other melodies and strongly contrasted with songs of other tribes. Is this a similar reaction to the environment?

A curious resemblance between a custom of the Yogi in India a tradition of the Papago was found in the description of a song. It was said that Elder Brother and his people went to the place now known as Casa Grande, drove out the former inhabitants and tore down their houses. A man named Si-varimaha and his daughter lived in the structure known as the Casa Grande ruin. When Elder Brother came to that place he found the man on top of his house, standing on one foot with the other foot on his knee. It was believed that the man had some mysterious power and that he could not be killed while he remained in that position. His daughter stood on both feet. The death of the man was accomplished by means of a song. In the Yoga philosophy, before students undertake the "Asana positions," they are taught fourteen postures for balancing the body. The first posture requires the student to lift up the right foot with the left hand and stand on the left foot. Later he assumes the posture without the aid of the hand. Is it possible that beneath this narrative there lay, originally, an idea that the contradictory rhythm of the song destroyed the power given the man by his posture?

In the rhythmic songs of the Indian medicine men when treating the sick we find a coincidence with the mantras concerning which it is said (in the Yoga philosophy): "They are combinations of letters producing a sound, and that sound has a certain rhythmic