

sible of its water, and compressed into a yellowish brittle mass, in which state it is exported.

YEAST.

Finlayson, D. J., & Son, Reg., Montreal, Que.
Fleischmann & Co., Montreal, Que.
Jersey Cream Factories, Ltd., Hamilton, Ont.

YELLOW BERRIES, berries of various species of buckthorn used in dyeing. The best are Persinn berries, the fruit of *Rhamnus infectoria*, and from this species Avignon berries are also obtained. *R. saxatilis* grows in Asia Minor and the south of Europe; *R. cathartica* in the south of Europe and Germany.

YELLOW METAL, an alloy of copper and zinc, much used in sheathing ships' bottoms. (See BRASS).

YELLOW OCHRE. (See OCHRE).

YLANG-YLANG, an essential oil extracted from *Cananga odorata*, which grows in Java and the Philippines, and is cultivated in many tropical countries. It is used in perfumery, being little, if at all, inferior to attar of roses. The Manila oil is the best.

YUCCA.—The silk-grass or bear-grass of Florida, is a plant of the order Liliaceæ. From this and one or two closely allied species a fibre similar to that of the agaves and bromelias is obtained. In California paper is made of it. Manioc is often called by this name in America.

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ZAFFRE, impure oxide of cobalt, used in making smalt. (See COBALT).

ZEBRA WOOD, a light-brown wood with dark stripes, derived from a tree of Guiana. Another kind comes from Brazil.

ZEDOARY.—The roots of zerumbet, are aromatic and tonic, and serve the same purposes as ginger. They grow in India, China, and other south Asiatic countries. Some are round and others long.

ZINC.—One of the more common and important metals. The commonest ore is the sulphide, called sphalerite and zinc blende. The silicates, willemite and calamine, and the carbonate, smithsonite, also yield a considerable proportion of the zinc that is mined. Among the localities where zinc is obtained the chief are in Belgium and the Rhineland, Upper Sil-

sia, France, Great Britain, and the United States. The metal smelted from the ore is called spelter. Zinc can be hammered out into sheets, and is used for roofing. It is also used for engraving plates and in the composition of alloys. Galvanized iron is iron dipped in molten zinc. Zinc oxide forms the pigment known as zinc white, and is an ingredient in other pigments. The sulphate, formerly known as white vitriol, is used in calico-printing, in varnishes, and in medicine. The chloride is a disinfectant and antiseptic.

The world's production of spelter in 1913 was 1,093,635 short tons. The following were the principal producing countries:—

United States	346,676
Germany	312,075
Belgium	217,928
France and Spain	78,289
Great Britain	65,197
Holland	26,811
Austria and Italy	23,928
Norway	10,237
Poland	8,339
Australia	4,105

Canada has no smelters for the deduction of spelter from zinc ores. The Canadian production of zinc ore in 1912 was 6,415 tons, most of which was mined in British Columbia and shipped to the smelters of Kansas and Oklahoma.

The importations of zinc in the fiscal year ending March 31st, 1914, were: Spelter, 117,372 cwt., and zinc in blocks, pigs, bars, sheets, rods and plates, 45,774 cwt. Zinc oxide or zinc white, 6,221 short tons. Zinc dust 357,577 lbs., and zinc sulphate and chloride 527,297 lbs.

ZINC, Battery.

Canada Metal Co., Ltd., Toronto, Ont.
Tallman Brass & Metal Co., Hamilton, Ont.

ZINC, Chloride of.

Cowan, John, & Co., Ltd., Montreal, Que.

ZINC, Ground in Oil.

Brandram-Henderson, Ltd., Montreal, Que. and Halifax, N.S.
Muirhead, A., Co., Ltd., Toronto, Ont.
Pinchin-Johnson & Co., Canada, Ltd., Toronto.
Ramsay, A., & Son, Co., Montreal, Que.
Stephens, G. F., & Co., Ltd., Winnipeg, Man.

ZINC, Ground in Varnish

Muirhead, A., Co., Ltd., Toronto, Ont.
Pinchin-Johnson & Co., Canada, Ltd., Toronto.
Ramsay, A., & Son, Co., Montreal, Que.
Stephens, G. F., & Co., Ltd., Winnipeg, Man.

ZINC OXIDE. (See also Oxides.)

Ramsay, A., & Son, Co., Montreal, Que.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.