DISCUSSION.

Mr. Bertram Blount said it was not quite clear whether the temperature measured in Dr. Harker's determinations was really the melting-point of platinum. The temperature actually recorded was that at which the junction melts, and the junction is an alloy, not purely platinum.

Dr. Harker had touched on the fact that nobody had as yet shown the exact mechanism of which currents were able to pass in solid electrolytes. Was such a special mechanism really wanted? It seemed to him that the ordinary conception of the transference of ions—or electrified particles if preferred—in a quasi-plastic mass sufficiently accounted for the phenomena observed.

Dr. H. Borns could, at the moment, refer Dr. Harker only to the researches of Streintz and of E. Bose on the conductivity of compressed powders, and mentioned also Haber's work on the electrolysis of solids and on the coal gas cells, in which hot glass serves as electrolyte.

Mr. F. W. Harbord asked whether the outside nickel wire disintegrated.

Dr. T. M. Lowry wished to have the reference to the reduction of a filament carrying a current to the metallic state by removing the surrounding oxygen, referred to by Dr. Harker. He would refer the author to the dissertation by Reynolds, who had worked on the subject of solid electrolysis with Nernst. Such conduction was not essentially different to that which occurred in hot glass.

Mr. W. Murray Morrison asked what binding material was used in passing the material through the moulds.

Dr. Harker, in reply, stated that the nickel-wire used was intentionally rather thick, 1 to 1.5 mm. It had not given any undue trouble. The binding material used in squirting the tubes from the press was gum tragacanth—about 5 per cent.