

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE BALTIMORE & OHIO RAILROAD AT MEDORA, IND., ON JUNE 8, 1921.

July 16, 1921.

On June 8, 1921, there was a derailment of a freight train on the Baltimore & Ohio Railroad at Medora, Ind., which resulted in the death of 3 employees and the injury of 2 employees. After investigation of this accident the Chief of the Bureau of Safety reports as follows:

Location and method of operation.

This accident occurred on the Indiana Division, which in the vicinity of the point of accident is a single-track line over which trains are operated by time-table, train orders, and a manual block-signal system. At Medora there is a station track about 2,100 feet in length which parallels the main track on the north; the west switch, at which the accident occurred, is located approximately 1,560 feet west of the depot. Approaching the point of accident from the west there is a curve of 20' to the right about 1 mile in length, followed by about 925 feet of tangent to the point of accident; the grade is practically level. The track is laid with 100-pound rails, 33 feet in length, with 18 oak ties to the rail, and ballasted with gravel, about 15 inches in depth. The weather was cloudy at the time of the accident, which occurred at about 1.58 a.m.

Description.

Eastbound freight train first No. 90 consisted of 59 cars and a caboose, hauled by engines 2825 and 2849, and was in charge of Conductor Moore and Enginemen Seifker and Downing.

It passed Fort Ritner, 8.3 miles west of Medora, at 1.45 a.m., 27 minutes late, and was derailed at the west switch of the station track at Medora while running at a speed of about 40 miles per hour.

Engine 2825 came to rest on its side about 200 feet beyond the point of derailment, diagonally across the main track, while engine 2849 remained upright and came to rest to the north of and just opposite engine 2825. Seventeen cars were derailed, nine of them being destroyed. The employees killed were the engineman and fireman of the leading engine, and the head brakeman.

#### Summary of evidence.

No statements could be obtained from any of the employees who were riding on the head end of train first No. 90 at the time of the accident, all of them being killed or injured. Conductor Moore, who was riding in the caboose, estimated the speed to have been 35 miles an hour. On examining the switch shortly after the accident he found the points to be fitting properly. The switch is equipped with an Economy switch stand, with a cast iron bowl underneath which is made up in two parts; the connecting rod makes its connection within this bowl. On examining the stand, Conductor Moore found that the lower bowl had been broken and that apparently the connecting rod leading to the stand was also broken, all of the cars were derailed east of the switch and he was unable to account for the damage to the switch. Conductor Moore found nothing

to indicate that there had been anything dragging.

At the time of the accident eastbound freight train No. 88 was standing on the passing track. Conductor Meyers and Fireman Joyner of this train were watching the approach of train first No. 90 and they said the headlight seemed to drop down and then go out, this being when the accident occurred. The conductor, engineman and flagman of this train said the switch points fitted properly, while the conductor, fireman and head brakeman also saw that the bowl under the switch stand was broken. The statements of these employees were to the effect that the first wheel marks were east of the west end of the switch points and between the points and rail leading to the station track

The last two trains to pass this switch were westbound passenger train No. 3, which passed Medora at 12.28 a.m., and westbound freight train extra 2776, which passed at 9.47 p.m., June 7. The switch was last used by the crew of westbound freight train extra 2768, which departed at 9.14 p.m., June 7. The engine and eight cars backed in on the station track, two cars were cut off, and the engine and six cars then pulled out on the main track and backed eastward to couple to the remaining portion of the train. Conductor Robertson, of extra 2768, said he was not in the vicinity of the switch when this work was being done, but felt sure that none of the equipment handled in his train had run through the switch, as after it had been used the engine and 6 cars were backed over it in an easterly direction without any trouble being experienced.

Conductor Robertson also said there was nothing dragging from his train which could have damaged the switch. Head Brakeman Hill, who handled the switch while the two cars were being set out, said that he closed and locked the switch after the engine had pulled out on the main track with the six cars, he did not notice anything wrong with its operation and was positive that he did not close the switch until all of the cars were out on the main track.

Examination of the switch showed that the points had been bent about 3 feet from the western end, while both the top and bottom sections of the cowl had been broken, the breaking of the bottom section allowing the connecting pin of the rod to drop out. There were no indications of anything having been dragging, either from the derailed train or from a preceding train, with the exception of very slight marks between the main track rails 19 inches from the north rail; these marks extended over a considerable distance in each direction and it was clearly apparent that they had nothing to do with the derailment of train first No. 90,

#### Conclusions.

It is believed that this accident was caused by the damaged condition of the west station-track switch.

That this switch was in a damaged condition prior to the accident is apparent not only from the fact that none of the derailed equipment came in contact with it, being derailed just east of the switch, but also from the fact that the

nature of the damage was such as would have been occasioned had it been run through by a westbound movement. It is possible Brakeman Hill, of extra 2768, may have closed the switch too soon and that it was run through by the rear truck of the last of the cars being handled by engine 2768; that in backing eastward on the main track at a low rate of speed to couple to the remaining portion of the train the first pair of wheels followed the main track and forced the switch point firmly against the stock rail, thereby allowing the engine and cars to pass safely over the switch, and that when train first No. 90, the first eastbound train to pass, approached at a high rate of speed, the north switch point was opened sufficiently to cause the train to split the switch.

All of the employees involved were experienced men. At the time of the accident the crew of train first No. 90 had been on duty less than 4 hours, previous to which they had been off duty 25 hours or more.