

The second edition of the *Catalogue of Scientific and Technical Periodicals*, 1665-1895, by Dr. H. Carrington Bolton, is entirely printed, but publication is deferred, owing to the preparation of a new Library Check List, with which it will be accompanied. The new edition contains 8,603 titles.

CHEMISTRY.

A Supplement to the Select Bibliography of Chemistry, 1492-1896, has been completed by Dr. H. Carrington Bolton, who has presented the MS. to the Smithsonian Institution. This Supplement contains about 9,000 titles, including many chemical dissertations, and is brought down to the end of the year 1896.

Dr. C. H. Jouet reports his *Index to the Literature of Thorium* 'nearly finished.'

Dr. F. W. Traphagen reports 'fair progress' on his *Index to the Literature of Tantalum*.

Mr. George Wagner reports that he has made progress on the *Bibliography of Oxygen*.

Mr. H. E. Brown, under the direction of Professor A. B. Prescott, is preparing a *Bibliography of the Constitution of Morphine and related Alkaloids*.

Professor William Ripley Nichols, of the Massachusetts Institute of Technology, at the time of his death left an unfinished *Index to the Literature of Carbonic Oxid*; the manuscript was taken in hand by Professor Augustus A. Gill, of the same institution, who has done considerable work upon it; he now reports that he is not in a position to finish the task and he is perfectly willing to relinquish the large amount of material accumulated to anyone who would undertake to complete it.

Professor Clement W. Andrews, formerly of the Massachusetts Institute of Technology and now Librarian of the John Crerar Library, Chicago, reports that he is obliged to abandon work on his *Index to the Literature of Milk*, and will be very glad to turn over the material to anyone who cares to undertake to complete the bibliography.

It has always been the aim of the Committee on Indexing Chemical Literature to prevent duplication of work, but failure to inform the Committee of work in progress may defeat this undertaking. An announcement, in the Fourteenth Annual Report, of certain work having been nearly completed surprised a chemist in another part of the country, and has led to the abandonment by the latter of much laborious indexing.

In conclusion the Committee repeats the statement that it labors to encourage individual enterprise in chemical bibliography, and to record in the annual reports works issued and works in progress.

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CURRENT NOTES ON ANTHROPOLOGY.

THE STONE AGE OF PHœNICIA.

THE associations of Phœnicia with both sacred and profane history are so numerous that a careful investigation of its oldest human remains will attract general attention. Such an investigation is reported in *L'Anthropologie*, Nos. 3 and 4 of this year, by Professor Zumoffen, of Beyrut, Syria.

He gives a map of the prehistoric stations, and divides them into 'paleolithic' and 'neolithic,' according to the French canons of archæology. Of the former he describes six which he has explored. Two full-page plates present the objects in natural size. The most important finds were in a cavern in the valley of Antelias, which has also been visited by previous students (Fraas, Dawson).

Examined by the canons of American archæology, the claim for the vast antiquity of these remains is open to some doubts. Patination, which the author emphasizes, is dependent on soil and dampness more than age; one or more of the six stations he acknowledges were workshops, and the remains, therefore, are to be classed as 'rejects.' This explains the absence of pottery; but most significant is the fact (p. 426) that the fauna of the 'paleolithic'

and the 'neolithic' stations were the same, while the stratigraphic relations of the deposits are inconclusive.

ARCHÆOLOGICAL SURVEY OF OHIO.

In a neat pamphlet of 110 pages, reprinted from Vol. V. of the Ohio State Archæological and Historical Society, Mr. Warren K. Moorehead, Curator of the Society, gives a readable report of the field-work carried on in the Muskingum, Scioto and Ohio valleys during the year 1896. The exhibit is most creditable to his energy and judgment. The aim of his investigation is to produce a reliable archæological map of the State, and also to examine critically some of the most remarkable ancient monuments and to collect the art remains of the former inhabitants. In all these directions he has been quite successful. Nearly seven thousand monuments of the indigenous tribes have been located and mapped. A limited number have been carefully excavated, and the total number of specimens obtained runs up into the tens of thousands.

The report is illustrated with forty-five figures in the text of noteworthy mounds or valuable specimens, and much collateral information relating to them is inserted. One prominent advantage has been the educational influence of the survey on the population. It is gratifying to learn (p. 261) that there are now in Ohio 310 persons interested in its archæology! Can any other State equal this record?

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NOTES ON INORGANIC CHEMISTRY.

PROFESSOR MOISSAN and Professor Dewar publish in the *Comptes Rendus* further experiments on liquid fluorin. The boiling point is -187° ; at -210° it still remains liquid, showing no sign of solidification. The density was determined by suspending in it several different substances which

are unacted upon; amber was found to rise and fall in the liquid, hence its specific gravity was 1.14. No absorption bands were found by the spectroscope, and between the poles of a powerful electromagnet it showed no magnetic phenomena. Its capillarity is less than that of liquid oxygen and only one-sixth of that of water. At -210° it has no action on dry oxygen, water or mercury, but at this low temperature it still reacts violently with hydrogen, and even with the hydrogen in oil of turpentine. The explosive substance which in previous experiments they obtained when fluorin was led into liquid oxygen is not formed if oxygen is perfectly dry, and appears to be a hydrate of fluorin.

In the *Pharmaceutische Zeitung* F. Sibbers, writing on the analysis of aluminum, claims that the proportion of silicon present is always underestimated, from the fact that when aluminum is dissolved in acid a considerable part of the silicon is evolved as hydrogen silicid and lost. The average amount of silicon usually found in aluminum is 0.3 %, but taking into consideration that which is lost in analysis the author considers that 0.6 % is usually present. As the presence of silicon is considered to be very detrimental to aluminum, these determinations of Sibbers deserve careful consideration.

DR. H. CARRINGTON BOLTON, whose Bibliographies of Chemistry and Scientific Periodicals have proved of so much value to chemists and other scientists, as well as to librarians, and who has done so much to throw light upon obscure points in the history of chemistry, has again put American chemists under obligation to him by a paper on 'Early American Chemical Societies,' which was recently read before the Washington Chemical Society, and now is reprinted from the *Journal* of the American Chemical Society. It appears that before