old method of making and graduating, as well as calibrating, gas burettes is retained, though the apparatus for graduating and etching them would probably be regarded as curiosities in a modern laboratory.

By means of a new setting, and a rather smaller though quite clear type for some paragraphs and sections, space has been economised, and the volume, with all its added matter, is practically of the same size as the last edition. The deletions have in no sense altered the character of the book as giving full practical instructions, but in some cases, where a suggested modification is of comparatively little importance, or an application of a process is of very restricted use, the editors give only a short statement and refer to the original description by the author. In many cases they have taken advantage of the assistance of experts who have had exceptional experience of various methods. All factors and numerical details have been recalculated according to the latest "International Atomic Weights." The section on weights and measures has been rewritten, using the data adopted at the National Physical Laboratory.

In short, the editors appear to have spared no trouble to maintain if they could not enhance the reputation of the book, and thus to merit the gratitude that the aged author expresses in his preface, and, we may add, the thanks of all those who are interested in the subject with which it deals.

The Influence of Strong, Prevalent, Rain-bearing Winds on the Prevalence of Phthisis. By Dr. W. Gordon. Pp. xiv+108. (London: H. K. Lewis, 1910.) Price 7*s.* 6*d.* net.

FOR many years Dr. Gordon, in a series of papers, has brought before the medical profession evidence that strong rain-bearing winds have a very definite influence on the prevalence of phthisis. He has now collected these papers, and, in a work bearing the above title, gives a complete account of his observations. He maintains, as a result of these observations, that in any situation exposed to rain-bearing winds, whether it be over a wide region or merely the side of a street, the mortality from pulmonary phthisis is high. He works this out specially for Devonshire, but takes Exeter streets at one extreme and the civilised world at the other, always coming to the same conclusion. In all this, however, he does not, by any means, ignore other factors, especially "soil" and poverty. Our author points out that this high mortality from consumption is not due merely to a depression of vitality, for it is found that the general death-rate is not affected in the same way as is the phthisical death-rate. Moreover, he is satisfied that the action of the rain-bearing wind is exerted directly on the person exposed to it and not indirectly, "either through closure of doors and windows against the wind or by it driving wet into the walls of the houses."

It is, of course, difficult to test the accuracy of Dr. Gordon's observations, but his figures certainly seem to prove that, taking female death-rates as offering a safer basis of inquiry, in the rural districts of Devonshire, swept by rain-laden winds, the mortality is higher than in those where the winds are dry. Dr. Gordon, not shirking the numerous criticisms that have been directed against his conclusions, has certainly made out a very strong case for the accuracy of his hypothesis. As dealing with one of the side-issues of the tuberculosis question, as opening up a new field of inquiry, and as affording a guide to those in search of places to which consumptives may be sent, although it is not designed for that special purpose, this work will be of very considerable value. The coloured charts on which the statistics are both based and recorded are exquisitely drawn and reproduced. We congratulate Dr. Gordon on the completeness of his work.

Die Naturwissenschaften in ihrer Entwicklung und in ihrem Zusammenhange. By Friedrich Dannemann. Erster Band, Von den Aufängen bis zum Wiederaufleben der Wissenschaften. Pp. viii+374. Leipzig: Wilhelm Engelmann, 1910.) Price 9 marks.

THIS is the first of four volumes designed to give a connected history of the development of all the sciences, with especial regard to their connection with each other. It deals with the earliest records of geometrical and arithmetical learning among the Egyptians and the Sumerian conquerors of Mesopotamia; proceeds to the Greeks from Thales to Aristotle; sketches the development of science in the Greek colonies, the two periods of Alexandrian learning, the Arabian era, and the decline of the Middle Ages; and finally describes the revival of learning in the fifteenth century.

In dealing with Babylon, the author makes some telling extracts from the Nippur tablets, which date back to between 2200 and 1350 B.C., to show that a decimal system of notation is used in the cuneiform inscriptions, without, however, the use of the zero circle, which was introduced by the Indians, and brought to Europe by the Arabs.

In a work like this one misses a description of the Egyptian orientations of temples and pyramids with regard to particular stars. The recent Cretan discoveries are not included, and Chinese observations are only briefly touched upon. But the book is written in a very entertaining style, and as it is plentifully supplied with references, it forms a useful guide-book through the historic development of the sciences.

A Course of Plane Geometry for Advanced Students. Part II. By C. V. Durell. Pp. xiv+358. (London: Macmillan and Co., Ltd., 1910.) Price 7*s.* 6*d.* net.

THE first part of this work, on the straight line and circle, has already been reviewed. The present volume, which treats of conics, shows the same merits of clearness, conciseness, and good judgment. For example, there is a fairly complete account of involution, which is by far the most powerful instrument for developing the properties of conics; and, in order to avoid, on one hand, a lack of rigour, and on the other a difficult theory, the author has frankly based his treatment on an algebraic foundation. Other chapters deal with homography in general, reciprocation and projection; there is even a brief outline of practical solid geometry, though this is too sketchy to be of much use. There are various historical notes, excellent diagrams, and a vast collection of exercises; altogether Mr. Durell's book may be recommended as a trustworthy, practical, and interesting text-book.

M.

The Phase Rule and its Applications. By Dr. Alex. Findlay. Third edition. Pp. xvi+356. (London: Longmans, Green, and Co., 1911.) Price 6*s.*

THE first edition of Dr. Findlay's book was reviewed in these columns on April 21, 1904 (vol lxix., p. 579), and the arrangement and general character of the work remain much the same as they were. In the second edition numerous additions were made to bring the information up to date, and though no changes of a fundamental nature have been made in the present edition, paragraphs have been added where necessary on the results of recent researches. In addition to this, the whole book has been subjected to careful revision.