

been laid up indefinitely or their use limited. The possibilities claimed for this new method of power production, therefore, deserve fuller examination, and, as the fuel is home-produced, those who require a greater degree of use of their cars can consider its adoption. In our earlier article, the process of gasification was described and readers may now wish to have information regarding the British-made apparatus referred to in the paper.

This plant has been successfully mounted on private cars of medium power, on transport and other vehicles, and is so designed as to require no special skill on the part of the driver. A supply of fuel is dropped into a hopper placed above the generator, where a moderate fire is maintained and a gas of high calorific value produced. The gas is cooled by the air going to the generator, to which some steam is also supplied in order to keep the temperature below the ash fusion point, thus eliminating a possible source of trouble. On its way to the engine the gas is passed through a cleaner to remove dust. Photographs reproduced in the paper show the complete apparatus as fitted to a Humber car, a Bedford lorry, and to a tractor hauling a plough, and in each case the addition has been effected without inconvenience or unsightliness. The first lighting of the fire—a matter of no great difficulty—takes ten or twelve minutes, and it does not require to be relit afresh each day. The hopper is charged occasionally with

fuel, and this can be done without stopping the engine.

Suitable fuels, such as anthracite or one of the low-temperature cokes—for example, coalite—although abundant, are certainly not so conveniently obtainable as was petrol in ordinary times. This difficulty would be overcome, but in any event users could easily store ample supplies if the authorities granted permission. As regards operating costs, the claim is made that the advantage lies with the gas producer. On the basis of the prices of a year ago, the total operating costs for a 1½-ton vehicle making a weekly round of 600 miles would be £11 10s. per week when petrol is used and £9 17s. in the case of the gas producer. It may therefore be seen that the system is practicable and not necessarily expensive.

Official approval of a form of gas producer was conveyed by an announcement made by the Secretary of Mines in the House of Commons last week. He said that the Government, recognizing that in time of war it is clearly in the national interest to make the best possible use of home-produced substitutes for imported oil, had some time ago set up a committee to consider the problems of such gas producers. As a result, not only has the use of producer gas been sanctioned, but concessions have also been made to ensure that users do not suffer disadvantage in making the change-over.

OBITUARIES

Prof. A. A. J. de 'Sigmund

IT is with great regret that we record the death of Prof. Alexius A. J. de 'Sigmund, professor of agricultural chemistry and technology and soil science in the Royal Hungarian Palatine-Joseph University of Technical and Economic Sciences of Budapest, and formerly director of the Royal Hungarian Institute of Chemistry and Central Experimental Station at Budapest. Coming of an old aristocratic Transylvanian family, he found himself at the end of the War of 1914–18 compelled to choose between his work which lay in Hungary or his estates which were in the country ceded to Rumania. He decided for his work.

To English men of science de 'Sigmund was best known through his investigations on the alkali soils in Hungary, which he described in publications of the Imperial Bureau of Soil Science and the University of California Press. Although there were certain special features about these soils, he had carried out his researches on broad lines, which made the results particularly interesting and helpful to those engaged on soil improvement, reclamation, and similar problems in many other parts of the world, especially

the semi-arid regions. His other important branch of study was soil classification, which he dealt with at length in his book on soil science; this was written in Hungarian, but in somewhat abbreviated form it was translated into English by Dr. Yolland under the title "The Principles of Soil Science". His classification had the double merit of being comprehensive and based on the chemical composition of the soil: it was not intended to be final, but it satisfactorily filled a number of gaps in other systems. It has not been universally adopted, nor indeed has any as yet; but it represents a distinct addition to knowledge on a very difficult and important subject.

Prof. 'Sigmund was a regular attendant at meetings of the International Society of Soil Science, of which he was an honorary member, and he was always a welcome guest in any international group by reason of his wide linguistic abilities and broad sympathies. He was a man of great personal charm and artistic taste; he was very fond of music; and altogether a good type of the cultured aristocracy of central Europe now unhappily fast disappearing, to the great loss of our civilization.

E. J. RUSSELL.