In Chapter VI we find various extensions of previous results to certain hermitian non-bounded matrices. Some of Carleman's results are interpreted from the point of view of matrices. A relationship with the Stieltjes-Hamburger moment problem is briefly indicated.

In the Appendix the author gives a rather brief sketch of his own investigations in the spectrum theory of the almost-periodic functions of H. Bohr.

From the above enumeration, which is necessarily rather incomplete, it is seen that the book in question contains interesting and important material which is partly new or is treated from an original point of view. When reading the book one can not help feeling, however, that the author endeavored to put too much material in too restricted a space. The result is that the author has not completely succeeded in writing an "introduction" to a great theory, which could be used to advantage by a "beginner." As to a well informed and experienced reader, it might happen that the latter will feel better off when he turns to the original memoirs, including some by the author himself (not to speak of papers of J. v. Neumann, which have appeared simultaneously with the publication of the book). One point deserves to be mentioned separately. There are found in the book about three dozen new terms introduced by the author; here are some of the most striking ones: "Hellysche Fortpflanzungssatz," "quadratically convergent vectors," "infinitesimale und integrale Integrabilitätsbedingungen," "statistisch sinnvolle Matrizen," "wasserstoffähnliche Spektra," "Carleman's Feldtheorie," "Stabilität des reducierten Spektrums," "Hellinger function-pairs of the first and second kind," etc. Not all, and even not most, of these new terms correspond to actually new notions, and many of them do not serve to describe the situation in the best way. For instance a Hellinger function-pair of the second kind simply means a pair of functions $\rho(\mu)$, $\sigma(\mu)$, continuous, bounded and not decreasing on $-\infty<\mu<\infty$ and approaching 0 as $\mu\rightarrow-\infty$. If, however, the introduction of a new term is unavoidable, it seems desirable that its definition should be stated in precise expressions, which in many cases has not been done in this book. The fact that not one of the theorems or definitions is underscored or separated from the body of the text will also contribute somewhat to the discomfort of the reader, particularly of a beginner. The bibliography of the subject is given "en bloc" at the end of the book, without explicit references in the text; this is not always convenient. Finally, misprints and slips of the pen are not infrequent.

J. TAMARKIN

A Course of Geometrical Analysis. By Haridas Bagchi. Calcutta, Chuckervertty, Chatterji and Company, 1926. iv+562 pp.

This rather long book on elementary differential geometry is written by a Premchand Roychand Scholar and Lecturer in Mathematics in Calcutta University. It gives evidence of wide reading and of much thought and study. While for the most part the topics and the treatment follow classic lines, there are many discussions evidently original with the writer. It is apparently intended as a textbook, for there are frequent references to the student and suggestions offered to him. It is, however, curious in arrangement, widely discursive in treatment and remarkably uneven in difficulty; it does not seem to us so well adapted for one beginning the subject as the familiar French, German and