given have proved ample for any alcohol which I have had occasion as yet to make aldehyde-free.

If for any reason it may be desirable to avoid the use of water in dissolving the silver nitrate, this salt may be powdered and then dissolved in the 95 per cent. alcohol, and then the alkali added to this.

The above method has several advantages over the procedure of Winkler. There is a great saving of time in precipitating the silver oxide in the alcohol rather than preparing it apart and then utilizing it. The great advantage gained by this is that the oxide is thrown down in such a minute state of subdivision and hence in the very best condition for a rapid and complete oxidation of the aldehyde. If the cylinder be shaken after the addition of the alkali, the silver oxide gathers in flocks which rapidly settle to the bottom of the cylinder, and are thus much less effective than the finely divided and slowly settling precipitate. Shaking is therefore to be avoided.

It should be said in justice to Winkler, that the method outlined above would have been impracticable for his purpose, for he was preparing pure absolute alcohol and the introduction of water into the so-called absolute alcohol which he used as his starting point would not have been feasible. Furthermore, silver nitrate is practically insoluble in absolute alcohol so that it was necessary to prepare the silver oxide separately. For fat analysis, the presence of a few per cent. of water in the alcohol offers no disadvantages.

The method as outlined above is not applicable to methyl alcohol.

I wish to thank Mr. Lorin H. Bailey for his aid in carrying out a part of the experimental work on this subject.

CHEMICAL LABORATORY, UNIVERSITY OF MICHIGAN,
December 27, 1905.

NOTES.

Note on the Condensation of Succinylosuccinic Esters with Amidines.—In a recent paper in this Journal (**27**, 1302) by us, the condensation of succinylosuccinic acid diethyl ester with acetamidine and the product resulting therefrom are described. Before this work was undertaken the literature was examined

to discover whether this reaction had been previously investigated, and finding no record of the kind we assumed that it had not. We find, however, that our search of the literature was not sufficiently thorough, for Prof. Dr. A. Pinner, of Berlin, has called our attention to the fact that he carried out the same reaction many years ago with benzamidine[1] and obtained an analogous product. Pinner called his product a "dihydrodiphenyldioxy*antetrazin*," while we described ours as a "dihydrodimethyldihydroxy-*naphtotetrazine*," following in this name the nomenclature adopted for such heterocycles by Richter's Lexikon.

In comparing Pinner's diphenyl derivative with our dimethyl derivative, it is interesting to note that he assigns a similar structure to his product, and that in general the two compounds behave similarly. Both are insoluble in practically all solvents except the caustic alkalies, and are very inert. Both form well crystallized sodium salts; that of the diphenyl derivative carries four molecules of water, while ours carries six.

We wish to make this apology to Prof. Pinner for having overlooked his work, and hope that he may find something of interest in the results secured by us, which corroborate and extend the reaction which he was the first to investigate.

M. T. BOGERT AND A. W. DOX.

COLUMBIA UNIVERSITY, January 19, 1906.

Blast-lamp for Gasoline or City Gas.—The writer has designed the burner shown in this drawing and while no claim whatsoever is made to any originality, he thinks he may confer a favor in describing it to iron and steel chemists who have had some trouble in obtaining a good blast-lamp and who require a high temperature burner at a greatly reduced cost. All the materials required are $\frac{3}{4}$-inch tee, $\frac{3}{4}$-inch pipe, $\frac{1}{8}$-inch pipe and plugs of brass. They are assembled as shown. The wooden block shown in Fig. 2 is the support for the burner. It can be secured to the laboratory desk by a rod and tap, a hole being bored through the center of the block. This gives perfect rigidity with enough play to get the burner directed at any convenient angle. The air pipe is usually reduced to various sizes of capillary bore, from 1/64 inch up. This, of course, must be determined by the pressure of air available and the kind of work the

[1] Ber. 22, 2625.