at Niagara may dictate. The specifications for the generators refer in a significant manner to this possible later enlargement of the plant, in the following two paragraphs:—

May Be Million Horse-Power

"Whereas only three or four units may be covered by these specifications, from time to time units of equal or greater capacity may be installed at the generator station, so that the ultimate capacity of the station may be in the neighborhood of 1,000,000 h.p.

"On account of the large amount of power dependent upon each unit, the magnitude of the plan and of the system of which it will become a part, the importance of the public service and industries served, it is required that all equipment be designed and built for the highest class of service, and completed and installed in the shortest possible time."

The above mentioned specifications for the generators were prepared by E. T. Brandon, electrical engineer of the Commission, and his assistant, A. H. Hull, under the direction of Sir Adam Beck, chairman, and F. A. Gaby, chief engineer.

The Engineer's Library

TOWN PLANNING IN MADRAS

Reviewed by James Ewing
of Ewing, Lovelace & Tremblay, Montreal

By *H. V. Lanchester.* Published by Constable & Co., Ltd., London. A review of the conditions and requirements of city improvement and development in the Madras Presidency. 115 pages, 8 x 11¼ ins., cloth. Price, $3 net.

This book is a compendium of a series of lectures given by Mr. Lanchester in the city of Madras, being the outcome of a distinct and important movement for the amelioration of living and working conditions in that city and several lesser towns in the same region. These lectures were delivered in 1916, so we can see that the stress and turmoil of the great conflict, centred, it is true, in European fields, but reverberating and felt in the furthermost corners of the earth, has been no conclusive bar to the consideration of questions pertaining to the real and intimate welfare of the people on eastern shores. And so we find that we who are wont to plume ourselves as being of the advanced and up-to-date Occident are only beginning to wake up and rub our eyes, while they of the slow-going and effete Orient are already well on the day's journey and ready to direct us in the way we should follow. Nor are the conditions, needs and tendencies, or the problems and perplexities that arise from them, whether it be East or whether it be West, radically or essentially different. Indeed, there is an astonishing likeness between the two, and the disparities are those of color rather than of embodiment. And there is much that we would do well to note regarding these civilizations, however foreign in appearance, that have seized so much of the essential of life while we are frantically grasping at the shadows.

From the title of Mr. Lanchester's book one might be apt to assume that the subject matter was of small particular concern to the general reader in this hemisphere, but we have not far to go to find much of the utmost interest, the utmost freshness and the utmost value to the student of town planning, wherever he is situated. Commencing with the ethics of town planning, the why and wherefore, the writer outlines in a sketchy but vivid way the historical development, covering the whole field of town planning endeavor through its various stages to the present day, noting its advances, stagnations, retrocessions and rennaisances, with the reasons and causes therefor, and then delves into a series of economic and sociological studies of city life, housing, commerce and traffic, finishing with something like a peroration on the technique of city development. Thus through the first eight chapters the attention of the reader is easily and closely held, while the remaining five, dealing more particularly with the titular subject matter of the book, and, therefore, of more local concern, are always interesting, if only for the sake of comparison. From beginning to end there is not a dull page in the book and hardly a dull sentence. It is not overburdened with exhaustive detail, but it is tersely and vigorously written, giving every evidence of an easy mastery of the subject.

There are numerous illustrations, showing ancient and modern, continental, Oriental, and even American examples. There are also a number of plates, being maps of the city of Madras, illustrating various statistical, sociological, hygienic and traffic conditions, together with the conclusions drawn and improvements recommended. Altogether, this book is a welcome addition to the literature of town planning.

HANDBOOK OF MATHEMATICS FOR ENGINEERS

Reviewed by A. S. L. Barnes
Hydro-Electric Power Commission of Ontario

By *Edward V. Huntington*, Ph.D. Published by McGraw-Hill Book Co., New York. 191 pages, 5 x 7 ins., flexible binding. Price, $1.50 net.

This is a reprint of sections 1 and 2 of the "Mechanical Engineers' Handbook," by L. S. Marks, and, besides the mathematical portion, it contains useful tables of weights and measures by L. A. Fischer, of the United States Bureau of Standards.

The book is of a very handy size, and is conveniently divided into two sections, the first containing mathematical tables and weights and measures, and the second is classified as mathematics, and treats of Arithmetic, Geometry, Algebra, Mensuration, Trigonometry, Calculus, Graphics and Vector Analysis.

There is apparently nothing new in the book which is not in the larger "Mechanical Engineers' Handbook," but its compact form makes it very convenient to have on the desk, or, if need be, in the pocket, for ready reference; many engineers would find it useful on this account.

Hon. Frank B. Carvell, Minister of Public Works, stated last week that he had decided to put in next year's Federal estimates a sum sufficient to complete the turning basin in Ashbridge's Bay, Toronto, and also to complete the concreting of the cribwork on the Sunnyside-Humber section of the Toronto harbor works. The latter work is that for which the Canadian-Stewart Company contract was cancelled by the Government, and a new contract will have to be let. Mr. Carvell did not mention any specific figure, but the work outlined is understood to involve about $500,000, of which $150,000 will probably be a re-vote from 1918, as this year's estimates contained that amount for work which was not done.