

ants of other species than her own. So many as five joints may be retained by ants whose antennæ have normally eleven or twelve joints, and these ants will live peacefully together though they be of different subfamilies. But if seven joints be retained, the ants, similarly grouped, will fight one another to the death. If ants make one another's acquaintance before they are twelve hours old they will thereafter live amicably together although they be of different species, genera or even of different subfamilies. But in three days after hatching their criterion of correct ant odor is established, and they refuse to affiliate with ants whose odor is not in accord with their standard.

M. A. BIGELOW,  
*Secretary.*

#### THE TORREY BOTANICAL CLUB.

THE Torrey Botanical Club met at the New York Botanical Garden, January 27.

The first paper on the scientific program was by Dr. J. K. Small, on 'Recent Explorations in Southern Florida.' Dr. Small was accompanied on his trip by J. J. Carter, of Pennsylvania, and for a part of the time by A. A. Eaton, who paid special attention to the orchids and ferns. From Miami as a base expeditions were made in different directions. One trip was made to the northward in the direction of Ft. Worth. Four strikingly different plant formations were noted in this region: (1) Sand ridges covered with gnarled and stunted trees and shrubs mixed with cactuses with almost no grass or herbaceous vegetation, (2) low-lying moist lands covered with grass and sedges but destitute of trees and shrubs, (3) the pine lands, and (4) the hummocks filled with broad-leaved evergreens and deciduous trees. The country south of Miami is just being opened up to settlement and is still in a primitive condition. Most of the excursions were in this direction, explorations being made for a distance of forty-five miles. The region consists of low coral-limestone ridges with no appreciable soil, but still supporting a dense pine forest. The lower levels are filled with water and constitute arms of the everglades. The pine lands are

interspersed with occasional small hummocks. An exceedingly interesting flora was found, and over a thousand numbers were collected, which include an unusual number of new and interesting things. So far as the collections have been studied, the plants from the hummocks show a close relationship to the Cuban flora and include a considerable number of West Indian species not heretofore known from the mainland. The pine-land plants, on the contrary, are largely endemic and include many undescribed species.

In the discussion which followed the reading of the paper it was stated that the expedition would probably add at least a hundred species to the known flora of the United States.

The second paper was by Dr. J. C. Arthur, on 'An Interesting Unpublished Work on the Fungi.' The paper will be printed in an early issue of *Torreyana*.

The third paper was by Dr. N. L. Britton, on 'The Birch Trees of North America.' Recent study in arranging the dendrological exhibit in the museum has shown the necessity for a further investigation of our arborescent flora. In some genera, notably in *Frazinus*, too many species are now recognized and some reductions will be necessary. In the birches, on the contrary, it is necessary to recognize at least four new species. One of these is in the Alleghany region, and the others are north-western.

F. S. EARLE,  
*Recording Secretary.*

#### DISCUSSION AND CORRESPONDENCE.

##### CONVOCATION WEEK.

THE problem of cooperation and practical affiliation between the important scientific societies of the country and the American Association is one which, admittedly, is becoming each year more difficult of solution. The difficulty, moreover, is multiple and dependent on a variety of factors, rather than on one or two.

The consideration of expense, dependent partly on distance, is usually urged as the most important one, but this plea is not always sufficient. During the last convocation week it is known that many men in going to

Philadelphia spent more time and money than would have been required in going to St. Louis. The fact is, most scientific specialists will go where they expect to receive the greatest benefit, and not a few entertain the notion, apparently, that the special society with limited membership offers a better field for labor than the more democratic sections of the association. The difficulty in such cases might be obviated through the plan followed by the chemists. The American Chemical Society, which includes probably the whole of the membership of Section C, holds two meetings annually. By agreement made seven or eight years ago through committees from both organizations, one meeting of the Chemical Society is held each year in connection with that of Section C. The program of this meeting is a joint production; the officers of Section C preside through half the sessions and those from the society through the other half. This scheme has worked well from the beginning, and I have yet to discover that there is any tendency to make one of these annual meetings any more aristocratic or exclusive than the other. The plan works to maintain Section C in flourishing condition and gives a separate meeting for such chemists as may desire it, once a year.

To make any such arrangement permanently satisfactory one thing will be found necessary. The association will have to decide upon and publish its meeting places several years in advance. This will give the chemists and other special organizations an opportunity of planning properly for the intermediate or semi-annual meeting. Advance knowledge of this kind would make it possible to avoid an awkward situation like the one in which some of the societies now find themselves. The Chemical Society held a meeting in Philadelphia two years ago; other societies have just been there, and all those who are loyal to the association will expect to return there next winter. As individuals most of us would doubtless prefer to go to some place not so recently visited.

I, therefore, suggest that a committee from the association, perhaps the committee on policy, take the matter up and invite coopera-

tion from the various societies. In this way it may be possible to prepare a program for four or five years ahead. The contingency of returning to the summer meeting, after the meetings at Philadelphia and New Orleans, of course, would have to be considered by this committee. It is not too early to begin work on such an advance program, which should be in shape for presentation at Philadelphia. Most of the interchange of views will have to be by correspondence, which consumes time.

Now, as to the continuation of the convocation week scheme. The Washington gathering was a great success for several reasons. The St. Louis convocation was not as satisfactory, and a number of factors operated to keep down the attendance. Bad weather was partly at fault, and many were doubtless kept away through the expectation of visiting St. Louis next summer. It is not fair to draw many conclusions from this occasion. For those organizations which, like the American Chemical Society, hold two meetings each year convocation week should be as convenient a time as any for the large general gathering. My personal preference would be for the last week in June, and this date, just after the commencement season, would doubtless suit most men from the schools of the west or middle west. But, on the other hand, the date is too early for men from some of the eastern schools. A September meeting is too late for some college men, and in August the temperature factor is usually against us, etc. Bringing up these points now is like threshing over old straw. I am, therefore, in favor of giving the winter meeting plan a trial long enough thoroughly to test its merits, which may require several years. In any event, I believe it is for the best interests of every scientific man in America to aid in building up and maintaining the power and influence of the association in developing lines of scientific work. The section scheme and convocation week bring us all together. Why not continue a good thing!

J. H. LONG.

IN regard to the question of the best organization of scientific societies, my experience

has been, if you will let me eliminate the word scientific, that the most flourishing societies are those where the governing body has been fairly permanent. By such means a stable organization and consistency of purpose are possible.

The great value to be derived from a discussion of this character is that from the various opinions presented some ideas will be offered that may be of service in improving the government of the American Association for the Advancement of Science. Therefore, I may at the outset say what every one connected with the association knows, that it has been continually experimenting, in the hopes of finding something that would give satisfaction to every one; but as that is an impossibility it should be accepted as such at the beginning. What is needed, therefore, is a consistent policy that will extend over a number of years, in order that the advantages of the existing policy may become apparent and sufficiently numerous to outweigh possible objections. For instance, it matters little to most of us whether the meetings are held in summer or during convocation week, but if they are held at one time, those who prefer the other time naturally criticize the change, and discontent is the result.

The council, which is the governing body of our association, should be a permanent organization, so far as possible, and changes should be limited to the new officers elected each year. What is needed, it seems to me, is more conservatism, that is, less disposition to change. Originally, this was provided for by making the past presidents permanent members of the council, but unless the meeting is held in some convenient place, the past presidents are apt to be conspicuous by their absence, or if they are registered at the meeting, they do not attend the council. The result has been that each year new men, many of whom are possessed of decided opinions and are unfamiliar with the traditions of the organization, have come into the council, and they have suggested innovations that seemed to offer advantages, which on experiment failed to manifest themselves. May I illustrate my point by a note that appeared in

SCIENCE subsequent to the Washington meeting, written by one of the vice-presidents of the organization, who criticized the local committee for not having offered certain facilities which he deemed desirable; whereas, as a matter of fact, the local committee had distinctly made the very provision that he called for, but it was completely ignored by the visiting scientists. Had the gentleman who wrote the note been more regular in his attendance at the meetings, he naturally would have known that his wants had been anticipated, a fact that could readily have been ascertained by inquiry of the local secretary. Finally, it seems to me highly desirable that the affiliated societies should be represented on the council by men who should serve for a term of years.

In conclusion, so far as my experience is concerned, I venture the opinion that the most satisfactory form of organization is the one in which the governing body is changed each year only by a minority of its members.

MARCUS BENJAMIN.

TO THE EDITOR OF SCIENCE: The recognition by our leading universities of one week in the year as convocation week is an indication of the academic value put upon the work of our scientific and learned societies. No other cause could secure such recognition, and it behooves those who have the guidance of these societies to make the meetings worth attending.

A large attendance of those interested and competent to take a part is, I take it, next to honest work, the chief desideratum; otherwise publication would meet all reasonable demands. How to secure a good attendance, therefore, is the first question to raise. Is the first week of the new year the best time for the purpose? For most societies I assume that it is. But the Society of the College Teachers of Education, the latest affiliated group, finds itself unable to meet regularly with the American Association. In most states the state teachers' association meets during the Christmas holidays, and properly enough many of the college teachers of education are expected to be present. Attendance on two meetings within two weeks is a heavy task for the holiday time. Furthermore, the Department of Superin-

tendence of the National Educational Association meets annually in February, and many college teachers of education find it desirable to attend its meetings. Consequently the society plans to alternate between convocation week in January and the superintendents' meeting in February. It is very doubtful if the educationists could secure satisfactory attendance during convocation week unless the meetings were held in a very central location. Nevertheless, I feel that it is worth while occasionally, say every other year, to sacrifice something in order to come in touch with the other great societies. This object, however, would hardly be gained if other societies should act in the same manner, unless some agreement could be reached concerning the biennial sessions.

My suggestion is that once in two years all the societies meet in the same place, and that on alternate years the chance be given the affiliated groups to serve their various interests. The place of holding the biennial sessions should be on or near the trunk lines and have suitable hotel accommodations. In my judgment, too, much would be gained by returning biennially to the same place. It would tend to give the association a fixed home and, what seems to me of great importance, a permanent and reliable constituency.

JAMES E. RUSSELL.

CONCERNING the plan of holding our annual session in the winter and also of the conflicting interests of the association and the affiliated societies, it is perhaps too soon to give a decided opinion, but I have a strong impression that a definite plan separating the sessions of the association from those of the societies is necessary to the highest welfare of both. Unless something is done the affiliated societies will swamp the association.

My preference would be to have it generally understood that the affiliated societies make a special business of meeting during the convocation week, each one where it chooses, and that all come together in the summer, either the week before or the week after the National Educational Association, for a grand association meeting, which shall be scientific, tech-

nical and social, and where all papers will be delivered either before the general association or before the departments of the same. By such an arrangement every section would be a success, and there would be no serious conflict of interests, and the delightful social features of the association would be perhaps a prominent feature at the summer meeting.

In my judgment persons who claim membership in the American Association by virtue of membership in an affiliated society ought to pay something into the treasury of the association, or the affiliated society should pay for them. The present arrangement seems to me unfair and unjust.

At the present time the great body of people who would naturally be most interested in Section D have their special societies. Civil engineers, mechanical engineers, electrical engineers, architects and (including them all) the Society for the Promotion of Engineering Education; all these would naturally be more or less interested in the work of Section D. None of these societies are affiliated. They meet independently when they will, but they do not desire to conflict in any way with the American Association. In fact it may truthfully be said that the American Association looks at the matters which interest all engineers and teachers of engineering from a somewhat different point of view from that of the societies I have named, and consequently it has a distinct function and sphere of its own. Section D affords an opportunity for the members of all these societies to get together on a common platform.

C. M. WOODWARD.

#### PROFESSOR METCALF'S EVOLUTION CATECHISM.

TO THE EDITOR OF SCIENCE: In SCIENCE of January 8, 1904, Professor Metcalf formulates (p. 75) a series of crucial evolutionary questions. It is undoubtedly true that 'much further observation' will be necessary to decide them, to the satisfaction of everybody, but it is not less evident that we have already a vastly larger body of evolutionary facts than we have adequately interpreted. In the belief that the problem is at present one of interpretation quite as much as of observation, I