

HISTORY OF SCIENCE

Chairman: M. G. MELLON, Purdue University

R. E. Girton, Purdue University, was elected chairman for 1951.

ABSTRACTS

The charter members of the Indiana Academy of Science. WILL E. EDINGTON, DePauw University.—The facts as now known regarding the charter membership list of the Indiana Academy of Science are presented. New evidence was uncovered by Dr. John S. Wright in the "Indiana Pharmacist" for January, 1886, in which the names of forty individuals were listed as charter members of the Academy.

A list of 69 members considered as charter members is included.

The Indiana Physician as geologist and naturalist. W. D. INLOW, Inlow Clinic, Shelbyville.—In 19th century the physician played a great role in development of natural science. This is no longer true. Science in Indiana begins in New Harmony. David Dale Owen and the first geological survey 1837-1838. Biographical notes concerning chief physicians interested in geology and natural history are presented with comments concerning their contributions: Asahel Clapp, 1792-1862; John T. Plummer, 1807-1865; Ryland T. Brown, 1807-1890; Rufus Haymond, 1805-1886; W. T. S. Cornett, 1805-1897; Alembert Winthrop Brayton, 1848-1926; Moses N. Elrod, 1838-1907; Arthur John Phinney, 1850-1942; Marcus Ward Lyon, Jr., 1875-1942.

Some contributions by scientists from Indiana State Teachers College and Rose Polytechnic Institute.¹ JAMES F. MACKELL, Indiana State Teachers College.—A great many of the contributions by scientists from Indiana State Teachers College and Rose Polytechnic Institute have already been listed in other volumes of the proceedings of the Academy. However, some of the more recent contributions have not been listed. An attempt will be made in this paper to point out some of the contributions made by such outstanding scientists as Roscoe Hyde from Indiana State, Herald Cox from Indiana State, and Professor Johannott of Rose Polytechnic Institute, and others. No attempt will be made to make an exhaustive report at this time. However, contributions other than the ones listed above will be incorporated in the report.

Developments in analytical balances. M. G. MELLON, Purdue University.—The equal arm balance is said to represent the most significant contribution of the alchemists to modern science. Actually, this instru-

¹ This paper will appear in the forthcoming volume "Indiana Scientists."

ment can be traced to a period seeming to antedate anything recognized as alchemy.

Without fundamental change in design it came into the 20th century. The last few decades, however, have brought very significant changes. In general, they have been directed toward achieving greater speed in weighing and in facilitating the operation. Significant examples are multiple riders, key-board manipulation of weights, chain weights, vernier riders, damping, projection reading scales, and constant sensitivity mechanisms.

This trend toward indicating instruments is a step, of course, in the direction of the ultimate in balances—one which will weigh 100 grams to four decimal places and record the value.

Thomas Say, Entomologist, in Indiana. B. ELWOOD MONTGOMERY, Purdue University.—Thomas Say first saw Indiana in 1819, when he passed down the Ohio River from Pittsburgh to St. Louis as zoologist on Long's expedition to "explore the Missouri and its principal branches—." Although several thousand insects were collected, of which hundreds were new to science on the expedition it is doubtful if many were collected during the passage down the Ohio. However, four years later, Say again came to Indiana; as Zoologist and Antiquary on Long's "Expedition to the Source of St. Peter's River," he traversed the state in traveling, according to orders from the War Department, from "Wheeling in Virginia, thence to Chicago via Fort Wayne." Few, if any, of the specimens of insects obtained in the state during this trip are recorded for Indiana, as Say was never very specific in his locality records.

Say came to New Harmony in "The Boatload of Knowledge" in 1826 and made his residence there until his death in 1834. His entomological studies were continued during this period, although many of the species obtained on the western trips had already been described. It may be questioned if Say found these years of his life very happy, living far removed from centers with libraries and museums, directing the work of school boys, serving as editor or even printer, and acting as McClure's business agent in the quarrels and law suits following the break up of the Owen community. However, he continued to make some collecting trips, and to receive letters and published papers from correspondents in the East and in Europe; and he wrote a dozen papers on insects, three of which were not published until after his death. Furthermore, the care of McClure's affairs may not have burdened him too heavily as he never seemed to have let his own property or business interests interfere with his scientific studies, and he refused an offer of work in New York at one time.

Johnny Appleseed (John Chapman) in Indiana. C. L. PORTER, Purdue University.—The name and deeds of Johnny Appleseed have become legendary throughout the Eastern portion of the United States. Attempts to separate facts from fiction pose difficult problems to the historian. It would seem that Chapman was born in Massachusetts. He emigrated to Ohio at an early age and at a time when Ohio was

still a wilderness. In his later years he moved farther westward to Indiana and according to the most authentic evidence died in Allen County near where Fort Wayne is now located.

The facts associated with the life and demise of Johnny Appleseed in Northern Indiana are obscure and have constituted the basis of bitter controversy.

The puzzling and confused data that have caused argument are presented in this paper.

An analysis of Rumford's methods of testing the Eighteenth Century theories of heat. DUANE ROLLER, Wabash College.—Rumford's experiments on heat, particularly those on heat produced by friction (1798), have been examined to determine the general method of attack employed, and their role in the development of the dynamical theory of heat. Many writers, including Joule and Tyndall, appear to have misinterpreted or overlooked the significance of Rumford's work in one or more important respects.

Some outstanding science students from Shortridge High School. FRANK B. WADE.¹—A brief biographical summary is presented for each of the following twenty-three scientists who received their high school education at Shortridge in Indianapolis: H. H. Bartlett, J. R. Schramm, M. Fishbein, H. F. Dietz, E. P. Stevenson, A. B. Hastings, I. H. Page, H. A. Howe, S. A. Cain, P. D. Bartlett, J. H. Payne, J. Paitt, R. F. Daubenmire, F. M. Baumgartner, W. W. Davis, W. H. Hoskins, R. M. Cavanaugh, W. D. Billings, R. K. Jennings, W. A. Daily, D. S. Van Fleet, B. Vonnegut, C. N. Rice. The list is chronologically arranged according to graduation dates.

¹ Deceased. See page 25 for memorial.