

Joshua Field, Esq.; Robert Edmund Grant, M.D.; Rev. William B. L. Hawkins, M.A.; Edward John Johnson, Captain R.N.; John D. Llewelyn, Esq.; Captain Thomas Locke Lewis, R.E.; Rev. Humphrey Lloyd, M.A.; Francis Marcet, Esq.; Sir William Molesworth, Bart.; Earl of Minto; Moses Montefiore, Esq.; Dr. Archibald Robertson; the Rev. William Taylor; Charles Wheatstone, Esq.

*Deceased: on the Home List.*—John Bell, Esq.; William Blane, Esq.; Richard Blanshard, Esq.; the Right Honourable Reginald Pole Carew; Lewis Andrew de la Chaumette, Esq.; Lord Bishop of Ely; Sir William Gell; Dr. Gillies; William Henry, M.D.; James Horsburgh, Esq.; David Hosack, M.D.; William Lax, Esq.; William E. Leach, M.D.; William Marsden, Esq.; William M. Pitt, Esq.; John Pond, Esq.; Richard Saumarez, Esq.; Sir John Sinclair, Bart.; Rev. G. A. Thursby; Pelham Warren, M.D.; William R. Whetton, Esq.; Sir Charles Wilkins, K.H.; Grant David Yeats, M.D.

*On the Foreign List.*—Monsieur Ampère; Monsieur Jussieu.

His Royal Highness the President, then addressed the Society in the following words:—

GENTLEMEN,

I APPEAR before you, after an absence of two years from this chair, under circumstances which deeply affect my feelings. I have been secluded, during nearly the whole of that period, from the active business of life and of society, by the slow but sure approaches of almost total blindness; by preparations for a most delicate and, to me, most important operation, and by the precautions which were necessary to accomplish my recovery, after it had been most skilfully and successfully performed. In resuming now, therefore, my public duties in this place, I feel sensibly the novelty of my situation, as if I were entering, by the blessing of God, upon a new tenure of existence, which, whilst it offers to my view many prospects of happiness, imposes upon me likewise heavy responsibilities; and I can only express my fervent hope and prayer, that the same merciful Providence which has vouchsafed, through his appointed means, to restore me to sight, may enable me, like a willing and humble-minded scholar, to apply the lessons taught me by the experience of my past life, to the just and useful regulation of that portion of my course which I may be still permitted to run.

It is my first and most pleasing duty, Gentlemen, to thank you for your congratulations upon my recovery, which have been conveyed to me in terms most grateful to my feelings. I have on many occasions experienced both your kindness and forbearance, and I deeply regret that circumstances should so frequently have compelled me to appeal to them: but at no moment could the expression of your good-will be more welcome to me than at the present, when I am enabled to reappear amongst you, upon being again entrusted with the possession of that blessing, the value of which I have learnt to appreciate more fully by my experience of its privation.

Could I have foreseen, when the progress of my malady first removed me from public life, the length of time which was to elapse before its termination, even in case I could have felt assured that it would end as fortunately as it has for me, I would not have ventured to trespass, so long as I have done, upon your indulgence, but would at once have retired from the proud situation of your President; for though I could rely with perfect confidence upon the cordial cooperation of the members of the Council, and should have felt satisfied that they would not allow the real interests of the Society to suffer from my absence, yet I could not have continued altogether free from alarm, lest its dignity should be lowered in public estimation, were its affairs long allowed to be conducted with an incomplete establishment; or the becoming authority of this Chair should be lessened by frequent changes in its occupation, particularly on great and public occasions. I was always led to believe that the disease under which I laboured would have been sufficiently advanced to justify an operation much sooner than eventually proved to be the case, and I was therefore induced to hope that my absence from the Society would not have been prolonged for such a period as to be productive either of reasonable complaint, or of serious inconvenience. When, however, the day of your last Anniversary approached, and that hope had proved delusive, I felt it my duty to resign my trust, however reluctant to sever myself from a body with which I am so honourably connected; and I only consented to continue in its occupation, when kindly pressed to do so by the members of the Council, under the conviction that the time for performing the operation was so near at hand, that its success or failure would speedily decide whether I should be capable of again taking an active part in our concerns, or be compelled to terminate my official connexion with you for ever. I thank God that I am now enabled, in person, to express my heartfelt gratitude for your kindness to me on all occasions, and especially on the present; and I beg you to feel assured that the remembrance of your sympathy with my affliction whilst it continued, and of your warm congratulations upon my happy recovery, will ever tend to cement more closely the ties of affection and friendship which subsist between me and the Fellows of the Royal Society.

My necessary absence from my duties amongst you will prevent my entering in much detail upon the ordinary transactions of the Council, and of our weekly meetings during the last year; for a particular statement of which I must refer to the Report of the Council, which will be read to you by one of your Secretaries, Dr. Roget. There are only two topics connected with them to which I feel myself particularly called upon to allude.

The first is the publication of the classed catalogue of our library; the second relates to the discussions which have been attempted to be raised upon the Minutes of your proceedings on the ordinary days of your assembling during the last year.

It is well known to you, Gentlemen, that, after the transfer

of the Arundelian MSS. to the British Museum, and the great additions which your library received from purchases and exchanges of books, necessarily consequent upon that transaction, Mr. Panizzi was employed by the Council to draw up a classed catalogue of its contents. Such a compilation it was considered would be of great value, not merely to the Fellows of the Society but to men of science generally, by making known to them the treasures of a library singularly rich and complete in journals, and works on mathematical, physical, astronomical, and anatomical science, and by presenting them in such a form that persons engaged in works of research, or in any specific subject of scientific inquiry, might be made at once acquainted with nearly all the sources from whence they could derive information. This catalogue is now printed, or more correctly speaking, *composed*, and is undergoing such a revision from different Members of the Council, who have kindly undertaken this task, as is calculated to make it as correct and complete as the circumstances of the case will allow it to be. I have reason to hope that this work will be shortly placed in the hands of the Fellows, and that the example which it will present of what may be accomplished by the exertions of a learned body with very limited funds at its command, will not be without its influence in hastening the completion of a similar work with respect to our great national library, upon a scale proportionate to its importance, and worthy of a great and wealthy people, amongst whom literature, science, and the arts are duly cultivated and pursued.

The discussions that have at different times during the last year been raised upon the Minutes of your proceedings, constitute the second subject which I wish especially to notice.

I am quite sure, Gentlemen, that you will agree with me in thinking, that no one circumstance has contributed so effectually to maintain the dignity of the Royal Society, as the prohibition of personal debate in the transaction of its ordinary business; and if I wished for any additional confirmation of this opinion, I would appeal to the very serious amount of irritation which it produced amongst you in the course of the last year, though originating in the most trivial causes. It was chiefly with a view to avoid inconveniences of this kind, and to provide an outlet for the proper expression of opinion, when any just occasion of complaint might exist, or any extraordinary circumstance occur, and to terminate disputes whenever unfortunately they might arise, that the Council, at the last revision of our statutes, passed a by-law, as they were fully authorized to do, which makes it imperative upon the President and Council to call an extraordinary meeting of its Members, upon the due presentation of a requisition for that purpose, signed by at least six Fellows, and setting forth, in specific terms, the objects for which it was required to be summoned, provided those objects be not inconsistent with the charter and statutes of the Society. Such extraordinary meetings being strictly domestic, and confined to the Fellows of the Society only, appear to me not merely to offer a sufficient security against any great mismanagement of the affairs of

the establishment, but likewise to protect your ordinary meetings from those irregular and somewhat tumultuary discussions on matters of business, or personal conduct, which might otherwise be in danger of arising.

I believe that many persons have expressed a wish that the regulations of this Society should be so far relaxed as to allow, in conformity with the practice of some other similar establishments, discussions upon the papers, and those papers only, which are read before us : I confess, for my own part, that I am not at present prepared to accede to this recommendation. A practice which has been sanctioned by the usage of more than a century and a half, and found to be productive of scientific results unrivalled for their extent and value, should not be abandoned by us without the most mature consideration ; and though I am the last person to recommend a slavish submission to the dictates or to the customs of antiquity, which may be unsuited either to the altered circumstances of modern times, or incapable of defence upon other and independent grounds, yet a reverence is justly due both to maxims and observances which have been sanctioned by high authorities, or connected with great and important public benefits. It may be quite true that such discussions would tend materially to increase the personal interest which is taken, by many of our members, in our proceedings ; but when we consider the abstract and abstruse nature of many of the papers which come before us, and which no single reading can make perfectly intelligible, even to the best-instructed hearer, as well as the vast variety of subjects which they comprehend, I think we may fairly infer that such discussions would rarely add much to the stock of facts or of reasonings which they contain, or that their influence would be materially felt in the publications of your Transactions, which have always formed, and which ought always to form, the great object of the foundation of this Society, and the only means by which its character and influence can continue to be maintained unimpaired throughout the civilized world. When we likewise take into further consideration the irregularities and personalities to which such debates would on some occasions give rise, unless very strictly limited and very authoritatively controlled, as well as the indirect influence which the premature expression of opinions upon the contents and merits of individual papers might exercise upon the decision of the Council in selecting them for publication, you will be disposed to agree with me, I trust, in thinking that such an experiment would be at least dangerous to the peace, as it very possibly might prove ultimately injurious to the scientific character, of the Royal Society.

But let me not be misunderstood : the success that has attended this practice in the institution which has contributed so powerfully to the rapid advance of a highly popular science, might appear to offer a practical refutation of such grounds of alarm as those which I have ventured to suggest ; but the cases of the two Societies are extremely different. The science of geology is eminently a science of observation, where facts, collected from all quarters of the globe,

and accurately recorded, possess a value which is in many cases independent of the theoretical inferences that may be deduced from them: it is a science which disdains not the aid of the humblest labourers who can widen the range of its observations; it is a science also in which both facts and theories can be communicated more accurately and more rapidly by a graphic and vivid oral description, aided by an immediate reference to maps, drawings and specimens, than by the most elaborate and laborious written descriptions; it is a science which can only be learnt by being seen, and which can only be seen through ten thousand eyes. In all these, and in many other important particulars, it differs from the majority of those sciences which most commonly come under the notice of the Royal Society; and the many circumstances which not only justify, but in some degree render necessary, the discussions upon the papers read, or the facts communicated to the Geological Society, would almost entirely cease to apply if extended to us. And when we further consider the varied knowledge and accomplishments, the lively wit and rare eloquence of many of those distinguished men who usually take part in those debates, and who are themselves the highest authorities in the very science which on such occasions they are called upon to illustrate and to teach, we should be disposed rather to regard them as lectures delivered by great masters to pupils who come to learn, than as the discourses of philosophers, amongst each other, upon the more abstract and less attractive departments of human knowledge.

And now, Gentlemen, before I conclude this portion of my address, there remains but one other point which I think it my duty to notice. A trust of great importance, imposed on the President of the Royal Society by the will of the last Earl of Bridgewater, the most onerous and responsible duties of which devolved upon my worthy friend and predecessor Mr. Davies Gilbert, is at length terminated, by the appearance, which has been long and anxiously expected, of the eighth Treatise of the series. It would ill become me to speak of the mode in which that important duty was discharged by him, or of the principles which guided himself and his distinguished assessors, in the selection either of subjects or of the authors; but a list which is headed by the name of Whewell and closed by that of Buckland, can hardly be considered as an unworthy representation of the science and literature of this country.

Amongst the losses sustained by the Society during the last year, will be found many names of persons distinguished for their services both in literature and in science; and if we might be allowed to form a judgement from the very great proportion of these eminent men whose ages have approached the extreme limits of human life, we might conclude with great confidence that the most severe studies and the most trying climates, if pursued with temperance or guarded against with care, are not unfavourable either to health or longevity. The list which has been placed in my hands contains the names of twenty-one Fellows and two Foreign Members, and I greatly regret that the notice which I am enabled to take of some of the most

distinguished of their number should be necessarily so slight and imperfect.

Mr. Pond succeeded Dr. Maskelyne as Astronomer Royal in 1810, and retired from that important situation, under the pressure of many infirmities, in the autumn of last year: he was formerly a member of Trinity College, Cambridge, where he was a pupil of Professor Lax, whose name appears also in the list of deaths which has been just read to you. After leaving the University, he travelled in many parts of the East, and particularly in Egypt, partly urged by the spirit of adventure which is natural to youth and partly with a view of making astronomical observations in climates more pure and more regular than our own. After his return home in 1800, he settled at Westbury, in Somersetshire, and devoted himself, amidst other pursuits, chiefly to astronomy, making use of a circular instrument of  $2\frac{1}{2}$  feet diameter, which had been constructed and divided by Troughton with more than ordinary care. With this instrument he observed by a peculiar method, the declinations of some of the principal fixed stars, which were communicated to the Royal Society in 1806; and it afterwards enabled him to establish the fact of a change of form in the great quadrants at Greenwich, a discovery of great importance, inasmuch as it not only led to the substitution of circular instruments for them in our national observatory, but subsequently likewise to his own appointment as Astronomer Royal.

After Mr. Pond's establishment at Greenwich, he communicated to the Royal Society from time to time, not merely the general results of his labours, but likewise his views of the theory of astronomical observations and of the grounds of judging of their relative accuracy: his system was to observe differences of declination and right ascension, making every star a point of departure for the rest, and considering the pole as a point in the heavens whose position was capable of a determination, equally, and not more accurate than that of any given star. To such a view of the theory of observation, circular instruments were particularly adapted, and there is no reason to doubt that the relative catalogues of the stars which were formed by Mr. Pond were more accurate and complete than those of any preceding or cotemporary observer. Such a result, however, might have been reasonably expected from the great powers and resources of the establishment over which he presided and which he had himself been the chief means of calling into action.

The method which was adopted by Mr. Pond to determine the limits of the annual parallax of certain fixed stars by means of fixed telescopes of great focal length, was singularly ingenious and complete. The existence and amount of such a parallax had been asserted and assigned by Dr. Brinkley, in  $\alpha$  Lyræ,  $\alpha$  Aquilæ, and  $\alpha$  Cygni; but this opinion, although most ingeniously and even obstinately vindicated and maintained by him, was, in the judgement of most other astronomers, most decisively negatived by Mr. Pond, who showed that the parallax of those fixed stars, supposing its amount to be sensible, was confined within the limits of the errors of the most delicate and perfect observations which have been hitherto made. There

is no great question in astronomy, the present position and limits of which are more satisfactorily settled.

Mr. Pond was remarkable for his skill and delicacy in the manipulation of his instruments, and no man was more capable of forming a correct judgement of their capacities and powers, and of the nature and extent of the errors to which they were liable: he was in the habit of placing great reliance on the results of a great number of observations, when no apparent or assignable cause existed for giving a determinate sign or character to the errors of individual observations: this confidence, however, was founded on his great knowledge of the theory of observation, and was fully justified by a comparison both of his own results with each other, and with those of other observers.

Mr. Pond was a man of gentle and amiable character, and singularly candid and unprejudiced. His health for many years before his death was greatly deranged, but he continued to struggle against the progress of his infirmities, and, from a conscientious feeling, he never abandoned the active duties of superintending the observatory, though hardly able to sustain them. He died in August last, at Lee, in Kent, and was buried in the tomb of his great predecessor Halley.

Mr. Pond, though a great practical astronomer and a man of uncommonly clear intellect and correct judgement, was deficient in one very considerable qualification for the station which he filled,—I mean, an acquaintance with the higher branches of Analysis, and their application to Physical Astronomy. His successor, Gentlemen, is well known to you, and needs no eulogium of mine; but I cannot omit the opportunity which is now offered to me of congratulating the friends of astronomy and of science on the appointment of a gentleman to this most important office, who is second to none in this country in his great attainments in almost every department of accurate science, in his indefatigable and systematic industry, in his high sense of public duty, and in his profound knowledge both of physical and of practical astronomy.

The names which I shall next bring before your notice are those of three men, venerable alike for their great age and public services, and who must always be regarded as entitled to hold a distinguished place amongst that illustrious body of great men, who have been produced or brought forward by the important trusts, the varied employments, and, let me add likewise, the great rewards of our Indian empire; I mean Sir Charles Wilkins, Mr. Marsden, and Captain Horsburgh.

Sir Charles Wilkins went to India in 1770, and was the first Englishman who thoroughly mastered the difficulties of the Sanscrit language, of the classical works in which he published several translations, and smoothed the obstacles to its attainment by a noble grammar, which he composed for the especial benefit of the students of the East India college at Haylebury, of which he was the oriental visitor and examiner from the period of its first establishment. He formed with his own hand the matrices of the first Bengali and Persian types which were used in Bengal, and he was the chief agent, in conjunction with Sir William Jones, in the esta-

blishment of the Asiatic Society of Calcutta, whose labours have contributed so greatly to the advancement of our knowledge of the languages and general condition of the provinces of our Eastern empire. It is now more than fifty years since he returned to this country, in possession of a competent fortune and vigorous health, which he continued to enjoy, in conjunction with every social and domestic comfort, with hardly any interruption, to the day of his death. Sir Charles Wilkins was appointed, in 1800, Librarian of the great collection of Oriental MSS., which are preserved in the India House; and this Society is indebted to him for the catalogue and description of the Sanscrit and other Oriental MSS., which were presented to it by Sir William and Lady Jones.

Sir Charles Wilkins was the father-in-law of Mr. Marsden, though nearly his cotemporary in age. They went to the East about the same time, and whilst one devoted himself to the study of the languages and literature of the ancient and modern inhabitants of continental India, the other availed himself of his position on the great island of Sumatra and the Malayan peninsula, to gain a thorough acquaintance with the present condition and past history of that active and adventurous race, whose character has been so deeply and so generally impressed upon the languages and customs of nearly all the tribes who inhabit the innumerable islands of the Indian Archipelago and of the Pacific Ocean. His account of Sumatra, which appeared soon after his return from the East, may be considered as a model for all monographs of the history, languages, customs, and statistics of a particular nation. He subsequently published a Malay dictionary of great authority and value; and in many separate memoirs, one of which appeared the year before his death, he traced with great learning and research the general characters and analogies of the East Insular and Polynesian languages, and proposed an alphabet for their uniform and intelligible transcription. Mr. Marsden was the author of four papers in our Transactions on some remarkable natural phenomena in the island of Sumatra, on the Mahometan æra of the Hejira, and on the chronological periods of the Hindoos; the two last of which show a very extensive acquaintance with Arabian and Hindoo literature. He published very elaborate catalogues of his fine collections of vocabularies and grammars, and also of his oriental coins; the first of which he presented in his life-time to King's College, London, and the second to the British Museum. Mr. Marsden returned to England from the East at an early age, and was Secretary to the Admiralty during the most eventful period of the late war. He continued to enjoy to an extreme old age, extraordinary vigour both of mind and body, equally respected and beloved for his great learning and very varied acquirements, for his independent and disinterested character, and for his many social and domestic virtues.

Captain James Horsburgh entered the sea service of the East India Company at a very early age, and in a very humble capacity, and raised himself by his perseverance, good conduct, and strong natural talents to the command of a ship, in which he was employed, for a considerable time, in a hydrographical survey of many of the coasts



and islands of the Indian and Chinese seas. It was soon after his return to Europe in 1805, that he communicated to this Society, through Mr. Cavendish, his very remarkable observations of the equatorial motions of the mercury in the barometer when at sea; and contributed along with Captain Flinders, both by these observations and by other directions which he subsequently published, to make more fully known the importance of barometrical observations at sea, as affording indications of great or sudden atmospheric changes. Captain Horsburgh was soon afterwards appointed Hydrographer to the East India Company, with the usual judgement, and discrimination of the Directors of that Body, in the selection and rewarding of their officers; and it was in this capacity that he published not merely a great number of charts, but also "the East India Sailing Directory," the result of the unremitting labour of many years, and founded partly upon his own observations, and partly upon a very accurate examination and reduction of the vast hydrographical records which are in the possession of the East India Company; forming altogether one of the most valuable contributions that was ever made by the labours of one man to the interests of navigation. Captain Horsburgh was the author of other works connected with his favourite science, and he continued to devote himself, until within a few days of his death, with almost unexampled industry, to those pursuits which had formed, throughout his whole life, the means by which he sought to benefit his countrymen and mankind.

Mr. William Blane was the author of a paper in our Transactions, written fifty years ago, on the production and preparation of Borax, which is brought from Jumlat in Thibet, over the Himalaya mountains into Hindostan.

Dr. David Hosack, of New York, was the author of a paper in our Transactions, published in the year 1794. It related to the explanation of the power which is possessed by the eye of adapting itself to different distances, which he attributed to the action of the external muscles of the eye, and not to the dilatation and contraction of the iris, nor to the muscularity of the crystalline lens, by which its convexity could be increased or diminished, a doctrine which had been promulgated in a paper by Dr. Thomas Young, in the preceding year. This subject is one of great interest, and has been very frequently agitated; and though an illustrious foreigner, M. Arago, has recently defended the theory of Dr. Young with great ingenuity and warmth, yet physiologists and anatomists are by no means agreed on the adoption of this or any other single explanation.

Mr. John Bell was Senior Wrangler at Cambridge in 1786, and a Fellow of Trinity College. Though labouring under physical disadvantages of no ordinary kind, and such as were apparently the most adverse to success in the public exercise of his profession as a lawyer, yet he conquered every difficulty and reached the highest eminence by his great acuteness and strength of mind, his extensive legal knowledge, and, not a little, likewise, by his sturdy integrity and love of truth, which he respected,—a rare virtue,—even in advocating

the claims of a client. Mr. Bell, with an uncommon exercise of philosophy, retired from the active duties of his profession, whilst in the receipt of a splendid income from it, on the first warnings of the approaches of the infirmities of old age. He was a man of great liberality and kindness of heart, and remarkable for the steadiness of his attachment to a large circle of professional and other friends.

The Rev. William Lax, formerly Fellow of Trinity College, and Lowndes's Professor of Astronomy and Geometry in the University of Cambridge, was Senior Wrangler in the year preceding Mr. Bell, and throughout life one of his most intimate friends: he contributed two papers to our Transactions; one in 1796, on a subject of no great importance, and the other in 1809, on the method of examining the divisions of astronomical instruments, in the same volume which contained papers on similar subjects by Mr. Cavendish and Mr. Troughton. The method proposed by Mr. Lax, though very ingenious, requires great labour and time, and is inferior in accuracy and efficiency to that which was adopted by Mr. Troughton for tabulating the errors of the primary divisions of circular instruments. Professor Lax was the author of Tables to be used with the Nautical Almanack, and he had built a small observatory at his residence in Hertfordshire, where he occupied himself for the last thirty years of his life with studies and pursuits connected with the advancement of astronomy.

Sir John Sinclair devoted nearly the whole of a very long and laborious life to pursuits and inquiries connected with the improvement of agriculture and the general benefit of his countrymen. He was a very voluminous author; and though different opinions may be entertained of the merit and usefulness of some of his later productions, the Statistical Account of Scotland which he originated, and arranged, will be a durable monument to his memory, presenting as it does a more complete and comprehensive record of the state of that kingdom at the period when it was compiled, than is to be found in the literature of any other country.

Dr. John Gillies, venerable alike for his great age and his amiable character, was the successor of Dr. Robertson, as the king's historiographer for Scotland: he was the author of a History of Greece and of the World from the conquests of Alexander to the age of Augustus, and he translated some of the Greek orators, the ethical, political and rhetorical treatises of Aristotle, upon whose speculative works generally he wrote a very enlarged commentary. He was a pleasing and popular writer, though not very profoundly acquainted with the great advances which have been made of late years in Germany and elsewhere in our knowledge of archæology and historical criticism.

Sir William Gell was well known as a topographical antiquary, and published works of great interest and research, some of them very splendidly embellished, on Pompeii, and on the modern, as illustrating the ancient topography of Troy, Ithaca, the Peloponnesus, Attica and Rome. He was a very accomplished artist and a man of great liveliness of conversation, and of very attractive man-

ners. Sir William Gell was formerly Fellow of Emanuel College, Cambridge, and was attached, for some time, in the quality of Vice-chamberlain, to the late Queen Caroline. He spent the later years of his life, a victim to the gout and other infirmities, at Naples, in the neighbourhood of those remarkable ruins which he had so carefully and so beautifully illustrated, and which continued to supply him, from day to day, with fresh objects of interesting inquiry.

Dr. Warren, though one of the most distinguished physicians in this metropolis, contributed very little, by his writings, to medical or general literature: he was considered to be an accomplished classical scholar, and a man of very extensive acquirements: he was a strenuous vindicator of the character and independence of his profession, and though his manners were somewhat abrupt, and sometimes apparently uncourteous, yet he was a man of very warm affections, and greatly beloved and respected by a large body of friends.

Those to whom Dr. William Elford Leach was known in his happier days, when in the full enjoyment of health and reason, can best appreciate the great loss which the natural sciences and our national museum sustained by that melancholy visitation, which, like the hand of death, terminated his scientific labours. His enthusiastic devotion to his favourite studies, his great knowledge of details, combined with no inconsiderable talents for classification, were eminently calculated to raise him to the very highest eminence as an original and philosophical naturalist. Though his career of research and discovery was prematurely cut short, yet we are chiefly indebted to him for the first introduction into this country of the natural system of arrangement in conchology and entomology, and for the adoption of those more general and philosophical views of those sciences which originated with Latreille and Cuvier. Dr. Leach was the author of a paper in our Transactions on the genus *Ocythoë*, to prove that it is a parasitical inhabitant of the Argonaut. He wrote several memoirs in the Linnæan Transactions; an excellent treatise on British Malacostraca: and he also contributed largely to the Zoological Miscellany, to Brewster's Encyclopædia and to the French *Dictionnaire des Sciences Naturelles*. He died of an attack of cholera on the 25th of August last, at the Palazzo St. Sebastiano, in the province of Tortona in Italy.

The last name which occurs in the melancholy list of our departed compatriot associates, is that of Dr. William Henry, to whom the science of chemistry generally, and of gaseous chemistry in particular, is under great obligations. He was the author of nine papers in our Transactions, many of them of great merit; and his System of Chemistry is one of the best written and best arranged compendiums of that important and extensive science, which has been published of late years, whether in our own language or in any other. The Memoirs of the Manchester Society are chiefly indebted to him, in conjunction with Dr. Dalton, for the high character which they have so long maintained. Dr. Henry, like Dr. Wollaston, made the results of science, obtained by the most original and diffi-

cult researches, the foundation of a splendid fortune, and few persons have contributed more effectually, by their discoveries and exertions to the promotion of those arts and manufactures which form the foundation of the prosperity of a great commercial nation.

The names of the Foreign members whom the Society has lost during the last year are, André Marie Ampère and Antoine-Laurent de Jussieu, both of them members of the Académie des Sciences de France.

Mons. Ampère was born at Lyons in 1775, and made his first appearance in the scientific world in a short work which showed considerable command of analysis, entitled *Considérations sur la Théorie Mathématique du Jeu*, in which the question of the safety of habitual and indefinite play, either against a single person of greater fortune, or indifferently against any number of persons, even when the game is perfectly fair and equal, is discussed and solved, and its result exhibited in a form full of warning to those by whom gaming is pursued as an occupation, in which success or failure is considered as the gift of fortune, and not the inevitable result of calculation. M. Ampère was subsequently appointed Professor of the Polytechnic School, and published memoirs on the integration of partial differential equations, and on other subjects, which show a profound knowledge of some of the most refined and difficult artifices of analysis: to him likewise we are indebted for memoirs on the Mathematical Theories of Electro-magnetic Currents, which are remarkable for the skill and ingenuity with which the powers of analysis are brought to bear on subjects apparently the most remote from their operation. His inquiry into the equation of Fresnel's wave surface is more remarkable as an example of resolute perseverance than of success, and his last work, on the Philosophy of the Sciences, showed him to be much less happy in his metaphysical, than in his physical and analytical speculations. M. Ampère was a man of great simplicity of character, and his extraordinary fits of absence of mind were not unfrequently made the subject of much innocent amusement. He took no part in the cabals and jealousies which too frequently disturb the peace of the world of science, and he was universally respected and beloved for his great integrity and the kindness of his affections.

Antoine-Laurent de Jussieu, a name singularly illustrious in the annals of botanical science, was born at Lyons in 1748. He was nephew to the great Bernard de Jussieu, under whose auspices he was first introduced into the scientific world of Paris, and appointed, at a very early age, demonstrator of botany in the Jardin du Roi. After this appointment, though originally destined for the profession of medicine, he devoted himself almost exclusively to the study of botany, more especially with a view to the establishment and development of the natural system of arrangement, a very bold and successful approximation to which had been effected by his uncle in the distribution of the plants in the Garden of the Trianon.\* He

\* This arrangement, made in 1759, is given by his nephew at the conclusion of

succeeded his uncle as administrator of the Jardin des Plantes in 1779, and published two memoirs of great originality and importance on the relative value of characters in the distinction of the genera and orders of plants. In the year 1789 he published his great and truly classical work entitled *Genera Plantarum secundum Ordines naturales disposita*, which caused a total revolution in the science of botany. To the modification and extension of the views contained in that work, rendered necessary by new observations and by the vast accession of new genera and orders, brought from the tropics, South America, Australia, and elsewhere, he devoted the remainder of his life. His later memoirs, many of which are of great value, are chiefly contained in the *Annales*, and subsequently in the *Mémoires du Museum d'Histoire Naturelle*. M. de Jussieu was a man of very simple manners and amiable character, of a social and affectionate temper, and a perfect stranger to scientific jealousies and intrigues. He attained to an extreme old age, and had the happiness of witnessing the almost universal adoption of that system of botanical arrangement, the establishment of which had formed the great object of the labours of his life.

*The Secretary then read the following Report of the Proceedings of the Council since the last Anniversary.*

The Council, on the 3rd of March, adopted a Report, submitted to them by the Committee whom they had appointed for considering the communications from the Treasury and Excise Office, on the subject of the construction of instruments and tables for ascertaining the strength of spirits, in reference to the charge of duty thereon, and ordered it to be transmitted to the Lords Commissioners of His Majesty's Treasury; who, in acknowledging its receipt, were pleased to express "their best thanks to H. R. H. the President, and to the Society, for the obliging manner in which they had met the wishes of the Board, and to the Committee for the attention they gave to the subject, and for the valuable Report with which they had furnished that Board."

The Council, conformably with the recommendation of the Donation Fund Committee, have granted £50 from that fund to Professor Wheatstone, in aid of the experimental inquiry which he is prosecuting on the measure of the velocity of Electricity when passing along a conducting wire.

A letter from Baron Von Humboldt, addressed to H. R. H. the President, relating to a proposal for the cooperation of the Royal Society in carrying on an extensive series of magnetical observations, in various parts of the earth, having been communicated by H. R. H. to the Council, it was referred to the Astronomer Royal and to S. H. Christie, Esq., for their opinion thereupon. The Report of

his introduction to his great work, published in 1789: though extremely imperfect and in many respects erroneous, it was founded upon just principles, and was in almost every respect superior to those which had been proposed by Linnæus and by Tournefort.