BUREAU OF SAFETY

REPORT NO. 1957

Railroad:	Cleveland, Cincinnati, Chicago & St. Louis
Date:	December 23, 1934
Location:	Paget, Ohio
Kind of accident:	Side collision
Trains involved:	2 passenger
Casualties:	3 employees killed; 32 persons injured
Summary of facts:	Engineman apparently experienced temporary lapse from consciousness immediately prior to accident.
Cause:	Failure of engineman properly to observe and obey stop indication of a combination train-order and manual-block signal at junction of two main lines.

1957

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN ACCIDENT ON THE CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS RAILWAY AT PAGET, OHIO, ON DECEMBER 23, 1934.

February 6, 1935.

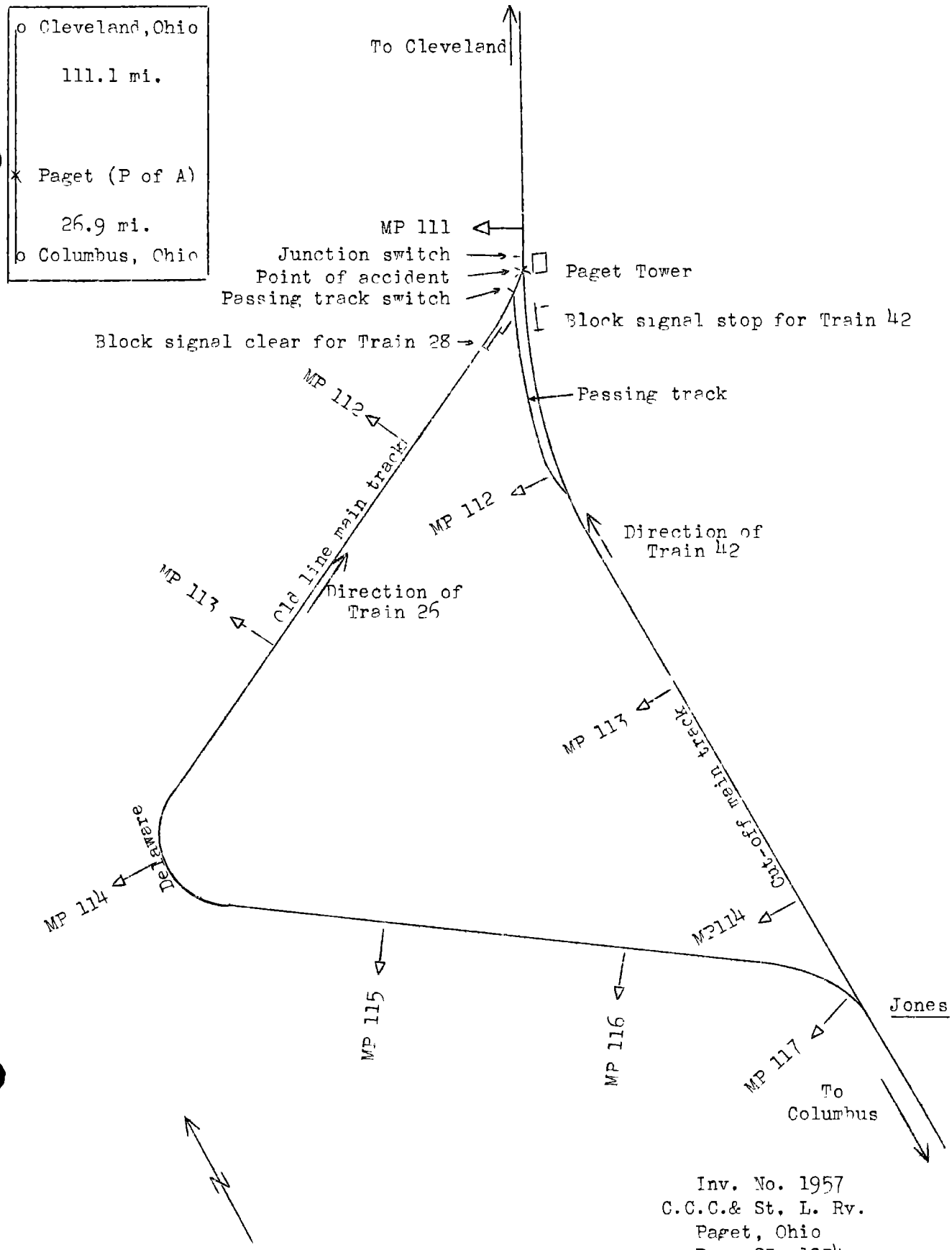
To the Commission:

On December 23, 1934, there was a side collision between two passenger trains on the Cleveland, Cincinnati, Chicago & St. Louis Railway at Paget, Ohio, which resulted in the death of 3 employees, and the injury of 29 passengers and 3 employees. This accident was investigated in conjunction with the Public Utilities Commission of Ohio.

Location and method of operation

This accident occurred on that part of the Ohio Division extending between Columbus and Cleveland, Ohio, a distance of 138 miles. A station known as Jones is 20.9 miles east of Columbus, and between Jones and Paget there are two single-track lines; one extends northward and passes through Delaware, being known as the "old main line"; the other extends directly from Jones to Paget and is known as the "cut off". Trains throughout this territory are operated by time table, train orders, and a manual block-signal system. The accident occurred opposite the tower at Paget, at the fouling point of the junction switch, where the main tracks of the old main line and the cut-off converge; approaching this point on the old main line, the track is tangent for more than 2 miles, followed by a 3° curve to the left, 1,200 feet in length which ends at the junction switch. Approaching on the cut-off the track is tangent for over 20 miles and then there is a 0° 30' curve to the right, 6,074 feet in length, followed by more than 13 miles of tangent, the accident occurring on this last mentioned tangent at a point about 300 feet east of its western end. Approaching the point of accident the grade for east-bound trains is slightly descending on both main tracks.

Paget cabin, which contains levers for operating signals at the junction, is located south of and opposite the junction switch, while the switch stand is on the north side of the track. At a point 220 feet west of the junction switch a passing-track switch leads off the old main line and then the passing track parallels the cut-off on the north for a distance of 4,563 feet; the stand



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at the east passing-track switch is located on the north side of the old main line. Both of these switches are equipped with lamps located 9½ feet above the rails; they are of the hand-throw type. A derail located on the old main line is pipe-connected with the junction switch; a derail also is located on the passing track but there is none on the cut-off. When in normal position the junction switch is lined for the cut-off; it is handled by the operator.

On the south side of each main track there is located a 1-arm, 3-position, train-order and manual-block signal governing east-bound trains approaching the junction; night indications are red, yellow, and green. These signals are 12 feet south of their respective tracks and are 29 feet in height; the one on the old main line is 449 feet west of the junction switch, while the one on the cut-off is 445 feet west of the junction switch. The signals at this point are operated by a 4-lever mechanical machine in the cabin, and are bolt-locked in such a manner as to make it impossible for the operator to clear more than one signal at a time or to clear any signal unless the route it governs is properly lined.

With the route lined for the movement of an east-bound train off the old main line, as was the case in this instance, a green indication is displayed by the block signal governing movements from that track and a red indication by the signal on the cut-off, while a green indication is displayed by the switch lamp at the passing track switch and a red indication is displayed by the switch lamp at the junction switch.

The time-table speed limit for passenger trains between Columbus and Galion is 70 miles per hour, unless otherwise restricted, and it is restricted to 25 miles per hour when entering or leaving the old main line at Paget.

The weather was clear at the time of the accident, which occurred about 4:35 a.m.

Description

Train No. 28, an east-bound mail train, consisted of 2 express cars, 4 storage-mail cars, 1 railway post-office car, 1 baggage and express car, and 1 day coach, in the order named, hauled by engine 6479, and was in charge of Conductor O'Brien and Engineman Pfister. All of the cars were of steel construction, with the exception of the first car, which was of steel-underframe construction. This train left Columbus at 3.30 a.m., according to the train sheet, 1 hour and 10 minutes late, entered upon the old main

line at Jones at 4:14 a.m., and proceeded to Delaware a closed office at that time. After departing from that point Train No. 28 received a proceed indication at the signal on the old main line at Paget and was moving through the junction switch at a speed estimated to have been about 25 miles per hour when the rear end of the eighth car and the front end of the last car were struck on their right sides by Train No. 42.

Train No. 42, an east-bound passenger train, consisted of 1 baggage and express car, 3 coaches, and 6 Pullman sleeping cars, hauled by engines 6538 and 6535, and was in charge of Conductor Doyle and Enginemen Newman and Springer. All of the cars were of steel construction with the exception of the first car, which was of steel-underframe construction. This train left Columbus at 4:06 a.m., according to the train sheet, 41 minutes late, passed Jones at 4:31 a.m., 35 minutes late, proceeded directly to Paget via the cut-off, passed the block signal governing that track, which was displaying a stop indication, and struck the side of Train No. 28 while traveling at a speed estimated to have been between 50 and 70 miles per hour.

The last car of Train No. 28 was broken loose from its train and derailed to the north stopping on its side parallel with the track and east of the cabin location; the rest of the train remained intact and on the rails with the exception of the rear truck of the next to the last car, which came out from under that car, while the drawbar was pulled out of the front end of the third car. Both engines and the first four cars in Train No. 42 were derailed; the engines and their tenders stopped on their right sides to the south of and parallel with the track, the front end of the lead engine being approximately 500 feet east of the point of impact; the first three cars were across the track at various angles, practically upright, while the fourth car stopped on its right side opposite the location of the cabin, which was demolished. The employees killed were the engineman of the first engine and the engineman and fireman of the second engine of Train No. 42, while the employees injured were the fireman of the first engine of that train and the conductor and brakeman of Train No. 28.

Summary of evidence

Members of the crew of Train No. 28 were not aware of anything wrong until the accident occurred. Engineman Pfister and Fireman McArthur stated that the route was lined for the movement of their train and that the block signal and switch lamps were displaying the proper indications. When approaching Paget the engineman had looked across toward the cut-off track and from the direction of

Jones he saw the reflection from the headlight of Train No. 42 in the distance. On nearing the block signal he closed the throttle, figuring that Train No. 42 might be permitted to pass first, but the fireman called "green block" and then the engineman repeated it and began to work steam, his train being stopped soon afterwards as a result of the brakes being applied in emergency when the accident occurred. Engineman Pfister also said that when moving eastward on the cut-off he would pick up the indication of the block signal, after which it would disappear and then become visible again, and it was necessary to keep looking at it. Fireman McArthur, who estimated the speed of his train to have been about 25 miles per hour at the time of the accident, said that when making a movement via the cut-off it was not possible to confuse the switch lamp indications with the block-signal indication nor had he ever had any difficulty in picking up the latter indication.

Conductor O'Brien and Brakeman Hoilman were in the rear car; the brakeman told the conductor that Train No. 42 was approaching in the distance but neither of them paid any particular attention to that train and the conductor did not personally see it. The accident occurred shortly afterwards, just as the conductor stood up to go back to the rear vestibule, where the brakeman was located. Each of them said that the engines of Train No. 42 were working steam, and the brakeman said he did not see any fire flying from the wheels of that train.

Fireman Barrett, of the lead engine of Train No. 42, stated that immediately after passing Jones the speed of his train was between 60 and 70 miles per hour and on looking across the cab he saw Engineman Newman turn on the cab light, look at his watch twice and then turn off the light, following which the engineman leaned toward the left, apparently to look at the steam and water gauges, and then straightened up and sat in his usual position as though maintaining a lookout ahead. Approaching Paget the fireman glanced across a field toward the old main line and saw the lighted cars in Train No. 28 but did not say anything to the engineman about it as he thought possibly it would be stopped and that his own train would be permitted to proceed ahead of it. From his position on the outside of the curve he could not see the signal indication displayed for his train, but as it approached the junction he noticed that Train No. 28 was still moving and had reached a point where he thought it was passing the block signal governing its movement. Engineman Newman had not called the indication of the signal governing the cut-off and Fireman Barrett got off his seat box, jumped across the cab to the engineman's side, leaned out of the side window, behind the engineman, at which time the engineman was still sitting erect, and saw the signal displaying a red indication and also another red light which

apparently was the switch lamp at the junction switch. Fireman Barrett said he shouted several times to his engineman, who seemed to be conscious and apparently applied the brakes, but by the time he heard the first sound of the exhaust the fireman reached out and struck the brake-valve handle, knocking it into the emergency position, and then crossed back and got on his own seat box just in time to see the rear cars of Train No. 28 directly in front of his engine, immediately following which the accident occurred; up to the time that he leaned out of the window behind the engineman he had not heard any exhaust from the brake valve and there was nothing to indicate that the engineman of the second engine cut in the air and applied the brakes. He did not know whether steam had been shut off or a light throttle was being worked. Fireman Barrett, who was making his first trip with Engineman Newman, said he had not noticed anything wrong with the engineman prior to the accident; he had called signal indications while en route, which the engineman acknowledged by raising his hand, and the engine whistle was sounded for all highway grade crossings except the last one, located just east of Jones, while the last time the engineman spoke was before reaching Jones. It further appeared from Fireman Barrett's statements that the red indication displayed by the block signal at Paget showed a good bright color and he thought there was no reason why it could not have been seen from the engineman's side for a considerable distance before he crossed over and looked out behind the engineman; there was nothing about the condition of the engine to distract attention from maintaining a proper lookout ahead, and although smoke was trailing down from left to right and probably interferred with the view of the engineman on the second engine, he did not think it interfered very much with the view of the lead engineman and at the time he looked ahead from that side the view was unobstructed. Both of the engines had come in on the train from Cincinnati, and Fireman Barrett said he did not know if the brakes were tested after he and Engineman Newman took charge at Columbus, but after leaving Columbus the engineman made an application, 1½ miles from the depot, which was heavy enough to constitute a running test; this was the only time the brakes were applied. The headlight on his engine was burning brightly.

Conductor Doyle, of Train No. 42, stated that the air brakes were tested at Columbus and worked properly, but he did not have any conversation with any member of the engine crews. Approaching Paget he was in the third car and he estimated the speed to have been about 50 miles per hour, saying that the first he knew of anything wrong was an feeling the air brakes being applied in emergency a very short time prior to the accident, and he thought the speed was reduced somewhat before the impact occurred. Brakeman Stephens also was in the third car while Baggageman Hahn was in the second car; Brakeman Stephens felt the application of the

brakes and thought it was a heavy service application, just prior to the accident, while the baggageman thought there were two applications, the first for the purpose of slowing down for Paget and the second an emergency application. Flagman Liegel estimated the speed to have been about 65 or 70 miles per hour at the time of the accident; he also said that at Columbus he had talked with Engineman Newman, and he also was present with Engineman Springer in the operator's office at that point, and he thought both enginemen appeared normal in every respect.

Car Inspectors Jenkins, Cook and Crognale tested the air brakes on Train No. 42 after some switching had been done at Columbus and Car Inspector Jenkins notified the engine crew of the lead engine that the brakes were all right.

Operator Bazzle, at Paget, stated that about 4:27 or 4:28 a.m. he telephoned the dispatcher and informed him that Train No. 28 was approaching and the dispatcher told him to allow it to proceed. He went outside and opened the junction switch for the movement of Train No. 28 and then returned and displayed a proceed indication on the block signal governing its movement. The signal governing east-bound movements from the cut-off was then in stop position and had been in that position since he came on duty, which was at 11 p.m. As Train No. 28 was passing the tower he was outside exchanging the usual signals with the crew and saw Train No. 42 approaching at such a rate of speed that he thought it would not get stopped, and on realizing that an accident was inevitable he got out of the way just before the impact occurred.

Dispatcher Davis said he told the operator at Columbus to tell the engineman of Train No. 42 that he would be stopped at Paget for Train No. 28 and would get a Form 31 order at that point covering a meet with an opposing train. His reason for allowing Train No. 28 to go ahead was the fact that it would enable that train to make up some time and yet not prevent Train No. 42 from reaching Cleveland on time.

Operator Cooperrider, on duty at Columbus, said he received instructions from the dispatcher that Train No. 42 might be stopped for Train No. 28. Both of the enginemen of Train No. 42 came into his office for their orders, Engineman Newman leaving the office with his copies of the orders before a clearance had been given. Engineman Springer, of the second engine, received the orders and also a clearance, and was told by Operator Cooperrider that he might be stopped for Train No. 28 and if so then he would receive an order about meeting an opposing train; Operator Cooperrider did not remember that he told Engineman Springer where he might be stopped.

Signal Supervisor Moak arrived at the scene of the accident about 3½ hours after its occurrence. His examination of the interlocking plant and signal apparatus involved disclosed that the pipe connections were damaged and broken and that the west-bound block signal had been knocked down. The red roundel in the east-bound signal governing the movement of Train No. 42, which signal was in the stop position, had been broken and pieces of the glass had fallen out on the ground but the signal governing the movement of Train No. 28 still was displaying a proceed indication. Signal Engineer Stoltz made statements similar to those of Supervisor Moak concerning conditions as they existed after the accident, and said that the red roundel undoubtedly was broken as a result of the accident, when the pipe connections received a severe blow.

A test made from a freight engine moving eastward on the cut-off disclosed that the red indication of the east-bound block signal governing movements off the cut-off could first be seen from the engineman's side of the cab for a distance of 4,490 feet.

According to the train sheet, Train No. 42 had consumed 11 minutes in traveling the distance of 12.6 miles from Worthington to Jones, an average speed of 68.73 miles per hour, and there was nothing in the evidence to indicate that the speed was reduced after passing Jones until the brakes were applied a few seconds before the accident occurred.

Conclusions

This accident was caused by the failure of Engineman Newman of Train No. 42, properly to observe and obey the stop indication of the train-order and manual-block signal at Paget.

Fireman Barrett, of the lead engine of Train No. 42, was the only surviving member of the two engine crews on this train; he had seen Train No. 28 moving via the old main line and thought it might be stopped in order to allow his own train to go ahead of it, but when it had reached a point where he thought it was passing the signal governing the movements from the old main line he crossed over to the engineman's side and on looking out of the side window from behind the engineman he saw that the block signal governing the movement of his own train was in the stop position, with a red indication displayed at the switch, showing that it was lined for the movement of Train No. 28. Up to this time he had not noticed anything wrong with Engineman Newman except that he had not whistled for one grade crossing; the engineman had, however, turned on the cab light and looked at his watch, and also had looked at the water and steam gauges after passing Jones, a station only 3 miles from the point of accident. He had not, however, taken any action toward stopping his train

for the signal at Paget, although sitting on his seat box in normal position, and after seeing the indication of the signal Fireman Barrett shouted to the engineman that the block was red; apparently Engineman Newman then started to make an application of the brakes but Fireman Barrett, after shouting to him several times reached around and knocked the brake-valve handle into emergency position, a few seconds before the accident occurred. Instructions had been issued, but not received by Engineman Newman to the effect that his train probably would be stopped at Paget by Train No. 28; his failure to receive these instructions, however, did not relieve him of the duty of observing signal indications and of operating his train in accordance therewith, and the fireman's statements indicate that the reason he failed to do so was because he was not fully conscious of his surroundings as his train approached Paget. The nature of his difficulty was not ascertained. Engineman Newman was 62 years of age and had been in engine service more than 40 years, over 30 years of which had been as engineman; he was an experienced man over this portion of the road and was last examined on the rules in May, 1934, and was last examined physically in June of the same year.

No statement can be made as to why Engineman Springer on the second engine failed to cut in his brake valve and apply the brakes when it became apparent that Engineman Newman was not going to stop the train, but the statements of the fireman of the leading engine would indicate that smoke was trailing down on the right side and it is probable that Engineman Springer did not see the signal indications affecting the movement of his train.

Respectfully submitted,

W. J. PATTERSON

Director.