

to be thought," etc., etc. (cf. Marlatt, l.c., p. 837).

T. D. A. COCKERELL.

N. M. AGRICULTURAL COLLEGE.

POT-HOLE VS. REMOLINO.

TO THE EDITOR OF SCIENCE: In your issue of July 14th you publish a communication from Mr. Oscar H. Hershey, in which he advocates the substitution of the Spanish word 'remolino' for the term 'pot-hole,' as applied to rounded cavities formed by rivers in their rock-beds.

The term pot-hole may not be elegant, but it certainly expresses the object to which it is applied more correctly than would the Spanish word he seeks to adopt in its place. The definition of 'remolino' is a whirlpool, or whirlwind; it is also applied to a turbulent or disorderly mob of people.

While a whirlpool may be the cause of a 'pot-hole,' it would be improper to substitute the cause for the effect.

The fact that the word *remolino* is not properly applied in the Republic of Colombia, perhaps only colloquially, is no justification for the introduction of an incorrect term into American scientific nomenclature.

F. F. HILDER.

WASHINGTON, D. C., July 15, 1899.

NOTES ON INORGANIC CHEMISTRY.

THE pupils and former colleagues of Professor Joly, of the École Normale of Paris, are continuing with good results the researches of Joly on platinum groups of metals. Brizard, of the École Normale, has continued the study of the osmiamates begun by Joly. These compounds were discovered by Fritzsche and Struve half a century ago, being formed by the action of ammonia and caustic potash on osmium tetroxid. The formula assigned was $K_2Os_2N_2O_5$. Joly was led to suspect that the compound contained the NO group, analogous to his nitroso compounds of ruthenium, and partial analyses and its decomposition products pointed in the same direction. Brizard has now confirmed this by complete analyses of the potassium, ammonium and silver salts, and the formula proposed by Joly $KOsNO_3$ is proven correct. The osmiamates

are thus salts of the anhydrid of a nitroso acid $OsNO(OH)_3$, which corresponds to a hydroxid of ruthenium $RuNO(OH)_3$ discovered by Joly.

IN the same number of the *Bulletin Soc. Chim.* is a paper by Professor Vèzes, of Bordeaux, continuing his work on the oxalates of the platinum metals. This paper takes up the oxalates of palladium. These may be formed directly by the action of potassium oxalate on potassium chlorpalladite in neutral solution, or by the action of oxalic acid on potassium palladonitrite. Unlike the case with platinum, the same salt is obtained in both cases, a potassium pallado-oxalate of formula $Pd(Ox)_2K_2 \cdot 3H_2O$. This salt is easily converted back into the chlorpalladite by hydrochloric acid, and into the palladonitrite by potassium nitrite in neutral solution. Professor Loiseleur, of Libourne, has succeeded in preparing the free pallado-oxalic acid. It thus appears, as with platinum, a very close relation subsists between K_2PdCl_4 , $K_2Pd(NO_2)_4$ and $K_2Pd\overline{Ox}_2$, and also that the pallado-oxalates are not double salts merely, but 'complex' salts and derivatives of a 'complex' pallado-oxalic acid.

PROFESSOR VÈZES has also contributed to the *Zeitschrift für anorganische Chemie* a short note on the volatilization of osmium in a stream of oxygen. The paper was occasioned by an article by Sulé on the same subject, showing that osmium is volatile at ordinary temperatures. Vèzes calls attention to the fact that Deville and Debray had long ago noticed this fact, which was further studied by Joly and himself. The volatility of osmium depends not only on the fineness of its division, but also upon the method of its preparation, some forms being volatilized appreciably at quite low temperatures.

THE so-called 'metallic' variety of phosphorus is shown by D. L. Chapman, in the *Proceedings of the Chemical Society* (London) to be identical with red phosphorus, their appearance under the microscope being similar. The alleged higher vapor tension of some varieties of red phosphorus is merely due to impurity. The vapors from red and from ordinary phosphorus are identical, and at the temperatures of boiling mercury and of boiling sulfur show a