

Inv-2143

INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT OF THE DIRECTOR

BUREAU OF SAFETY

ACCIDENT ON THE

WESTERN MARYLAND RAILWAY

OLDTOWN, MD.

FEBRUARY 9, 1937

INVESTIGATION NO. 2143

SUMMARY

Inv-2143

Railway: Western Maryland
Date: February 9, 1937
Location: Oldtown, Md.
Kind of accident: Derailment
Train involved: Freight
Train number: Extra 1111 West
Engine number: 1111
Consist: 162 empty cars, caboose
Speed: 28 m.p.h. at time of first slip-over;
19 m.p.h. at time of second slip over
Track: Several curves and tangents, followed
by 690 feet of tangent to point where
second slip-over occurred; grade 0.38
percent ascending at point of accident
Weather: Cloudy and misty
Time: 1:45 p.m.
Casualties: 1 injured
Cause: Train parted account of bent carrier
iron^{low} coupler and free slack in
draft gear of refrigerator car

April 22, 1937

To the Commission:

On February 9, 1937, there was a derailment of a freight train on the Western Maryland Railway near Oldtown, Md., which resulted in the injury of 1 employee.

Location and method of operation

This accident occurred on the West Subdivision of the Hagerstown Division, extending between Hagerstown and Cumberland, Md., a distance of 79 miles; in the vicinity of the point of accident this is a single-track line over which trains are operated by timetable, train orders and an automatic block-signal system. The derailment occurred at a point approximately 1.7 miles west of Oldtown; approaching from the east there is a 3° curve to the right 1,003 feet in length, 1,359 feet of tangent, a 4° curve to the left 2,142 feet in length, then 690 feet of tangent to the point where the train parted, this tangent extending a distance of 62 feet beyond, followed by a 3° curve to the right 538 feet in length. The locomotive stopped on this last mentioned 3° curve, the train parted on the tangent east thereof, the derailment occurred at the extreme eastern end of the 4° curve and the caboose stopped on the first mentioned 3° curve. The grade is ascending for west-bound trains, varying from 0.34 to 0.50 percent, being 0.38 percent where the train parted.

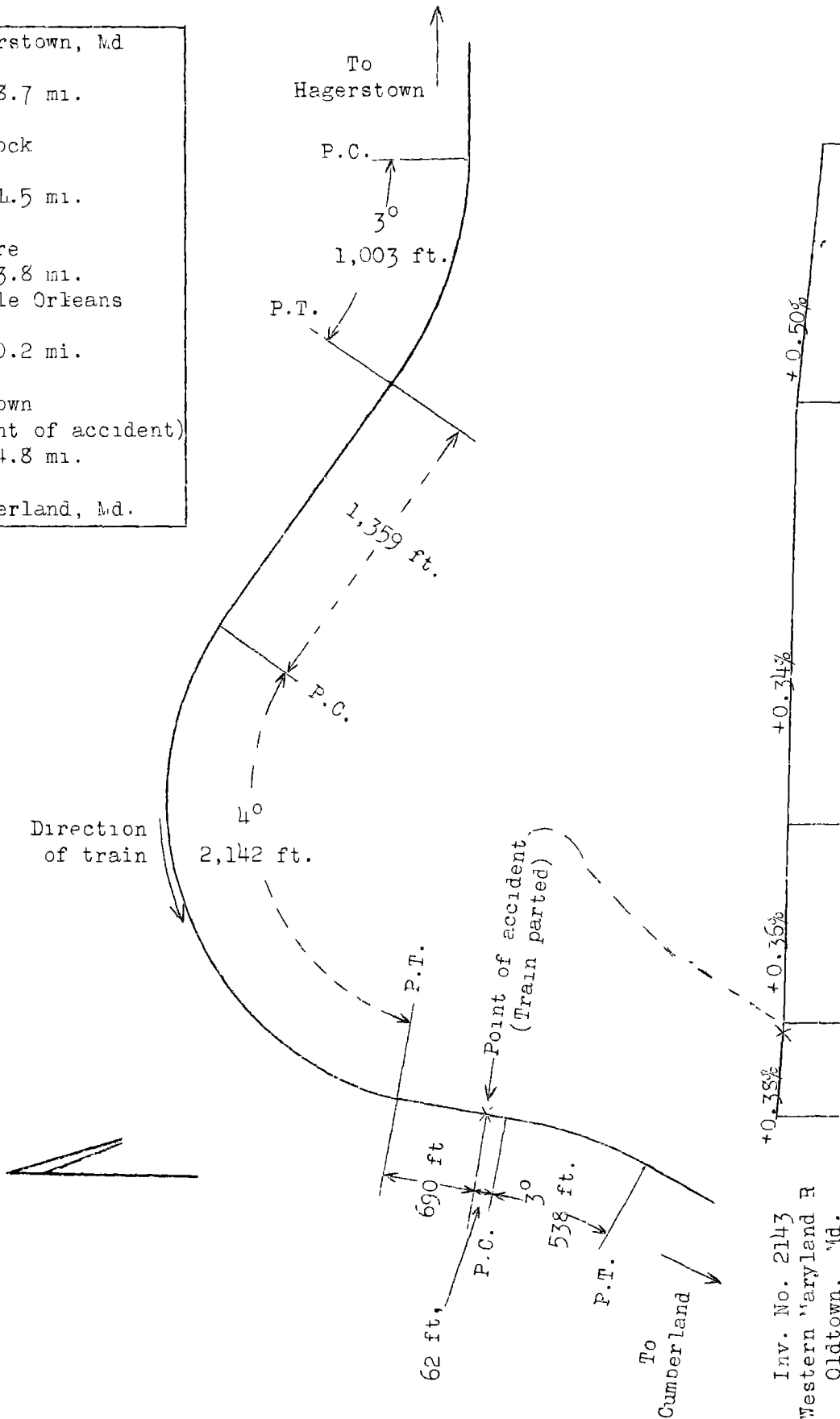
The track in this vicinity is laid with 90-pound rails, 33 and 39 feet in length, with 18 and 22 treated ties to the rail length, fully tieplated and spiked, and ballasted with crushed rock to a depth of 12 inches; 6 anticreepers per rail are used. The track is well maintained.

The weather was cloudy and misty at the time of the accident, which occurred about 1:45 p.m.

Description

Extra 1111 West, consisting of 162 empty cars and a caboose, hauled by engine 1111, of the 2-10-0 type, was in charge of Conductor French and Engineman Green. This train departed from Hagerstown at 3:40 a.m., according to the train sheet, and at about 5:50 a.m., when near Pearre, located 40.2 miles beyond, while traveling at a speed of about 28 miles per hour, a slip-over of couplers occurred between W.C.L.X. 5908 and A.R.L.X. 16036, the eighth and ninth cars, causing an

o Hagerstown, Md	
28.7 mi.	
o Hancock	
11.5 mi.	
o Pearre	
3.8 mi.	
o Little Orleans	
20.2 mi.	
o Oldtown	
X (Point of accident)	
14.8 mi.	
o Cumberland, Md.	



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 Western Maryland R
 Oldtown, Md.
 Feb. 9, 1937

emergency air brake application which resulted in 14 cars being knocked off center and damaged. These 14 cars, together with the 2 cars that parted, were set out. Extra 1111 West then proceeded and at about 1:45 p.m., while ascending the grade just west of Oldtown, approximately 25.7 miles beyond, at a speed of about 19 miles per hour, another slip-over of couplers occurred between W.C.L.X. 5415 and Wabash 45020, the ninth and tenth cars, causing an emergency air brake application and a severe run-in of slack, which resulted in 48 cars in the rear portion of the train being knocked off center and damaged, while 10 cars located between the seventy-fifth and ninety-second cars were buckled out of their position in the train and derailed, stopping in various positions. The employee injured was the conductor who was in the caboose.

Summary of evidence

Engineman Green stated that the air brakes were tested at Hagerstown before the train departed. At Hancock, 28.7 miles beyond, two cars were set off and water was taken while the brakeman looked the train over. On reaching a point about 1 mile west of Pearre, 11.5 miles beyond Hancock, the first slip-over occurred, following which the damaged cars were set out and the train departed. On reaching Oldtown, 24 miles west of Pearre, another stop was made for water and at a point about 1.7 miles beyond Oldtown another slip-over occurred. The accident was reported to the dispatcher, following which the two cars involved in the slipover were recoupled and the undamaged portion of the train was hauled to Ridgeley yard, on the opposite side of the Potomac River from Cumberland.

Fireman Herman stated that after the second slip-over occurred near Oldtown, he went back and found the knuckles closed between the ninth and tenth cars, which had parted, but he made no examination as to the cause of the uncoupling. Head Brakeman Fleagle said that the two cars involved in the first slip-over were set out at Little Orleans, 3.8 miles west of Pearre and after the second slip-over occurred he examined the couplers involved; the coupler at the east end of the west car drooped and the striking horn was some distance from the face of the buffer block; there was a mark on the top of the knuckle where it had been scraped by the bottom of the adjacent knuckle, both being 9-inch-face knuckles. The carrier iron of the west car was bent downward to some extent and he wired the couplers together with a bleed cock rod. He thought that due to the weather, the wet condition of the couplers had considerable to do with the slip-overs.

When the first slip-over occurred near Pearre Conductor French was on the engine; he went back and found that both knuckles involved were closed; however, he did not know what had caused them to slip. When the second slip-over occurred near Oldtown, he and Flagman Baker were in the caboose.

Car Inspectors Kipe, Piper, Burger, Lizer, and Weaver, and Gang Leader McAbee, West End Shop yard at Hagerstown, Md., made statements to the effect that the two cars involved in the slip-over, W.C.L.X. 5908 and A.R.L.X. 16036, were inspected on February 8, but no exceptions were taken to their condition, at which time the cars were bunched. Couplers are not gauged for height unless they appear to be too high or too low.

Car Foreman Thomas, at Hagerstown, stated that these two cars came to the shop track on February 11, and that he inspected and repaired them; the couplers were wired together with release rods which were removed and measurements taken. The coupler at the B end of car W.C.L.X. 5908 had slipped under the coupler of A.R.L.X. 16036, this being indicated by a new scrape mark on the top of the knuckle of W.C.L.X. 5908, and a mark on the bottom of the knuckle of A.R.L.X. 16036, both of which were 9-inch face knuckles. His inspection and measurements were as follows:

<u>Car</u>	W.C.L.X. 5908 (B-end)	A.R.L.X. 16036 (B-end)
Height of coupler at rest with slack pushed in and horn 2 inches from striking casting	32"	33 $\frac{1}{4}$ "
Distance between top of coupler shank and buffer casting	1 $\frac{1}{2}$ "	1 5/8"
Height of coupler when jacked up against buffer casting	36 $\frac{1}{4}$ "	37 $\frac{1}{2}$ "
Distance from horn of coupler to striking casting:		
With slack pulled out	4 $\frac{3}{4}$ "	4 $\frac{1}{4}$ "
With slack pushed in	2"	2"
Free slack coupler	2 $\frac{3}{4}$ " type D, 6"x8", with key attachment. Carrier iron bent down, new bend.	2 $\frac{1}{4}$ " type D, 6"x8" key attachment

The height was measured when the couplers were pushed in, but not when pulled out; the height of coupler in W.C.L.X. 5908 with its head drooped as a result of the bent carrier iron would, when pulled out, be considerably lower than when pushed in; also, the farther the coupler extended as a result of free slack or compression of the gear, the greater would be the tendency for the coupler to droop. The coupler on W.C.L.X. 5908 was adjusted to 34 $\frac{1}{2}$ inches by removing and straightening the carrier iron and replacing a wear plate; the coupler on A.R.L.X. 16036 was raised to 34 $\frac{1}{2}$ inches by the application of a wear plate on the carrier iron and the 1 5/8 inches clearance above the coupler shank which permitted this coupler to be raised up to 37 $\frac{1}{2}$ inches was corrected by the application of a yoke plate riveted to the buffer casting. No repairs were made to the draft gears of either car to remove the free slack. In his opinion the low coupler, which caused the first break-in-two at Pearre, was due to the bending of the carrier iron after the car left the terminal.

According to statements by Car Inspectors Kipe, Piper, Burger, Lizer and Weaver and Gang Leader McAbee, Wabash 45020

which was involved in the second slip-over, was received from the Reading Company on February 6 and was shopped at Hagerstown for vertical wheel flange, L-2 location, and a low coupler at A end of car. The gauge showed the coupler height to $32\frac{1}{2}$ inches or less and a $\frac{3}{8}$ inch shim was applied at the A end. The car was given a general inspection, including coupler contours, and carrier irons and the draft gear was tested. The car was released from the shop track at 4:30 p.m. February 8. These employees were not familiar with the instructions relative to excessive slack in draft gears. One inspector stated cars were permitted to continue in service when the horn of the coupler extended 8 inches from the buffer casting with slack stretched, and he said he would not shop cars when this distance measured less than 8 inches; neither did he know the proper distance between the coupler horn and the striking casting with the coupler at rest, and he could not say as to the normal travel of draft gear from a state of rest to full compression under a pull. In the transportation yard, cars are coupled together and under these conditions, it is impossible to take measurements of slack. Cars are shopped for draft gears when any part is found broken. W.C.L.X. 5415 was inspected while in a train on February 8 and no exceptions were taken to its condition; the draft gear was in good shape, the couplers matched and the carrier irons were not bent. The slack was pushed in on the car at the time and the amount of slack could not be determined. The height of the coupler was not gauged and the contour of the couplers could not be seen or checked.

Carman Helper Clark, at Ridgeley, W. Va., stated that he and another employee inspected the train about 4:10 p. m., February 9, upon its arrival in the transportation yard. W.C.L.X. 5415 and Wabash 45020 were wired together with a release rod which he removed. Nothing was found wrong with Wabash 45020; on W.C.L.X. 5415 there was a low coupler and the carrier iron was bent downward about 1 inch and grooves were worn in it by the coupler. He did not gauge the height of this coupler, but the top of the knuckle was about $4\frac{1}{2}$ inches below the top of the adjacent knuckle on Wabash 45020. He found a mark across the top of the knuckle on car 5415, indicating that there had been a slip-over, but as he did not see any mark on the bottom of the other knuckle he did not conclude that there had been a break-in-two at this coupling and no one had advised him that this had occurred. He examined the truck springs, but in his opinion the bent carrier iron was the cause of the low coupler. When he went to the yard to inspect this train he was told to report any defects that he found; he reported to the regular inspectors the condition of W.C.L.X. 5415 and was instructed to make

whatever repairs he thought were necessary as quickly as possible. The two cars were coupled and he did not consider straightening the bent carrier iron and made no request to have them separated; the coupler of W.C.L.X. 5415 was jacked up and two 3/8 inch shims were applied, which raised it to within 1/4 inch of being even with the coupler of Wabash 45020; he did not gauge the height of the coupler either before or after applying the shims and he did not check the contour of these couplers or the slack in the draft gear of either car. He made a record of the defect and repairs and gave it to the air brake inspector. Carman Helper Wolford, at Ridgeley, gave testimony similar to that of Carman Helper Clark; the knuckle on W.C.L.X. 5415 drooped considerably at the head and contacted the adjacent knuckle with slightly more than one-third of its surface.

Car Foreman Askey, at Ridgeley, stated that he was not originally advised of any exceptions being taken to the two cars involved, but later was advised that shims had been applied to W.C.L.X. 5415 and the cars had gone forward at 6:45 p.m. On February 11 he learned that W.C.L.X. 5415 and Wabash 45020 were the cars involved in the accident near Oldtown and he afterwards learned that the knuckles of these cars were tied together with release rods at the time they arrived at Ridgeley on February 9. Foreman Askey said that he was away from Ridgeley when Extra 1111 West arrived and that his assistant foreman was in charge during his absence. He had no information regarding cars on which couplers may have slipped over and caused the accident near Oldtown. He thought it was satisfactory to leave repairs involving violations of the Safety Appliance Acts to carman helpers without further supervision, saying that their work is usually checked by supervisors but that no such officer checked the work done on W.C.L.X. 5415. He does not regularly allow car repair helpers to do such work and then leave to their judgment whether or not the work has been properly performed, but in this case the train was called and the air test was being made and he considered Carman Helper Clark competent to make any necessary repairs. It is not customary when cars are in the train and their couplers match up, to gauge the height of couplers or check the contours of knuckles and the amount of draft gear slack. If couplers were found wired together with a release rod he thought it sufficient to make repairs as was done in this case and forward the car without further inspection, saying that he would have done the same. However, provided he or his assistant foreman had seen the knuckles wired together with release rod and the other conditions as reported in this case, indicating that there had been a break-in-two, he undoubtedly would have had the cars separated, checked the

coupler contours and slack in gears and would have gone into the matter more thoroughly than the carman helpers did, the carman helper also should have done this. The work as done was a temporary repair and to have made permanent repairs it would have been necessary to separate the cars and straighten the carrier iron. As far as he knew his regular inspectors or foreman did not check up on these cars either before or after the helpers worked on them. The matter of correcting draft gear slack is one of the things that they have been doing for a long time. When periodic air brake service is given to their own cars, attention is also given draft gear slack and instructions have been issued to insure the same handling with respect to foreign cars. Inspectors were particularly instructed in the matter of draft gear slack and were familiar with such instructions, but they did not get many cars in the shop for that trouble, his personal observation being that there is not much draft gear slack in any cars. He was acquainted with the A.A.R. recommended practice in regard to free slack in draft gears, but did not know what the recommendations were with respect to owners' cars at time of periodical air brake cleaning. He had heard about the circular recommending that where the slack is more than $1\frac{1}{2}$ inches it should be taken out and said he was doing that on his shop track. He stated that the horn of the coupler in normal position stands from 3 to $3\frac{1}{2}$ inches from the striking casting and in order to determine the free slack he pulls the coupler out and pushes it back and examines the draft gear under the car for slack, measuring it on some occasions and not on others. His understanding of free slack in draft gears is the difference in the standard slack and the amount of slack that would be in a draft gear when the coupler is pulled out and then pushed back as far as it will go.

Track Supervisor Purnell arrived at the scene of accident about 1 hour 10 minutes after its occurrence. After wreckage was cleared he made a detailed inspection of track conditions, but nothing was found that would have caused or contributed to the accident. Inspection of the track by the Commission's inspectors disclosed it to be in good condition and there was nothing to indicate that track conditions had any bearing on the accident.

Inspection by the Commission's inspectors of the cars involved in the second break-in-two near Oldtown disclosed no defects or condition on Wabash 45020 which would have caused or contributed to the slip-over. The couplers were found to be well within the limits of height prescribed by the Safety Appliance Acts and by A.A.R. rules. The free slack in the draft gear was $\frac{3}{4}$ inch at the A-end of the car, and $\frac{5}{8}$ inch at B-end. Both knuckles were 9-inch face knuckles and the

one at A-end bore a mark on the bottom indicating that it had slipped over another knuckle.

Inspection of refrigerator car W.C.L.X. 5415, on February 22, disclosed the following:

Coupler contour within prescribed limits, A and B-ends.
Air brake cleaning stencilled 9/21/36. W.C.L. - K.C.
Stencilled on both ends of car - "Draft gear inspected and adjusted 2/6/36."

Coupler height, A-end with slack pulled forward 32".
Coupler height, A-end with slack pushed in 32 $\frac{3}{4}$ ".
Distance from horn of coupler to striking casting, with slack pulled forward 4 $\frac{3}{4}$ ".
with slack pushed in 2 $\frac{1}{4}$ ".
free slack in draft gear 2 $\frac{1}{2}$ ".
Space above coupler shank to buffer casting 1 5/8".

Coupler height, B-end with slack pulled forward 32 7/8".
Coupler height, B-end with slack pushed in 33 1/8".
Distance from horn of coupler to striking casting, with slack pulled forward 5 $\frac{1}{4}$ ".
with slack pushed in 2 $\frac{3}{4}$ ".
free slack in draft gear 2 $\frac{1}{2}$ ".

Knuckle scraped across top indicating another knuckle had passed over it.

Carrier iron shows that it had been very recently replaced.
Space above coupler shank to buffer casting 1 inch.

Information obtained by the Commission's inspectors disclosed that after the temporary repairs were made at Ridgeley yard on February 9, this car was delivered in interchange on the same date to the Pittsburgh & West Virginia Railway at Connellsville, Pa., delivered by that carrier to the Wheeling & Lake Erie Railway, thence delivered to the New York, Chicago & St. Louis Railroad and was moved to St. Louis, Mo., where it was interchanged through the Terminal Railroad Association of St. Louis to the Missouri Pacific Railroad, hauled by that carrier to Kansas City, Mo., and through interchange by the Kansas City Terminal Railroad was delivered to its owner, the Wilson Car Lines, on February 15, at which time it was shopped for repairs account "carrier iron bent at B-end and meat rail broken." The records of the car owner show that this car was placed on the repair track February 15, repaired and released for loading on same date and that the following repairs were made:

"1 new carrier iron applied B-end.
2 new $\frac{3}{4}$ x 3" rivets B.
2 temporary shims removed with bent carrier iron B.
1 piece meat rail applied.
Air brake tested, journal boxes inspected.
No other repairs made."

Discussion

Extra 1111 West parted on two different occasions on the trip from Hagerstown to Ridgeley February 9, both cases being due to the knuckle of one car slipping over the knuckle of the adjacent car.

The break-in-two near Pearre, was due primarily to defective draft gear attachments and supports on the east end of W.C.L.X. 5908 and the west end of A.R.L.X. 16036, both empty cars, which permitted the knuckle of the former to slip under the knuckle of the latter. The carrier iron of W.C.L.X. 5908 was bent downward, the coupler head drooped until it was only 32 inches high with the coupler pushed in, and the coupler horn two inches from the striking casting; there were $2\frac{3}{4}$ inches of free slack in the draft gear of this coupler. This slack, together with gear compression when the coupler was stretched out, undoubtedly permitted the coupler to fall below the minimum height of $31\frac{1}{2}$ inches prescribed by Federal law and by A.A.R. rules. The coupler of A.R.L.X. 16036 was found to have $2\frac{1}{2}$ inches of free slack and there was a clearance of $1\frac{5}{8}$ inches between the top of coupler shank and the buffer casting which permitted the coupler to raise to a height of $37\frac{1}{2}$ inches. The height of both couplers was adjusted but the cars were returned to service without the excessive free slack being corrected.

In the accident near Oldtown, the knuckle of car W.C.L.X. 5415 slipped under the knuckle of Wabash Car 45020 while the train was stretched on an ascending grade. W.C.L.X. 5415 and Wabash 45020 were recoupled, their knuckles fastened with a release rod and a portion of the train consisting of 67 cars then proceeded to Ridgeley yard. The testimony of Car Foreman Askey at Ridgeley yard, and also of Carman Helpers Clark and Wolford, disclosed that these cars were to be inspected and repaired as quickly as possible. Two Carman Helpers applied two $\frac{3}{8}$ inch shims under the coupler of W.C.L.X. 5415 which brought it up nearly even with the adjacent coupler. They did not repair the bent carrier iron or request that the cars be separated, but did the work while the cars were coupled together. They made no examination of the slack in the draft gears or of contours of the couplers and did not measure the

height of the couplers either before or after the repairs were made. Helper Clark noticed the scrape mark on top of the knuckle of W.C.L.X. 5415 indicating that a slip-over had occurred and he looked for a corresponding mark on the bottom of the knuckle of Wabash 45020, but finding none he did not conclude that a slip-over had occurred, neither was he so advised by anyone at that time. The statements of these helpers plainly indicated that they considered it their duty to make the best temporary repairs that could be made with the least delay.

The evidence further shows that no direct supervision was extended over the helpers in their work on these cars and that their work was not inspected or checked by any qualified supervisor and that the cars proceeded to Connellsville, Pa., a short time thereafter and were delivered in interchange to a connecting line.

Inspectors at Hagerstown who inspected these cars prior to their movement in Extra 1111 West took no exceptions to their condition. The evidence indicated that excessive slack in couplers and attachments was not readily determined in ordinary train yard inspections at this point and that a clear and uniform understanding of free slack and instructions relative thereto, did not prevail among regularly assigned inspectors; that there was a wide difference of opinion as to when a car should be shopped for such defects and as to how the amount of free slack should be determined.

By tracing the movement and records of W.C.L.X. 5415 after the accident it was found that this car moved from Ridgeley, W. Va., to Kansas City, Kans., in the same condition in which it left Ridgeley; that it reached the car owner, Wilson Car Lines, with the carrier iron bent and two shims under the coupler at the B-end, and was shopped and given repairs by the owner on February 15 and released for further service. Inspection by the Commission's inspectors on February 22, at the plant of the Wilson Car Lines at Kansas City, subsequent to repairs by owner, revealed that there were $2\frac{1}{2}$ inches of free slack in the draft gear at each end of this car which undoubtedly existed and was not eliminated when the new carrier iron was applied and other repairs were made on February 15. Excessive draft gear no doubt caused or contributed to the bent condition of the carrier iron, and after the application of a new carrier iron it was to be expected that a similar condition would again develop because of the excessive overhang of the coupler when the slack was pulled out.

The car foreman of Wilson Car Lines has a repair force of 14 men and an average of 25 cars per day are repaired; he has never received any instructions relative to, or a copy of A.A.R. Circular DV-826, and does not check or eliminate excessive free slack in draft gears on cars which are on his shop track for periodic cleaning of air brakes or other repairs, unless broken parts are found which make it necessary to drop the draft gear for repairs.

The following rules have been adopted as recommended practice of the Association of American Railroads, Mechanical Division, Circular No. D.V.-826, dated January 7, 1935, relative to inspection and maintenance of draft gears and attachments by car owners:

1. When cars are on repair tracks for periodic air brake attention, examine and renew defective parts of draft gears, couplers and their attachments and supports. This will not require removal of draft gear for this examination, except where found defective or where total slack from coupler horn to striking casting exceeds $1\frac{1}{2}$ in.; slack to be the difference in distance between coupler striking horn and striking casting when coupler is pulled out with a bar and sledged back solid.
2. When cars are undergoing general repairs, draft gears will be dropped for examination, and couplers, their attachments and supports will be inspected and necessary repairs and replacements made.
3. In renewing defective draft gears, certified gears should be applied if spacing permits, or serviceable second-hand gears of other types, not considered inefficient or obsolete as per list shown in A.A.R. Interchange Rule 101, may be applied. Certified gears must be renewed with certified gears.

Car owners are requested to see that these rules are strictly enforced on their own cars, in order to improve the condition of the couplers and draft gears by the elimination of the slack in the gears as far as possible.

In the period of approximately two years following the adoption of these recommended practices, investigations of accidents have indicated that the urgently needed improvements in draft gear conditions were not accomplished in all cases and that the recommendations were not being complied with by some carriers as well as private car lines. Consequently, A.A.R. Circular DV-889 was issued under date of

December 4, 1936, restating the recommended practices and again calling attention of all car owners to the importance of reducing unrestricted slack in trains and requesting all railroads and private car owners to take prompt action to follow the recommended methods of draft gear inspection and maintenance and thus avoid the necessity of the A.A.R. formulating rules to make this practice mandatory. By direction of the general committee of the A.A.R., Circular DV-889 included the following:

"It is also requested that each railroad and car owner submit to the Secretary copy of existing instructions relative to this subject or copy of such instructions as may be issued at this time to carry out the intent of the foregoing recommended practice."

The two instances of couplers slipping over in the train involved in this accident, as well as several similar cases investigated by this Bureau in recent months, and the marked increase in the last two years of accidents in which the cause has been attributable wholly or in part to conditions of draft gears, attachments and supports, demonstrates the hazards of defective draft assemblies and points to the urgent need for positive and mandatory action to eliminate them. The break-in-two and consequent buckling of long trains, such as twice occurred in this train, is a hazard which calls for remedial action on any line, but the hazard to life and property is greatly increased when such defective cars are hauled on double or multiple-track lines with trains traveling on adjacent parallel tracks.

Only one car in the train involved was equipped with an "AB" type air brake. The action of the air brakes on both occasions illustrates the fact that under such conditions the serial action with older types of air brakes is not fast enough, on freight trains of considerable length, to prevent destructive slack action when an emergency application takes place. This accident emphasizes the urgent need for improved brakes and points to the necessity for expediting the progressive change to the new "AB" type of brake on freight cars.

Conclusions

This accident was caused by Extra 1111 West parting between the ninth and tenth cars in the train on account of a bent carrier iron, low coupler and excessive free slack in the draft gear of W.C.L.X. 5415; the break-in-two near Pearre was caused by the train parting between the eighth and ninth

cars due to defective draft gear attachments and excessive free slack in the draft gears.

Recommendations

The recommendations made in previous reports issued by the Commission in connection with similar accidents are hereby repeated:

1. That increased supervision be exercised over car inspection and repair work, and adequate forces maintained properly to perform such work.

2. That the car inspection and repair forces be properly instructed in regard to the matter of free slack in draft gears and the recommended practice relative to inspection and maintenance of draft gears and attachments be strictly complied with.

3. That the rules adopted as recommended practice of the Association of American Railroads, Mechanical Division, Circular No. D.V.-826, dated January 7, 1935, relative to inspection and maintenance of draft gears and attachments by car owners, be made mandatory and extended to include all cars, thereby insuring positive periodic checks and conditioning of draft gears, couplers and their attachments and supports.

Respectfully submitted,

W. J. PATTERSON,

Director.