way as to greatly stimulate the expansion of the electrical industry abroad.

Mr. Burchard was born in Hoosick Falls, N. Y., April 21, 1865. After graduating from the Stevens Institute of Technology in 1885 with the degree of mechanical engineer he was engaged in general engineering work with the J. M. Ives Company of Danbury, Conn., and later became treasurer and manager of the T. & B. Tool Company of that city. At the beginning of 1900 and for the next two years his chief interest was temporarily diverted to the mining of copper and, as vice president of the Cananea Consolidated Copper Company, he operated mines in the province of Sonora, Mexico.

In 1902 he joined the organization of the General Electric Company and for the next two years was comptroller. In 1904 he became assistant to the president, and in 1912 was elected vice president. In 1917 he was elected to the board of directors and this year was elected vice-chairman of the board.

Mr. Burchard is also on the boards of the American Power & Light Company, the American Gas and Electric Company, Worthington Pump and Machinery Corporation, the Western Power Corporation, Central States Electric Company, Republic Railway and Light Company, Adirondack Power & Light Corporation, and the Electrical Utilities Corporation. He is a member of the American Society of Mechanical Engineers, American Institute of Electrical Engineers, American Society of Civil Engineers, and the Iron and Steel Institute of Great Britain.

Obituary

Alfred W. Gibbs, chief mechanical engineer of the Pennsylvania with headquarters at Philadelphia, died suddenly from heart failure on May 19 at his home in Wayne, Pa. Mr. Gibbs was born at Fort Filmore, N. M., on October 27, 1856. He attended Rutgers College Grammar School, New Brunswick, N. J., and Rutgers College (the latter institution in 1873 and 1874) and then entered Stevens Institute of Technology, Hoboken, N. J., from which institution he was graduated in 1878. In March of the following year Mr. Gibbs entered the service of the Pennsylvania as a special apprentice in the Altoona shops and continued as such until June 1, 1881, when he became a draughtsman. Four months later he left the Pennsylvania to become a draughtsman for the Richmond & Danville (now the Southern). In 1886 he was promoted to master mechanic and served in that position on several divisions until 1890, when he was appointed superintendent of motive power of the Central of Georgia. Two years later that position was abolished and he returned to the Richmond & Danville as master mechanic. In July, 1893, Mr. Gibbs returned to the Pennsylvania as assistant mechanical engineer and served in that position until September, 1902, when he was appointed superintendent of motive power of the Philadelphia, Wilmington & Baltimore (a subsidiary of the Pennsylvania). On January 1, 1903, he was promoted to general superintendent of motive power of the Pennsylvania Railroad and on July 1, 1911, was appointed to the newly created position of chief mechanical engineer, in which capacity he was serving at the time of his death. Mr. Gibbs was one of the managers of the Franklin Institute, Philadelphia. He served for many years as chairman of the Committee on Tank Cars of the Mechanical Division of the American Railway Association. He was a member of the advisory committee of the Locomotive Cyclopedia for each edition of that volume excepting that of 1912 and at the time of his death was chairman of this committee. Mr. Gibbs played a prominent part in the mechanical design of the electric locomotives built for the Pennsylvania Railroad's electrification at New York.

A. W. Gibbs

Trade Publications

The Uehling Instrument Company, Paterson, N. J. is distributing an illustrated pamphlet known as Bulletin 112 in which the operation of CO_2 recording apparatus is described. The pamphlet is intended as a guide for engineers and firemen in reducing the waste of fuel up the chimney.

The Cutter Company, Philadelphia, Pa., is distributing a 6 by 9 inch 16-page illustrated booklet describing I-T-E Circuit breakers as applied to the protection of electrical and associated machinery in central stations. Both direct and alternating current breakers for various requirements are illustrated and described.

General Electric Co., Schenectady, N. Y., has recently issued its bulletin No. 47326 illustrating and describing type QC-3 quick break lever switches up to 600 volts and 1,000 amperes. The bulletin is an 8-page pamphlet and in addition to the photographic illustrations of the equipment, it also gives a complete set of dimensional drawings.

Over the Mountains by Electric Power is the title of an illustrated folder recently issued by the passenger department of the Chicago, Milwaukee & St. Paul Railway. The folder resembles a time table in general appearance and is profusely illustrated with photographs of various parts of the electrified sections as well as views of the electric locomotives, power houses and substations. Many interesting facts and figures concerning this electrified trunk line road are included in the description.

National Metal Molding Company, Pittsburgh, Pa., is distributing a new catalog describing Liberty rubber covered wires, cables and cords. The booklet contains 20 pages and is 6 in. by 9 in. in size. Specifications to which wires and cables are made are presented, and a table is also included which gives in condensed form all of the data which users of such material need from time to time, including information as to packing and shipping. A description of the manufacture of flexible cords and a comparison of them is particularly interesting.