

Annual Convention of the Sugar Technologists.

THE Sixth Annual Convention of the Sugar Technologists Association of India was held in the Ceremonial Hall of the Imperial Institute of Sugar Technology, Agricultural Gardens, Cawnpore, on the 24th and 25th October 1937. A large number of members and distinguished visitors, both officials and non-officials, were present. Sardar Kirpal Singh Majithia, President of the Association, was in the chair.

The President in his address referred to the rapid development of the industry during the past few years and sounded a note of warning against over-production, and consequent fall of sugar prices.

Reviewing briefly the problems that should be tackled by the technologists, the President laid stress first on the agricultural problems and mentioned a few important points on which reliable and authentic data should be collected. Coming to the engineering problems, the question of fuel economy should engage the attention of engineers and in solving this there should be willing co-operation between the manufacturing and engineering staff. Amongst the problems that should be tackled on the manufacturing side, mention should be made of the minimising of losses in the factory, improvement of the quality of sugar and utilisation of the bye-products.

The Business Meeting of the Association held in the afternoon of the 25th October. Mr. R. C. Srivastava, the Honorary Secretary, reviewed the present position of the sugar industry and stated that there was an increase of 21 per cent. in the production of sugar as against that of the previous year. The prospects of the coming season are uncertain. The two factors contributing to the uncertainty are, firstly, the scale of sugarcane prices to be enforced during the next season, and secondly, the absence of a strong organization for controlling sugar sales.

Forty-four technical papers covering all the aspects of the industry, *viz.*, agriculture, engineering, manufacture and bye-products were presented and discussed.

DR. B. K. MUKERJI gave a summary of the results of pot culture and field experiments carried out under his supervision on "molasses as fertilizer". His deductions are:—(a) In actual practice, nitrogen fixation by molasses in a normal soil is scarcely realised. There is considerable room for doubting the indirect beneficial effect of molasses on the fertility of U.P. soils. (b) In U.P. potash does not add anything appreciably to the yield of crops like wheat, maize and potato. (c) There are *a priori* reasons to believe

that for the reclamation of *usar* land application of about 10 tons of molasses per acre would give satisfactory results, particularly with the paddy crop.

J. S. CHALUPA (Skoda Works, Prague) had an interesting paper on "Massecuite crystallizers with cooling equipment". It is unfortunate that these rapid crystallizers are sneered at by sugar technologists in India; on the other hand, the makers assert that the technologists are too indolent to learn the basic principles for their proper working.

R. C. SRIVASTAVA'S "Efficiency of production of sugar in India" and L. H. HATTWAITE'S "Description and comparative study of various types of modern furnaces for burning bagasse for steam boilers," gave useful summaries of the respective aspects of the sugar industry.

On the agricultural side of sugarcane, a number of papers were contributed from the Shahjehanpur and the Lyallpur Experimental Farms, materially increasing our knowledge of the subject.

A. N. KAPUR'S study of "Evaporator scales in Bombay, "Deccan sugar factories" and J. P. SHUKLA'S on "Butyl fermentation" are hopeful signs for the research capability of our young sugar chemists.

Other papers which attracted special notice were:—DR. SUKHATME: "On the problem of specifying standards for grain of sugar", giving a clear and concise exposition of the principles of statistical science when applied to the problem. It seems to be the first one of its kind on the subject.

DR. CHATTERJI: "Refining of gur with solvents" is a bold attempt to set up a wholly different and novel technique in sugar technology, namely, to leach out the colouring matter and the greater part of the reducing sugars by means of methyl alcohol. It transpired that a small laboratory pilot plant is shortly to be rigged up to try the process further.

A paper on "A rapid process for making fertilizers from molasses" contributed by Dr. Sen and others, was certainly the most remarkable for more reasons than one. It claims to establish that in the process described (a combination of bacterial bed percolation activated sludge and lime processes for sewage treatment) atmospheric nitrogen is abstracted from air and gets fixed!

On the whole, this annual Conference served an extremely useful purpose, in consolidating the scientific and technical work done during the year in the Indian Sugar Industry.