Alamazoo, Michigan, on June 18, 1913.

On June 18, 1913, there was a head-end collision between a passenger train and a work train on the Grand Rapids Branch of the Michigan Division of the Lake Shore & Michigan Southern Hailway, resulting in the death of 2 employees and the injury of 22 passengers, 3 employees and 2 mail clerks.

After investigation of this accident the Unief Inspector of Safety Appliances reports as follows:

The Grand Rapids Branch of the Lake Shore & Sichigan Southern Railway is a single track line extending between Grand Rapids and White Pigeon, Mich., a distance of 96 miles. Trains are operated under the train order system, without the use of block signals.

The trains involved in this accident were northbound passenger train No. 532 and a southbound work train running as an extra. The passenger train was in charge of Conductor Cook and Engineman Hueneyager. It consisted of one mail car, one baggage car and two coaches, and was hauled by engine No. 5029. The work train was in charge of Conductor Taylor and Engineman Holmberg. At the time of the collision it was hauled by engine No. 5761, and consisted of 15 cars and a caboose, 14 of the cars being loaded with ballast.

On the date of the collision train No. 532 left Elkhart, Ind., its initial terminal, on time, at 5:00 a.m., and arrived at Kalamazoo. Mich., at 7:49 a.m. This train is scheduled to leave Kalamazoo at 8:00 o'clock, and is due to arrive at the North Yard, 3/10 miles north of Kalamazoo station, at 6:05 a.m. It left Kalamazoo station on time, and collided with the work train about 760 feet north of the north switch at North Yard between 6:05 and 8:06 a.m. The accident occurred in yard limits within the city limits of Kalamazoo, on a short tangent between two curves. Each curve is 670 feet in length, and the curvature of each is about 5 degrees. The track at the point of the accident is level, and south of the southerly curve is straight for a distance of 1360 feet, north of the northerly curve the track is straight for a distance of 3/4 of a mile. The view of the engineers on train No. 532 at the time of the accident was obscured by box cars at the north end of the north yard on the east side of the main track, and also by trees and shrubbery located on private property just outside of the railroad right-of-way.

The view of the engineman on the work train was obscured by cars on the side track of the Standard Paper Company and also by trees just outside of the right-of-way. The weather at the time of the Golliston was olear.

The work train left Wentworth yard. Grand Rapids, Mich., on the morning of the accident at about \$135 a.m., and passed Plainwell, the last telegraph station north of the point of the accident, at 7:41 a.m. This train had no orders against train No. 532. There is some discrepancy in the time at which the work train is supposed to have passed Cooper station, 5.7 miles north of Kalamazoo, Enginemen Rolmberg stating that it was 7:48 a.m. while the firemen and brakemen who were riding on the engine at the time stated that it was 7:55 m.m. Conductor Taylor puts the time at between 7:50 and 7:55, while Rear Brakesan Smith said it was 7:05. In any event, it is clear that this train, even if it passed Cooper at 7:48, as stated by Engineman Holmberg, did not have time to reach the north yard at Kalamagne and clear train No. 532 five minutes as required by the rules. At about 8:00 a.m. this train stopped at the switch of the Standard Paper Company, located 2,200 feet morth of the point of the accident, the intention of Engineman Holmberg being to take the siding at that point and meet train No. 832. When the stop was made Conductor Taylor, at the rear end of the train, signaled the engineers not to head in, as he thought the Paper Mill siding was not safe to use. engineman eletook the conductor's signal to mean proceed, and he told head brokeman Cotherman to get the flag and get out on the pilot and flag the train down to the north yard. After the brakeman got the flag he ran and lumped on the pilot and the train proceeded south from the Paper Mill switch and had passed from the straight track onto the first curve a distance of about 550 feet when Engineman Holmberg saw train No. 532 approaching. The work train was running at a speed of about 4 or 5 miles per hour at that time, and had almost come to a stop when the collision coourred.

Conductor Taylor of the work train said that the collision occurred between 8:03 and 8:04 a.m. Brakeman Smith of the work train said that it was 8:04, while Operator Stewart at the telegraph office south of north yard, who delivered the orders to train No. 532, is positive in his statement that it was 6:04 when train No. 532 departed from the telegraph office, and that is the time shown on the train sheet. At the time of the modificant train No. 532 was running about 80 miles per hour.

This accident was caused by the failure of Conductor Taylor and Engineern Holmberg of the work train to comply with Rule No. 89 of the Lake Shore & Michigan Southern Railway Company, which requires inferior trains to clear superior trains at meeting points at least five minutes, also an infraction of

flagging rule No. 99. This train should have remained at Gooper, and both Engineman Holmberg and Conductor Taylor are to blame for allowing their train to pass that point on such short time, and also for not putting their train on the siding at the Standard Paper Company's switch when it arrived there at 8:00 o'clock instead of proceeding into the north yard.

A proper regard for the eafety of his train should have induced Conductor Taylor to ride on the engine instead of in the caboose, considering that he was approaching a secting point on short time, and when his train stopped at the Paper Kill Company's switch, and he decided it was not safe to enter the siding at that place, he should have held his train there until a flagman had been sent a sufficient distance shead to insure protection before attempting to proceed into the north yard.

There is a rule limiting the speed of trains to 8 miles per hour within the city limits of Kalamazoo. This rule, however, is habitually disregarded, and was not observed by the enginemen of train No. 532. Had the speed been restricted according to the rule there is a probability that this accident might have been averted.