The News of the Month

The New York Sectional Committee of the Signal section, A. R. A., held a meeting in the Hotel McAlpin, May 18. Robert C. Johnson, signal engineer of the Brooklyn Rapid Transit Company delivered an address on "A Scientific Method of Locating Automatic Block Signals for a Railroad of Heavy Traffic." Other authorities on the subject were invited to present their views.

The Kansas City Sectional Committee of the Signal section, A. R. A., held a meeting in Kansas City on May 18, at which time A. T. Carter, chief engineer of the Federal Signal Company, delivered a paper on d. c. relays, having the new Type M, direct current relay on display for illustrating the subject. There were 51 members present and real interest in the study of track circuits was very evident.

Pole Lines Damaged.—At the time of the high wind storms during the week ending April 22, considerable damage was done to pole lines on various parts of the New York Central, Lines West. Forty-five poles were blown down at Orestes, Ind., just east of Alexandria on the Lake Erie & Western; 110 poles were blown down on the Lansing branch while many were damaged on the Illinois division of the New York Central. An operator was killed at Sloan, Ill.

The General Assembly of Virginia has passed a law under which drivers of automobiles and other vehicles using the public highways must come to a full stop before crossing a railway track at grade. The law provides that drivers of all vehicles on approaching any grade crossing of a main line railway track outside an incorporated town must stop at a point not less than 10 ft. nor more than 100 ft from the nearest rail; penalty for violation, ten dollars.

Fourteen Main street grade crossings in Aurora, Ill., targets of safety-first councils for years, will be eliminated, at an estimated cost of $7,000,000, through elevation which the Chicago, Burlington & Quincy Railway has started. The improvement will change the right of way and raise six tracks thirteen and one-half feet above street level. The tracks are to be supported on concrete pillars, leaving virtually all space below open to traffic.

The Louisville Sectional Committee of the Signal section, A. R. A., held a meeting at the Hotel Seelbach, Louisville, Ky., on Friday, May 26. A paper on "Electric Interlocking and Signal Relays," illustrated by lantern slides and pieces of apparatus, was delivered by A. T. Carter, chief engineer of the Federal Signal Company. C. G. Mahana, chief engineer of Fairbanks, Morse and Co., gave a talk on motor cars. R. H. Ewing, signal inspector on the Louisville & Nashville was appointed a chairman for the Louisville section for the coming year.

The Safety Section of the American Railway Association held its second annual meeting in Chicago, Wednesday, Thursday and Friday, May 3-5, with an attendance of about 125. Final steps were taken to launch the "Careful Crossing Campaign" which is to be conducted this summer for four months throughout the country. Among other subjects discussed were: Goggles; the posting of accident and injury bulletins; control of injuries resulting from riding on locomotive footboards; injuries from motor cars; responsibility of supervisors for injuries sustained by their men.

Denver & Salt Lake is giving immediate consideration to plans looking to the early commencement of the construction of a tunnel through the continental divide and to the extension of its present line from Craig, Colo., in a northwesterly direction through the Uintah Basin to Provo or Springville, Utah, as the result of the action of the governor of Colorado in signing the Moffat tunnel bill on May 12, providing for the financing of this project. This tunnel will be approximately 6½ miles long, to construct which the law authorizes a bond issue of $6,720,000. Provisions are contained in the law for the tunnel to accommodate telegraph and signal lines, power and water lines and vehicles as well as the railroad. A board of five commissioners is to be appointed by the governor, with full power under the law to prescribe all regulations concerning tunnel.

A series of lectures on the electrification of the Chicago, Milwaukee & St. Paul are being given by mechanical department representatives of that railroad at a number of colleges and universities throughout the country. The lectures are illustrated by lantern slides and also by over 2,000 ft. of moving picture film, and, while given primarily for engineering students and faculty, it is open to all who are interested in the subject. The company has stated that additional dates may possibly be arranged before other organizations in the vicinity of the numerous schools where the present lectures are scheduled.

The hearing on power brakes before the Interstate Commerce Commission started in Washington on Wednesday, May 17. The object of the inquiry and investigation is to determine whether, and to what extent, such air brakes and appliances now generally used on locomotives and cars are adequate and in accordance with requirements of safety, what improved appliances or devices are available for use, and what improvements may or should be made to obtain increased safety in train operation. Robert Burgess and S. D. Hutchins of the Westinghouse Air Brake Company and M. E. Hamilton of Automatic Straight Air Brake Company have been called as witnesses. Also a number of enginemen and brakemen of various roads who have operated trains on which automatic straight air brakes were in use have been called to testify as to the operative results obtained. It appears that this hearing will be thorough and will last for some time, as many additional witnesses are to be called.

The Institution of Railway Signal Engineers held a meeting in the theatre of the Institution of Electrical Engineers, London, on April 20, 1922, when R. S. Proud of the signal department of the Underground Railways, read a paper on "Location of Signals as an Aid to Traffic Working." The author explained the methods used to arrive at the correct placing of signals on the London Underground lines, discussing the important questions of overlaps, sighting distance, automatic stops, repeater signals, speed control signals and the effect of station stops on the problem. He discussed the relative advantages and disadvantages of the ordinary overlap, the full block overlap and the three-position system with and without overlap. The paper was accompanied by graphs illustrating the author's arguments. The discussion was participated in by the president, W. C. Acfield, and W. J. Thorrowgood, A. E. Tattersall, H. M. Proud, T. S. Lascelles, Arthur Hurst, C. H. Hills and W. S. Every. It was announced that the next paper would be on "Single Line Working," by W. S. Roberts.

T. & T. Committee Meetings

A conference took place in New York on May 23, between a sub-committee of Committee No. 18—Electricity of the American Railway Engineering Association and a sub-committee of Committee No. 7—Inductive Interference of the Telegraph and Telephone section to consider outlines for a joint report by the two committees on the subject of inductive interference.

Committee No. 4—Protection Against Lightning or Electric Light and Power Circuits, held a meeting in New York on May 23 and 24. After handling routine business the committee prepared specifications for the installation of telegraph and telephone protectors and for their inspection and maintenance for submission at the September session.

Sub-committee "J"—Circuits and Current Supply, held a meeting in Hot Springs, Ark., on May 10, 11 and 12, 1922, at which time it prepared the following for presentation to the September session of the section: Instructions for the use of bridge testing set with variable ratio arms; theory of simultaneous telegraphy and telephony; care of polar relays;

sketches and tentative switchboard circuits; specifications containing instructions for making a power survey to determine the amount and size of telegraph and telephone plants to be installed.

Committee No. 11—Telegraph and Telephone Transmission, held a meeting in New York on May 10 and 11. The committee reviewed its report presented at the March session held in Richmond and made a number of changes therein. It also prepared recommendations for telegraph transmission.

Committee No. 7—Inductive Interference, held a meeting in New York on May 25 and 26 to prepare its report for the September session of the T. & T. section, which will be held at Colorado Springs, Colo., September 19, 20 and 21.

Sub-committee "A"—Construction and Maintenance of Pole Lines, held a meeting in Chicago on May 16, 17, 18 and 19; consideration was given to the revision of the sections of the specifications for the construction of wood pole lines along railroads for telegraph and telephone service which were submitted at the Richmond meeting. The committee amplified the report and revised the form of the specifications for presentation at the September session together with the proposed outline for the specifications. The committee did not complete its work and several additional meetings will have to be held before the specifications will be in proper shape.

Sub-committee "C"—Underground Construction, held a meeting in Chicago on May 17 and 18 and prepared specifications for underground crossings and supplementary drawings to specifications for underground construction to be presented at the September session for adoption.

The meeting of Committee No. 6—Message Traffic, called for June 6 and 7, at Chicago, has been postponed until June 13 and 14. The meeting of Sub-committee "G"—Apparatus, Material and Tools, called for June 6 and 7, at Chicago, has also been postponed until June 13 and 14.

Construction

The Delaware & Hudson has placed an order with the General Railway Signal Company for one eight-lever electric interlocking machine and other materials for installation at Watervliet, N. Y. This work will be performed by railroad company forces.

The Southern Pacific Railway, Texas & New Orleans lines, has placed an order with the General Railway Signal Company for one 8-lever section of Saxby & Farmer interlocking machine, relays and other parts for installation at Houston, Texas. All work will be done by railroad company forces.

The Chicago, Rock Island & Pacific has placed an order with the General Railway Signal Company for one 20-lever d.c. interlocking machine and 13 switch machines for installation at Des Moines, Ia. The interlocking machine will have 13 working levers and 7 spare spaces. All work will be done by railroad company forces.

The Chicago, Burlington & Quincy has placed orders with the Federal Signal Company for automatic signal apparatus to be installed by railroad company forces on 51 miles of single track between Napier, Mo., and Pawnee, Neb. This order includes 147 Type 4 top-of-mast signal mechanisms, 366 relays, 78 switch circuit controllers, 17 switch indicators and 9 tower indicators.

The Chicago Union Station Company has awarded the Union Switch & Signal Company a contract for the complete installation of two electro-pneumatic interlocking plants for the new Chicago Union station. The interlocking machine for the operation of the south approach tower comprises a 151-lever frame consisting of 69 levers for 42 single switches and 38 double slips with movable point frogs, 52 levers for 88 signals with 3 levers for check locking, etc., and 27 spare levers. The interlocking machine for the operation of the north approach tower comprises a 95-lever frame with 41 levers for 39 switches and 15 double slips with movable point frogs, 33 levers for 57 signals, 3 levers for check locking, etc., and 18 spare levers. Lever lights and illuminated track models of the spotlight type will be installed. All signals are to be of the position light type. The installations are to include complete train starting systems, route locking with sectional release, stick locking of all signals, traffic locking and the use of alternating current track circuits throughout.

The Long Island Railroad has recently purchased from the Union Switch & Signal Company a Saxby & Farmer mechanical interlocking machine with the necessary ground materials for installation at Jekyl Island, N. Y. This machine will have a 12-lever frame with all levers working, and all signals will be wire connected.

The Long Island Railroad has also ordered from the Union Switch & Signal Company a new electro-pneumatic interlocking machine for the Flatbush terminal, to operate the switches and signals that are now controlled by "EX" and "FT" interlockings. This machine will be installed at "FT" Tower and consist of 31 working levers with 4 spare spaces in a 43-lever frame, controlling 17 electro-pneumatic switches, 1 derail, 3 single slips with movable point frogs, 1 double slip with movable point frog and 26 signals. Traffic direction control will be taken care of by two of the working levers. A spotlight model will also be furnished for repeating all track circuits in this interlocking as well as those at "VD" Tower and the automatic section between the two interlockings.

Construction Program of the Great Northern

The Great Northern has let contracts to the General Railway Signal Company for 165 miles of single track automatic block signals as was noted in the April issue of the *Railway Signal Engineer* as follows: Whitefish, Mont., to Stryker, 30.1 mi.; Rexford, Mont., to Jennings, 42.5 mi.; Jennings, Mont., to Troy, 30.8 mi.; Bonners Ferry, Idaho, to Newport, Wash., 62.1 mi.

The Great Northern is also arranging to install with company forces 4 mi. of automatic block signals on double track between the O. W. R. & N Jct., Wash., and Ft. Wright, and also 12 mi. of double track automatics between Dean, Wash., and Hillyard. A small power interlocking will be added to the existing machine at Ft. Wright and several levers are to be added to the mechanical plant at the O. W. R. & N. Jct. Automatic block signals will be installed between Marysville, Wash., and Bride, a distance of 4 mi. An automatic interlocking is being installed at Huson, Minn., the control and operation of the signals directing train movements over a gauntlet track on a bridge being handled automatically. A power interlocking is being installed at Loop Tower, Minn., which will be controlled by a separate machine placed in the tower at State Line Crossing with both machines being handled by the one towerman.

Personal

John Kerwin, superintendent of tracks, of the Detroit United Railways, has retired after 30 years' service with this company. During his career Mr. Kerwin developed numerous track devices, switches, signals and other equipment adopted on several electric railways.

R. N. Young, superintendent of telegraph of the Canadian Pacific, with headquarters at Vancouver, B. C., has been transferred to Calgary, Alberta, as superintendent of telegraph of the Alberta district, succeeding **D. L. Howard,** who in turn was transferred to the position at Vancouver held by Mr. Young.

Signal Supply

W. B. Murray, who for the past twelve years has been chief engineer of Miller Train Control Corporation, was, by recent action of the directors, elected as one of the vice-presidents of the organization.

The Roller-Smith Company, manufacturers of electrical instruments, has recently issued two new bulletins; No. 560, "Enclosed Circuit Breakers," explains in detail the construction and operation of the new Type "E" and "P" enclosed circuit breakers, and No. 820, "Ammeters, Voltmeters and Indicators," is devoted to the description of type "PV" Ammeters, Voltmeters and "COD" Indicators, used on small switchboards and test sets.

E. P. Waller, assistant manager of the railway department of the General Electric Company, Schenectady, N. Y., has been appointed manager of the railway department. **J. G. Barry,** who has heretofore held the positions of general sales manager of the company and manager of the railway department, will in the future devote his entire time and attention to the work of the sales managership. Mr. Waller was born in Martinsville, Va., and was graduated from the Virginia Polytechnic Institute in the class of 1900. Following his graduation he entered the testing department of the General Electric Company at its Schenectady Works. After two years in that department he joined the staff of its publication bureau and later served as associate editor of the General Electric Review. In the fall of 1903 Mr. Waller took up commercial railway work under Mr. Barry and in 1912 he was appointed assistant manager of the railway department, which position he held at the time of his recent appointment as manager of that department.

E. P. Waller

W. T. Tyler, whose selection as director, vice-president and general manager of the National Safety Appliance company, San Francisco, with temporary headquarters in the People's Gas building, Chicago, was announced in the May issue of the *Railway Signal Engineer,* was born in Janesville, Wis., on July 29, 1870. He entered railway service in June, 1883, as a messenger on the Wisconsin Central and was later an operator and dispatcher on the same road. In 1889 he was employed as a brakeman on the Milwaukee, Lake Shore & Western, now a part of the Chicago & North Western. From that time until 1891 he was a brakeman and conductor on the Northern Pacific, and from 1891 to 1900 he was consecutively, yardmaster, trainmaster and a superintendent of the Great Northern. He was appointed a superintendent of the St. Louis, Iron Mountain & Southern in 1900, and was promoted to general superintendent the following year. He was later successively general superintendent and general manager of the St. Louis-San Francisco. In 1915 he became a superintendent of the Northern Pacific, with headquarters at Pasco, Wash., and on February 1, 1917, was appointed general manager of the St. Louis-Southwestern. On May 15, 1917, he was elected first vice-president of this road, and on November 1, 1917, he resigned to become assistant to the vice-president in charge of operation of the Northern Pacific. On January 22, 1918, Mr. Tyler was appointed assistant to the director of the Division of Operation, with headquarters at Washington, D. C., and he was appointed senior assistant director on July 1, 1918. He was appointed director of the division of operation on January 15, 1919, in which capacity he served until March 1, 1920, when he became vice-president in charge of operation of the Northern Pacific. He later resigned and, as mentioned above, has now entered the railway supply field.

W. T. Tyler

Louis W. Sipley, formerly sales engineer with the Electric Storage Battery Company, Philadelphia, Pa., has been appointed sales engineer for the Safety Car Heating & Lighting Company, New York. Mr. Sipley's headquarters are in the Commercial Trust Building, Philadelphia. He is a graduate of Bucknell University, holding degrees in both mechanical and electrical engineering. While with the Electric Storage Battery Company, his duties included handling the power plant and railway sales.

R. C. Haley, salesman and inspector for the United States Light & Heating Corporation, resigned, effective March 10, to accept the position of sales engineer with the Edison Storage Battery Company with headquarters in its new office in the Railway Exchange Bldg., St. Louis. Mr. Haley will have charge of sales and service for signaling car lighting and industrial trucks in the central Southern territory of the railway department. Mr. Haley entered the railway electrical field in 1899 with the Wagner Electrical Company in St. Louis and in 1902 became associated with the Consolidated Electric Lighting and Equipment Company, N. Y. In 1906 when the Missouri Pacific equipped a number of its cars with axle lighting equipment, Mr. Haley was appointed assistant chief electrician of this road. Later he was connected with the electrical department of the St. Louis-San Francisco for a short time and in 1907 returned to the Consolidated Railway Electric Lighting and Equipment Company. The latter part of that year he entered the service of the Bliss Electric Car Lighting Company at Milwaukee. A few years later this organization was merged into the present United States Light & Heating Corporation and Mr. Haley was appointed salesman and inspector, which position he held until his recent appoinment.

R. C. Haley

The General Railway Signal Company has recently issued a new bulletin, No. 138, describing its inductive type of automatic train control and its application in three forms, namely: "Automatic Train Stop System," "Auto-Manual Train Control System" and "Automatic Train Speed Control System."

Welding Rods and Electrodes.—A 40-page handbook, known as Catalog No. 500, has recently been issued by the Page Steel & Wire Company, Bridgeport, Conn., which gives a variety of information concerning Page-Armco welding rods and electrodes for oxy-acetylene and electric welding. The catalog is well illustrated and in addition to the welding rod data, it contains a fund of miscellaneous information useful to the welder concerning the metallurgy of iron and steel, amount of welding material required per lineal foot of weld, definitions of electrical units, mensuration factors, wire gage table, etc.

Steel Strands and Iron Wire for Electrical Transmission is the subject of a 62-page book recently issued by the Indiana Steel & Wire Company, Muncie, Ind. The book contains numerous tables and curve charts and explains in detail the method of testing and results obtained from a complete engineering study made of the steel strains and iron wire to determine their electrical characteristic as power conductors. It is said that there are numerous circumstances under which steel stranded cable offers advantages over other materials for transmission and distribution. A copy of the book may be received free of charge from the Indiana Steel & Wire Company, Muncie, Ind.