

votes, the vote of each university counting as one, are then chosen by the minister of public instruction as members of the committee.

The responsibility for a selection now rests upon this committee. Each of the members individually examines the applications, and considers the relative merits of the candidates. Finally the committee meets as a whole in Rome and decides upon a first, second and third choice for the position. The minister of public instruction offers the position to the first choice; if he refuses, to the second, etc.

This system seems to me to eliminate, about as completely as any human contrivance may, the chances for injustice in an appointment. The complete publicity which attends the various steps in the proceedings, the fixing of the responsibility for a recommendation upon a committee of five of the most representative men of their profession, the democratic and in every way admirable manner of selecting these men, seem to give an absolute guarantee of the wisdom of the final choice. In fact it has worked admirably in practise, and it seems to me that this Italian system is the one which we ought to attempt to adapt to our needs in this country.

Gentlemen, I hope that the discussion of this evening will bear some fruit. If in our country there existed a central authority controlling all of our universities, we might make an effort to have such a system of appointments introduced by law. We are compelled to resort to a slower process, that of forcing a gradual change from our present methods by educating public opinion. But we are members of a great national organization, the American Mathematical Society, and I am going to ask you to support a motion to appoint a committee to investigate the possibility of improving the methods of appointments in our colleges and universities as far as mathematicians are concerned. I hope that you will support the motion; I hope that this committee will find a satisfactory solution of the problem, and that finally other national learned societies will follow our example, so as to improve the status of the American professor not only in mathematics, but in all other subjects.

To show you more in detail what kind of questions such a committee might investigate, I will give a few examples. Do not misunderstand me. I am not attempting to legislate for the committee, I do not hold tenaciously to any of the propositions which I am now going to advance. Their only purpose is to show that there are cer-

tain features of this problem which a society like ours can attack with some degree of success, and which would form a legitimate, if difficult, portion of its work.

Would it not be desirable, for instance, if every mathematical vacancy occurring in any of our colleges or universities were advertised in the *Bulletin*, accompanied by a statement of title and salary, grade, character and amount of work, as well as the date of appointment? It may seem very difficult, but may it not be possible to devise a scheme by means of which the society could put at the service of any institution requesting it, its advice in regard to the filling of any particular position? This might be done by means of a committee appointed for this purpose from year to year, or as in the Italian system for the making of one particular appointment. Several such committees might be appointed for the different regions of our country, whose vastness, of course, is one of the great difficulties to be overcome in the working out of such a system.

I have tried your patience long enough. I shall be satisfied if I have convinced you of the wisdom, not of any of the particular things which I have mentioned, but of the general policy of taking this matter under consideration. It is my honest opinion that the American Mathematical Society can render signal service to the cause of education and science in this manner. I feel convinced that it is our duty as free and independent men, as citizens of the academic world to take this step, which may lead toward a better condition of affairs, where merit will receive its just reward, where all proceedings will be open and frank, where there will be no place for incompetence and injustice.

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GENERA WITHOUT SPECIES

NOTWITHSTANDING the great value of the International Code of Zoological Nomenclature, and the care with which it has been compiled, there remain several important points upon which those professing to follow the code are disagreed. In part, these are due to deliberate omissions, resulting from the impossibility of securing unanimity; but some of them are supposed to be covered by the code, and yet opposite interpretations are made by good authorities. Probably the most serious question of the latter sort relates to generic

names proposed without any definite mention of species to be included under them. The controversy over "genera without species" is especially agitating entomologists at the present moment, because of a proposal to bring into use a number of names for the most common genera of flies, and thus greatly disturb the nomenclature of dipterology. Professor Aldrich has ably contended against this proposal, fortifying his opinion with the code; but another very eminent dipterologist reaches exactly the opposite result, also using the code.

The matter is one which concerns all zoologists and botanists, and whatever may be the ultimate decision regarding it, it will be generally admitted that it is of the highest importance to determine current opinion, as a step toward securing unanimity. With the editor's permission, I will ask for a post-card vote from working zoologists and botanists, and will publish the lists of names in *SCIENCE*. The vote is asked on the question whether a generic name published without any mention of included species is to be regarded as valid, even though it is accompanied by a definition or diagnosis.¹ It has seemed to me that names so published were rejected by the code, because article 25 states that one of the conditions of the validity of a generic name is "that the author has applied the principles of binary nomenclature." This means, as I understand it, that he must not merely believe in those principles, or apply them elsewhere, but he *must apply them to the case in hand*, to the proposed new genus. If this is correct, I am totally unable to see how he can do this without designating any species by name. In absolute strictness, he ought not merely to designate an included species, but also make the proper combination with the generic name. This is recommended by the present code, but not made obligatory.

Those who take a different view, support their contention by reference to article 2 of the code, which states that "the scientific

designation of animals is uninominal for subgenera and all higher groups." This, it seems to me, merely states the obvious fact that the names of subgenera, genera, families, etc., are single words; it does not appear to offer any opinion as to the proper manner of publishing the various designations. Who can define a genus, except as including species; a family, except as including genera; an order, except as including families? It is not possible to upset our fundamental conceptions of these things, any more than it is possible to write sentences without words, words without letters of the alphabet. A genus without species has no type, no content, and apparently has no place in our systems of classification.

On the other hand, various generic names, first proposed without any designated species, have later been given full validity by the designation of specific types, and the publication of the necessary combinations. Some writers have held that when the first mention of an included species was made by some author other than the original one, the generic name should be credited to the author citing or describing the species. I think this should not be strictly necessary, but that while the generic name must be dated from the later publication, it may properly be credited to the original writer, whose work may be considered to be included and republished in the validating work. This is a matter on which opinions will differ, and as it does not affect the names themselves, it is not of the first importance. Another difficult class of cases is that in which a generic name has been proposed with the name of an undescribed species. The late Dr. Ashmead has left us a large number of such genera. If the genus was also without definition, both generic and specific names would be *nomina nuda*; but I have ventured to hold that any diagnosis of the genus might also be interpreted as a diagnosis of the species (only one being mentioned), and hence both generic and specific names would be available for adoption.

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¹ This does not include names proposed (on account of preoccupation) to replace others which already have included species. Such cases are covered by the code.