Thus the roots of the characteristic equation of  $A_{\rho}$  are  $\rho \lambda$ ,  $\rho^{-1}\lambda$  each of multiplicity one and  $\lambda$ ,  $\mu$  each of multiplicity two; therefore, for all values of  $\rho$  which render  $\rho \lambda$  distinct from the other roots of the characteristic equation; in particular if  $\rho$  is sufficiently near to unity,  $A_{\rho}$  belongs to a continuous one-term group containing the identical transformation.\* By varying  $\rho$  we obtain a family of one-term group, to which, as before, A is a limit.

## NOTES.

A REGULAR meeting of the American Mathematical Society was held in New York on Saturday afternoon, May 23, at three o'clock, the President, Dr. G. W. Hill, in the chair. There were thirteen members present. On the recommendation of the Council the following persons, previously nominated, were elected to membership: Mr. Louis Trenchard More, Johns Hopkins University, Baltimore, Md.; Professor Henry Allen Peck, Syracuse University, Syracuse, N. Y. The following paper was read:

Dr. J. E. Hill: "Bibliography of surfaces and of twisted curves."

The meeting of the British Association for the Advancement of Science will be held this year at Liverpool, opening on September 16. The President is Sir Joseph Lister. Next year the Association will meet in Toronto.

THE German Mathematical Society will meet in conjunction with the German Association of Naturalists and Physicians at Frankfort-on-the-Main, September 21–26.

We learn from *Nature* that the De Morgan Memorial Medal has this year been awarded by the Council of the London Mathematical Society to Mr. Samuel Roberts, F. R. S. This medal is awarded every three years. Mr. Roberts was one of the earliest members of the Society, and has published numerous papers, many of them of great value. The presentation will be made at the annual meeting of the Society in November next.

COLUMBIA UNIVERSITY. The Department of Mechanics will give the following graduate courses during the year 1896-97: By Professor R. S. Woodward: (1) Theory of

<sup>\*</sup> See page 232.