INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 2889

THE PENNSYLVANIA RAILROAD COMPANY

REPORT IN RE ACCIDENT

AT INDUSTRY, PA., ON

MAY 22, 1945

SUMMARY

Railroad:	Pennsylvania
Date:	May 22, 1945
Location:	Industry, Pa.
Kind of accident:	Derailment
Train involved:	Freight
Train number:	Extra 6925 West
Engine number:	6925
Consist:	60 cars, caboose
Estimated speed:	35 m. p. h.
Operation:	Signal indications
Track:	Double; tangent; 0.8 percent descending grade westward
Weather:	Clear
Time:	12:59 a. m.
Casualties:	2 killed
Cause:	Train striking obstruction on track

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2889

IN THE MATTER OF MAKING ACCIDENT INVESTIGATION REPORTS
UNDER THE ACCIDENT REPORTS ACT OF MAY 6, 1910.

THE PENNSYLVANIA RAILROAD COMPANY

June 15, 1945.

Accident at Industry, Pa., on May 22, 1945, caused by a train striking an obstruction on the track.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On May 22, 1945, there was a derailment of a freight train on the Pennsylvania Railroad at Industry, Pa., which resulted in the death of two employees.

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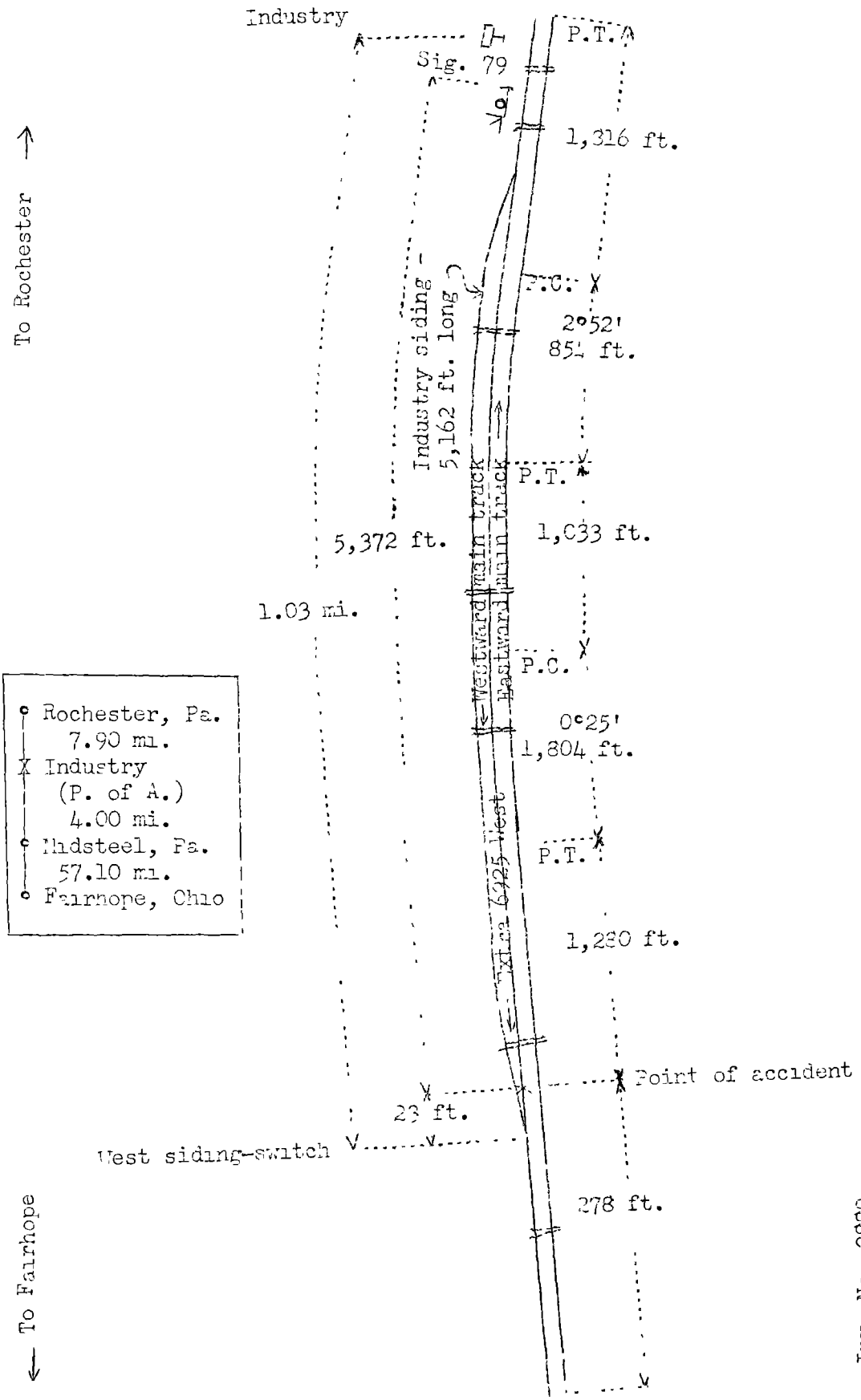
[1]Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.



Inv. No. 2889
Pennsylvania Railroad
Industry, Pa.
May 22, 1945

Location of Accident and Method of Operation

This accident occurred on that part of the Eastern Division designated as the Bayard Cut-Off and extending westward from Rochester, Pa., to Fairhope, Ohio, 69 miles, a double-track line over which trains moving with the current of traffic are operated by signal indications. At Industry, 7.9 miles west of Rochester, a siding 5,162 feet in length parallels the westward main track on the north. The west switch of this siding is 1.03 miles west of the station. The accident occurred on the westward main track 28 feet east of the west siding-switch. From the east there are, in succession, a tangent 1,816 feet in length, a 2°52' curve to the left 854 feet, a tangent 1,033 feet, a 0°25' curve to the left 1,804 feet, and a tangent 1,280 feet to the point of accident and 278 feet beyond. The grade is 0.3 percent descending westward.

The track structure consists of 130-pound cropped rail, 36 feet in length, laid on an average of 20 ties to the rail length. It is fully tieplated, single-spiked, provided with 4-hole angle bars and an average of 4 rail anchors per rail length, and is ballasted with cinders to a depth of 30 inches.

Automatic signal 79, governing west-bound movements on the westward main track, is 5,372 feet east of the point of accident.

The maximum authorized speed for freight trains is 40 miles per hour.

Description of Accident

Extra 6925 West, a west-bound freight train, consisting of engine 6925, a 4-8-2 type, 60 cars and a caboose, departed from Rochester, 7.9 miles east of Industry and the last open office, at 12:34 a. m. While this train was moving on the westward main track at an estimated speed of 35 miles per hour the engine struck several poles which were obstructing the westward main track in the vicinity of the west siding-switch at Industry, and the engine and the first 10 cars were derailed.

Engine 6925 overturned to the south and stopped on its left side on the westward main track, with the front end 309 feet west of the point of derailment. The engine and the first 8 cars were badly damaged.

The weather was clear at the time of the accident, which occurred about 12:59 a. m.

The engineer and the fireman were killed.

The poles involved fell from the ninetieth car of Extra 6165 East, which passed the west siding-switch at Industry about 5 minutes before the accident occurred. This car is a

steel-underframe flat car, built in 1936. Its light-weight, capacity and load limit are, respectively, 47,000 pounds, 100,000 pounds and 121,000 pounds. Its length and width are, respectively, 52 feet and 9 feet 2 inches. The trucks are provided with roller-type side-bearings. Previous to the accident this car was loaded with 100 creosoted poles, which weighed 65,700 pounds. They varied from 30 to 40 feet in length, and were 10-1/2 inches in diameter at one end and about 6 inches at the other.

Discussion

Extra 6925 West was moving on tangent track at a speed of about 35 miles per hour, in territory where the maximum authorized speed was 40 miles per hour, when the engine and the first 10 cars were derailed in the vicinity of the west siding-switch at Industry. The conductor and the flagman were in the caboose and the front brakeman was in the brakeman's booth on the engine tender. These employees were not aware of anything being wrong until they felt the brakes become applied in emergency about 15 seconds before the accident occurred. The engineer and the fireman were killed in the accident.

After the accident, 73 poles were found scattered throughout a distance of about 700 feet immediately east of the west siding-switch outside each main track, between the tracks, and between the rails of each track. One pole was tightly wedged between the north rail of the westward main track and the south rail of the turnout of the west siding-switch. The west end of this pole was against the filler block at the heel of the frog. Another pole was tightly wedged between the north switch point and the north rail of the turnout. The sides of these two poles extended about 4 inches above the tops of the rails and bore wheel marks on the side next to the north rail of the westward main track. One of the front footboards of engine 6925 was found 250 feet east of the switch. The first mark on the track structure was a flange mark which extended diagonally from the inner corner to the outer corner, across the top surface of the south rail of the westward main track and 23 feet east of the switch point. From a point 10 inches west of this mark, flange marks appeared on the ties inside the north rail diagonally southward a distance of about 23 feet. From this point westward to the point where the engine stopped, the track was torn up. The marks on the poles, the track and the engine indicate that the footboard of the engine struck poles at a point about 250 feet east of the switch. Some of the poles were pushed westward by the engine, and two poles became wedged in the turnout. Then the front of the engine was raised high enough for the flange of the left front engine-truck wheel to be in contact with the top surface of the head of the rail.

The investigation disclosed that a few minutes before the derailment occurred the poles had dropped from the ninetieth car of an east-bound freight train, consisting of an engine, 96 cars and a caboose, and moving at a speed of about 40 miles per hour on the eastward main track in the vicinity of the west siding-switch at Industry. The conductor had inspected the rear portion of his train about 22 miles west of Industry and found nothing wrong with the car involved. As their train was approaching Industry, the conductor and the flagman were maintaining a lookout ahead, but they did not see any abnormal condition. No member of the crew of the east-bound train was aware that the lading of the car had become displaced until after this train had passed Extra 6925 West at a point about 3 miles east of the west siding-switch at Industry. Then the conductor and the flagman observed sparks flying from the vicinity of the ninetieth car, and, after the train was stopped, examination disclosed that only 13 poles of a total of 100 poles remained on the ninetieth car. The broken ends of 3 of the poles were found protruding from the east end of the ninety-first car, a box car. The conductor and the flagman said that throughout a considerable distance west of Industry there were several unusually severe slack closures. Those employees were of the opinion that the poles were shifted longitudinally as a result of slack action, which they thought was severe enough to force the ends of the poles through the east end of the ninety-first car, and, as the train rounded curves throughout a distance of about 6 miles immediately west of the west siding-switch at Industry, the portions of the poles extending into the adjacent car exerted a wedging force against the holding stakes sufficient to break the stakes. After the accident the lading of the eighty-second car in the east-bound train was found shifted longitudinally. This was a flat car loaded with sawed timbers, loaded in two piles and secured in accordance with the loading rules of the Association of American Railroads, hereinafter referred to as the A.A.R.

The rules of the A.A.R. governing the loading of commodities on open top cars provide that when single piles of poles are loaded on a flat car to a height less than 7 feet, such as was the case in question, softwood cross-pieces not less than 1 inch thick, 2 inches wide, of length equal to the width of the car and properly secured to the floor of the car, shall be used beneath the load. The poles shall be loaded with the butts in alternate positions. If the poles do not extend beyond either end of the car, a minimum of 3 stakes properly secured in stake pockets on the side-frame and equally spaced on the load shall be arranged on each side of the load. If the stakes are saplings, such as were used on the car in question, they shall be not less than 5 inches in diameter and tapered to fit fully in stake pockets. Wedges nailed to the stakes must be used when stakes do not fit properly in the pockets. The poles

shall be tightly encircled by 3 high-tension bands 2 inches wide by 0.05-inch thick, spaced at equal distances. Each band shall be about 3 feet from the side stakes and secured with 2 seals. To prevent spreading, the tops of companion stakes shall be secured by not less than one wrapping of high-tension band 3/4-inch wide by 0.035-inch thick. After the accident the seals of the encircling bands were found loosened and the tie bands were torn loose from the tops of the stakes. Evidently, the loosening of the bands occurred after the poles shifted longitudinally. The investigation disclosed that the poles involved had been loaded in conformity with the rules of the A.A.R. at Louisville, Ky., on May 18. The car was last inspected by members of the car inspection force at Canton, Ohio, 65.9 miles west of Industry, about 9 a. m., May 21, and no defective condition of the car or the lading was observed.

Cause

It is found that this accident was caused by a train striking an obstruction on the track.

Dated at Washington, D. C., this fifteenth day of June, 1945.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.