PROCEEDINGS OF THE AMERICAN CHEMICAL SOCIETY.

Regular Meeting January 5, 1883.

Meeting called to order at 8:50 P. M. Mr. Jas. H. Stebbins, Jr., in the chair. No quorum being present, business was dispensed with.

The following papers were then read by Dr. A. R. Leeds.

1. "On Xylidine-Acrolein."
2. "Cryptidine."
3. "On Oenanthol-Aniline; Oenanthol-Xylidine, and Oenanthol-Napthylamine."
4. "On the Products of Distillation of Castor Oil in Partial Vacuo."

After several questions by Dr. Friedberg and Mr. James H. Stebbins, Jr., a paper by F. B. Venable, Ph. D., "On Heptylmalonic and Heptylacetic Acids," was then read.

After proposal of several new members, the meeting adjourned.

THOMAS S. GLADDING, Cor. Secretary.

XYLIDINE-ACROLEIN.

BY ALBERT R. LEEDS.

In the Ber: d. D. Chem. Gesell. Vol. XV, p. 1158, I have shown that diphenylamin unites with acrolein to form the compound $(C_{12}H_{10}N)_2 C_3H_4$, one molecule of water being eliminated. Since that time I have examined the action of acrolein upon xylidine, the method of procedure being somewhat different. The acrolein was distilled directly into an alcoholic solution of xylidine, when a dark red precipitate was formed together with a large amount of a sticky resinous material. This precipitate is soluble in alcohol, ether and bisulphide of carbon. Finding that the resinous by-product was more soluble in dilute alcohol than the principal substance, the attempt was made to purify the latter by repeated washings with alcohol. It failed entirely. The entire removal of the adherent resinous material being impossible by this method.

When to an alcoholic solution of the impure mass, bromine is added in slight excess, a precipitation takes place of what is apparently a bromine compound of xylidine-acrolein. This compound is

soluble in benzole, chloroform, ether and alcohol, insoluble in bisulphide of carbon. It could not be crystallized from any one of these solvents, nor sublimed without decomposition.

Finally, after many unsuccessful trials, the following method was found to afford the xylidine-acrolein in a state of purity. Instead of distilling the acrolein directly into the xylidine, the acrolein in slight excess was added to an alcoholic solution of the latter body. The mixture was then digested for several hours upon a water-bath, until the smell of acrolein had almost entirely disappeared. The resulting mass, which was of a dark red color and extremely sticky, was freed as far as possible from the surrounding liquid, and boiled a number of hours with water. The longer it was boiled with water the less sticky it became, until finally it could be broken into small lumps and removed from the flask. These lumps were then pulverized in a mortar, returned to the flask and boiled with alcohol under a return cooler. This second boiling with alcohol had the result of taking out a large amount of the coloring-matter, but at the same time of making the mass sticky as before. The boiling with water and afterwards with alcohol had therefore to be repeated alternately many times, until at last a product was obtained quite insoluble in alcohol, and which was left hard and brittle after boiling with that solvent.

The purified body, which was of a reddish-yellow color, could not be made to crystallize from any solvent, nor did it yield crystallizable derivatives. As before stated, bromine enters into combination with it with great energy. Nitric acid converts it into a pastry mass that cannot be sublimed or crystallized.

The analysis gave N 8.49 per cent., (theoretical 8.8 per cent.) and showed that the substance was xylidine-acrolein, found according to the equation.

$$C_{18}H_{13}N = C_8H_{11}N + C_3H_4O - H_2O$$

ŒNANTHOL-ANILINE, ŒNANTHOL-XYLIDINE AND ŒNANTHOL-NAPHTHYLAMINE.

By Albert R. Leeds.

Œnanthol was prepared from castor oil by heating the oil in partial vacuo at a temperature of about 150°. The flask containing the castor oil was connected with a Liebig's condenser. As the volatile substances were distilled off they were condensed and