numerical or alphabetical order. The most recent classification and the most radical—or most conservative, according to the point of view—is that of Loukotka.[17] Dividing more of Rivet's families than he combined, he enumerates 94 families with a total of some 558 languages. Later he revised the details somewhat, but only regarding the languages of Brazil. In this latter article he notes the linguistic sources for each language.[18]

South American linguistic history or philology does not extend before the beginnings of the sixteenth century with the first words and observations made by European voyagers. No native alphabets had been developed; there were no hieroglyphs, and even pictographs, petroglyphs and picture-writing seem to be less than in North America. The Peruvian quipus were arithmetical, astrological, divinatory and mnemonic. There was a tradition among the Kechua at the time of the Conquest that they had once had a system of writing on tree leaves that was later forbidden and forgotten,[19] but this is given little credence by modern scholars, and no trace of it remains. A system of writing has been claimed for the Chibcha also, based, not on tradition, but on the peculiar, and apparently non-pictorial character of many pictographs in Colombia; this also has received no credence among archeologists. On the other hand, the modern Cuna of Panama have developed an interesting existent system of mnemonic picture-writing.[20]

Two of the native languages merit special mention as having become, after the Spanish Conquest, *lenguas francas* of wider extent and use than formerly. The Tupi of the Brazilian coast became the basis of the *lingoa geral,* the medium of communication of priests and traders throughout the Amazon drainage; it is now generally replaced by Portuguese. The Cuzco dialect of Kechua became the culture language of the "Inca" region and extended its area even before the Conquest; after the latter it continued its spread and was adopted as a second language by the Spanish in Peru. Neither language has to-day, however, the cultural position of the Maya of Yucatan, for instance, though both have added many native terms in the Spanish and Portuguese of their regions, and even throughout the world, such as *tapioca, jaguar, llama, quinine.* It has been estimated that 15 per cent. of the vocabulary of Brazilian Portuguese is of Tupi origin. In Paraguay, Guarani is considered a culture language, and some newspapers are published in it.

For those exact-minded scientists who may be appalled or disgusted with the classificatory disagreements noted above, let me close with a quotation from a great linguist: "Essayer de faire une classification exacte et complète de toutes les langues en familles rigoureusement définies, c'est montrer déjà qu'on n'a pas compris le principe de la classification généalogique des langues."[21]

OBITUARY

OSCAR FLOYD POINDEXTER

OSCAR FLOYD POINDEXTER was born on December 8, 1898, at Cynthiana, Kentucky. He was educated in the schools of Cynthiana and the University of Kentucky. On October 4, 1918, he enlisted in the S.A.T.C. of the University of Kentucky and was honorably discharged from the United States Army on December 18, 1918. He then continued his education at the University of Michigan, deserting agriculture, his major at Kentucky, for geology and mineralogy, and received the A.B. degree in geology and mineralogy in 1922 and the master's degree in 1924. During the undergraduate years at the University of Michigan he was a teaching laboratory assistant in the department of mineralogy supervising students in the identification of minerals. In June of 1924, he first entered the service of the State of Michigan in charge of a field party mapping deposits of road-building materials for the State Highway Department under the direction of the Geological Survey Division, Department of Conservation. He was in charge of the field parties during the summers of 1924 and 1925 and in full charge of the road material survey in the summer of 1926. During the scholastic years, 1924 to 1927, Mr. Poindexter was instructor in petrography and general economic and engineering geology in the Case School of Applied Science, Cleveland, Ohio. In June, 1927, he resigned from Case to permanently enter the service of his well-loved adopted State, Michigan, as mineral economist of the Geological Survey Division of the Department of Conservation, and continued as chief of the road materials survey, discovering, testing, mapping hundreds of deposits and writing summary reports of each deposit, as well as working in and writing more detailed reports of the other mineral

[17] Chestmir Loukotka, "Clasificación de las lenguas sudamericanas," Prague, 1935.

[18] Chestmir Loukotka, "Linguas indigenas do Brasil" in *Revista do Arquivo Municipal,* LIV, 147–174, Sao Paulo, 1939.

[19] Montesinos, 1840, 1920, Chaps. 7, 14, 15; Bingham, 1922, Chap. 16; 1929, Chap. 9.

[20] "Comparative Ethnological Studies," 7, Göteborg, 1928, 1930.

[21] A. Meillet, "Les Langues du Monde," Paris, 1924, p. 10.

industries. The road materials survey ended in 1931 and Mr. Poindexter continued in the department as mineral economist working on mineral resources, especially of the non-metallic minerals, and in general geology. In 1931 he made a personal survey of the mineral resources of Alpena County, of Schoolcraft County in 1932, of the rocks suitable for rock wool for insulation purposes in 1939 and in 1940 he conducted a survey of the limestone areas of the Northern Peninsula potentially important for the production of magnesium. For six months during 1933 he was superintendent of a CCC camp, during which time he devised and carried out the project which made sets of Michigan rocks and minerals distributed to the schools.

Gradually as problems coming to the survey became more numerous, Mr. Poindexter devoted more and more time to the water resources of the state until in 1942 in recognition of his preeminence in the field he was made geologist in charge of water resources investigations, and his time was given almost wholly to the many economic, legal and scientific problems of lake level stabilization, stream flow and flood control and particularly of ground water supplies for individual homes, municipalities and industries. In this field his outstanding achievements were in location of adequate water supplies for war industries, notably for the Willow Run Bomber Plant.

The list of Mr. Poindexter's publications contains sixteen titles, studies in minerals, mineral resources, surface geology in Kentucky and Michigan, and of water supplies, in addition to abstracts of sixty articles on geology and mineralogy which he translated from the French. He was a member of the alumni associations of the Universities of Kentucky and Michigan, of the Michigan Academy of Science in which he was a past chairman of the Geology and Mineralogy Section, and he was a member of the national honorary scientific society Sigma Xi.

He was married on June 4, 1927, to Miss Helen McGurk, of Kentucky, who with two sons, Edward and James, survive him. In his home his life was one of quiet happiness, marked with devotion to and admiration for his wife and intense but calm pride in his sons.

In the field Jake Poindexter was a conscientious worker, considerate, patient, always working for the cub geologists, always anxious they should get ahead; he gave them standards, he was a developer of trained men. His junior geologists, men who were in his field parties and office associates loved and respected him as a bulwark of quiet kindliness, sound judgment yet modest and chary in giving advice. They say of him, "He was an exemplar of the stability and integrity a servant of the state should have." A calm young man but an inspiring teacher.

In the office Jake was always quiet, dependable and efficient, speaking with a soft Kentucky drawl that belied his eager, active mind. He was slow to render an opinion until all sources of information were consulted and all phases of the problem considered and weighed. He never gave snap judgments; he could not be biased. He inspired confidence in the industrialist who sought his advice or sought out his information as well as in the associate working with him and the superior giving him a job to do.

His keen interest in research, his desire to solve some of its geologic problems and so serve the State placed O. F. Poindexter well over the threshold of a promising career in the solution of the pressing problem now confronting Michigan—the conservation of its water supply. By his death, the Geological Survey Division and the whole Department of Conservation have lost a servant whose place can not be filled. His associates have lost the stimulus of a brilliant mind, but, over all, have lost a friend.

HELEN M. MARTIN

DEATHS AND MEMORIALS

DR. HUGH ALEXANDER BROWN, professor of electrical engineering at the University of Illinois, died on February 25. He was fifty-five years old.

DR. JOHN D. BALL, since 1933 professor of physics and business administration at Mount Mary College, Milwaukee, died on February 10 at the age of sixty-two years.

DR. GEORG BARKAN, assistant professor of biochemistry at Boston University, died on March 7 at the age of fifty-five years.

DR. FRANKLIN C. SNOW, dean of the Georgia School of Technology of Atlanta, died on March 1 at the age of sixty-one years.

THE REVEREND DR. JOHN EDWARD RAUTH, associate professor of psychology at the Catholic University of America, died on March 5 in his fifty-ninth year.

DR. RAYMOND C. SHANNON, Trinidad, entomologist of the Rockefeller Foundation, died on March 7, at the age of fifty years.

HAROLD RYLAND SMALLEY, agronomist and director of soil improvement, emeritus, of the National Fertilizer Association, died on February 27 in his fifty-seventh year.

A MEMORIAL service for Lieutenant Colonel M. F. Morgan, chief agronomist at the Connecticut Agricultural Experiment Station, who was killed in action on Leyte in January, was held at New Haven on March 10.