

**In re Investigation of an accident which
occurred on the Philadelphia, Balti-
more & Washington Railroad near
Perryman, Md., October 23, 1916.**

November 16, 1916.

On October 23, 1916, there was a derailment of a freight train on the Philadelphia, Baltimore & Washington Railroad near Perryman, Md., the wreckage of which obstructed an adjoining track and was struck by a light engine running in the opposite direction. This accident resulted in death to two employees and injury to two employees.

The Maryland Division of the Philadelphia, Baltimore & Washington Railroad, on which this accident occurred, extends from Philadelphia, Pa., to Baltimore, Md., a distance of 95 miles. In the vicinity of the accident the line is double track and extends north and south. The movement of trains is controlled by time-table, train orders and an automatic block signal system.

The trains involved in this accident were southbound freight extra 5153, which had taken the passing siding just south of Perryman station, and ran off the derail at the south end of the siding, and a northbound light engine, No. 4089, running on the opposite track, which struck the wreckage about two minutes after the derailment occurred.

The distant signal, 681, for the home interlocking signal controlled from PY tower and governing the southbound track, is located at a point 4,700 feet north of Perryman station. Beginning at this point and proceeding southward the track is tangent for 8,400 feet; this is followed by a 15-minute curve to the right or west, 8,500 feet in length. The point of derailment is on this curve, about 1,700 feet from its north end. The home interlocking signal is located 4,500 feet south of distant signal 681, PY tower being 900 feet south of the home signal. The north switch of the passing siding leads directly off from the southbound main track and is located 280 feet south of PY tower. The passing siding parallels the southbound track on the west and is 4,500 feet long. At the clearing point of the south end of the siding, about 200 feet from the point of the south switch, a derail is installed on the west rail of the passing siding. It was at this switch where the train was derailed.

Approaching the derail the view is unobstructed for several hundred feet. There is a grade of .14% descending southward. At the time of the accident the weather was clear.

Southbound freight extra consisting of locomotive 5153, 19 loaded, 86 empty cars and a caboose, in charge of Engineman Francis and Conductor Murphy, left Edgemoor yard, Wilmington, Del., at 11.35 p. m., en route to Potomac yard, Virginia. At PY block station, 42 miles south of Wilmington, the train was brought to a stop at the home signal. As soon as the train stopped the brakes were released and the train proceeded, having received a low speed indication. It entered the passing siding, the rear of the train passing the block station at 2.13 a. m. After the locomotive entered the siding the speed of the train increased and it was running at a speed of about 20 miles per hour when it reached the derail, at the south end of the siding, and was derailed.

The wheels of the locomotive mounted the derail and dropped on the west side of the rail; the locomotive continued to run on the ties a distance of 129 feet, at which point it tipped over and came to rest on its right side. Both the engineman and fireman were killed. The tender also tipped on its side, but remained coupled to the engine with its rear end on the roadbed. The first two or three cars were piled up about the tender in a mass of wreckage. About 10 cars back from the engine there were four cars buckled outward to the east, one of which obstructed both of the main tracks. About 10 cars farther back there were 3 or 4 cars buckled outward, also obstructing both main tracks. The rest of the train remained intact.

At about 2.20 a. m., engine 4089, in charge of Engineman Cannon, running on the northbound track, en route from Baltimore to Perryville, collided with and ran through the first mass of wreckage which obstructed the northbound track. The cab was partly torn off and one pair of wheels of the pony truck was derailed. The engine continued a distance of about 500 feet and stopped at the point where the track was again obstructed by the buckled cars.

The derail involved in this accident was a Hayes derail. It was hand-thrown and pipe-connected to the switch at the south end of the passing siding in such a manner that the main-track switch is open before the derail is removed from the rail. A telephone booth is located at the switch and before trains pull out on to the main line it is necessary to get permission by telephone from the operator at PY block station. Located on the right side of the track, opposite to and connected with the derail is a lamp standard about 18 inches above the ties, bearing a switch lamp which displays a purple indication when the switch is set to derail, and green for proceed. This marker is lighted by an oil lamp equipped with a long-time burner.

Operator McFadden, in charge of PY block station, stated that he was instructed by the train dispatcher to put extra 5153 in on the siding at Perryman, to be passed by passenger

train No. 189; before extra 5153 arrived, he lined up the switches and set the signals for the movement. He stated that when the locomotive passed his station it was moving at a speed of 8 or 10 miles per hour, but after it had gotten on to the siding the speed of the train seemed to be increased. The rear of the train passed the tower at 2.13 a. m.

Conductor Murphy, of extra 5153, stated that just north of Perryman his train came to a stop; after standing about two minutes the train proceeded. At that time he looked back, and seeing train 189 approach, concluded that his train was to be put in on the siding or to be crossed over and run on the opposite track to the next station. As the rear of the train approached the block station, the speed of the train increased, but it was not until the caboose took the switch that he knew that the train was going in on the siding; he then realized that it was running at an excessive rate of speed and shouted to his flagman to apply the air brakes. The flagman not responding immediately, he jumped from the cupola and opened the valve at the rear of the caboose himself to secure a service application of the brakes. He stated that at the time he made the application of the brakes the train was running at a speed of about 25 miles per hour. The brakes took effect and the speed of the train was somewhat reduced when the crash came, the train running about 20 car lengths after the brakes were applied. Conductor Murphy stated that before beginning the trip he compared watches and conversed with Engineman Francis and, so far as he observed, he appeared to be in a perfectly normal condition. He stated further that there were 84 cars in his train and the air brakes were working on all except four, and at each stop made prior to the train being derailed the brakes appeared to operate in the proper manner. Conductor Murphy further stated that the derail at the south end of the passing siding had been installed for at least five years, to his knowledge, and that it is not an unusual occurrence for a freight train to take the siding at this point.

Flagman Owens, who was riding in the caboose at the time the accident occurred, practically corroborates the statement of Conductor Murphy.

Head Brakeman Radfield stated that approaching Perryman, he was riding on the fireman's seat of the locomotive. Upon reaching the home signal, the train stopped and started, and, when it reached the passing siding switch, took the siding; and as the train proceeded its speed increased. At that time, not being familiar with the road, this being his second trip over this section, he supposed that the train had been diverted to a freight track. The first indication he had of anything

unusual was when the locomotive left the rails; he estimates the speed at that time to have been about 25 miles per hour. Brakeman Hadfield stated that he did not see the light on the derail switch and does not remember looking in that direction. Shortly before the accident occurred the fireman was standing in the gangway between the engine and tender, and just before the engine left the track he saw the fireman make a quick movement toward the engineman, but he does not think he succeeded in reaching him before the engine reared. He felt no application of the brakes from the rear prior to the accident. Brakeman Hadfield further stated that after he got off the overturned engine, he started back along his train; after proceeding a few car lengths he found a car blocking the opposite track. Turning, he saw a headlight approaching from the south, and his first thought was the safety of the approaching train. It occurred to him that by breaking a bond wire he might be able to set automatic signal No. 702, located just south of the derailed engine, governing the northbound track, in the stop position. Accordingly, he broke one bond wire, but was unable to break the other. The locomotive was then so close that all he had time to do was to light some matches which he had and try to give a stop signal; this he did, but did not succeed in stopping the train.

Engineman Cannon, of northbound engine 4089, stated that approaching the point of the accident his engine was running at a speed of about 45 miles per hour. As he approached signal 702, he found it in the caution position; he immediately closed the throttle and made an application of the brakes. Shortly afterward, he discovered a dim light, but did not know what it was. The first indication that he received of anything unusual was when the left side of the cab was torn away by coming in contact with the cars obstructing the northbound track. At that time he estimates the speed of his engine to have been about 30 miles per hour. After striking the wreckage his engine continued to run a distance of 10 or 12 car lengths; within a minute after the accident he looked at his watch, and it was then 2.20. Engineman Cannon stated that about 10.15 on the evening previous, while on a southbound trip, he used the siding at Perryman and at that time the lamp on the derail at the south end of the passing siding was burning.

Track Walker Dorsey stated that on the night of the accident he left Perryman on his trip southward at 12.30 a. m. He met with considerable delay extinguishing several burning ties, and reached the south end of the passing siding between 1.30 and 1.40 a. m. At that time the light on the derail switch was burning brightly and could be seen a distance of a quarter of a mile or more.

Register Clerk Thompson, employed at Wilmington engine house, stated that Engineman Francis reported and signed

the register at 8.50 p. m. At that time he checked up with Engineman Francis and found that he was supplied with proper time-table and all supplements and special instructions. So far as he could ascertain, Engineman Francis appeared to be in a perfectly normal condition.

Road Foreman of Engines Sproul stated that he arrived at the scene of the accident about 6.20 a. m. He found the throttle in a partly open position. The grass on the bank was burned by the exhaust from the engine, and the bank had been cut by the eccentric crank; this led him to believe that the engine continued to run after turning over. He stated that practically all of Engineman Francis' service as a fireman had been over this line.

This accident was caused by the failure of Engineman Francis, of extra 5153, to bring his train to a stop before reaching the derail switch at the south end of the passing siding at Perryman.

Investigation disclosed that in the interest of safety the Philadelphia, Baltimore & Washington Railroad has adopted the practice of installing derail switches at the ends of all passing sidings to prevent trains using the siding from fouling the clearing point at either end; that this particular switch had been in service several years; that so far as could be determined there was nothing wrong with the locomotive or the brake system; that Engineman Francis was a competent and careful employee, had passed a satisfactory examination and was familiar with the physical characteristics of the road, and as both he and his fireman are dead, it remains a matter of mere conjecture as to why he failed to bring his train to a stop before reaching the derail switch.

Engineman Francis was 33 years old; entered the service of the railroad as fireman March, 1905, and was promoted to engineman in July, 1914. Fireman Randall was employed as fireman in March, 1916. At the time of the accident these employees had been on duty 5 hours and 15 minutes.