

into the substance of the brain. In young just hatched I never found any. In young from two to three weeks old I found them in their stomachs and the alimentary canal. When about ready to fly I found coiled perhaps two or three on the brain."

Further on in his note to me he says: "I was surprised to learn of your finding them in *Boturus*—but I should not have been for I consider them primarily a fish parasite and developed from the eggs taken with the fish into the stomach of the bird, and hence like *Trichina spiralis* finding their way to the brain."

Professor Jenks called my attention to a note he published on this find in his "Popular Zoology," but which I had overlooked. He also gave me the address of Dr. W. Cahall of Philadelphia who had published an article on the subject, based largely on the material Professor Jenks obtained from Florida. There is only one point in Dr. Cahall's article (*Journal of Nervous and Mental Diseases* for June, 1889), that I wish to speak of, and that is that while 19 out of 20 Snake Birds have these brain parasites they do not seem to affect them unfavorably. This was not the case with the Bittern. It was poor in flesh, of inferior size and deficient in intelligence.

That birds do get parasites from fish I might add the following case of circumstantial evidence: When skinning a perch (*Perca flavescens*), I found in the muscles a number of encysted parasites, the cysts white and about an eighth of an inch long. A short time afterwards in skinning a wild duck I found a similar if not the same parasite in the pectoral muscles. The two parasites were of the same size and color and seemed to be the same.

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The International Botanical Congress at Madison.

In looking over the "Circular and General Programme of the Forty-Second Meeting of the American Association for the Advancement of Science" just distributed, I am surprised to read on page 12, under the heading "International Botanical Congress," the following statement: "The congress will consider questions of general botanical interest, but papers embodying the results of research will be excluded. The International Standing Committee upon Nomenclature, appointed last year at the Genoa Congress, is expected to present a report at this time." This is all that is said in the circular to indicate what we may expect to hear at the Congress.

The *Botanical Gazette*, in an editorial,¹ urges "If any botanist has a suggestion . . . now is the time to give it expression. . . . Silence means apathy." I fear a certain class of our botanists have been silent too long, judging from the above statement. It seems to me outrageous to announce a programme from which all original research is excluded. No scientific man cares to listen to papers which are merely "a play of words," not the results of research. I should consider it an insult to our foreign guests to offer such a programme. The one subject suggested, *nomenclature*, is indeed about the only one possible under such restrictions, being truly void of all scientific research.

Botanical congresses do not come every year, especially in America, this being the first ever held here, if I am rightly informed. This being the case, it seems to me, as a matter of course, that this should be the time and place for a discussion of the vital questions of physiology, morphology, anatomy, etc., that this should be the time for an extreme effort on the part of every American botanist. If we desire to gain standing as true botanists among the true botanists abroad, our supreme effort should be directed to *botany*, not as appears to be the intention, to a mere machine of botany. It would seem a better restriction if all papers not the result of research were excluded.

Papers from America have long presented this characteristic — no "result of research." Nomenclature and floristic is truly all that we have thus far accomplished. One is, unfortunately, compelled to believe that "Free Lance"² accidentally omitted to include botany when he said: "The Entomological Society is

recruited very largely from the ranks of 'collectors' who notoriously infest entomology far more than any other branch of natural history." The omission is at least unfortunate. The following sentences of the paragraph are so pithy and to the point that I cannot refrain from quoting them also: "The great majority of these have probably no interest in science generally, but care only for those things relevant to butterfly collections (herbaria, in our case). They would never become Fellows of the Linnæan, and care chiefly to discuss 'collectors' topics, that would be quite out of place in that society; so that the Entomological Society affords them a sort purgatorial limbo, midway between the paradise of science and the inferno of popular nescience."

I trust that I misunderstand the word *research* as used by the committee, but it would seem desirable that they should better explain what is meant. It may be intended that all papers containing research should be presented to Section G of the American Association, fearing that if the congress were not restricted Section G would be scantily patronized. This, however, does not seem a reasonable interpretation, for if there is a limitation on the congress, we should expect it to be open only to the best papers of most general interest, which could readily be decided by a committee on programme; lesser papers and papers of local interest being referred to Section G.

The claim cannot be made with justice that nomenclature has more than a factional interest. The majority of good botanists of the world pay no attention to nomenclature, and to them a discussion of its intricacies would be dry and worthless in the extreme. If such factional questions are to be the only ones considered, the congress should not be called a "Botanical Congress," but a *Nomenclature Congress*. Whatever may be intended, it is an unfortunate use of words.

It is announced that a separate circular will shortly be distributed to botanists, giving further information. It is to be hoped that a clear explanation of this point will be given.

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A Plea for a Fair Valuation of Experimental Physiology in Biological Courses.

DURING the discussion of the biology question, one point has interested me more than any other, namely, that none of the parties who have taken part in the discussion have been able to avoid speaking at the same time of evolution and of natural selection. This thinking of biology, with constant reference to those two features of Darwinian teaching, has led me to believe more strongly than ever that my view of the matter is not very much wrong. However, an article in this journal, entitled "Biology in our Colleges: A Plea for a Broader and More Liberal Biology," induces me to take up my pen once more and explain matters a little more closely.

The tendency of the above-named paper "is — a plea for systematic biology," but it is marked by such a number of wonderful views on the different lines of physiological investigation that many specialists will really be at a loss about what they shall think. "Systematic zoology has gone, or, if still tolerated in a few colleges, is restricted to a very subordinate position." I imagine that the biologist would not know what to do if systematic work, both zoological and botanical — the latter holds still, says the article, "an honored place in many universities, though evidently on the wane" — was not carried on, so that we could know how to lay our hands upon the different forms for further study. But the methods of such a work may be wrong, and, fatally, often are so, namely, when it presents itself merely as simple registration work, which strikingly has been called museum zoology or botany. Systematic work of any kind is to be valued just as much as morphological or physiological work, and so, even if it is done still — as in fact it is in ninety-nine cases out of a hundred — after the old Linnæan principles. On the other hand, a biological classification, or even only a morphological classification, which employs biological characters of the forms, is to be more highly valued.

There is no doubt but that any naturalist enjoys the "delight

¹ *Botanical Gazette*, vol. xvii. (November, 1892), p. 384.

² "On the Organization of Science," by A. Free Lance, *Edinburgh*, 1892, p. 25.