GROUP III.—CHEMICAL INDUSTRY.

SECTION I.—CHEMICAL PRODUCTS FOR TECHNICAL PURPOSES.

GOVERNMENT GUNPOWDER FACTORY, MADRAS.

Samples of refined and unrefined saltpetre.

Eight samples of salt manufactured in the Nellore district. Exhibited by C. E. Plunkett.

Specimens of soda and a kind of salt from Aden. Exhibited by Bombay Committee.

AMRITSAR LOCAL COMMITTEE.

8,759. Specimen of Sohágá (borax).

Sohágá, or *borax*, is also called tincal. It is obtained in large quantities in the valley of Pega, in Ladakh, and in Thibet; it is collected on the borders of the lakes as the water dries up, then smeared with fat to prevent loss by evaporation, and transported across the Himalayas on the backs of sheep and goats; refined at Umritsur and Lahore by washing with lime water. It is employed by the natives as a tonic for loss of appetite; also as a deobstruent and diuretic in ascites; and also to promote labour. It is used in the arts to clean metals before soldering, to form a glaze on earthenware, and in the preparation of varnishes. It is employed as a chemical flux in experiments with the blowpipe. It is in composition a biborate of soda. Price of raw borax, 4*d.* per lb.; of refined borax, 6*d.* per lb.

Specimen of Hartal (orpiment or sulphide of arsenic).

Arsenical preparations enter largely into the composition of the native drugs; they are used to cure leprosy, snake bites, intermittent fevers, and other diseases. They are also employed all over India for suicidal and criminal purposes.

"Hasandhup," a deposit from a spring containing sulphur; the sediment is collected and made into cakes.

Specimens of raskapur (calomel), murda sand (oxide of lead), kahi (sulphate of iron), zangar (verdigris), nowshadar (sal-ammoniac), and other chemical preparations.

SECTION II.—PHARMACEUTICAL PREPARATIONS, ETHEREAL OILS, PERFUMERIES, DRUGS, and other Raw Products for PHARMACY and CHEMICAL INDUSTRY.

A.—PHARMACEUTICAL PREPARATIONS.

Cinchona Products from Indian grown cinchona bark. Exhibited by Clements Markham, Esq., C.B., London.

Quinovin.

Quinova sugar obtained from quinovin.

Quinidine (1871).

Pure sulphate of quinine from Cinchona officinalis.

Sulphate of quinine from Cinchona succirubra.

Quinovic acid.

Cinchonidine.

Cinchona, red.

Cinchonine (hydrochlorate) from Cinchona micrantha.

Amorphous quinine. Febrifuge. Manufactured in the Neilgherries.

Calcic-Quinate.

B.—ETHEREAL OILS AND PERFUMERIES.

Of scented oils there are two kinds found in Indian commerce, the one, being the cheapest, is a fatty oil, such as that of Sesame, scented with the odour of roses, jasmine, and other plants. The other scented oil is an essence or attar, obtained by direct distillation. Of course this latter varies in quality and purity, very many samples of attars being more or less adulterated with fatty oil. Pure attar is a strong volatile oil, and commands a high price. In Europe the attar of roses is best known and most highly esteemed; the purest and richest in India is manufactured in the neighbourhood of Ghazeepore.

Other "perfumeries" obtained from India are the raw materials of perfumery, such as scented woods and dried plants in the vegetable, and civet and musk in the animal kingdom. In addition to these may be mentioned scented powders, pastiles, and other preparations.

VEGETABLE PERFUMERIES.

A Collection of Attars from Delhi, exhibited by the Punjab Local Committee.

3,441. Khas. Anatherum muricatum.
Chambeli. Jasminum grandiflorum.
Guláb. Rosa centifolia.
Mahk pari.
Motya. Jasminum sambac.
Hazár gila.
Keora. Pandanus odoratissimus.
Kelki.
Nargis. Narcissus tazetta.
Panri. Stalk of betel leaf.
Champá. Michelia champaca.
Bed mushk. Salix caprea.
Gil. Earth.
Záfrán (saffron). Crocus sativus.