

the siphon to be raised or lowered during the operation. Tube *A* is made of heavy glass to give firmness to the siphon, and has a small bore to allow every drop of liquid in it to be transferred.

This form of siphon not only can be operated rapidly and conveniently, but it eliminates the danger of drawing the liquid into the mouth, or breathing offensive and poisonous vapors, which sometimes happens with the ordinary form of siphon.

Where it is absolutely necessary to avoid all contact with rubber, a piece of paraffin or wax may be pressed against the opening of the tube at *E*, until *B* is filled. A glass stopper might be inserted at *E*, but we consider that unnecessary.

The siphon is not only adapted for the removal of solution extracts but is applicable for the removal of supernatant liquids, where decantation would disturb the precipitate at the bottom; or for drawing off standard solutions, reagents, etc. It is especially convenient when colloidal solutions are to be filtered, or where one filtration requires several hours. In such cases the flow through the siphon is regulated by means of a chip of wood, holding the spring clamp open, so that the drip through the siphon equals that through the filter.

C. A. JACOBSON AND S. C. DINSMORE.

NEVADA AGRICULTURAL EXPERIMENT STATION,
RENO, NEVADA.

NEW BOOKS.

Neuvième Congrès International de Géographie. GENÈVE. 27 Juillet-6 Août, 1908. *Compte Rendu des Travaux du Congrès*. T. I. Organisation du Congrès. II. Travaux Scientifiques. A. Séances. Générales. Genève, 1909. pp. xv + 475; pl. v; Figs. 15.

This report contains an account of the organization of the 9th International Geographic Congress held at Geneva in the summer of 1908. The character of the Congress is indicated by the fact that it was attended by 303 delegates, representing 24 governments, 32 universities, 81 geographical societies, and a number of other scientific organizations. In addition to the numerous social functions enjoyed by the membership in general, a large number of excursions and conferences were participated in by small groups of members. The number of papers read before the Congress was naturally great, but only a few possess any but a geographic interest. Only the non-technical ones appear in the volume under review. Of these the paper of most general interest is that by A. Penck, in which an account is given of the gratifying progress made toward securing a map of the entire world on the uniform scale of 1 : 1,000,000.

W. S. BAYLEY.

Wall Charts for Sugar Chemists: I. *Table for Finding the Sucrose Content of Juices*, clarified with 10 per cent. of subacetate of lead from the specific gravity of the

original juice, and the readings in a Schmidt and Hänsch polariscope when observed in a 200 mm. tube. II. *Tables for the Correction of the Brix Hydrometer at Different Temperatures.* (a) When the hydrometer is tested at 84° F. (b) When the hydrometer is tested at 17.5° C. Published by NORMAN RODGER, Altrincham, England. Price 5/-net for the two, or 3/-net for either. Foreign postage 6d extra.

The subject matter of these two charts is familiar to every sugar chemist, having been taken from Prinsen Geerligs' "Methods of Chemical Control in Cane Sugar Factories." The larger chart for finding the sucrose content of juices has a range of 0.5 to 24° Brix for polariscope readings extending from 1 to 90, the sucrose content for these limits ranging from 0.29 per cent. to 23.41 per cent. The smaller chart for correcting Brix hydrometers has a range of corrections for readings from 0° to 75° Brix for temperatures extending from 15° C. to 100° C. and 60° F. to 212° F. The two charts are mounted upon cloth and suitable for hanging upon the wall of laboratory or office. This new arrangement of Mr. Geerligs' excellent tables will be found a great convenience to the sugar chemist.

C. A. BROWNE.

Le Cinquantenaire de l'atomecanique ou de la Mécanique des atomes. I. *Quelques lettres de quelques Collègues Membres de l'Institut.* II. *Supplément.* III. *Fragments inédits.* By GUSTAVUS D. HINRICHS, St. Louis, Missouri. 64 pp. 4°; illustrated.

This brochure contains excellent pictures of a number of eminent chemists who have written to the author from time to time and facsimiles of some of their letters. The supplement gives extracts from a number of Professor Hinrichs's publications of the past half century. In the fragments several diagrams illustrating the author's method of calculating atomic weights are published for the first time.

W. A. N.

Manuel théorique et pratique d'analyse volumétrique. PAR LOUIS DUPARC, Professeur de minéralogie et de chimie analytique et Directeur des laboratoires d'analyse minérale de l'Université de Genève, et MARIA BASADONNA, Privat docent à l'Université. Avec 12 figures. 8vo, 170 pp. 1910. Paris: Felix Alcan.

This book is primarily designed for the instruction of pupils in the laboratory, a fact which probably accounts for the omission of nearly all matters of theory or of an explanatory character. A clear definition of normal solutions and brief descriptions of the most important volumetric apparatus are given and about two pages are devoted to the calibration of the latter. The analytical methods chosen for presentation are well selected and the descriptions are as lucid as is compatible with the highly condensed form of presentation adopted throughout. Many readers will regret that the author has restricted himself to one method for the standardizing of each solution, thus providing for no control over the accuracy of the work. Indeed, standardizing is sometimes omitted entirely, except by the second-hand way of comparison.