

SCIENCE

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THE AMERICAN ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE.

THE MESSAGE OF NON-EUCLIDEAN
GEOMETRY.*

1. MATHEMATICS AND ITS HISTORY.

THE great Sylvester once told me that he and Kronecker, in attempting a definition of mathematics, got so far as to agree that it is poetry.

But the history of this poesy is itself poetry, and the creation of non-Euclidean geometry gives new vantage-ground from which to illuminate the whole subject, from before the time when Homer describes Proteus as finger-fitting-by-fives, or counting, his seals, past the epoch when Lagrange, confronted with the guillotine and asked how he can make himself useful in the new world, answers simply, 'I will teach arithmetic.'

Who has not wished to be a magician like the mighty Merlin, or Dr. Dee, who wrote a preface for the first English translation of Euclid, made by Henricus Billingsley, afterward, Aladdin-like, Sir Henry Billingsley, Lord Mayor of London?

Was not Harriot, whose devices in algebra our schoolboys now use, one of the three paid magi of the Earl of Northumberland? Do not our every-day numerals stand for Brahmin and Mohammedan, coming first into Europe from the land of the sacred Ganges, around by the way of the pyramids and the Moorish Alhambra?

* Address of the vice-president and chairman of Section A, American Association for the Advancement of Science, St. Louis meeting, December, 1903.