

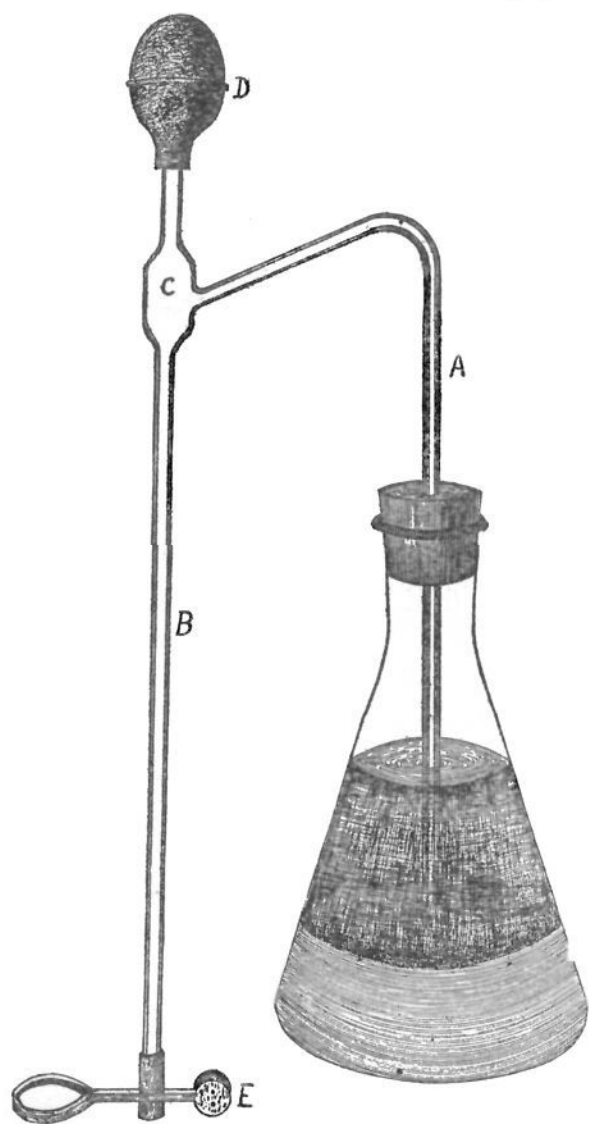
portions of a bottle of alloxan which, according to our shelf list, should have been standing about where the explosion occurred.

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*An Improved Siphon.*—In our laboratory practice we have felt the need of a more efficient siphon than is now found on the market. In an effort to improve upon this form of apparatus, we have constructed a small glass siphon that combines simplicity of construction and ease of manipulation, and is especially adapted to extraction work with non-miscible solvents.

The siphon is really nothing more than a branched pipette, with the branch entering the bulb of the pipette as represented in the figure. The



branch arm *A* consists of heavy capillary tubing with a 2 mm. bore, while the other glass parts are made of the ordinary thin glass. The bulb *C* has a capacity of 5 cc., which is ample for ordinary operations. Tube *B* is 22 mm. long, having an internal bore of 3 mm. The lower end of this tube is fitted with a short piece of rubber tubing, and is opened or closed by means of a small spring clamp. The upper end of the siphon is fitted with a small rubber bulb. Tube *A* is fitted with a cork having a vertical slit along the side, and fitting the separatory funnel or flask containing the liquid to be siphoned.

To operate the siphon, tube *A* is introduced into the liquid. The rubber bulb *D* is compressed, and the clamp at *E* closed. By gently releasing the pressure on the bulb, enough of the liquid will be drawn into *B* to start it to siphoning when clamp *E* is opened.

No other support, besides the cork, is necessary to hold the siphon in position. The hole through the cork should be large enough to permit

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.

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### 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*