

NEWS

of the MONTH

Railroads in 1939 Had Best Safety Record in History

Railroads of the United States in 1939 had the best general safety record in their history, surpassing the previous record made in 1938, J. J. Pelley, President of the Association of American Railroads announced on March 21. Fewer persons lost their lives in railroad accidents last year than in any year since the Interstate Commerce Commission began the compilation of these reports in 1888.

In the field of passenger safety, 13 persons lost their lives in train accidents in 1939, compared with 52 in 1938. Of the 13 passenger fatalities in train accidents in the past year, 9 occurred in one accident which, according to an investigation by the Interstate Commerce Commission, was caused by sabotage. Out of the 52 fatalities in 1938, 40 resulted from one accident, for which a cloudburst was responsible.

Fourteen passengers were fatally injured in train-service accidents in 1939, compared with 17 such fatalities in 1938. Train-service accidents to passengers consist, for the most part, of accidents in getting on or off moving trains.

Fewer employees were killed and injured, as compared with the number of hours worked, than ever before. As compared with the previous record year of 1938, the decline in the fatality rate among employees was 2.6 per cent, and in the injury rate it was 2 per cent.

Fatalities to trespassers on railroad property numbered 2,294 in 1939, four less than in 1938. As noted elsewhere in this issue, fatalities resulting from accidents at highway-railroad grade crossings were less in 1939 than in any year since 1915. Trespasser and grade crossing fatalities combined represented 86 per cent of all fatalities connected with the railroads in 1939.

1939 Grade-Crossing Fatalities Less Than Any Year's Since 1915

Fatalities resulting from accidents at highway-railroad grade crossings were less in 1939 than in any year since 1915, according to the Safety Section of the Association of American Railroads. Fatalities resulting from highway-railroad grade crossing accidents in 1939 totaled 1,398, a decrease of 119 compared with 1938 and a decrease of 477 compared with 1937. The number of fatalities in 1939 was a reduction of 1,170 compared with the peak year in 1928, when 2,568 persons lost their lives in such accidents.

The reduction in the number of fatalities took place despite an increase in the number of automobiles in operation over the highways of this country. For every

person killed in a grade crossing accident in 1939, there were approximately 21,100 automobiles registered, compared with 19,400 automobiles per fatality in 1938 and 2,500 in 1916. Had the ratio of fatalities in grade crossing accidents been the same in 1939 as in 1916, the number of deaths in the past year would have been approximately 11,800 compared with 1,398, the actual number which did occur.

Persons injured in highway-railroad grade crossing accidents in 1939 totaled 3,999, a decrease of 19 compared with the preceding year and a decrease of 1,137 persons compared with 1937. The number of persons injured in 1939 was less than in any preceding year since 1933. In 1939 there were 3,476 grade crossing accidents, a decrease of seventeen compared with 1938, and a decrease of 1,013 compared with 1937.

T. & T. Section Annual Meeting Advanced to September 10-12

The 1940 annual meeting of the Telegraph & Telephone Section, Association of American Railroads, at the Chateau Laurier, Ottawa, Ont., originally scheduled for September 24 to 26, inclusive, has been advanced to September 10 to 12, inclusive.

Two Accidents on the Illinois Central

THE Bureau of Safety of the Interstate Commerce Commission has issued reports of investigations of two rear-end collisions on the Illinois Central, one occurred at Mattoon, Ill., on November 19, 1939, and the other at Arcola, Ill., on January 1. The following information is taken from these reports.

Both of these accidents occurred on the double-track main line between Champaign, Ill., and Centralia, on which trains are operated by time-table, train orders, and an automatic cab-signal and train-stop system, without wayside signals except at interlockings. A major contributing cause of both accidents was the fact that the automatic train stop and cab signal apparatus on the locomotives of the second train in each accident was out of service.

Details of the Mattoon Accident

In the accident at Mattoon, a southbound freight train, No. 87, standing on the southward main track, was struck in the rear by southbound passenger train No. 1, running on the same track, resulting in the injury of two passengers, five dining car employees, and one train service employee. Train No. 87 had stopped at Mattoon for the purpose of crossing

over to the northward track, but this movement was delayed on account of the northward track being occupied. This train had previously received an order reading in part "Use 10 min. on No. 1." No order had been issued to train No. 1 to run late, and when it passed Dorons, 4.9 miles north of Mattoon, it was running 7 min. late. Considerable discrepancy was shown in the testimony with respect to the time which was available for the flagman of No. 87 to protect his train. Evidence indicates that "he had proceeded to the rear about two or three car lengths when he saw No. 1 approaching about two miles away, whereupon he lighted a fusee and waved stop signals as he ran, having reached a point about 25 car lengths (approximately 1,500 ft.) from his caboose when No. 1 passed him."

The engineman of No. 1 had been assigned to this run for five years past, and "through an oversight he failed to cut in the automatic cab signal and train stop apparatus and to make the usual tests before departing from Champaign." During the 44-mile portion of the run, he failed to note that the cab signal was not in operation and also he failed to note the absence of the audible signal which should have been given by the train-stop warning whistle when passing the dead sections at the home signals at each of the three interlockings between Champaign and the point of accident. After the engineman saw the flagman's signals, "he observed that the cab signal was not displaying an indication, and realized then, for the first time, that the automatic cab-signal and train-stop system was not cut in service. He turned the switch to the "on" position and immediately the cab signal displayed a red aspect."

The Accident at Arcola

In the accident at Arcola, northbound passenger train Second No. 4 had made a stop to pick up a passenger, and had moved two or three car lengths when the rear was struck by northward passenger train No. 6. The accident resulted in the death of one passenger and the injury of 105 passengers, 17 dining-car employees, 1 club-car porter, 1 Pullman porter, 1 train porter, and 2 train-service employees.

"When the brakes were applied for the station stop at Arcola, the flagman of Second No. 4, who was on the rear end, observed the headlight of No. 6 about two miles distant. He dropped a lighted fusee; it bounced and rolled against the gage side of the west rail and did not blaze properly. After getting off the train at Arcola and observing that the fusee was not burning, he got back on the train to get another fusee. By this time his train had started and, in his haste to get off again, he slipped and fell. Before he was able to light the fusee, the collision occurred."

The train-stop and cab-signal apparatus on the locomotive of train No. 6 had failed to operate properly and had been cut out at LaCleda, 60.6 miles south of Arcola. The dispatcher being advised to this effect, a message had been sent and delivered to the crew of Second No. 4 which in part read: "Automatic train control has failed on No. 6's engine. Do not give them a short flag."

A single-track line of the Pennsylvania crosses the Illinois Central 1,197 ft. north of Arcola station; this crossing is protected by an interlocking, with the northward I.C. home signal located 615 ft. north of the station. At the time of the accident, the plant was lined for the I.C. and this signal was clear.

When approaching Arcola and when about 1¼ miles distant, the engineman of No. 6 could see the green aspect of the home interlocking signal, and he called its indication to the fireman, who replied. The engineman thought that the green aspect was displayed for his train. Upon reaching a point 700 or 800 ft. to the rear of Second No. 4, the engineman and the fireman simultaneously observed its rear end.

At this time the speed of his train was about 50 m.p.h. and he applied the brakes in emergency, but too late to avert the collision.

A part of the rules, which apply when the train-stop and cab-signal equipment is out of service, read as follows: "to proceed at a speed considered safe, taking weather conditions into consideration, and approach all facing point switches prepared to stop." It is clearly apparent that the management's interpretation of these requirements was not enforced, as the investigation disclosed that, during the six-month period prior to the day of the accident, 10 trains which were operated over this district with the automatic train-stop devices inoperative, made up time varying from 6 to 17 minutes on their schedules."

"In general practice throughout the country, one or another of the following measures is adopted in case of a failure enroute of automatic train stop, train control or cab signal devices:

1. Substitution of an engine with equipment in proper operative condition.
2. Protection by absolute manual block system.
3. Continued operation of engine with equipment cut out but at materially reduced speed.

All these alternatives were available to the Illinois Central in this case. A freight engine which was equipped for passenger service was available at Edgewood, 56.7 miles south of Arcola, and there were eight train-order offices between Branch Junction and Champaign which could have been utilized as manual block offices; however, the investigation indicates that neither of these alternatives was adopted principally for the reasons that some delay would have resulted and no provision had been made for establishing a manual block system under these conditions; it is apparent that delay also would have resulted had the third alternative listed above been employed."

The Commission concluded its report with the statement that "this accident was caused by failure to provide flag protection for the preceding train and by operation of the following train with inoperative automatic cab-signal and train-stop equipment without providing adequate protection" and recommended "that officials of this railroad promptly take necessary steps to provide adequate protection for train movements when automatic cab-signal and train-stop equipment is inoperative."

The Fansteel Metallurgical Corporation, North Chicago, Ill., in its annual report stated that the aggregate net sales for 1939 show an increase of 75 per cent over 1938. Consolidated net earnings for 1939 were \$238,660.22, or approximately \$1.02 per share of outstanding common stock after deducting annual dividend of \$5.00 paid per share of outstanding preferred stock. Working capital was materially increased. Current assets exceed current liabilities at a ratio of four and one-half to one. A number of important improvements in plant equipment, methods and processes have been installed, sales and technical staffs enlarged, and branch offices opened in several key cities.

Personal

Changes on the New York Central Lines

Effective April 1, F. B. Wiegand retired from his position as signal engineer of the New York Central including the Michigan Central and the Cleveland, Cincinnati, Chicago & St. Louis. J. J. Corcoran, assistant to Mr. Wiegand, has been promoted to signal engineer with headquarters in Cleveland, Ohio, in charge of the New York Central, Lines West of Buffalo, also including the Michigan Central and the Cleveland, Cincinnati, Chicago & St. Louis; while R. B. Elsworth, assistant signal engineer, New York Central, Buffalo and East, has been promoted to signal engineer in charge of this territory. A. S. Haigh, office engineer with headquarters at Albany, has been promoted to assistant signal engineer, reporting to Mr. Elsworth.

J. J. Corcoran was born at West Springfield, Mass., on April 14, 1889, and graduated from Worcester Polytechnic Insti-

tered the service of the New York Central at Buffalo, N.Y., serving successively as signal helper, assistant maintainer, maintainer, maintenance inspector, construction inspector, draftsman, general draftsman, assistant engineer, and chief inspector. From 1922 to 1924, Mr. Corcoran was engineer of construction, and in 1924 was promoted to assistant signal engineer, Lines East. In September, 1937, he was appointed assistant signal engineer, with headquarters in Cleveland, Ohio, which position he held at the time of his recent appointment.

F. B. Wiegand, signal engineer of the New York Central, with headquarters at Cleveland, retired from his position on April 1. Mr. Wiegand entered the service of the New York Central & Hudson River Railroad, now the New York Central, on April 12, 1891, serving as a signal maintainer. In May, 1894, he was appointed signal inspector on the Harlem division of the New York Central; in October, 1901, assistant signal supervisor on the Hudson division; and in July, 1902, signal supervisor on the River division. In March, 1903, Mr. Wiegand became general signal inspector of the entire road, and three months later was appointed signal supervisor of the Mohawk division.



F. B. Wiegand

In July, 1906, he was appointed assistant signal engineer of the Lake Shore & Michigan Southern, now part of the New York Central. In October, 1913, he was appointed signal engineer of the New York Central, Line west of Buffalo. In 1922, Mr. Wiegand acted also in a consulting capacity for the Cleveland Union Terminals Company, and on March 1, 1925, his jurisdiction was extended over the Ohio Central Lines, which railroad at that time was leased by the New York Central. On September 1, 1933, Mr. Wiegand had his jurisdiction extended to include the Lines East of Buffalo, following the retirement of W. H. Elliott, signal engineer of the Lines East. On June 1, 1937, following the retirement of J. C. Mock, signal engineer of the Michigan Central, Mr. Wiegand's jurisdiction was extended over that line, and on September 1, 1937, following the death of C. F. Stoltz, signal engineer of the Cleveland, Cincinnati, Chicago & St. Louis, Mr. Wiegand's jurisdiction was extended over



J. J. Corcoran

tute with a degree of Bachelor of Science in Electrical Engineering in 1911. He first entered railroad service in 1906 on the Boston & Albany, and served during the summer months of that year and the succeeding years to 1910 inclusive as water boy, track inspector, material clerk, and signal wireman's helper. In 1911 he en-