

charge of all national forests east of the Mississippi River, and Major George P. Ahern, former chief of the forest service of the Philippine Islands, were among the principal speakers.

ANNOUNCEMENT is made by Mr. Roy W. Crum, director, that the eighth annual meeting of the highway research board of the division of engineering of the National Research Council is to be held December 13 and 14 in Washington.

FOR the second time in the history of the Illuminating Engineering Society, the annual convention (the twenty-second) will be held outside the borders of the United States. This year the meetings will be international in character, and delegates from the old world will meet those from the United States and Canada. The meeting will be held at the King Edward Hotel, Toronto, from September 17 to 20.

UNDER a law recently signed by the president of Mexico, according to report made by the Department of Commerce, all articles will be sold by weight, measure, or volume, using metric units, and it is proposed that sales be in units or multiples of one, two or five of some metric unit, prohibiting the use of fractions.

THE United States Coast Guard ship *Marion* sailed from Sydney, Nova Scotia, on July 17 on a course through the Straits of Belle Isle northeastward into the Greenland seas. She has been fitted out for a scientific expedition to discover all she can about the behavior of icebergs from the time they break off from the Greenland glaciers until they melt in the warm waters of the North Atlantic. The *Marion* is equipped with every modern appliance for measuring the direction and velocity of deep-sea currents and for all other branches of oceanography. She is commanded by Lieutenant-Commander E. H. Smith and Lieutenant N. G. Ricketts, oceanographers, and has a crew of 20. After the loss of the *Titanic* in 1912, the United States, at the invitation of other maritime nations, established a ship patrol of the ice-regions which lie off Newfoundland in the track of the London to New York steamers.

THE daily papers report that an expedition to last for about ten months to the unexplored plateaus of central Brazil to seek traces of prehistoric colonization by tribes from Asia Minor will be undertaken in October under the leadership of J. Calvao, a Brazilian engineer. The party will carry the title of the American-Brazilian Scientific Expedition, and will receive the support of the Geographic Society of Rio de Janeiro in addition to some financial aid from the

Brazilian government. The group of about twenty-six persons will search the upper reaches of the Arapuna River.

WILLIAM F. CLAPP, of Boston, has presented his extensive collection of *Teredo* to the Museum of Comparative Zoology of Cambridge, Massachusetts. This collection consists of several thousand specimens received from all parts of the world that were used in his studies in this commercially important group of mollusks.

UNIVERSITY AND EDUCATIONAL NOTES

THE first unit in the two and a half million building program of the University of Tennessee is now in process of erection. The building is for physics and geology, and, with its furnishings, will cost about \$300,000. Plans for a chemistry building are under way, and other buildings projected include a program calling for about \$500,000 annually for the next five years.

DR. AUGUSTUS TROWBRIDGE, who for the last three years has served as the director for Europe of the International Education Board, will take up his work as dean of the graduate college of Princeton University at the beginning of the academic year. He succeeds Dr. Andrew Fleming West, who retires after a service of twenty-seven years. Dr. Trowbridge was professor of physics at Princeton from 1906 to 1925.

W. G. TAGGART, assistant director, has been appointed acting director of the agricultural experiment station and acting dean of the College of Agriculture of Louisiana University. He succeeds Dr. R. W. Dodson, who resigned in June. Dr. W. R. Perkins, director of the extension service, and Dr. E. L. Jordan, professor of animal industry, resigned at the same time as Dr. Dodson.

DR. WILLIAM D. CUTTER, dean of the New York Postgraduate Medical School, has been appointed acting dean of the school of medicine of the University of Southern California, which will open on September 17.

FREDERICK C. FENTON, associate professor of agricultural engineering in the Iowa State College, has been appointed head of the department of agricultural engineering of the Kansas State College at Manhattan, in the place of H. B. Walker.

DR. A. M. SHOWALTER, formerly national research fellow in botany and known for his work in cytology,

has been appointed assistant professor of botany in Washington University.

In the department of geology at the University of Pittsburgh the following changes are announced: Professor Henry Leighton has been appointed acting head of the department; Dr. Ransom E. Somers, formerly head of the department, who has joined the staff of the Gulf Companies, retains a lectureship; Dr. Kenneth C. Heald, staff geologist of the Gulf Companies, has been appointed lecturer; Mr. R. E. Sherrill, of Cornell University, has been appointed instructor.

APPOINTMENTS made in the department of geology and geography at the University of Tennessee this year are as follows: Julia M. Shipman, who received her doctorate at Clark University in June, instructor in geography; Berlin C. Moneymaker, B.S. (Tenn.), teaching fellow in geology; A. H. Senter, assistant.

DR. E. B. C. MAYRS has been appointed to the chair of pharmacology and therapeutics at Queen's University, Belfast.

M. MOOG has been appointed professor of chemistry and toxicology in the University of Toulouse.

DISCUSSION AND CORRESPONDENCE

AN EXTINCT HOT SPRING BASIN IN WESTERN UTAH

WHITE VALLEY, known locally as Tule Valley, western Utah, lies nearly within the confines of northern Millard County. It is a typical desert valley of 4,500 feet elevation, with playa center and Lake Bonneville shore-lines. The length north and south is about thirty-six miles and the measure of its east and west extent is twelve miles. The valley is bounded on the east by the mile-high House Range of Cambrian rocks, dipping gently eastward, and the western limit is the Confusion Range, low by comparison, whose structure and stratigraphy are little known. A recent reconnaissance by the writers shows that the Confusion Range consists of Paleozoic sediments with strong westerly dip.

The main wagon trail to Nevada in this part of Utah crosses Tule Valley west-northwesterly from Marjum Pass in the House Range to Cowboy Pass in the Confusion Range. Several prominent structural ridges occur in the valley mainly south of this road near the gentle eastern slope of the Confusion Range, one being at the intersection of the meridian of one hundred thirteen degrees thirty minutes west longitude and the parallel of thirty-nine degrees fifteen minutes north latitude. A hasty examination of the limestone here suggested to Hayes its lithologic

similarity to the Cambrian of the House Range described by Walcott.¹

Davis² has shown that the House Range is bounded on the west by a great normal fault. Accordingly, Tule Valley appears to be a graben, although direct proof of the presence of a westward bounding fault would be difficult to find, owing to the fan-bayed condition of the Confusion Range.

About three fourths of a mile north of the above-mentioned ridge and north of the road there occur in a direct north and south line three separate structural masses of limestone with northwesterly and westerly dips, each one several acres in extent, and about one half mile equidistant from one another. They rise about sixty-five feet above the desert floor and are isolated by the sediments of former Lake Bonneville.

The top of the southern hill is covered with fifty or more small cones of calcareous material, whose heights vary from three to seven and eight feet. The orifices have collapsed. The material around the slopes of the cones resembles the hardened mud in the geyser basins of the Yellowstone Park. Some fine large sinter cones, showing dome structure, were found on the central hill. The northern knoll has no distinct cones, but is covered with sinter. Davis³ may have visited this northern hill or a similar one twenty-four years ago.

From the above it would seem that we have here in western Millard County a basin of hot springs of relatively recent geologic age, judging by the good state of preservation of many of the cones. Faults undoubtedly occur, as the strike of the limestone of these low hills does not coincide with their linear extent, the same being true of the larger limestone ridge south of the road. Two miles west evidence of hot springs again appears at the base of another limestone ridge and the observer can detect scores if not hundreds of similar deposits over the valley as far as the eye can reach. The writers suggest that some of the white material carried by the wind in this part of the playa owes its origin to calcareous sinter. An investigation of the region to the north might repay the effort, as the topographic map⁴ shows several isolated knobs in straight alignment about eight miles north of the northernmost of the knolls above described.

¹ Walcott, C. D., "Cambrian Geology and Paleontology," No. 5. "Cambrian Sections of the Cordilleran Area," Smithsonian Misc. Coll., Vol. 53, 1908, pp. 173-185.

² Davis, W. M., "The Wasatch, Canyon and House Ranges, Utah," Mus. Comp. Zool., Bull., Vol. 49, Geol. Ser., Vol. 8, No. 2, 1905, pp. 46-49.

³ Davis, W. M., *op. cit.*, pp. 36-37.

⁴ U. S. Geol. Surv., Fish Springs Quadrangle, Utah. Scale, 1/250,000.