

bide and barium carbide questions it might not be wise to go into the details of the work and the claims of the various workers (Borscher, Maquenne, Moissan, Travers, Willson, I arrange these names simply alphabetically) but I mention these various carbide processes to show the present condition of our subject, and to draw especial attention to a notable fact.

In reviewing our subject we find that in the early days the current was suggested, tried and used for various metallurgical operations, in which both the heating and decomposing actions of the current were utilized. Then in the principal, practical part of the field, that of the production of sodium and aluminum, the generation of intense temperatures became paramount. This activity culminated in the high heat processes of Cowles and Heroult, and they were very soon superseded by the low temperature process of Hall for the production of aluminum, which carried with it the greater part of the demand for the production of sodium.

At the present day, therefore, there is no practical production of metals by high electric heats, with the possible exception of the production of chromium. On the other hand, high electric heats are being employed to go a step beyond the reduction of the metals, and to form new compounds, as in the carbide processes mentioned. In these the metals are first reduced, and are then immediately recombined with carbon, and thus in the field of high heat our subject becomes the application of high electric heat to chemistry.

Jan. 14, 1896.

FREDERIC P. DEWEY.

NOTES.

The Second International Congress of Applied Chemistry.—The First International Congress of Applied Chemistry was held at Brussels, under the patronage of the Belgian Government, from August 4th to 11th, 1894. On the last day of the meeting it was voted to hold the next congress in Paris, in 1896. This approaching congress will be held in August of this year, the exact date to be hereafter published in this Journal, under the patronage of the French Government and pursuant to a plan of organization formulated by the Association of Chemists of the Sugar Industry and Distilling in France and the Colonies. M. Berthelot, the distinguished chemist, and now Minister of Foreign Affairs, is one of the Presidents of Honor. The congress will be held in ten sections, as follows :

Sec. I. Chemistry applied to the sugar industry.

Sec. II. Fermented and distilled beverages, cider, and vinegar.

Sec. III. Agricultural industries, including dairying, starch making, bread making, milling, etc.

Sec. IV. Agricultural chemistry, including fertilizers, soils, waters, cattle feeding, etc.

Sec. V. Chemistry applied to the customs, including methods of analysis of all the dutiable substances where the duty depends on chemical composition.

Sec. VI. Fats, tannin, rubber, paints, color, paper, etc.

Sec. VII. Photography.

Sec. VIII. Metallurgy.

Sec. IX. Biochemistry, foods, poisons, potable waters, microscopy, bacteriology, spectroscopy, etc.

Sec. X. Electrochemistry.

The undersigned committee for the United States has been appointed by the Provisional Council of the Congress, and we beg to call the attention of all American chemists, who expect to visit Europe during the coming summer, to the desirability of attending the meetings of the Congress. On application, the chairman of the committee will send a copy of the provisional program, showing the character of the questions which will be under discussion and containing a blank application for membership, which should be filled and sent to the proper address, before the date of the meeting. Already more than 900 chemists have entered their names as members of the Congress, and it is confidently expected that the membership will reach 2000. The committee respectfully invites the cooperation of all American chemists who hope to be able to attend the meetings or contribute papers for discussion.

Dr. H. W. Wiley, Dept. of Agriculture, Washington, D. C.,
Chairman.

Prof. Peter T. Austen, Polytechnic Institute, Brooklyn, N. Y.

Prof. F. W. Clarke, U. S. Geological Survey, Washington,
D. C.

Dr. Charles B. Dudley, Pres. Amer. Chem. Society, Altoona,
Pa.

Prof. F. A. Gooch, Yale University, New Haven, Conn.

Prof. Charles Loring Jackson, Harvard Univ., Cambridge, Mass.

Dr. Wm. McMurtrie, 106 Wall St., N. Y. City.

Prof. Charles E. Munroe, Columbian Univ, Washington, D.C.

Prof. Albert B. Prescott, Univ. of Michigan, Ann Arbor, Mich.

Prof. W. B. Rising, Univ. of Cal., Berkeley, Cal.

Dr. G. L. Spencer, Centralia, Wis.

Dr. W. C. Stubbs, Audubon Park, New Orleans, La.

Dr. Thomas Taylor, Washington, D. C.

*The Cyanide Method of Extracting Gold from its Ores. Application to the Assays of Ores Poor in Gold and Silver.*¹—*Preliminary Notice.*—Having undertaken this work, at the suggestion of Prof. Mallet, only within the last two or three weeks, I have no exhaustive report of any nature to present. The work has not, as yet, advanced to such a stage that results can be stated satisfactorily in numbers. The attempts to apply this method to assay purposes *may* have been already made. If so, I have been unable to find any statement of that fact, and have no knowledge that such an attempt has been made.

I am at present comparing the method with the methods using chlorine and bromine. Quartz ores, too poor in gold or silver to be advantageously worked by the ordinary method of crucible assay, are the ores so far used.

The pulverized ore is well and repeatedly shaken with 0.25 per cent. solution of potassium cyanide, free access of air being provided for. After filtration and partial evaporation, the liquid is slowly passed over pure zinc filings. The zinc is then scorified with a larger amount of lead and the button cupelled.

The work has only progressed far enough to give hopes of good results. It seems at this stage to offer several advantages over the other methods mentioned.

The cyanide extracts the silver as well as the gold; bromine and chlorine only extracting the gold. The extremely disagreeable fumes of the other methods are entirely avoided. The work can be conducted without the use of hoods or fume rooms.

¹ Read at the Cleveland meeting, December 31, 1895.