The Mathematical Intelligencer encourages comments about the material in this issue. Letters to the editor should be sent to either of the editors-in-chief, Chandler Davis or Marjorie Senechal.

Euler Diagrams and Venn Diagrams

In his review of my book *Cogwheels of the Mind*, Hamburger [1] incorrectly says, 'The famous three-circle Venn diagram, which is known to most people, had already been used by Euler.' It does not occur in either Euler's original *Lettres à une Princesse d'Allemagne* of 1768 or Hunter's English translation of 1795, the two works cited by Hamburger. It should have done, but it didn't.

Euler simply made a mistake in drawing his diagrams for three sets. When he added a third set C to a two-set diagram with overlapping sets A and B so as to overlap A partially, he drew the cases C wholly in B and C wholly outside B , but muddled the case C partially in B , which would have given him a Venn diagram for three sets.

An 1823 reprint of the erroneous diagram can be seen at math.dartmouth.edu/~euler/, E343 Plate 3 figure 27, which is the same as figure 26. Venn owned a copy of this book; I have examined it and he did not mark the er-

ror. Recent editors of Euler's work have corrected it.

The relationships between Euler diagrams and Venn diagrams were well understood by Venn himself and are, I believe, correctly described in my book.

Euler did draw a Venn diagram for two sets, but then, so did writers in the eleventh century [2].

In other respects it is best to draw a veil over Hamburger's tirade against my "dabblings."

REFERENCES

- [1] P. Hamburger, "Cogwheels of the Mind. The Story of Venn Diagrams by A.W.F. Edwards" (review), *The Mathematical Intelligencer* **27** (2005), 36–38.
- [2] C. Nolan, Music theory and mathematics, in T. Christensen (ed.) *The Cambridge History of Western Music Theory*, Cambridge University Press (2002), 272–304.

A.W.F. Edwards
Gonville and Caius College
Cambridge CB2 1TA, U.K.
e-mail: awfe@cam.ac.uk

ERRATUM

Thanks to Gregory Kriegsmann of New Jersey Institute of Technology for spotting an error in the article "e: The Master of All" by Brian J. McCartin (*Math Intelligencer* **28** (2006), no. 1, 10–21). In equation (5), the denominator reads $(2k)!$; it should be $(2k+1)!$.

The author acknowledges the typographical error, and reassures us that the erroneous formula was not used in arriving at Figure 2. Just so! If it had been, the figure would have made the claims of great accuracy for the formula (5) looked odd indeed.