

It remains to be shown that the mesityl oxide formed in the first experiment was actually formed by the dehydration of diacetone. Absolutely dry acetone and purest calcium oxide were heated together in a sealed tube at $105-10^{\circ}$ for several hours and the acetone recovered entirely unchanged. When, however, a trace of calcium hydroxide was added, the product was a thick sirup of the higher condensation products. Hydroxide and acetone alone gave only acetone with a small quantity of diacetone. Hence, a definite proof has been obtained that the reaction proceeds in two stages as has been formerly shown in the case of aldehydes.

In the same way it was shown that dry mesityl oxide and acetone, or mesityl oxide alone do not react with pure calcium oxide, but do if hydroxide is present. The intermediate products in this case are still under investigation, as are the products formed in the case of the homologous ketones, as well as the product formed by the ketone with the alkali preliminary to the aldol condensation.

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NEW YORK, April 27, 1909.

NOTE.

A Useful Oil Bath.—A mixture of ten parts of refined cotton-seed oil and one part of beeswax makes a very satisfactory oil bath. It emits very little fume below 250° C. and can be used safely almost throughout the range of the ordinary mercury thermometer, having a flash point above 300° C. when heated in an open cup. A sample of hard paraffin under the same conditions flashed at 215° C.

The mixture has the advantage of the paraffin bath that it solidifies on cooling, so that there is not the liability of the oil spilling out when not in use, and it has the added advantage that it melts quickly and can be used almost immediately after heat is applied, as there is no hard cake that must first be melted as with paraffin. LOUIS W. BOSART, JR.

NEW BOOKS.

The Chemistry and Literature of Beryllium. By CHARLES L. PARSONS, Professor of Inorganic Chemistry in New Hampshire College. Easton, Pa.: The Chemical Publishing Co. pp. 180. Price, \$2.00.

Possibly no better illustration can be found of the wealth of interest which may develop in what seems an unpromising field than that furnished to the reader of Dr. Parsons' book upon the Chemistry of Beryllium.

This element, long since discovered and by no means rare in its mineral occurrence, although not generally included among the elements commonly studied, is here shown to illustrate most satisfactorily important chemical phenomena.