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IN CONNECTION WITH
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Karpholite after Wolfram.—R. BLUM, (Pogg. Ann., lxxxiv, 154.)

On Serpentine after Hornblende, Augite, Diallage, Schillerspar;
by G. ROSE, (Pogg. Ann., lxxxii, 511.)

On White lead ore after Linarite; by W. HÄIDINGER, (Jahresb. der
k. k. oestr. geol. Reich., 1851, ii, 78, and Lieb. u. Kopp, Jahresb. f.
1851, p. 824.)

On the waters of the Great Salt Lake, Rocky Mountains; by Dr. L.
D. GALE, (Stansbury's Expedition to the Great Salt Lake, Philadelphia,
1852).—Amount of solid contents, 22.422 per cent. Specific gravity,
1.170. Composition:

Chlorid of sodium,	20.196
Sulphate of soda,	1.834
Chlorid of magnesium,	0.252
Chlorid of calcium,	trace.

On the Waters of the Warm and Hot Springs of Salt Lake City;
by Dr. L. D. GALE, (ibid.) The mineral water of the warm spring
has a strong smell of sulphuretted hydrogen. Specific gravity 1.0112.
Solid matter afforded on evaporation 1.08200 p. c. Analysis afforded,

Sulphuretted hydrogen uncombined,	0.037454
“ “ combined,	0.000728
Carbonate of lime precipitated by boiling,	0.075000
“ magnesia “ “	0.022770
Chlorid of calcium,	0.005700
Sulphate of soda,	0.064835
Chlorid of Sodium,	0.816600
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	1.023087

The Hot Spring has the specific gravity 1.0130, and yielded 1.1454
per cent. solid contents. Composition in 100 parts:

Chlorid of sodium, 0.8052,	Chlorid of magnesium, 0.0288,
Chlorid of calcium, 0.1096,	Sulphate of lime, 0.0806,
Carbonate of lime, 0.0180,	Silica, 0.0180=1.0602

Analyses of several native Borates; by Prof. BECHI, (from a letter
from Prof. Meneghini to J. D. Dana, dated Pisa, July 26, 1853.)—The
borates examined by Prof. Bechi occurs as incrustations at the baths of
the Lagoons of Tuscany.

(1.) *Lagonite.* Analysis:

B 47.955 Fe 86.280 H 14.016 Si, Mg, Ca, and loss, 1.769=100

Formula hence deduced, Fe B³+3H.

(2.) *Hayesine?* Analysis:

B 51.135 Ca 20.850 H 26.250 Si, Al, Mg 1.750

leading to the formula Ca B²+4H.

(3.) *Borax?* Analysis:

B 48.559 Na 19.254 H 37.187=100

whence the formula, Na B²+6H.

(4.) *Larderellite*, (new species.)—White and very light, tasteless,
appearing under the microscope to be made up of minute oblique rect-

angular tables; $M : T = 110^\circ$, according to a measurement by M. Amici.
Analysis:

B 68.556 N H⁴ O 12.734 H 18.325

The formula deduced is $NH_4OB^4 + 4H$. It dissolves in hot water, and is transformed into a new crystallized salt, which is represented by the formula $NH_4OB^6 + 9H$.

On Melan-Asphalt; by C. M. WETHERILL, (Trans. Amer. Phil. Soc., x, 353.)—This mineral is the same that has been pronounced bituminous coal by other investigators. It is from the Albert coal mine, New Brunswick. Some of the reasons for considering it coal are cited in this Journal, vol. xiii, 277. Dr. Wetherill states that E. Durand of Philadelphia, obtained for the solubility of the asphaltum of Cuba 34 parts in ether, and 60 parts in oil of turpentine, with 6 residue; and of the Hillsborough material, 4 parts in ether, and 30 in turpentine, with 36 of residue. Cannel coal gives no solution with turpentine.

Analyses, afforded—

	Carbon.	H	O, N
1. Asphaltum of Cuba,	82.670	9.141	8.189=100
1. Melan-asphalt,	86.123	9.871	4.906=100

Dr. Wetherill calculates the formula $C^{68}H^{42}ON$, from the latter analysis. The Hillsborough product is stated to be unlike coal in becoming electric by friction. [It may be questioned whether this substance can be considered a simple chemical compound. It is more probable from the trials with solvents and other tests that there is a very large excess of carbon, as impurity.]

2. *Thalia*.—The following letter from Dr. Genth to Dr. D. D. Owen, respecting his new earth Thalia, written, as he informs us, in June last, is from the Proceedings of the Academy of Natural Sciences of Philadelphia. Dr. Genth writes us that his investigations were independent of those of Professor J. Lawrence Smith.

"I have just completed the experiments with your thalia, and have come to the conclusion that it is nothing but magnesia. Magnesia shows sometimes such a strange behavior with reagents, that one is inclined to think it a new earth. I had the same case with my analyses of Kämmerite (Rhodophyllite.) It is possible that the relations which exist in the mineral had not been destroyed, and that you have a solution of the mineral,—for instance, a solution of aluminate of magnesia. I separated both with acetate of potash, and free acetic acid and carbonate of baryta. The only strange reaction was, that it fell down with NH_4O , O in presence of NH_4Cl , but I find it now in all the magnesian minerals which I examine in a similar manner.

From the oxalate of your thalia I prepared the pure earth. With cobalt solution before the blowpipe it gave a flesh colored mass. Dissolved readily in very dilute acid, and gave no precipitate with ammonia in presence of chlorid of ammonium, and all the reactions of magnesia. The sulphate gave with sulphate of ammonia the well known double salt in oblique rhombic prisms. The pure sulphate with seven equivalents of water crystallized right rhombic, and had the form, appearance, taste, and gave all the reactions of epsom salt. It gave me 50.8 per cent. of water, 35.5 per cent. of sulphuric acid, which also proves that I