

The Availability of Platinum

FURTHER EXPANSION IN MINING ACTIVITY AT RUSTENBURG

The consumption of platinum for industrial purposes continues to rise steadily, while the variety of its uses continues to increase. On several occasions during the past few years specific expansion programmes have been announced by Rustenburg Platinum Mines Limited, each designed to maintain output in balance with demand and to give effect to the declared policy of the mining company and its sole refiners and marketing agents Johnson Matthey & Co Limited to ensure to the best of their ability that platinum shall always be available for use by industrial consumers, and that it shall be available at reasonably steady prices.

The last such announcement, only a year ago, referred to an immediate programme to expand capacity at the mines – already the world's largest producer of platinum – by about 25 per cent. Refined platinum arising from this particular phase of expansion, which will be completed towards the end of 1965,

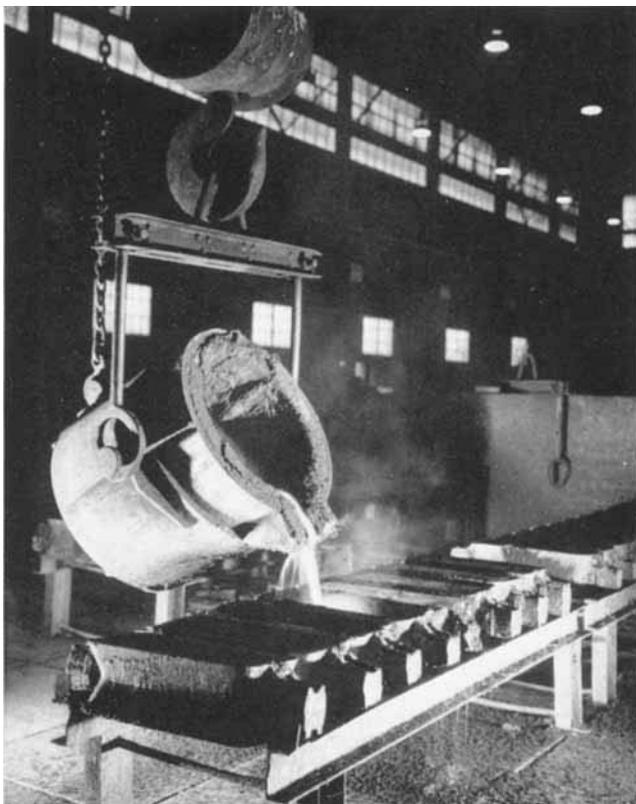
will become available in increasing quantities from the last quarter of this year.

However, it has now been considered advisable to provide still further capacity at Rustenburg in order to ensure continuity of supplies at a higher level and to assist in the building up of stocks of metal that will be available at short notice to meet sudden changes in the supply position, should these recur. Capacity is therefore being increased still further, to an extent which will increase 1964 output by 40 per cent instead of the 25 per cent previously planned. This further expansion will be completed during the first half of 1966, and some additional refined platinum arising from this programme will become available towards the end of that year.

The present project includes an acceleration of shaft sinking programmes, the further expansion of all the numerous mining facilities required for the higher rate of production,



A train load of platinum ore emerging from the mine at Rustenburg



An early stage in the process in the Johnson Matthey smelting plant. Nickel matte, carrying with it the platinum metals, is cast into pigs

and a further extension of the reduction works. The total cost involved will exceed £5 million, but it is considered that this level of new capital expenditure is essential to Rustenburg's endeavours to ensure that some surplus capacity is always available, and that stocks of refined platinum are adequate to meet the needs of users as and when these needs arise.

possible to avoid any further increase in the price of platinum for some considerable time to come.

Smelting and refining capacity in the Johnson Matthey plants in the United Kingdom, as a result of steady modernisation and improvement, will be adequate to deal with the increased output from Rustenburg.

It is also expected that the large scale of production upon which Rustenburg is now engaged, and which will continue for so long as it is warranted, will assist materially towards mitigating the effects of inflation upon the cost of production, and by so arresting the otherwise steady increase in production costs it is hoped that it will be

Aromatics Production by Platinum Reforming

LARGE SCALE PLANT DESIGNED FOR BILLINGHAM

The largest aromatics plant of its kind in Europe, having a projected capacity of some 400,000 tons a year, is now in course of construction at the Billingham works of Imperial Chemical Industries Limited and will begin production in the latter part of this year.

Six process units licensed by Universal Oil Products Company comprise the new complex, two of them employing platinum catalysts. Light straight-run naphtha feed will be charged to a Unifining plant for desul-

phurisation and then to a Platforming unit for aromatics reforming. An alternative source of aromatics, cracked naphtha, will be hydrogen treated in a Platfining process unit, and the products from both streams will be fed to a Sulfolane unit for the extraction of high purity aromatics.

The use of these two routes will give flexibility in the production of aromatics – mainly benzene, toluene, xylenes and cyclohexane – on this large scale.