OBITUARY

John B. Young, signal engineer of the Boston & Maine, died at his home in Reading, Mass., Friday, January 10, after a week's illness. He was born in South Boston, Mass., 56 years ago. He was educated in the public schools at Boston and at 21 entered the employ of the Union Electric Signal Company, which soon after became the Union Switch & Signal Company. While with the Union Electric Signal Company he became connected with some of the early installations of automatic electric block and other signal appliances. Mr. Young installed the beginning of the first continuous single track automatic block system when signals were installed between High Bridge, Ky., and Harriman, Tenn., on the Cincinnati, New Orleans & Texas Pacific in 1891. He also had charge of the electro-pneumatic installations from 138th Street to Woodlawn on the Harlem division and of the extensive manual control block signaling between Poughkeepsie and Buffalo on the New York Central. After the completion of the electro-pneumatic signaling and interlocking at the North Union Station, Boston, and of the Boston & Maine terminals in 1894, he was appointed superintendent of signals of the Boston & Maine and later of the Maine Central. He ranked as one of the foremost signal engineers in the country. The span of his signal experience includes the beginning of the automatic electric block work and disk signals in the early '80s and extends up to the three-position upper-quadrant semaphore signals of today. His work included the making up and installation of pioneer electric signal circuit designs using gravity battery and has extended to the handling of high voltage alternating current systems of the present. It included the beginnings of the track circuit relay with a resistance of 16 ohms through the extensive use of the nine, four and five ohm to the two ohm relay. In this connection he has worked on the development of the track circuit when oak splice bars were formerly used for insulated joints up to the present with the latest improved forms. In the early days of signaling he experienced great difficulties in track circuit maintenance, as he was expected to operate track circuits through tunnels where mud and cinders were usually even with the top of the rails at a time when the track department would give little or no consideration to recommendations or suggestions of the signal department.

John V. Young

Mr. Young was one of the first to believe in the adaptation of the resistance of the relay to the local conditions of the individual track circuit and in the first signal installation in the South found it necessary to use a number of relays of 2½ ohms resistance. This is interesting in connection with the present day agitation and discussion of the two-ohm relay. In the above connection he found that it was impossible to operate some of the tunnel track circuits at all until the magnet resistance was reduced to a low figure. Mr. Young early advocated the use of better methods of battery protection by means of wells and chutes as against the quite wide earlier practice of the use of battery houses heated by a lamp. He was an early advocate of the mile block and of the use of overlaps both single and double track signaling, the latter as a safety measure. Very early in the signal work he made careful studies as to the alignment of the signal disk and light with reference to the most desirable range for the approaching train and insisted upon some arbitrary distinct marking of the limits of preliminary sections and overlaps so as to secure the co-operation of the trainmen in the speeding up of traffic made possible by the installation of signals. He early took out patents and improvements to both electrical and mechanical signaling and constantly urged improved methods in signal construction work. His death is a great loss to the signal field and his wide circle of friends.

W. H. Higgins, signal engineer of the Central Railroad of New Jersey, died at his home at Jersey City, Wednesday, January 15, 1919. Mr. Higgins began his railroad career with the Pennsylvania in 1875 as a brakeman, serving in that capacity for four years. He then transferred to the telegraph department of that road and was with the construction forces for eight years. Later he was promoted to the position of electrician at Jersey City and he remained at that work until 1890, when he was transferred to the signal department. Here he became identified with J. P. Coleman, now consulting engineer of the Union Switch & Signal Company, in the installation of the first electro-pneumatic plants of any considerable size in the country, these installations being made at *A, NA* and *RU* towers, Jersey City. It was in 1891 that the first electric-pneumatic interlocking that employed electrically actuated switch valves was installed by the Union Switch & Signal Company at the Jersey City terminal of the Pennsylvania Railroad. Previously, hydrostatic pressure served this purpose in this system. The use of electrically actuated switch valves introduced a great number of electro magnets not previously used. The operation of these and those of signal valves, lever locks, relays, etc., quite naturally involved a materially greater normal current flow from the batteries serving the interlocking than formerly and 250 cells of gravity batteries failed to meet the needs of this particular plant. During the installation of the plant these facts became painfully conspicuous and a departure from the practice of employing gravity batteries as the machine battery became necessary.

W. H. Higgins

Mr. Higgins, who was assisting the Union Company in the installation of the plants, suggested the use of storage batteries, as previously he had assisted the Pullman people in some experiments with such cells in car lighting service. It was with some reluctance that the Union Company's representative finally agreed to the trial. Mr. Higgins secured a half dozen old chloride accumulators from the Waldo Avenue shop of the Pullman Company and sets them up in the tower. He then wound coils of No. 9 iron telegraph wire on broomsticks and stretching these between improvised cross-arms on a nearby pole he charged the batteries from the 110 volt d. c. generator by which the station was lighted. All the troubles experienced with the gravity cells disappeared the instant the six storage cells supplanted the 250 gravity cells, and this meant much to the development of the electro-pneumatic system. This incident constitutes, as far as is known, the first application of storage cells for interlocking and block signal work in America. A few months later Mr. Higgins carried 12 No. 14 wires from 12 German silver resistance coils in the tower to the 12 track circuits—one to each—formed by the train shed tracks and removed the 24 cells of gravity batteries there which unsatisfactorily met the conditions then prevailing (during the construction of the terminal). This was the first time storage batteries were applied to track circuits, and it is especially notable because the 12-volt battery was used for all 12 sections and the same battery was used for supplying the interlocking machine. The air main was in those days used as a common return,

rendering practicable the grounding of one rail of each shed track to the pipe line. Mr. Higgins continued in the service of the Pennsylvania until July 1, 1901, when he accepted the position of signal engineer with the Central Railroad of New Jersey and the New York and Long Branch, which position he held at the time of his death. The signal department of the Central of New Jersey was developed under the direction of Mr. Higgins. Mr. Higgins was the inventor of the well known motion plate clip, better known as the "Higgins rail clip," which is used by a number of roads as standard on all interlocking plants where detector bars are in service. He was a member of the Railway Signal Association and served on many of its important committees. His death is a great loss to the Railway Signal Association and his large host of friends.

M. Eugene Walsh, assistant supervisor of signals on the Pennsylvania at Baltimore, Md., died of pneumonia at the home of his parents in Tyrone, Pa. Mr. Walsh was born at Tyrone, Pa., December 27, 1891. After receiving his early education in the local schools he went to Villa Nova College where he spent six years pursuing first the preparatory course and afterward he took a full collegiate course in electrical engineering, graduating in 1913. After graduation he entered the employ of the Pennsylvania, being located successively at Philadelphia, Pittsburgh and Kane previous to his appointment as assistant supervisor of signals at Baltimore.

SIGNAL SUPPLY

The National X-Ray Reflector Company has recently issued a new booklet on "X-Ray Indirect Lighting for Offices." The booklet covers the office lighting field very completely and shows the advantages of cove, compone fixture and luminous bowl lighting. It is well illustrated by photographs showing the difference between the ordinary system of lighting and that obtained by the indirect lighting methods.

Charles H. Wilson, who has been in active military service in France as a lieutenant of engineers, has been honorably discharged from the army and has resumed his duties as representative of Fairbanks, Morse & Co. He was one of the survivors of the U. S. SS. "Lincoln," which was sunk by the Boche submarine U-90, 400 miles off Brest, France, while on return trip to the United States. During his service with the American Expeditionary Forces Lieut. Wilson, who was a reserve officer prior to the entry of this country in the world war, was attached to the British tank corps as mechanical officer and was later with the United States tank corps. On his return he was assigned for duty in the organization of tank corps units here, afterwards being on duty with engineer replacement troops. Prior to his entry into military service Mr. Wilson was located in Houston, Texas, as southwestern representative for Fairbanks, Morse & Co., with which company he has been associated for fourteen years. He will now make his headquarters at the St. Louis office.

The Klaxon Company, manufacturers of the Klaxon horn, announces its entry into the railway intercommunication field. It has taken over the Stentor Electric Manufacturing Company, makers of loud-speaking railway telephones, and in the future will manufacture and distribute the Stentor products through its industrial division, with office in New York City. During the war all of the intercommunication apparatus manufactured by this company was required by the United States Government. To meet navy requirements for dependable means of communication under severe noise conditions, this company developed a transmitter and a receiver that have given satisfactory service even under gunfire. The Klaxon-Stentor loud-speaking railway telephones are equipped with these improved transmitters and receivers. They transmit messages in so loud and clear a tone that they can be heard at a distance from the instrument. The railway train dispatcher who has one on his desk need not wear a head receiver. The Klaxon Company is extending its laboratory facilities for experimental and research work and has already put to work several engineers of wide experience in this field. It has engaged the services of one of the foremost authorities on telephony and sound reproduction in the United States and the inventor of the Stentor loud-speaking telephones will devote all his time to development work on intercommunication apparatus.

Lloyd O. Stratton, who has been connected with the Oregon Short Line motor car department as a foreman at Pocatello, Idaho, has been appointed western manager for Mudge & Co. at San Francisco, Cal. Mr. Stratton was born at Guide Rock, Neb., on January 2, 1888, and was educated in the public and business schools at Grand Island, Neb. He entered the service of the motor car department on the Union Pacific in August, 1911, with which road he remained until April, 1914, when he went to the Oregon Short Line as motor car foreman at Pocatello, Idaho. For the past seven years Mr. Stratton has been identified with the motor car industry and in connection with his recent appointment as western manager for Mudge & Co. he will have charge of the sales and service departments for that company in the Pacific states with office in the Crocker building, San Francisco, Cal.

Lloyd O. Stratton

H. W. Clarke, who until December 15 was connected with the advertising service department of the McGraw-Hill Company at Chicago, has been appointed manager of advertising for the Chicago Pneumatic Tool Company, Chicago. Prior to his connections with the McGraw-Hill publications he spent eight years with the Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa., part of the time as a member of the sales and publicity departments, and later as western publicity representative, with headquarters at Chicago.

OBITUARY

Harry F. Worden, sales manager of the Bryant Zinc Company, with headquarters at Chicago, died in that city on January 14, after a short illness brought on by an attack of acute indigestion. Mr. Worden was born at Grand Rapids, Mich., on October 31, 1871. He was educated at the University of Michigan, Ann Arbor, graduating from the department of law in 1894. Three years later he became salesman for Fairbanks, Morse Co., with headquarters at Chicago. It was with that concern that he received his early training as a salesman and remained in its employ for a period of thirteen years. During the two years following 1910 he was employed by another company, not now in business, but with whom he gained further experience in the matter of handling sales. In April, 1912, he entered the service of the Bryant Zinc Company as sales manager, which position he held until the time of his death on January 14, as mentioned above.

Harry F. Worden