

carbonisation. These results are of interest to the Coal Industry. Experiments on a semi-industrial scale have to be carried out to see how far the laboratory methods might be successful in actual practice. The treatment of sulphur high coals with sodium chloride, hydrogen or cheap producer-gas in the carbonisation chambers erected for the purpose, is well worth investigation. This work may be taken up by the Board. The gaseous products thus obtained may easily be subjected to Thylox or any other suitable process for the recovery of the sulphur compounds. The coke residue in the chamber ovens will form a suitable product for high class metallurgical operations. In the case of non-caking coals the non-coherent residue in the ovens may be briquetted and used for steam raising purpose or can be blended with high swelling coals to give better results. The non-caking coals may also be profitably employed for blending prior to high temperature carbonisation. It has not been, however, yet possible to find out simple ways and means to reduce the sulphur content of the coals thereby making them suitable for use in lumps on the grates of boilers.

These aspects of the problem will perhaps be of interest to the members of the newly formed Sulphur Committee.

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¹ *Curr. Sci.*, 1941, 5, 245.

² *Quart. Jour. Geol. Min. & Met. Soc. of India*, 3, 101; 10, 135; 9, 157; *Proc. Nat. Inst. Sci. Ind.*, 6, 523.

³ *Proc. Ind. Sci. Congress*, Benares, 1941, Part 3, 138.

A MARGOSA TREE WITHOUT THE BITTER PRINCIPLE

I HAVE read with interest the brief note by Mr. Cherian Jacob on "A Margosa Tree without the Bitter Principle," published in the July number of *Current Science*.

On *prima facie* grounds Mr. Jacob's explanation seems sound. But it needs to be followed up. It should not be difficult, without appreciable damage to the trees, to cut out a block of wood deep enough to include portions of both the trees, to section it in order to confirm the presumed grafting of the tissues, and to ascertain the exact nature of the connection.

Assuming that there is an intercommunication between the saps of the two trees, several possibilities suggest themselves. It may be, as Mr. Jacob suggests, that the banyan's sap, passing into the margosa, exercises a neutralising influence on the bitter principle. On the other hand, it is possible that the bitter principle of the margosa diffuses into the banyan and may even render it bitter to the taste. A comparison of this banyan's sap with that of others is therefore indicated.

Natural fusions between plants of widely different affinities are not a rare occurrence. After all, parasitic connections such as that between a *Cuscuta* and its hosts (and it is notorious that these may belong to many different families) are to be counted among such natural fusions. It is probable, too, that grafting of tissues can be effected artificially between plants belonging to distant groups. What is worthy of enquiry is whether we can, by this means, improve the quality of fruits by eliminating undesirable flavours due to resins, latex and other substances.

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