

NOTES.

The Editor desires to point out that the pages of the Journal are open for the inclusion of short notes dealing with analytical practice and kindred matters. Such notes are submitted to the Publication Committee in the usual manner.

FINE CHEMICALS.

THE expression "Fine Chemicals" is often loosely employed. One illustration is given in the November ANALYST, where Dr. Jowett, in his review of Dr. May's book on "The Chemistry of Synthetic Drugs," p. 396, mentions that "substances used in medicine" are "often referred to as Fine Chemicals."

Medicinal chemicals are but one sub-group of the heterogeneous group of substances comprehensively termed "Fine Chemicals." Analytical reagents and other laboratory chemicals are another sub-group of Fine Chemicals. In their paper on "The Manufacture of Fine Chemicals in Relation to British Chemical Industry," read before the Society of Chemical Industry at their annual meeting in July, 1916, C. A. Hill and T. D. Morson used the term "Fine Chemicals" in this comprehensive sense, and classified Fine Chemicals into three sub-groups: (1) Reagents, (2) Pharmaceutical, (3) Technical. The third group is capable of considerable subdivision, and a number of instances were given in the paper showing how far-reaching is the Fine Chemical industry.

When the Association of British Chemical Manufacturers was founded, a group known as the Fine Chemical Group was formed, and the terminology adopted was that used by Hill and Morson, slightly extended, and appears thus under the general title:

Grouping of Chemical Industries Group VI.
FINE CHEMICALS: Analytical; Pharmaceutical; Photographic;
Bare Earths; Synthetic Essences and Perfumes.

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EXPERIMENTS ON WASTE PRODUCTS.

The Munitions Inventions Department of the Ministry of Munitions has instituted inquiries with the object of ascertaining whether waste products of various chemical manufactures can be utilised for industrial purposes, and the Waste Products Committee of this Department has carried out experiments on the waste products set out below. Particulars as to the results of their experiments will be furnished to chemical manufacturers interested, upon application being made to the Controller of Munitions Inventions, 10, Princes Street, Westminster, S.W. 1.

1. Sulphide of arsenic residues from the purification of sulphuric acid.
2. Residues containing appreciable quantities of selenium.
3. Waste hydrochloric acid from pickling.
4. Waste chromium sulphate liquors resulting from the oxidation of organic substances.

5. Residues from the manufacture of acetic anhydride.
6. Residues suitable for the purification of coal gas from sulphuretted hydrogen.
7. Maize residues from the manufacture of butyl alcohol.
8. Chrome leather scrap.
9. Mimosa bark residues.

The Committee has also investigated various methods of de-rusting.

GERMAN (PRISONERS OF WAR) BREAD.

The sample described below was handed to a medical man by a prisoner of war returned from Germany, with the statement that it had formed part of their diet, and that it contained sawdust.

The bulk of the sample consists of rye flour, but a number of small yellowish particles embedded in the crust show the structure of finely pulverised wood.

The following figures were obtained on analysis :

	Per Cent.
Moisture	13.7
Ash soluble in water	1.0
Ash insoluble in water	1.1
Total ash	2.1
Reducing sugar, as glucose	2.4
Crude fibre	4.9
Cold water extract	14.4
Residue (dry) left after salivary digestion	18.3

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ZEISS BUTYRO-REFRACTOMETER: THE CONVERSION OF SCALE READINGS TO REFRACTIVE INDICES.

In a paper before the Society (ANALYST, 1916, 41, 376) C. C. Roberts gave the following formula :

$$1,000[n]_D = 1,422 + 0.817x - 0.00142x^2.$$

While this formula is satisfactory for the calculation of a refractive index from the

scale reading, it is inconvenient for the converse operation of calculating a scale reading from a refractive index.

The following formula calculated from the above is more convenient :

$$\text{Scale reading} = 287.3 - \sqrt{97,996 - 703,235([n]_D - 1.4)}.$$

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