F. Darwin, Esq.

ANNIVERSARY ADDRESS.

BY

CHRISTOPHER ROLLESTON, C.M.G.,
President.

With
A. Liversidge's
Compliments.

The University,
Sydney, Australia.

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By Christopher Rolleston, C.M.G., President.

[*Delivered to the Royal Society of N.S.W., 2 May, 1883.*]

Gentlemen,

Combining, as the anniversary meetings of the Royal Society are in the habit of doing, the close of the old year with the opening of a new one, the distinguished honor conferred upon me at our last anniversary as President for the year demands of me, before I vacate the Chair, that I should open the present session with the customary address. But before entering upon the subject of it I desire to say how sensible I am of my shortcomings, and of the kindly forbearance and support extended to me by the members who have attended our meetings. I would fain hope that my faults, having been rather those of omission than of commission, may not have resulted prejudicially either to the character or progress of the Society. The fact is that, in a young community like ours we are sadly wanting in men of leisure and of culture who have the time to spare and the knowledge to adorn the Chair of this Society—qualifications which were eminently exemplified in the person of our former Vice-president, the late Rev. W. B. Clarke, the memory of whose services in the cause of geological science in Australia, and in the interests of this Society in particular, will, I venture to think, outlive the lineaments of his person so happily portrayed on the canvas which adorns our walls.

The report of the Council, which has just been presented, gives a favourable account of the progress of the Society for the last twelve months, and it would be tedious to attempt to enlarge upon the topics referred to in that report. The most important of the

papers read during the session were those contributed by the Rev. J. E. Tenison-Woods, and especially that on "The Geology of the Hawkesbury Sandstone," which, from the novelty of its conception, the variety of the facts and observations by which his theory was supported, the clearness with which the facts were set forth, and the masterly ease which characterized the treatment of the theory propounded, is a most interesting and valuable contribution to the Society's Transactions. There was also a very interesting and valuable paper on "Tropical Rains," by my highly respected predecessor in this Chair, Mr. H. C. Russell; and also a very remarkable paper by Mr. James Manning, containing curious revelations as to the religious belief of the aborigines of New Holland—revelations made to him more than five and forty years ago, as he alleges, before the blacks had come in contact with the missionaries or other tamperers with their faith.

In casting about for a subject on which to address you this evening, it has seemed to me that I could not better occupy your attention or discharge the duty imposed on me than in bringing under view a *résumé* of the life and labours of a distinguished member of our Society, the tidings of whose death reached us subsequent to our last anniversary, and who has left behind him a name and reputation second to none in this age of scientific inquiry. Upon the roll of honorary members of our Society in the year 1879 was placed the name of Charles Robert Darwin; and whilst we did honor to ourselves in enrolling his name amongst the distinguished men to whom a like compliment has been paid, it is gratifying to know that he highly appreciated this recognition of his great services in the field of natural science.

In the month of April of last year, within the precincts of the ancient Abbey of Westminster, and near the honored grave of England's greatest philosopher, were very appropriately deposited the mortal remains of this eminent naturalist; and whatever might have been the public opinion a quarter of a century ago, no one at the present day would venture to challenge the claim that the final resting-place of the foremost scientific man of

the Victorian era should be found alongside the grave of the only other philosopher of the past whose revolutionary effect upon thought can at all be compared with his own. The discoveries of Sir Isaac Newton—the most remarkable mathematician and greatest natural philosopher of his own or any other age—can, I think, alone be brought into competition with those of Darwin, whose faithful, patient, and laborious application of the Baconian theory of induction has brought about so complete a revolution in scientific thought. We can all remember the fierce theological storm which raged about the head of this earnest inquirer after truth, who, by his "Origin of Species" and theory of "evolution," challenged ancient traditions, and gave a severe shock to time-honored principles of faith. It was soon, however, discovered that Darwin was rather a patient investigator of facts than a daring theorist, and that, whatever might be his conclusions, the mass of facts he had collected with unparalleled industry and sagacity were no inconsiderable contribution to human knowledge. It is not too much to say that had Darwin's life been cut off a quarter of a century ago, no one would have had the temerity to suggest that his memory should have been so conspicuously honored as it has been by giving him a final resting-place among England's greatest worthies. But the panic created by his discoveries has subsided, and science has at length come to be regarded, not as the enemy, but as the handmaid of religion. The greatness of the revolution that has taken place in human thought, and the abatement of honest but unreasonable alarm at modern discoveries, are vividly illustrated by the profound homage paid to the deceased philosopher by the foremost orthodox divines of the day.

The "evolution" theory, which a quarter of a century ago was denounced as leading to materialism, is now recognized as in no way alien to the Christian religion. Darwin had the happiness of living down the clamour created by his grand discoveries; and even where his theories have not been accepted, he has long since been recognized as a modest, reverent, and earnest searcher after truth. Both in Westminster Abbey and in St. Paul's Cathedral the great

preachers of the day testified to the pure and earnest love of truth which characterized the life and labours of Mr. Darwin. Canon Prothero described him as "the greatest man of science of his day, but so entirely a stranger to intellectual pride and arrogance that he stated with the utmost modesty opinions of the truth of which he was himself convinced, but which he was aware could not be universally agreeable or acceptable." Canon Barry referred to Mr. Darwin as a leader of scientific thought, showing that the fruitful doctrine of evolution, with which his name would always be associated, lent itself as readily to the old promise of God as to more modern but less complete explanations of the universe. Canon Liddon observed that, when Darwin's books on the "Origin of Species" and on the "Descent of Man" first appeared, they were largely regarded by religious men as containing a theory necessarily hostile to religion, but a closer study had greatly modified any such impression. "It is seen," he said, "that whether the creative activity of God is manifested through catastrophes—as the phrase goes—or in progressive evolution, it is still his creative activity, and the really great questions beyond remain untouched."

During forty years past, living in comparative retirement at his country residence in Kent, Mr. Darwin steadfastly pursued his experimental researches, and from time to time published their results, with those of his profound and comprehensive speculations, till he has gradually won the assent of all well-informed persons to a few grand principles concerning the development of specific forms of organic life. His theory of the origin of species, vegetable and animal, referred them to the operation of a general law of nature in the universal struggle of living organisms for subsistence, and in the competition for opportunities of reproducing their kind tending to the survival of the fittest types, and to the modification of their progeny in the course of successive generations by more and more distinctive peculiarities growing up in those organs or features which aided most effectually in the preservation of the race. Individual types of exceptional vigour, and with particular adaptation to surrounding circumstances, would thus become the progenitors of distinct species.

In his famous book, which appeared in 1859, Mr. Darwin formally announced his view of natural history. He says: "I cannot doubt that the theory of descent, with modification, embraces all the members of the same class. I believe that animals have descended from at most only four or five progenitors, and plants from an equal or lesser number." He seems to have looked forward even to a higher generalization, for he goes on to say that "analogy would lead me one step further, namely, to the belief that all animals and plants have descended from some one prototype; but this inference is chiefly grounded on analogy, and it is immaterial whether or not it be accepted. The case is different with the members of each great class, as the Vertebrata, the Articulata, &c., for here we have distinct evidence that all have descended from a single parent." Darwin concludes his treatise in these impressive words:—"From the war of nature, from famine and death, the most exalted object which we are capable of conceiving—namely, the production of the higher animals,—directly follows. There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one; and that whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been and are being evolved."

In his treatise on the "Origin of Species," from which the foregoing quotations are copied, Darwin had not actually expressed his views as to the ancestry of man, though he had left them to be very clearly inferred. He says: "It seemed to me sufficient to indicate that, by this work, light would be thrown on the origin of man and his history," for this implied that man must be included with other organic beings in any general conclusion respecting his manner of appearance on this earth. But in his work on the "Descent of Man and Selection in Relation to Sex," which was published in 1871, Darwin expressly dealt with this most interesting question. He presented man as co-descendant with the catarrhine or "down-nostrilled" monkeys from a hairy quadruped furnished

with a tail and pointed ears, and probably a climber of trees. Nay, he traced back the chain of descent until he found, as the progenitor of all the vertebrate animals, some aquatic creature, hermaphrodite, provided with gills, and with brain, heart, and other organs imperfectly developed. The treatise concludes by remarking what are the hopes which the advance of the human race in past ages seems fairly to justify. He says: "We are not, however, concerned with hopes or fears, but only with the truth as far as our reason allows us to discover it." "I have given the evidence to the best of my ability; and we must acknowledge, as it seems to me, that man, with all his noble qualities—with sympathy, which feels for the most debased—with benevolence, which extends not only to other men, but to the humblest living creature—with his god-like intellect, which has penetrated into the movements and constitution of the solar system—with all those exalted powers, man still bears in his bodily frame the indelible stamp of his lowly origin."

After the publication of his first great work, Darwin continued to gather evidence tending to strengthen his theory. In 1862 he published his remarkable work on "Fertilization of Orchids," and in 1867 his "Domesticated Animals and Cultivated Plants." In 1872 Mr. Darwin published "The Expression of the Emotions in Man and Animals"; in 1875, "Insectivorous Plants"; in 1876, "Cross and Self-fertilization in the Vegetable Kingdom"; and in 1877, "Different forms of Flowers in Plants of the same Species." Only last year appeared his work upon Earthworms, in which he traced the operations of worms in gradually covering the surface of the globe with a layer of mould, and showed the wonders produced by the operations of these insignificant creatures.

Mr. Darwin, having inherited a good private fortune, engaged in no business or profession, but devoted his whole life to natural science. And here I may mention how it came about that he visited Australia. When a naturalist was to be chosen to accompany the surveying expedition of her Majesty's ship "Beagle" in 1831, Darwin was recommended to Captain Fitzroy and the

Lords of the Admiralty by the then Professor of Botany at Cambridge. He sailed with that expedition on the 27th of December, 1831, and returned to England in October, 1836, having made a scientific circumnavigation of the globe. On returning to England Darwin published a "Journal of Researches into the Geology and Natural History" of the various countries he had visited, in addition to numerous papers on various scientific subjects.

Mr. Darwin's conclusions as to the future of New South Wales, after crossing the Blue Mountains and going as far as Bathurst, are worth recording, as those of a keen observer who visited the Colony nearly half a century ago. He says: "The rapid prosperity and future prospects of this Colony are to me, not understanding these subjects, very puzzling. The two main exports are wool and whale oil, and to both of these productions there is a limit. The country is totally unfit for canals, therefore there is not a very distant point beyond which the land carriage of wool will not repay the expense of shearing and tending sheep. Pasture everywhere is so thin that settlers have already pushed far into the interior. Moreover, the country further inland becomes extremely poor; agriculture, on account of the droughts, can never succeed on an extended scale; therefore, so far as I can see, Australia must ultimately depend upon being the centre of commerce for the southern hemisphere, and perhaps on her future manufactories. Possessing coal, she always has the moving power at hand. From the habitable country extending along the coast, and from her English extraction, she is sure to be a maritime nation. I formerly imagined that Australia would rise to be as grand and powerful a country as North America, but now it appears to me that such future grandeur is rather problematical." Before his lamented death, no doubt, Darwin had seen cause to modify his early impressions, and to recognize the gigantic strides made by Australia towards the achievement of a national greatness second only to the North American Republic to which he referred.

As bearing on the interesting theory propounded by the Rev. J. Tenison-Woods, in his paper on the Geology of the Hawkesbury Sandstone, to which I have alluded, I should like to quote Mr. Darwin's impressions on visiting the remarkable scenes presented to his observation in crossing the Blue Mountains. He says: "The first impression, on seeing the correspondence of the horizontal strata on each side of these valleys and great amphitheatrical depressions, is that they have been hollowed out, like other valleys, by the action of water; but when one reflects on the enormous amount of stone which on this view must have been removed through mere gorges or chasms, one is led to ask whether these spaces may not have subsided. But considering the form of the irregularly branching valleys, and of the narrow promontories projecting into them from the platforms, we are compelled to abandon this notion. To attribute these hollows to the present alluvial action would be preposterous, nor does the drainage from the summit-level always fall, as is remarked, near the Weatherboard into the head of these valleys, but into one side of their bay-like recesses. Some of the inhabitants remarked to me that they never viewed one of these bay-like recesses, with the headlands receding on both hands, without being struck with their resemblance to a bold sea-coast. This is certainly the case. Moreover, on the present coast of New South Wales, the numerous fine widely-branching harbours, which are generally connected with the sea by a narrow mouth worn through the sandstone coast cliffs, varying from one mile in width to a quarter of a mile, present a likeness, though on a miniature scale, to the great valleys of the interior. But then immediately occurs the startling difficulty, why has the sea worn out these great though circumscribed depressions on a wide platform, and left mere gorges at the openings, through which the whole vast amount of triturated matter must have been carried away? The only light I can throw upon this enigma is by remarking that banks of the most irregular forms appear to be now forming in some seas, as in parts of the West Indies and in the Red Sea, and that their sides are exceedingly steep. Such banks, I have been led to suppose, have been

formed by sediment heaped by strong currents on an irregular bottom. That in some cases the sea, instead of spreading out sediment in a uniform sheet, heaps it round submarine rocks and islands it is hardly possible to doubt after examining the charts of the West Indies; and that the waves have power to form high and precipitous cliffs, even in land-locked harbours, I have noticed in many parts of South America. To apply these ideas to the sandstone platforms of New South Wales, I imagine that the strata were heaped by the action of strong currents and of the undulations of an open sea on an irregular bottom, and that the valley-like spaces thus left unfilled had their steeply-sloping flanks worn into cliffs during a slow elevation of the land, the worn-down sandstone being removed either at the time when the narrow gorges were cut by the retreating sea, or subsequently by alluvial action." I know not what our friend Mr. Tenison-Woods may think of these impressions. They do not agree with his own theory, and may not stand the test of the advanced geological science of the present day; nevertheless they are interesting as being the early impressions of so celebrated an observer of nature as Darwin.

I will, if you will allow me, quote the words with which he closes his chapter on New South Wales: "Farewell, Australia! you are a rising child, and doubtless some day will reign a great princess in the south; but you are too great and ambitious for affection, yet not great enough for respect. I leave your shores without sorrow or regret."

Darwin's hypothesis of evolution has been the subject of much controversy. Its adoption by such a leading scientist as Professor Huxley has led many to assume that it has been scientifically proved. But the evidence for the antiquity of man has, upon reconsideration, had its foundations severely shaken. On Darwin's hypothesis, 20,000 years would form but a fraction of the time required to bring about the result which his theory of minute changes demands. It has been argued by many distinguished geologists that the generally admitted glacial and post-glacial condition of the earth, of which the evidences are unmistakeable,

have been such as to break the continuity of mammalian life, and so to destroy Darwin's theory. He himself admits, in the "Origin of Species," 6th edition, page 330, that there is evidence of every conceivable kind, organic and inorganic, "that within a very recent geological period Central Europe suffered under an arctic climate; and the ruins of a house burnt by fire do not tell their tale more plainly than do the mountains of Scotland and Wales tell their tale of glaciation." And in the latest edition of the "Origin of Species" he says (pp. 448–50): "I had hoped to find evidence that the tropics, in some parts of the world, had escaped the chilling effects of the glacial period, and had afforded a safe refuge for the suffering tropical productions; but all the geological evidence we possess relating to that period points to conditions that would render almost inevitable a break in the continuity of mammalian life."

Dr. Page, in his "Text Book of Geology," referring to Britain and the North of Europe, says that "the large mammalia of the earlier tertiaries disappeared, and the land was submerged to the extent of several thousand feet. Sir Henry de la Beche, Sir Roderick Murchison, and Sir Charles Lyell all agree in the evidences of this glacial epoch, extending over the whole of the eastern hemisphere. Sir Charles Lyell says, in his "Principles of Geology," 11th edition, p. 253, that "in one part of the glacial period the desert of Sahara was under water between latitude 30 and 20 (a breadth of nearly 700 miles), so that the eastern part of the Mediterranean communicated with that part of the ocean now bounded by the west coast of Africa." Any retreat of the mammalia southward on the African continent would thus have been effectually cut off.

It has been confidently asserted that man had no existence in pre-glacial times, and that every attempt to prove otherwise has signally failed. Now, if before the glacial epoch man was not, but when it passed away man was there, when did the evolution take place? This is the question that has failed to receive a satisfactory solution. Everything seems to turn upon this one point—that is,

the simultaneous and universal prevalence of the glacial period. Could that be once firmly established, then, it is admitted, it would indeed be fatal to Darwin's doctrine. But the proof seems to be wanting that the entire globe was involved at one and the same time in such glacial conditions as would be destructive of all terrestrial life. The doctrine of evolution is thus beset with difficulties; and the true attitude of science, according to Darwin, is to accumulate facts which may unravel the mystery by which the question is surrounded.

Of all the students of nature in the present era none came up to Darwin in his patient, earnest inquiry into and collection of facts. The object of his search was truth, and whatever has been true in the life-work of Darwin will live, whilst whatever has been mistaken will die; and I think we may conclude, from all we know of his gentle spirit and honest nature, that no man—as has been well said of him—would more rejoice at the death than would Darwin himself.

Gentlemen, I hope you will not think that I am carrying my remarks on the work and character of Darwin to too great a length. I must confess to a deep admiration for the man by the study of his works. His earnestness and his modesty are distinguishing traits in his character—they inspire one with admiring interest; and even if we do not accept his creed or agree with his inferences, or if they should hereafter prove erroneous, that would not detract in the slightest degree from his fame as a naturalist, nor would it lessen the profound sense of gratitude to which his great discoveries in the field of natural science most justly entitle him.

If you would kindly bear with me a little longer, I should much wish to quote to you a few passages collected from the addresses delivered at the meeting of the British Association, held at Southampton last year, expressive of the deep sense entertained by scientific men of the highest eminence as to the loss sustained through Darwin's death. At the meeting of the British Association in Southampton, in the month of August last, the President, in

his opening address, spoke of the "irreparable loss science had sustained in the person of Charles Darwin, whose bold conceptions, patient labour, and genial mind made him almost a type of unsurpassed excellence." Professor Gamgee, President of the Biological Section, alluded to Darwin's death in these terms:—"So much has lately been written concerning that veteran in science, Charles Darwin, who will figure in the history of the human intellect with such men as Socrates and Newton, that I feel no words of mine are needed to add to your sentiments of admiration and respect. He has made for himself an imperishable reputation, as one of the subtlest, most patient, and most truthful observers of natural phenomena. His powers as an observer were, however, almost surpassed by his ingenuity as a reasoner and his power to frame the hypotheses most apt to the actual state of science, to reconcile all the facts which came within the range of his observation. We remember the time when the name of Charles Darwin, and the mention of the theories connected with his name, awakened, on the part of many, sentiments of antagonism and of unreasonable opposition; but we have lived to witness what I may term a great reparation. Even those who did not know the man and the qualities of mind and heart which have endeared him to so many, have come to recognize that in his work he was actuated by a single-hearted desire to discover the truth, and after calm reflection they have conceded that his studies and his views —like all studies and all views which are based upon the truth— not only are not irreconcilable with but add to our conceptions of the dignity and glory of God." And here I may be allowed to remark that it is impossible to study the writings of Darwin, and especially the one in which he treats of "The Descent of Man," without recognizing an undercurrent of reverent sentiment, which in one or two places finds expression in words, telling us that man differs from the animal creation, if not in physical characteristics which cannot be bridged over, at least in moral attributes, and in the ennobling belief in God, by his power of forming that conception of the Deity which, to use Darwin's own words, "is the grand idea of God hating sin and loving righteousness."

Professor Lawson again, who filled the Presidential Chair in the department of Zoology and Botany at this same meeting, opened his address by observing that, "Although the President has made eloquent allusion to the great loss which the whole scientific world has sustained in the death of our great countryman, Charles Darwin, still I am sure I shall not be thought to be doing more than is my bounden duty if I, too, from this Chair, give some utterance to the deep sense of irretrievable loss which all we in this department must feel has fallen upon us. It was on this platform more than in any other place that the great battle of the doctrine of evolution, which is so intimately connected with Mr. Darwin's name, was fought. It was on this platform that his friends and coadjutors, Mr. Alfred Wallace, Sir Joseph Hooker, Professor Huxley, and many others, expounded his views, and added by their own researches to the sum of evidence which has finally convinced all the leading scientists of the day of the substantial soundness of his speculation. There are many of us now present who will never forget the intense interest and excitement which attended the discussions which took place in the earlier days of the history of the doctrine of evolution; nor shall we forget with what bitterness Mr. Darwin's views were met on the occasion of the Association's meetings at Oxford, Cambridge, Norwich, and Exeter, nor how everything that came from his pen was regarded with feelings of suspicion and hatred; and how even his blameless and guileless character was frequently assailed by those who could only see in his works a desire to dethrone all that which they considered sacred. It is also in the recollection of all of us here how he met the attacks which were made upon him by silence, never returning opprobrious declamation or insulting sarcasm by angry or contemptuous answers. Ever conscious that his aim was to search out the truth and that only, he could afford to disregard contumely and misrepresentation. Indeed, so completely was he imbued by the consciousness that his aim was righteous, that the taunts and sneers which were lavished upon him seem to have been powerless even to vex him. Again, you in this department will remember how these

attacks year by year grew less frequent and less bitter, how wholesale denunciation gave place to legitimate questionings of particular points, and how even personalities at last gave place to general professions of esteem and respect, till at last, but a few short months ago, we witnessed the burial of his remains in the national mausoleum, and saw his coffin followed not only by scientists and laymen, but by priests of various religious denominations, all of whom sought by their presence to testify to the recognition of his great worth, and perhaps some to atone in a measure for the unjust things which they might have said or thought about him when they were unacquainted with his character, and only half acquainted with the object and nature of his labours. But although our hearts are still sore at the remembrance of our loss, there are many things the reflecting upon which may well console and reconcile us to it. In the first place, he had been spared to us till such a time as we were able to walk without further needing the assistance of his guiding hand. In the next place, his life, although far from having been free from suffering, had been prolonged to a green old age, and he was able and delighted to work almost to the very day of his death. He had the satisfaction of looking back on a long life happily and worthily spent, and of living to see the doctrines which he had promulgated gradually acknowledged, and finally universally accepted. He was surrounded by devoted friends, and regarded by all naturalists with a reverence and affection such as has fallen to the lot of none since the time of Linnæus."

There is still one further tribute to the beauty of Darwin's character, and to the estimation in which he was held by his contemporaries in science, which, coming from the lips of the President of the Royal Society of England, should not be omitted. In his address at the anniversary meeting of the Society, on the 30th November last, Dr. Spottiswoode said: "Of Darwin and his works it is not for me to speak. Others with wider knowledge, after long intercourse and with greater authority, have said what was possible at the moment, and the full story of his life

is now being written by faithful hands. But I consider it no common piece of fortune to have lived within an easy distance of his house; to have been able by a short pilgrimage to enjoy his bright welcome and his genial conversation, and to revive from time to time a mental picture of that, my ideal of the philosophic life."

Such are the evidences collected from amongst many of the estimation in which Darwin was held by men of the highest eminence in the scientific world, and I feel that no apology is needed for introducing them to your notice in this *résumé* of this distinguished man's life. It will be remembered that at our monthly meeting in September last a resolution was proposed by your President, and adopted by the members present, expressive of our sympathy with the widow and family in their bereavement, and of the irreparable loss the scientific world has sustained in Darwin's death. The resolution was couched in these terms:— "The members of the Royal Society of New South Wales having heard with deep regret of the death of Charles Robert Darwin, one of their most distinguished honorary members, desire to express their sense of the loss they, with the whole scientific world, have sustained, and they desire that the expression of their heartfelt sympathy shall be conveyed, through their President, to the widow and family of the late distinguished naturalist." To his letter conveying this resolution Professor Liversidge has shown me a reply from Mr. Francis Darwin, in which he says: "My mother has been very much touched and gratified by the sympathy so abundantly and kindly expressed by Societies like yours. The strong sympathy and interest which my father felt in science in the Colonies makes us value your letters especially. I am afraid my formal letter sounds cold and stiff, but I do assure you we all feel grateful for the kind thoughts which dictated the letter to my mother."

I should not wish to close this address without referring to the great calamity which befel this community, and particularly our scientific friends, the members of the Linnæan Society, in the destruction by fire of the Exhibition Building,

commonly known as the Garden Palace, which occurred since our last anniversary. The building had been made the depository, not only of many valuable records belonging to the Government, but of the very valuable collection of geological specimens purchased by the Country, from the representatives of our former friend and distinguished Vice-president, the Rev. W. B. Clarke. These, with their accompanying notes, were all consumed in the flames, and with them the entire library of the Linnæan Society, comprising many works of rare excellence, difficult to replace. A resolution was passed at our meeting in October last expressing the regret and sympathy of the members of the Royal Society, and was forwarded by your President to the President of the Linnæan Society, with an offer of such assistance as the use of our rooms for their meetings might afford. The offer was courteously acknowledged, with the intimation that the accommodation afforded by the Free Public Library was sufficient to satisfy their present wants.

It is fitting, moreover, that I should notice the disappointment which attended the efforts of our able and popular Astronomer for the observation of the transit of Venus. Unfavourable weather over the whole of the Colony frustrated his well-laid plans for the observations at each of the stations selected for the purpose; and I believe that the Queensland observers specially appointed from home were equally unfortunate. I am certain that I express the sentiments of every member of the Society when I say that Mr. Russell had the sympathy of every one of them in his disappointment, not only on public but on private grounds; for we know how much time and thought, trouble and anxiety, the preparations cost him, and how keenly he felt the failure of them. Special expeditions for the observation were organized in England for the following places, viz.:—Madagascar, the Cape of Good Hope, Bermuda, Jamaica, Barbadoes, Queensland, and New Zealand. The promise of hearty co-operation by Mr. Russell in New South Wales, and by Mr. Ellery in Victoria, rendered any special assistance from home quite unnecessary in the case of these Colonies. The results of the observations that have proved successful have yet (I believe) to be made public.

And now, gentlemen, I will detain you no longer than is necessary to reiterate my acknowledgments of the consideration extended to me during the time I have had the honor of filling the Presidential Chair, and to express a hope that the interest in the work we are engaged in may be sustained, and the progress of the Society as satisfactory for the time to come as it has been in the time that is past. I cannot, however, vacate the Chair without placing upon record my sense of the important services rendered to the Society by, and of the obligations we are under to, our Honorary Secretaries. It is not too much to say that to the indefatigable labours of Professor Liversidge and Dr. Leibius are, in a very great measure, owing the progress, the usefulness, and the popularity attained by the Royal Society. Indeed I think I am not exaggerating when I say that the Society is acquiring such a status in the public estimation that we may, without presumption, look forward to the time when its advice and assistance on questions of public interest involving scientific inquiry may be sought by the Government of the Country. To achieve this high position should be our constant aim, and thus—although at a respectful distance, perhaps—should we be found treading in the steps of our great English prototype.

Before I sit down I desire, on behalf of the Council, to invite special attention to that clause in their report which refers to the state of the building fund. It seems to the Council very desirable that the debt upon the building should no longer form a charge upon the funds of the Society; and it is hoped that, by special efforts on the part of its members, my successor in the Chair may be able to announce at our next anniversary that the debt has been wiped out.

Sydney: Thomas Richards, Government Printer.—1883.