A bronze statue of Leibnitz, measuring 3½ metres in height, is about to be erected at Leipzig, on the southern side of St. Thomas Churchyard. This memorial to the great German philosopher will be executed by Professor Hänel, of Dresden.

THE announcement is made that Dr. Carpenter the well known Microscopist, and author of one of the best works on the subject, will pay a visit to the United States during 1880. We can accord him the promise of a warm reception in this country, where he will be welcomed by all classes of Scientists, for his researches have covered a wide range of scientific investigations, which were recorded in language so felicitous, that he gave a charm even to the most abstruse subjects.

THE Twelfth and Thirteenth Annual Reports of American Archæology and Ethnology contain, as usual, several papers of great ethnological interest. From the Report of the Curator, Mr. F. W. Putnam, it is evident that much excellent work continues to be done in the museum, which is rapidly becoming one of the most valuable repertories of ethnology in the world. The papers are all connected with American ethnology, the most important probably being that of Mr. Baudelier, on the Social Organization and Mode of Government of the Ancient Mexicans.

ICHTHYOPHAGY is about to receive a new impetus by the organization of the Ichthyophagous club, the object of which is "to reveal to gourmets the unsuspected excellence of many neglected varieties of fish-food, and to make manifest to the people at large the still untried capacity of sea, lake, and river, to yield the materials of human noruishment." The first dinner of the Ichthyophagists will take place at the Rockaway Beach Hotel on the 30th instant, which though partially experimental, will include enough familiar components to satisfy the least adventurous taste.

The President of the club is John Foord, Esq., managing Editor of the New York Times, and Mr. E. G. Blackford, Treasurer, who will receive the names of those who desire to attend the dinner, and enroll themselves as Ichthyophagists.

DIATOMACEÆ *v.* DESMIDIACEÆ.

Dr. Jabez Hogg, the well-known professional microscopist and author of "The Microscope—Its History, Construction and Application," recently wrote a letter, in which he incidentally spoke of "Bacillaria paradoxa" as a desmid. On being challenged to give his reasons for such a classification, Dr. Hogg wrote the following letter:

BACILLARIA.

[17575].—Mr. Fedarb (17334) wishes to know my reasons for classing Bacillaria amongst Desmidiaceæ, and I beg him to understand that it is not my classification, but that of botanists who long ago claimed them; and as biologists have thought fit to acquiesce in this arrangement, I fear there is now no help for the microscopist; he must quietly submit. Ehrenberg, as many of your correspondents well know, placed them in his great family of Infusoria, but Kützing, and other naturalists, a few years ago, regarded Bacillaria paradoxa as a species of Algæ. In the last edition of Pritchard's "Infusoria," edited by men of repute, Bacillaria are placed in the family of Surirelleæ. The reason assigned for this is, that diatoms and desmids differ very little in their general characteristics. Both without much impropriety are said to be cellular plants inhabiting salt and fresh water. They certainly differ, inasmuch as diatoms have a dense silicious skeleton, usually divisible into two parts, or valves, and are without coloring matter or chromule. Desmids, on the other hand, have a non-silicious envelope, which is separable into two segments, and are filled with green coloring matter—chromule. The vital phenomena presented are nearly identical. Diatoms are more lively and have a more animal-like motion, and their silicious skeletons are almost indestructible, and their envelope is very transparent and of a gelatinous nature. Desmids, I believe, are destitute of the sarcode element, and are quite destroyed on being submitted to boiling. The movements of Bacillaria paradoxa are so remarkable, and so little understood, that in commenting upon them I was anxious to elicit the opinions of those whose opportunities for studying their habit were much greater than my own.

With reference to Mr. Fedarb's request, that I should specialize the "contaminating agents" of impure water, he will find that I have made some attempt to deal with this difficult question in the present number of the *English Mechanic*.

JABEZ HOGG.

At our request, Professor H. L. Smith, of Geneva, N. Y., who has made a special study of the Diatomaceæ, has written a comment on Dr. Hogg's explanation, which appears to effectually dispose of this matter.

NOTE.

It is really astonishing to see what errors one may fall into when writing upon a subject about which one is ignorant. "*Ne sutor ultra crepidam*," is a maxim which has not lost its force yet. The arguments, if one can call them so, adduced above for classing diatoms with dismids are easily disposed of. The author does not seem to be aware that the family name Bacillariæ (adopted in the early days of microscopical study, for what we now call Diatomaceæ) has long been dropped; the name was given from the then most striking genus, Bacillaria, of which one of the species is B. paradoxa. I am not aware that any respectable Botanist, or Biologist has ever claimed, as asserted in the above communication, that diatoms and desmids are to be classed together, except that both are algæ. If, for this reason, Bacillaria paradoxa can be called a desmid, we may call, *e., g.*, since both are phænogams, Hepatica triloba a Honeysuckle. What is meant precisely by saying that the editors of Pritchard place Bacillaria in the family of Surirelleæ, or how it has any bearing on the question of calling it a desmid, is difficult to understand. Really the writer of the above note has very little comprehension of what he is driving at. No one knew better than Mr. Ralfs, editor of Pritchard, article diatoms, the distinctions between diatoms and desmids, and nowhere does he fail to keep them distinctly separate. It is not merely the silicious frustule, "skeleton" as it is called above, for many of the diatoms are not silicious, but it is their different structure, different internal substance, different modes of growth, that marks them as distinct; moreover desmids are not found, as is stated, in salt water, though diatoms are, and very abundantly too. In fine, not a single respectable writer, either in botany or biology can be cited, from Kützing down, who will call Bacillaria paradoxa a desmid. The question is not one of both being algæ; this every one now-a-days concedes; but it is as to the propriety of calling an acknowledged diatom (one that once gave the family name to this group of organisms,) a dismid.

H. L. SMITH.