with a worm and screw a circular motion is given to dials indicating the quantity of gas which passes through the machine.

The gas, on entering the upper chamber, passes through the valve into the first division and distends the flexible partition until the lever is carried to a certain point, when by means of the connecting shaft the inlet valve is closed, the outlet valve is opened, and the second division commences its action, which is continued by the third, thus producing an equal flow of gas, and an uniform motion is given to the counter-dials, which necessarily indicate the number of times the divisions have been inflated and emptied, and thus measure the quantity which has passed through in a given time.

The instrument which was presented to the Institution, had its sides formed of glass in order to show the action of the machinery.

March 15, 1842.

The PRESIDENT in the Chair.

“Description of the Iron Skew Bridge across the Regent’s Canal on the Eastern Counties Railway.” By Edward Dobson, Assoc. Inst. C.E.

Iron Skew
Bridge.

This bridge is built with a direct span of 54 feet, at an angle of 79° with the centre line of the canal. The level of the rails is 14 feet 6 inches above the water, and it is constructed to have a waterway of 44 feet with a clear headway of 10 feet above the towing-path.

The dimensions of the several parts of the bridge and the mode of putting them together, with the masonry and the cost of the construction are described in detail and illustrated by an elaborate working drawing.

As an appendix to this paper a description is given of a bridge over the same canal, on the line of the London and Birmingham Railway, on account of the similarity of its construction. The span of this latter bridge is 50 feet, but being made for two double lines of rails it was thought expedient to have three main ribs instead of two, as in the former. The details of construction of this bridge are also given, with a drawing of one of the main ribs and its tie-bar.

“Remarks on the Ravages of the Worm (*Teredo Navalis*) in Timber.” By Robert Davison, M. Inst. C. E.

Worm in
Timber.

This communication describes the ravages committed by the “*Teredo Navalis*” upon the fir piles of the foundations of the old bridge at Teignmouth, five arches of which, after having been built only