

NOTES ON INORGANIC CHEMISTRY.

GEORGE MÉKER, in a recent *Comptes Rendus*, calls attention to the fact that, while fused sulfate of ammonium or the alkaline halids have little or no effect on platinum, a mixture of ammonium sulfate and bromid or potassium bromid corrodes the metal very rapidly. Platinum black or even finely divided metallic platinum, is rapidly brought into combination with this mixture at 330° , the bromo-platinate of ammonium being formed. The other metals of the platinum group have not been tested with this mixture by the author.

It is many years since Dr. Künzel called attention to the fact that in a nickel solution containing potassium nitrite even traces of a calcium salt give a yellow precipitate. Several of these triple nitrites have been from time to time studied, and in the last *Zeitschrift für anorganische Chemie* Carl Przibylla gives a systematic study of these salts. $\text{CuBaK}_2(\text{NO}_2)_6$ may be taken as a type of the triple nitrites. The copper may be replaced by nickel or iron, the barium by calcium, strontium or lead, and the potassium by ammonium. The salts are very insoluble, not stable in the presence of water, and some of them appear to be mixtures, but even these mixtures closely approximate the above formula.

THE work of Melikoff and Pissarjewsky on peruranic acid was recently noticed in this column. According to their view of the constitution of this acid, its ammonium salt should contain ammonium peroxid, and their efforts to obtain this compound are the subject of a preliminary communication in the last *Berichte*. By mixing concentrated ether solutions of hydrogen peroxid and ammonia at -20° , a thick liquid was obtained which had little odor of ammonia, and which, on further cooling with liquid carbon dioxid, crystallized. Analysis of the crystals gave the composition $(\text{NH}_4)_2$

$\text{O}_2, 2\text{H}_2\text{O}_2, 10\text{H}_2\text{O}$. The water of crystallization seems not to be constant, but the existence of the peroxid of ammonium of the formula $(\text{NH}_4)_2\text{O}_2, 2\text{H}_2\text{O}_2$ appears well established.

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SCIENTIFIC NOTES AND NEWS.

THE TOTAL ECLIPSE OF THE SUN.*

THE observation of the total solar eclipse in India has been a magnificent success. Here at Talni, during the three weeks of our preparations, we never saw a single cloud and to-day has been as perfect as those which have preceded it, and whilst we are rejoicing over our own good fortune the news is flashed to us that at Buxar, in the east, and Jewar, in the west, observers have been equally favored. Thanks to the forethought of our host, Lieutenant Morris, no spectators were allowed to approach within several hundred yards of our camp, and we observed the superb spectacle free from the slightest interruption. The first encroachment of the dark body of the moon gave us an hour and a half's warning of totality, and slowly indeed did the first part of that time pass. A fine procession of sharply-defined spots lay across the solar disc, and were swallowed up one by one by the invading darkness. The air, which had been intensely hot, grew chill, the weird sense of approaching disaster which always accompanies an eclipse oppressed the nerves, and then, with what seemed a sudden rush, the shadow fell.

I was watching the eclipse through a binocular, one lens of which was fitted with an eyepiece prism. As totality approached the burning spectrum at the sun became crowned with dark semicircles—the Fraunhofer lines. These grew finer and sharper, and then suddenly turned to bright flame at either end of the semicircles. The continuous spectrum narrowed, the bright arch grew with startling swiftness, a long constellation of glittering points sparkled out for a fraction of a second, and totality had begun. 'Go!' I cried. The signal clock was started, and its clear beat rang out, emphasized at every tenth second by the

* A cablegram to the London *Times*.