INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN ACCIDENT ON THE ELGIN, JOLIET AND EASTERN RAILWAY AT INDIANA HARBOR, IND., ON JUNE 26, 1934.

August 2, 1934.

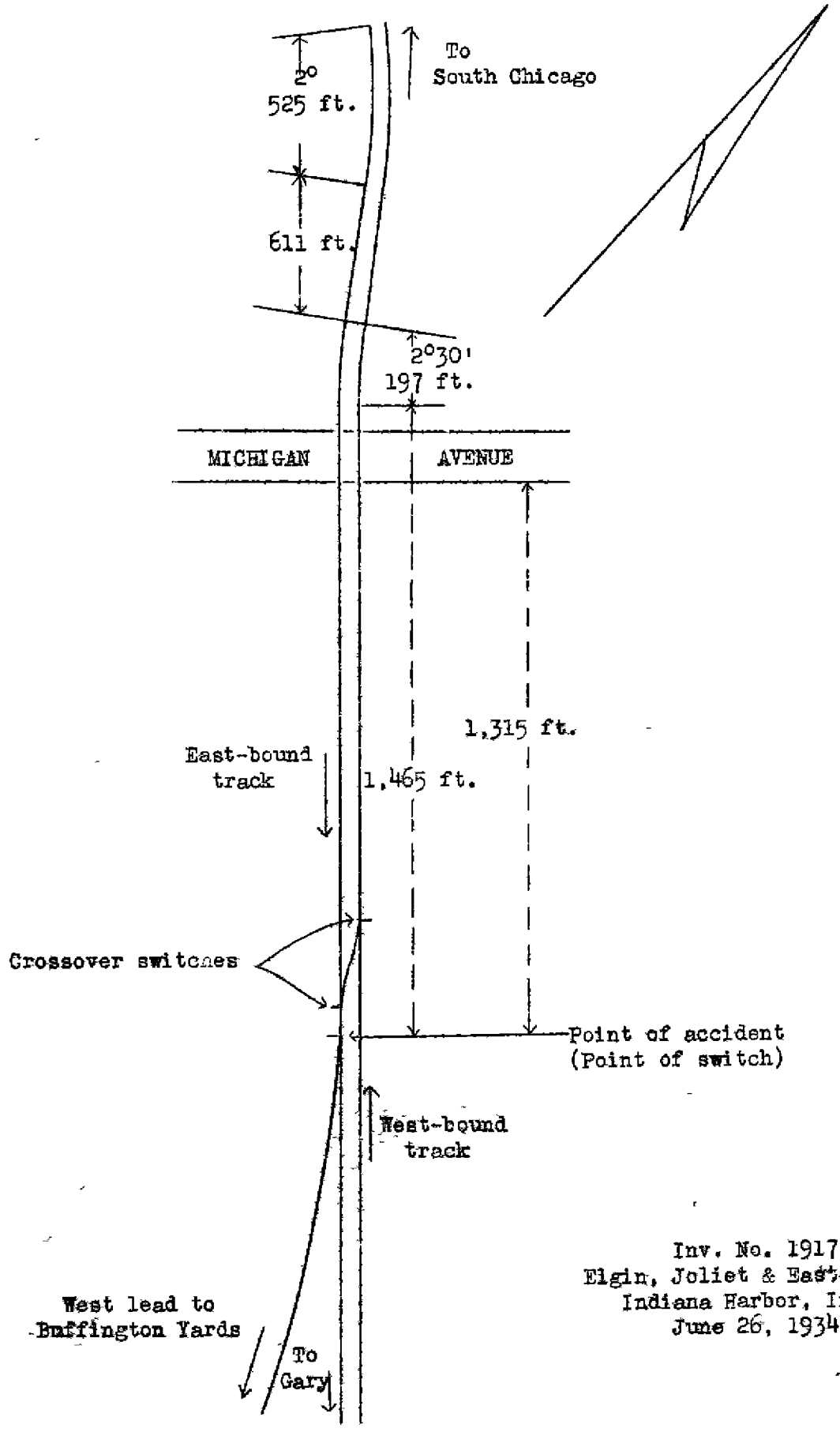
To the Commission:

On June 26, 1934, there was a derailment of a freight train on the Elgin, Joliet and Eastern Railway at Indiana Harbor, Ind., which resulted in the death of 1 employee and the injury of 2 employees.

## Location and method of operation

This accident occurred on that part of the Gary Division which extends between South Chicago, Ill., and Kirk Yard, Gary, Ind., a distance of 12.37 miles. This is a double-track line over which movements are made under yard rules and special instructions, no time table, train orders or block signals being in use. The accident occurred at the switch leading to the west lead to Buffington yards, this switch being located approximately 1,315 feet east of Michigan Avenue Crossing; approaching this point from the west, there is a 2° curve to the right 525 feet in length, tangent track for a distance of 611 feet, and a 2°30' curve to the left 197 feet in length, followed by tangent track 3,987 feet in length, the accident occurring on this latter tangent at a point 1,465 feet from its western end. The grade was practically level at the point of accident.

The switch involved is a facing-point switch for east-bound trains, with a no. 10 turnout. The switch stand, located on the south side of the east-bound track, is a Star stand, manufactured by the Pettibone Mulliken Company, and is of the high revolving type with switch light roundels 6 feet 9 inches above the head block ties, displaying a green indication when the switch is lined for the main track and a red indication for the diverging route. The stand is equipped with a red fish-tail banner 12 by 30 inches which is 3 feet 4 inches above the head blocks; this banner is displayed only when the switch is lined for the diverging route. The view of the switch is unobstructed for over 1,400 feet.




Inv. No. 1917
Elgin, Joliet & Eastern Ry.
Indiana Harbor, Ind.
June 26, 1934

The track is laid with 100-pound rails, 33 feet in length, with 18 or 19 treated oak ties to the rail length, tieplated, single-spiked, and ballasted with gravel to a depth of about 12 inches.

Special time-table instructions provide that switch engines, engines running backward, and engines not equipped with pony trucks, will not exceed 20 miles per hour.

The weather was clear at the time of the accident, which occurred at 6:30 p. m.

## Description

The east-bound transfer train consisted of 64 loaded cars and a caboose, hauled by engine 336, of the 0-8-0 type, and was in charge of Conductor Andrews and Engineman Turnbull. This train departed from South Chicago, east-bound, at 6 p. m., and on reaching the switch at the west end of the Buffington yards it was derailed while traveling at a speed estimated to have been between 15 and 25 miles per hour.

The engine stopped at a point 283 feet beyond the switch between the east-bound main and lead tracks, tipped to the left, with the tender across the two main tracks behind the engine. The first eight cars were derailed and stopped in various positions, badly damaged, between the tender and the switch. The employee killed was the engineman and those injured were the fireman and head brakeman.

## Summary of evidence

Fireman Froling stated that after passing the main road crossing at Indiana Harbor he left his seat box to put in a fire and did not see the switch. When he heard the engineman apply the brakes in emergency he immediately jumped up and looked out of his window to see what was the trouble, but by that time the engine was entering the switch and then started to rock. He thought the engine was about a car length from the switch when the brakes were applied in emergency and that the speed was about 15 or 18 miles per hour. After freeing himself from the wreckage and the engineman had been taken from the cab, he asked the engineman what had happened and the reply he received was "the switch was cocked". Fireman Froling further stated that the air brakes had been tested by the air inspectors before leaving South Chicago.

Head Brakeman Deemer stated that he was riding in the rear of the tender on the fireman's side, and when he heard the engineman apply the brakes in emergency he jumped up and went over to the engineman's side, but by that time the engine was bumping over the ties. He thought the engine was about two car lengths from the switch when the brakes were applied and he estimated the speed at that time to have been between 30 and 35 miles per hour. After the accident he heard the engineman say that the switch was cocked. After taking the injured men to the ambulance he went back to the switch, saw that the target showed red, the switch lever was straight out, and the lock open and hanging on the chain. Brakeman Deemer further stated that it is the practice to have all main-line switches locked and that he had never found an open switch.

Conductor Andrews was unable to estimate the speed at the time of the accident, as he had been working on his bills and had paid no attention to the movement of his train. After the accident he went to the head end and found the target displaying a red indication, the switch lever out of the socket, and the lock hanging on the chain. On previous trips through this territory they had not experienced any trouble and never had occasion to stop at that switch.

Trainmaster Ireland arrived at the scene of the accident very soon after its occurrence, found the switch as described previously, and noticed that a small piece had been broken from the switch point, apparently caused by the derailment. In operating the lock he found that it was necessary to force it in order to close it, and it was his opinion that some one had tampered with the switch. About one month prior to the accident he had found it necessary to caution the crew of engine 577 about leaving a main-track switch in the wrong position.

General Yardmaster Joyce stated that the last movement over this switch prior to the accident was made by engine 336, when it was east-bound to Kirk Yard, arriving there at 2:40 p.m.

Roadmaster Maisenbacher stated that on examining the switch he found about 1 inch of the switch point broken off, apparently due to the driving wheels striking it during the derailment. He operated the lock several times and found that it operated properly with the exception that it was hard to snap. All main line switches are equipped with locks and are examined regularly by section foremen. Between South Chicago and Kirk Yard there are 12 facing-point switches on the east-bound track and 11 on the west-bound track, and Roadmaster Maisenbacher stated that he was attempting to eliminate them as far as possible.

He considered the Star switch stand involved to be as safe as the low type that is equipped with a weighted ball.

Master Mechanic Topp stated that he went to the hospital to see the engineman before he died; he asked the engineman if the board showed red and the engineman replied in the negative, saying that the points were just a little bit over. Master Mechanic Topp made a thorough examination of engine 336 and found nothing that could have contributed to the cause of the derailment.

The members of the crew of switch engine 577, who apparently were the last to use the switch involved prior to the accident, stated that they entered the west end of the Buffington yard and later returned and proceeded through the cross-over to the west-bound track, making this latter movement about 10 a.m. Switchman Mumma stated that he closed the west switch of the crossover, while Switchman Busler closed the other cross-over switch and the Buffington Yard switch, and while Switchman Mumma could not see the low cross-over stand, he could see the high stand of the switch involved and saw that it was locked. Switchman Busler stated that in closing the Buffington switch he found it difficult to lock, and in hitting the lock with his hand he bruised his hand.

Engine 336, of the 0-8-0 type, was inspected by the Commission's inspectors and no defects were found that might have contributed to the cause of the derailment. There was a deep gouge on the flange of the left front driving wheel which was evidently caused by the derailment. Inspection of the track revealed no marks of any kind that would indicate that engine 336 had been derailed before reaching the switch.

## Conclusions

This accident was caused by a cocked or partly-opened switch.

The evidence indicates that the engineman saw the partly-opened switch in time to apply the air brakes in emergency just before reaching the switch, but he stated that the red target was not displayed. Subsequent to the accident it was found that a small piece of the switch point was broken off, indicating that it had been struck by a driving wheel; the switch lock was open and hanging on the chain, the lever was out of its socket, and the target displayed a red indication.

At the time of the investigation it could not be determined how this switch became cocked. The switchman of engine 577 who last used the switch, on the morning of the accident, stated that he bruised his hand in closing the lock, and after the accident it was found that it required force to snap the lock together. It is possible that the lock was not securely fastened when the switchman attempted to lock it and that some unknown person afterwards opened the lock and released the switch lever, permitting the points to spring open. The last movement over this switch prior to the accident, was in the early afternoon when engine 336, the engine involved in the accident, passed over it en route to Kirk Yard, at which time nothing wrong was noted.

The view of this switch is unobstructed for a distance of about 1,400 feet, but apparently no one on the engine noticed anything wrong, either with the switch target and lamp or with the switch points, until the engineman applied the brakes immediately prior to the accident.

Respectfully submitted,

W. J. PATTERSON,

Director.