

Technical Chemistry.

Dry Distillation of Peat. By B. NIEDERSTADT (Chem. Centr., 1873, 154—158).

THE following table shows the composition of the peats examined:—
I. Lignite, dark brown colour. II. Charcoal-like coal, dark grey colour. III. Black shining coal. IV. Lignite, black brown colour.
The column *a* gives the composition of the air-dried coal, the column *b* that calculated for the coal minus moisture and ash.

	I.		II.		III.		IV.	
	<i>a.</i>	<i>b.</i>	<i>a.</i>	<i>b.</i>	<i>a.</i>	<i>b.</i>	<i>a.</i>	<i>b.</i>
Carbon	51·238	58·286	58·872	70·165	69·995	77·001	60·302	70·577
Hydrogen	4·169	4·743	4·042	4·825	3·192	3·512	4·850	5·677
Oxygen	32·326	36·773	20·803	24·832	17·591	19·351	20·169	23·606
Nitrogen	0·175	0·199	·150	·179	·123	0·135	0·121	0·142
Ash	1·795	—	5·940	—	5·470	—	3·167	—
Moisture	10·297	—	10·283	—	3·629	—	11·391	—
	100·000	100·001	100·000	100·007	100·000	100·001	100·000	100·002
Sp. gr.	1·12		1·13		1·32		1·35	

By dry distillation these coals give a heavy tarry product mixed with portions of a light and more watery nature. The following were the relative amounts obtained:—

	I.	II.	III.	
Tar	4·54	4·13	4·09	per cent.
Watery distillate ..	54·07	55·33	47·92	„

From the heavy portion of the distillate phenol separated, while from the lighter portion a crystalline substance closely resembling paraffin was obtained.

From the portion of the distillate boiling below 150° a clear colourless liquid was separated which boiled at 133° , and exhibited the composition of pyrrol, C_4H_5N . By heating with ethylic iodide it yielded ethyl-pyrrol, $C_4H_4(C_2H_5)N$. By distilling the residue which remained in the retort with lime, picoline was obtained in the distillate.

M. M. P. M.

Composition of Extract of Meat. By E. REICHARDT
(Arch. Pharm. [3], iii, 399—402).

THE author analysed, in the years 1870 and 1873, the extract of meat of commerce prepared by Messrs. Buschenthal, of Monte Video, with the view of ascertaining to what extent such a preparation varies in composition. His results were as follows :—

	1870.	1873.	
Soluble in 80 p.c. alcohol.....	81.00	80.15	per cent.
Water (at 110°)	16.50	15.92	"
Fat and albumin	none	none	"
Nitrogen.....	9.78	9.47	"
Total ash	21.36	21.30	"
Phosphoric acid.....	6.10	6.00	"
Potash	8.87	9.00	"
Soda	2.30	2.46	"
			J. R.

Soaps used in the Textile Industries. By H. VOHL
(Dingl. polyt. J., ccx, 370—380).

THIS paper consists of a summary of the characteristics of the various classes of soaps, together with a description of the processes for estimating the alkali in soaps.

M. M. P. M.

Revivification of Bone-Char. By C. PREIS
(Dingl. polyt. J., ccx, 396).

THE author calls attention to the method of Pfleger and Divis, which consists in treating the spent char with a dilute solution of ammonium chloride, whereby excess of lime is removed, the ammonia which is set free being allowed to act on the organic matter of the char.

M. M. P. M.

Waterproof Silk-Paper. By R. JACOBSEN
(Dingl. polyt. J., ccx, 400).

SILK-PAPER is allowed to float for a little time on the surface of an aqueous solution of shellac in borax, and then dried in the air. By the admixture of a small quantity of an aniline colour with the borax, coloured papers are obtained.

M. M. P. M.

Use of Charcoal as a Depilatory Agent.
(Dingl. polyt. J., ccx, 398.)

ANDERSON, of Inverkeithing in Fifeshire, finds that when a hide is immersed for four or five days in a mixture of vegetable or animal charcoal and water of the consistency of a thin paste, the hair is entirely removed, and that the leather which can be made from a hide so treated is superior to that obtained when lime is used to remove the hair.

M. M. P. M.

Cement for Caustic Lye Tanks. (Dingl. polyt. J., ccx, 399.)

THE tanks may be formed of plates of heavy spar, the joints being cemented together by a mixture of 1 part of finely divided caoutchouc, dissolved in 2 parts of turpentine oil, with 4 parts of powdered heavy spar added.

M. M. P. M.

Use of Epsom Salts and Sulphurous Acid in Dyeing.
(Dingl. polyt. J., ccx, 316.)

It has been long remarked that woollen goods dyed with aniline colours, and treated with Epsom salts, will stand the action of soap and soda, and the dressing process generally, better than when not so treated, or than when treated with any other substance.

Dr. Reimann advises the use of Epsom salt in yarns to be dyed violet. By the action of the soda, the magnesian salt is decomposed, with separation of insoluble magnesian compounds, which exert no action upon the colouring matter; any alteration in the colour by the alkali is thus prevented.

All woollen-dyers are agreed that in dyeing with methyl- and dahliaviolet, the use of sulphurous acid is very advantageous. The colours are thus obtained of a brighter, clearer tint.

It may be that a partial reduction of the methyl-rosaniline to leucaniline having taken place, oxidation then effects the transformation of the latter into the former.

W. S.