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*Fifth Meeting, March 11th, 1898.*

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Dr MORGAN, Vice-President, in the Chair.

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**An Analysis of all the Inconclusive Votes possible with  
15 Electors and 3 Candidates.**

By Professor STEGGALL.

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**A Suggestion for a Shortened Table of Five-Figure  
Logarithms.**

By Professor STEGGALL.

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**Note on the Centre of Gravity of a Circular Arc.**

By JOHN DOUGALL, M.A.

Mr Crawford's note on this subject, read at a recent meeting, reminds me of a method I gave to a class four or five years ago.

FIGURE 14.

Let  $AMB$  be an arc subtending an angle  $2\alpha$  at the centre  $O$  of a circle of radius  $a$ . The centre of gravity  $G_1$  lies, from symmetry, on  $OM$  the line from  $O$  to the mid-point of the arc.

Let  $G_2$  be the C.G. of an adjacent arc  $BNC$  of angle  $2\beta$ .

If  $G$  be the C.G. of the whole arc  $AMBNC$ , the angle  $AOG$  is  $\alpha + \beta$ .

Thus  $\angle G_1OG = \beta$  and  $\angle G_2OG = \alpha$ .  
Also  $G_1GG_2$  is a straight line.