

LETTERS TO THE EDITOR.

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The Royal Society.

THE article on the Royal Society, published in NATURE of June 8 by my friend Mr. Thiselton-Dyer, contains very little statement of fact to which I, or any one acquainted with the history and traditions of the Society, could wish to take exception.

It does, however, seem to me to be important to point out (a thing Mr. Thiselton-Dyer has omitted to do) that the tendency of the development of the Society has been to restrict its ordinary membership to those who have done valuable work in "the improvement of natural knowledge" either by the exercise of their own mental gifts, or by assisting in some marked way—by the wise application of money or other direct influence—the efforts of others to that end. When, some thirty-five years ago, the annual number of elections of ordinary Fellows was practically restricted to fifteen by the limitation to that number of the list recommended by the Council, the chance of admission to the Society for "a member of the legislature with the keenest sympathy for science" (to quote Mr. Thiselton-Dyer's words) became small; and as the years rolled on, and the number of serious workers in science increased in unexpected proportion, it became less and less. Accordingly, not many years ago, it was determined by the Society, in order to meet this undesirable state of things, that members of the Privy Council should be eligible at any time as Fellows of the Society without reference to the annual list of fifteen prepared by the Council. Apparently the intention of this measure was to relieve the ordinary annual list of fifteen candidates for Fellowship from the presence of a certain number of members of the legislature with keen sympathy for science, and other such aspirants, and to reserve it for those for whom it could be claimed that they had done something tangible for "the improvement of natural knowledge." It seems to me that the selections made by the Council since that date confirm this view. Mr. Thiselton-Dyer makes a mistake in confounding the real services to natural knowledge rendered by Sir John Kirk, Sir George Naes, and Sir Charles Warren, with the "sympathy for science" of amiable members of Parliament.

There is another aspect of the question recently discussed which seems to me to be important. Does the Royal Society propose, or does it not, to include in its annual elections persons eminent in historical study? If it does, surely Freeman, Stubbs and Gardiner would have been Fellows of the Society. The examination and exposition of documents when they relate to an Asiatic race cannot be regarded as more akin to the investigations of the improvers of natural knowledge than is the study of the inscriptions, camps, and pottery of European peoples. Does the Royal Society explicitly or implicitly recognise claims which would give their possessor a first place in an Academy of Inscriptions or of Historical Science? I should venture to reply to this question: "Certainly not; by most definitely expressed intention such studies as those of the historian were excluded by the founders of the Society from their scope. And further, were such studies to be embraced by the Society as a new departure, it would be necessary to make special provision for them by increasing the annual number of elections, and by securing seats on the Council for one or two persons acquainted with those studies and the merits of those who pursue them."

I believe that the Royal Society is honoured and trusted by the British public as being the leading society "for the improvement of natural knowledge." Its original and deliberately chosen motto, "Nullus in verba" is a distinct profession of its purpose to appeal to experiment and the observation of phenomena, rather than to encourage the disquisitions of the bookman and compiler of history.

Though it may well be urged that such a body as "the Royal Society for the Improvement of Natural Knowledge" is wise in offering a kind of honorary membership on special terms to those who are a power in the State, there seems to be no ground for maintaining that the Fellows (as Mr. Thiselton-Dyer declares) "display themselves as reasonable, if hard-headed, men of the world" when they sacrifice one of

their fifteen ordinary annual fellowships for the purpose of enrolling among their number an isolated example of the numerous body of historians and essayists who have attained some distinction in subjects and methods remote from those professedly pursued by the Society.¹

Were the Royal Academy of Arts to assign one of its Associateships to, let us say, a distinguished botanist who is known to have a keen sympathy for Art, the world would, I venture to maintain, consider that the Academicians had not "brought themselves into touch with another field of national life," nor "displayed themselves as reasonable or hard-headed men of the world," but had simply stultified themselves whilst conferring no real honour upon their nominee. The Royal Academy includes a small number of laymen as honorary members, but it is recognised that the Academicians shall only confer their regular membership upon those of whose work they are competent judges, and consequently upon those who are really honoured by the selection, namely, artists.

It seems to me that *mutatis mutandis* much the same is true of the Royal Society. The Society has gained in the past, and will retain in the future, public esteem, and increasing opportunities for usefulness by aiming with singleness of purpose at "the improvement of natural knowledge." To confer honour on those who have improved natural knowledge is its privilege and its duty. The appreciation of historians and of "sympathetic legislators" is a function which the Society is incapable of performing, and moreover one which few, if any, persons desire it to attempt, since it must lose dignity by assuming to adjudicate in matters in which it is incompetent.

Oxford, June 26.

E. RAY LANKESTER.

ALTHOUGH my friend Prof. Lankester finds that the "tendency of the development" of the Royal Society has been to restrict the area from which its members are selected—a conclusion in which I am not disposed to agree—I do not find that he seriously impugns the account which I attempted to give of what appeared to me to be the traditional practice of the Society in the matter.

In fact in one respect he goes much further than I should myself be inclined to do in admitting as a qualification for membership "the wise application of money." I must confess that I should be disposed to regard this, for obvious reasons, with very close scrutiny.

Apart, however, from this it is evident that Prof. Lankester and those who agree with him would like to make the Royal Society much more professionally scientific (for there are very few scientific men nowadays who are not in some sort or other professional). If they succeed I am disposed to think that it would be a very much less influential body than it is at present. And I find that no inconsiderable body of the existing Fellows are of the same opinion.

W. T. THISELTON-DYER.

Kew, July 1.

Ice as an Excavator of Lakes and a Transporter of Boulders.

I HAVE devoted a considerable space in a work I have recently published in which I have criticised the extreme glacial views of some writers to an issue which underlies a great deal of their reasoning, and which, it seems to me, it is absolutely necessary we should determine before we are entitled to make the deductions habitually made by them.

Before a geologist is justified in making gigantic demands upon the capacity and the power of ice as an excavator or as a distributor of erratics and other debris over level plains it is essential that he should first ascertain whether it is capable of the postulated work or not. It is not science, it is a reversion to scholasticism to invoke ice as the cause of certain phenomena unless and until we have justified the appeal by showing that it is competent to do the work demanded from it. This preliminary step is not a geological one at all. It is a question of physics, and must be determined by the same methods and the same processes as other physical questions. So far as we know the mechanical work done by ice is limited to one process. The ice of which glaciers are formed is shod with boulders and with pieces of rock which have fallen down their crevasses. These

¹ I have addressed my remarks mainly to the contentions of Mr. Dyer's article. I should wish to avoid discussing the merits of a particular election which in my opinion cannot now and never could legitimately be a subject for public comment. I wish, however, to state that I am not unacquainted with the interesting essays on the history of geological theory which we owe to the hero of that election.