THE BOSTON COLLOQUIUM.

Lectures on Mathematics. By E. B. VAN VLECK, H. S. WHITE, F. S. WOODS. New York, The Macmillan Company, 1905. xii + 187 pp.

THIS volume contains the lectures delivered at the Boston Colloquium of the AMERICAN MATHEMATICAL SOCIETY, September 2–5, 1903 ; it is not only a convenient form in which to preserve these valuable lectures, but is a most welcome addition to the meagre catalogue of English works on the higher mathematics. In the brief space of 166 pages is given a very clear and readable summary of three important fields of recent development. The topics treated have the following titles :—

Linear systems of curves on algebraic surfaces, by Professor White, pages 1–30 ;

Forms of non-euclidean space, by Professor Woods ; pages 31–74 ;

Selected topics in the theory of divergent series and of continued fractions, by Professor Van Vleck, pages 76–166, followed by a bibliography of memoirs relating to algebraic continued fractions, pages 167–187.

The authors have displayed admirable judgment in selecting from the abundance of material at their disposal those theorems and results most suited to give a distinct and vivid picture of the fields with which it is intended to make the reader acquainted. A judicious and carefully considered reserve is exercised in the presentation of details, some of the theorems being demonstrated in full, while for others only an outline is given sufficient to present a clear idea of the argument and the essential nature of the method, and still other results are merely stated when their character and bearing can be made evident without the details of proof. The value and suggestiveness of the lectures are augmented by the various critical remarks scattered throughout the work, which serve not only to elucidate and emphasize the relationships of the various parts, but also to indicate their deeper and less obvious import. Then, too, the pointing out of unsolved problems and incomplete features, whether of detail or theory, will at least be of service in stimulating the constructive imagination of the reader, even