

Laboratory might take and of its future progress, and he had it in his power greatly to help the realisation of those hopes. His death is a serious blow to the new institution—a blow the consequences of which can with difficulty be repaired. R. T. G.

THE NATIONAL ANTARCTIC EXPEDITION.

WE print below a letter which Prof. Poulton has addressed to the Fellows of the Royal Society in regard to the Antarctic expedition. In it he gives a history of the circumstances which have caused Prof. J. W. Gregory to resign the leadership of the scientific staff. The reason for this, to follow the Professor's words, is that since he left England in February changes have been made in his position in regard to the naval commander of the expedition which deprived him of any guarantee that the scientific work would not be subordinated to naval adventure, "an object admirable in itself, but not the one for which I understood this expedition to be organised." The history of the negotiations before and since the beginning of the present year—the date of the letter in which these words occur—show that when Prof. Gregory accepted the leadership of the scientific work (late in 1899), much stress had been laid on the scientific aspect of the expedition, and that the alterations made since the beginning of the present year have increased the authority of the naval commander.

At a special meeting of the Royal Society in February 1898, when the advantages of an Antarctic expedition were fully discussed, Sir John Murray, in an admirable summary of matters requiring further study, enumerated not only the depth, the deposits and the biology of the South Polar Ocean, but also the meteorology, magnetism, geology, and ice-sheet of the region; and laid special stress on the importance of landing a party to remain over at least one winter in order to study the latter points. Dr. Neumayer, Sir Joseph Hooker, Sir A. Geikie and the Duke of Argyll all enlarged on the importance of one or more of the second group. The same were mentioned by members of the deputation, which Mr. Balfour received in June 1899, and in his reply he acknowledged their importance. It is, therefore, not surprising that Prof. Gregory expected the leader of the scientific staff to be allowed a very free hand, and it certainly seems that the negotiations, described by Prof. Poulton, have tended to deprive him of initiative and to place him more completely under the authority of the naval commander. Yet this expedition will afford a great opportunity not only for geographical discovery, but also for increasing scientific knowledge; and for some most important things in the latter a prolonged stay on land is absolutely necessary. Chief among these, in addition to magnetic work, are the following:—The Antarctic land is covered by an ice-sheet greater than that of Greenland, and certainly not less than even the one which some glacialists assert to have formerly existed in Northern Europe. In that land also, as in no other place, we have a chance of obtaining the key to some curious problems in the zoology and botany, past and present, of other continental masses in the southern hemisphere. For both these problems a prolonged residence is required, and an expert who, like Prof. Gregory, is as familiar with ice and its work as he is with palæontological questions.

We may hope then that those representatives of science on the Joint Antarctic Committee whom Prof. Poulton accuses will be able to demonstrate that he is wrong and Prof. Gregory needlessly apprehensive, that Commander Scott possesses such experience in Polar exploration and has such familiarity with the branches of science which we have mentioned as to warrant a man of Prof. Gregory's age and standing in placing himself absolutely under his orders, and that the *Discovery* is a

King's ship in so full and real a sense that such entire subjection, even to signing articles, is imperative. Until their explanation is before us we cannot be expected to express a final opinion on the merits of the dispute, and this we shall no doubt obtain very shortly; for those whom Prof. Poulton has accused of running the risk of subordinating scientific investigation to geographical discovery can hardly afford to let judgment go by default.

To the Fellows of the Royal Society.

THE resignation of the man who is, before all others, fitted to be the Scientific Leader of the National Antarctic Expedition will lead the Fellows of the Society to expect some statement of the causes which have produced a result so disastrous to the interests of science. The following statement gives an account of the efforts which have been made to prevent the injury which has occurred.

In the autumn of 1899 Captain Tizard, F.R.S., and I were appointed as the representatives of the Council of the Royal Society on an Antarctic Executive Committee of four, Sir Clements Markham (Chairman) and Sir R. Vesey Hamilton being the representatives of the Royal Geographical Society's Council. Our functions were defined under various heads in a printed form previously agreed upon. No. 2 instructed us to submit a programme of the Expedition for approval to the Joint Antarctic Committee (consisting of sixteen representatives of each Council), "such a programme to include (a) A general plan of the operations of the Expedition, including instructions to the Commander, so far as this can be laid down beforehand. (b) The composition of the executive and scientific staff to be employed, the duties, preparation and accommodation for, and pay of, the several members." No. 4 instructed us "To make the appointments of the several members of the executive and scientific staff, subject to the final approval of the Joint Committee." The word "civilian" was nowhere employed. The four members of the Executive Committee were placed on the Joint Committee and all Sub-Committees.

Before the first meeting of the Executive Committee Captain Tizard and I were seen by Prof. Rücker, who informed us that one of the first points which the Council of the Royal Society desired us to raise was the relation in power and status between the Commander and the Scientific Leader. In the German Expedition, which was to start about the same time, the Scientific Director had absolute power, and we were asked to consider the possibility of such an arrangement in the English Expedition.

At one of our first meetings, I think the very first, I raised this question and supported the German arrangement. The other three members, who were all naval experts, convinced me that English law required the Captain to be supreme in all questions relating to the safety of his ship and crew. Since that time I have never disputed this point, but always maintained that the scientific chief should be head of the scientific work of all kinds, including the geographical, and that the captain should be instructed to carry out his wishes so far as they were consistent with the safety of ship and crew.

We then considered the appointment of Scientific Leader and decided to nominate Prof. J. W. Gregory, then of the British Museum of Natural History. In suggesting his name to my colleagues I was influenced by his proved success in organisation and in the management of men in a most difficult expedition (British East Africa in 1893), by the wide grasp of science which enabled him to bring back valuable observations and collections in so many departments. His ice experience in Spitzbergen and Alpine regions was also of the highest importance, together with the fact that his chief subject was Geology, a science which pursued in the Antarctic Continent would almost certainly yield results of especial significance. In addition to all these qualifications Prof. Gregory's wide and varied knowledge of the earth rendered his opinion as to the lines of work which would be most likely to lead to marked success extremely valuable in such an Expedition. No one was more competent to state the probable structure of the Antarctic Continent and its relation to that of the earth. This opinion of Prof. Gregory's qualifications for the position of scientific leader of an Antarctic expedition is I know widely held among British scientific men. In their wide combination and united as they are to tried capacity as a leader they are unique, and an expedition with Prof. Gregory for its scientific chief, with as free a hand as English law would permit, was bound to yield great results.

The Committee deputed me to ask Prof. Gregory if he would consent to be nominated. In doing so I carefully explained that he could not have the full powers of the German scientific leader. He consented to consider the offer favourably, but wished for a more definite statement of his position and powers, and for a programme of the Expedition. Shortly after this he was appointed Professor of Geology at Melbourne, and left England. On the voyage he wrote a long letter to the Executive Committee (dated January 19, 1900), which he posted to me at Port Said. In it he said, "I have heard so many rumours as to what is wanted, that I cannot be sure whether I correctly understand the views and wishes of the Executive Committee: I therefore write mainly for the sake of correction, so that I may avoid any misstatements in communicating with the Council of Melbourne University, when the proposal from the Committee reaches me." The plan drafted by Prof. Gregory in this letter included the provision of a landing party with house, observing huts, dog-stable, &c., and he argued that its organisation should be placed "in the hands of the scientific staff," but that, under any circumstances, the Scientific Leader should have the opportunity of controlling a small independent party on land. This letter was read by all the members of the Executive Committee, and, on June 15, at the close of the meeting, the Secretary despatched a cable to Prof. Gregory containing the information "Your letter of January 19 has been received and approved." As soon as Prof. Gregory received this he sent a decoded copy to Sir Clements Markham, who did not correct it. Indeed, at this period Sir Clements Markham frequently expressed opinions which implied that he contemplated the establishment of a landing party independent of the ship. Prof. Gregory applied for and received from the Council of Melbourne University permission to take the appointment on the lines of his letter of January 19.

Prof. Gregory's name was very warmly received by the Joint Committee and he was appointed Scientific Head on February 14, 1900: the words "Formally appointed, wire when fully able to decide," being cabled to him a few days later by Sir Clements Markham.

Lieutenant Robert F. Scott, Torpedo Lieutenant of H.M.S. *Majestic*, was appointed Commander of the Expedition by the Joint Committee on May 25, 1900.

In June 1900 my attention was called to a statement in the Press describing Prof. Gregory as "Head of the Civilian Scientific Staff." Feeling confident that the word "civilian" was not employed in the resolution accepted by the Joint Committee I wrote to Sir Clements Markham on the subject. In his absence the Secretary replied, "The words 'Head of the Civilian Scientific Staff' are the exact words of the resolution passed by the Joint Committee appointing Prof. Gregory, and I know Sir Clements himself was very anxious to have the word 'civilian' in, so that no difficulty might arise between Prof. Gregory and the Commander of the Expedition, since the Civilians would not be the only scientific men on board." The word "civilian" does certainly occur in the minutes of the meeting. On the other hand, Sir Clements Markham was not present on that occasion (February 14, 1900); the word "civilian" did not occur in the instructions issued to the Executive Committee, and was not used in my letter to Sir Clements (February 15) describing the result of the meeting and asking him to cable. The words I used, "leader of the Scientific Staff," were not commented upon in his reply (February 16), stating that the cable should be sent. The word "civilian" was not used by Dr. W. T. Blanford writing to convey the unanimous recommendation of the Geological Sub Committee that Prof. Gregory should be "chief of the Scientific Staff of the Expedition." Prof. Herdman, who seconded the resolution on February 14, and I who proposed it, both remember the words "Scientific Leader of the Expedition." I have not been able to recover a copy of the notice convening the meeting, in which the agenda were put down. It would, however, have been unreasonable for the Joint Committee to have accepted the word "civilian" when it had no information before it which justified the expectation that naval officers would be lent by the Admiralty.

At the meeting of the British Association at Bradford I explained the situation to Prof. Rücker, who agreed with me that it was full of danger, on account of the reasons alleged for the use of the word "civilian," viz. in order to discriminate between the science under Prof. Gregory and that under the Commander. He agreed with me that the coordination of all

the science of the Expedition ought to be in the hands of the scientific chief who had been selected because his reputation was a guarantee that all interests would be properly looked after. Sir Michael Foster, to whom I mentioned the matter at a later date, quite agreed with this opinion, but was unwilling to contest the use of the term "civilian." Furthermore, when I raised the question at a meeting of the Representatives of the Royal Society on the Joint Committee, it appeared that the term was actually preferred by certain influential naval authorities who were present, so that it was impossible to resist it without dividing those who desired to give Prof. Gregory such a measure of freedom of action as he was prepared to accept.

At the meeting (November 20, 1900) of the Joint Committee following the conversations with Prof. Rücker and Sir Michael Foster, a Report from the Executive Committee and Submission and Estimate from Captain Scott were read and received, with certain modifications. I indicated to the Secretaries of the Royal Society, who were sitting opposite to me, that this was a favourable opportunity to raise the question of the powers of the Scientific Director over the whole of the science of the Expedition. They were, however, unwilling to do so, hoping, I believe, that all difficulties would be smoothed away by personal negotiations between Captain Scott and Prof. Gregory, who was expected home in a fortnight.

For nearly two months these negotiations proceeded between Prof. Gregory on the one side and Captain Scott and Sir Clements Markham on the other, and between Sir Clements Markham and me.

The principles held were irreconcilable, and it only remained to appeal to the Joint Committee for a decision.

On January 9, 1901, Prof. Gregory wrote to Prof. Rücker, explaining the failure of the negotiations, and on January 28 he addressed a letter to the Royal Society's Representatives on the Joint Committee, from which I select the following paragraphs:—

"I landed at Liverpool on December 5, and went straight to Dundee to meet Captain Scott, and showed him a copy of my letter of January 19 [1900]. As he returned it to me next day without comment I believed that he understood and accepted the general conditions therein stated. On January 7, in order to settle the exact terms of our mutual relations, I submitted to Captain Scott a draft of the instructions I expected to receive from the Joint Committee, and which I had previously shown to Prof. Poulton. To my surprise Sir Clements Markham and Captain Scott expressed disapproval of these instructions, practically on the ground that there could be only one leader of the Expedition, and that that leader must be Captain Scott.

"My colleagues and myself were characterised as civilian scientific experts, accompanying the expedition to undertake investigations in those branches of science with which the ship's officers were unfamiliar, and it was proposed, that to maintain Captain Scott's complete control, all the scientific men should be required to sign articles.

"According to this theory the position of the scientific staff is accessory and subordinate. The contentions of Sir Clements Markham and Captain Scott would completely alter the position which I was invited to take and which alone I am prepared to accept. Were I to accompany the expedition on those terms there would be no guarantee to prevent the scientific work from being subordinated to naval adventure, an object admirable in itself, but not the one for which I understood this expedition to be organised."

The Executive Committee met on January 30 and drafted instructions on lines approved by Sir Clements Markham. They were opposed by my colleague Captain Tizard, but in my absence through illness were passed by two votes to one.

A few days later the draft instructions were considered by the Royal Society's Representatives, who appointed Sir Joseph Hooker, Sir William Wharton and Sir Archibald Geikie to suggest amendments. They carefully considered the draft and suggested several alterations, the most important of these being the instructions to the commander, (1) not to winter in the ice, (2) to establish between two named points on the coast a landing party with three years' stores, under the control of Prof. Gregory.

The Royal Society's Representatives again met and unanimously approved these amendments, which were submitted together with the draft instructions to the meeting of the Joint Committee on February 8. The Representatives of the Royal Geographical Society objected that they had not had the same opportunity of considering the instructions at a separate meet-

ing, and that the amendments were sprung upon them. The meeting was accordingly adjourned until February 12, the very day before Prof. Gregory sailed. During the prolonged discussion which took place the authorities on magnetism were unanimous in affirming that a station on land was essential in order to obtain the full value of the observations made on the ship.

Sir Clements Markham threatened that the Council of the R.G.S. would not accept the amended instructions, whereupon Sir Michael Foster drew attention to the letter which Sir Clements had written at the time when the Joint Committee was proposed.

The amendments were finally approved by 16 votes to 6, and Sir Archibald Geikie and I were deputed to explain to Prof. Gregory, who was in attendance, that he was to be landed in control of a small party, if a safe and suitable place could be found, and to ask if he would accept these conditions. We reported his consent to the meeting, which was then adjourned for the consideration of other details.

Two of the Representatives of the R.G.S., Sir Anthony Hoskins and Sir Vesey Hamilton, resigned shortly afterwards, explaining that they could not agree with the action of the Committee. The R.G.S. had however the right, which it subsequently exercised, of appointing new members.

At the adjourned meeting, on February 19, the question of the ship wintering was discussed at length. Those who had practical experience of the Antarctic urged us strongly not to take the responsibility of permitting the ship to winter in the ice. Sir Joseph Hooker's statement of the danger was especially impressive, and the meeting decided in accordance with his opinion.

At the same meeting Major L. Darwin proposed to modify the conditions accepted by Prof. Gregory, by adding to them the additional consideration that he should only be landed if the time of the ship should not be too greatly diverted from geographical exploration. I protested strongly against any modification at this stage. Sir Michael Foster opposed me, and, after the close of the meeting, there was a somewhat sharp though friendly expression of conflicting opinions, he maintaining that there should be "give and take," I that we were already pledged to Prof. Gregory, that the arrangement was as it stood a compromise—the minimum Prof. Gregory would accept—by no means the one which scientific men, not belonging to the Navy, would have preferred.

At that meeting Major Darwin did not succeed, but his suggestion in somewhat different words was again brought forward at the next meeting on March 5. Just before the meeting Sir Archibald Geikie told me that he intended to support the proposed changes "in the interests of peace," and that Mr. Teall, and Mr. George Murray, Prof. Gregory's representative, also approved them. Resistance was hopeless; I could only protest against any alteration of the conditions offered and accepted, requesting that my name and the names of those who agreed with me (Mr. J. Y. Buchanan and Captain Tizard) should be recorded.

I wrote to Prof. Gregory a full account of what had happened, carefully explaining that his representative and many of his friends supported the changes, that I had confidence that the proposal was made to enable the Geographical Society to accept the instructions and that it was not intended to prevent and I believed would not prevent his being landed.

In spite of the incorporation of Major Darwin's changes the R.G.S. Council refused to accept the instructions, but addressed a letter signed by their President, dated March 18, to the members of the Joint Committee stating that they were compelled, "as trustees for the money subscribed through their Society and for the funds voted by their Society, to regard the above scientific objects [viz. those to be carried out by a landing party] as subsidiary to the two primary objects of the Expedition—namely, exploration and magnetic observations." In view of the unanimous witness of all experts that the landing party was *essential* for full success in the magnetic work this statement is sufficiently remarkable.

The letter went on to inform us that the President, Sir Leopold McClintock, and Sir George Goldie had interviewed the officers of the Royal Society and had reported to the R.G.S. Council which now suggested that the Joint Committee should recommend a small Committee of six, three to be appointed by each Council, to deal finally with the Instructions. The Council of the R.G.S. agreed to accept the decision of this Committee

provided the Council of the Royal Society agreed to do the same.

It has been stated in various directions that the Geographical Society produced new evidence (based upon the experience of Borchgrevink and the intentions of the German leader) which had not been laid before the Joint Committee, and thus induced the officers of the Royal Society to agree to a new Committee. To this it may be replied that these sources of information had been open to the Joint Committee, and that, if anything new had arisen, it was reasonable to refer it to the old Committee rather than to a new one appointed *ad hoc*. Furthermore, the letter of the Royal Geographical Society referred to above clearly indicated that the real intention was to escape from the conditions proposed to and accepted by the scientific leader.

The Joint Committee met on April 26, and was addressed in favour of the course proposed by the R.G.S. Council by Sir George Goldie. Nothing was said which could diminish the conviction that the R.G.S. Council and that of the R.S. in weakly consenting to nominate a fresh Committee had struck a disastrous blow at all future cooperation between scientific bodies in this country.

What reply could the Officers make if they were asked to advise the Council of the Royal Society to cooperate with that of the Royal Geographical Society on any future occasion?

I felt justified in asking what guarantee was there that the Council of the Royal Geographical Society would accept the finding of the Committee of six, when it had refused to accept that of a Committee which included all the officers and almost every expert in Arctic and Antarctic Exploration from both Societies. In reply Sir Michael Foster, in spite of the promise of firmness held out by his attitude on February 12, when Sir Clements Markham threatened that his Council would repudiate the finding of the Joint Committee, maintained that they had only acted within their rights, and that the Royal Society Council claimed the right to do the same if it had not agreed with the decision.

At this point it will be convenient to give a list of the Representatives of the Royal Society on the Joint Antarctic Committee, the Representatives of the Royal Geographical Society being equally significant in relation to the Council of their own Society. They are the President, the Treasurer, the Senior Secretary, the Junior Secretary, Mr. A. Buchan, Mr. J. Y. Buchanan, Captain Creak, Sir J. Evans, Sir A. Geikie, Prof. Herdman, Sir J. D. Hooker, Prof. Poulton, Mr. P. L. Sclater, Mr. J. J. H. Teall, Captain Tizard, and Admiral Sir W. J. L. Wharton.

If the reports of Joint Committees of such magnitude and weight are to be thrown over with the approval of the Councils of both Societies because a majority of one Council does not agree with the conclusions, men will rightly hesitate before consenting to devote an immense amount of time and trouble to the work of the Society, and the efficiency of the Royal Society will be greatly diminished.

The considerations set forth above indicate the future injuries which are likely to be inflicted on our Society by this surrender. At the meeting on April 26 I was more concerned with the immediate and pressing injury, and therefore urged that the Royal Society was a trustee for the interests of science and that we had pledged ourselves to secure certain powers to the Scientific Director, that it was better the Expedition should not start (a contingency contemplated as possible by Sir George Goldie, but not a serious danger, I believe, even though the Royal Society had stood firm and appealed to the Government, not on the subject-matter in dispute, but on the refusal of the Royal Geographical Society to work with the recognised methods of cooperation) than that the Royal Society should betray its trust, that the Fellows of the Society would not support the Officers in thus yielding to the Royal Geographical Society, and that I should feel bound to explain my position to the Society. Sir Archibald Geikie and Mr. J. Y. Buchanan also strongly objected to the surrender, which was then confirmed by a large majority of those present.

We were told by Sir George Goldie that the three Representatives of the Royal Geographical Society on the new Committee would be Sir Leopold McClintock, Mr. Mackenzie, and Sir George himself; by Sir Michael Foster that the Royal Society Council would appoint three non-experts, viz. Lord Lister, Lord Lindley and the Treasurer, who could pronounce without bias upon the whole of the evidence. My colleague, Captain Tizard, with whom I had worked with the most complete

sympathy and agreement through the whole course of the negotiations, supported the formation of the new Committee because of Sir Michael's assurance that all evidence would be sifted and because of his faith in the validity of the evidence he had to give. Others probably voted in the affirmative for the same reason.

Without asking for evidence from Sir Joseph Hooker, Sir W. Wharton, Sir George Nares, Sir A. Geikie, Captain Creak, Captain Tizard, or Mr. Buchanan, the new Committee proceeded to cable to Melbourne the modifications which have led Prof. Gregory to resign.

In bringing a condensed account of the negotiations before the Fellows of the Royal Society I desire to call attention to certain special difficulties which the Society has had to encounter in the struggle.

- (1) The fact that nearly the whole of the money voluntarily subscribed was obtained through members of the Geographical Society and from its funds.
- (2) The fact that Sir Clements Markham, President of the Royal Geographical Society, a man of remarkable energy, resource and resolution, was the chief antagonist of the amendments passed by the Joint Committee.
- (3) The fact that the Junior Secretary and Sir John Evans were absent from England during the most critical period.
- (4) Prof. Gregory's appointment to the Chair at Melbourne, involving his absence from England during a large part of the negotiations.

Making all allowance for these difficulties, I believe that the majority of the Fellows will consider that the claims of the Scientific Chief in an Expedition undertaken to do scientific work have not received from the Royal Society that unflinching, undivided and resolute support which they would have expected and desired.

EDWARD B. POULTON.

Oxford, May 15.

NOTES.

WE understand that the council of the Society of Arts has awarded the Albert Medal for the present year to the King, and that His Majesty has graciously consented to accept the award. The grounds of the award are principally the services the King has rendered to the Society, and through it to the arts, manufactures and commerce of the country, by acting as its president for thirty-eight years; but reference is also made to the active interest he has long taken in international exhibitions and the actual work which he did as president of the British Commission for several foreign exhibitions, and also as president of the series of exhibitions held at South Kensington, the last of which was the Indian and Colonial Exhibition.

DR. LAVERAN, the French surgeon who first investigated the peculiar micro-organisms in the red blood corpuscles of malarious patients, has been elected a member of the Paris Academy of Sciences.

THE Report of the Royal Commission upon the British exhibits at the Paris International Exhibition last year has been presented to the King, and some of the observations in it will have to be given serious consideration before the country is represented at any future exhibition of the same character. Indifference to progress abroad and want of combination among manufacturers are two reasons given for the comparatively poor display of British exhibits. It is pointed out that our position has changed since the earlier exhibitions; for foreign industries have made gigantic strides, and in many branches of manufacture have become formidable rivals to our own in the markets of the world. On this account the industrial interests of the country as a whole gain nothing from an exhibition unless they are represented upon equal terms with foreign industries. "We

are of opinion," reports the Commission, "that the voluntary system can no longer be relied upon to secure an adequate representation of British industry, and that in any future international exhibition in which it may be decided to take part, it will be necessary to have recourse to the principle of selection, which has been largely adopted by foreign Powers. . . . The contrast between the orderly, symmetrical appearance of the foreign spaces in certain groups with the undignified collection of show cases of different sizes and design which filled the British space was little less than painful." Commenting upon the causes of this conspicuous defect, the Commission says:—"As a rule a British manufacturer will only exhibit if he can select his own goods and display them in his own way and in his own show-case. He is impatient of advice; he will not submit to dictation; he will not share his show-case with others; nor will he join with others to adopt a uniform plan of arrangement. For this reason it is exceedingly difficult to organise collective exhibits. We were strongly impressed from the beginning with the advantages which such exhibits possess. They save space, they avoid the duplication of similar objects, and, in the case of many industries, they ensure a higher level of excellence than any single firm can hope to attain. We endeavoured to persuade exhibitors to adopt the principle, but our efforts met with so little success that we had to abandon the attempt." This is another example of the want of enterprise among British manufacturers, and the narrow spirit in which our commercial affairs are managed. There can be little hope of national progress until broader views are taken of our industrial responsibilities.

THIS week we have the announcement of what may be safely called the most munificent gift of our time by a private individual to the cause of education in this country. Mr. Andrew Carnegie, the American millionaire, has come forward with a proposal to provide free University education to the youth, both male and female, of Scotland, and offers to place the sum of two millions of pounds in the hands of trustees who shall be charged with the duty of making payment to the Universities of Scotland of the fees of students of Scottish birth. There can be but one opinion regarding the large-heartedness which prompts so magnificent a benefaction, and the whole nation will hope that a sound result may be obtained through so noble a gift. Its terms have as yet been too baldly stated to justify critical analysis of its probable effect, but touching, as it does profoundly, the educational system of the country, the form it will ultimately take is a matter of the utmost moment. Two obvious criticisms evoked by the bare statement that has been made public may, without detracting from the generous intention of the donor, be noted. In the first place, the consequence of the gift as adumbrated must be that secondary education will, in Scotland, alone be unendowed. The gift would be a step towards the realisation of the dream, many times dreamed of old, of education free from bottom to top. This may or may not be a sound policy, but it demands discussion upon its merits and apart from the compulsion of the gift of an individual. What is in Scotland to-day will be required in England to-morrow. Secondly, the gift is no endowment of the Scottish Universities, but it may, on the contrary, be an embarrassment to them. It means the creation of some sixteen hundred bursaries, each of the value of nine pounds, in each of the Universities. This will not bring an influx of sixteen hundred students to each University, but, if Mr. Carnegie's intention be realised, we take it there will be a considerable increase in the number—sufficient, indeed, to swamp the existing equipment for teaching, for the strengthening of which their fees may be inadequate. Whilst it is earnestly to be wished that this large sum of money may be secured to the cause of education, it is to be hoped that those with whom Mr. Carnegie may take counsel will use their influence to harmonise