the New York Railroad Club, Central Railroad of New Jersey Veterans' Association, A. R. E. A., American Railway Guild, and Joint Train Rules Committee of the C. R. R. of N. J. and Reading. He



Fred W. Bender

is secretary of Eastern Signal Engineers and chairman of the Joint Valuation Signal Committee, composed of representatives of the Bureau of Valuation of the Interstate Commerce Commission and the railroads of the United States. Mr. Bender is a member of the Signal Section, A.A.R., in which he has been active in the various committees. He is a member of the Co-ordinating Committee with the Bureau of Standards on the Revision of the National Electrical Safety Code, and is also the author of numerous articles on signaling which have appeared in Railway Signaling.

W. R. Hardin has been appointed electrical supervisor of the Texas & Pacific, with headquarters at Dallas, Tex., succeeding W. A. Roberts, who was promoted to superintendent of telegraph, with headquarters at Dallas, on January 1.

E. G. Prinn, signal maintainer on the Canadian Pacific at Lennoxville, Que., Canada, has been appointed signal inspector on the Quebec district with headquarters at Montreal, Que.

Raymond C. Thayer, assistant superintendent of telegraph, Great Northern, with headquarters in St. Paul, Minn., has been promoted to superintendent of telegraph succeeding A. W. McKay, who retired February 1.

The Okonite Company opened a new office on January 15, known as the 16th district office, at 1212 Comer Building. Birmingham, Ala. Dewey A. White, formerly sales engineer in the Atlanta, Ga., office, has been appointed manager of the Birmingham office. Mr. White, who has been connected with the Okonite Company for 17 years, will have included in his South Central territory, the States of Tennessee, Alabama, Mississippi and Louisiana. Mr. White will handle insulated wires and cables manufactured by The Okonite Company, The Okonite-Callender Cable Company, Inc., and the Hazard Insulated Wire Works division. The South Atlantic territory, including North Carolina, South Carolina, Georgia

and Florida, will continue to be handled by George N. Brown, manager of the Atlanta, Ga., office at 1606 Rhodes-Haverty Building. The Okonite Company has also moved the St. Louis, Mo., office from the Ambassador Building to 1406 Shell Building, with Robert E. Sontag remaining as the manager.

M. C. Woodburn has been appointed castern railroad sales representative of the "Eveready" division of the National Carbon Company, Inc., with headquarters at 30 East 42nd Street, New York City. Mr. Woodburn was born at Elmhurst, Long Island, N.Y., on March 1, 1913, and



M. C. Woodburn

was graduated from Pratt Institute in 1934. He was employed as a sales engineer in the Automotive Products division of the National Carbon Company, Inc., at Pittsburgh, Pa., prior to his appointment as eastern railroad sales representative.

## Obituary

Charles G. Stecher, former supervisor of interlocking operation, in the office of the superintendent of telegraph and signals of the Chicago & North Western at Chicago, Ill., whose retirement in that capacity was noted on page 400 of the July, 1940 issue of Railway Signaling, died recently after an illness of several months. Mr. Stecher was born in Germany in 1873 and came to the United States in 1899. He entered railroad service as a batteryman on the Chicago & North Western at South Milwaukee, Wis. Mr. Stecher was promoted to maintainer at Racine, Wis., in 1902, which position he held until April, 1903, when he was promoted to repairman at Chicago. He later served in the capacity of lamp and signal inspector, followed by an advancement to electrician, and later to foreman on the old Chicago Terminal, In September, 1907, Mr. Stecher was promoted to the position of signal supervisor on the North Western, with headquarters at Boone, Iowa. He was transferred to Chicago in September, 1910, as chief inspector on the signal construction work in conjunction with the new passenger terminal. Upon the completion of this work, he was appointed supervisor of signals of the Chicago Terminal territory, which appointment became effective on June 1, 1910. Mr. Stecher remained in that capacity until 1913, when he was appointed signal instructor, which position he held until 1931, at which time he was appointed signal inspector, followed by his promotion to supervisor of interlocking operation in June, 1937, which position he held at the time of his retirement last June.

Frank Rhea, former assistant supervisor and supervisor of track on the Norfolk & Western, chief signal inspector, assistant engineer and division engineer on the Pennsylvania, died recently at Tucson, Ariz., at the age of 73. Mr. Rhea was born in 1867 and was graduated from the Western University of Pennsylvania in 1892, although he had intermitted his course at the university for the purpose of going into railroad work at the end of his sophomore year. He entered the service of the Union Switch & Signal Company in 1892, and in 1893 he was appointed signal



Frank Rhea

foreman on the Pennsylvania at the old Broad Street Station at Philadelphia, Pa. In 1894, Mr. Rhea resigned from the Pennsylvania to go with the Bell Telephone Company as superintendent of construction. In 1896, he returned to railroad service as signal inspector for the Pennsylvania on the lines west of Pittsburgh, Pa. In 1901, Mr. Rhea was appointed assistant engineer on the Marietta division of that road, then on the Logansport division after two promotions. In 1905, Mr. Rhea collaborated with Alexander Holley Rudd, former chief signal engineer of the Pennsylvania System, and assistant signal engineer of the lines east of Pittsburgh, Pa., at that time, in the preparation of a comprehensive survey of signaling methods, which in large part, formed the basis for unifying signaling practices on the Pennsylvania System. The Rudd-Rhea report was published on pages 424 to 430 inclusive, in the August, 1935 issue of Railway Signaling. In September, 1908, Mr. Rhea resigned from the Pennsylvania to accept a position as a commercial engineer in the railway engineering department of the General Electric Company at Schenectady, N.Y., which at that time was manufacturing signals.

In following years he later served as district engineer of the Eastern district, Division of Valuation, Interstate Commerce Commission; and as a commercial engineer of the Bureau of Foreign and Domestic Commerce, made a study of the markets for railway materials in New Zealand, Australia, Philippine Islands, China and Japan. In April, 1919, Mr. Rhea became a partner of the firm Wheeler, Mechlin & Rhea in New York, as advisory and purchasing engineers. In September, 1920, Mr. Rhea was appointed industrial trade commissioner for the Bureau of Foreign and Domestic Commerce and returned to China with headquarters at Peking. He studied and followed the industrial development, transportation, and especially studied and investigated the feasibility of the investment of American capital in public and semipublic enterprises in China. In December, 1924, Mr. Rhea was appointed acting American commercial attache for Japan with headquarters at Tokyo. Mr. Rhea returned to the United States in the latter part of 1925. Mr. Rhea in his time was one of the best known signal engineers in the country, having been prominent for many years in committee work of the Railway Signal Association (now Signal Section, A.A.R.), as well as one of the most vigorous debaters among the members. He was also a member at one time of the American Society of Civil Engineers and of the American Railroad Engineering Association.

George Murray Brooks, 100 West 55th Street, New York, general counsel and executive vice-president of The Okonite Company, and also director and vicepresident of The Okonite-Callender Cable



George Murray Brooks

Company, Inc., died recently at the Columbia Presbyterian Medical Center after several weeks of illness. Mr. Brooks, at the time of his death, was the head of the law department of The Okonite Company. He was born at Dalton, N.H., on May 5, 1857, and attended the Law School of Yale University from which he was graduated in 1879. Shortly following, Mr. Brooks became connected with The Okonite Company, of which he had served on the board of directors for many years at the time of his death. He was well known in the field of corporation law, and was a mem-

ber of the American Bar Association, New York State Bar Association, New York County Lawyers' Association, the Bankers' Club and the Yale Club of New York City, at the time of his death.

## Construction

The Wheeling & Lake Erie has placed an order with the Union Switch & Signal Company covering materials for automatic signaling protection at a crossing with the B. & O. at Harmon, Ohio. The project includes the installation of searchlight signals on the W. & L. E., with color-position-light signals on the B. & O. Factory-wired housings are being provided to accommodate the relays, rectifiers, transformers, etc. The field installation work will be carried out by the railway company's regular signal construction forces.

The Pittsburgh & Lake Erie has placed an order with the Union Switch & Signal Company, covering the apparatus necessary for modernizing the automatic block signaling system over its entire line between McKeesport, Pa., and New York Central Junction at Youngstown, Ohio. This program, which provides for the installation of searchlight signals on this 79 miles of the line, involves the respacing of the signals to meet present-day requirements. A four-track line extends over half of this territory and double or three track lines over the other half. The new signaling will be controlled by coded track circuits which eliminate the use of line wires. The apparatus involved includes approximately 200 searchlight signals, 1,650 relays and code units, 1,175 rectifiers and transformers, 75 relay houses and cases. These instrument cases and relay housings will be factory wired by the Union Switch & Signal Company before delivery, while the field installation work will be carried out by the P. & L. E. signal department.

#### Trade Publications

The Ohio Brass Company, Mansfield, Ohio, has recently issued a new catalog entitled, "Insulator Catalog No. 24." This catalog lists all Ohio Brass Company materials for transmission lines, distribution lines and substations, including standard and radio-proof pin type insulators, strain insulators and fittings, insulated clevis assemblies, standard high-impact and smog-proof suspension insulators, suspension and strain clamps, suspension insulator fittings, other line hardware, pin cap and post type station insulators, oil-filled and dry type apparatus bushings, entrance bushings and tubes, porcelain condensers and control gaps. To make the catalog easy to use, all associated products are grouped in individual sections. Drawings and catalog date of similar products are shown on one page or facing pages wherever possible to permit ready comparison. A simpler procedure for specifying bushings is introduced in this volume, and tables of recommended strain and suspension clamps for all commonly used conductors are included, another new feature of the catalog. More details of the products are shown in drawings than in previous Ohio Brass Company catalogs and more information is given on the characteristics of bushings, pin type and suspension insulators. The front of the catalog has a pictorial section showing development work, testing, inspection and supervision of manufacturing control by company engineers.

# R. S. & I. Applications

The Interstate Commerce Commission has approved 2 applications for proposed modifications of Rules, Standards and Instructions prescribed by order of April 13, 1939, under paragraph (c) Section 26 of the Interstate Commerce Act as amended; the Approved application numbers are: RS&I-Ap-41 and 44. The Interstate Commerce Commission has denied 1 application; the denied application number is RS&I-Ap-43.

The Interstate Commerce Commission also approved RS&I-Ap-38 of the Chesapeake & Ohio Railway, dated October 25, 1940, for approval of: "Authorization under Sections 305 and 310 of the Rules, Standards and Instructions for continued use of detector bars in lieu of electric switch locking on derails 7 and 8 and without track circuits on Pennsylvania at crossing with Pennsylvania at Drew, Ind., on the Chicago division, on account of insufficient traffic on Pennsylvania to insurficient traffic on Pennsylvania to insurficient shunting of track circuits.

N. Y. N. H. & H. (RS&I-Ap-45) Authorization under Sections 305, 309, 310 and 321 of the Rules, Standards and Instructions for continued use of present arrangement of signals, derails and detector bars without track circuits, electric switch locking, approach or time locking, and with inoperative approach signals at interlocking at Tiverton Draw, Tiverton, R.I., on account of light traffic and speed being restricted to 20 m.p.h. or less.

(See also BS-Ap-2177)."

T. & P. (RS&I-Ap-46) Modification of Section 315 of the Rules, Standards and Instructions as applied to interlocking at crossing of T. & N. O. and G. C. & S. F. at Paris, Tex., so as not to require an approach signal for home signal 11, on account of signal located on an industry track and track used only by switch engines.

Penna. (RS&I-Ap-47) Authorization under Sections 55, 305 and 310 of the Rules, Standards and Instructions for continued use of present mechanical interlocking without track circuits or electric switch locking on Pennsylvania at crossing with Reading tracks at Red Pen interlocking. Catawissa, Pa., due to light traffic and restricted speeds of trains over crossing.

## Applications for Signaling Changes

In the period from December 20 to January 21, the Interstate Commerce Commission has approved 63 applications for proposed modifications of signaling systems or devices under the Interstate Commerce Act as amended. The approved appropriate the Interstate Commerce Act as amended. The approved appropriate the Interstate Commerce Act as amended. The approved appropriate the Interstate Commerce Act as amended.