

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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REPORT OF THE DIRECTOR  
BUREAU OF SAFETY

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ACCIDENT ON THE  
MISSOURI PACIFIC RAILROAD

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MOUNT OLIVE, ARK.

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JULY 13, 1940

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INVESTIGATION NO. 2436

SUMMARY

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Inv-2436

Railroad: Missouri Pacific  
Date: July 13, 1940  
Location: Mount Olive, Ark.  
Kind of accident: Head-end collision.  
Trains involved: Passenger : Freight  
Train numbers: 232 : 261  
Engine numbers: 6420 : 1278  
Consist: 4 cars : 26 loaded and 8  
empty cars and  
caboose  
Speed: 25-35 m. p. h. : 10 m. p. h.  
Operation: Timetable and train orders  
Track: Single; 2<sup>o</sup> portion of compound  
curve; grade practically level  
Weather: Clear  
Time: About 12:27 p. m.  
Casualties: 2 killed and 15 injured  
Cause: Failure to obey meet order

August 20, 1940.

To the Commission:

On July 13, 1940, there was a head-end collision between a passenger train and a freight train on the Missouri Pacific Railroad near Mount Olive, Ark., which resulted in the death of one passenger and one train-service employee, and the injury of six passengers, one railway mail clerk, two dining-car employees, and six train-service employees.

#### Location and Method of Operation

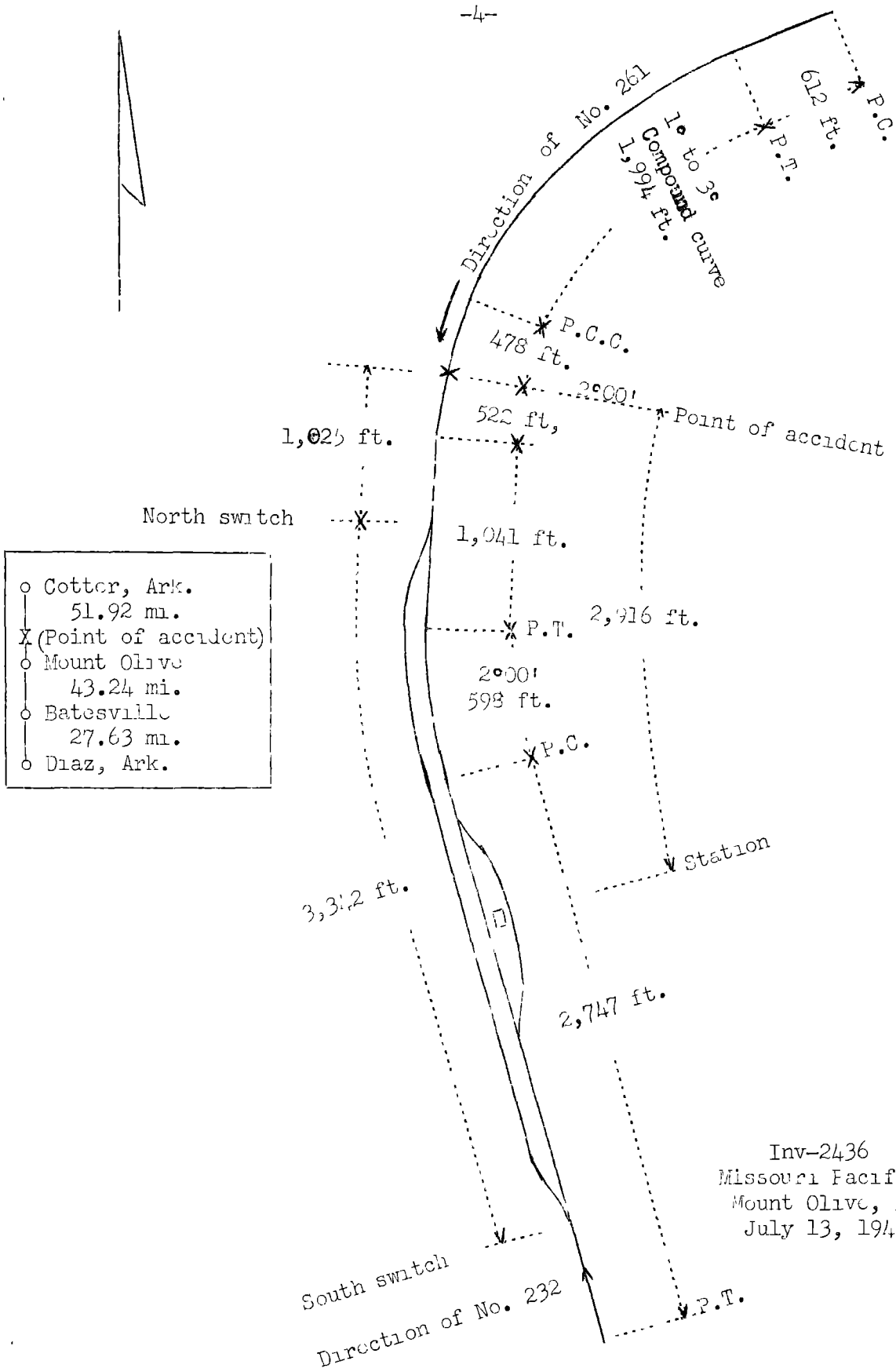
This accident occurred on that part of the White River Division designated as the Cotter District which extends between Cotter and Diaz, Ark., a distance of 122.79 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by timetable and train orders, and a manual block system providing an absolute block to the rear of passenger trains. At Mount Olive a siding 3,342 feet in length parallels the main track on the west. The accident occurred on the main track at a point 1,025 feet north of the north switch of the siding, and 2,916 feet north of the station. As the point of accident is approached from the south, there are, in succession, a tangent 2,747 feet in length, a  $2^{\circ}$  curve to the right 598 feet in length, a tangent 1,041 feet in length, and a compound curve to the right 2,991 feet in length, varying from  $1^{\circ}$  to  $3^{\circ}$ ; the accident occurred on this compound curve 522 feet from its southern end, where the curvature is  $2^{\circ}$ . As the point of accident is approached from the north there is a tangent a distance of 612 feet, which is followed by the compound curve on which the accident occurred. The grade is practically level at the point of accident.

The following rules of the operating department read in whole or in part as follows:

#### 14. Engine and Motor Whistle Signals.

Note - The signals prescribed are illustrated by  
"o" for short sounds; "\_\_\_\_\_" for longer sounds.  
\* \* \*

14(n) \_\_\_\_\_ o Approaching meeting or  
waiting points. \* \* \*



Inv-2436  
 Missouri Pacific R. R.  
 Mount Olive, Ark.  
 July 13, 1940

90. \* \* \*

Train must stop clear of the switch used by the train to be met in going on the siding.  
\* \* \*

90(a). At meeting points, the inferior train will take the first siding unless otherwise provided.

981 (Fireman). They must carefully read train orders, keep them in mind and assist in their observance. Call attention of conductor and engineman immediately to any failure to observe train orders or to comply with rules and instructions. \* \* \*

The maximum authorized speed in the vicinity of the point of accident is 55 miles per hour for passenger trains and 40 miles per hour for freight trains.

The weather was clear at the time of the accident, which occurred about 12:27 p. m.

#### Description

No. 232, a north-bound passenger train, with Conductor Ginocchio and Engineman Kist in charge, consisted of engine 6420, of the 4-6-2 type, one mail-baggage car, one baggage-coach, one coach, and one cafe-parlor car, in the order named; all cars were of steel construction. At Batesville, 43.24 miles south of Mount Olive, the crew received a Clearance Card Form C, and a copy of train order No. 235, Form 19, which read as follows:

No. 232 Eng 6420 meet No. 261 Eng 1278  
at Mount Olive and No. 243 Motor car  
629 at Creswell.

This train departed from Batesville at 11:37 a. m., according to the train sheet, 9 minutes late, left Sylamore, 4.67 miles south of Mount Olive, at 12:19 p. m., 1 minute late, passed the north siding-switch at Mount Olive where it was required to stop on the main track south of the fouling point to meet an inferior train, and, while moving at a speed estimated to have been between 25 and 35 miles per hour, collided with No. 261.

No. 261, a south-bound second-class freight train, with Conductor Van Beber and Engineman Hogan in charge, consisted of engine 1278, of the 2-8-2 type, 26 loaded and 8 empty cars, and a caboose. At Cotter, 51.92 miles north of Mount Olive, the

crew received a Clearance Card Form C and a copy of train order No. 235, Form 19, previously quoted. This train departed from Cotter at 11:10 a. m., according to the train sheet, 3 hours 40 minutes late, passed Calico Rock, the last open office, 11.77 miles north of Mount Olive, at 12:10 p. m., 3 hours 22 minutes late, and, while moving at a speed estimated to have been about 10 miles per hour, collided with No. 232.

Engine 1278 telescoped engine 6420 the length of the smoke-box. Engine 6420 was derailed, the smoke-box was demolished, the right and left cylinders were broken, the engine frame was broken, and the engine truck was forced under the front driving wheels. The tender frame was forced under the engine cab and the tender cistern telescoped the first car a distance of 8 feet. The first car was badly damaged, and one pair of wheels of the front truck was derailed. The remaining three cars in this train were not derailed but sustained slight damage. The engine truck of engine 1278 was derailed, the engine frame was bent, the right and left cylinders were broken, and the cab was damaged. The rear end of the first car in the freight train telescoped the front end of the second car; both cars were derailed and badly damaged. The fourth, fifth, ninth, eleventh, twelfth, and thirteenth cars were slightly damaged. The tenth car was derailed and demolished, and one truck of the eleventh car was derailed.

The employee killed was the engineman of No. 261; the employees injured were the front brakeman of No. 261 and the engineman, the fireman, the conductor, the brakeman, and the train porter of No. 232.

#### Summary of Evidence

Engineman Kist, of No. 232, stated that a terminal air-brake test was made at Bald Knob, Ark., 100.87 miles south of Mount Olive. At Newport, Ark., 74.13 miles south of Mount Olive, a mail-baggage car was added to the train, the brakes were tested, and they functioned properly en route. At Batesville he received a copy of train order No. 235 and read it to the fireman, who repeated the order. The engineman understood that he was required to stop his train clear of the north siding-switch at Mount Olive. When his train was about 2 miles south of Mount Olive he read the order again to be certain of the engine number of the train to be met and again informed the fireman of the engine number. When his train was approaching the station mile-board he sounded signal 14(n). When his train was near the south switch of the siding and moving at a speed of 50 or 55 miles per hour, he saw a train standing on the siding. As his engine passed the engine on the siding he asked his fireman whether it was engine 1273, and the fireman replied in the affirmative.

When he passed the caboose he saw one marker displayed at the rear end and asked the fireman whether there were two markers; the fireman again replied in the affirmative. The fireman looked back for a short time and then started to tend the fire. Hearing a stop signal sounded on the train air-signal whistle when his engine passed the station he closed the throttle immediately and made a 20-pound brake-pipe reduction. He thought his engine was about 300 or 400 feet north of the station when he made this brake application, which was not released. He looked back and saw the train porter giving stop signals from the doorway of the baggage car; then, looking ahead, he saw the opposing train rounding the curve. He placed the brake valve in emergency position and jumped off just before the collision. The speed of his train was about 25 miles per hour at the time of the collision. He stated that there was considerable similarity between engine 91, which was standing on the siding, and engine 1273, of the train to be met. He did not think it safe to leave his usual position in the cab of an engine while in motion to cross over to the other side to identify the engine number of an opposing train. In this instance he made no effort to identify the engine number, as he depended upon the fireman to do so. He knew the rules required him to identify the train; however, it is customary to depend upon the fireman when the fireman is in better position to see the engine number of an opposing train. He has last been examined on operating rules about one year prior to the time of the accident. He had never been criticized by an official for not personally identifying an opposing train.

Fireman Mock, of No. 232, stated that as his train approached the station mile-board south of Mount Olive the speed of his train was between 55 and 60 miles per hour and the engineman sounded signal 14(n). The fireman saw a train on the siding and informed the engineman that it was not No. 261, and he gave the engineman a hand signal to reduce speed. The engineman applied the brakes, and, thinking that the engineman could identify the train on the siding, the fireman started to tend the fire. About that time the engineman released the brakes, and his train passed the north switch at a speed of about 50 miles per hour. He did not hear the train air-signal whistle sounded in the vicinity of Mount Olive. He did not know whether the air brakes were applied in emergency, nor if the engineman closed the throttle.

Conductor Ginocchio, of No. 232, stated that he read train order No. 235 and understood that his train was required to stop on the main track south of the fouling point at the north switch of the siding at Mount Olive if No. 261 was not in the clear.

When his train approached the station mile-board at Mount Olive the speed was about 50 miles per hour and he heard the meeting-point whistle-signal sounded. The train was moving at a speed of 50 or 55 miles per hour when it passed the south siding-switch. He opened the vestibule door on the left side of the third car and stood in the doorway to identify the train to be met. A train which was being hauled by engine 91 was on the siding. He remained standing in the vestibule until his train passed the caboose and then saw that No. 261 was not on the siding behind the other train. He crossed over immediately to the right side and looked ahead. When he became certain that No. 261 was not in the clear he entered the second car and made two attempts to apply the brakes by means of the conductor's emergency valve; however, there was no exhaust at the valve, but he noticed a reduction in speed; soon afterward the collision occurred. The speed of his train was about 35 miles per hour at the time of the accident. He thought that his engineman was able to see whether No. 261 was in the clear; therefore; he did not think the responsibility of taking action to stop his train rested upon him until his train reached a point where he could be certain that No. 261 was not on the siding. He said that the train porter did not inform him that No. 261 was not in the clear at Mount Olive. He had been assigned to this run as conductor on July 12, under an interdivisional agreement. He had last worked on this division about one year previously. He thought that he was familiar with the physical characteristics of the division.

Train Porter Brazil, of No. 232, stated that he read and understood train order No. 235. When his train approached the station mile-board at Mount Olive he heard signal 14(n) sounded and, as he looked from the doorway of the baggage compartment of the second car, he saw a train standing on the siding. Because his train was moving at a speed of 55 miles per hour as it passed the south switch he was unable to identify the number on the front of the engine, but he saw the numerals 91 on the side of the tender. As soon as his train passed the rear of the train on the siding, seeing that No. 261 was not in the clear, he sounded one blast on the train air-signal and from the right doorway began to give stop signals to the engineman. The engineman looked back but made no attempt to stop; then the porter started toward the emergency valve in the rear of the coach compartment and, seeing the conductor enter from the rear vestibule, called to the conductor to apply the brakes as No. 261 was not on the siding. Train Porter Brazil said that he then went back to the baggage compartment, sounded two blasts on the communicating signal and again gave stop signals to the engineman. At that time his train was near the north switch of the siding and he felt an application of the air brakes as he looked around the curve and saw No. 261 approaching. He thought that his train was passing the station when he sounded the train



air-signal the first time, but he did not feel an application of the brakes until the train reached the north switch. The speed was reduced to 30 or 35 miles per hour at the time of the accident, which occurred about 12:25 p. m.

Flagman Hackley, of No. 232, stated that he read train order No. 235 and understood that if No. 261 was not in the clear at Mount Olive his train was required to stop on the main track south of the fouling point at the north switch of the siding. When the train was approaching the point of accident the speed was about 55 miles per hour and the engineman sounded signal 14(n). The flagman was stationed on the rear platform of the third car. He saw engine 91 with about 18 or 20 cars and a caboose on the siding. When he could see that No. 261 was not standing at the rear of this train, the rear end of his own train was passing the station and he felt the air brakes being applied as though in emergency. He sounded two blasts on the train air-signal system and gave stop signals to the engineman. He did not hear the train air-signal sounded by anyone else; however, he saw the train porter giving stop signals. He estimated that the speed of his train was about 25 miles per hour when it passed the north switch of the siding.

Conductor Brodie, who was deadheading on No. 232, stated that he was in the third car and after the train passed the station at Mount Olive he heard two blasts on the train air-signal system. When the train was about 15 car lengths south of the north switch of the siding he felt an application of the air brakes. He estimated that the speed was about 30 miles per hour when the train passed the north siding-switch, and was about 25 miles per hour at the time of the accident.

Fireman Stone, of No. 261, stated that the air brakes were tested at Cotter and they functioned properly en route. He read train order No. 235 to the engineman and both understood its requirements. When his train was approaching Mount Olive the engineman sounded signal 14(n) at the station mile-board north of Mount Olive and then made two brake-pipe reductions in succession, which reduced the speed to about 10 miles per hour; the speed of the train was being controlled properly and the train would have stopped short of the north switch of the siding. The fireman was watching for the north siding-switch when he saw No. 232 approaching about five pole spaces distant. He immediately warned the engineman and then jumped. The fireman said that his engineman could not see the approaching train because of track curvature.

Front Brakeman Deatherage, of No. 261, stated that he had read train order No. 235 and knew that his train was required to take siding at Mount Olive. When his train approached the station mile-board north of Mount Olive the speed was about 25 miles per hour and the engineman sounded signal 14(n). He was in the brakeman's booth on top of the tender when he felt the brakes being applied. He stopped outside the booth preparatory to opening the siding switch and saw the fireman jump off. This was the first knowledge that the front brakeman had of anything being wrong. The speed of his train at the time of the accident was about 10 miles per hour.

Conductor Van Beber, of No. 261, stated that the brakes functioned properly en route. He understood that his train was required to take siding at Mount Olive in accordance with the provisions of train order No. 235. When his train was approaching the point of accident he felt the brakes being applied; the speed of his train was being controlled properly and he anticipated no difficulty in stopping at the north switch of the siding. His train was moving about 3 or 10 miles per hour at the time of the accident, which occurred at 12:27 p. m.

The statements of Flagman Garbacz and Middle Brakeman Adams, of No. 261, added nothing of importance.

Conductor Garbacz, of No. 299, which was on the siding at Mount Olive at the time of the accident, stated that after the accident his engine moved the rear three cars of No. 232 to Batesville. After his engine was coupled to the rear car difficulty was encountered in charging the train brake system. He inspected the cars and found that the conductor's emergency valve in the baggage-coach was open.

Trainmaster Hobbs stated that frequently he had made trips over the Cotter District with the crew of No. 232. He considered these employees capable and competent, and he had never had occasion to take exception to the manner in which they performed their duties.

Road Foreman of Engines Tuckness stated he had observed that Engineman Kist was careful in complying with train orders, and on several occasions he had seen that engineman cross to the left side of an engine cab to check the engine number of a train to be met. He said that a train such as the one involved, moving at a speed of 50 or 55 miles per hour, should be stopped as a result of an emergency application of the brakes within a distance of about 1/4 mile.

Superintendent Fink stated that positive identification of engine numbers on trains is required of trainmen and engineers; this requirement was stressed by the rules examiner about 1 year prior to the accident when the employees of this division were examined on operating rules. Classes in which operating rules are discussed are conducted by trainmasters at division points at least once a month. All train-service employees are re-examined by the rules examiner at 2-year intervals. Division staff officials are required to make surprise and observation tests of train-service employees and assure themselves that the employees are complying with the rules.

Roundhouse Foreman Cotter stated that the engine number is displayed on the front number plate, which is on the headlight bracket, on each side of the headlight cage, on each side of the cab below the side windows, and on each side of the tender. The numerals on the front number plate, which is a black cast-iron plate 7 inches wide and 13 inches long, are raised aluminum figures 2-1/4 inches wide and 5-1/4 inches high. The numerals on each side of the headlight cage are 2-1/2 inches wide and 3-3/4 inches high on a black background 5 inches high and 10-1/2 inches long, and set at an angle of 45 degrees. The numerals on each side of the cab are of aluminum and are 12-1/2 inches wide and 13-1/4 inches high. The numerals on each side of the tender are centrally located and are 18 inches wide and 20-1/2 inches high.

According to data furnished by the railroad, during the 30-day period preceding the day of the accident there were 148 south-bound and 146 north-bound trains operated on the line involved; the daily average movement was 9.6 trains.

#### Observations of the Commission's Inspectors

After the accident the Commission's inspectors observed that the north switch of the siding at Mount Olive could be seen from the right side of a north-bound engine a distance of 745 feet. The point of accident could be seen from the right side of a north-bound engine a distance of 1,556 feet, and from the left side a distance of 693 feet. Using engines of the same types as engines 91 and 6420, the inspectors found that an engineman of a north-bound engine in his normal position would lose sight of the front number plate of an engine standing on the siding at a distance of 315 feet; at this distance the numerals were indistinct. The numbers on the side of a tender could not be read until the engines passed each other.

### Discussion

According to the evidence, the crew of No. 261 understood that their train was required to take siding at Mount Olive for No. 232. No. 261 was reducing speed preparatory to entering the siding when the accident occurred. The crew of No. 232 understood the provisions of train order No. 235. When this train was approaching the meeting point the engineman sounded the meeting-point signal as required by the rules. There was considerable discrepancy in the statements of the engineman and the fireman regarding their actions when passing the siding at Mount Olive. The engineman said that as his engine passed an engine standing on the siding he asked his fireman whether it was the train that was to be met and the fireman answered that it was; he asked whether the markers were displayed properly at the rear end and the fireman answered that they were. The fireman said that he told the engineman it was not the train to be met and gave a signal for the speed to be reduced. As the track curvature was favorable for the engineman to see ahead, the fireman then occupied himself in tending the fire, and was not concerned further about the operation of his train. The engineman said that he understood the rules required his train to stop clear of the switch to be used by the train to be met; also, that he was required to identify the train to be met by its engine number. Since he did not think it safe to leave his usual position and to cross to the left side of the cab to identify the train on the siding, he depended upon the fireman to perform this duty.

The speed of the train was 50 or 55 miles per hour as No. 232 passed the station at Mount Olive and the train air-signal was sounded. The engineman looked back and saw the train porter giving stop signals, then looked ahead and saw the train to be met was on the main track north of the north switch; the distance was then too short in which to stop the train in time to avert the accident. Had the speed of No. 232 been controlled properly until the engineman was certain that the train to be met was on the siding, this accident would have been averted. Had the fireman been more concerned as to the safe operation of his train in accordance with the rules after he had seen that the train on the siding was not the one to be met, it is probable that this accident would have been averted.

The conductor of No. 232 understood that No. 261 was to be met at Mount Olive and stationed himself in a location where he could observe and identify the engine number. He did not think the responsibility of stopping his train rested upon him until he could see clearly that the train to be met was not on the siding. When he saw that the train to be met was not in the

clear he took action to stop the train but too late to avert the accident. The flagman was stationed in a location where he could see the train to be met and, after observing that it was not in the clear, he pulled the train air-signal cord; however, this action was taken too late to avert the accident.

The train porter was stationed at a point where he could see that the train to be met was not in the clear and pulled the train air-signal cord, then gave hand signals to the engineman to stop the train. Had he opened the conductor's emergency valve instead of attempting to attract the attention of the engineman, it is probable the train could have been stopped in time to avert the accident.

Had some form of block system for opposing movements been in effect on this line it is probable this accident would have been averted.

#### Conclusion

This accident was caused by failure to obey a meet order.

Respectfully submitted,

S. N. MILLS,

Director.