at Stowe, near Woolton, on the London and North-Western Railway.

The passenger is returned as having been slightly shaken.

The siding in question, which lies on the west of the line, is connected with the down main line at a signal cabin about 2 miles south of Woolton, whereas it runs northward parallel to the main line for about 4 miles, on which point it is used with the usual London and North-Western permanent way; the siding may have been so said to cease, and the Iron Ore Company's line commence, curving away to the westward with a curve of (at the time of the collision) 36 chains radius, on a falling gradient of 1 in 220 for 200 yards, and then on a rising one of 1 in 164 for the next 108 yards. The heavy double-headed London and North-Western rail is continued round the outside of the curve for 25 yards from its commencement; from which point on the outside rail, and from the commencement of the curve on the inside one, a light flat-bottomed rail running 40 lbs. to the yard.訂 freelaid by dog spikes and cross-sleepers, is used for the rest of the Iron Ore Company's line. The junctions of the double-headed and flat-bottomed rail were by no means good ones when I inspected them; and but at the time of the collision, the head of the double-headed rail on the outside of the curve was acknowledged by the foreman of the Iron Ore Company as having projected half an inch inside that of the flat-bottomed rail.

On the afternoon of the 21st August, two empty wagons had been left standing on the Iron Ore Company's line, at a point about 110 yards higher up the gradient than the sidings just described, with a switch under the wheel of one of them; such wagon was provided with the ordinary wagon brake. At about 6.30 p.m. the foreman of the works had started from the office, about 3/4 of a mile from the wagons, with a small 4-wheeled engine, with 4 loaded wagons in front of it, intending to attach the 2 empty ones, and then push the whole down into the siding; his son, a youth of about 17, was with him. On nearing the empty wagons the son left the engine, and ran to them, ready to attach them, and as the loaded ones came up to him, he kicked off the brake and tried to hand on the coupling chain; he however failed to do so, and the empty wagons began to once to descend the incline, aided most probably by a bump received from the loaded train. The boy could not have stopped them with the brake he had to use, but, thinking they would find their own way into the siding, he jumped up on the engine, which then followed them down. On the empty wagon reaching the head joint above alluded to on the outside of the curve, (their speed being about 10 miles an hour), the front one left the rails, dragging the other after it, and ran on towards the London and North-Western main line, a distance (kicking down a partition fence) for a distance of about 15 yards, when it stopped with the near front left buffer just foul of the down line, the distance between the main down line and siding at this point being 9 feet. The boy at once went to see if the wagon was foul of the main line, followed by his father, who, on finding that it was not, at once ran forward into the 6-ft. space, mounting, with his arm to the driver of an approaching down train, now some 300 or 400 yards off, a goods train approaching on the up line obliging him almost immediately to leave the 6-ft. space.

The driver of the passenger train, an experienced man of 22 years' service as such, and who stated that the collision in which, he had been concerned, was in charge of the 3 o'clock train from Euston to Liverpool and Manchester. He had left Euston 1 minute late, and Birkenhead at right vias, 6th. 8m., having next to stop at Rugby. It consisted of 21 vehicles, including 1 brake van (of which there were 2, one empty and a brake van, a parcel van, and a truck. Just after passing the signal cabin, when near the head of the track (the speed being about 45 miles an hour), the driver states that he caught sight simultaneously of a man with his arms extended, and of the wagon standing close to the down line; that he at once that off steam, whistled reversed, and just as he struck the wagon, got contrary on the applied brakes. He then got his break applied by the time he had reversed, that the left corner of the buffer plank struck the corner of the truck, but that little or no shock was felt on the engine. The guards, who appear to have been on the alert, applied their brakes promptly, and the train was brought to a stand about 1000 yards from the point at which the driver had first observed the obstacle, the gradient being a descending one of 1 in 848. The carriages all had the small steps on the left side stripped off, and some of them lost their footboards, the projections of the break van being also broken in. The engine had the left corner of its buffer-plank broken, and a part of the discharge tube knocked off; it was, however, able to take the train on to Rugby, and then a fresh set of carriages on to Crewe.

The wagon which struck the end of its buffers and its corner injured; the other was not damaged.

This collision was brought about by the existence of a bad joint on the outside of a sharp curve of the Iron Ore Company's line, round which the empty wagons were running at a speed stated to be much higher than usual. The junctions of different sections of rail were always troublesome to Inspector; and it is imprudent to let them occur, or sharp curves, and I should strongly recommend the two in question being removed, by the introduction of more double-headed rails, to a point further removed from the main line, where, if another run-off did occur, there could be no possibility of the train being disengaged under the observation of the driver. As a further precaution, I should also advise placing a check rail round the curve, the radius of which the Iron Ore Company have been slightly increasing since the collision; the cant has also been increased by 6 inches (which it was) to 72 inches.

The Secretary,
C. S. Butterworth,
Railway Department, Lient.-Col. R.E.
Board of Trade.

LONDON AND NORTH-WESTERN RAILWAY.

Sm. woolton, 23rd September 1871.
In compliance with the instructions contained in your minute of the 2nd inst., I have the honor to report, for the information of the Board of Trade, the result of my inquiry into the circumstances connected with the collision which occurred on the 29th ultimo, at Lime Street station, Liverpool, by shunting engine and a passenger train.

Three passengers were returned as having been slightly injured.

In consequence of the limited area of the Lime Street station (with reference to the amount of traffic connected with the city), and the proximity of the Edge Hill tunnel to the platforms, there is necessarily much shunting of empty trains on both the up and down main lines into which the various platform lines converge close to the tunnel's mouth. For the safe conduct of the traffic, there is a raised cabin with interlocked points and signals close to the mouth of the tunnel, from which cabin all the work of the station is regulated.

In this cabin there was duty on the evening of the 29th ult. a signalman named N. Derry, who, according to the information I have received, was responsible for the accident. He had been at work for some time, and had not noticed any points being set, but the duty of telegraphing and regulating trains devolved upon an assistant.
LONDON AND NORTH-WESTERN RAILWAY.

Board of Trade (Railway Department),
Whitehall, 19th October 1871.

In compliance with the instructions contained in your letter of the 27th ultimo, I have the honour to report, for the information of the Board of Trade, the result of my inquiry into the circumstances which preceded the accident that occurred on the 22nd ultimo at Holywell station on the London and North-Western Railway.

There are several goods sidings, the north and south side of the railway, and goods sidings at Holywell station. These sidings are situated south of the railway, and goods sidings are obstructed by a public road, which crosses the road on the level, there is a bridge over the railway, and goods sidings about 500 yards to the east of the station. This bridge carries a railway, which is now being made from the pier to Holywell station.

The Holywell Station goods store is situated opposite to the south-east side of the railway, between Holywell station and the public level crossing over the railway sidings.

There are three sidings at the south side of the railway and at the east end of Holywell station. One of them leads to the goods store, which is called the coal siding, the other sidings lead from the coal siding to the goods store, over the public level crossing to some distance east of the Holywell Railway over-bridge.

The siding next to the coal siding is called the main siding. This main siding extends to the east of the station. The main siding is obstructed on the public level crossing to some distance east of the Holywell Railway over-bridge.

At 7.45 p.m. McIlwraith states that he lowered his main line to signal for the departure of a passenger train from Manchester and Preston from the up platform lines. This train, which consisted of engine, tender, and 18 coaches, including a brake van, left about a minute later, a shunting engine meanwhile standing on one of the up platform lines, about 50 yards from the signal cabin, waiting to transfer some goods sidings from one platform line to another. To effect this, there was no necessity for the engine to run all upon the up line, but it was the usual practice. The engine was placed on the up platform line, 80 yards from the signal cabin, waiting to transfer some goods sidings from one platform line to another.

The driver of the shunting engine states that his engine was standing on one of the down platform lines, 80 yards from the points of the crossing leading to the up line when the passenger train was leaving the station, and about 50 yards from the point of crossing the up line; that he heard the horn signal at the signalman "straight up" (meaning that the shunting engine was not to cross); and that he saw a white signal being displayed. He was then by the horn signal, and he saw a white signal being displayed. He was then on the down line, as the passenger train was in the act of crossing the up line; that, however, when within about the engine's length of the train, he found he was on the crossing, and had just time to shut off steam and reverse when the front of his engine struck the third vehicle from the tail of the passenger train, at a speed of about four miles an hour.

The couplings gave way between this carriage and the one in front of it, the former and the shunting engine became jammed together, and both leaving the rails, the tender and the two hind vehicles remaining on them. The engine had its boiler plant broken to pieces; the three hind vehicles in the passenger train were slightly damaged.

The occurrence of this collision must be solely attributed to the act of the signalman, who was entirely nostris of the position. He allowed the tail of the passenger train to pass the departure signal (as he ought to have done) before restoring it to danger, instead of doing so as it is necessary to do it when the signal is either red or white.

The habit which signalmen acquire of restoring signals to danger before trains have entirely passed them, is one that requires to be constantly watched and checked, as it is a great extent neutralizes the advantages of locking apparatus.

In connection with the signal arrangements at Lime Street, I must strongly recommend that the signal should be taken in the signal cabin "straight up," and that the signalman should be constantly kept informed of the position of the train, and be required to keep the signal in the red position until the train has passed the signal cabin.

I have, &c.,
C. S. Hutchins,
Railway Department,
Lient.-Col. R.E.
Board of Trade.