tion and the acceptance of these principles by the Government of India was a welcome addition to the increasingly helpful attitude of official circles towards the co-ordination of scientific research with factory production. The Conference recommended that a standing Producer-Gas Research Committee should be formed without delay and action has already been taken to secure the co-operation of the Provincial and State Governments in which suitable laboratories and workshops exist.

Typical of the wide range of problems proposed were the investigation of improvements into top cylinder lubrication, the effect of the products of combustion on the engine lubricating oil and on the engine itself, the design of a standard producer-gas plant and the precise methods of packing filter units with such materials as sisal, cotton-waste or coir. In a different but equally important field were the contributions of the Forest Research Institute on the manufacture and properties of different qualities of charcoal carried out under the direction of Dr. Sri Krishna who suggested that the possibility of the manufacture at the Institute of a standard filter paper for the gas purity test should also be explored.

Great emphasis was laid on the ultimate dependence of successful producer-gas transport on the efficiency of the drivers and the necessity for the immediate organisation of properly equipped training schools for them all over India and the possibility of travelling teaching units for this purpose was not overlooked. The Conference also resolved that an adequate staff of technical inspectors, trained in the practical aspects of the use of this alternative fuel, was necessary in all Provinces so that the care and maintenance of gas-operated veheicles would receive adequate supervision.

A detailed report on this Conference, with appendices comprising papers subscribed by delegates and covering the wide range of subjects discussed, is in preparation and it is contemplated that the information in this brochure will materially assist this indigenous industry and those who use charcoal-gas lorries or buses. It is hoped that the constructive recommendations which have been made will result in the establishment of still more reliable producer-gas transport on the roads of this great country, not only at the present time, when the strain of war has forced it into prominence, but also in the post-war period of reconstruction and development, when it is the ambition of enthusiasts that producer-gas transport will prove that it has come to stay.

The full report on this important Conference will be awaited with great interest in Indian scientific and industrial circles.

D. D. T.

DICHLOR-Diphenyl-Trichlorethane (D. D. T.) was originally synthesised by Othamar Zeidler in 1874 and its physiological and pharmacological properties remained unknown till this important chemical was rediscovered by Paul Muller of the U.S.A. Department of Agriculture. But Frey of Cincinnati Chemical Works, U.S.A., solved the problem of its production on a commercial scale. The Americans consider it one of the most important discoveries of World War II and truly this insecticide can be termed as such. Paul Muller found that it killed bugs and it was first tested in 1939 during the plague of potatoes where it killed all the beetles. In 1943 it was used in Naples where it stopped the epidemic of Typhus. The matter must have been of very considerable importance that the Prime Minister Churchill made a special mention of D.D.T. in his latest review of war before the House of Commons. D.D.T. promises to wipe out mosquito and malaria and to destroy household pests such as cockroaches and bedbugs, and to control some of the most damaging insects. Lt.-Col. Ahnfeldt, of U. S. Surgeon-General's Office, considers that D.D.T. will be to preventive medicine what Listers' discovery of antiseptics was to surgery.

The use of D.D.T. as delousing agent against Typhus has been an open secret in America for several months. But in June last for the first time its manufacturers and Army, Agriculture and W.P.B. Officials announced some of its amazing properties:—(1) If sprayed on a wall it kills any fly that touches the wall for as long as three months afterwards; (2) a bed sprayed with D.D.T. remains deadly to bedbugs for 300 days; (3) clothing dusted with it is safe from lice for a month, even after eight laundrings; (4) a few ounces dropped in a swamp kills all mosquito larvæ; (5) it is deadly to household pests such as moths, cockroaches, termites and dog's fleas; (6) as a crop protector, it is deadlier and longer lasting than other insecticides. It has been found effective against potato beetles, cabbage worms, Japanese beetles, fruit worms against which other insecticides have proved to be failures.

U.S.A. has a very big programme in hand for its production but all for the army. D.D.T. owes its deadliness both as a contact and a stomach poison. It first paralyses hind legs of an insect and finally brings complete paralysis and death. It is remarkable that pure chemical has little effect. It is used in an oil solution or mixed with an inert powder. The usual dose is 1-5 per cent. D.D.T. It is non-toxic to human beings in the concentration which is used.

For the first time it was synthesised in the Government Industrial Laboratory at Hyderabad-Deccan, and a programme for producing it on a larger scale has been undertaken.
