On the subject of the permanent way of the Dublin and Drogheda Railway, it was argued that although, if taken at weight for weight, there could be no doubt of the superior strength of the double r shaped rail over the bridge-shaped rail, yet that in practice the travelling on the Dublin and Drogheda Railway was remarkably smooth and equable; which, it was contended, resulted from the firmness of the attachment of the bridge rail direct upon the sleepers, and from the general perfection of the laying of the line. On the other hand, it was shown that a lighter double r shaped rail, with good cast-iron chairs and wooden trenails for fastenings, and fixed upon triangular sleepers, as on the South-Eastern, would, if the same machinery had been used in the preparation, and the same attention given to the laying down, have produced a better line. It was admitted, that the great points in establishing a railway, were to have heavier rails and stronger chairs, laid with accuracy, and constantly attended to; but that even then, unless the carriages were well constructed and adapted for their load, no smoothness or uniformity could be insured.

An Account of the Drops used for the Shipment of Coals at Middlesborough-on-Tees, with a description of the Town and Port. By G. TURNBULL.—March 10.—The communication first gave an account of the town; and then described the docks, and the coal-drops used there. The rapid rise of the town into commercial importance was accounted for, chiefly by the fact of a branch having been constructed, from the Stockton and Darlington Railway, to Middlesborough, which, as a port for shipping, possessed advantages over Stockton. The approach to the dock was stated to be by a channel of more than a quarter of a mile in length, which was kept open by sluicing; the entrance lock, built of stone, was 132 feet long by 30 feet wide, and the area of the dock itself was about 9 acres. The branch railway diverges from the Stockton and Darlington line, and terminates in ten double lines, leading to the ten coal-drops. The manner of working the drops was thus described: the loaded wagon is run on to a cradle or stage, which is arrested in a position immediately over the hatchway of the vessel to be loaded; it is then let down perpendicularly by means of counterbalance weights, and when it has nearly reached the deck, the contents are discharged into the hold; the counterbalance weights then preponderate, and the wagon is raised. About thirty wagons can be discharged an hour by each drop. In a statement annexed it is mentioned that in the year ending July 1, 1845, 505,486 tons were shipped by means of the ten drops. The cost of the drops was 7,300*l*.; the total outlay for the whole works amounted to 122,000*l*.