1890–1937 as his data. The author gives a large number of tables of weights and coefficients of various kinds, critical ratios of two sums of squares of differences, formulae for selections of items in various pairs of consecutive differences which would be independent, etc., to facilitate the application of the method.

A considerable amount of historical material on the variate difference method is given. One chapter is devoted to the application of Sheppard's smoothing formulae and serial correlation, and the connetion between the variate difference method and these methods is pointed out.

Several appendices are given: Appendix I is a summary of computation formulae used in the various chapters; Appendix II is devoted to the mathematics underlying the various formulae which are used; the remaining four appendices deal with special topics such as seasonal variation, normality of the random element, etc. Author and subject matter indices are provided.

The question as to whether the variate difference method is superior to other methods of time series analysis is largely a matter of opinion. Tintner has given a very good account of the method, although it appears to the reviewer that he did not concern himself enough with the problem of estimating the m_i after it had been decided for which value of K the value of $\Delta^{(K)}(m_i) = 0$. He approached the problem of determining the m_i by using the Sheppard smoothing formulae, but this, of course, is essentially another method of time series analysis.

Tintner's book is an interesting contribution to the literature of time series analysis. It is well documented by references and footnotes and reflects a great deal of work on the part of the author.

S. S. WILKS

Tensor Analysis of Networks. By Gabriel Kron. New York, Wiley, 1939. 24+635 pp. $7.50.

In the introduction to this book, the author states: "It is emphasized that this book is not written by a mathematician and is not written for mathematicians. This book is written by an engineer for engineers who are interested in learning an *organized* method of attack to analyze and synthesize electrical networks."

The first two chapters provide an extremely detailed account of the tensor and matrix notation, of the multiplication of matrices and describes the impressed voltages, currents and self- and mutual impedances of a network as components of tensors e_α, i^α and $Z_{\alpha\beta}$, re-