

HISTORY OF SCIENCE

Chairman: S. S. VISHNER, Indiana University

Paul Weatherwax, Indiana University, was elected chairman for 1949.

ABSTRACTS

The Wabash Academy of Science, WILL E. EDINGTON, DePauw University.—The Wabash Academy of Science was organized at Crawfordsville, in 1844. According to its *Proceedings of the Eleventh Annual Meeting*, held in July, 1854, it had a membership of fifty-eight, including Ryland T. Brown, John Campbell, William Twining, J. S. Roughum, and others then prominent in Indiana science.

The Terre Haute Scientific Association, WILL E. EDINGTON, DePauw University.—The Terre Haute Scientific Association was active for some years in the 1880's. Its membership included members of the faculties of Rose Polytechnic Institute and of the Indiana State Normal School. In 1888 it sponsored a "microscopical Soiree," which lasted two evenings, at which twenty-seven displays of microscopic studies and specimens were presented.

The Second Decade of Purdue University's School of Pharmacy, C. O. LEE, Purdue University.—The present paper continues the one presented before the Academy last year on the first decade. During 1894-1903 the school of pharmacy first offered a two-year course leading to the degree of Pharmaceutical Chemist, and a four-year course leading to the degree of Bachelor of Science in Pharmacy. Purdue was thus among the leaders in offering the bachelor's degree in pharmacy. The paper also reports faculty personnel from year to year, curriculum changes, enrollment, and the number graduated.

Indiana Geologists Before 1900, CLYDE A. MALOTT, Indiana University.—The geology of Indiana has been the subject of study by a few geologists whose names are famous in American geology, but the presentation of much of the field details has been the work of local geologists. This is true not only for the period up to 1900, but up to the present time. J. P. Leslie and F. H. Bradley worked briefly in Indiana in 1859 and 1869, respectively. Leo Lesquereux, S. A. Miller, C. A. White, E. D. Cope, and James Hall contributed notably to the paleontology of Indiana in the 1870's and 1880's. Lesquereux was on the second Owen survey in 1859 and made a notable contribution to the knowledge of the coal bearing formations. Frank Leverett, T. C. Hopkins, and G. H. Ashley presented much field detail in Indiana geology in the 1890's. All of the official State Geologists of Indiana have been residents of the State and their reports constitute voluminous details on Indiana

geology. D. D. Owen of New Harmony made a special geology survey of Indiana in 1837-38. A second special survey was made by R. T. Brown in 1851-53, and a third special survey was carried out by Richard Owen in 1859-61. E. T. Cox, also of New Harmony, was State Geologist for 10 years following the establishment of the Indiana Geological Survey in 1869. In the detailed county surveys of the Cox period, Rufus Haymond, John Collett, B. C. Hobbs, Robert Warder, W. W. Borden, M. N. Elrod, and E. S. McIntire did much of the field work for the Cox reports. John Collett followed as State Geologist and served until 1885. He employed the services of G. K. Greene, R. T. Brown, A. J. Phinney, D. S. M'Caslin, and M. N. Elrod. Maurice Thompson was appointed State Geologist in 1885 and served until 1888. His geological staff was composed of S. S. Gorby, A. J. Phinney, W. H. Thompson, R. T. Brown, and C. R. Dryer. S. S. Gorby was appointed State Geologist in 1889 and served until 1894. He was aided by, Maurice Thompson, M. N. Elrod, A. C. Benedict, E. P. Cubberly, and C. R. Dryer. The productive surveys of W. S. Blatchley began in 1895 and continued for a period of 16 years. Important geological investigations were carried on during the Blatchley period. His earlier staff was composed of C. E. Siebenthal, E. M. Kindle, J. T. Scovel, and J. A. Price, all local geologists, and in addition he had the specialists T. C. Hopkins and G. H. Ashley on the survey. Other geologists contributing to the geology of Indiana before 1900 were C. S. Beechler, V. F. Marsters, John Newsum, Joseph Moore, L. F. Bennett, A. C. Veatch, A. H. Purdue, W. A. McBeth, and Glenn Culbertson. Of the 44 geologists herein mentioned, 34 were residents or natives of Indiana.

Early Hoosier Archaeologists, GLENN A. BLACK, Indiana Historical Society, Angel Mounds.—John Collett, Sylvester S. Gorby, Edward T. Cox, Willis S. Blatchley and Rufus D. Hayman were geologists who took advantage of their intimate contact with the land to make archaeological observations. Many of these observations were made at an early date, and are in their published reports. As a result, those of us who are interested in the prehistory of Indiana have a record of much data that would otherwise have been lost.

A Study of the Indiana Scientists Sketched in American Men of Science, STEPHEN S. VISHER, Indiana University.—This paper is an extension to two hitherto presented before the Academy. (Two years ago, a statistical study of the Indiana scientists sketched in the 1944 edition of *American Men of Science*; a year ago, a fuller study of the Indiana scientists who have been starred as especially distinguished).

The present paper is an abstract of a study of all the scientists born, college trained or employed in Indiana who were sketched in any one of the seven editions of *American Men of Science*, 1906-1944. It is based on a card catalog of about 2850 scientists. Of these, nearly a half (1400) were born in Indiana, somewhat more than a half (1550) graduated from a college or university in Indiana, and about 1800 were employed in Indiana. Of those born in Indiana, about a third (463) went

elsewhere for their advanced education and nearly two thirds (831) were employed elsewhere. Of those who were trained in Indiana (1807), about a half (945) were natives of the state and about two fifths (862) were employed at least for a time in Indiana.

Of those employed in Indiana, somewhat less than a third were born here, and nearly a half had part or all of the advanced training here. Thus only about two fifths (798) were neither born nor trained here.

These 2850 scientists list themselves, in their sketches in American Men of Science, in more than 97 sciences. For summary purposes they have been here assembled into nine groups. In order of size, these are: chemistry (773), biology (428), the medical sciences (389), engineering (274), mathematics and astronomy (228), physics (220), the agricultural sciences (177), psychology (137), geologists and geographers (132).

The leading two groups, chemists and biologists, lead in each of the three great categories here used (natives, college trained, and employed). The smaller groups displayed irregular variation; for example, fewer agricultural scientists have been employed in Indiana than of geologists and geographers, but fifty percent more agriculturists were trained here than geologists and geographers.

Of those born in Indiana, but neither educated nor employed here, about 45 percent are chemists or biologists (with 99 and 91 of the 425). Four of the other groups each had 30 to 36 persons of this category, while engineers had 46 and the medical group, 60.

Of those educated in Indiana, but neither born nor employed here, chemists led by a wide margin (86 of the 270); biologists, with 54, are second, and engineers, third. Only 8 geologists and geographers came into Indiana for their training and left soon afterwards.

Of those employed in Indiana, but neither born nor trained here, about 30 percent were chemists (225 of 782). Biologists were second (179) and engineers third (89).

Of those born and educated in Indiana but not employed here, the chemists made up nearly one-fourth (125 of 478). Biologists were 112, physicists, 91, while four other groups each had 32 to 38 in this category.

Only 51 of these 2850 scientists were both born and employed in Indiana but not educated here. By contrast, nearly a seventh of the total were educated and employed here (362 of 2850). A third of these are chemists and nearly a fourth are biologists.

Nearly a fifth of the scientists of Indiana were born, educated, and employed in Indiana. Of this group, biologists comprise 155 of the 491, chemists 103, physicists 57 and the other groups 26 to 47.

Thus it appears that approximately a third of the biologists, chemists, physicists, and engineers employed in Indiana were not born or trained here, while fewer than one-fourth of the agriculturists and geologists and geographers are in this category. Conversely, Indiana has been the birthplace and place of training of large numbers of scientists who found employment in other states.