

Royal College of Physicians

FRANCIS MAITLAND BALFOUR

REPORT

OF A

PUBLIC MEETING

HELD AT CAMBRIDGE

21 *OCTOBER*, 1882,

TO CONSIDER A

Memorial

TO

PROFESSOR BALFOUR.



MEMORIAL
TO
PROFESSOR BALFOUR.

On Saturday, 21 October, a large and influential meeting was held in the Lecture-Room of Comparative Anatomy at the New Museums, Cambridge, to consider the most appropriate form of Memorial to the late Professor Balfour. The Vice-Chancellor presided, supported by the Master of Emmanuel, Professor Westcott, Professor Humphry, Professor Newton, Professor Fawcett, Professor Jebb, Professor Huxley, Professor Henry Smith, Professor Moseley, Professor Williamson, Professor Ray Lankester, Dr Michael Foster, etc. There was a large attendance of members of the Senate, and of Undergraduates, many of whom had been pupils of Professor Balfour.

The VICE-CHANCELLOR (Dr Porter, Master of Peterhouse) said that it would be unnecessary for him to detain the meeting with observations of his own in the presence of so many eminent persons who were about to speak. They must all feel that they were met together on a peculiarly sad occasion. Cambridge, in common with the world of science at large, was mourning the loss of her last appointed

Professor, an ardent student of natural science, and singularly gifted in the use of the most refined methods of analysis in the solution of the intricate problems of Biology.

He would not attempt to describe the attainments of Professor Balfour, for he did not feel himself competent to do so, and, in the presence of the distinguished persons he saw around him, it would be out of place for him to attempt such a task. He was sure that many would recall the eloquent words in which Professor Huxley had spoken at the annual dinner of the Philosophical Society, some eleven months ago, of the grand achievements which Professor Balfour had made in Biological Science. When they considered how young he was, how much he had done, and what brilliant promise there was of what he would have accomplished if his life had been spared, it would be felt that the University had sustained a loss, the greatness of which it would not be easy to exaggerate. Six months ago one of the greatest philosophers this country had known since Newton had been taken from them, but the death of Charles Darwin had nothing of sadness in it, for after a long life devoted to science, he had completed his work, and by the establishment of the theory with which his name is connected effected a revolution, the greatness of which even this generation will probably hardly realise. But now they had to lament one prematurely cut off in the prime of life, in the full vigour of his intellectual manhood. On this present occasion they had met together for the purpose of raising a memorial which should be of an enduring character, which should perpetuate the name of Balfour in connection with the study of Biology at Cambridge, and keep the memory of his methods of scientific investigation, and of his genial and attractive character, ever fresh among them. He would

not longer detain them from the great pleasure of listening to the distinguished speakers who were to follow him. He would only add that letters had been received from many distinguished individuals who regretted their inability to be present, and who sympathised with the object of the meeting. Among these were the President of the Royal Society; Professor Allen Thomson; Professor Turner of Edinburgh; Professor Allman; the Head Master of Harrow; the Warden of All Souls College, Oxford; Mr Henry Pelham, Exeter College, Oxford; Sir Frederick Pollock; the Master of Magdalene; Professor Adams; Professor Dewar; Professor Stuart; Mr Marlborough Pryor, and many others.

Professor PAGET, M.D., F.R.S., Regius Professor of Physic in the University of Cambridge, rose to move the first Resolution: "That a Memorial to Professor Balfour be established in the University of Cambridge." He said that since he had been requested to move that Resolution, he had been continually wishing some one else had been asked, some one who could have found, more readily than he could, suitable terms to give full expression to the grief which all must feel at the untimely loss of Professor Balfour; at the cutting short of a life which was in itself so valuable, and of so great promise; at the loss to the world of science; to the world of Cambridge; and especially to his many personal friends. They were many, for all who knew him had a warm regard for him, not merely as a scientific man, but for his gentleness, his kindness, and his manliness, which unfortunately for him and for them he exercised in Alpine climbing. Exercise he always thought he must have, and he took to Alpine climbing when he conscientiously gave up his favourite sport of deer-stalking, because he was not willing, without neces-

sity, and for mere sport, to inflict suffering upon harmless animals.

A memorial to Professor Balfour, such as was proposed, would not be a mere expression of the sorrow of his friends who had lost him. They meant it to be a memorial of his scientific work and personal character. What his scientific work was there were those present who could speak with an authority to which he had no pretension. But the memorial to Professor Balfour would be a memorial not only to his achievements in science, but to the spirit with which he pursued it. He loved science for science sake, and pursued it with a spirit which they all trusted would never be wanting in that place—the spirit in which it had been pursued by such men as Sedgwick, Miller, and Clerk-Maxwell. Balfour was the last example that had been taken away from them, and his had been a bright one. They must do what they could to keep it in remembrance, in the hope of influencing future generations. Cambridge, he thought, owed him a memorial. Earnest and untiring as he had been, in the pursuit of science, he was equally untiring in helping others to pursue it; and for him a memorial at Cambridge was, he thought, a suitable memorial, and especially suitable, as his attachment to Cambridge was well known. No attractions elsewhere would have induced him to leave Cambridge. The memorial of Balfour might remind them there in Cambridge not only of his attachment to science, but of his attachment to his University. Subsequent Resolutions would bring before them the form which it had been suggested that the memorial should take, in order that those connected with Cambridge might be encouraged to imitate him; and no doubt conditions would be devised, which, while they definitely connected the memorial with Cambridge, would be in harmony with that liberal

and large spirit in which he himself would have welcomed merit whencesoever it might come.

Professor HENRY SMITH, M.A., Savilian Professor of Geometry in the University of Oxford, seconded the Resolution. He said :

“I feel very grateful for being allowed to address this meeting because it gives me an opportunity of expressing the warm interest which the resident members of my own University take in the proposal now under your consideration. There is such a true sympathy, and, I may say, such an intimate union between the two ancient Universities, that it needed not so great a loss as you have sustained in Professor Balfour to awaken a feeling of the deepest regret at Oxford. The name of Professor Balfour, I need not say, is, and has been for a long time, familiar to us. We looked upon him as one of those chosen spirits of whom but few in any generation are given to any University: as one of those who delighted to take part in the advancement of science, and who had the greatest gifts for advancing it, but who also delighted to teach others, and to communicate to them the spirit which animated himself. Those of us who had closely watched his career had learned to look on the achievements of his early prime as an earnest of even greater promise for the future. Many of us had had the pleasure of knowing him personally. During the last three or four years he had paid frequent visits to Oxford, and the opportunity was thus afforded to us of forming an acquaintance with him. To know him was to love him, and when the sad news of his death reached us, there were not a few among us who felt that they had lost a valued friend. In the movement to establish a memorial to his honour, you may be assured of our warmest sympathy. It is true that his name needs no such commemoration;

for he had achieved for himself an enduring place in the history of science. But it has been truly said by the mover of this Resolution that it is right in itself and due to this University, that his great eminence, and his brilliant example, should be perpetuated by such a Foundation as that which is now proposed. One word more. We in Oxford especially rejoice that you should associate this memorial with the University of Cambridge. A commemorative foundation attached to no particular place, to no living society, may run the risk of seeming cold and lifeless. But when you propose to establish a memorial connected with the home, and with the sphere of the studies, of the person whom you desire to commemorate, with the place where his mind was trained, and where his best work was done—a place too which he loved with his whole heart—there is, it seems to me, a fitness in such a proposal which must appeal directly to us all.”

The Reverend E. W. BLORE, M.A., Senior Fellow and Vice-Master of Trinity College, in supporting the Resolution, said that he did not propose to waste their time—as that hour of the day was valuable—in a number of superfluous remarks. On the present occasion he took it that there were no objections to be met, and no opposition to be overcome. He took it that all of those who had come together were all of one mind in the matter, and, therefore, why should he try to persuade those already persuaded, that the resolution was a very right and proper one? He must say for the members of his own college, which also had the honour of being the college of Professor Balfour, that when first they were informed that it was purposed to provide a memorial to their lamented friend, that suggestion was received with enthusiasm, and more especially by those who had been in daily contact with Mr Balfour and his work.

In that enthusiasm he took his full share. It was, perhaps, not his business to speak upon the form the memorial was to take, but it seemed to him (he would just say so much) to be a form that would do great honour to Professor Balfour both at present and in future generations. It was just the form that he would have chosen for himself. He would venture upon one remark of a practical character, namely, that he felt certain that contributions would be forthcoming which would enable them to carry out the proposal successfully by gifts of simple admiration and affection. There would not be the least necessity for putting pressure upon any unwilling contributor.

ADAM SEDGWICK, M.A., Fellow of Trinity College, Cambridge, spoke nearly as follows :

“After the admirable speeches in support of the memorial to which you have listened, it might appear that there was nothing left for me to say. There is one side of Balfour’s life, however, on which I do feel competent to speak : and that is, his intimate connection with the study of Morphology at Cambridge. It is now just seven years since he came into residence here after getting his Fellowship at my College, and since he first began to lecture. In the Long Vacation of that year, 1875, he gave a short course of lectures on Embryology, and in the following term he began that course on Morphology, which he continued in successive years until it was interrupted by an attack of typhoid fever in February last. That course began in a small room placed at his disposal by Professor Newton, of whose kind assistance in so doing he always felt and spoke most gratefully. The room was not large enough to hold more than ten or twelve students, to which small number the class was at first limited. The number, however, rapidly increased ; and when he ceased to lecture in February last, his class con-

sisted of ninety students. This fact is of itself sufficient to shew what an admirable teacher he was.

There is one point of special importance in connexion with his teaching to which I must briefly refer. He was not content with merely giving admirable expositions of his subject, but he followed up his lectures by going into his laboratory, and endeavouring to become personally acquainted with his pupils. To many people the work of demonstration would seem miserable drudgery. He did not take that view. In spite of the absorbing nature of his own private work, and in spite of the intense pleasure he derived from research, he gave up a considerable amount of time in order that he might personally direct the teaching of his pupils. In that way they got to know him, and he imparted to them some of the enthusiasm with which he himself was fired. He did this not simply to those who attended his advanced lectures, but also to those who attended his elementary ones; and I know that many undergraduates who had the strictest eye to their own business, became very enthusiastic about him, and were almost induced to desert their professional studies in order to follow Morphology. My hearers will not therefore be surprised when I tell them that in the last course of lectures which he gave, on a subject which had no practical application in life, the pursuit of which led to no position and to no honours, he had a class of twenty students studying the most complicated problems.

To the School of Morphology here his loss, I need hardly say, has been crushing. The particular memorial which it is proposed to erect to him is, from the point of view of those who worked with him, the best that could possibly be devised, because it will help to carry on the work which he had begun. Balfour's work will always be his best me-

morial. We can add nothing to that; but we can shew that his spirit is still living amongst us, and that we are anxious to go on in the way in which he directed us."

The Resolution was carried unanimously.

Professor HUXLEY proposed the second Resolution: "That the Memorial take the form of a Fund, to be called the BALFOUR FUND, for the promotion of Research in Biology, especially Animal Morphology." He said that it would be superfluous for him to express his own personal feelings regarding the merits of Mr Balfour, whose remarkable capacity and still more remarkable character they had all admired, for these qualities had been most accurately and sympathetically put before them by previous speakers. It was no exaggeration to say that to his eyes, and to those, he took it, of many of his age, Professor Balfour seemed to be like that Lycidas of whom Milton spoke:

'dead ere his prime,
Young Lycidas, and hath not left his peer.'

But there could be no question that, however remarkable a man's capacity might be, his earlier or his later development, his more or less fortunate course of life, depended largely upon surrounding circumstances. He had a certain melancholy pleasure in reflecting that he himself happened long ago to have been one of those circumstances, which might have been favourable, rather than otherwise, to the career in which Mr Balfour distinguished himself. He was reminded the other day—he had quite forgotten it—that a paper which Mr Balfour read whilst a boy at Harrow School had been sent to him for his judgment; and that afterwards—and that he had not forgotten—

when Mr Balfour was a candidate for the Natural Science Fellowship at Trinity College, he happened to be one of the examiners. Among the many faults and failures which a man who had lived to his time of life looked back upon, he rejoiced that he was at any rate free from having to reproach himself for having failed to discern the very remarkable powers foreshadowed, and indeed largely exercised, on those two occasions by the friend and fellow-worker whom they had lost.

In the Resolution which he had to move there were two words which would strike every one who had had to do with the world of science so long as he had, as having a certain novelty about them, when compared with the language which would have been used thirty or forty years ago. He alluded to the words 'research,' and 'morphology.' In former days a man of intellectual distinction was too often content with being learned. At the present time a happy change had come over science, at any rate in that respect, and if a man sought distinction, he must not only know that which was known, but he must help in the continual spread and enlargement of the boundaries of knowledge. And, again, with respect to the word 'morphology,' he supposed that 30 or 40 years ago it would hardly have conveyed any other meaning than such as arose out of its connection with the wild speculations of a certain school of continental philosophers. But to him, in the particular branch of science with which he was connected, it seemed that it might be called 'the new learning.' It had become a great system of doctrine, and had accumulated an enormous mass of carefully coordinated facts. The discovery of these required methods of investigation of which no one, when he was a young man, had had the slightest conception. A man who would be a master in that field must have three qualifications. In the first place, the

mastery of the practical methods; in the second place, the power of precise and accurate observation; in the third place, a certain vividness of the imagination which would enable him to seize upon the intellectual significance of fact without stepping beyond the limits of fact. In these three qualifications he had never met with anyone more marvellously gifted than the friend whose loss they had now to deplore.

He appealed to those present—for in that room there might possibly be some who had known Professor Balfour better than he had done, though he doubted if there could be any who esteemed him more highly or loved him more sincerely—he appealed to them to say whether (supposing that his singular modesty—his almost shrinking modesty—could have allowed him to anticipate the occurrence of such a meeting as the present one) they could imagine any form of memorial more entirely grateful to his feelings than that which was now proposed. The suggestion was to raise no mere monument in stone or brass, the value and meaning and the power of which died with the generation and the feelings that had given it life; but they proposed to establish at Cambridge a fund which would be a perennial spring of activity in the direction in which Mr Balfour had so much distinguished himself. They hoped that generation after generation of young men, who, had he lived, would assuredly have been helped by his most generous aid, always readily and freely given, might yet, in that sort of vicarious way, profit by the fact that he had lived, and been loved as he had been by so wide a circle of devoted friends. At the opening of his speech he had spoken of Lycidas, and they would remember the conclusion of the Monody:

‘Henceforth thou art the genius of the shore
In thy large recompense, and shalt be good
To all that wander in that perilous flood.’

Professor HUMPHRY, M.D., F.R.S., Professor of Anatomy in the University of Cambridge, said he had the greatest pleasure in seconding the resolution which had been proposed with so much feeling by him who, being one of the first of living biologists, was well able to speak with authority as to the ability of the late Professor Balfour. He had the further pleasure in doing so as one of those who knew the late Professor Balfour well and had worked with him. The word 'crushing' had been used by Mr Sedgwick, and he could say that never in his life had he felt so thoroughly crushed and depressed as on that Sunday afternoon when, on returning to his home, he was met with the sad intelligence that Balfour's life had been lost in the Alps. It seemed impossible to realise such overwhelming intelligence. It seemed hard to believe, nay, almost impossible to believe, that that noble figure one was in the habit of meeting on foot and on bicycle, in our roads and streets, had passed away; that that face, so full of intelligence, so full of thought, so full of force mingled with gentleness, breaking so often into that charming smile, would be seen no more. Those words which were used of him on a late solemn occasion were singularly appropriate: "When the ear heard him, then it blessed him; when the eye saw him, it gave witness of him."

One could scarcely yet realize that he who had shown so great love for the large subjects of his own work and so great ability in solving its difficulties; he who might be called the teacher of Europe in his own particular subject; he to whom all biologists were looking with expectation for the future; he who was his own fellow-labourer in that very room, where he was wont to occupy the place in which the Vice-Chancellor then sat; that he should no more in this room fill the benches with students who hung upon his words, and that the

latest addition to the Professoriate at Cambridge, which they all hoped would have been one of the most potent, and would have proved one of the noblest in the long roll of the great and illustrious names which have already adorned it, should have passed away before attaining anything like maturity; that he who had shewn his attachment to this University, and had clung to it in spite of the alluring attractions of Edinburgh and Oxford, clung to it by virtue of his attachment to the place, to his friends, and, above all, to the man who had brought him forward, who had encouraged him in every effort, he meant to Dr Michael Foster; that he had been swept away from them by the treacherous precipices of an Alpine gorge. Again he would say, one could scarcely realize it. But alas! so it was, and, so far as he could judge, Cambridge had had, in his time, no greater loss, though its losses had been great and heavy. Whewell, Sedgwick, Henslow, Maxwell and many others had passed away, but he believed that never had there been in his time, or perhaps at any preceding time, such a loss to Cambridge as that of Balfour. No person had passed away so full of promise of great things to come, assured by great things already done. The memorial was one which promised usefulness in the future. He was perfectly well aware that there were some persons who had objection to what were called 'utilitarian' memorials. He certainly had no sympathy with that objection. He felt that the most honourable memorial to any man was that which continued his usefulness after he was gone, giving as it were a living force to him when he was dead, making him an abiding impulse in his own special work, and a stimulus to the spirits of others therein. Above all when, so far as we heard from others who knew him best, and so far as one could judge

for oneself, there could not have been any memorial selected which would have been so consonant with his own feelings had he been able to express them. He need, therefore, say no more. He heartily seconded the Resolution.

The Resolution was carried unanimously.

Professor NEWTON, M.A., F.R.S., Professor of Zoology and Comparative Anatomy in the University of Cambridge, moved the third Resolution :

“That the proceeds of the Fund be applied :

- (1) to establish a Studentship, the holder of which shall devote himself to original research in Biology, especially Animal Morphology ;
- (2) to further, by occasional grants of money, original research in the same subject.”

He said that after the tribute of honour and affection which had already been bestowed, it seemed quite unnecessary for him to add any words of his own to those eloquent phrases. But it was while in that room, and in that building, in connection with the present affair, that he fully felt for the first time what one of our poets had so expressively written as to

‘The touch of the vanished hand,
And the sound of the voice that is still.’

His friend, Mr Sedgwick, was kind enough to mention a slight incident that had happened to him in regard to their friend so lately lost. It would always be one of the brightest of his recollections that he had fortunately been able to further Professor Balfour’s objects ; but he could only say that in helping him to carry on his researches, and to give those lectures which had been of such service in regard to the subject which he studied, he had simply done what he believed to be his duty, and what every

other Professor in this University would have done. He found a young man capable of giving, and willing to give instruction; and he put no obstacle whatever in the way of his doing so. But it was not merely in the simple giving of instruction that Professor Balfour was so conspicuous. He was above all things a student, and hence it was not inappropriately that most of those who had considered the business before them that day had determined that the Memorial should take the form which he had to propose. There was no one who throughout the whole of his career had remained more thoroughly a student, and it was in consequence of that that he became so celebrated as a teacher. There was one near him at present who, illustrious as he had been as a teacher, had been still more illustrious as a student, that is to say, as one devoted to research. And, if he looked further round the room, many others presented themselves in the same way. It was therefore, he thought, not at all inappropriate that the Balfour Memorial should take the form proposed, and he moved that it be applied in the manner he had already stated.

Professor E. RAY LANKESTER, M.A., F.R.S., Fellow of Exeter College, Oxford, and Professor of Comparative Anatomy at University College, London, said he felt it a great privilege to be present on that occasion, and to speak a few words in support of the Resolution before the meeting, because he should think that probably there was no one not at present connected with the University of Cambridge, who had so much cause to feel the loss of their dear friend as himself. For many years he had been associated with Professor Balfour in the editorship of 'The Quarterly Journal of Microscopical Science.' Besides that, they had constantly made expeditions together, and done zoological work

together of various kinds. In fact it was a mere accident—Balfour's attack of typhoid fever—which had prevented their going together to the sea-side this very summer, for the purpose of investigating some marine organisms, instead of Balfour's undertaking alone the expedition to the Alps which had led to such a terrible result. In the midst of such great grief, it was some satisfaction to find that Balfour's friends in the University of Cambridge had determined that the work he was engaged in, and which he had carried on with so much success, should not be allowed to flag or droop more than was absolutely necessary. The establishment of a Studentship to be held from time to time by a person who was to devote himself to research during his tenure of it, seemed to him the best way of keeping up such a study of Morphology as Balfour had himself carried on. Research in Animal Morphology, it was well known, was unremunerative; the man who devoted himself to it must be supported, during the time he was carrying it on, by some form of endowment; and he thought that this Studentship, which, he was glad to see, was not to be limited to members of the University of Cambridge, would have a very stimulating effect in promoting the study of Morphology by young men at a critical period in their career. In the University of Oxford there was a Studentship of a somewhat similar kind, given many years ago by Dr Ratcliffe, and known as the Ratcliffe Travelling Fellowship; it had had a great effect in enabling young men to carry on scientific investigations, who otherwise would not have been able to pursue them. He cordially seconded the Resolution.

The Resolution was carried unanimously.

Professor WILLIAMSON, Professor of Chemistry at University College, London, in proposing the

fourth Resolution : "That a Committee be appointed to collect subscriptions and to draw up conditions, under which, with the sanction of the subscribers at a future meeting, the Fund shall be offered to the University," said that very few words from him were needed to commend it to the cordial acceptance of that meeting, for there was hardly any nobler or more effective incentive to great deeds than the contemplation of great and noble work done by those who had passed away. And if it was useful to hold up to admiration and imitation the lives and deeds of great men who had lived long enough to make a deep and abiding mark on history, surely it was particularly desirable that such action should be taken in the case of one who had only entered on a career of the very highest and greatest distinction. For they all felt not merely that they had lost a personal friend, but that the world at large had sustained a severe loss, by Professor Balfour's melancholy death. Such being their feelings, it was natural and proper that men should think of what could be done, and worthily done, to give effect to the feelings they all entertained ; to establish some memorial worthy of so great a man ; to do in his name something which would be of permanent use. He could not doubt that the efforts which were now being made, and the scheme which was now being elaborated, would be fruitful of great results—results such as Balfour himself would have wished to have had brought about.

He might perhaps be permitted to throw out an idea which had sprung up in his mind, for the consideration of those gentlemen who would draw up—and, he had no doubt, would admirably and carefully draw up—the regulations under which the Studentship was to be awarded. He could not help feeling that if *each* earnest high-minded young man who became a Balfour Student had presented to him in such a form as Dr Foster could draw it up, a living

picture of what the man was, and what he had done—a description of his personal habits and life, and an intelligible outline of the services he had rendered to science—with, if possible, a good portrait at the beginning—he would feel stimulated and encouraged to use his best and noblest efforts to imitate the life and deeds of Balfour. Such a book would say, as it were, “Try to be like him and to do such things as he did.”

Professor Williamson then read the Resolution, and said that he had no doubt that those called to serve upon the Committee would be induced to do their best in a matter into which their hearts so thoroughly entered.

Professor WESTCOTT, D.D., Regius Professor of Divinity in the University of Cambridge, said that when he looked at the names upon the paper he could not but feel how thoroughly unworthy he was personally to take any part in the proceedings of that afternoon; but yet he was deeply grateful to those who had arranged the meeting, that they had found a place in it for his office. He was quite prepared to recognize that he knew less about Natural Science than anyone in the room, but he would not recognize that any one in the room felt a keener interest in it than he did. He should be faithless to the study in some degree committed to his charge if he did not hold that belief most thoroughly. He would not quote the famous Latin line *Homo sum nihil humanum a me alienum puto* as adequately describing the range of his interest: he held that he should be expressing the thoughts and feelings of those who taught, and of those who studied, Theology at Cambridge if he changed it to *Theologus sum, nihil in rerum natura a me alienum puto*.

He felt that it was one of the great privileges of a University that those who pursued different

studies there were brought together in close and most sympathetic fellowship. It was a great advantage to have the power of coordinating their thoughts, and interpreting their conclusions by constant personal intercourse. Differences of opinion must arise among persons engaged in following out special subjects by their characteristic methods; but he thought that they all gained something by comparing their results, by comparing their methods, and by recognizing at least a tendency towards a fuller harmony of truth than any of them could hope to attain to separately.

Those who were acquainted with the history of the University knew how close the connexion between the study of physical science and the chair which he had the honour to occupy had always been. He would venture to be a prophet, for he had faith in the future, and to express his belief that when his successor some three centuries hence stood in his place, he would be able to declare that the connexion between Theology and Morphology had been not less close. For himself he was ready to admit that even the slight knowledge which he had been allowed to gain of recent discoveries in Physiology had enabled him to hold with a clearer vision and a firmer grasp truths which he held to be most precious, and which had been specially entrusted to his guardianship. And at least he could affirm this, that if those who should study science here in the future, should study it in the spirit of his friend Mr Balfour, the result which he had ventured to anticipate would certainly be attained.

He had first known Mr Balfour as a boy at Harrow. He did not pursue with any enthusiasm the studies which it was his duty to guide, but he recognized his independence and force of character, and was not surprised on his return to Cambridge to find the mark which he had made. He rejoiced

that during the last few years of his life he had been allowed to discuss with him, from time to time, great problems of life and thought. Had they attempted to formulate their opinions, it is probable that wide differences would have been found between them, but in the case of such a nature as Mr Balfour's, he could not admit that formulated opinion was a measure of spiritual difference. He was a man to whom he would not have shrunk from laying open the deepest feelings of his own heart, as he knew that he would have received such an expression of his convictions with sympathy; while, on the other hand, Mr Balfour would not have withheld from him his own convictions, had he thought that the expression of them would have helped him in his work. He felt sure, for he could not have wholly misinterpreted his views, that Mr Balfour held those two great central truths—the unity of life and the progress of life—which seemed to him to lead, it might be by distant conclusions, to the essential principles of that Faith, which it was his great privilege to declare in the University.

He had much pleasure in seconding the Resolution, which was carried unanimously.

Dr MICHAEL FOSTER, Trinity Prælector in Physiology, who was received with prolonged applause, proposed the fifth Resolution :

“That the Committee be instructed

- (1) that the value of the Studentship be not less than £200 a year ;
- (2) that while it is desirable that the Studentship should be in some way closely connected with this University, persons other than members of this University shall be eligible to it ;

- (3) that it be not given away by competitive examination ;
- (4) that in framing regulations both for the conduct of the Student and the award of occasional grants, the primary object of the Fund, namely the furtherance of original research, be closely adhered to."

He spoke nearly as follows :

"The Resolution which has been placed in my hands is mainly of a practical character ; and, with your permission, I will do what I feel able only to do, I will confine myself entirely to remarks upon that Resolution. It has been determined that the memorial shall be established in the form of a fund ; it has been thought desirable that the framing of a scheme for the carrying out of that memorial should be entrusted to a committee, and the Resolution which you have just passed lays down the general principles which are to guide that committee. The one which I now propose to you for your consideration formulates more distinctly and more closely what we believe to be your wishes in this matter, and lays down certain lines to guide the committee in their decisions. The instructions seem to me so just, as hardly to need any defence on my part, and yet, perhaps, it will be well if I say a word or two concerning them.

The key-note of them, it seems to me, has been already struck by my friend Mr Adam Sedgwick, who said, very justly, that what we are now attempting, though called a memorial, is not really such. For our friend Mr Balfour's real memorial is to be found partly in his work, and this is open to all the world without any effort on our part, partly in the hearts of us who knew him, and this we cannot give to others. What we now wish to do is not proposed as necessary to keep his memory alive, but with the

view of connecting his name with some useful thing, with something which shall be of benefit on the one hand to biological research, and, on the other hand, to that University which he loved so well. The first instruction to the Committee is, "That the value of the Studentship be not less than £200 a year." The idea of that instruction is somewhat on this wise. A young man who has attended such lectures as those of our dear friend, and has gone through a certain amount of instruction under such a teacher, shares more or less the enthusiasm of that teacher. He is by his influence led to think, and to his mind thus awakened, what he sees and hears and reads suggests a number of problems, which he would love above all things to work out. We all find, as we get older, that the real seed-time of life is in our young years: in the years of early manhood. That is the time when new ideas come to us. Men frequently spend their whole lives in laboriously working out the few bright thoughts which flashed into their minds in their early years. Is it not important then to take care of this precious but passing time? But in a large number of cases the young man filled with enthusiasm for his studies, is obliged by pecuniary necessity to leave those studies, and to enter upon some practical line of life—to go to the bar, to become a doctor, or to enter into business; and the studies he once so loved are soon forgotten by him; other things fill his mind and absorb his energies, so that the learning to which he was once devoted gains no help, or at most some trifling assistance only, from him in after life. The idea of the proposed Studentship is that certain persons chosen according to conditions, to be agreed upon hereafter, having discovered such an enthusiastic man of promise, shall thereby be enabled to give him the wherewithal to live for two, three, or more years, in order that during that time he may devote

himself entirely to inquiry and thus contribute to the advance of learning. Probably he will in consequence achieve a name and secure a position, and thus be able to give his whole life to science. In one word it is wished to put the man connected with Balfour's name in some such position favourable for prosecuting original work as Balfour himself through his private circumstances enjoyed. It seems to those who have drafted these Resolutions that £200 a year will be on one hand sufficient to enable an enthusiastic man to live without denying himself, and, on the other hand, will not be a sum so large as to tempt people who have no real call for a scientific life to become candidates for the Studentship.

The second instruction to the Committee: "that while it is desirable that the Studentship should be in some way closely connected with the University, persons other than members of this University shall be eligible to it"—is simply a carrying out of the principle which I have just laid down, that the memorial shall be of benefit to the University, and at the same time, to biological learning. It may prove desirable for biological learning that a young man presenting himself should have the benefits conferred by the Studentship, even if he happen not to be connected with the University. In such a case, the University itself will be in the end the gainer; for it will benefit by young men of talent being attracted to it from various parts of the country. While it seems desirable that in some way or other the appointment and the work of the student should be connected with the University (the details of the connection will of course have to be worked out by the Committee), and although in all probability the student will generally be chosen from the University, it ought to be in the power of those to whom the management of the Studentship will be

entrusted to select persons outside the University, if they think that biological research will thereby be benefited.

The third instruction is: "that it be not given away by competitive examination." Now in this University we have acquired extraordinary skill in examinations. It has been very justly said that in carrying on the studies of this University we have developed the machinery of examination to such perfection that there is a great probability that at an examination the best man will be brought so near to his proper place as to be put number two on the list. But in biology we are in this respect behind the other studies, we could hardly hope to reach even this success; indeed a biological competitive examination is one of the very worst devices for selecting men; and we have great hope that, by adopting other means, the really best man may be very often chosen. Besides, this Studentship is not to be regarded as a reward for past work; it is not to be regarded even as an acknowledgment of merit; it is intended simply to enable what without it might remain as mere "promise" to develop into actual fruitfulness. Upon those who will hereafter have the management of the Fund will be laid the responsibility of selecting, not necessarily the cleverest or the most brilliant man, but the man who in their judgment will best carry out the objects of the Fund; that is to say, the man who seems most likely to devote himself with success to biological research.

The last instruction: "That in framing regulations both for the conduct of the Student and the award of occasional grants, the primary object of the Fund, namely the furtherance of original research, be closely adhered to," really embraces all the others. It is hoped, and indeed confidently expected, that the amount of money ultimately placed at the disposal

of the Committee will be sufficient not only to maintain the student—for it is intended that the £200 a year shall be in reality a subsidy for sustenance—but to make grants to defray the expenses of his work. It may, for instance, be necessary to send him to Australia, or New Zealand, or the interior of Africa, in order to settle problems in the place where alone they can be settled. There may arise expenses in the way of material and apparatus, far too heavy for the student himself to bear. Those unacquainted with biological researches are perhaps hardly aware how expensive they frequently are; many a valuable piece of work has been stopped for sheer want of funds. And the usefulness of the Fund will be immensely increased if the yearly income permits occasional grants for other inquiries than those of the student himself. If the Fund becomes as large as we have every hope it will, its distribution will need to be guarded jealously; and there is one danger against which this instruction is especially directed. In this University, and elsewhere, where teaching is going on, there is a very great danger of talent being swallowed up in teaching. Now without discussing the question whether teaching ought to be self-supporting, I may venture at all events to place this before you: that, as compared with teaching, the returns of which are rapid and fairly certain, original research requires careful nursing. And by this fourth instruction it is intended that the Committee should frame such regulations that the student shall suffer no temptation to be led away from strictly original research in order to undertake formal teaching, and that no part of the Fund shall be used to aid mere tuition. Teaching in a large sense it will be impossible to prevent, for wherever investigation is being carried on teaching is quickened and strengthened. That indeed is one of the great indirect benefits which the Student-

ship will confer upon the University. Not only will the carrying out of original research be in itself of great value, but every part of biological study here will be in some way or other benefited by it. At the same time experience warns us that it is necessary that the student should be kept as far as possible from that formal teaching into which so many of us are drawn, in order that he may not be hindered in that original research which it is the great object of the Fund to encourage."

Professor MOSELEY, Linacre Professor in the University of Oxford, said, in seconding the Resolution: The late Professor Balfour was distinguished in everything he took up, and there was scarcely a single branch of learning in which educated people were interested in which he was not deeply interested himself. It might therefore appear that since this Studentship was being founded chiefly for the encouragement of research alone, they, as it were, were about to create a memorial which would be related to a certain side of his character only; but such was not in reality the case, for it was impossible to say whether he was most distinguished as a teacher or as a researcher; and there could be no doubt that the reason why he was so excellent a teacher was that he had been so remarkably successful as an original investigator.

He thought that it was becoming more and more apparent, every day, that no person was qualified to teach science who had not added something himself to the stock of knowledge of the science which he professed. The best possible training for a man who was to be a teacher was, that he should have been taught by research. There was no doubt therefore that by acting as was now proposed they would not only be practically carrying on the work which Professor Balfour would most have liked to see progress, but, at the same time, they would be

adopting the best possible mode for training teachers, who might, perhaps, to some extent, approach to his excellency in that matter.

The Resolution was carried unanimously.

JOSEPH PRIOR, M.A., Senior Fellow and Tutor of Trinity College, Cambridge, proposed the sixth Resolution: "That

His Grace the Chancellor.

The High Steward.

The Vice-Chancellor.

The Master of Trinity College.

The Master of Saint John's College.

The Master of Gonville and Caius College.

The Master of Trinity Hall.

The Master of Magdalene College.

The Master of Emmanuel College.

The Lord Lyttelton.

John Ball, F.R.S., 10, *Southwell Gardens, S. Kensington, London.*

Thomas George Bonney, B.D., F.R.S., *Professor of Geology in University College, London.*

Henry Bowman Brady, F.R.S., *Hillfield, Gateshead, Newcastle-on-Tyne.*

William Turner Thiselton Dyer, F.R.S., *Assistant Director, Royal Gardens, Kew.*

John Evans, F.R.S., *Treasurer and Vice-President of the Royal Society.*

Michael Foster, LL.D., F.R.S., *Trinity Praelector in Physiology.*

George Griffith, M.A., *Jesus College, Oxford, Science Master at Harrow School.*

Walter Heape, 17, *Fitzwilliam Street, Cambridge.*

Thomas Henry Huxley, LL.D., F.R.S., *Professor at the School of Mines, South Kensington Museum.*

Richard Claverhouse Jebb, M.A., *Professor of Greek in the University of Glasgow.*

Edwin Ray Lankester, M.A., F.R.S., *Professor of Zoology in University College, London.*

John Gray M'Kendrick, M.D., *Professor of Physiology in the University of Glasgow.*

Arthur Milnes Marshall, M.D., *S. John's College, Professor of Comparative Anatomy at Owens College, Manchester.*

Henry N. Moseley, M.A., F.R.S., *Linaere Professor in the University of Oxford.*

- Joseph Shields Nicholson, M.A., *Professor of Political Economy in the University of Edinburgh.*
- Henry Francis Pelham, M.A., *formerly Fellow of Exeter College, Oxford.*
- William Kitchen Parker, F.R.S., *Hunterian Professor.*
- Sir W. Frederick Pollock, *Bart.*, 59, *Montagu Square, London.*
- George John Romanes, F.R.S., 18, *Cornwall Terrace, Regent's Park, London.*
- Henry John Stephen Smith, F.R.S., *Savilian Professor of Geometry in the University of Oxford.*
- Allen Thomson, M.D., F.R.S., 66, *Palace Gardens Terrace, London.*
- William Turner, *Professor of Anatomy in the University of Edinburgh.*
- John Couch Adams, M.A., F.R.S., *Lowndean Professor.*
- Charles Cardale Babington, M.A., F.R.S., *Professor of Botany.*
- William Lloyd Birkbeck, M.A., *Downing Professor of the Laws of England.*
- Arthur Cayley, M.A., F.R.S., *Sadlerian Professor.*
- Edwin Charles Clark, M.A., LL.D., *Regius Professor of Civil Law.*
- Sidney Colviu, M.A., *Slade Professor of Fine Art.*
- James Dewar, M.A., F.R.S., *Jacksonian Professor.*
- Henry Fawcett, M.A., *Professor of Political Economy.*
- Fenton John Anthony Hort, D.D., *Hulsean Professor of Divinity.*
- Thomas McKeuney Hughes, M.A., *Woodwardian Professor.*
- George Murray Humphry, M.D., F.R.S., *Professor of Anatomy.*
- Benjamin Hall Kennedy, D.D., *Regius Professor of Greek.*
- Alexander Francis Kirkpatrick, M.A., *Regius Professor of Hebrew.*
- Henry Newell Martin, M.A., *Professor of Natural Science in the Johns Hopkins University, Baltimore.*
- Alfred Newton, M.A., F.R.S., *Professor of Zoology and Comparative Anatomy.*
- George Edward Paget, M.D., F.R.S., *Regius Professor of Physic.*
- George Gabriel Stokes, M.A., F.R.S., *Lucasian Professor of Mathematics.*
- James Stuart, M.A., *Professor of Mechanism.*
- Brooke Foss Westcott, D.D., *Regius Professor of Divinity.*
- Richard Dacre Archer-Hind, M.A., *Trinity College.*
- Edward Vernon Arnold, M.A., *Trinity College.*
- Augustus Austen-Leigh, M.A., *King's College.*
- Edward William Blore, M.A., *Trinity College.*

Henry Bradshaw, M.A., King's College.
 Oscar Browning, M.A., King's College.
 John Frederick Bullar, B.A., Trinity College.
 John Willis Clark, M.A., Trinity College.
 Thomas Dale, M.A., Trinity College.
 George Howard Darwin, M.A., F.R.S., Trinity College.
 Francis Darwin, M.A., Trinity College.
 Albert George Dew-Smith, M.A., Trinity College.
 Lucas Ewbank, M.A., Clare College.
 Herbert Foxwell, M.A., St John's College.
 Walter Holbrook Gaskell, M.D., F.R.S., Trinity College.
 James Whitbread Lee Glaisher, M.A., F.R.S., Trinity College.
 Basil Edward Hammond, M.A., Trinity College.
 John Maxwell Image, M.A., Trinity College.
 Henry Jackson, M.A., Trinity College.
 Courtney Stanhope Kenny, M.L., Downing College.
 John Newport Langley, M.A., Trinity College.
 Henry Latham, M.A., Trinity Hall.
 Arthur Sheridan Lea, M.A., Trinity College.
 Walter Leaf, M.A., Trinity College.
 Arthur Temple Lyttelton, M.A., Trinity College.
 Donald McAlister, M.A., St John's College.
 Frederic William Myers, M.A., Trinity College.
 William Davidson Niven, M.A., Trinity College.
 John Peile, M.A., Christ's College.
 Frederick Pollock, M.A., Trinity College.
 Joseph Prior, M.A., Trinity College.
 George Walter Prothero, M.A., King's College.
 Marlborough Robert Pryor, M.A., Trinity College.
 Osbert Salvin, M.A., F.R.S., Trinity Hall.
 Adam Sedgwick, M.A., Trinity College.
 William Napier Shaw, M.A., Emmannel College.
 Vincent Henry Stanton, M.A., Trinity College.
 Edward Bernard Tawney, M.A., Trinity College.
 Henry Martyn Taylor, M.A., Trinity College.
 Contts Trotter, M.A., Trinity College.
 John Venn, M.A., Caius College.
 Arthur Woolgar Verrall, M.A., Trinity College.
 Sydney Howard Vines, M.A., Christ's College.
 James Ward, M.A., Trinity College.
 James Edward Cowell Welldon, M.A., King's College.

Theodore Beck, Trinity College.
 William Hay Caldwell, B.A., Caius College.
 Charles Silvester Evans, Clare College.
 Roger Neville Goodman, St John's College.
 Sidney Frederick Harmer, King's College.

Arthur Everitt Shipley, Christ's College.
 D'Arcy Wentworth Thompson, Trinity College.
 Walter Frank Welldon, B.A., St John's College.

be the Committee, with power to add to their number, and that seven be a quorum; that John Willis Clark, M.A., formerly Fellow of Trinity College, and Adam Sedgwick, M.A., Fellow of Trinity College, be Secretaries to the Committee; and that John Willis Clark be Treasurer to the Fund."

He said that after all the eloquence and scientific knowledge which had been displayed by the previous speakers in settling the great questions of principle, viz. that there should be some Memorial, and that that Memorial should take a certain form; he had simply to move the appointment of a Committee, which, being a mere matter of detail, happily required no eloquence. The Committee suggested comprised Heads, Professors, and other eminent members of the University, and also distinguished men of science outside our walls, who admired the genius of the late Professor Balfour, and loved his character. The number of names was large, but four times the number could be found, willing and eager to join such a Committee, and make any sacrifices in such a cause.

It was not necessary to say anything as to the peculiar appropriateness of proposing that Mr J. W. Clark and Mr Adam Sedgwick should be the Secretaries. The first was the firm friend and constant associate of the late Professor; the latter had been his favourite pupil, and was now the only man in Cambridge who could fairly be looked to to supply his place in any adequate degree.

It might not be obvious to some why in the presence of so many Professors and eminent men who would feel it an honour to address the meeting, he should appear to intrude himself upon them. He would simply mention that he had been connected

with the late Professor for a longer period than most Cambridge men, having been his College Tutor when he came up in 1870 as a freshman. Although, after a short time, he was no longer in a position to teach Mr Balfour anything, or even to learn from him, their friendship remained, and he felt sure that during the whole period of their intercourse, no one could have admired or loved him more than he had done.

GEORGE GRIFFITH, M.A., Jesus College, Oxford, Science Master of Harrow School, said that at that late hour he would not detain the meeting with any words of his except to second the motion.

The resolution was unanimously agreed to.

Professor W. K. PARKER, F.R.S., Hunterian Professor in the Royal College of Surgeons of England, said that it was his agreeable duty to propose a vote of thanks to the Vice-Chancellor for presiding on that occasion. He wished besides doing that to say that he disagreed with one of the remarks made by the last speaker, who had said that Mr Adam Sedgwick had been the favourite pupil of the late Professor Balfour. He always thought that he had himself been his favourite pupil. He certainly had no sincerer friend, and he was certain no young man could regard him with a more childlike reverence than he had done. He used to have the gratification of frequent visits from Professor Balfour to discuss matters connected with the work in which they were both engaged, and he felt that his presence was still with him; he could not lose the sense of his presence. Professor Huxley, with his usual masterly eloquence, had quoted Milton's 'Lycidas'; he would suggest to his Cambridge friends that another line of that fine poem should be placed over the door of the Morphological Laboratory:

'Lycidas, our sorrow, is not dead.'

S. H. VINES, M.A., Fellow of Christ's College, Cambridge, said that he had very great pleasure in seconding the Resolution. He wished to thank the Vice-Chancellor not only for presiding at that meeting, but for convening it, and thus giving to the friends of Professor Balfour an opportunity of expressing their feelings and of taking steps to give practical effect to them.

The VICE-CHANCELLOR said that he felt he had no special claim upon the thanks of that meeting. Their thanks were due in the first place to those eminent men of science from London and Oxford who had honoured them with their presence, and contributed so greatly to the success of the proceedings and to the object they had in view; and in the second place to Dr Michael Foster and Mr J. W. Clark for the care and forethought with which the resolutions had been prepared, and all other preliminary arrangements had been made. He hoped that in a short time the Committee would have at its head the illustrious name of the Chancellor, who had done so much for the promotion of the study of Physical Science at Cambridge. He regretted that the office which he had filled that day by virtue of the accident of his being Vice-Chancellor, had not fallen to the lot of one more intimately connected with Science than he was. It would have been more appropriate if the Master of Emmanuel, whose acquaintance with Natural Science was so extensive, had occupied the chair on that afternoon. It had however given him much pleasure to do what he could to promote the objects of the meeting, and he now wished to thank them for their kindness.

There was one other matter to which he wished to refer. He had heard expressions of regret, in which he fully joined, that no personal memorial of

Professor Balfour was to accompany the scientific memorial. He was glad to be able to state that he had been informed by Mr J. W. Clark that it was believed that sufficient materials existed for both a portrait and a bust; and that arrangements had been made for securing a copy of the latter, should it prove satisfactory, for the Morphological Laboratory.

J. W. CLARK, M.A., formerly Fellow of Trinity College, said that he would inaugurate his office of Treasurer by stating that the family of the late Professor Balfour had expressed their intention of giving £3000 to the Memorial, to which sum Dr Michael Foster proposed to add £1000, which Professor Balfour had bequeathed to him for any scientific purpose to which he might think proper to apply it. There was therefore £4000 in hand to start with.

The Meeting then separated.

Subscriptions may be forwarded
direct to Cambridge, or to
Prof. S. S. Nicholson, University
or W. Leeds, ~~87a Princes St.~~

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