



A reactor unit producing 50 tons a month of hydrogen cyanide. Eight combustion chambers each contain thirteen ceramic tubes in which methane and ammonia react in the presence of a platinum catalyst

tion, or by direct reaction to form further products, such as alkyl cyanides and cyanhydrins.

For a given output of hydrogen cyanide this process employs less than one-third of the volume of reactant gases used by the Andrussow process. This leads to a corresponding reduction in the size of the absorption equipment.

The tail-gas of the process consists largely of hydrogen (97 per cent V/V). If carbon monoxide is present in the methane employed as feedstock, it will still be present in the tail-gas and must be removed by conversion to methane if the hydrogen is to be used in hydrogenation processes or other applications which are sensitive to its presence.

Erosion and Transfer in Electrical Contacts

FURTHER WORK ON TRANSFER-INDUCTANCE CHARACTERISTICS

The phenomena of transfer in electrical contacts are very complex and are not yet fully understood, although the influence of circuit inductance has long been recognised. Work carried out in this field by the Electrical Research Association is reviewed by W. Nethercot in the Association's journal *Co-operative Electrical Research*. By using a new ultra-high-speed oscillograph it has been possible to study extremely short duration arcs in circuits with an inductance as low as

about 0.1 microhenry, and the transfer-inductance characteristics of various contact materials normally used for relay contacts rated at up to 24 volts and 10 amperes have been observed with inductance values from 0.1 microhenry upwards. It is suggested that the relay designer might deliberately relate inductance to the transfer characteristics of his contact materials: the data obtained show that with platinum and palladium this value can be as low as 0.25 to 1.0 microhenry.