

From the product of this reaction the meta compound is indirectly obtained. It boils at 206–207°.

VI.

Dimethylmetatoluidine, $\left. \begin{array}{l} \text{C}_7\text{H}_7 \\ \text{CH}_3 \\ \text{CH}_3 \end{array} \right\}$ N, is obtained by treating meta-

toluidine with iodide of methyl, in the presence of an alkali, and the ethereal solution yields the pure base. It boils at 206–208°.

VII.

Monomethylparatoluidine, $\left. \begin{array}{l} \text{C}_7\text{H}_7 \\ \text{CH}_3 \\ \text{H} \end{array} \right\}$ N, is prepared by Thomsen's

method, or the method described by the authors for the preparation of monomethylaniline, may be followed.

VIII.

Dimethylparatoluidine, $\left. \begin{array}{l} \text{C}_7\text{H}_7 \\ \text{CH}_3 \\ \text{CH}_3 \end{array} \right\}$ N, may be prepared by several

methods.

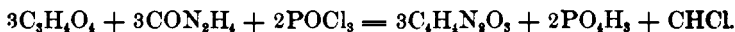
The products of oxidation of these aniline and toluidine compounds, and the coloring matters thus obtained, are discussed and arranged in tabular form.

On the Serpentine of Venayes (Vallee d'Aoste), ALFONSO COSSA.—The result of the analysis is as follows :

Silica	40.86
Phosphoric anhydride	trace.
Magnesia	41.37
Oxide of Iron	4.59
“ Chromium	0.03
“ Nickel	0.09
Lime	0.03
Oxide of Manganese	trace.
Water	13.08

Idem, No. 4.

Synthesis of Uric Derivatives of the Alloxan Series, EDOUARD GRIMAUX.—By the action of oxichloride of phosphorus upon a mixture of malonic acid and urea, malonylurea, or barbituric acid, is formed. This may be represented thus :



A variety of characteristic derivatives have been made. Thionurate of ammonia [$C_3H_4N_2SO_6(NH_4)_2$] is prepared by acting upon the nitrous derivative with sulphate of ammonia; and amidomalonylurea ($C_4H_3NH_2N_2O_3$), by reducing the former by means of chloride of tin. Alloxantine is made by treating dibromomalonylurea ($C_4H_3Br_2N_2O_3$) with hydric sulphide. This can be changed into alloxan ($C_4H_2N_2O_4$) by adding twice its weight of water and heating to solution with a few drops of nitric acid. Murexide is obtained by treating amidomalonylurea with red oxide of mercury. If tartaric acid ($C_4H_4O_6$) be treated with urea and oxichloride of phosphorus, oximalonylurea is probably obtained, as the product gives a characteristic color by successive treatment with nitric acid and ammonia.

On Amalgams of Chromium, Iron Cobalt, Nickel and Manganese, and on a New Process for the Preparation of Metallic Chromium, H. MOISSAN.—Chromium amalgam is made by acting upon sodium amalgam by solution of protochloride of chromium. This amalgam, heated in a current of hydrogen, gives metallic chromium. An amalgam of manganese is made by decomposing a solution of protochloride of manganese, in the presence of a negative electrode of mercury, by means of a battery. Amalgams of iron, cobalt and nickel, can also be prepared, and from them the pure metals can be reduced.

Analysis of some Metallic Fragments taken from Peruvian Sepulchres at Apcon, near Lima, A. TERREIL.—These analyses were undertaken with the idea that some light might be thrown upon the condition of metallurgy in this country in the sixteenth century. It will be noticed that the first sample contained chlorine. There was much sea sand in the locality where this metal was found. The analyses are as follows:

	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.
Silver	77.04	33.35	17.27	—	trace.
Gold	trace.	5.42	—	—	—
Copper	7.06	60.83	79.03	65.90	94.35
Zinc	—	—	—	32.04	—
Iron	—	—	—	1.05	—
Chlorine.	15.71	0.22	2.31	trace.	trace.
Oxygen, sulphur, arsenic, carbonic acid, etc., undet.	0.19	0.18	1.39	1.01	5.53
Quartz sand	—	—	—	—	0.12
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	100.00	100.00	100.00	100.00	100.00