

The author does not claim the introduction of wrought iron trussing for cast iron girders, as he is well aware of its being constantly practised, but he believes that it has not been commonly done to the extent which he proposes, and being satisfied of the practical utility of the system, he was desirous of bringing it more prominently under the notice of engineers through the medium of the Institution, and also of inviting discussion upon the plan, one great merit of which is, that it uses a material produced in this country, better and cheaper than elsewhere, and assists one of its staple manufactures, which is at this moment much depressed.

The communication is accompanied by five drawings of bridges, (Nos. 3409 to 3413) fully illustrating in detail the various modes of construction treated of.

Captain W.
S. Moorsom.

Captain Moorsom stated, that occupation bridges of 60 feet span by 18 feet in width, could be constructed of timber for £5 per lineal foot, including the cost of the excavation, the masonry of the abutments, &c.; that up to 90 feet or even 120 feet span, the expense would not exceed £4 per foot. He preferred timber bridges for railways, not only on account of their simplicity and the facility of repairing them, but also because a good deal of the small timber, which would otherwise be wasted, or used at a loss, might be made available for such bridges, and thus a useless expenditure for materials was avoided.

Mr. Gris-
sell.

Mr. Grissell was also of opinion, that timber bridges could be constructed more cheaply than those of iron, as recommended in the paper. So much wrought iron would, he apprehended, materially increase their cost.

No. 611. "Description of a cast iron Bridge, completed in the year 1840, for carrying the Birmingham and Gloucester Railway over the River Avon, near Tewkesbury." By Captain W. S. Moorsom, Assoc. Inst. C. E.

Cast-iron
Bridge.

This bridge is situated about seven miles north of Tewkesbury: the approaches to it are formed on embankments about 25 feet high, crossing the valley nearly at right angles. In the construction it was desirable to provide for the effect of considerable floods, by aiding the egress of the water, and also to avoid any interference with the