Haematoporphyrine as a Cure for Melancholia and Endogenic Depression.—The efficacy of Hæmatoporphyrine in the treatment of certain mental disorders is recorded by Dr. Jakob Huehnerfeld who has experimented on the method for the last seven years (*Forschungen und Fortschritte*, 1936, 12, 313).

These experiments were commenced in 1929 on animals and later confirmed by Dr. Huehnerfeld and co-workers by clinical experience of patients suffering from melancholia and endogenic depression. It was established that Hæmatoporphyrine acts firstly photo-dynamically, secondly as a stimulant and lastly as a regulator of normal animal metabolism. This threefold action is responsible for the increased appetite, better physical appearance, sparkling eyes and the increased general activity of the patient. Objectively, the calcium, potassium and sugar contents of the blood as also its pH value become more normal. An increase in the Hæmoglobin content of the blood is also noticeable. Extensive clinical experience with over 400 patients have convinced Dr. Huehnerfeld that Hæmatoporphyrine is the specific casual agent responsible for this improvement.

The optimal dosage is 500–700 mg. of Hæmatoporphyrine spread over a period of 40–60 days. No secondary complications were noticed. Hæmatoporphyrine is already marketed in Germany under the trade-name " Photodyn ".

EMMENNAR.

Alba—a New Palladium-Silver-Gold Alloy.—Dr. Alfred Jedele of Hanau describes in *Forschungen und Fortschritte* (1937, 13, 95), Alba, a new palladium alloy which can well replace the usual gold compositions extensively used in dentistry and in the manufacture of fountain pen nibs. The alloy has the approximate composition of 30 per cent. palladium, 60 per cent. silver, 5 per cent. gold and smaller proportions of other (undisclosed) constituents. The molten alloy is quite mobile and easy to work with. And apart from the fact that the sp. gr. of the alloy is about 25 per cent. less than that of 20-carat gold, the E_h potential of the alloy against lactic acid is about the same as that of the gold alloys hitherto employed in dentistry, so that the use of dentures made of the new alloy along with existing " gold " plates does not lead to any corrosion or discoloration.

The economic value of the new alloy to Germany handicapped for want of adequate foreign exchange resources can be gleaned from the fact that that country consumes annually for dentures alone 4000 Kg. of gold, all of which has to be imported. The use of the substitute alloy Alba in place of the gold alloys would save the country, it is estimated, nearly 74 per cent. in import costs.

EMMENNAR.

Biochemistry of *Sonti* Fermentation.—In Eastern countries, a large variety of alcoholic beverages and liquors are prepared by symbiotic fermentation of rice, the symbionts being usually a fungus and a yeast. The *Sonti* fermentation (K. Rami Reddi and V. Subrahmanyan, *Trans. National Inst. Sci.*, 1937, 1, 293–331) which is practised in some of the Andhra Districts of the Madras Presidency belongs to this class but presents certain unique features which distinguish it from other fermentations of its type. The chief object of the fermentation is to produce a highly digestible form of rice, particularly suitable for infants and invalids. An analysis of the product (*Sonti annam*) shows that it contains very little starch but is chiefly made up of sugars and dextrins together with small quantities of organic acids, esters and alcohol. The organism chiefly responsible for the digestion of rice is a hitherto undescribed species of *Rhizopus* (tentatively named *R. sontii*) characterised by its powerful amylase which is particularly effective on rice starch. The other organisms associated with the fermentation—*Dematium* sp. (?), *Saccharomyces cerevisea*, *Torula* sp. (?) (*Torula Hansen ?*) and *Micrococcus perflavus*—have also been described. The influence of various factors on the course of fermentation have been studied and particular attention drawn to the fact that under certain conditions, very high yields of alcohol can be obtained. The significance of the fermentation in relation to public health and its possible industrial applications have been indicated.

Genetical and Cytological Studies of Hybrids.—Interesting findings are reported by F. A. E. Crew and P. C. Koller (*Proc. Roy. Soc. Edin.*, 1936, **56**, Pt. 3, 210) who have examined the behaviour of the intergeneric hybrid of *Cairina moschata* and *Anas platyrhyncha platyrhyncha*. It has long been known that these genera are fertile *inter se* but their hybrid is infecund. The progeny of *Anas* female and *Cairina* male consists of abnormal and infecund males and females, while the progeny of *Anas* male and *Cairina* female consists of infecund males and females with normal sex behaviour. A number of cytological abnormalities were noticed in the hybrid, like chromatid bridges and fragments, precocious activity of some dot-chromosomes, formation of giant cells with multiple nuclei, degeneration of cell due to vacuolation, etc. But the sterility of the hybrid is mainly due to the abnormal development and behaviour of the spindle, for, the parental chromosomes in the hybrid show every sign of regular pairing during meiosis, the metaphase plates of which become disarranged due to spindle abnormality.

A New Pelagic Larval Ceriantharian.—N. K. Panikkar (*Zool. Anz.*, 1936, 115, 9/10, 250), has reported the occurrence of a larva belonging to a species of Ceriantharian which he has called *Apiactis bengalensis* in the waters off the coast of Madras. A tiny animal, not exceeding 3 mm. in length, the larva has certain distinctive features which separate it from the allied *A. denticulata* and *Isapiactis obconica*. From the former species it differs in the size and arrangements of the marginal tentacles as well as in the thicker mesoglœa and the absence of craspedonemes while from the latter it differs in regard to the acontia and the directive tentacles. The position of the new species with reference to the two above forms is discussed at the end of the paper.