

paper dealt, and which, he says, was suggested to him by the analysis used by Poisson in the article of his *Théorie de la Chaleur*, quoted above.

Questions of priority are usually somewhat difficult to answer; but while it seems clear that the theorem generally quoted as Green's was given independently of Green, yet the importance which he rightly attached to it, and the splendid use to which he put it, amply justify us in keeping to the customary mode of citation.

Some new Properties of the Triangle.

By J. S. MACKAY, M.A., LL.D.

[The substance of this paper will be included in Dr Mackay's paper on the triangle in the first volume of the *Proceedings*, now about to be published.]

Second Meeting, 13th December 1889.

R. E. ALLARDICE, Esq., M.A., Vice-President, in the Chair.

A special case of three-bar motion.

By Professor STEGGALL.

The questions involved in the consideration of three-bar motion have attracted a good deal of attention (*Proceedings of Mathematical Society of London* passim, and elsewhere); but I am not aware of any complete account of the figures that can be derived from such a motion. The present paper gives a complete list of all the different kinds of curve that are obtained by a tracing point at the middle of the middle bar, the two outer bars being equal.

It may be advisable to briefly obtain the general equation to the curve traced by any point on the middle bar, without any condition of equality in the lengths of the other two.

Let $2a$ be the distance of the fixed centres, b , $2c$, d the lengths of the three bars in order, h the distance of the tracing point from the middle of the middle bar measured from the bar b , θ , ϕ , ψ the