

The News of the Month



The Lehigh Valley has adopted as standard the position-light signal as developed on the Pennsylvania Railroad. A considerable number of the new type of signals has already been installed in replacing the older types of semaphore signals.

The Board of Directors of the American Railway Association has appointed a conference committee of eight of its members for consultation and conference, as a necessity may arise, in Washington, consisting of the following: Daniel Willard, chairman (B. & O.), W. W. Atterbury (Penn.), B. F. Bush (M. P.), H. E. Byram (C. M. & St. P.), C. R. Gray (U. P.), Hale Holden (C. B. & Q.), C. H. Markham (I. C.), A. H. Smith (N. Y. C.).

The Eastern Railway of France now has more than one-quarter of its locomotives fitted with audible cab signals. The total number of locomotives in service at the present time is, for passenger trains, 1,220; for freight trains, 798; total 2,018. Of these, 428 passenger engines and 144 freight engines are fitted with the signal apparatus. Ramps have been installed at 390 distant signals and at 130 home signals. The company plans to fit up 1,278 more locomotives before the end of 1923, and to install 1,560 additional ramps.

Committee meetings of the Signal section, A. R. A., to be held in November, are as follows: Committee VIII—A. C. Automatic Block Signaling, at the New York office, November 10; Committee of Direction, Hotel McAlpin, November 20; Committee on Committees, Hotel McAlpin, November 20; November stated meeting, Hotel McAlpin, November 21 and 22; Committee XX—Highway Crossing Protection, Hotel McAlpin, November 22, and Committee XIX—Economics of Railway Signaling, Hotel McAlpin, November 23.

Sending 2,888 words an hour on a Siemens printer, Erna Bansemer of Breslau won the speed championship of an international telegraphic competition held in Berlin, Germany, recently. The second prize also went to a German woman. The chief awards fell to competitors of the various nationalities as follows: To Italians for the Morse apparatus; to the Germans for the Hughes, the Siemens, and for radio; to the Spanish for the Baudot, and to the Danish for the Wheatstone. Oskar Schindler of Vienna won the master-telegraphist trophy for being a prize winner on three different type of apparatus. The award consisted of a large silver urn offered by the President of Germany.

Train Control Order Changed

The Interstate Commerce Commission, by an order issued on October 14, in lieu of the requirement in its previous order, has authorized the Southern Pacific to install automatic train control between Oakland, Cal., and Tracy; has authorized the Philadelphia & Reading to install between Camden, N. J., and Atlantic City; and the St. Louis-San Francisco to install between Springfield, Mo., and Sapulpa, Okla. In all other respects, the order of June 13 is to remain in full force and effect.

Accident Report for Second Quarter, 1922

The Interstate Commerce Commission has issued a summary of railroad accident statistics for the months of April, May and June of this year, from which we take the following

figures, those in parentheses being, in each case, the totals for the same quarter in 1921.

In train accidents 7 (21) passengers, 63 (42) employees and 24 (25) other persons were killed, and 552 (569) passengers, 286 (285) employees and 83 (88) other persons were injured. Adding to these the train service accidents we have totals of 1,279 (1,180) persons killed and 9,015 (8,569) injured. These last include 402 (336) persons killed at highway crossings and 1,201 (1,015) injured. These grade crossing statistics, including also some casualties reported under the head of derailments of trains, show an increase over the same months of 1921 of 20.8 per cent in fatalities, and of 24.2 per cent in injuries not fatal.

Collision at Toltec, New Mexico

On the Denver & Rio Grande Western at Toltec, N. M., on September 29, there occurred a collision which, according to the report of the inspector of the Interstate Commerce Commission, may be classed as error in reading a meeting order which was not properly punctuated (though, of course, everybody recognizes that train orders are never punctuated). This collision occurred on a narrow gage line and the trains met on a curve of eight degrees where, on account of rock bluffs, the range of vision is restricted to about 60 ft. The trains were moving at between 15 and 20 miles an hour; engineman and fireman of passenger train killed and 21 passengers and two employees injured. Westbound passenger No. 115 met eastbound locomotive No. 411 (without train). Engineman Smith, of No. 411 had received the following order:

No. 115 Eng 169 run
one 1 hour late Lava
to Osier fifty 50 mins
late Osier to Cumbres

On receiving this order, Smith "glanced at it" and got into his mind the impression that No. 115 was one hour and 50 minutes late. He claims that he thus remarked to the operator and that the operator nodded assent; but the operator claims that this and other orders were read to him by the engineman and that the reading was correct. While the engineman was reading the other orders, the fireman entered, and read this one aloud. He seems also to have got the same impression. Thus they encroached on the time of the passenger train. The report call attention, as in previous similar cases, to the "inherent deficiency of the time interval system."

Institution of Railway Signal Engineers Discuss Belgium Signal System

A meeting was held at the Institution of Electrical Engineers, London, on October 4, to consider a paper previously presented to the Midland Section at Derby by T. S. Lascelles, entitled "Weissenbruch Signal System on the Belgium State Railways," dealing with the mechanical three-position apparatus now standard in Belgium. The paper was treated as read, but the author occupied some time in additional explanations with the aid of lantern slides and models designed to make the details of the system clearer. He dealt with the use of the modern three-position idea from the first attempts made by W. M. Grafton in 1900 on the Pennsylvania, Lines

West, compared the English two and the three-position systems and dwelt on the principles underlying the new Belgium code of aspects. (The Belgium system was described in the *Railway Signal Engineer*, February, 1922.) Mr. Lascelles also discussed the English single wire working compared with the compensated Belgium and German working with double wire transmissions, contending for the superiority of the latter and pointing out that through their use three-position mechanical signaling had been made a successful reality. The lantern slides enabled the details of the signals and slots to be followed and showed the appearance of the signals on the track, while model signals, electrically lighted, enabled the night indications to be seen. The author concluded with a brief review of the life of Louis Weissenbruch, under whose direction the system was built. After some remarks by W. J. Thorrowgood (L. & S. W.) the president, W. C. Acfield, adjourned the discussion to November 1.

Automatic Highway Crossing Signals Authorized in Place of Gates

At Newfield, N. H., on the Boston & Maine, the Public Service Commission of New Hampshire has authorized the railroad company to install, at a crossing 300 ft. south of the station, an "automatic wig-wag flasher and bell warning signal" for the protection of wayfarers at the crossings, in place of the gate, which gate, with an attendant 12 hours a day, has been in use 50 years; and this notwithstanding protests received from the citizens.

When the railroad company announced its intention, the Selectmen of the town and later 118 citizens entered a protest, and the Commission held a hearing on October 2. Newfield is a town of about 500 inhabitants. It is on the main line between Boston and Portland, where the number of trains is large; but the highway travel is not heavy, consisting mostly of the people who live on the east side of the railroad on trips to the trading center of the village, which is on the west side. The Commission discusses quite fully the question of reasonable protection and decides that an audible and visual warning, in service 24 hours a day, properly maintained, is better than the present arrangement, the gate being attended for 12 hours of the 24. The automatic flagman is on duty 24 hours "and never forgets." It has met with "universal approval by all regulatory bodies and is fast displacing the gate and human flagman." The visual apparatus and the audible are each operated by separate batteries and the railroad company reports that, in its experience, there has been no case where both of these warnings ceased to operate simultaneously (when they ought to operate). The signal will be inspected daily; and, being near the station, failure to operate will be soon detected. As the view at the crossing is short, the road proposes to install two signals, one on each side of the railroad.

The decision of the Commissioners, signed by William T. Gunnison, chairman, reminds the public that the duties of the traveler and of the railroad at a crossing are reciprocal, and that the traveler must exercise due care the same as must the railroad; and whichever party fails in the performance of this reciprocal duty is liable for injury done to the innocent party.

Construction

The Hall Switch & Signal Company has received an order for 14 color-light signals to be installed on traffic towers, Fifth avenue, New York City.

The New York Central Lines has placed orders with the Hall Switch & Signal Company for 88 Style L motor signals, 542 relays, d. c. and a. c. relays, also 401 Style G2 switch boxes.

The Illinois Central has ordered from the Hall Switch & Signal Company 15 color-light signals. These with a previous order, will make a total of 69 light signals furnished by the Hall Company to the Illinois Central.

The Ann Arbor Railroad has placed an order with the General Railway Signal Company covering one 72-lever Model 2 unit lever electric interlocking machine equipped with forced-drop locks for installation at Boulevard, Toledo, O. This machine will have 57 working levers and 15 spare

spaces replacing a 48-space G.R.S. Model 2 interlocking machine installed in 1903. The order also includes illuminated track diagram, relays, position-light, position dwarf and Model 2A 110-volt semi-automatic signals and replacement of storage batteries and charging outfit. The above installation will be made by the railroad company's forces.

The Imperial Government Railways of Japan has ordered from the Union Switch & Signal Company 275 automatic signals for installation on their main line tracks. Of the total number of signals, 135 are "T-2" a.c. semaphores and 140 are color-light signals. The order embraces complete track circuit equipment, including a total of 230 Model 15, vane relays, 630 SLV-13 a.c. relays, 450 track transformers, and complete track circuit accessories, such as impedances, reactors, etc. This is the same class of material as was used in the initial installation of automatic block signaling made by the Imperial Government Railways, now in service on their main line, consisting of 310 complete sets of similar material furnished by the Union Switch & Signal Company.

The Victorian Government (Australia) has authorized the expenditure of £150,000 (\$675,000) during the year ending June 30, 1923, on the installation of power and automatic signaling on the Melbourne suburban lines. A big program of work is under course of progress on the lines radiating from Melbourne, and will enable the construction forces of the signal and telegraph branch of the Victorian Government railways to be kept fully occupied during the current financial year. Up to June 30, 1922, the capital expenditure of £380,000 (\$1,710,000) had been spent on the provision of power and automatic signaling within the Melbourne suburban area. A good proportion of the apparatus required for this work was obtained from the signal manufacturing firms in the United States.

The Great Central railway (England) has awarded a contract to the Westinghouse Brake & Saxby Signal Company, Ltd., for three position automatic signaling between Narylebone station and Wembley Hill. This includes about 4½ miles of automatic signaling with a further section of track circuits controlling locks on the levers operating mechanical signals at the junction at Neasden North and South. In all, about 56 track circuits, which are all a.c., will be installed. Power will be supplied from the Great Central railway power house at Narylebone, which will supply current at 600-volts, 50 cycles, single phase, for transmission over the line. Certain of the signals are fixed in the tunnel and others in the open. The former, and possibly, the latter, will be the color-light type.

Single Line Automatic Signaling on New Zealand Railways

In the article entitled "Single Track Signaling in Australasia," which appeared in the *Railway Signal Engineer* for October, 1922, mention was made that the New Zealand Government railways were installing single line automatic signaling for 11 miles on the North island between Upper Hutt and Lower Hutt. It has just been announced that a long section is to be similarly equipped on the South island.

The installation is being made on account of the connecting up of the two terminals of the Midland railway division of the Government railways, which occurred at Arthur's Pass of the Southern Alps. Owing to the mountainous country the railway terminated on each side of the pass, and passengers and freight had to be conveyed by means of coaches between the two rail heads. Now, however, a tunnel has been made between Otira and Arthur's Pass, a distance of 5.25 miles on a grade of 1 in 33, and which will be opened for ordinary traffic early next year.

It was decided that a power interlocking frame should be installed at each of these stations, and Messrs. McKenzie and Holland, Ltd., Australasian representatives of the Westinghouse Brake & Saxby Signal Co., Ltd., London, were given the contract of supplying two 19-lever electric power interlocking frames and the necessary signaling material for single line operation.

The Midland railway connects Christchurch on the East side of the island with Graymouth on the West; between Christchurch and Rolleston, and Greymouth and Singleton, there is double track, and between Rolleston and Singleton,

a distance of 121 miles, it is single track on 3 ft. 6 in. track gage. The railway authorities decided to equip the single track with automatic signals, and gave a further contract to Messrs. McKenzie and Holland, Ltd., for 166 three-position, color-light signals and other necessary material.

The A. P. B. system has been adopted with normal danger starting signals. The same system will shortly be placed in service on the North island, and a description of a somewhat similar installation on the Victorian Government railways was described in the above mentioned article. The "vane" type of relay will be used, both single- and double-element classes being installed. The transmission will be a.c. single phase, 3,300 volts at 50 cycles, and step-down transformers will reduce this pressure to 110 volts for signal operation. It is anticipated that the automatic signaling will enable considerable saving to be made in wages, etc., and at the same time give greater facility in the handling of traffic at busy times.

Personal

The Magnetic Signal Company, Los Angeles, Calif., has appointed Sidney G. Johnson, president of the Johnson Railway Supply Corporation, New York, as a representative of the Magnetic Signal Company for the territory East of Pittsburgh, Pa.

F. F. Seeburger, signal inspector on the Chicago, Milwaukee & St. Paul with headquarters at Tacoma, Wash., has been promoted to signal supervisor with headquarters at Deer Lodge, Mont., vice J. T. Mullaney, whose resignation is noted elsewhere.

R. W. Meek, signal supervisor of the Southern Pacific, Texas Lines, with headquarters at Houston, Tex., has been appointed acting signal engineer of the same lines, effective October 1, 1922, succeeding **E. E. Worthing**, signal engineer, who has been granted a leave of absence.

J. T. Mullaney, signal supervisor on the Chicago, Milwaukee & St. Paul with headquarters at Deer Lodge, Mont., has resigned to go with the Union Signal Construction Company. His first assignment brings him to Chicago where he will have charge of the construction of the new interlockings at the Union station, material for which is being furnished by the Union Switch & Signal Company.

E. E. Mack, signal supervisor of the Chicago & Eastern Illinois, with headquarters at Salem, Ill., has resigned recently on account of ill health. Mr. Mack's resignation has resulted in the following changes: **P. Cummins**, signal supervisor at Evansville, Ind., has been transferred to fill Mr. Mack's position. **E. R. Lindsey**, assistant supervisor at Danville, Ill., has been promoted to succeed Mr. Cummins as supervisor at Evansville. **E. H. Wilson** and **V. Van Vliet** have been appointed assistant supervisors, with headquarters at Danville, Ill.

Signal Supply

E. S. Berry, until recently with the New York Central and formerly with the **Hall Switch & Signal Company**, Garwood, N. J., has re-entered the service of the latter company as sales engineer.

The Century Wood Preserving Company, Pittsburgh, Pa., has recently issued Bulletin No. 24, on "Treated Ties and Timbers." This publication consists of 24 pages, is profusely illustrated and explains the methods of selecting, treating, handling, storing and installing treated ties.

Baily electric furnaces for melting non-ferrous metals are described in a six-page folder issued by the Electric Furnace Company, Salem, Ohio. The folder also lists and illustrates a large number of products, for the manufacture of which the electric furnace is most suitable.

The National Metal Moulding Company of Pittsburgh, Pa., has recently issued four new catalogs. All of the catalogs are well illustrated and are printed on a 6 in. by 9 in. page and are bound in card board. The first catalog of 24 pages is devoted to the metal moulding and fittings, switches, sockets, etc., for electric wiring. The second book of 20 pages covers the line of "Liberty" rubber covered wire and cable. The third catalog is devoted to conduit, condulets

and fittings, while the last book of 12 pages covers outlet boxes, switch boxes, cable boxes, etc.

Applications of Watson multi-speed motors for adjustable speed control on alternating current poly-phase circuits are described in a two-color, illustrated, 12-page bulletin issued by the Mechanical Appliance Company, Milwaukee, Wis. These motors are designed to run at any one of four different speeds, namely, 600, 720, 900 or 1,200 r.p.m.

The Chicago Railway Signal & Supply Company has recently issued a bulletin describing in detail the construction and application of inside pipe carriers and stuffing boxes. The bulletin includes several illustrations showing the use of the inside pipe carrier inside of 2 in. pipes under tracks or in yards and also as applied to deflecting stands, turns, etc.

The Weston Electrical Instrument Co., of Newark, N. J., announces that **G. P. Atkinson**, for several years connected with its home office sales organization, has opened an office in Atlanta, Ga., for the territories of Georgia, South Carolina and Northern Alabama. In addition to Western Instruments, Mr. Atkinson will handle several other nationally recognized lines of electrical equipment.

The Bryant Zinc Company, Chicago, has recently issued a 16-page bulletin describing the Non-Tune rectifier. The pamphlet gives a concise description of the principles of the a. c. floating battery system and explains the construction, operation and adjustments of rectifiers. Photographs of seven different types of rectifiers are shown together with numerous circuit diagrams explaining the application, capacity and dimensions of each type. Special features, such as light relays and rheostats, are treated separately.

The Consolidated Tool Works, Inc., New York, has announced the appointment of four new sales engineers as follows: **Wm. H. Thompson**, formerly with the Union Hardware Company, Torrington, Conn., is to be employed as sales representative in New York City. **Howard A. Postley**, formerly with the Knickerbocker Manufacturing Company, Belleville, N. J., now represents the company in the New England States. **Wm. L. Rubin**, formerly with the Jacobs Scale Company, New York, will cover New York, Pennsylvania, Maryland, District of Columbia and parts of West Virginia and Ohio. **Charles Alburnus**, formerly with the American Safety Razor Company, Brooklyn, N. Y., will represent the company in New Jersey.

Obituary

Edwin Hurlbut, formerly railway representative of the Crouse-Hinds Company, with headquarters in Chicago, died at his home in Evanston, Ill., on October 7. Mr. Hurlbut was born in Elk Rapids, Mich., September 7, 1882, and attended the Lake View high school and Northwestern university in Evanston. On leaving school he entered the services of the Johns-Manville Inc., as sales representative and later served in the same capacity with the Porter & Berg Company (now the Electric Service Supplies Co.). Soon after entering the sales organization of the Crouse-Hinds Company he entered military service in January, 1918. As a second lieutenant he served in France as engineer in charge of a flying squadron at Issoudun. On his return he accepted a position as railroad sales representative of the Crouse-Hinds Company, covering the west and northwestern states with headquarters in Chicago. In July, 1921, he resigned his position to enter business for himself in the battery supply trade in Evanston, Ill.



Edwin Hurlbut