

NOTES ON INORGANIC CHEMISTRY.

PLATINUM IN ANTIQUITY.

PROFESSOR BERTHELOT reports in a recent number of the *Comptes Rendus* that on a metallic box from Egypt, covered with inscriptions, he found a portion of one of the characters made of platinum. The mass was too small for a complete analysis, but from its behavior toward aqua regia, it appeared to be native platinum. The date of the box was about 700 B. C. From two standpoints this discovery is of more than passing interest. It has been a much disputed question whether platinum was known to the ancients. Passages from the classics have been quoted which appear to some to be references to platinum, but this application is in every case very doubtful. A much stronger argument against the probability of platinum being known more than a few centuries ago, is, that until this discovery of Berthelot's, no trace of the metal has been found in any ancient remains. Had platinum been known, it is hardly conceivable that specimens of it should fail to be found somewhere among the multitudinous remains of antiquity. This present discovery really emphasizes the argument, for it would seem from the description given by Berthelot that this specimen of platinum was used by the workman unwittingly, resembling as it does some of the pale gold of Egypt. A second interesting point is that if Berthelot's conjecture be true that this is native platinum, obtained from the alluvial deposits of Nubia or the upper regions of the Nile valley, it is the first recorded occurrence of platinum in Africa, with the single exception of an observation of Aimé, in 1838, that some of the galena from Algeria contains a trace of platinum.

LEAD IN POTTERY GLAZES.

THERE has been much discussion in England the last few years regarding the use of lead in pottery glazes, with reference both to the health of the potters and to the dangers attending the use of lead-glazed vessels in culinary operations.

In continental potteries a lead glaze is in frequent use which seems to be far more resistant to the action of solvents than those in use in England. The subject was recently brought

before the Chemical Society by Professor T. E. Thorpe and C. Simmonds, and an abstract of their work and of the discussion of their paper is found in the *Proceedings* of the Society. Examining a large number of glazes, they find that many of them are attacked by dilute acids, comparable with the acids found in the human system, such as the hydrochloric acid of the gastric juice. They find that the resistance depends upon the ratio of base to silica in the glaze. Provided that the ratio falls within certain limits, the amount of lead extracted under the prescribed conditions is always small, though the actual quantity of lead in the glaze may vary from zero to 50 or even 55 per cent. The amount of the other bases, such as alumina, lime and alkalies, may vary considerably and the silica may be replaced to some extent by other acids, as boric acid. It is to be hoped that American potters, as well as the English, may profit by these investigations, which after all only serve to bring out what has long been in practice in the potteries of Germany.

COSMIC DIFFUSION OF VANADIUM.

IN 1897 Hasselberg called attention to the occurrence of vanadium in many specimens of rutile, as had indeed been noticed by Sainte-Claire Deville as early as 1859. Hasselberg has now turned his attention to the examination of meteorites, and finds the presence of vanadium in all those examined of the stony type, while in metallic meteorites it is absent, save in a single specimen in which a very small quantity was found. He has gone over the work of Lockyer on the meteoric iron from Nejed and Obernkirchen, and finds that his observation that vanadium is present in these irons is erroneous. From these investigations he deduces the conclusion that a different origin is indicated for stony and for metallic meteorites.

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CURRENT NOTES ON METEOROLOGY.

ANNALS OF THE MONT BLANC OBSERVATORY.

VOL. IV. of the *Annales de l'Observatoire météorologique, physique et glaciaire du Mont Blanc* (altitude 4,358 m.), publiées sous la Direction de J. Vallot, contains several interesting