

UC-NRLF



QB 416 209



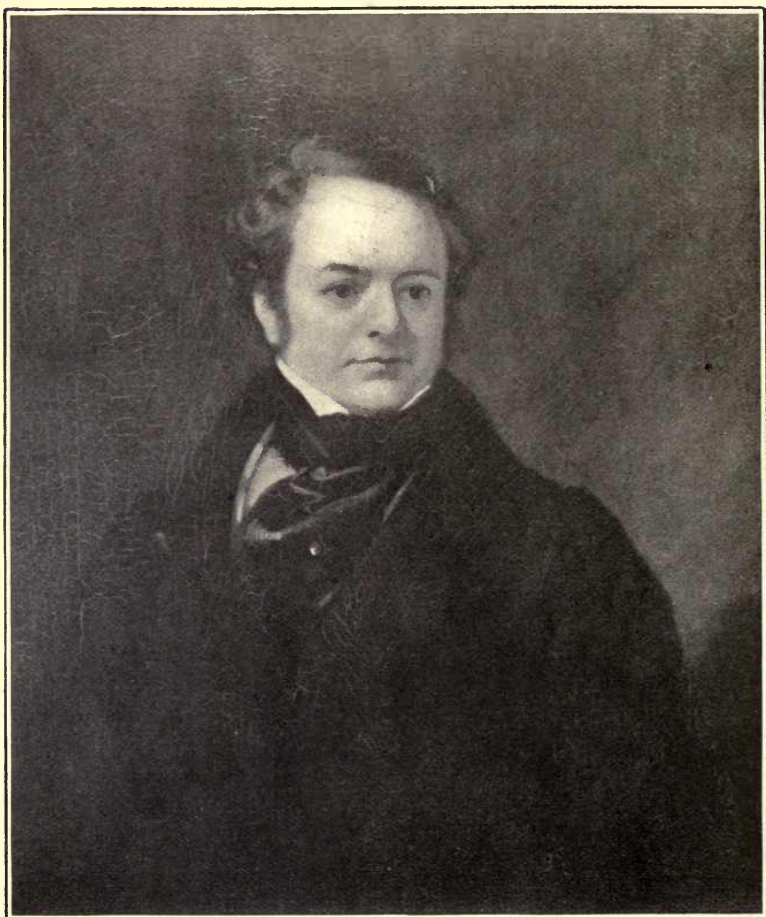




THE LIBRARY
OF
THE UNIVERSITY
OF CALIFORNIA

PRESENTED BY
PROF. CHARLES A. KOFOID AND
MRS. PRUDENCE W. KOFOID





CHARLES GILES BRIDLE DAUBENY

*This Plate has been prepared from the Painting in the Library of the Physic Garden
and is presented by R. Günther in memory of his illustrious
predecessor and benefactor at the Laboratory*

A History of
The Daubeny Laboratory
Magdalen College
Oxford

To which is appended a list of the Writings of
Dr. Daubeny, and a Register of the Names
of Persons who have attended the Chemical
Lectures of Dr. Daubeny from 1822 to 1867
as well as of those who have received instruc-
tion in the Laboratory up to the present time

By R. T. Günther, M.A., F.L.S.

Fellow and Tutor of Magdalen College

With a Preface by the President of Magdalen

London
Henry Frowde
Oxford University Press Warehouse
Amen Corner, E.C.

1904

And also to be obtained at the Laboratory
Magdalen College, Oxford

OXFORD : HORACE HART
PRINTER TO THE UNIVERSITY

Q183
G7082

PREFACE

MY friend and colleague, Mr. Günther, has asked me to write a few words by way of Preface to this volume. I am not sure that any words at all are needed. If any are they should certainly be few. There are of course some still living in the University and in the country, who even yet remember Dr. Daubeny at work in his Lecture Room and in the Laboratory which bears his name, but they are a small and rapidly diminishing band. While, however, his personal memory must more and more fade from among us, and by-and-by disappear altogether, it may fairly be claimed for him, as for many greater and even more than for some greater men, that the result of his effort is still growing and becomes more and more apparent.

Daubeny was without doubt a pioneer, and a pioneer of a great army advancing in a noble cause. The study of Natural Science in Oxford in the first half of the last century lay for the most part, like the Botanic Garden itself, outside the wall and circle of the Academic republic, and its professors were liable to be regarded as eccentric in more senses than one. About Daubeny's own personality, moreover, there would seem to have been always a little, or more than a little, to smile at, and stories are still remembered of his amiable foibles and the humorous aspect of his lectures and experiments, which were not always apparently taken as seriously as they were meant to be. But he had the advantage of being a Winchester and Oxford man, trained in the old humanities, a scholar and a gentleman, uniting simple piety with liberal views, and, like Acland a little later, he was able to conciliate opposition and gradually to introduce

Natural Science into his College and University in a way which might have been difficult for a more forceful but less acceptable advocate. Not that Daubeny was a weak or superficial person; on the contrary, he was a man of sound sense and genuine attainment, and if he held, in those days of pluralism, three Professorships, he did good work in the subjects of each and all.

His books on *Volcanos*, on *Roman Husbandry*, on *The Influence of the lower Vegetable Organisms in the Production of Epidemic Disease*, his early welcome to Darwinism in his tractate on *The Sexuality of Plants*—these and many other of his writings have long since been duly appreciated. As a writer and observer, he has received then probably adequate recognition. But to his efforts as a teacher, and to the value of the institutions and collections which he left as his legacy to subsequent generations, less justice has been done. To repair that omission is the purpose of the present volume.

The long list of those who attended Daubeny's lectures, first at the Ashmolean Laboratory and afterwards at the Botanic Garden¹, will come as a revelation to many both in Oxford and outside, in regard alike to the number and the distinction of the names which it contains.

That this frequentation was entirely prompted by enthusiasm, or was altogether spontaneous, must not be asserted. But the genuine popularity of these lectures is still vouched for by living witnesses. And even a 'soft option' may also be an interesting option, and an agreeable course may also be an instructive course. Mr. Günther has indicated a few of the most distinguished auditors, but old Oxford men will note in addition names such as those of Bishop Hobhouse, 'Charlie' Neate and Mr. Edward Poste, of Oriel, Father Benson, Sir Edmund Monson, and Mr. E. H. Pember, K.C.

The subsequent history of the Laboratory which Daubeny founded and to some extent endowed, continues to be interesting after its originator had passed away. It has at times

¹ Appendix E.

somewhat anticipated the University teaching. It has afforded a home and opportunity for many stray Professors and students, and been the scene of not a little excellent original research.

The first function it fulfilled when Yule and Lawson arranged their courses of lectures on Biology in conjunction with those of Ray Lankester.

As to the second it is sufficient to mention among the names of men of mark who have worked within its precincts those of H. G. Madan, Wyndham, Yule, Pike, Jeffrey Bell, Burdon-Sanderson, Gotch, Lazarus Fletcher, Harold Dixon, and Veley. Popular lectures to artisans have also been given within its walls; and it has frequently been of much assistance to the College School.

But its normal employment has been to act as a College Laboratory. Such was its main work under the long and happy rule of Mr. Edward Chapman¹, such it is still under his pupil, Mr. R. T. Günther, the author of this volume, with his Assistant Lecturer, Mr. Nevil Sidgwick, Fellow of Lincoln College, and the present Daubeny Curator, successor to old 'John Harris,' Mr. J. J. Manley, on whom the University only the other day conferred the well-deserved distinction of an honorary M.A.

If evidence is required of its further usefulness it will be found in the Meteorological Records and list of Researches contained in the Appendices A and B to this volume.

The College Praelectorship of Natural Science, instituted by Waynflete as part of his original foundation, one of the earliest endowments of the kind for Natural Science in the University, and indeed in the country, for it was older than any of the Oxford Professorships, had been held by useful and distinguished men before Daubeny. But it may fairly be said that Daubeny notably extended its usefulness. It is now merged in the Waynflete Professorship of Chemistry.

The College, which in 1847 made a substantial contribution to the sum to be laid out by Daubeny, has just enlarged and reconstructed the building then erected. It is to be

¹ Fellow and Tutor, now M.P. for the Hyde Division of Cheshire.

hoped that the results to be achieved in it may be in proportion. But in the meantime the beginning of a new order seemed a fitting moment for gathering up the story of the work done in the smaller building. Of the history of Natural Science in the University this story forms only a chapter, and to that of Natural Science generally it is, to use R. L. Stevenson's happy expression, 'but a footnote.'

Yet as such it appeared to the College worth putting on record and giving to the world. If that opinion was correct, and if it should find any acceptance and prove of any use, our thanks are due, and we trust those of the reader will be added, to Mr. Günther for the diligent and complete manner in which this record has been compiled, and to Mr. Günther and Mr. Chapman for the plates which give an additional interest to the volume.

T. HERBERT WARREN.

MAGDALEN COLLEGE, OXFORD,

January, 1904.

CONTENTS

	PAGE
PREFACE	iii
HISTORY OF THE DAUBENY LABORATORY	1
APPENDIX A. THE METEOROLOGICAL RECORD	30
APPENDIX B. RESEARCHES CONDUCTED IN THE LABORATORY IN RECENT YEARS	48
APPENDIX C. ADDITIONS TO THE COLLECTION OF APPARATUS	51
APPENDIX D. BIBLIOGRAPHY OF DR. DAUBENY	53
APPENDIX E. REGISTER OF NAMES OF PERSONS WHO HAVE ATTENDED THE LECTURES OF DR. DAUBENY, AND COURSES OF INSTRUCTION IN THE DAUBENY LABORATORY AT MAGDALEN COLLEGE	65
INDEX	136

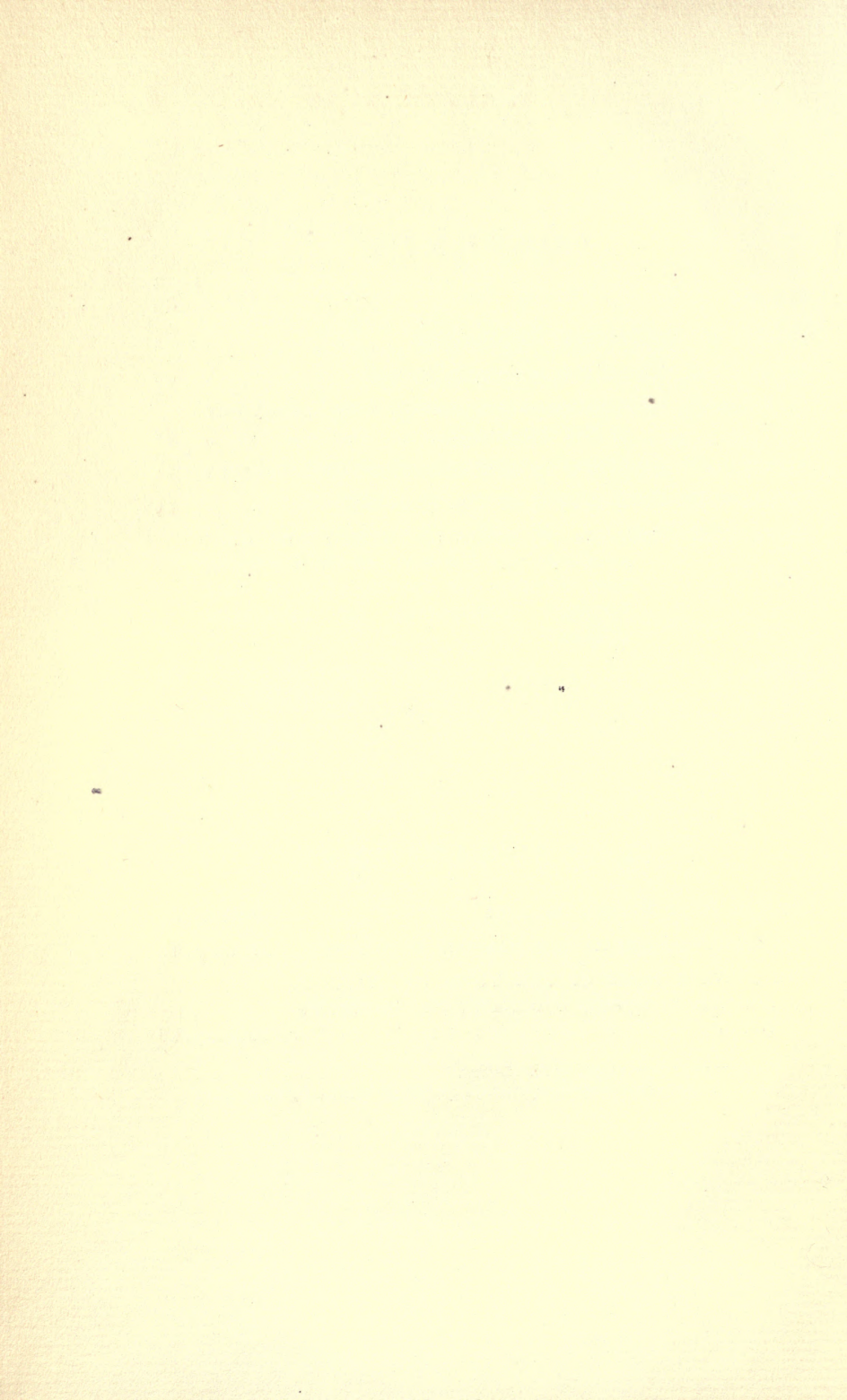
*

ILLUSTRATIONS

CHARLES GILES BRIDLE DAUBENY	<i>Frontispiece</i>
THE LECTURE-ROOM AT THE DAUBENY LABORATORY	<i>To face p. 10</i>
THE PRIVATE ROOM OF THE TUTOR IN NATURAL SCIENCE, c. 1870-94, ORIGINALLY DR. DAUBENY'S STUDY	<i>To face p. 28</i>

The first plate is presented by the Author.

The second and third plates are presented by Mr. Edward Chapman, M.P.



HISTORY OF THE DAUBENY LABORATORY AT MAGDALEN COLLEGE

THE land upon which the Daubeny Laboratory Buildings stand was originally part of the low-lying water-meadow, afterwards named Parys Mede, which lay to the east of the city, and was not built upon because it was frequently flooded by the Cherwell. The level of this part of the meadows had, however, been artificially raised upon more than one occasion, for in digging trenches for the foundations of the new building of 1902, some six or seven feet of made ground containing abundant notsherds. were dug out before the firm.

History of
the Site.

ERRATA.

- Page 12, line 24, for *Frederick* read *Frederic*.
,, 62, ,, 29, for *Industry* read *Husbandry*.
,, 86, ,, 14, for *Frederick* read *Frederic*.

Hist. Daubeny Lab.

witnessed their reinterment under the evergreen oak, near the Bridge, in a sawpit which had been used by the builders, and later on a full-length skeleton was exhumed near the Herbarium by Mr. E. Chapman, when a trench was dug for the purpose of curing the dampness of the walls.

¹ 'In 1177 the Jews of Oxford had a cemetery without the East Gate, where the Tower and South Side of Magdalen College now stand; afterwards this was transferred to the opposite side of the road, in the present Botanical Garden, where a mass of human bones was dug up in 1642.'—Boase, *Oxford*, p. 24.

² Wood, MS. fol. 228 b. Cf. Chandler's *Life of Waynflete*, p. 89, note.



HISTORY OF THE DAUBENY LABORATORY AT MAGDALEN COLLEGE

THE land upon which the Daubeny Laboratory Buildings stand was originally part of the low-lying water-meadow, afterwards named Parys Mede, which lay to the east of the city, and was not built upon because it was frequently flooded by the Cherwell. The level of this part of the meadows had, however, been artificially raised upon more than one occasion, for in digging trenches for the foundations of the new building of 1902, some six or seven feet of made ground containing abundant potsherds, were dug out before the firm, untouched subsoil was reached. History of
the Site.

Our forefathers of the Middle Ages allowed the Jews to use this waste land for a burial-ground, as we learn from the earliest records we have of this spot, dating from the twelfth century¹, which were confirmed in the seventeenth by Lord Danby, whose experience is recorded by Wood: 'Sufficient testimonies of which area or coemitory of the Jews . . . were the number of men's bones that were found and dug up at the foundation of the Physick Garden wall²'; and more recently Dr. Daubeny himself, when the foundations of the Laboratory Building were dug, came upon a great number of human bones. Dr. Daubeny's assistant, John Harris, witnessed their reinterment under the evergreen oak, near the Bridge, in a sawpit which had been used by the builders, and later on a full-length skeleton was exhumed near the Herbarium by Mr. E. Chapman, when a trench was dug for the purpose of curing the dampness of the walls.

¹ 'In 1177 the Jews of Oxford had a cemetery without the East Gate, where the Tower and South Side of Magdalen College now stand; afterwards this was transferred to the opposite side of the road, in the present Botanical Garden, where a mass of human bones was dug up in 1642.'—Boase, *Oxford*, p. 24.

² Wood, MS. fol. 228 b. Cf. Chandler's *Life of Waynflete*, p. 89, note.

The history of the ground can be continued in Wood's words: 'After their [the Jews] expulsion from this nation it [the cemetery] came to St. John Baptist's Hospitall adjoining, who employed it as a churchyard to bury their dead. But that Hospitall being dissolved and turned into Magdalen College, ceased from that use and was employed as a plot of green-soard or meadow ground by a tenant of that college their [=there] living.'

The land which thus came into the possession of St. John's Hospital was probably only the lower portion of Parys Mede¹ which lay next the Cherwell and was bounded on the west by 'the way leading from East Bridge to the feild behind Merton College'; this way was presently to be known as Trinity Lane, and is the present Rose Lane. Wood's further statement that the Hospital owned and sold property nearer the East Gate, he contradicts elsewhere by asserting that the property was purchased from St. Frideswyde.

During the fourteenth century the frontage of Parys Mede was divided into tenements with buildings very like those shown in the earliest plans of the city (Agas, 1578). On the west side of the lane the Trinitarian Friars had acquired a chapel and house at St. Frideswyde's Gate², and from them the lane took the name of Trinity Lane; and it would appear from the position of the inscription 'sometime Trinitie Hall' in Agas's map, that either the prior and brethren of the Order 'being minded to enlarge their territories,' or their successors, the principal and scholars of Trinity Hall, had a lease of tenements on the east side of Trinity Lane. If any one of these buildings were attached to Trinity Hall, it is likely to have been the two-story house (marked in Hollar's map, 1643) which was shown standing in 1675 in Loggan's map, very near the north-western angle of the

¹ 'Note that all the south side of this street [East Bridge Street] was a meed anciently called "Parys."'—Marginal note to Wood.

² Also called Teckew Gate. The tradition of the ancient gate might seem to be preserved in the name, Magdalen Gate House, which stands on the site of the chapel of the Trinitarians, were it not that this name is of recent origin, having been given during the tenancy of Mr. E. Chapman. The site was acquired by Perrot, 1546, who pulled down the chapel and house and built a 'barn, stable, and pigstie.'

lawn between the High Street and Rose Lane. Besides this house, two small cottages opposite the present Magdalen Lodge and two others in Rose Lane remained in existence for several years after the formation of the Physic Garden in 1622-33.

The next chapter in the history of the site of our Laboratory is concerned with that of the Physic Garden, which is by far the most ancient establishment connected with Natural History in Oxford, for the collections of Tradescant and of Ashmole did not become the property of the University until 1683, twenty-one years after the foundation of the Royal Society.

For the history of the origin of the Garden we may again refer to Wood, who tells us how 'Henry, Lord Danvers, Baron of Dauntsey in the county of Wilts. and Earl of Danby, giving to the University the sum of £250 in money to purchase a piece of ground for a nursery of phisicall simples for the University, bought the said mede containing about 5 acres of ground of the present tenant thereof and presently after of the College it selfe A.D. 1621, to be held of them by lease. Afterwards much soil being conveyed thither for the raising of the ground, the day for the laying the first stone therof was designed. Which being come, viz. S. Jeames Day [25 July] 1622, the Vice-cancellor, Dr. Peirce, about 2 of the clock in the afternoone together with the proctors and most of the doctors of the University solemnized it with great ceremony. For in the first place Mr. . . . Dawson, a phisitian of Broadgates, speak there an elegant oration; then Dr. Clayton, the King's Professor of Phisick, another; and last of all the Vicecancellor; with the offering severall sums of money according to the antient fashion.

'Afterwards the said earl proceeded in building of it and enclosing it with a very faire wall of freestone, and in the front therof next to East Bridge Street a comly gatehouse.' [The wall about it was finist, 1633, ut in Gest. canc. Laud, p. 65.—Marginal note.]

The wall with which the College permitted Lord Danby to

enclose the Garden, about twelve feet high and two feet thick, was found to be sufficiently strong to serve as the lower part of the south wall of the new Laboratory of 1902. The original drip moulding has been retained in the ground-floor room.

House of
Professor
of Botany.

In the original plan for the Garden the Gardener or Professor was expressly enjoined to reside at the Garden, and to enable him to do so conveniently an official residence was built near the end of the south side of the old East Bridge: it is marked in Hollar's map of the Garden (1643). In the Oxford Almanack for 1772, which gives us a view of the old East Bridge Street at that point, the street front of the house is shown, and the same view represents the sign of the Noah's Ark Inn which stood, together with 'certaine poore cottages and scattering houses¹,' along the strip of land in front of the Laboratory facing the College.

The New
Bridge.

The erection of a new bridge over the Cherwell commenced in 1772 resulted in various alterations on the south side of the street. To improve the approach to the bridge by raising the roadway, it was found necessary to demolish the house belonging to the Professor of Botany (1795), and the site of the house, like the terrace in front of Balliol College in the Broad, was surrendered to the Commissioners of the Paving Act, to enable them to improve the street, and to pile the stones necessary for its repair.

By this widening the plot north of the Garden wall was reduced in width by the amount it had previously projected in front of the site of Trinity Hall or of the Magdalen Gate House; a projection which is indicated in Loggan's map. No doubt the existing lime-trees were planted soon after.

The then occupant of the Botanical Chair, Professor Sibthorp, finding no other shelter suitable for the Sherardian Collection of Botanical Books and Herbarium, which had till then been kept in the official residence, caused the eastern greenhouse to be converted into a Library and Lecture Room.

Dr.
Daubeny,
Professor
of Botany.

Such was the condition of things in 1834, when Dr. Daubeny, M.D. and Fellow of Magdalen College, who had been Pro-

¹ Leonard Hutten.

fessor of Chemistry since 1822, was chosen to succeed Sibthorp as Sherardian Professor of Botany. With characteristic energy he immediately applied himself to bring the Garden into a state of efficiency better suited to the progress the science had made; and, even before delivering his inaugural lecture, he had presented a report to the Visitors of the Garden, and had set on foot a subscription to enable the University to bring the proposed reforms into effect.

The improvements at first contemplated by Professor Daubeny did not involve any serious alterations on the north side of the wall of the Garden. The western greenhouse, which had no glass roof, and was very indifferently supplied with light from windows in the southern front, having been erected about a century previously when the constructing of greenhouses was but ill understood, was to be transformed into a Lecture Room, new glasshouses were to be erected, and it was to be explained to the Street Commissioners that their room was of greater value than their company or rather than that of their heaps of stones; and by the eviction of these it became possible to erect at the back of the Library (once a greenhouse), a new residence¹ for the Professor of Botany, which was used as such from about 1836 until the death of Dr. Daubeny in 1867, when it was devoted exclusively to the Herbarium.

During the twelve years, 1822-34, which had elapsed between the election of Dr. Daubeny to succeed Dr. Kidd in the Aldrichian Chair of Chemistry and to the Sherardian Professorship, he had produced the books by which he is best known—his treatise on *Volcanos* (1826), and the *Introduction to the Atomic Theory* (1831), as well as several original memoirs published in *Jameson's Edinburgh Philosophical Journal* and in the *Philosophical Transactions*. He had filled the office of Bursar and of Vice-President of Magdalen College. We still possess a record of attendances at his Professorial lectures, which were delivered at the

Professor of Chemistry.
Early works and lectures.

¹ The fundamental error in the construction of this building as a dwelling-house was that all the living-rooms were made to face the north. 'Dove non entra il sole entra il medico.'

Laboratory under the Ashmolean Museum, dating from the winter of 1822, when he started with thirty-two pupils, who increased to forty-one in the next year¹. (See Appendix E.)

Among the signatures of those who attended these early lectures on Chemistry, we find the names of E. B. Pusey and Mark Pattison, of Tait, Whately, and Thomson, the future archbishops of Canterbury, Dublin, and York, of Sir John Bennett Lawes, the originator of the Rothamsted Agricultural Experiments, and of Sir Edmund Head, who became Governor-General of Canada. In 1836 we read that Henry Acland, not content with a single course, paid a three-guinea fee for an 'unlimited attendance' at the lectures on Chemistry: it is not to be wondered that he became Regius Professor of Medicine and Sir Henry Acland, Bart. In the 1837 list we find the signature of John Ruskin; and in others the names of H. G. Liddell, R. W. Church, Nevil Story, afterwards Maskelyne, Frank Buckland, H. J. Coleridge, Sir Frederick Gore Ouseley, and many others which will be found in the Appendix.

Dr. Daubeny, no doubt fearing that his acceptance of a second Professorship might lead the ill-informed to pass an unfavourable criticism on pluralists, made use of the opportunity afforded by his inaugural lecture to point out how slender was the emolument derived from either post, and to show that many inquiries of a chemical nature can scarcely be prosecuted without the assistance of a Botanical Garden, and that, on the other hand, some of the most important problems in vegetable physiology require for their elucidation the aid of chemical science.

¹ It is interesting to compare these numbers with those of the attendances at scientific lectures during a previous epoch. By referring to a tract by Edward Tatham, Rector of Lincoln, entitled, *A New Address to the Free and Independent Members of Convocation* (Oxford, 1810), the curious reader may find that the average attendance at the public lectures in Natural and Experimental Philosophy during fourteen terms in the years 1773-7 was close upon fifty, whereas in 1809 the attendance at similar lectures had dropped to fourteen in the Lent term and to so small a number in the Easter and Michaelmas terms that no class was held. The Rector attributes the falling off in the attendance at these lectures, as well as at the public lecture on Chemistry, to the operation of the new statute respecting Public Examination which had just been passed.

That his new duties at the Botanical Garden did not lead to the neglect of his chemical teaching or studies is proved by his frequent revision of his lectures, of which the manuscripts are preserved in the College Library, and by the appearance of a *Supplement to an Introduction to the Atomic Theory* (1840). Although much time and thought must have been spent upon the buildings and improvements to the Garden already mentioned, yet before two years had passed he had completed a very important research on the Action of Light upon Plants and of Plants upon the Atmosphere; and thus he anticipated Draper by some eight years in demonstrating that the light belonging to the red end of the spectrum is most effectual in promoting the evolution of oxygen by plants. Some of the glass vessels still bear stains of the port wine which was used as a red screen.

The geological results of his Italian and American journeys in 1834 and 1837-8 were first given to the Ashmolean Society, and many specimens of volcanic rocks were added to his collections.

In 1840 the high regard in which his many qualifications were held found expression in his election to a third Professorship—that of Rural Economy—which he held until his death.

Professor
of Rural
Economy.

During the seven years following, his researches were mainly directed to the scientific aspects of certain branches of Agriculture, and the results were published in several papers in the *Journal of the Royal Agricultural Society*: his three lectures on Agriculture were even translated for the benefit of Italian farmers. Chief among these chemical agricultural labours were investigations *On the Chemical Constituents of Crops*, *On the Scientific Principles by which the Application of Manures ought to be regulated*, *On the Use of Spanish Phosphorite, as a Manure*. The *Memoir on the Rotation of Crops, and on the Quantity of Inorganic Matter abstracted from the Soil by Various Plants under Different Circumstances*, was first delivered in 1845 as the Bakerian Lecture to the Royal Society.

In his agricultural researches, Dr. Daubeny was no doubt

Liebig's
tour.

much influenced by the work and genius of his great friend Liebig¹, who had won his Professorship at Giessen in 1824, soon after Dr. Daubeny's election to the Aldrichian Professorship, and who published his great work on Agricultural Chemistry in the very year of Dr. Daubeny's appointment to the Rural Economy Chair. In 1842 Liebig made a sort of triumphal tour among the agriculturalists of this country, expounding his views on the need of chemical knowledge. Lord Playfair² has stated that one of the immediate effects of Liebig's campaign was to induce colleges to open laboratories for teaching chemistry. Chief among these were the laboratory of the School of Mines in Jermyn Street and the laboratories of University College and of King's College, London. A great wave of laboratory building swept across this country. In 1845 the Royal College of Chemistry, now merged in the Royal School of Science, South Kensington, was founded, and it is very likely that the first inception of the Daubeny Laboratory is to be attributed, at any rate in part, to Liebig's visit to this country a few years before.

Ash-
molean
Lecture
Room
unsatis-
factory.

Dr. Daubeny had hitherto delivered his professorial lectures on Chemistry in the basement of the Ashmolean Building, in a subterranean room which was quite unfit for the purpose. In fact, he had on more than one occasion felt it his duty 'to press upon the University the importance of providing, as soon as possible, a suitable laboratory for the practical instruction of students.' He described the old Lecture Room as 'notoriously unworthy of a great University, being dark, inconvenient and confined³.'

Closely bound up with chemical operations as most of his

¹ The miniature porcelain bust of Liebig in the Laboratory was presented to Dr. Daubeny by the great German chemist himself.

² Hofmann Memorial Lecture. *Journal of the Chemical Society*, 1896, p. 577.

³ My friend Mr. Webb has drawn my attention to a passage in Henry Kingsley's *Ravenshoe*, which is strongly reminiscent of the defective ventilation of the old Ashmolean Lecture Room: 'He lay here one day when the doctors came down from London. And one of them put a handkerchief over his face which smelt like chemical experiments and somehow reminded him of Dr. Daubeny.'—Ch. lxii.

researches, whether on agricultural or vulcanological subjects or on mineral waters, were, it was but natural that he should also feel the loss of time consumed in going backwards and forwards between his house at the Physic Garden, where his duties chiefly lay, and his gloomy Lecture Room beneath the Ashmolean Museum. He determined, therefore, to erect a Lecture Room and Laboratory close to the Garden, and the work was actually commenced in 1848, the year after he had held the office of Bursar at Magdalen College.

A new
Lecture
Room
required.

No doubt his large and ever increasing collections of minerals, rock specimens, books, and physical instruments, as well as his enlightened ideas of the needs of the efficient teaching of science at Magdalen College, of which he had had sole charge as Praelector since 1820, determined the main lines on which the building was planned.

The conditions on which Dr. Daubeny was permitted by Magdalen College to build are stated in the College Order for November 12, 1847:

Daubeny's
Applica-
tion to the
College in
1847.

'Dr. Daubeny having requested permission to build a Lecture Room on the ground adjoining the Physic Garden, the spot on which it is placed to be at any time resumable by the College, it is agreed to grant him leave to build the Lecture Room on the proposed spot near the principal gate of the Garden at the distance of at least three feet from the wall. It is further agreed to allow Dr. Daubeny, his heirs or assigns, the sum of £282, being a moiety of the sum proposed to be laid out by Dr. Daubeny in case the Society shall at any time hereafter within the period of twenty years find occasion or think it proper, after six months' notice, to resume the whole of the ground into their own hands, but after that time the College shall have the option of assuming it without any payment.'

Daubeny died December 12, 1867—just over twenty years from the date of this order, but not quite twenty years from the date of the erection of the building, of which he speaks in his will as 'the new buildings erected by me in the year 1848, opposite to Magdalen College, on ground belonging to the said College.'

Descrip-
tion of
Building.

The building was erected on the north side of the central west greenhouse of the Physic Garden. It was more than a mere lecture room, being a rectangular brick building of two stories; it was covered with stucco in a plain classical style. That it was not originally contemplated to carry the building much higher than the greenhouse on the south side of the wall seems to be indicated by the fine cornice round the lower part of the building. The upper story of four rooms must, however, have been added soon after, as a domicile for the Curator of the Building, and Dr. J. F. Payne, now Physician at St. Thomas's Hospital, has informed me that he occupied these rooms during his year as Probationer Fellow, and took pupils¹ there. I can well remember a red bedroom paper on the walls of one of the rooms.

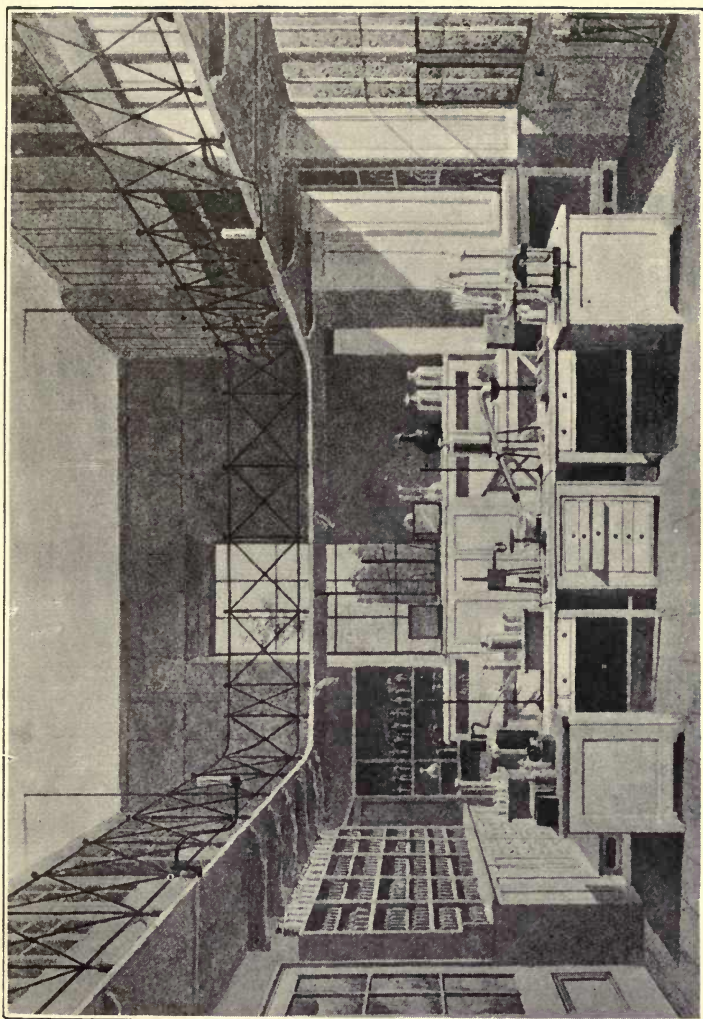
On the ground floor a central doorway (now a window) opened into the Lecture Room, measuring forty-one feet long, by twenty feet broad, by sixteen feet high, which was surrounded by a gallery for cupboards for Physical and Chemical apparatus (Plate 2). A large doorway in the middle of the south side led to the Botanical Lecture Room, and at the east end was Dr. Daubeny's private study, containing the Geological Collections both Palaeontological and Volcanic (Plate 3). The upper part of this room was also surrounded by cupboards and drawers in which the Collections of Chemical and Mineralogical Specimens were preserved, and it was divided from the lower part by a floor.

In the Lecture Room cupboards were carried round the whole wall space, and even across the upper parts of the windows, thus materially contributing to the gloom of the interior².

In accordance with the College Order, the main fabric stood four feet away from the Garden wall. The reason for this detail is not easy to imagine, unless it be that among the Fellows some harboured a design for the eventual demolition

¹ One of Dr. Payne's pupils was Mr. Edward Chapman, who, as he has himself informed me, read physiological chemistry with Dr. Payne in preparation for his final schools in 1863.

² That this was part of the original design would seem to be indicated by the fact that, before the alterations made in 1902, the upper window-sashes had never been provided with sash-lines and weights.



THE LECTURE-ROOM AT THE DAUBENY LABORATORY

*From a water-colour drawing (c. 1870) in the possession of Mr. Edward Chapman, M.P.
by whom this plate is presented*

of the building, while others considered that fumes might penetrate the wall and damage the plants in the greenhouse on the south side. Whatever the reason, certain it is that the space between the outer wall of the Laboratory and the wall of the Physic Garden was eventually covered with a glass roof, and made to enclose three staircases, five flights of stairs in all, which placed the upper rooms in communication with the ground floor.

Two of the staircases were probably introduced at about the time (1853) when, the greenhouse¹ at the back of the Laboratory having become a Lecture Room for the Professor of Botany, a Botanical Museum² was built over it, with part of the funds collected for the improvement of the Physic Garden by Daubeny.

A fine equatorially mounted telescope of five-inch aperture by Cooke was presented to the College in March, 1855, for which a new stand was ordered in the following June; and in December, 1856, it was ordered that a building for the new telescope should be erected 'contiguous to the wall of the Botanic Garden according to the plan of Mr. Buckler, at an estimate of £185.'

The space between the Telescope vault and the west wall of the Laboratory was occupied by a workshop of rather flimsy structure and an Observer's Room, whence a staircase gave access to the telescope above, and in which were afterwards placed all the instruments connected with meteorology. Both workshop and Apparatus Room were pulled down when the new building of 1902 was erected. Outside the window of the latter room stood a large aquarium, a gift to the College, which for ten years was tenanted by some golden tench which had been presented by the Duke of Bedford in 1875.

The building had hardly been finished six years when Daubeny resigned the Chair of Chemistry to a younger man, Mr. (afterwards Sir Benjamin) Brodie, in order that he might

¹ Built in the eighteenth century.

² The original access to the upper room was by the central of the said three staircases on the north side of the wall. The doorways in the party wall were bricked up in Professor Lawson's time.

Telescope building.

Workshop and Meteorological Apparatus Room.

Resignation of Chair of Chemistry.

devote his time and strength more particularly to his duties in connexion with the Chairs of Botany and of Rural Economy, which he held conjointly until death. Consequently the Laboratory was only ready for use at a time when its founder had already lived those years of his life which were the most productive of scientific research. His published investigations on Volcanos, on Mineral Waters, on the Atomic Theory, and on various problems of Vegetable Physiology had long had a great and well-deserved reputation in the scientific world. It was therefore hardly to be expected that from the new Laboratory should issue the results of investigations equal in importance to those which marked the most fertile period of his scientific activity. During this period, however, it had been the principal Chemical Laboratory in the University¹.

Like many other leaders of science Daubeny found the later years of his life more and more occupied with affairs of administration and busied with literary rather than with experimental work. And, stirred by the religious controversies of the times (1860), he too contributed his share to theological literature.

Lectures. As soon as the new Laboratory at Magdalen was ready for occupation he appears to have ceased lecturing in the vaults of the Ashmolean², which seems to have been in 1849, when the names of the Choristers, of Frederick Bulley, then a Fellow of the College, and of many Magdalen men, appear in the Lecture Lists, and the Professor published a *Syllabus of a course of Lectures on the Principles of Inorganic Chemistry*.

Although the continually increasing burden of new and expanding duties had compelled Daubeny to resign the Professorship of Chemistry in the University in 1854, yet he was so deeply impressed with the advantages to be derived

¹ The Christ Church Building, left vacant by the transfer of the Lee's anatomical collection and of Dr. Acland's osteological and pathological collections to the University Museum, was not equipped as a chemical laboratory and lecture room until 1866. Some physical apparatus of an elementary kind was added soon after the appointment of a third Lee's readership in 1869. The Balliol Laboratory was not opened before 1879.

² Cp. Note to the *Address to Members of the University*, published as an Appendix to the *Guide to the Botanic Garden*, p. 13.

from this science that in 1855 he delivered an address to the Royal Institution *On the Importance of the Study of Chemistry as a Branch of Education for all Classes*. And he put his theory into practice by personally instructing, as the College Praelector of Natural Philosophy¹, the undergraduates of Magdalen College in Chemistry until his death, in a series of annual courses of 'Catechetical Lectures,' commenced on October 28, 1855².

The average attendance was generally about ten; and to judge by an interleaved copy of Fownes's *Treatise of Chemistry* in the Laboratory, the lectures were largely based upon that manual. During the winter months, when impaired health compelled him to live away from Oxford in the warmer climate of Torquay, the course was continued by Mr. T. H. Hopkins, Fellow of Magdalen College, during the winters of 1858 and 1860; by Mr. H. G. Madan, Fellow of Queen's College, in 1865; and by Mr. A. G. Girdlestone, Demy of Magdalen, during Lent, 1867. The last lecture given by Daubeny seems to have been on October 24, 1867. During his last illness Mr. Girdlestone again carried on the work of teaching from October 31 to December 12, 1867.

The chemical researches which were carried out by Dr. Daubeny in the Magdalen Laboratory were chiefly of an analytical nature, and related to the agricultural problems upon which he was engaged. He experimented upon samples of Barley grown in soils containing varying amounts of potash and soda; he examined the effect of Rocks of various geological ages upon the produce of barley sown in them; and the power of the Roots of plants in rejecting poisonous or abnormal substances presented to them; and a few months before his death he published a paper on Ozone and on its disengagement by the leaves of plants. A list *in extenso* of his published researches will be found in Appendix D.

¹ Under the original statutes of Magdalen College the Praelector might lecture either in divinity or natural philosophy at the discretion of the College officers.

² The MS. of one of the first of his College lectures, delivered in 1820, is still preserved in the Library, together with a pile of oft-revised MSS. of later date.

Much of the apparatus used by him in these and also in his earlier researches is preserved; and so we possess a larger collection of chemical glass, &c., of the first half of the nineteenth century than is commonly to be found in modern laboratories, as well as a collection of instruments of considerable value from the point of view of the development of chemical apparatus and manipulation. The extreme thickness of the glass eudiometers and the magnitude of the gas-holders define a well-marked period in the history of pneumatic chemistry which followed the period of Cavendish and Black. And it is wonderful what accurate results this clumsy apparatus could be made to yield in skilful hands.

Of particular interest are the variously tinted shades of coloured glass employed in his classical research on the Action of Light upon Plants and of Plants upon Atmosphere, and which are therefore available either for repeating the experiments or for a more searching spectroscopic examination of the colour than Daubeny made.

Collec-
tions.

Although Daubeny's main idea when planning his new building was to provide the College with a room where lectures on Chemistry might be delivered and illustrated with greater safety, convenience, and popularity than in the College Hall, he was probably also guided by the desire to provide a suitable depository for his scientific treasures, the accumulation of a lifetime.

The collections are enumerated in a catalogue printed in 1861, entitled *A Catalogue of the Philosophical Apparatus, Minerals, Geological Specimens, &c. in the possession of Dr. Daubeny, Praelector of Natural Philosophy in Magdalen College, and now deposited in the building contiguous to the Botanic Gardens, belonging to that Society.*

Dr. Daubeny's original arrangement of the collections was for the most part preserved intact until 1893¹, when Mr. Günther found certain changes to be necessary on account of the deterioration of much of the physical apparatus by the corrosive fumes of the Laboratory. The more important portions of the collections were disposed as follows:

¹ Although several pieces of apparatus were found to be missing.

Astronomical Apparatus. The $5\frac{1}{4}$ -inch refracting telescope by Cooke was mounted upon the brick arch constructed by Buckler.

There are also in the Laboratory two smaller telescopes, a $2\frac{3}{4}$ -inch refractor of 44 inches focal length, purchased from Dollond in 1836 by the Rev. Joseph Cox for £78 15s., and a 4-inch Gregorian reflector, having a silver plate engraved with the arms of Magdalen College and of the donor, and bearing the following inscription: *Coll. Magd. Oxon. D.D. Ricardus Persehowse de Walsall in Com. Stafford. Armiger. Hujus Collegij Sup. Ord. Commensalis & A.M. A.D. 1755.*

Physical Apparatus for the performance of experiments on Voltaic Electricity, Pneumatics, Hydrostatics, Light and Heat, was contained in the cabinets i-x in the gallery of the Lecture Room, while the Static Electricity and Electro-magnetism instruments were grouped in cabinet xxiv in the Apparatus Room, which, being built against a flue, was always dry enough to preserve the frictional machines in working order. Among the treasures of the collection is the early form of Spectroscope by Elliott¹, with immovable telescopes and a hollow glass bottle prism which was presented to Dr. Daubeny by Bunsen.

The **Collection of Chemical Substances** found a place in the remaining cabinets x-xiii in the Lecture Room and also in the cabinets against the east wall of the Apparatus Room. The series of specimens had evidently been collected with considerable care, but owing to the imperfect stoppers to the bottles, to loss or obliteration of labels, or to corrosion by fumes, it is of little value now and will have to be reconstructed.

The other cabinets, xvii-xxiii, in the Apparatus Room contained **Organic Products** and apparatus for analysing the same, as well as apparatus for showing endosmose and exosmose.

The **Glass, Earthenware, and other Apparatus** for ordinary use in the Laboratory was chiefly contained in the cupboards

¹ Repaired by Elliott in 1903.

which were built against the north wall in the gallery, and which completely covered the upper parts of the windows, making the room very dark. The equipment was particularly rich in apparatus for pneumatic chemistry, which was no doubt due to the great interest taken by Dr. Daubeny in the nature of the gases given off by growing plants, volcanos, and mineral waters.

The **Collection of Minerals** was arranged in seventy-seven drawers below the cabinets in the Apparatus Room, in accordance with the chemical system of Rammelsberg¹, under the following heads:

- A. Inflammable Minerals.
- B. Earths not combined with silica.
- C. Minerals consisting of silica, either alone or in combination with water.
- D. Silica in combination with bases.
- E. Silicates with salts of other acids.
- F. Silicious minerals of indefinite composition.
- G. Metallic ores.

Two manuscript catalogues of the years 1835 and 1849 are still preserved among the Daubeny papers.

The collection is not at present in its original condition, for a representative series of the best specimens was picked out by Mr. T. G. Heathcote Wyndham, the first Natural Science Fellow of Merton College under the new statutes, and arranged after the modern system in six cabinets especially constructed for their reception under the superintendence of Mr. Hopkins. Unfortunately the labelling and cataloguing of the collection was left undone owing to the premature death of Mr. Wyndham.

In the same room were preserved the marvellous collection of **mineral and sea waters** in still more marvellous bottles of all shapes and sizes. 'Mineral waters, as indications of chemical processes going on below the surface of various countries, excited his earnest attention. He carried about a considerable apparatus for examining these waters in their freshest attainable state, and would busy himself for days

¹ *Handwörterbuch des chemischen Theils der Mineralogie*, Berlin, 1841.

in evaporating and analysing on a large scale. Thus he worked in his quarters at one of the hotels in York, just as if he were in his own laboratory at home; and by his busy scrutiny of waters in the volcanic country of central France and the south of Italy, he provoked the suspicious credulity of the natives, who thought he was poisoning their springs, and endangered his personal safety.'—Professor Phillips: *Obituary Notice of Dr. Daubeny*, Proc. Ashm. Soc. 1868.

An early type of bottle (1844) for taking samples of water from the depths of the ocean was also kept here.

The **Geological Collections**, being those in which Dr. Daubeny had the greatest interest, were preserved in the cases which surrounded his private room on the ground floor. Some idea of the size of the collections may be gathered from the fact that the Palaeontological specimens arranged in stratigraphical sequence filled 140 drawers, the Plutonic and Metamorphic Rocks filled thirty-four drawers, the Volcanic rocks, submarine and subaërial, filled 126 drawers, and lastly, the Miscellaneous Collection, consisting of suites of specimens illustrating the geological structure of particular districts, filled 115 drawers.

It is impossible to speak too highly of the method which was adopted for rendering individual specimens in the collections accessible for reference. The printed catalogue gives a list of the more important specimens contained in each drawer under general headings, and often references to memoirs in which descriptions of them may be consulted. Secondly, a fuller manuscript catalogue contains detailed lists of the contents of each drawer; transcripts of these lists are also placed in the drawers, in which the specimens are arranged in rows and numbered consecutively, a new series commencing with each new drawer. And lastly, there is an interleaved copy of Dr. Daubeny's Monograph on *Volcanos* with references to the drawers which contain the specimens described in the book.

Additions to the collections have since been made by Mr. T. H. T. Hopkins and by Mr. R. T. Günther, Fellows of the College. Among the most interesting of the Miscel-

laneous Collections are those of the rocks collected during Daubeny's tour in the United States in 1837-8, Dr. Sibthorp's rocks collected in Greece and the Levant, Phosphorite from Estremadura, and other specimens collected in Spain in 1843 by Dr. Daubeny, and 107 specimens of rocks brought home from one of Captain Parry's three Arctic Expeditions, and purchased at Dr. Buckland's sale.

All these Collections, together with his valuable Library of Scientific Books, passed into the possession of the College after his death, in accordance with the clauses in his will :

Daubeny's
Will.

'I give and bequeath to the President and Scholars of Magdalen College absolutely all my minerals and geological specimens, and the philosophical apparatus in the New Buildings erected by me in the year 1848, opposite to Magdalen College, on ground belonging to the said College, together with the printed books on chemical and scientific subjects, and also the best of my microscopes and all its appliances, and also my chemical diagrams.

'And I give to the said President and Scholars one thousand pounds, three pounds per cent. stock, in trust to pay the dividends or annual produce thereof as a salary to some person to be appointed as Curator by the President for the time being, during good behaviour, to take care of the aforesaid specimens and apparatus. And in the selection of such person I recommend, but do not require, that my assistant John Harris shall be first appointed, being satisfied that a person not a member of the University will be best suited to have charge of the Collection. And considering that the value of the Collections, which I give to the College including scientific books, philosophical instruments, specimens of chemical products, rocks and minerals, must have cost me considerably more than three thousand pounds, I trust that the College will adopt such measures as may be necessary to prevent them falling into decay, for which purpose I have left the interest of one thousand pounds stock to a Curator as aforesaid, that he may be responsible for the integrity of the Collections, and render them as useful as possible for the purposes of instruction. The scientific

books will find an appropriate place in one or both of the two rooms over the Laboratory, which were occupied by Mr. Masters, and which after my death will be the property of the College. I would also recommend that an annual visitation be appointed by the President to examine into the state of the Collections from year to year.'—Extract from Dr. Daubeny's Will. Proved January 18, 1868.

Dr. Daubeny died on December 12, 1867, and was buried in College in St. John's Quadrangle, near the west door of the chapel. A white marble tablet upon the west wall of the ante-chapel preserves his memory :

Memorial
Tablet.



AD . GLORIAM . DEI
ET . IN . MEMORIAM
CAROLI . ÆGIDII . BRIDLE . DAUBENY . M.D.
ANNOS . LI . HUIUSCE . COLL . SOCI
LITERARUM . HUMANIORUM . EXIMIE . DOCTUS
CHEMIAE . BOTANIAE . GEOLOGIAE
SCIENTIA . INSIGNIS
AMICIS . AMICISSIMUS
TAM . ACADEMIAE . QUAM . COLLEGIO . DEVINCTUS
DEUM . TOTA . MENTE . COLUIT
IN . CHRISTO . OBDORMIVIT
DIE . MENSIS . DECEMBRIS . XIII
A . S . MDCCC LXVII
ÆTATIS . LXXIII
AVE . ANIMA . SIMPLEX . PIA . DESIDERATISSIMA .

After Dr. Daubeny's death, the history of the Laboratory is interrupted for a brief period. There is no doubt that Mr. Hopkins, who had been a pupil of Dr. Daubeny, and had lectured for him, continued to work in it, and give instruction ; but we have no official record of an appointment till that of Mr. Edward Chapman as Lecturer in 1869 ; though attached to the College, he was not made a Fellow until 1882, when he was elected under the powers given to the College by the new statutes of the Commission of 1881.

E. Chap-
man,
1869-94.

From 1869 to 1894 Mr. Chapman, first as Lecturer and then as Tutor, was charged with the responsibility of the scientific instruction of the members of the College, which he carried on in the Laboratory, associating with himself

Combined Lectures. teachers in other Colleges by a system of combined lectures, Merton, Jesus, Trinity, Wadham, and Balliol at various times entering into the combination. During the early part of his tenure of office he entirely renewed a large portion of the collection of chemical substances and reagents, and labelled them in accordance with the modern nomenclature. On the institution of the Preliminary Examination in the Honour School, he commenced and carried on for many years a series of lectures on Physics, a subject since treated specially at the Millard Laboratory.

Report to Commission on Scientific Instruction. An account of the machinery at work for the teaching of Physical Science at Magdalen College in the year 1870 was printed in an appendix to the reports and minutes of evidence of the Royal Commission on Scientific Instruction¹.

Mr. Chapman then stated, for the benefit of the Commissioners, that the method of teaching was:

1. 'A course of advanced lectures intended for candidates for honours in the Physical Science School. These lectures combine formal teaching in a class with attention to the individual requirements of each candidate in private.

2. 'A course of lectures on elementary chemical physics, intended for beginners. These lectures are not given with the view of training men necessarily for the Physical Science School, but as a means of general education, in the hope that an intelligent interest may be excited in the mind of the student, and habits of observation and accuracy established.'

In conclusion Mr. Chapman laid great stress on the importance of supplementing the teaching work of the professors of the University 'by taking care that each student in Physical Science shall receive the same help and attention from his College Tutor as that enjoyed by the classical or mathematical candidate. I am the more confirmed in this view, as I have found that such a system often reaches men who, but for the fact that the subject was brought to them in College, would never have taken up the study at all.

¹ *Royal Commission on Scientific Instruction and the Advancement of Science*, vol. i. First, supplementary and second reports with minutes of evidence and appendices. [C. 536.] London, 1872.

'Considerable experience in tuition has convinced me that Physical Science as an instrument of education will flourish the better in Oxford the more it becomes an integral part of our College System.'

The replies which the Commissioners received from the various Oxford Colleges show very clearly the pioneer part which the Daubeny Laboratory, under Mr. Chapman's direction, took at this time in supplementing the professorial teaching centred at the University Museum.

In 1874 a new and important development in the teaching of the University took place, when Messrs. Chapman, Lawson, and Yule arranged courses of instruction in biological subjects on new lines. To these courses of instruction our physiological teaching on modern lines traces its origin, and owing to them the Daubeny Laboratory came by the name of the Physiological Laboratory. Biological Teaching.

The Biological Courses at the Daubeny Laboratory were, no doubt, intended to supplement the deficiencies in the University Courses. In a syllabus of about 1875, we see that a minute practical study was made of the Plasmodium of Aethalium, of Amoeba, Actinosphaerium, Monocystis, and two other Gregarines, Paramoecium, Vorticella, Acineta, and Hydra. Another syllabus included Zygnema, Tridacnaria, Yeast, Pleurococcus, Gloeocapsa, Palmella, Nostoc, Oscillatoria, Bacterium, Chlamydococcus, Volvox, and Spirogyra. Courses on Histology and Physiology were arranged by Mr. Yule.

The lectures were open to Magdalen, Merton, and Trinity men, and though the beginnings were modest, yet might the originators with justice have quoted the words, 'We shall light such a candle as shall never be put out,' at any rate we hope not in Oxford.

In 1876 a series of more popular lectures and practical demonstrations in Physiology, by Mr. Yule in conjunction with Professor Lawson on Vegetable Physiology, and Mr. Chapman on Chemical Physics, was delivered to a class of artisans in the Laboratory, which was lent by the College for that purpose. A lecture was delivered every Saturday evening, at Lectures to Artisans.

seven o'clock, of about an hour's length, and the two following hours were employed in practically verifying by dissection and experiment the leading points of the lecture, for which purpose each student was supplied with a working-place to himself and the apparatus necessary for his work. The numbers were restricted to eight, and Mr. F. J. Bell, now Professor of Comparative Anatomy at King's College, London, assisted both in the teaching and preparation of the lectures.

C. Yule's
Physio-
logical
Course.

Mr. C. J. F. Yule, although originally a Brackenbury Scholar of Balliol, migrated to Cambridge, where, as a Scholar of St. John's College, he had studied Physiology with Michael Foster, and was known by a paper on Urari when elected to a Fellowship at Magdalen. On his return to Oxford he found that work along modern lines was impossible in the University Laboratories, for Professor Rolleston, although nominally the Linacre Professor of Physiology, was devoting his chief attention to Comparative Anatomy, and had not followed the latest developments of Physiological Research.

The thorough nature of Yule's Physiological Course is indicated by the syllabus compiled by him in 1878, entitled *Syllabus of a Year's Course of Practical Work in the Physiological Laboratory of Magdalen College, Oxford*. Circulation and Respiration were studied in the Michaelmas Term, the Nervous System in the Lent Term, while the Easter Term was devoted to Digestion and Animal Chemistry.

From this development in the teaching the need for modern instruments of precision naturally arose, and the College voted in 1876 a grant for the purpose of procuring them. Of the apparatus which was then added to our collections we cannot speak too highly, for without the Oertling Balance, the Elliott-Thomson Galvanometer, and the Chronographs, much good research could not have been accomplished.

Mr. Yule still further increased the efficiency of the Laboratory for Physiological Research, by causing it to be registered as a place where experiments upon living animals could be carried on. At his request the College passed the following Order: 'That the College consent to their Laboratory being registered under 38 and 39 Victoria, Cap. 27, for

the performance of experiments under the said Act' (Meeting of October 13, 1877). The licence was granted by the Home Office on October 25, 1877.

The University Physiological Laboratory had not so much as been thought of in those days, and was not opened for work until 1885. Many therefore availed themselves of the opportunity for quiet study which the College Laboratory, the only Physiological Laboratory in Oxford, afforded. Among them my friend Dr. Dixey, who, in relating some of his experiences of these early days, enlarged on the benefit he had obtained from it, and extolled Yule's undoubted genius. We find that on February 9, 1882, the latter, applying for a renewal of the licence, could write, 'I am at present the only person teaching Physiology in this University.' And Professor Burdon-Sanderson, on coming to Oxford from University College, London, in 1882, as Waynflete Professor of Physiology, found the Daubeny Laboratory suitable for his experimental work. There was no laboratory connected with his Chair.

The small rooms on the upper floor were at this time devoted to Physiology, and the westernmost was specially fitted up as a dark room for Professor Burdon-Sanderson, and there, assisted by Dr. Gotch, he carried on his researches on *Dionaea*¹.

Meanwhile, work in other branches of science was not neglected, for in the summer of 1876 Mr. Lazarus Fletcher, the present Keeper of the Mineralogical Department in the British Museum, on his appointment as Millard Lecturer in connexion with Magdalen, Merton, and Trinity Colleges, conducted a course in Optics and other branches of Elementary Physics in the Laboratory. When in 1879 he became an assistant at the British Museum, Mr. Jupp, a mathematical Demy, and later science master at Clifton College, acted as his deputy, and at a later date, Mr. Dixon, now Professor of Chemistry at Owens College, Manchester.

¹ J. Burdon-Sanderson, *On the Electromotive Properties of the Leaf of Dionaea in the Excited and Unexcited States*. Second Paper. *Philosophical Transactions*, vol. 179, pp. 417-49. 1888.

H. B.
Dixon's
Research
on Rate
of Explo-
sion in
Gases.

Professor Dixon's connexion with our Laboratory is best explained in his own words—

'I had been working on the explosion of gases in the Christ Church Laboratory, 1876-9. On my election to a lectureship at Balliol and Trinity I continued the work in the Balliol Laboratory, and made some attempts to measure the rate of explosion of gases. I think it was in 1881 that my friend, C. J. F. Yule, Fellow of Magdalen, showed me round the Magdalen Laboratory, and explained the electric chronograph with which he had been doing physiological experiments. This instrument seemed to be adaptable to my wants, so as he was no longer using it, I asked him to let me try it on my gases. This he allowed me to do, and I soon found it would accurately record the very rapid movements of the explosions. Accordingly I got leave from the College to work in the Laboratory, and I worked there for about two years. In 1883 or 1884 I bought the chronograph from Magdalen, and removed it to Balliol.

'During 1882 and 1883 I used to go to the Magdalen Laboratory in the afternoons, and sometimes evenings.

'I used the chronograph to determine the initial rate of explosion of mixtures of carbonic oxide and oxygen with different quantities of moisture, and also for measuring the rate of the "explosion-wave" in gases under different conditions. My results were published in a memoir, "On the Conditions of Chemical Change in Gases," *Phil. Trans. R. S.* 1884, and in the Bakerian Lecture for 1893, "On the Rate of Explosion in Gases," *Phil. Trans.* 1893.

'I occasionally met the Rev. T. H. T. Hopkins in the Laboratory, and he became interested in my work. He gave me a piece of apparatus which had belonged to Daubeny. I remember watching with him some of the sunset "glows" (the after-effect of the eruption of Krakatoa) from the Laboratory windows.'—Extract from a letter from Professor H. B. Dixon to the author.

A tradition is extant in the Laboratory that there was a great depletion of chemical glass during Mr. Dixon's sojourn there, on account of the destructive nature of his research.

It is always a matter of gratification to the Biologist when, for the purposes of his own research, he has invented or improved some instrument, with such success that by its means a new field of discovery has been opened in the more exact sciences of Chemistry and Physics. The Physiologist, in striving to measure the minute space of time required by a nervous impulse to travel along its conducting path, had brought the electric chronograph to such perfection that Dr. Dixon was able to measure the velocity of explosion waves in gases by it, and Mr. Jervis-Smith has been able to adapt the same instrument to record the velocity of bullets at the moment of leaving the barrel of a rifle. The microscope also owes its perfection chiefly to the requirements of Biological Research, and the best test-objects for it are still supplied by the organic world. And, finally, the Sprengel pump, without which electric glow-lamps would have remained undiscovered, was the invention of a Physiologist.

It is by such means that the Biological Sciences are able to repay part of the debt they owe to Chemistry and Physics, and we are pleased to think that our Physiological Laboratory should have contributed towards the payment of that debt in providing Dr. Dixon with the instruments by which his valuable results were obtained.

To continue the account of the teaching in the Laboratory in recent times, it only remains to be said that the resources of the institution have been chiefly devoted to Practical Chemistry. The courses of instruction which were originally arranged under Mr. Chapman have become more and more popular, and are being ably conducted by Mr. J. J. Manley, who succeeded Mr. J. Harris as Daubeny Curator in 1888; and many men from other colleges, being attracted by the facilities afforded for study, have applied for admission. Owing to limited space the instruction is advisedly principally confined to Quantitative work.

A new departure was made in Lent Term, 1889, when the Laboratory (built in 1863) belonging to Magdalen College School was refitted for Analytical Chemistry by the Rev. W. E. Sherwood. Lectures in Chemistry, Optics, Heat,

Instruction in
Practical
Chemistry.

School-
boys.

Electricity and Magnetism were arranged for the boys studying Science at the School, and have been delivered by Mr. Manley in the College Laboratory twice a week. The lectures cover such portions of the subjects as are required for the Oxford and Cambridge Higher and Lower Certificates.

Pre-
liminary
Physics.

In 1891 the Regulations of the Board of the Faculty of Natural Science were modified, so as to require from candidates for the Preliminary Examination in Physics a practical knowledge of certain elementary physical experiments. Mr. Chapman obtained a special grant from the College for the purchase of apparatus suited for these new requirements, and the easternmost room on the upper floor was adapted for a course of instruction.

The wisdom of rendering the Laboratory equipment fitted for instruction in the subjects for the Preliminary Examination was strikingly exemplified when, a few years after, the University Laboratory was so crowded that several undergraduates commencing the subject could not be accommodated there.

Physical
Chem-
istry.

Some ten years later a new departure was made in the course of Physical Chemistry which was arranged by Messrs. Wilson and Manley. For many years the subject of Physical Chemistry had been required of all candidates seeking honours in the Final Chemistry School, but there was no adequate provision in the University for practical instruction in this most productive field of chemical study.

Need for
extension.

In 1901 the main fabric of the Daubeny building was in practically the same condition as it was in the middle of the nineteenth century. A roof over the main staircase had been replaced, and a high-pressure water heating apparatus had been introduced instead of the old low-pressure boiler, which had remained in a useless state for many years, but no structural improvements had been effected.

The need for extension and rearrangement arose, firstly, because the number of students receiving practical instruction in Chemistry and Physics in the Laboratory had largely increased, and secondly because the purposes for which it was desired to use the building were found to interfere with

one another, and the ventilation was bad. Beginners in Chemistry, preparing for Preliminary Examinations, worked in the same room as advanced students engaged in quantitative operations of a refined order ; consequently the results obtained by the latter were often in danger of being vitiated by the deleterious fumes liberated by the former. In spite of all precautions the vapours permeated the cupboards and cabinets in the gallery, and rendered them unsuitable for the collections and apparatus contained therein. All brasswork left in them became deeply corroded. And occasionally the obnoxious fumes, ascending to the upper parts of the building, would enter the rooms devoted to the apparatus and operations of the Physicists. In short, the improvement of the Laboratory building was imperative.

A Committee appointed by the College Order of March 13, 1901, to consider the question of the extension of the Daubeny Laboratory, reported as follows :

‘They are agreed in thinking it is desirable to improve the Daubeny Laboratory with a view to carrying on more effectively the teaching and practical work at present done there, mainly in Preliminary Chemistry, but also to some extent in Preliminary Physics. Report of
Com-
mittee.

‘The alternative methods of doing this appear to be, either to add to the existing premises by building on toward the west, on the ground at present occupied by sheds, &c., between the existing premises and the telescope tower, or entirely to gut and rearrange the existing premises.

‘The Committee recommend the former course as leaving the present building available for present purposes other than the teaching of Chemistry, including the teaching of Physics, and the provision of a Museum for the Daubeny apparatus, and also as furnishing space for what is much needed, a Lecture Room, while providing at the same time more and better accommodation for the teaching of Chemistry and for Chemical research in the premises to be added.

‘They recommend that if the College decides to entertain the proposal to improve the Laboratory, they be reappointed with instructions to obtain exact drawings and estimates for

such additions and rearrangement, and also to report on the probable cost of maintenance of the Laboratory as so improved' (January 25, 1902).

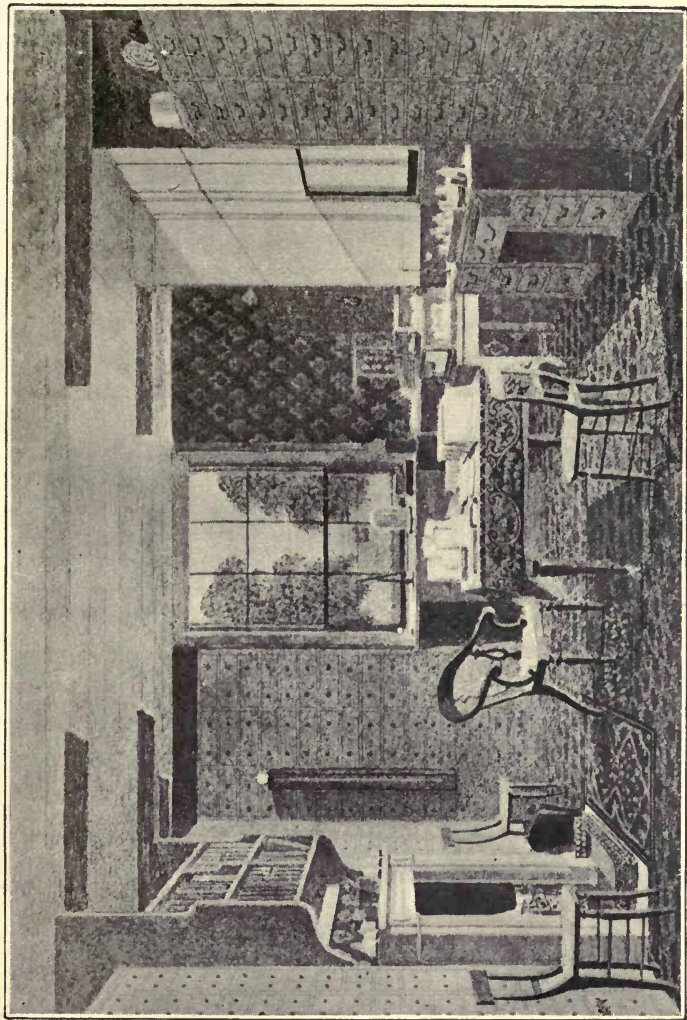
The new
Labora-
tory.

At the March Meeting the first-mentioned plan for the improvement was adopted, and the new Laboratory was commenced before the end of Lent Term, 1902, between the old Lecture Room and the telescope, and was finished by the end of the following Long Vacation. The foundation stone was laid over a dated fragment of the *Times* and a new coin of the realm, and bears the following inscription:

LAPIS · HIC · ANGVLARIS
A · THOMA · HERBERTO · WARREN
ANNO · PRAESIDATVS · XVII^{MO}
A · D · IX · KAL · MAI · IACTVS · EST.

The new building consists of two laboratories one above the other, an entrance hall, and a cellar for stores and the heating apparatus. Access to the upper story was by a new staircase which, to save space, was inserted between the old building and the wall of the Botanical Garden. The old doorway in the middle of the north side of Dr. Daubeny's Lecture Room was replaced by a window; a doorway to communicate with the new hall being opened in the place of the end window shown in Plate 2. The little brick-paved court to the east of the old building was roofed over and is used as a still-room for the preparation of distilled water; and the chamber under the telescope, provided with a wood-block floor and lighted by a new window cut through the western wall, has made an excellent workshop.

The principal changes which have been effected in the interior are the conversion of the large Laboratory into a lecture room, by the removal of the benches and cupboards to the new room on the ground floor, and also by the removal of the cupboards which covered the windows above the north gallery, shown in Plate 2. The floor, weakened by dry rot owing to deficient ventilation, had to be almost entirely renewed. The Science Tutor's Room, formerly Dr. Daubeny's study (Plate 3), was equipped for the performance of experiments in Physical Chemistry, for which the situation near the



THE PRIVATE ROOM OF THE TUTOR IN NATURAL SCIENCE, C. 1870-94
ORIGINALLY DR. DAUBENY'S STUDY

*From a water-colour drawing in the possession of Mr. Edward Chapman, M.P.
by whom this plate is presented*

ground rendered it better adapted than were any of the rooms on the upper floor, the easternmost of which, until now the Physical Chemistry Room, became the private room of the Tutor in Natural Science. The other three rooms, used as the Photographic, Curator's, and Elementary Physics rooms respectively, were left undisturbed.

The new Chemical Laboratory on the upper floor, measuring thirty-nine feet long by sixteen feet broad by eleven feet high was designed as a beginners' laboratory. The positions and proportions of windows and intervening piers were dictated by the number and breadth of the benches, which it seemed advisable to introduce into the space at our disposal. Flues for carrying away fumes from draught hoods were made of three-inch drain-pipes inserted in the walls during the building. The walls for a space of three feet above the benches are covered with panes of 'opalite' glass keyed on to cement, producing a surface which is easily kept clean. The draught cupboard is of glass and wood, built upon a bed of slate—which, in our experience, has proved to be more durable than lead—between the splays of a window so as to be thoroughly well illuminated.

The bench-tops are of well-seasoned kauri pine, painted beneath with a coat of red lead paint to prevent shrinkage or expansion due to alterations in the hygrometric state of the air, and treated above with paraffin wax melted into the pores of the wood with a flat iron, as a protection against corrosion. Cupboards and drawers beneath the benches for the students have been dispensed with on account of the great difficulty in preventing them from being used as receptacles for apparatus put away unwashed; the bench-tops have thus been kept at a lower and more convenient height than is customary in chemical laboratories.

The room on the ground floor, which is somewhat shorter than the upper room, was intended as a research laboratory. It has been furnished almost entirely with material from the old Laboratory. At the present time it is being used by Mr. N. V. Sidgwick, Fellow of Lincoln College, for the preparation of the experiments in illustration of his lectures on Organic Chemistry, and by Mr. H. E. W. Phillips.

APPENDIX A

THE METEOROLOGICAL RECORD.

Meteoro-
logical
Records.
Daubeny,
1861-7.

THE earliest weather records kept at the Laboratory which have been preserved were those made by Dr. Daubeny himself, and they consist of barometric and thermometric readings entered in small 8vo diaries. But inasmuch as the learned doctor only recorded his own personal observations, and was often away from Oxford, his meteorological record from 1861 to October 31, 1867—though fairly complete as regards his own environment—lacked continuity, for observations on the climate of Rome or Naples would be sandwiched between records of Oxford weather. Nevertheless his observations of the quantity of ozone present in the atmosphere, both at Torquay and at Oxford, were of especial value, and a summary of them is contained in a paper *On Ozone and its Disengagement by the Leaves of Plants*, published in the *Journal of the Chemical Society*, January, 1867.

J. Harris,
1869-73.

After Dr. Daubeny's death there is a gap of a year in the record, and then a more systematic series of observations with standard instruments was commenced. The installation of the instruments and the method of observation were due to Mr. T. H. T. Hopkins, but the observations were made by John Harris.

In 1869 Mr. E. Chapman took over the superintendence of the Meteorological Observations, and in this he was assisted by J. J. Manley after the retirement of John Harris.

The Daubeny Laboratory is situated about 191.62 feet¹ above sea-level, and therefore rather lower than the Radcliffe Observatory. The difference of twenty feet in the altitudes of

¹ The height of a brass plate on the plinth of the building above mean sea-level. This height was obtained by levelling from the Ordnance Survey Bench Mark at the foot of Magdalen Tower.

the lowest rain gauges at the two stations seems to account for a perceptible difference in the annual rainfall observed.

*Description of the Meteorological Instruments*¹.

1. A Standard Cistern Barometer, No. 729, by Negretti and Zambra². Examined and certified by J. Glaisher, Esq., F.R.S. Its readings require to be increased by 0.005 inch for index error and capillarity, and further corrected for difference of readings of attached thermometer from 32° by application of corrections for barometers with brass scales³.

Example of reading with reductions and corrections—

Barometer	29.998	actual height read off on vernier.
	<u>+ .005</u>	for capillarity.
	30.003	
	<u>-.076</u>	for temperature at 57° F.
	29.927	
	<u>+ .203</u>	for sea-level ⁴ .
	<u>30.130</u>	Reduced reading.

2. Thermometers.

- | | | | |
|-----|---------------|---|--------------------------------------------------------------------------------------------------------------------------------------|
| (a) | Exposed. | { | One sensitive spirit minimum ⁵ , with forked bulb, placed on the grass. |
| | | | One sensitive spirit minimum ⁵ , with forked bulb, placed one foot above it. |
| (β) | In the Shade. | { | One maximum solar radiation thermometer, with dull black bulb in vacuo, by Casella. In wire cage on the grass before the Laboratory. |
| | | | One maximum (mercury) } thermometer, with Phillips's index. |
| | | | One minimum (spirit) } |
| | | | One wet } bulb thermometer. Fastened in wooden case to wall, with northern aspect. |

¹ This description is, in the main, based upon a printed plan drawn up by Mr. Edward Chapman, to whom the arrangement of the register books is also due.

² Presented to the Laboratory by Mr. Chapman.

³ *Table of Corrections for Barometers with Brass Scales*, by James Glaisher, F.R.S. London: Taylor and Francis, 1856.

⁴ The cistern of the instrument stood 191.62 feet above sea-level.

⁵ Both made by Casella, and verified at Kew Observatory.

(γ) One portable thermometer in copper case for taking the water temperature.

3. **Rain Gauges.** Made of copper, let into stone bed.

(α) Diameter 5 in. Height at top { above ground 1 foot.
above sea-level 190 feet.

(β) Diameter 5 in. Placed on roof { above ground 20 feet.
above sea-level 210 feet.

4. **Ozone Cage,** for Schönbein's paper.

5. **Anemometer,** above roof, by Casella.

6. **River Gauges** in the Cherwell.

(α) 120 yards below Magdalen Bridge¹.

(β) 130 yards above α . A scale of feet marked in cement fixed against a wall.

Order in which the Observations are taken.

Time, 10 a.m.²

1. The temperature of the barometer is read off from the attached thermometer, the cistern-level adjusted after gently tapping the instrument, and the height of the column read off on the vernier and entered. The corrections as above are made afterwards.

2. The solar maximum radiation, and the minimum thermometer on the grass and 1 foot above it, are read and adjusted.

3. The maximum and minimum, together with the wet and dry bulb thermometers, are read and adjusted. The degree of humidity is found from Bone's tables³.

4. The rain gauge is visited⁴. The rainfall is measured and entered on the spot.

5. The river temperature on the surface and 3 feet below

¹ This instrument consists of a simple float in a well freely communicating with the Cherwell. The float bears a rod graduated in feet and inches, which indicates its position and the height of the water. The graduations are so arranged that zero on the scale corresponds to a mean height; it is about 186 feet above sea-level.

² The observations were taken at 9 a.m. before Jan. 1, 1873.

³ *Tables for Mason's Hygrometer*, by Wm. Bone, Esq. London: Jones, Optician, Charing Cross.

⁴ Should rain be falling at 10 a.m., the rain gauge is visited immediately after reading the barometer.

the surface is read from a thermometer placed there by the observer on his way to the rain gauge.

6. The height at which the water stands is noted by reference to the river gauge, and during floods the rise or fall is observed and recorded several times daily.

7. The direction and force of wind, the kind and amount of cloud, and the weather, as required by Beaufort's scale, is entered.

8. The ozone paper is removed from the ozone cage, a fresh piece fastened in, and the amount of ozone entered according to the ozone colour scale; the exposed paper having been dipped in distilled water before comparing it with the scale.

The observations are entered in oblong tables measuring 16 inches by 10 inches. Each table is constructed for one month's observations, and the variations of the barometer, thermometer, and rainfall are summarized in curves on the opposite page.

The continuous series of observations commenced by Mr. Hopkins, and carried on and much extended by Mr. Chapman, were found to be of great value when the British Association appointed a special Committee, consisting of the Hon. Ralph Abercromby, Dr. A. Buchan, Mr. J. Y. Buchanan, Mr. J. Willis Bund, Professor Chrystal, Mr. D. Cunningham, Professor Fitzgerald, Dr. H. R. Mill (*Secretary*), Dr. John Murray (*Chairman*), Mr. Isaac Roberts, Dr. H. C. Sorby, and the Rev. C. J. Steward, to inquire into and to report upon the Seasonal Variations of Temperature in Lakes, Rivers, and Estuaries in various parts of the United Kingdom, in co-operation with the local societies represented on the Association.

The records of the temperature of the Cherwell kept at the Daubeny Laboratory were warmly commended by the Committee, who directed especial attention to 'Mr. Chapman's magnificent series of mean monthly temperatures, which illustrate very clearly the variations in the seasonal swing of temperature in water in one of the most extreme average climates of the British Islands, taking its low altitude into account. It serves not only to record the variations in

temperatures of the Cherwell, but to suggest the range of deviations from normal seasonal temperatures to be expected in any case. Thus we are warned not to assume the mean of one or two years as being the real mean temperature of any exposed body of water' (*British Association Report for 1891*, p. 19). And the second series of averages for twelve years, which we now publish, demonstrates this still more clearly.

Observations of the temperature of the Cherwell were made regularly every morning since 1878 by Mr. Edward Chapman or by his assistant, and have been continued since his resignation in 1894, up to date. The ordinary meteorological observations having been made at the same time, make it possible to compare river temperature, air temperature, and rainfall. The river temperature recorded below is the mean of daily observations at 10 a.m., the air temperature is the mean of the maximum and minimum thermometer in the shade for the previous twenty-four hours, and the rainfall is the amount in inches which fell in the previous twenty-four hours.

The length of this series of observations gives it peculiar value in affording an indication of average conditions. The average air temperature for the twenty-two years was $49^{\circ}5$, the average water temperature at 10 a.m. $50^{\circ}9$, or $1^{\circ}4$ warmer than the air; the mean annual rainfall for these years being 23.6 inches. The year of lowest air temperature was 1887, with $47^{\circ}6$, the average water temperature for that year being $49^{\circ}8$ and the rainfall 18.78 inches, very exceptionally low. The lowest mean water temperature was in 1888, $49^{\circ}0$, when the mean air temperature was $47^{\circ}9$ and the rainfall 27.39 inches. The highest air temperature was $51^{\circ}2$, the mean of 1893, when the water temperature was also highest, $53^{\circ}5$, and the rainfall was 16.51 inches. In 1890, the year of the next lowest rainfall, when only 17.02 inches fell, the temperatures of air and water were almost at their average ($49^{\circ}0$ and $50^{\circ}8$ respectively); while in 1903, which was the wettest year, with 35.14 inches of rain, the air temperature was nearly normal ($50^{\circ}1$), and the water temperature was also very near the average

(50°·7). The difference between the average temperature of the warmest and coldest year recorded was only 2°·5 for the water.

The highest mean temperature of the water for any month was 69°·2 in September 1893, in a month with a low rainfall, but in the year of the highest average air temperature. The lowest mean temperature of the water was 32°·4 for January 1891 (air 32°·6), but the lowest air temperature was 29°·2 for December 1890, when the water had a mean of 33°·3.

The difference in average temperature of water for the same month in different years was greatest in the months of annual maxima and minima. The hottest June was 12°·7 warmer than the coolest June; the warmest January was 10°·6 warmer than the coldest January. But it does not clearly appear that at the time of annual average temperature the difference was least; for the warmest April was 9°·3 and the warmest September 12°·3 above the temperature of the coldest month of the same name.

On the average the air temperature came nearest the water temperature in the winter months, notably in November and January, when they almost coincided, and the two temperatures diverged most in the summer months, April to July, when the difference averaged 2°·3. During the twenty-two years of observation the average monthly air temperature was higher than the average monthly water temperature at 10 a.m. on forty-six occasions. Of these ten occurred in January, nine in February, ten in November, and seven in December, or thirty-six in the winter months; four were in March, one each in April, May, July, and August, and two in October. In no June or September, between 1882 and 1903, has there been an instance of air being warmer than water on the average of a whole month. Of course, in the observations now recorded the comparison is made between average air temperature for the whole twenty-four hours, and average water temperature at 10 a.m. only.

*Mean Monthly Observations on the Temperature of the River
Cherwell at Oxford.*

1882.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Tempera- ture.	Mean River Tempera- ture.	Total Rainfall in inches.
January . . .	41·3	36·0	38·6	41·8	1·13
February . . .	42·3	36·6	39·4	41·7	1·75
March	48·0	38·0	43·0	46·8	1·18
April	51·3	40·5	45·9	51·0	3·78
May	58·1	45·1	51·6	57·3	1·66
June	61·0	49·7	55·3	53·9	3·08
July	64·0	53·0	58·5	63·6	3·56
August	67·6	53·2	60·4	62·9	1·36
September . .	63·1	46·0	54·5	57·3	2·08
October	56·2	44·2	50·2	50·9	5·54
November . . .	48·5	37·3	42·9	41·9	3·41
December . . .	43·1	34·6	38·8	40·3	3·20
Year	—	—	48·3	50·8	31·73

1883.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Tempera- ture.	Mean River Tempera- ture.	Total Rainfall in inches.
January . . .	45·7	37·0	41·3	41·0	2·29
February . . .	48·2	37·3	42·7	42·4	3·60
March	43·7	29·7	36·7	39·9	0·99
April	53·3	38·5	45·9	49·9	1·07
May	62·0	44·7	53·3	56·3	1·94
June	69·9	50·9	60·4	62·5	4·35
July	69·7	52·5	61·1	62·6	3·53
August	71·3	53·2	62·2	63·2	0·70
September . .	65·0	50·5	57·7	58·7	4·50
October	56·6	44·1	50·3	51·2	1·90
November . . .	48·8	36·1	42·4	43·0	3·11
December . . .	44·7	36·4	40·5	41·1	0·54
Year	—	—	49·5	51·0	28·52

1884.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Tempera- ture.	Mean River Tempera- ture.	Total Rainfall in inches.
January . . .	47.1	39.3	43.2	42.1	2.30
February . . .	47.5	37.1	42.3	42.6	1.32
March	51.3	36.3	43.8	45.2	1.41
April	54.0	41.2	47.6	49.1	1.69
May	65.3	44.3	54.8	51.3	0.80
June	69.0	50.4	59.7	61.5	2.05
July	73.5	54.9	64.2	64.9	2.25
August	75.7	53.9	64.8	66.8	1.52
September . .	67.9	51.3	59.6	61.1	1.36
October	57.0	42.0	49.5	51.9	0.97
November . . .	47.5	36.2	41.8	43.0	1.74
December . . .	43.9	36.0	39.9	38.4	2.07
Year	—	—	50.9	51.5	19.48

1885.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Tempera- ture.	Mean River Tempera- ture.	Total Rainfall in inches.
January . . .	40.3	32.1	36.2	34.0	2.17
February . . .	48.5	38.2	43.3	41.2	2.67
March	48.2	33.6	41.9	42.7	1.10
April	55.9	38.3	47.1	49.1	1.72
May	59.2	41.8	50.5	54.3	2.03
June	70.4	50.7	60.5	63.1	1.67
July	74.9	54.3	64.6	66.5	0.18
August	68.3	50.9	59.6	60.8	1.56
September . .	63.9	47.3	55.6	57.0	4.36
October	52.6	39.9	46.2	47.2	3.89
November . . .	46.7	38.0	42.3	41.4	3.51
December . . .	42.5	33.1	37.8	37.5	1.02
Year	—	—	48.8	49.6	25.88

1886.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Tempera- ture.	Mean River Tempera- ture.	Total Rainfall in inches.
January . . .	40.5	31.0	35.7	35.1	4.00
February . . .	38.7	29.6	34.1	35.7	0.68
March . . .	46.3	33.9	40.1	39.5	1.61
April . . .	55.6	39.2	47.4	47.7	2.13
May . . .	61.8	44.0	52.9	53.4	4.58
June . . .	67.9	50.1	59.0	59.9	1.14
July . . .	73.4	53.9	63.6	65.9	3.39
August . . .	71.7	54.4	63.0	64.0	1.65
September . .	66.7	50.6	58.6	60.1	2.27
October . . .	59.2	47.5	53.3	53.1	3.16
November . .	49.2	38.5	43.8	43.5	2.50
December . .	41.3	31.3	36.3	36.5	5.01
Year . . .	—	—	49.0	49.5	32.12

1887.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Tempera- ture.	Mean River Tempera- ture.	Total Rainfall in inches.
January . . .	38.7	29.9	34.3	35.2	2.16
February . . .	42.1	33.3	37.7	39.8	0.67
March . . .	44.2	31.9	38.0	40.5	1.58
April . . .	53.5	35.9	44.7	47.8	1.11
May . . .	58.8	43.5	51.1	53.7	1.51
June . . .	71.2	51.4	61.3	64.5	1.56
July . . .	78.0	54.9	66.4	68.7	0.71
August . . .	72.4	51.4	61.9	64.5	2.20
September . .	62.7	47.4	55.0	56.9	2.10
October . . .	50.3	38.2	44.2	46.8	1.96
November . .	44.3	34.9	39.6	40.8	1.85
December . .	42.3	32.1	37.2	37.7	1.37
Year . . .	—	—	47.6	49.8	18.78

1888.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Tempera- ture.	Mean River Tempera- ture.	Total Rainfall in inches.
January . . .	41·1	32·0	36·5	36·5	0·70
February . . .	33·3	31·4	32·3	34·7	3·38
March	42·0	32·8	37·4	38·3	2·94
April	51·2	37·3	44·2	45·4	1·59
May	63·0	43·8	53·4	56·8	1·18
June	67·6	50·2	58·9	61·0	3·19
July	67·6	52·1	59·8	61·0	4·44
August	68·1	51·4	59·7	60·9	1·97
September . .	64·0	48·6	56·3	57·8	1·13
October	54·4	38·3	46·3	47·6	0·77
November . . .	57·8	42·2	50·0	46·8	4·13
December . . .	44·4	35·9	40·1	42·0	1·97
Year	—	—	47·9	49·0	27·39

1889.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Tempera- ture.	Mean River Tempera- ture.	Total Rainfall in inches.
January . . .	40·2	31·9	36·0	38·1	0·66
February . . .	43·1	32·4	37·7	38·0	1·82
March	48·2	34·7	41·4	41·9	1·69
April	52·5	39·2	45·8	47·5	2·51
May	66·0	48·9	57·4	57·8	2·91
June	71·1	53·1	62·1	64·3	1·90
July	70·9	53·5	62·2	64·7	2·69
August	69·3	52·0	60·6	63·4	2·29
September . .	65·3	49·4	57·3	59·2	1·49
October	54·9	42·0	48·4	49·6	2·36
November . . .	45·8	39·5	42·6	45·3	0·88
December . . .	41·9	31·8	36·8	37·3	1·04
Year	—	—	49·0	50·6	22·24

1890.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Temperature.	Mean River Temperature.	Total Rainfall in inches.
January . . .	46.8	36.9	41.8	41.5	1.86
February . . .	43.2	32.8	38.0	39.3	0.71
March	50.4	36.2	43.3	43.6	0.72
April	53.8	38.0	45.9	48.6	1.03
May.	65.3	45.2	55.2	58.3	1.75
June	69.4	50.3	59.8	61.9	1.51
July	69.6	53.2	61.4	63.7	2.96
August	69.4	52.2	60.8	63.4	2.26
September . .	68.6	50.5	59.5	60.2	1.02
October . . .	57.1	42.4	49.7	51.2	1.14
November. . .	48.5	37.7	43.1	44.4	1.51
December. . .	32.8	25.7	29.2	33.3	0.55
Year	—	—	49.0	50.8	17.02

1891.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Temperature.	Mean River Temperature.	Total Rainfall in inches.
January . . .	38.0	27.2	32.6	32.4	1.40
February . . .	45.3	32.1	38.7	39.3	0.00
March	46.5	34.0	40.2	40.5	1.55
April	52.9	36.5	44.7	46.9	1.41
May.	59.7	42.5	51.1	54.4	2.15
June	70.9	52.0	61.4	63.6	1.27
July	70.7	52.4	61.5	64.5	2.14
August	67.5	52.0	59.7	61.3	4.51
September . .	66.8	49.9	58.3	59.4	1.34
October . . .	56.6	44.0	50.3	51.1	5.63
November. . .	47.3	37.9	42.6	44.0	2.10
December. . .	44.0	34.5	37.2	40.1	2.97
Year	—	—	48.4	49.8	26.47

1892¹.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Tempera- ture.	Mean River Tempera- ture.	Total Rainfall in inches.
January . . .	40.3	31.5	35.9	36.6	.47
February . . .	44.6	33.9	39.2	39.2	.74
March	43.9	30.3	37.1	39.3	.39
April	58.2	36.4	47.3	50.4	.72
May	64.8	45.3	55.0	57.0	1.15
June	70.9	48.5	59.7	63.1	1.70
July	69.3	51.7	60.5	62.3	2.71
August	70.9	53.3	62.1	63.9	2.97
September . .	64.5	48.1	56.3	58.3	2.23
October	52.6	39.1	45.8	47.6	3.09
November . . .	48.8	38.6	43.7	45.2	1.67
December . . .	40.9	31.0	35.9	37.9	.89
Year	—	—	48.2	50.0	18.73

1893.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Tempera- ture.	Mean River Tempera- ture.	Total Rainfall in inches.
January	39.0	31.2	35.1	34.4	1.57
February	46.7	36.5	41.6	41.1	2.58
March	55.1	35.6	43.5	45.9	.28
April	64.3	40.4	52.3	54.7	.05
May	69.0	49.6	59.3	63.0	.77
June	73.4	51.6	62.5	64.3	.67
July	74.6	55.7	65.1	66.6	3.48
August	76.2	56.2	66.2	67.0	.92
September . . .	66.8	48.2	57.5	69.2	.62
October	58.6	43.7	51.1	53.4	2.56
November	46.7	35.7	41.0	40.8	1.46
December	45.1	33.5	39.3	39.4	1.57
Year	—	—	51.2	53.5	16.51

¹ The calculation of the averages of the years 1892-1903 was kindly undertaken by Mr. P. F. Timms, of the Bursary, Magdalen College.

1894.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Tempera- ture.	Mean River Tempera- ture.	Total Rainfall in inches.
January . . .	42·5	33·1	37·8	37·9	1·67
February . . .	46·8	35·8	41·3	41·8	1·42
March . . .	52·4	35·9	44·1	45·1	1·47
April . . .	61·0	41·7	51·3	51·0	1·81
May . . .	60·2	42·1	51·1	55·1	1·35
June . . .	67·5	50·4	58·9	60·6	2·77
July . . .	72·5	54·4	63·4	65·5	3·29
August . . .	68·8	52·6	60·7	62·2	2·37
September . . .	62·4	47·1	54·7	57·4	1·80
October . . .	55·8	45·1	50·4	51·1	3·26
November . . .	51·3	41·5	46·4	46·3	4·76
December . . .	45·5	36·6	41·0	41·8	1·95
Year . . .	—	—	50·1	51·3	27·92

1895.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Tempera- ture.	Mean River Tempera- ture.	Total Rainfall in inches.
January . . .	36·9	28·8	32·8	34·1	2·40
February . . .	34·3	22·7	28·5	32·2	·16
March . . .	49·9	34·9	42·4	42·0	1·34
April . . .	56·7	41·2	48·9	50·5	1·62
May . . .	67·6	46·0	56·8	59·2	·18
June . . .	73·1	50·9	62·0	65·0	·72
July . . .	72·2	54·3	63·2	64·7	3·55
August . . .	72·0	53·8	62·9	64·1	2·40
September . . .	71·9	50·5	61·2	61·8	·64
October . . .	53·8	39·7	46·7	49·4	2·78
November . . .	51·8	41·1	46·4	45·2	4·17
December . . .	43·6	34·5	39·0	39·5	1·92
Year . . .	—	—	49·2	50·6	21·88

1896.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Temperature.	Mean River Temperature.	Total Rainfall in inches.
January . . .	45.2	36.1	40.6	41.3	.60
February . . .	45.9	33.8	39.8	41.2	.29
March	53.1	39.1	46.1	46.2	2.34
April	58.4	41.8	50.1	51.7	.56
May	65.5	44.9	55.2	59.0	.19
June	74.4	53.9	64.1	66.6	2.40
July	75.5	54.1	64.8	63.0	1.43
August	69.7	51.4	60.5	62.6	2.28
September . .	64.8	50.9	57.8	58.6	5.51
October	52.6	39.7	46.1	47.9	2.66
November . . .	45.1	34.2	39.6	40.7	.73
December . . .	43.8	34.3	39.0	39.5	2.98
Year	—	—	50.3	51.5	21.97

1897.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Temperature.	Mean River Temperature.	Total Rainfall in inches.
January . . .	39.0	31.8	35.4	36.7	1.67
February . . .	48.1	39.6	43.8	42.5	2.29
March	51.8	39.0	45.4	45.0	2.44
April	54.8	39.5	47.1	48.5	2.61
May	62.4	43.3	52.8	56.4	.67
June	71.9	53.4	62.6	64.1	2.67
July	75.1	55.2	65.1	67.1	1.76
August	72.8	54.3	63.5	65.5	3.41
September . .	63.7	48.2	55.9	57.0	2.35
October	58.3	43.0	50.6	52.3	1.32
November . . .	51.3	39.5	45.4	45.8	2.06
December . . .	45.5	34.2	39.8	39.0	2.28
Year	—	—	50.6	51.3	25.53

1898.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Tempera- ture.	Mean River Tempera- ture.	Total Rainfall in inches.
January . .	47·9	39·1	43·5	43·0	·51
February . .	47·2	35·2	41·2	41·0	1·25
March . . .	47·6	33·4	40·5	41·0	·74
April . . .	58·0	38·7	48·3	51·0	1·11
May	61·4	44·5	52·9	54·0	2·40
June	68·4	47·9	58·1	61·8	1·50
July	73·4	52·5	62·8	65·7	·47
August . . .	75·0	54·9	64·9	64·9	1·61
September .	72·3	49·8	61·1	61·5	·34
October . . .	59·5	46·6	53·0	53·3	4·33
November . .	51·0	39·8	45·4	46·5	1·93
December . .	50·0	39·7	44·8	43·9	2·08
Year	—	—	49·7	52·2	18·27

1899.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Tempera- ture.	Mean River Tempera- ture.	Total Rainfall in inches.
January . .	47·2	35·9	41·5	40·1	2·70
February . .	48·7	34·0	41·3	41·1	1·82
March . . .	51·0	31·8	41·4	42·1	·25
April	57·1	40·5	48·8	50·1	1·83
May	60·7	42·7	51·7	56·6	1·18
June	72·0	50·1	61·0	65·3	·47
July	77·6	56·3	66·9	67·2	1·66
August . . .	78·8	53·3	66·3	67·7	2·83
September .	68·1	59·3	58·7	59·4	2·15
October . . .	56·6	40·0	48·3	48·4	2·91
November . .	53·2	40·4	46·8	46·4	2·44
December . .	41·3	30·0	35·6	36·6	1·21
Year	—	—	51·2	51·7	21·45

1900.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Temperature.	Mean River Temperature.	Total Rainfall in inches.
January . . .	45·6	34·3	39·9	39·4	2·20
February . . .	43·2	31·5	37·3	36·3	4·46
March	45·3	33·0	39·1	41·0	·47
April	57·7	38·6	48·1	50·5	·80
May	62·9	43·0	52·9	55·8	1·18
June	71·5	50·6	61·0	63·1	2·30
July	78·8	56·0	67·4	68·3	·75
August	71·5	52·5	62·0	63·2	3·27
September . .	69·1	46·9	58·0	58·8	·52
October	58·5	42·8	50·7	52·2	2·18
November . . .	51·5	40·3	45·9	41·0	1·92
December . . .	50·1	39·2	44·6	44·2	3·23
Year	—	—	50·5	51·3	23·28

1901.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Temperature.	Mean River Temperature.	Total Rainfall in inches.
January . . .	43·1	32·2	37·6	38·2	1·06
February . . .	41·2	30·9	36·0	36·4	·99
March	46·7	33·5	40·0	41·0	1·56
April	58·9	38·6	48·7	49·5	2·03
May	65·7	43·2	54·4	57·8	1·27
June	71·1	48·9	60·0	63·0	·72
July	77·3	55·7	66·8	68·1	5·01
August	72·9	52·1	62·5	61·8	1·77
September . .	67·3	49·5	58·4	59·0	2·18
October	58·8	42·3	50·5	52·4	1·19
November . . .	47·1	37·2	42·1	41·7	·41
December . . .	43·0	32·1	37·5	36·8	3·24
Year	—	—	48·7	50·4	21·43

1902.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Temperature.	Mean River Temperature.	Total Rainfall in inches.
January . .	46.6	35.4	41.0	40.6	.66
February . .	40.6	30.3	35.2	34.2	1.13
March . . .	52.9	38.1	45.5	45.5	1.17
April . . .	56.9	37.6	46.9	48.9	1.15
May	58.8	41.3	50.0	53.2	1.69
June	67.8	49.6	58.7	61.5	1.78
July	71.9	51.8	61.8	65.5	.72
August . . .	69.2	51.5	60.3	61.9	2.14
September .	65.2	45.2	55.1	58.2	1.43
October . .	57.0	43.6	50.3	50.5	1.66
November . .	50.0	38.7	44.3	44.2	2.14
December . .	44.9	38.5	40.7	40.6	1.36
Year	—	—	49.1	50.4	17.03

1903.

Month.	Mean Maximum in Shade.	Mean Minimum in Shade.	Mean Air Temperature.	Mean River Temperature.	Total Rainfall in inches.
January . .	44.3	35.7	40.0	38.4	2.35
February . .	50.8	39.6	45.2	44.3	.80
March . . .	52.8	38.5	45.6	44.9	2.74
April	53.2	36.1	44.6	46.9	2.11
May	63.1	44.6	53.8	55.3	4.21
June	66.7	48.2	57.4	59.7	5.66
July	71.9	53.2	62.5	64.0	3.15
August . . .	68.0	50.8	59.4	60.7	3.80
September .	65.3	49.1	57.2	57.9	1.60
October . .	58.7	46.4	52.5	52.3	6.07
November . .	50.1	38.5	44.3	44.6	1.63
December . .	42.95	34.47	39.3	39.3	1.02
Year	—	—	50.1	50.7	35.14

Mean Temperature of Cherwell for two Periods—I, of Ten Years, 1882-91, and II, of Twelve Years, 1892-1903.

Separately stated in columns I and II for purposes of comparison.

Month.	Mean Air Temperature for Day.		Mean River Temperature, 10 a.m.		Excess of River over Air Temperature.		Average Rainfall in inches.	
	I.	II.	I.	II.	I.	II.	I.	II.
January . . .	37.6	38.4	37.8	38.4	0.2	0	1.87	1.49
February . . .	38.6	39.2	39.5	39.3	0.9	.1	1.66	1.48
March	40.6	42.5	41.9	43.2	1.3	.7	1.48	1.27
April	45.9	48.5	48.3	50.7	2.4	2.2	1.80	1.37
May	53.1	53.8	55.4	56.9	2.3	3.1	2.05	1.35
June	59.6	60.5	61.6	63.2	2.0	2.7	2.17	1.95
July	62.3	64.2	64.6	65.7	2.3	1.5	2.58	2.33
August	61.3	62.6	63.1	63.8	1.8	1.2	2.00	2.48
September . .	57.2	57.5	58.8	59.7	1.6	2.2	2.16	1.78
October	48.9	49.7	50.0	50.9	1.1	1.2	2.41	2.83
November . . .	43.1	44.3	43.4	44.3	0.3	0	2.51	2.11
December . . .	37.4	39.7	38.4	39.7	1.0	.2	1.86	1.98
Year	48.9	50.0	50.3	51.3	1.4	1.3	24.79	20.92

Extreme Values of Monthly Means of River Temperature and Range between Warmest and Coldest Months of the same Name.

Month.	Maximum.	Minimum.	Range.	Date of Maximum.	Date of Minimum.	Air Warmer Occasions.
January . . .	43.0	32.4	10.6	1898	1891	10
February . .	44.3	32.2	12.1	1903	1895	9
March	46.8	38.3	8.5	1882	1888	4
April	54.7	45.4	9.3	1893	1888	1
May	63.0	51.3	11.7	1893	1884	1
June	66.6	53.9	12.7	1896	1882	0
July	68.7	61.0	7.7	1887	1888	1
August	67.7	60.7	7.0	1899	1903	1
September . .	69.2	56.9	12.3	1893	1887	0
October	53.4	46.8	6.6	1893	1887	2
November . . .	46.8	40.7	6.1	1888	1896	10
December . . .	44.2	33.3	10.9	1900	1890	7
Year	53.5	49.0	4.5	1893	1888	46

APPENDIX B

RESEARCHES CONDUCTED IN THE DAUBENY LABORATORY IN RECENT YEARS, WITH REFERENCES TO THE JOURNALS IN WHICH THE RESEARCHES HAVE BEEN PUBLISHED.

1888. December. The spectroscopic examination of the ash of a mould (*Aspergillus niger*) which had been watered with a weak solution of a zinc salt. It was found that a small quantity of zinc had been taken up by the plant. The investigation was carried out by Mr. MANLEY at the request of Dr. G. BUCKMASTER.
1891. Summer Vacation. Mr. MANLEY made a quantitative examination of a large number of juices from various plants for invert sugar. Professor VINES read a paper upon the subject at the Meeting of the British Association in the same year.
S. H. VINES, On the Presence of a Diastatic Ferment in Green Leaves, *Annals of Botany*, v. pp. 409-12, 1891, and *British Association Reports* for 1891, p. 697.
1893. March. Analyses of the embryo and endosperm of certain seeds (*Coix lachryma*) were performed by Messrs. MANLEY and GROOM.
P. GROOM, The Aleurone-layer of the Seed of Grasses, *Annals of Botany*, vol. vii. Sept. 1893.
1893. December. Messrs. V. H. VELEY and MANLEY commenced an elaborate determination of certain of the physical constants of pure nitric acid. The experiments in connexion with this research were continued until the Christmas Vacation of 1900.
V. H. VELEY and J. J. MANLEY, The Electric Conductivity of Nitric Acid, *Philosophical Transactions*, vol. 191, 1898.
1894. November. Mr. MANLEY made several nitrogen determinations in connexion with a research carried out by Miss O'Brien in Professor Vines's laboratory.
M. O'Brien, The Proteids of Wheat, *Annals of Botany*, ix. pp. 208-9, 1895.
- 1895-6. A series of experiments were commenced by Mr. MANLEY

in order to ascertain the rate of the change which starch solutions of definite strengths undergo when treated with specially prepared diastase in the presence of various salts. The work upon this subject is still incomplete.

1897. Mr. F. P. ARMITAGE brought to a successful conclusion a redetermination of the atomic weight of Boron by a method which had been attempted by the late Mr. HOSKYNs-ABRAHALL, a former demy of Magdalen College.

F. P. ARMITAGE, The Atomic Weight of Boron, *Proceedings of the Chemical Society*, xiv. pp. 22-3, 1898. The full MS. of this valuable work is preserved in the archives of the Chemical Society.

An examination of the absorptive power of volcanic tufa was made by Mr. GÜNTHER, and a chemical analysis of samples of the same rock was completed by Mr. MANLEY.

R. T. GÜNTHER, The Phlegraean Fields, *Geographical Journal*, Oct., Nov., 1897.

1898. Summer. Mr. MANLEY ascertained the values of certain physical constants of samples of faulty rum for Mr. VELEY. V. H. VELEY, *Faulty Rum*. Oxford University Press.

The specific gravity of a sample of water brought from the salt lake of Urmi in Persia by Mr. GÜNTHER was accurately determined by Mr. H. N. DICKSON, and the boiling-point, refractive index, and saline contents of the same water were measured by Mr. MANLEY.

R. T. GÜNTHER and J. J. MANLEY, On the Waters of the Salt Lake of Urmi, *Proc. Royal Society*, lxxv. pp. 312-8, 1899.

Examination of part of the Collections made by Mr. GÜNTHER in Azerbaijan.

R. T. GÜNTHER, Reports on the Pliocene Mammalia, Crustacea, Neuroptera, and Diptera are published in Contributions to the Natural History of Lake Urmi, NW. Persia, and its Neighbourhood, *Journal Linnean Society*, xxvii. pp. 345-453.

1899. Summer Vacation. In order to ascertain whether the degree of salinity of a sea-water could be measured by an optical test with as close an approximation as by the specific gravity method, Mr. MANLEY examined some samples of sea-water obtained by Mr. DICKSON.

J. J. MANLEY, The Examination of Sea-Water by an Optical

- Method, *Proc. Royal Society of Edinburgh*, pp. 35-43, Jan., 1900.
- 1899-1900. During the Long Vacations of these years, Mr. H. E. W. PHILLIPS commenced a piece of work on the electrical conductivity of phosphoric acid.
1900. During the early months of this year Mr. H. HILTON, Fellow of Magdalen, commenced some observations on Variable Stars with the 5½ inch Cooke Refracting Telescope.
1901. Easter Vacation. In continuation of his work on sea-waters, Mr. MANLEY made determinations of certain of the physical constants of natural, diluted, and concentrated sea-waters.
- J. J. MANLEY, The Electric Conductivities and Relative Densities of certain Samples of Sea-water, *Proc. Royal Society of Edinburgh*, xxiv. pp. 347-62, 1903.
- Mr. GÜNTHER concluded the investigation of a medusa parasitic upon a pelagic mollusc from the Bay of Naples.
- R. T. GÜNTHER, On the Structure and Affinities of Mnestra parasites, Krohn; with a Revision of the Classification of the Cladonemidae, *Mittheilungen aus der Zoologischen Station zu Neapel*, xvi. pp. 35-62, pls. 2 and 3, 1903.
- V. H. VELEY and J. J. MANLEY, Ueber zwei einfache Methoden, Refractometerkreise zu calibriren, *Annalen der Physik*, [iv] vol. vi. pp. 575-9, 1901.
- V. H. VELEY and J. J. MANLEY, Some physical properties of Nitric Acid Solutions, *Proc. Royal Society*, lxix. pp. 86-119, 1901.
- V. H. VELEY and J. J. MANLEY, The Ionic and Thermal Coefficients of Nitric Acid, *Philosophical Magazine*, [vi] iii. pp. 118-22, 1902.
- V. H. VELEY and J. J. MANLEY, Some physical and chemical properties of strong Nitric Acid, *Transactions of the Chemical Society*, lxxxiii. pp. 1015-21, 1903.
1902. R. T. GÜNTHER, Report on the Coelenterata from the Intermediate Waters of the North Atlantic, obtained by Mr. GEORGE MURRAY during the Cruise of the *Oceana* in 1898, *Ann. and Mag. Nat. Hist.*, ser. 7, xi. pp. 420-30, pls. ix and x, 1903.
- R. T. GÜNTHER, Report on the Distribution of the Mid-water Chaetognatha in the North Atlantic, during the month of November, *Ann. and Mag. Nat. Hist.*, ser. 7, xii. pp. 334-7, pl. xxiv, 1903.

APPENDIX C

ADDITIONS TO THE COLLECTION OF APPARATUS.

SINCE the death of Dr. Daubeny many additions have been made to the collections of instruments belonging to the Laboratory, additions rendered necessary by the ever-varying requirements of instruction and examination, as also by the continual development of science, and in some cases special apparatus have been acquired which was necessary for particular research work carried out in the Laboratory. A few specimens have also been added to the collections.

The chief acquisitions of apparatus, taken in chronological order, are :—

1867. Meteorological and Physical Instruments.

1869. Wrought-iron Digester tested to stand a steam pressure of 500 lb. to the square inch. (Presented to the Laboratory by Mr. Chapman.)

1872. Series of Anatomical Preparations in illustration of Professor Rolleston's *Forms of Animal Life*, which was prepared by Mr. Charles Robertson, formerly Demonstrator to the Linacre Professor. The preparation of the exoskeleton of the Lobster, which has been added to this series, was made by Mr. Chapman.

1874-6. Apparatus for Physiological Experiments.

Among the instruments purchased was an excellent Thomson's Reflecting Galvanometer by Elliott, which has been of the greatest use to us, and which has also been borrowed by Professor Gotch for use at the Museum; also a first-rate Long Beam Balance by Oertling, the possession of which enabled Mr. Armitage to perform his very accurate redetermination of the Atomic Weight of Boron.

1892. Physical Apparatus necessary for the performance of certain elementary physical experiments, a practical acquaintance with which had been required by the Board

of the Faculty of Natural Science from candidates in the Preliminary Physics examination.

1894. A Collection of Physical Apparatus purchased of Mr. H. G. Madan, of Queen's College.

1900. Apparatus for a Course of Instruction in Physical Chemistry under the supervision of Messrs. D. R. Wilson and J. J. Manley.

1903. An Electric Lantern by Kamm for the new Lecture Room.

Apparatus for the illustration of Mr. N. V. Sidgwick's Lectures on Organic Chemistry.

APPENDIX D

BIBLIOGRAPHY.

The titles of the scientific and other writings of Charles Giles Bridle Daubeny, arranged in chronological order, together with the dates of the principal events of his life. With few exceptions all the published works enumerated are in the Library of Magdalen College.

1795. **Feb. 11.** Born at Stratton, Gloucestershire.
1808. **At Winchester School.**
1810. **July 23.** Matriculated at Magdalen College.
1814. **II Class, Literae Humaniores. B.A. June 1.**
1815. **Perrot Orator.**
Latin Essay. In *Philosophia, quae Moralis dicitur, tractanda, quatenus sit praecipue Aristotelicae Disciplinae Virtus?*
pp. 1-54.
- 1815-8. **Medical Student at Edinburgh.** Attended Professor Jameson's Lectures on Geology and Mineralogy. His MS. lecture notes in 8vo, together with a 4to fair copy, are in the College Library.
1817. **M.A.**
1818. **B.Med.**
1819. **Tour in France,** described in letters to Professor Jameson.
- 1820-1. Letters on the Volcanos of Auvergne. *Jameson's Edinb. Phil. Journal.* Reprinted in 1825.
1820. Lecture given to the Society of Magdalen College in 1820 or thereabouts. (MS.)
1821. **D.Med.**
1822. **Oct. 10.** Aldrichian Professor of Chemistry (until 1854).
Nov. 2. Inaugural Lecture on the Study of Chemistry.
1823. pp. 1-57. Oxford, 1823. With an Appendix—Outline of a course of lectures on Chemistry to be delivered 1822-3, and an Address to the Bristol Literary and Philosophical Institution, On the Application of Chemistry to the Arts, delivered Jan. 6, 1823.

- A fuller abstract was printed in Felix Farley's *Bristol Journal* for Saturday, Jan. 11. The MS. is preserved in the Library.
1825. Letters to Professor Jameson on the Volcanos of Auvergne, 1820-1. (Reprint.)
On Methods for separating Lime from Magnesia, 16 pp. *Edinb. Phil. Journ.* 1825.
Raffles, Necker, and Daubeny, C. Ueber die Vulkane auf Java, in den Auvergne und über den Monte Somma. *Elberfeld*, 1825.
1826. A description of Active and Extinct Volcanos. 8vo. London, 1826. (A 2nd edition appeared in 1848.)
Volcanic Geology. Article in *Encyclopaedia Metropolitana*.
1829. **Bursar of Magdalen College.**
May 15. On Iodine in certain Springs. Paper read to *Ashm. Soc.*
Nov. 27. On the Atomic Theory. Paper read to *Ashm. Soc.*
1830. On the discharge of Nitrogen Gas from various Warm Springs. *Bibl. Univ. Genève.*
(Substance of paper republished in the *Miscellanies*, 1867.)
A Sketch of the Geology of Sicily. *Jameson's Phil. Journ.* xiii. pp. 197 and 254, with geol. map.
Iodine and Bromine in Mineral Waters of S. Britain. *Phil. Trans.* cxx. Read May 6.
Vesuvius. Article in the *Edinburgh Encyclopaedia*, signed Δ.
1831. **Vice-President of Magdalen College.**
Introduction to the Atomic Theory. pp. 147 (Murray).
Mineral Waters. *London Review*, publ. by Bl. White.
On the Diluvial Theory and on the Origin of the Valleys in the Auvergne. *Edinb. New Phil. Journ.* April, pp. 1-29.
Nov. 11. On the New Volcanic Island in the Mediterranean from various communications. (*Ashm. Soc.*)
1832. Remarks on Thermal Springs and their connexion with Volcanos. *Edinb. Phil. Journ.* (cp. Delabeche's *Geological Manual*, 1833, p. 606).
Nov. 9. Sounds produced by Vibration of Heated Metals. (*Ashm. Soc.*)
Dec. 7. On Animal Magnetism. (*Ashm. Soc.*)
Reply to Professor Bischof's objections to the Chemical Theory of Volcanos. *Edinb. Phil. Journ.* No. 52, 8 pp.

1833. Remarks on a certain kind of Organic Matter formed in Sulphureous Springs. *Linn. Trans.* xvi. pp. 587-97. Read June 7.
- Memoir on the degree of selection exercised by plants, with regard to the earthy constituents presented to their absorbing surface. *Linn. Trans.* xvii. Read Nov. 19.
- Specimen of a proposed Index to the Oxfordshire Flora in Walker's *Flora of Oxfordshire*, 1833.
- Feb. 22. On a specimen of decayed Wood and a Truffle from Van Diemen's Land. (Paper read to *Ashm. Soc.*)
- May 3. On Daniell's Pyrometer. (Paper read to *Ashm. Soc.*)
On Wheatstone's Experiments on impressions of Light on the Eye. (Paper read to *Ashm. Soc.*)
- June 1. On the Metamorphosis of Plants. (*Ashm. Soc.*)
- June 7. On the slow conducting power of Volcanic Materials. (Paper read to *Ashm. Soc.*)
- Nov. 1. On the Hot Springs at Bath, and on the Gas contained in the Waters. (*Ashm. Soc.*)
On Rutter's Method of using tar for fuel. (Paper read to *Ashm. Soc.*)
- Nov. 29. On the Irritability of Plants. (Paper read to *Ashm. Soc.*)
On the evolution of Gas from Hot Springs. (Paper read to *Ashm. Soc.*)
On the level of the Caspian. (Paper read to *Ashm. Soc.*)
- Dec. 7. Review of Nolan's Analogy of Revelation. *London Literary Gazette.*
- Note on a Paper by Dr. John Davy, entitled 'Notice on the Remains of the recent Volcano in the Mediterranean.' *Phil. Trans.* cxxiii. p. 545.
1834. **Professor of Botany and Bursar.**
- May 1. Inaugural Lecture, 39 pp.
[Superseded by an Essay on De Candolle printed in the *Miscellanies*, 1867.]
- Report presented to the Visitors of the Oxford Botanical Garden.
- On the Quantity and Quality of the Gases disengaged from the Thermal Spring which supplies the King's Bath in the

- City of Bath. *Phil. Trans.* cxxiv. pp. 1-13. Read Dec. 19, 1833.
1835. Some account of the Eruption of Vesuvius which occurred in the month of August, 1834. *Phil. Trans.* clii. pp. 153-9.
Narrative of an Excursion to the Lake Amsanctus, and to Mount Vultur in Apulia in 1834. *Trans. Ashm. Soc.*
On the Volcanic Strata exposed by a section made on the site of the new Thermal Spring discovered near the Town of Torre dell' Annunziata in the Bay of Naples, with some Remarks. *Edinb. Phil. Journ.* Oct. 1835; *Proc. Geol. Soc.* ii. 1838.
- Feb. 13. On the Combustion of Coal Tar (Second Communication). (*Ashm. Soc.*)
- March 13. On the influence of Atmospheric Electricity on the Manufacture of Silk. (*Ashm. Soc.*)
- March 17. Account of a recently discovered Spring in St. Clement's. (*Ashm. Soc.*)
On Mount Vesuvius and Volcanic Agency. (*Ashm. Soc.*)
On the recently discovered Buildings near Naples. (*Ashm. Soc.*)
- June 12. On the Theory of Volcanos. (*Ashm. Soc.*)
On the Absorption of Plants. (*Ashm. Soc.*)
- Nov. 6. On a Specimen of the Bromelia Pinguis. (*Ashm. Soc.*)
On two Springs evolving Nitrogen Gas. (*Ashm. Soc.*)
- Nov. 20. On some Caverns near Cork. (*Ashm. Soc.*)
- Dec. 4. Apparatus for collecting Gas from Volcanos. (*Ashm. Soc.*)
Expedition to Amsanctus and Mount Vultur. (*Ashm. Soc.*)
1836. On the action of Light upon Plants, and of Plants upon the Atmosphere. *Phil. Trans.* pp. 149-75. Read Dec. 17, 1835.
Reply to some remarks contained in Dr. J. Davy's Life of Sir H. Davy. *Lond. and Edinb. Phil. Mag. and Journ. of Sci.* March, 1836, pp. 249-54.
- May 6. Davy Controversy. Reply to Objections against the Theory of Volcanos. (*Ashm. Soc.*)
- Nov. 25. Observations on Thermal and Mineral Waters made in Germany, with Table of Springs evolving Nitrogen Gas. *Proc. Ashm. Soc.* Nov. 1836.

- On the recent researches of Ehrenberg and the researches of Mitscherlich and Liebig. (*Ashm. Soc.*)
- On the Observations of Quetelet and the Geographical Institute at Brussels. (*Ashm. Soc.*)
- Extracts from a letter of Dr. Boué. (*Ashm. Soc.*)
1837. Report on the present state of our knowledge on Thermal and Mineral Waters. *Rep. Brit. Ass.* 1836. 95 pp.
- Apr. 24. Description of the Rocks at Adersbach, Silesia. (*Ashm. Soc.*)
- May 22. Instrument for obtaining Specimens of Water from considerable Depths. (*Ashm. Soc.*) *Trans. Soc. Arts*, lii. 1838.
- 1837-8. **Travels in United States of America.**
1838. On the Growth of Plants confined in Glass Vessels. *Rep. Brit. Ass.* vii. pp. 505-8.
- Feb. 12. Letter on Meteorology of North America. (*Ashm. Soc.*)
- Nov. 12. Exhibition of Zoological Specimens collected in America (list). (*Ashm. Soc.*)
- Colonel Reid's Charts of Storms. (*Ashm. Soc.*)
- Nov. 26. On the Specific Gravity and Saltness of the Sea at different Depths, with a Table showing the Quantity of Salt in Sea Water. *Proc. Ashm. Soc.* Nov. 26, 1838.
- Sketch of the Geology of the United States and Canada. (*Ashm. Soc.*)
1839. Sketch of the Geology of North America. *Trans. Ashm. Soc.*
- May 7. Exhibition of Photogenic Drawings. (*Ashm. Soc.*)
- Composition of the Thermal Waters of Thermopylae. (*Ashm. Soc.*)
- Recent views on the composition of Matter. (*Ashm. Soc.*)
- May 28. Recent views on the composition of Matter (*continued*). (*Ashm. Soc.*)
- Action of Organic Substances on Polarized Light. (*Ashm. Soc.*)
- Nov. 18. New views on Fecundation and Development of Plants. (*Ashm. Soc.*)
1840. Syllabus of a Course of Lectures on Chemical Philosophy,

delivered at the Laboratory under the Museum, Oxford, 1840 (with MS. additions to 1844).

Supplement to an Introduction to the Atomic Theory, comprising a Sketch of certain Opinions and Discoveries bearing upon the General Principles of Chemical Philosophy, &c.

Feb. 17. Demonstration of Nobili's Rings and Electrotypes. (*Ashm. Soc.*)

June 1. Analysis of a Mineral Spring at Tenbury, Worcestershire. (*Ashm. Soc.*)

June 22. On Self-registering Meteorological Instruments. (*Ashm. Soc.*)

Dec. 7. Account of Works of Dr. Boué on Turkey in Europe. (*Ashm. Soc.*)

Professor of Rural Economy (until death).

1841. }
 July 22. }
 Nov. 25. } Three Lectures on Agriculture.
 Jan. 26. }
- On the Scientific Principles upon which the Application of Manures ought to be Regulated. *Journ. Royal Agric. Soc.* ii.
- Feb. 15. Buntin's Barometer (travelling). (*Ashm. Soc.*)
- March 15. On Spontaneous Combustion. (*Ashm. Soc.*)
- May 24. On the Missouri Leviathan. (*Ashm. Soc.*)
- June 7. On Sir D. Wilkie's Observations on the Barometer at the Dead Sea. (*Ashm. Soc.*)
- Nov. 8. On Cheirostemon platanifolia. (*Ashm. Soc.*)
- Dec. 6. Dolomite of Bolsover used for Houses of Parliament. (*Ashm. Soc.*)
1842. Lecture on the Application of Science to Agriculture.
 On Public Institutions for the Advancement of Agriculture. *Journ. Royal Agric. Soc.* iii.
 On the Chemical Constituents of Crops. *Journ. Royal Agric. Soc.* iii.
- March 4. Daniell's New Patent Manure. (*Exhibit to Ashm. Soc.*)
- May 30. Metal Magnesium. (*Exhibit to Ashm. Soc.*)
- Nov. 28. Vegetable and Animal Life in Glaciers. (*Ashm. Soc.*)
1843. Sketch of Writings and Philosophical Character of A. P. de Candolle. *Proc. Ashm. Soc.* xx. p. 4. Read to *Ashm. Soc.* Feb. 13.

Travels in Spain with Captain Widdrington.

- Feb. 24. Letter to Henslow, published in the *Bury Post*.
- Nov. 6. On an Institution for the Cure of Cretinism. (*Ashm. Soc.*)
Journal of a Tour through the United States and Canada,
made during the years 1837-8. pp. 239.
- Tre lezioni sull' agricoltura.
Second Report of Committee on Growth and Vitality of
Seeds.
1844. On the provisions for the Subsistence of Living Beings evinced
in the structure of the Older Rocks, and in the phenomena
which they exhibit. *Royal Inst.* May 31, 1844.
Lecture on Institutions for the better education of the Farm-
ing Classes; especially with reference to the proposed
Agricultural College near Cirencester. (Murray), 29 pp.
- March 11. } On Fluoric Acid from Recent and Fossil Bones (with
Nov. 18. } a Table of Analyses, p. 78). (*Ashm. Soc.*)
- May 13. On the Natural History of Spain. (*Ashm. Soc.*)
1845. **June 25. Oratio ex Harveii Institutio.** 4to and 8vo.
On the occurrence of Fluorine in Recent as well as in Fossil
Bones. *Quart. Journ. Chem. Soc.* pp. 97-104. Read
March 18.
Memoir on the rotation of crops, and on the quantity of
Inorganic Matter abstracted from the soil by various Plants
under different circumstances. (Bakerian Lecture.) *Phil.*
Trans. pp. 179-252.
- On the occurrence of Phosphorite in Estremadura. Written
with Captain Widdrington. Read to *Geol. Soc.* Feb. 17,
1844. Published in *Journ. Royal Agric. Soc.* v.; and in
Quart. Journ. Geol. Soc. i. pp. 52-5.
- Feb. 2. Guano deposited by Bats in Holton Church. (*Ashm.*
Soc.)
- May 5. Mummy wheat. (*Ashm. Soc.*)
1846. On the use of Spanish Phosphorite as a Manure (written
Dec. 8, 1845). *Mem. Geol. Soc.* 1844; *Journ. Royal Agric.*
Soc. vi.
- May 11. On the Site of the ancient City of the Aurunci, and on
the Volcanic Phenomena which it exhibits. *Trans. Ashm.*
Soc.
- On the Rationale of certain Manures employed in Agriculture,
read to the Chemical Section of the *British Association*,

- Sept. 11, 1846. (*Newspaper report in Agricultural Notes*, ii. p. 309. Magd. Library.)
- On the distinction between the Dormant and Active Ingredients of the Soil. *Journ. Royal Agric. Soc.* vii.
- Nov. 9. On Gun-cotton. (*Ashm. Soc.*)
1847. On the application of Chemical Principles to the Science of Geology. *Royal Inst.* March 24. (*Newspaper abstract in Notes to Science*, p. 401. Magd. Library.)
- Bursar.**
- Feb. 22. Temperature of Geysers. (*Ashm. Soc.*)
- Nov. 8. Various Observations. (*Ashm. Soc.*)
1848. **Laboratory erected.**
- A description of Active and Extinct Volcanos, &c. (2nd edit.).
- On the influence of Carbonic Acid Gas on the health of Plants, especially on those allied to the Fossil Remains found in the Coal Formation. *Rep. Brit. Ass.* pp. 1-23.
- Brief remarks on the Correlation of the Natural Sciences.
- March 6 and May 22. On Fossil Phosphate of Lime. (*Ashm. Soc.*)
- March 6. Aneroid Barometer. (*Exhibit to Ashm. Soc.*)
- June 5. Hybrid Cactus. (*Ashm. Soc.*)
- Nov. 6. Fossil Fish. (*Ashm. Soc.*)
- Nov. 20. Dangerous Effects of Bread without Ferment. (*Ashm. Soc.*)
1849. On the constitution of the Atmosphere. Delivered to City of Oxford, Dec. 6, 1849.
- Feb. 26. New method of producing Light.
- Oct. 29. Influence of Carbonic Acid Gas.
1850. Introduction to the Atomic Theory (2nd edit.).
- Feb. 25. New views respecting Molecular Constitution of Matter. (*Ashm. Soc.*)
1851. On the Nomenclature of Organic Compounds. *Brit. Ass. Rep.* pp. 1-17, July 1.
- Brief remarks on the Statute de Lectoribus publicis to be submitted to Convocation on Tuesday, June 17. (Vincent), pp. 1-12.
- Die noch thätigen und erloschenen Vulkane.
- Feb. 24. Sphaeria Robertsii. (*Ashm. Soc.*)
- Aneroid Barometric Observations in Alps. (*Ashm. Soc.*)

- Mineral Phosphate of Lime in United States. (*Ashm. Soc.*)
- Boiler Incrustation. (*Ashm. Soc.*)
- May 22. Lecture 'on the Principles of the Manufacture of Glass and Pottery,' in connexion with the visit of people to the Great Exhibition. (*Ashm. Soc.*)
- Nov. 17. On Impression of Leaves of Vines, Grapes, and Seeds in Wood-coal. (*Ashm. Soc.*)
1852. A letter to the Members of Convocation on securing the collection of dried plants and works on Botany, presented by the late Mr. Fielding of Lancaster.
- Notice of the Philosophical Character of Dr. Prout. *Ashm. Soc.*, Feb. 9.
- Feb. 9 and March 8. Liebig's Method for Determination of Sugar in Urine. (*Ashm. Soc.*)
- Feb. 23. Formation of Dolomites. (*Ashm. Soc.*)
- Nov. 22. On Scandinavia. (*Ashm. Soc.*)
1853. Hints for enquiry suggested by a recent tour in Scandinavia. 8 pp.
- Can Physical Science obtain a home in an English University? An enquiry suggested by some remarks contained in a late number of the *Quarterly Review*. pp. 1-26.
- Two Articles on the School of Natural Science apropos of a letter to the *Oxford University Herald*.
- On the Variation in the relative proportions of Potash and Soda present in certain samples of Barley grown in plots of ground artificially impregnated with one or other of these Alkalies. *Quart. Journ. Chem. Soc.* v.
- Address delivered at the Anniversary Meeting of the Chemical Society, March 30. pp. 1-20.
- Guide to the Oxford Botanic Garden, with an Address to the Members of the University.
- Address to the Members of the University, May 20, 1853, on the completion of the arrangements for receiving the Fielding Herbarium in the room set apart for it within the Botanical Garden; with an Appendix.
- Syllabus of Lectures on Inorganic Chemistry which will be delivered by the Professor of Chemistry in 1853-4.
- Apr. 25. Effect of Magnet on Steel filings. (*Exhibit to Ashm. Soc.*)

- Nov. 14. Map of Crater of Etna of Waltershausen. (*Exhibit to Ashm. Soc.*)
1854. **Resigned Chair of Chemistry.**
- Nov. 13. On the causes of Cholera and other Epidemic Diseases. (*Ashm. Soc.*)
1855. On the influence of the Lower Vegetable Organisms in the production of Epidemic Diseases. *Edinb. New Phil. Journ.*, July 11, n. s.
- On the importance of the Study of Chemistry as a Branch of Education for all Classes. *Royal Inst.* p. 117.
Republished in Youman's *Modern Culture*, 1867.
- On the influence of Light upon the Germination of Seeds. *Rep. Brit. Ass.*
- On the produce obtained from Barley sown in Rocks of various ages. *Quart. Journ. Chem. Soc.* vii.
- A Biographical Sketch of the Rev. Dr. Routh, late President of Magdalen College.
- A Dream of the New Museum. pp. 1-14.
- Preface to the Popular Geography of Plants by E. M. C.
- June 11. Phosphoric Acid and Vegetable Life. (*Ashm. Soc.*)
- Oct. 29. Analysis of Limestones from Connemara, Ireland. (*Ashm. Soc.*)
- Nov. 26. Aluminium prepared from Cryolite. (*Exhibit to Ashm. Soc.*)
1856. An Address, as President, to the Members of the British Association at Cheltenham.
[A pamphlet on the *History of the British Association* was dedicated to Dr. Daubeny.]
1857. Lectures on Roman Industry.
- Reasons for voting for Clauses 2 and 3 in the Examination Statute, relative to the attendance on the Lectures of Professors.
- Sixteenth and Final Report on Growth and Vitality of Seeds.
- March 16. Botanical MS. of Dioscorides. (*Exhibit to Ashm. Soc.*)
- Nov. 23. Beetle Stones. (*Exhibit to Ashm. Soc.*)
- Dec. 7. Remarks on Tsetse Fly. (*Ashm. Soc.*)
1858. On the evolution of Ammonia from Volcanos. *Proc. Geol. Soc.* Additions to Book on Volcanos (? 1858).
1859. **Gave £140 as an endowment for the Daubeny Medal.**

1860. Remarks on the Final Causes of the Sexuality of Plants, with particular reference to Mr. Darwin's work on the *Origin of Species*. 34 pp., 1 plate.
On the Elevation Theory of Volcanos. *Brit. Ass.*
1861. A few words of apology for the late Prof. Baden Powell's Essay on the Study of the Evidences of Christianity contained in the volume entitled *Essays and Reviews*. By a Lay Graduate. 21 pp.
On the power ascribed to the Roots of Plants of rejecting Poisonous or Abnormal Substances presented to them (read May, 1861). *Quart. Journ. Chem. Soc.* xiv. 1862.
Supplementary note [to the above]. *Quart. Journ. Chem. Soc.* xv. 1862.
On the Physical Forces contained in the Phenomena of Vegetation, Lect. I, II. *Gardeners' Chron. and Agric. Gazette*. [A popular account of the papers on Potash and Barley, 1853, and Poison and Roots, 1861.] An abstract appeared in an Appendix to *Miscellanies*, 1867.
Catalogue of Philosophical Apparatus, Minerals, Geological Specimens, &c.
Reply to some Comments of Mr. F. Marcet on the Power of Selection ascribed to the Roots of Plants.
1863. Remarks on the Eruption of Vesuvius in December, 1861. *Edinb. Phil. Journ.* xvii. 1863. Read at British Association Meeting, Oct. 3, 1863.
Climate, an enquiry into the causes of its Differences, and into its influence on Vegetable Life (four lectures).
On the Vitality of Seeds. Lecture delivered at Oxford, 1863. (Suggestions by Professor Strickland concerning the above were published in the *Miscellanies*, 1867.)
On the supposed deterioration of the Soil of Great Britain through exhaustion of its Vegetable Mould. Lecture delivered before the Oxfordshire Farmers' Club, Nov. 11, 1863. *Gardeners' Chron.*
1864. Memoir on the Thermal Waters of Bath. *Rep. Brit. Ass.*
Comments on a new Declaration proposed for signature to Men of Science.
Decay of Species.
The New Examination Statute at Oxford. Letter to the *Times*, Feb. 22, 1864.

- Three Letters on the Volcanos of Auvergne. [A Theological Controversy.]
- Oct. 1. Newspaper controversy on Antiquity of Volcanos of Auvergne.
1865. Essays on the Trees and Shrubs of the Ancients; being the substance of four lectures supplementary to those on Roman Husbandry already published.
- On the Celtic Remains of Brittany, Jan. 13, 1865.
- Letter to the Provost of Oriel on University Extension.
- Address as President of the Devonshire Association, Tiverton, Aug. 1865. 29 pp.
1866. ? Defence of the Volcanic Theory. *Quart. Journ. Sci.*
- On the Antiquity of the Volcanos of the Auvergne. *Quart. Journ. Sci.* Apr. 1866, pp. 199-216.
- Proportion of Graduates in Medicine at Oxford to the Population. *Rep. Brit. Ass.*, Nottingham, 1866.
- Guide to Botanical Gardens. New edition.
- On the Volcanic Region near Montbrison in Central France. *Proc. Ashm. Soc.* Nov. 12, 1866.
1867. On the Ignigenous Rocks near Montbrison. *Quart. Journ. Sci.* xiii. Jan. 1867.
- On Ozone, and its Disengagement by the Leaves of Plants. *Quart. Journ. Chem. Soc.* xx. Jan. 1867.
- Christianity and Rationalism. A Review of Lecky's History of the Rise and Influence of the Spirit of Rationalism in Europe, 1867. 26 pp.
- May 20. Climate of the Ancient World. *Journ. Ashm. Soc.*
- Miscellanies, being a Collection of Memoirs and Essays on Scientific and Literary Subjects, published at various times. 2 vols. 8vo.
- Died December 12, 1867.**
1868. Jan. 18. Will proved.
- Feb. 17. Obituary note by Professor Phillips. *Proc. Ashm. Soc.* pp. 8-22.
1869. Fugitive Poems collected by the late C. Daubeny.

APPENDIX E

REGISTER OF NAMES OF PERSONS WHO HAVE ATTENDED
THE LECTURES OF DR. DAUBENY, AND COURSES OF
INSTRUCTION IN THE DAUBENY LABORATORY AT
MAGDALEN COLLEGE.

CHEMICAL LECTURES.

Delivered in the Ashmolean Lecture Room, 1822-48.

1822-3. Howard, —.

Hewlett, Joseph Thomas James; Worcester, B.A. 1822.

Hawkins, George; Corpus Christi College, Scholar, 1817-24;
Fellow, 1824-†6.

Calcott, John; Fellow of Lincoln, 1816; B.D. 1825; Proctor,
1824; Greek Lecturer.

Martyn, Thomas; Queen's, B.A. 1823.

Moore, E.

Watts, Rev. John; Fellow of University, 1817-29; Rector
of Tarrant Gunville, Dorset, 1828-†72.

Ridley, Rev. Charles John; Fellow of University, 1813-54;
Rawlinsonian Professor of Anglo-Saxon, 1822-7; Rector
of West Harling, Norfolk, 1826-†54.

Morgan, Charles Octavius Swinnerton; Christ Church,
B.A. 1825; M.P. Monmouthshire, 1841-74; F.R.S.,
F.S.A.; †1888. (*D. N. B.*)

Ireland, John James; 'chirurgus,' privilegiatus, 1827;
Chorister, Christ Church, 1815-19.

Carey, Peter Stafford; St. John's, matriculated, 1821; Judge
of Wells Borough Court, 1838-45; Bailiff of Guernsey,
1845; knighted, 1863; †1886.

Palmer, James Nelson; St. John's, B.A. 1825; Rector of
Breamore, Hants, 1838-†64.

Bricknell, William Simcox; Worcester, B.A. 1827; Vicar
and Patron of Eynsham, 1845.

- Palmer, W.**; St. Mary Hall, B.A. 1825; Professor of Civil Law, Gresham College; †1858. (*D. N. B.*)
- Parker, Charles Hubert**; Lincoln, B.A. 1822; Rector of Great Comberton, co. Worcester, 1826-†83.
- Strickland, Nathaniel Constantine**; Lincoln, B.A. 1829; Perpetual Curate, Bessingby, Yorks., 1835-83; †1886.
- Thomas, George Fuller**; Scholar of Worcester, 1819-26; Vicar of Butlers Marston, co. Warwick, 1846-†68.
- Davenport, G. F.**; of St. Giles', Oxford.
- Jelf, Charles**; Oriel, matriculated, 1824.
- Pye, Henry Anthony**; Demy of Magdalen, 1817-†23.
- Wilson, G.**
- Cooke, Rev. George Leigh**; Fellow of Corpus Christi College, 1800-15; Sedleian Professor of Natural Philosophy, 1810-†53. (*D. N. B.*)
- Pusey, Edward Bouverie**; Christ Church, B.A. 1822; Fellow of Oriel, 1823-9; Canon of Christ Church and Regius Professor of Hebrew, 1828-†82; Tractarian. (*D. N. B.*)
- Majendie, Rev. George John**; Fellow of Magdalen, 1820-39; Rector of Headington, 1839-†42.
- Jenkins, Rev. Henry**; Magdalen, Demy, 1803-27; Schoolmaster, 1812-29; Fellow, 1827-31; Rector of Stanway, Essex, 1830-†74.
- Plumer, Charles John**; Fellow of Oriel, 1821-30; Vicar of Ilford, Essex, 1868-82; †1887.
- Ottley, John Bridges Hooker**; Fellow of Oriel, 1822-5; Vicar of Thorpe Acre, co. Leicester, 1845-†79.
- Brownlow, William**; Pembroke, M.A. 1826; Rector of Wilmslow, Cheshire, 1829-72; †1876.
- Wooten, John**; Balliol, B.A. 1820; D.Med. 1826; †1847.
- Wintle, Frederick Thomas**; Radcliffe Infirmary, ?'chirurgus et pharm.,' privilegiatus, 1831; ?of the Warneford Asylum, Oxon.; D.Med.
- Sheriffe, Thomas**; Fellow of Magdalen, 1814-23; Proctor, 1822; Rector of Henstead, Suffolk, 1837-†61.
- Cooke, Rev. Theophilus Leigh**; Fellow of Magdalen; Perpetual Curate, Beckley, Oxon., 1803; †1846.
- Duncan, John Shute**; Fellow of New College, until 1829; Keeper, Ashmolean Museum, 1823-6; D.C.L. 1830; †1844. (*D. N. B.*)

- 1824-5. **Robinson, Richard Barton**; Queen's, B.A. 1826; Vicar of Lytham, 1834-70; †1872.
- Jenkinson, John Simon**; Magdalen Hall, B.A. 1827; Vicar of Battersea, Surrey, 1847-†71.
- Bullock, James**; Worcester, M.A. 1820.
- Cole, William Sibthorpe**; Worcester, M.A. 1822; Rural Dean of Selby, 1869-82 and 1884.
- Hutchinson, Rev. Cyril George**; Student of Christ Church, 1818-43; Honorary Canon of Gloucester, 1852; †1887.
- Dodgson, Charles**; Student of Christ Church, 1818-28; Archdeacon of Richmond, 1854-†68.
- Wheeler, Daniel**; St. Edmund Hall; B.A. 1826; ?†1887.
- Welch, William**; Queen Street, ? St. John's, matriculated, 1821; B.A. 1825.
- Winterbottom, James Edward**; St. John's, B.A. 1825; B.Med. 1833; F.R.G.S., F.L.S.; †1854.
- Lace, Francis John**; University, matriculated, 1822; B.C.L. 1832.
- Symonds, John Addington**; Magdalen College School; D.Med. Edinburgh, 'chirurgus et pharm.' privilegiatus, 1831; staff appointments, Bristol Hospital; F.R.C.P. 1857; †1871. (*D.N.B.*)
- Nicoll, Dr. Alexander**; Canon of Christ Church; Regius Professor of Hebrew, 1822-†8; D.C.L.; Sub-Librarian, Bodleian Library. (*D.N.B.*)
- Gresley, Richard Newcombe** or **William** (*D.N.B.*); Students of Christ Church.
- Thomas, Honoratus Leigh**; Student of Christ Church, 1820-47; Rector of St. Tudy, Cornwall, 1846-†58.
- Webber, George Henry**; Student of Christ Church, 1820-7; Canon of Ripon, 1829-†58.
- Herbert, I.**
- Oakeley, Frederick**; Christ Church, B.A. 1824; Fellow of Balliol, 1827-45; seceded to Rome; Roman Catholic Canon of Westminster, 1852; †1880.
1826. **Matthews, Robert**; at Mr. Bull's, New Inn Lane.
- Howard, William**; Fellow of New College, 1823-37; Rector of Witchingham, Norfolk, 1836-†86.
- Horndon, John**; Exeter, M.A. 1827; †1864.
- Prevost, Sir George**, second **Baronet**; Oriol, B.A. 1825;

- Tractarian; Archdeacon of Gloucester, 1865-81; †1893. (*D. N. B.*)
- Woods, George Henry**; Wadham, B.A. 1824; Treasurer of Chichester Cathedral, 1870-†9.
- Vores, Thomas**; Scholar of Wadham, 1823-30; Fellow, 1830-4; Vicar of St. Mary in the Castle, Hastings, 1841-†75.
- Symons, Benjamin Parsons**; Wadham, Fellow, 1812-31; Proctor, 1818; D.D. and Warden, 1831-71; Vice-Chancellor, 1844-8; †1878. (*D. N. B.*)
- Nicholson, William**; Trinity, B.A. 1829; Rector of Welford with Wickham, Berks., 1836-†78.
- Freeman, Henry**; Wadham, B.A. 1826; Rector of Folksworth, Hants, 1838-†64.
- Walker, Robert**; Wadham, B.A. 1822; Professor of Experimental Philosophy, 1839-†65; F.R.S.; Vicar of Culham, Oxon., 1848.
- Clarke, William Thomas**; Queen's, B.A. 1826.
- Evans, Joseph Saville Roberts**; Queen's, B.A. 1826; †1861.
- Barber, Ambrose**; Wadham, B.A. 1823.
- Rhoades, James Peter**; Scholar of Wadham, 1820-30; Fellow, 1830-2; Rector of Clonmel, Ireland, †1852.
- Hammick, Stephen Love**; Christ Church, M.A. 1829; D.Med. 1834; Radcliffe Travelling Fellow, 1837-†9.
- Bishop, Charles Joseph**; St. Mary Hall, M.A. 1823; D.Med. 1826.
- Simcox, Edward George**; Scholar of Wadham, 1819-27; J.P., co. Stafford; †1833.
- Tufnell, Edward Carleton**; Balliol, B.A. 1828; Student at Lincoln's Inn; †1886.
- Wilson, Richard Bassett**; University, B.A. 1829; †1867.
- Mills, William**; Fellow of Magdalen, 1820-34; Whyte's Professor of Moral Philosophy, 1829-†34.
- Parsons, Frederick James**; Demy of Magdalen, 1815-33; Fellow, 1833-42; Vicar of Selborne, Hants, 1842-†75.
- Parsons, William**; Magdalen, B.A. 1822; third **Earl of Rosse**; Hon. Fellow, 1862-7; President of the Royal Society, 1849-54; †1867. (*D. N. B.*)
- Meredith, Charles John**; Chaplain of Magdalen, 1823-6; Fellow of Lincoln, 1825-49; †1851.

- Corfe, Joseph**; Magdalen, B.A. 1827; Chaplain of Magdalen, 1832-6; Rector of St. Kerrian with St. Petrock, Diocese of Exeter, 1844-56; Rural Dean, 1851; †1878.
- Greswell, Rev. William**; Fellow of Balliol, 1818-38; Rector of Kilve, Somerset, 1837-†76.
- Candy, Charles**; Lincoln, M.A. 1824; Vicar of Shottermill, Surrey, 1850-84.
- Philipps, William Thomas**; Fellow of Magdalen, 1820-42; Keeper of the Ashmolean Museum, 1822-3; Rector of Fittleton, Wilts., 1840-†54.
- Loveday, Rev. Thomas**; Fellow of Magdalen, 1817-31; Rector of East Ilsley, Berks., 1831-6; †1873.
- Plumptre, Rev. Frederick Charles**; Fellow of University, 1817-36; Master, 1836-†70.
- Walker, Rev. Richard**; Fellow of Magdalen, 1821-52; Master, Magdalen College School, 1828-44; †1870.
- Sale, Thomas**; Demy of Magdalen, 1823-33; Fellow, 1833-4; D.D. 1856; Canon of York, 1871-†3.
- Robertson, William**; Demy of Magdalen, 1824-36; Fellow, 1836-†77; D.C.L. 1842; student of medicine.
- Stone, William**; Fellow of Brasenose, 1822-30; Canon of Canterbury, 1855; †1882.
- Davies, Charles**; Fellow of Pembroke, 1817-26.
- Wall, Rev. Martin Sandys**; Student of Christ Church, 1804-43; Chaplain to H.M.S. *Centaur*, 1812; Chaplain in Ordinary to the Prince Regent, and to the Embassy at Vienna, 1818; †1871.
- Dymock, William George**; Exeter, B.A. 1824; Rector of Hatch Beauchamp, 1839-†40.
- Cobham, Jonathan Blenman**; Oriel, B.A. 1823; Rector of Dingley, Northants, 1854-†76.
- Girdlestone, Charles**; Fellow of Balliol, 1818-26; Rector of Alderley, Cheshire, 1837-47; and of Kingswinford, 1847-77; †1881. (*D. N. B.*)
- Smith, Spencer**; Balliol, B.A. 1827; †1882.
- Butcher, Mark Grigson**; Brasenose, B.A. 1826.
- Denison, George Anthony**; Fellow of Oriel, 1828-39; Tractarian; Prebendary of Wells and Archdeacon of Taunton, 1851; †1896. (*D. N. B.*)
- Parker, —.**

- Mallam**, —; with Mr. Cleobury (? 'chirurgus,' privilegiatus, 1814).
- Churton, Rev. William Ralph**; Chancellor's prize for Latin Verse, 1820; Fellow of Oriel, 1824-†8. (*D. N. B.*)
- Grantham, George**; Fellow of Magdalen, 1809-40; Vicar of Waith, co. Lincoln, 1820-†40.
- West, C.**; with Mr. Tuckwell.
- Egerton, Sir Philip de Malpas, Bart.**; Christ Church, B.A. 1828; F.R.S. 1831; M.P., Divisions of Cheshire, 1835-†81. (*D. N. B.*)
- 1826-7. **Browne, E.**; with Mr. Hichens.
- Haverfield, Thomas Tunstall**; Fellow of Corpus Christi College, 1812-27; Rector of Godington, Oxon., 1826-†66.
- Beynon, Rev. David**; Jesus, B.D. 1823.
- Phillips, Philip Lovell**; Exeter, B.A. 1826; D.Med. 1833.
- Bramston, John**; Oriel; Fellow of Exeter, 1825-30; Dean of Winchester, 1872-†83.
- Brown, Joseph John Alfonso**; University, B.A. 1830; D.Med. 1842.
- Stroud, Joseph**; Wadham, M.A. 1826; Rector of Bondleigh, Devon, 1854-†5.
- Sankey, Rev. Richard**; Scholar of Corpus Christi College, 1820-8; Fellow, 1828-9; Rector of Witney, Oxon., 1853-†63.
- Hawkins, Ernest**; Balliol, B.A. 1824; Fellow of Exeter, 1831-52; Secretary of the S.P.G.; Minister of Curzon Chapel, Mayfair, 1850-†68; Canon of Westminster, 1864. (*D. N. B.*)
- Thomas, William Beach**; Scholar of Pembroke, 1820-9; Fellow, 1829-31; Rector of Johnston with Steynton, co. Pembroke, 1846-†76.
- Evans, Henry Herbert**; Magdalen Hall, B.A. 1832; Incumbent of Leytonstone, Essex, †1863.
- Lamotte, John Lewis**; Wadham, B.A. 1826.
- Bourne, John Gervas Hutchinson**; Magdalen, M.A. 1828; Barrister-at-Law, Inner Temple, 1829-†45.
- White, Robert Meadows**; Fellow of Magdalen, 1824-47; Rawlinsonian Professor of Anglo-Saxon, 1834-9; Rector of Slymbridge, co. Gloucester, 1846-†65. (*D. N. B.*)

- Shaw, James**; with Mr. Wingfield (? Charles, 'chirurgus,' privilegiatus, 1816).
- Parker, Charles Lewis**; Wadham, B.A. 1831.
- Garbett, James**; Fellow of Brasenose, 1825-36; Rector of Clayton-cum-Keymer, Sussex, 1835-†79; Professor of Poetry, 1842-52. (*D. N. B.*)
- Greswell, Francis Hague**; Fellow of Brasenose, 1827-30.
- Wilberforce, Robert Isaac**; Fellow of Oriel, 1826-33; Archdeacon of the E. Riding of Yorkshire, 1841, until he seceded to Rome, 1854; †1857.
- Farquharson, James John**; Christ Church, B.A. 1828; J.P., D.L., High Sheriff, Dorset, 1879.
- Wiggin, Benjamin Holme**; Corpus Christi College, matriculated, 1826; assumed name of **Mowbray** by royal licence in 1835.
- Butler, Charles Robert**; Worcester, B.A. 1827; Vicar of Newchurch, I.W., 1870-†8.
- Pocock, Sir Charles Samuel, Bart.**; Christ Church, B.A. 1826; Rector of Rous Lench, co. Worcester, 1838-†81.
- Botfield, Beriah**; Christ Church, B.A. 1828; M.P. for Ludlow, 1840-7, 1857-†63. (*D. N. B.*)
- Newnham, George William**; Scholar of Corpus Christi College, 1823-31; Fellow, 1831-3; Perpetual Curate of Combe Down, Bath, 1842-77.
- Guppy, Robert**; Pembroke, B.A. 1828; Barrister-at-Law, Middle Temple, 1831.
- Huston, T. L.**
- Short, Rev. Augustus**; Christ Church, B.A. 1823; Bampton Lecturer, 1846; D.D. 1847; First Bishop of Adelaide, 1847-81; †1883. (*D. N. B.*)
- Biscoe, Robert**; Christ Church, M.A. 1825; Prebendary of Hereford, 1834; †1870.
- Hawkins, Robert**; Pembroke, Exhibitioner, 1823-35; Vicar of Lamberhurst, Sussex, 1834.
- Riggs, George**; Scholar of Queen's, 1820-36; Fellow, 1836-46; Rector of Charlton-on-Otmoor, Oxon., 1846-†55.
- Partington, Henry**; Student of Christ Church, 1826-34; Vicar of Wath-on-Dearne, 1833.

- Hill, Edward**; Student of Christ Church, 1827-50; Rector of Shering, Essex, 1845; Hon. Canon of St. Albans, 1872.
- Wells, Charles**; Fellow of New College, 1825-†34; Curate of Beeding, Sussex.
- Bussell, John Garrett**; Trinity, B.A. 1829; Prebendary of Lincoln Cathedral, 1859; †1874.
- Le Mesurier, Henry**; Fellow of New College, 1824-32; Master at Bedford Grammar School; †1874.
- Bourne, Digby Michael**; Worcester, B.A. 1827.
- Earle, Charles Hare**; Trinity, M.A. 1827; †1839.
- The Junior Proctor**, probably the **Rev. Andrew Edwards**, cf. p. 73.
- Dawson, D.**; Rev. Mr. Hinton's, Brewer's Lane.
- King, Charles**; Magdalen, Chorister; B.A. 1831; Perpetual Curate of Stratford-sub-Castle, Wilts., 1852-†85.
- Gower, John Alexander**; Magdalen, B.A. 1826; Chorister, 1810-20; Chaplain, 1827-32; Master of the Hospital, Stoke Pogis, Bucks.
- Grantham, Thomas**; Fellow of Magdalen, 1813-31; Rector of Bramber-cum-Botolphs, Sussex, 1830-64.
- Simmons, —**; with Mr. Hagley (? Edward, the 'pharmacopola,' privilegiatus, 1814).
1828. **Bragge, W.**; New College, M.A.
- Martin, Richard**; Fellow of Exeter, 1824-31; Vicar of Menheniot, Cornwall, 1831-83; Canon of Truro; †1888.
- Gray, George Francis**; Fellow of University, 1814-53; †1854.
- Froude, William**; Oriel, matriculated, 1828; M.A. 1837; Naval architect and mathematician; F.R.S.; †1879. (*D. N. B.*)
- Hornby, Robert (Vernon) Atherton**; Oriel, B.A. 1828; †1857.
- Whately, Rev. Dr. Richard**; Principal of St. Alban Hall, 1825-31; Fellow of Oriel, 1811-22; Archbishop of Dublin, 1831-†63. (*D. N. B.*)
- Burrows, Rev. Joseph**; Brasenose, B.D. 1817; Rector of Steeple Aston, Oxon.
- Cornthwaite, Tullie**; Trinity, B.A. 1828 (Orders).

- Sewell, Henry Doyle**; Trinity, B.A. 1828; Vicar of Headcorn, Kent, 1850-†86.
- Cox, George**; Magdalen Hall, B.A. 1828.
- ‡ **Hickes, Fowler**; Brasenose, M.A. 1819 (?); †1838.
- Cardwell, Henry Salisbury**; Brasenose, B.A. 1824; †1833.
- Watson, John**, Fellow of Brasenose, 1813-32; †1875.
- Harington, Richard**; Fellow of Brasenose, 1822-34; Principal, 1842-†53.
- Higgins, Edward**; Brasenose, Scholar, 1822-5; †1884.
- Wilson, John**; Fellow of Trinity, 1816-50; President, 1850-66; F.S.A., F.R.S.; †1873.
- Hume, Charles John**; Fellow of Wadham, 1824-30; Rector of Meonstoke, Hants, 1832.
- Grenfell, Algernon**; Chorister, Magdalen, 1817-20; University, Scholar, 1824-9; Master at Rugby, 1831-†45.
- Saunders, Thomas Bush**; Wadham, B.A. 1828; Barrister-at-Law, Lincoln's Inn, 1831; J.P. Wilts.
- Round, James Thomas**; Fellow of Balliol, 1820-35; Rector of Colchester, 1851-†60.
- Copleston, William James**; Fellow of Oriel, 1826-40; Rector of Cromhall, co. Gloucester, 1839-†74.
- Smith, Edward Parris**; Pembroke, B.A. 1828; M.A. 1840.
- Glaister, William**; Fellow of University, 1821-38; Rector of Beckley, Sussex, 1837-†61.
- Falconer, William**; Fellow of Exeter, 1827-39; Rector of Bushey, Herts, 1839-†85.
- Bull, Henry**; Christ Church, B.A. 1819; Honorary Canon, 1877; Under Master of Westminster, 1821-28; Vicar of St. Mary Magdalen, Oxford, 1834; Vicar of Lathbury, Bucks, 1838-†88.
- Edwards, Rev. Andrew**; Fellow of Magdalen, 1823-†72; D.D.; Proctor, 1827.
1829. **Hussey, Robert**; Student of Christ Church, 1821-46;
Lent First Regius Professor of Ecclesiastical History, 1842-†56.
(*D. N. B.*)
- Lefroy, Charles Edward**; Christ Church, B.A. 1832; Secretary to the Speaker, and Taxing Officer of House of Commons; †1861.
- Greswell, Rev. Richard**; Fellow of Worcester, 1824-37;

- Honorary Fellow, 1878-†81; one of the founders of the Museum and of the Ashmolean Society. (*D. N. B.*)
- Froude, Robert Hurrell**; Oriel, B.A. 1826; Tractarian; †1835. (*D. N. B.*)
- Buller, Anthony**; Oriel, B.A. 1831; Rector of Tavy St. Mary, Devon, 1833-76; †1881.
- Bailey, Joseph**; Brasenose, B.A. 1832; M.P. Herefordshire, 1841-†50.
- Vaughan, Henry**; Scholar of Worcester, 1826-32; Vicar of Crickhowel, Brecon, 1832; †1837.
- Heberden, Rev. William**; Fellow of Exeter, 1828-30; Vicar of Broadhembury, Devon, 1830-74.
- Selkirk, Douglas Dunbar James**, sixth Earl of; Christ Church; Keeper of the Great Seal of Scotland, 1852, 1858; F.R.S.; †1885.
- Powell, Alexander**; Exeter, matriculated, 1827; †1882.
- Bennet, Charles, Lord Ossulston**, sixth Earl of Tankerville; Christ Church, B.A. 1831.
- Blencowe, Edward**; Wadham, B.A. 1828.
1829. **Ryder, George Dudley**; Oriel, B.A. 1833; †1880.
- Mich. **Wilson, John**; Fellow of Queen's, 1815-36; Classical Examiner, 1826-7; Rector of Holwell, Dorset, 1835-†57.
- Palairot, Charles**; Michel Exhibitioner of Queen's, 1822-4; Scholar, 1824-7; I Cl. 1825; Fellow, 1827-39; Orders.
- Mozley, Thomas**; Fellow of Oriel, 1829-37; Perpetual Curate of Plymtree, Devon, 1868-80; †1893. (*D. N. B.*)
- Carew, William Henry Pole-**; Oriel, B.A. 1833; M.P., East Cornwall, 1845-52.
- Mallock, William**; Balliol, B.A. 1831; Rector of Cheriton Bishop, 1844.
- Powell, Baden**; Oriel, M.A. 1820; Savilian Professor of Geometry, 1827-60; F.R.S. 1824; F.R.A.S., F.R.G.S.; Vicar of Plumstead, 1822-7; †1860. (*D. N. B.*)
- Powell, Henry**; Exeter, B.A. 1831; D.Med. 1839.
1830. **Fursdon, Edward**; Oriel, B.A. 1833; Vicar of Dawlish, 1846-64.
- Marriott, John**; Oriel, B.A. 1830; Vicar of Hythe St. John's, 1863-78; †1881.
- Young, Newton Barton**; Fellow of New College, 1827-52; Rector of Tilbrook, Northants, 1855.

- Johnson, William Wilbraham**; Brasenose, B.A. 1829; Minor Canon of Manchester Cathedral; †1864.
- Pusey, William Bouverie**; Oriel, B.A. 1831; Rector of Langley, Kent, 1842-†88.
- Gilbert, John Davies**; Pembroke, matriculated, 1829; of Eastbourne, Sussex; †1854.
- Powell, James Cotton**; Trinity, B.A. 1831; Student at Lincoln's Inn; Curate of St. James, Clapton, Middlesex; †1851.
- Chapman, John Mitchell**; Fellow of Balliol, 1824-38; Rector of Tendring, 1838-†78.
- Madan, George**; Student of Christ Church, 1829-37; †Rector of Dursley.
- Karslake, William Heberden**; Oriel, B.A. 1830; Rector of Meshaw and Creacombe, Devon, 1832-†78.
- Jordan, C.**
- Churton, Henry Burgess Whitaker**; Balliol, Fellow of Brasenose, 1833-43; Vicar of Icklesham, Sussex, 1844.
- Feild, Samuel Hands**; Worcester; B.A. 1830; Curate of St. Michael, North Kensington, 1884-†86.
- Symons,—**; late of the Infirmary.
- Marriott, Charles**; Scholar of Balliol, 1829-33; Fellow of Oriel, 1833-58; Tractarian; Vicar of St. Mary the Virgin, Oxford, 1850-†58. (*D. N. B.* and *Burton's Lives.*)
- Tawney, Richard**; Fellow of Magdalen, 1824-35; Rector of Willoughby, co. Warwick, 1835-†48.
1831. **Burningham, Thomas**; Trinity, B.A. 1830; Rector of Charlwood, Sussex, 1855-83.
- Belfield, John Finney**; Oriel, B.A. 1834; J.P., Devon.
- Pierrepoint, Henry Bennett**; New College, B.A. 1833.
- Owen, Rev. Owen**; Fellow of Jesus, 1822-31; lost in the *Rothsay Castle* near Beaumaris in this year 1831.
- Williams, Rev. Charles**; Fellow of Jesus, 1829-45; D.D.; Principal, 1857-†77.
- Carwithen, George William Terry**; Oriel, B.A. 1832; Rector and Patron of Ashprington, Devon, 1859.
- Morris, Robert**; Christ Church, M.A. 1833; Rector of Fryern-Barnet, 1850-82.
- Shirley, Evelyn Philip**; Magdalen, B.A. 1834; M.P., South Warwickshire, 1853-65; †1882.

- Hutchinson, William**; All Souls, Bible Clerk, 1828-33; Vicar of Blurton, co. Stafford, 1865.
- Dix, Joshua**; All Souls, B.A. 1833; Rector of All Hallows', Bread St., London, 1851-†71.
- Ward, William Craig**; Bible Clerk of All Souls, 1830-3; Curate of East Tuddenham, 1848-†79.
- Buller, William Charles**; matriculated at Oriel, 1830; B.A. 1835; Fellow of Exeter, 1836, vacated 1851 by not taking the Degree of B.D.; barrister, 1840; †1875.
- Goodson, Thomas**; Worcester, B.A. 1831; of Lincoln's Inn, 1833.
- Ley, Jacob**; Student of Christ Church, 1822-59; Vicar of Staverton, Northants, 1858-†81.
- Williams, Rev. John**; Student of Christ Church, 1816-42; Vicar of Spelsbury, Oxon., 1841; †1873.
- Twiss, Travers**; Scholar of University, 1827-30; D.C.L. 1841; F.R.S. 1838; Regius Professor of Civil Law, 1855-70; Chancellor of Diocese of London, 1858-72; knighted, 1867; †1897. (*D. N. B.*)
- Twisleton, Edward Turner Boyd**; Fellow of Balliol, 1830-8; Honorary Student of Christ Church, 1867-74; Civil Service Commissioner, 1862-70; †1874. (*D. N. B.*)
1831. **Falkner, R.**
- Oct. **Jeffrays, Lockhart William**; Balliol, B.A. 1834; Rector of Aldford, Cheshire, 1853-†62.
- Rushout, George**; Christ Church, B.A. 1833; third Lord Northwick; M.P., Evesham; †1887.
- Head, Sir Edmund Walker, Bart.**; Fellow of Merton, 1830-9; Governor-General of Canada, 1854-61; F.R.S.; K.C.B.; †1868. (*D. N. B.*)
- Villiers, Edward Ernest**; Fellow of Merton, 1831-6; Commissioner for the Colonization of South Australia; †1843.
- Trevelyan, George**; Fellow of Merton, 1826-35; Vicar of Malden with Chessington, Surrey, 1834-†50.
- Morris, John Brande**; Balliol, B.A. 1834; Fellow of Exeter, 1837-46; seceded to Rome; †1880. (*D. N. B.*)
- Smith, Bernard**; Demy of Magdalen, 1831-6; Fellow, 1836-9; seceded to Rome, 1842; Canon of Northampton, 1858; †1903.

- Bayley**, —; Abingdon.
- Macbride, John David**; Principal of Magdalen Hall, 1813-†68; Fellow of Exeter, 1800-5; D.C.L. 1811; Lord Almoner's Professor of Arabic. (*D.N.B.*)
- Simcox, Thomas Green**; Wadham, B.A. 1831; Vicar of North Harborne, 1838-71; †1876.
- Watts, William**; Scholar of University, 1829-34; Perpetual Curate, St. Giles-in-the-Fields, 1845-†7.
- Jones, William (Bence-)**; Balliol, B.A. 1834; Barrister-at-Law, Inner Temple, 1857.
- Lushington, William Hurdis**; Oriel, B.A. 1832; Rector of Eastling, Kent, 1836-†42.
- Carter, Thomas Thellusson**; Christ Church, B.A. 1831; Tractarian; Warden of the House of Mercy, Clewer, 1849; Honorary Canon of Christ Church, 1870; †1901.
- Woodcock, Charles**; Student of Christ Church, 1828-35; Vicar of Chardstock, 1833-75.
- Govett, Robert**; Fellow of Worcester, 1835-44.
- Hotham, John Hallett**; Magdalen, Demy, 1831-6; Vicar of Sutton-at-Hone, 1836-80; †1901.
- Joy, John H.**; Trinity College, Dublin.

*LECTURES ON VEGETABLE CHEMISTRY AND
PHYSIOLOGY.*

1832. **Le Mesurier, Henry**; Fellow of New College, 1824-32; Master at Bedford Grammar School; †1874.
- Bridges, Thomas Edward**; President of Corpus Christi College, 1823-†43.
- Grantham, Rev. George**; Magdalen, Demy and Fellow, 1798-†1840.
- Erle, Christopher**; Fellow of New College, 1815-34; Rector of Hardwicke, Berks., 1833-70.
- Wall, Henry Edward**; Fellow of New College, 1830-†7.

LECTURES ON CHEMISTRY.

1832. **Bevan, David Barclay**; University, B.A. 1836; Vicar of Oct. Little Amwell, Herts, 1864-81.
- Fisher, Cuthbert Jeddere**; Wadham, B.A. 1836.
- Coley, Richard Mallet**; Queen's, B.A. 1839; B.Med. 1840.

- Courthope, George Campion**; Christ Church, B.A. 1833; J.P., D.L.; High Sheriff, Sussex, 1850; †
- Eden, Charles Page**; Fellow of Oriel, 1832-51; Vicar of St. Mary the Virgin, Oxford, 1843-50; of Aberford, 1850-†85. (*D. N. B.*)
- Vandeleur, Henry Seymour Moore**; Worcester, matriculated, 1831; †1875.
- Weare, Thomas William**; Student of Christ Church, 1832-53; B.A. 1836; Under Master of Westminster, 1841-61; Rector of Isfield, Sussex, 1867-†71.
- Wingfield, William Frederick**; Christ Church, B.A. 1836.
- Morgan, William**; Fellow of Magdalen, 1821-54; †1881.
- Pattison, Mark**; Oriel, B.A. 1836; Fellow of Lincoln, 1839-60; Rector, 1861-†84. (*D. N. B.*)
- Blackall, Henry**; Christ Church, B.A. 1832.
- Hunter, William Percival**; Merton, matriculated, 1832; of the Inner Temple, 1836.

LECTURES ON VEGETABLE CHEMISTRY.

1833. **Dawson, Charles Thomas**; Balliol, B.A. 1829; †1842.
- Lent **Jenkyns, Rev. Henry**; Fellow of Oriel, 1818-35; Professor of Greek at Durham, 1833; Canon of Durham, 1839-†78.
- Grey, Rev. George Francis**; Fellow of University, 1814-53; †1854.
- Black, Patrick**; Christ Church, B.A. 1835; D.Med. 1844; Physician, St. Bartholomew's Hospital; †1879. (*D. N. B.*)
- Hughes, Rev. James Henry**; Magdalen, Demy, 1825-9; Fellow, 1829-35; Vicar of Barrow-upon-Trent, 1871-†80.
- Parigot, J.**; Alfred Street. Graduate in Mathematics, University of Ghent; Professor of Geology and Mineralogy at the Free University of Belgium.
- Stevens, Thomas**; Oriel, B.A. 1832; Founder and Warden of St. Andrew's College, Bradfield, 1847-81; †1888.
- Syres, O. B.** [? spelling].

CHEMICAL LECTURES.

1834. **Buckle, Henry**; with Mr. Rusher (? a son of William
Lent Buckle, the 'apothecarius et parturientibus opem ferens,'
privilegiatus, 1821).

- Bayley, William Harley**; Christ Church, B.A. 1835; of Lincoln's Inn, 1834.
- Stevens, C.**; with Mr. Rusher.
- Whipham, Theodore William**; Balliol, B.A. 1837; Barrister-at-Law, Inner Temple, 1846; †1858.
- Stephenson, Christopher Gurdon**; Queen's, B.A. 1835.
- Dale, Henry**; Magdalen, B.A. 1834; Rector of Wilby, Northants, 1853; †.
- Chaplin, Edward John**; Fellow of Magdalen, 1836-52; †in College, 1853.
- Pickin, Francis William**; Magdalen, Demy, 1833-43; Fellow, 1843-†6.
- Dennis, John**; Wadham, matriculated, 1833; B.A. 1837 (St. Mary Hall).
- Stafford, James Charles**; Fellow of Magdalen, 1832-42; Vicar of Dinton, Wilts, 1841-†73.
- 1835. Davenport, S.**
- Lent Campion, Charles Heathcote**; Christ Church, B.A. 1836; Rector of Westmeston, Sussex, 1848; Prebendary of Chichester Cathedral, 1870; †1888.
- Burgess, James Robert**; Oriell, M.A. 1834; Vicar of Streatley, Berks.
- Ryder, William Dudley**; Exeter, B.A. 1835; Arbitrator in the Mixed Court, New York.
- Newington, Samuel**; Worcester, matriculated, 1834; B.A. from New Inn Hall, 1842.
- Cripps, Henry William**; Fellow of New College, 1834-45; Recorder of Lichfield, 1852; Chancellor of Diocese of Oxford, 1883.
- Tait, Archibald Campbell**; Fellow of Balliol, 1834-42; F.R.S.; Head Master, Rugby School, 1842-50; Dean of Carlisle, 1850-6; Bishop of London, 1856-68; Archbishop of Canterbury, 1868-†82. (*D. N. B.*)
- Courthope, William**; Christ Church, B.A. 1838; Rector of Malling, Sussex.
- Bright, William**; Worcester, matriculated, 1832.
- West, Reginald Windsor**; Balliol, B.A. 1838; seventh **Earl Delawarr**; Chaplain in Ordinary to the Queen, 1846; assumed additional name **Sackville** in 1843; †1896.

- Gillespie, David**; Christ Church, matriculated, 1832; D.L. of Fife.
- Woolcombe, William Wyatt**; Fellow of Exeter, 1834-54; Rector of Wootton, Northants, 1854-82; †1886.
- Huntingford, George William**; Fellow of New College, 1833-50; Vicar of Littlemore, Oxon., 1851-72; Rector of Barnwell, Northants, 1872.
- Lawes, John Bennet**; Brasenose, matriculated, 1833; created a Baronet, 1882; F.R.S. 1854; gold medallist, 1867; D.C.L. 1892; Founder of the Rothamsted Agricultural Experiment Station; †1900. (*D. N. B.*)
1836. **Daubeny, George Barnston**; Balliol, B.A. 1835; †1869.
- Thornton, Edward**; Student of Christ Church, 1832-47; Barrister-at-Law, Lincoln's Inn, 1840.
- Drummond, George (Stirling) Home**; Christ Church, B.A. 1836; †1876.
- Courtenay, Hon. Charles Leslie**; Christ Church, B.A. 1837; Domestic Chaplain to Queen Victoria, 1843-9; Canon of Windsor, 1859.
- Welch, James**; Queen's College, matriculated, 1836; M.A. 1843; Barrister-at-Law, Inner Temple, 1844.
- Phillott, Henry Wright**; Student of Christ Church, 1835-51; Chancellor of the Choir and Canon of Hereford, 1887.
- ***Cox, J.**; St. Giles's.
- ***Homfray, W.**; Infirmary.
- ***Cotton, William Charles**; Student of Christ Church, 1834-57; Vicar of Frodsham, Cheshire, 1857-†79.
- ***Greenhill, William Alexander**; Trinity, matriculated, 1832; D.Med. 1841; Physician to Radcliffe Infirmary, 1839-51; †1894. (*D. N. B.*)
- ***Acland, Henry Wentworth**; Christ Church, matriculated, 1834; Fellow of All Souls and M.A. 1842; M.D. 1848; K.C.B. 1884; Bart.; F.R.S.; Radcliffe Librarian, 1851; Regius Professor of Medicine, 1857-94; †1900. (*D. N. B.*)
1837. **Dean, Charles Kilshaw**; Queen's, B.A. 1840; Vicar of Over Tabley, Cheshire, 1860-81.
- Walter, John**; Exeter, B.A. 1840; M.P., Nottingham, 1847-59; Berks., 1868-85.

* To an unlimited attendance at the Lectures on Chemistry.

- Pedder, Wilson**; Brasenose, B.A. 1840; Vicar of Garstang, Lancashire, 1859.
- Sconce, Robert Knox**; Brasenose, B.A. 1840; Rector of St. Andrew, Sydney, N.S.W.; †1852.
- Churton, Thomas Townson**; Fellow of Brasenose, 1821-52.
- Daubeny, J.**
- ***Kilpin, Charles James**; Fellow Commoner of Worcester, matriculated, 1836; Student of Gray's Inn, 1838.
- ***Godfrey, T.**; Oxford; perhaps the surgeon, father of J. A. Godfrey, Schoolboy (p. 87).
- ***Noël, D. C.**; Oxford.
- ***Evetts, W.**; at Mr. Tucker's.

*LECTURES ON THE GEOGRAPHICAL DISTRIBUTION
OF PLANTS.*

1837. **Parker, Charles Lewes.**
- Ruskin, John**; Christ Church, matriculated, 1836; B.A. 1842; Honorary Student, 1867; Honorary Fellow of Corpus Christi College, 1871; Slade Professor of Fine Art, 1869-79, 1883-5; †Jan. 20, 1900. (*D. N. B.*)
- Swayne, George Carless**; Scholar of Corpus Christi College, 1835-46; Fellow, 1846-51; Chaplain at Havre-de-Grace, 1877.

CHEMICAL LECTURES.

1838. **Hobhouse, Edmund**; Balliol; Fellow of Merton, 1841-57; Bishop of Nelson, N.Z., 1858-65; Assistant to Bishop of Lichfield, 1869-80.
- Barrow, Francis**; Wadham, B.A. 1841; Judge of County Courts, 1876-83.
- Wilson, William Davis**; Wadham, B.A. 1841; Vicar of Faringdon, Berks., 1849-†51.
- Hitchings, George C. H.**; Hon. Member of the Ashmolean Society.
- Shadforth, Thomas**; Fellow of University, 1839-52; Rector of Beckley, Kent, 1878-†87.
- Twiss, Edward Robert**; University, B.A. 1841; Curate of St. George's, Hanover Square; †1847.
- Tawke, Arthur**; Trinity, matriculated, 1834; D.Med. 1844.
- * To an unlimited attendance at the Lectures on Chemistry.

- Parsons, Henry George Joseph**; Demy of Magdalen, 1838-44; Fellow, 1844-†61; B.D. 1852.
- Mills, Robert Twyford**; Magdalen, Clerk, 1837-42; Rector of Halse, Somerset, 1844-†74.
- Savory, Thomas Roberts Douglas**; Worcester, matriculated, 1837.
1839. ***Freeborn, Richard Fernandez**; 'Chirurgus,' privilegiatus, Oct. 15, 1847.
- "N.B. Those who subscribe to this course will be free of admission to the one intended to be given in the succeeding Lent Term, which is supplementary to that which will be delivered in the present."—Note in Dr. Daubeny's handwriting.
- Wright, Richard Franklin**; St. John's, B.A. 1842; Vicar of Wrangle, co. Lincoln, 1858-†88. "N.B. No Course. Money (£2 2s. od.) returned" to Mr. Wright.
1840. **Hewitt, Hon. John James**; Balliol, matriculated, 1837 (second son of Viscount Lifford).
- Hobhouse, Reginald**; Balliol, B.A. 1839; Rector of St. Ives, Cornwall, 1844.
- Deane, John William**; St. John's, B.A. 1839; Vicar of Riby, 1847.
- Darling, John**; Christ Church, B.A. 1843; Barrister-at-Law, Inner Temple, 1846; †1858.
- Deane, Francis Henry**; Wadham, M.A. 1840; Barrister-at-Law, Lincoln's Inn, 1846.
- ? **Morton, T. H.**
- Holme, Frederick**; Fellow of Corpus Christi College, 1835-†49; Greek Reader, 1838; F.Z.S.
1841. **Tripp, Henry**; Scholar of Worcester, 1837-45; Fellow, 1845-58; Rector of Winford, co. Gloucester, 1858.
- Smith, Henry**; Student of Christ Church, 1837-48; Vicar of Easton-Maudit, 1847-74.
- Wilson, William Davis**; Wadham; III Math. 1841; M.A. 1843; Vicar of Faringdon, Berks., 1849-†51.
- Wilson, John Posthumus**; Fellow of Magdalen, 1834-42; Proctor, 1841; assumed name of **Parkinson** in 1840; †1874.
- Holloway, J. L.**

* To an unlimited attendance at the Lectures on Chemistry.

Benwell, Frederick James.

1842. **Fletcher, Jacob**; Worcester, matriculated, 1841.
Stovin, Charles Frederick; Oriel, matriculated, 1841;
 Barrister-at-Law, Middle Temple, 1846.
Taunton, George; St. John Street.
 ***Polehampton, John**; Infirmary.
1843. **Powell, Hew Steuart**; Trinity, M.A. 1835.
 Lent. **Liddell, Henry George**; Student of Christ Church, 1830-46;
 D.D. 1855; Head Master of Westminster School, 1846-55;
 Dean of Christ Church, 1855-91; †1898. (*D. N. B.*)
Reynolds, Henry; Fellow of Jesus, 1831-49; Rector of
 Rotherfield Peppard, Oxon., 1848-†69.
**Grenville, Richard Plantagenet Campbell Temple
 Nugent Brydges Chandos, Marquis of Chandos**;
 Christ Church; third **Duke of Buckingham and
 Chandos**, 1839-61; D.C.L., 1852; President of the
 Council, 1866-7; Governor of Madras, 1875-80; †1889.
 (*D. N. B.*)
Church, Richard William; Fellow of Oriel, 1838-54; one
 of the originators of the *Guardian*; Rector of Wheatley,
 Somerset, 1854-7; Dean of St. Paul's, 1871; †1890.
 (*D. N. B.*)
Langton, William Henry Powell Gore; Christ Church,
 B.A. 1848; M.P., West Somerset; †1873.
White, Henry Master; Fellow of New College, 1839-58;
 Archdeacon of Grahamstown, 1871.
Williams, Charles; Fellow of Jesus, 1829-45; Principal,
 1858-†77.
1844. **Story, Mervin Herbert Nevil**; assumed surname of **Mas-
 kelyne**; Wadham, B.A. 1845; Honorary Fellow, 1873;
 Lecturer in Chemistry and Physics, Exeter, 1855-7;
 Waynflete Professor of Mineralogy, 1856-95; Keeper
 of Mineral Department in the British Museum; F.R.S.;
 M.P., Cricklade, 1880-5, North Wilts., 1885-92; Honorary
 D.Sc. 1903.
Burd, Henry; St. Mary Hall; matriculated, 1843.
Austin, William Edmund Craufurd; Fellow of New
 College, 1840-63; took name of **Gourlay**; Rector of
 Stanton St. John, Oxon., 1877-90; †1896.

* To an unlimited attendance at the Lectures on Chemistry.

1845. **Sheppard, Joseph Brigstock**; Infirmary.
Swabey, Maurice Charles Merttins; Student of Christ Church, 1839-56; Chancellor of the Diocese of Oxford, 1868-83; Bencher of Gray's Inn, 1880-†3.
Engleheart, John Gardner Dillman; Student of Christ Church, 1844-59; Barrister-at-Law, 1849; Comptroller of the Household of the Prince and Princess Christian, 1866; Clerk of the Council of the Duchy of Lancaster.
Clarke, William Grasett; Oriel, M.A. 1846; Perpetual Curate of Charlton Abbots, 1859-66.
Poste, Edward; Fellow of Oriel, 1846; Barrister-at-Law; Director of Civil Service Examinations; †1902.
Buckland, Francis Trevelyan; Christ Church, B.A. 1848; the celebrated naturalist, Assistant-Surgeon 2nd Life Guards, 1854; founded *Land and Water*, 1866; Inspector of Salmon Fisheries, 1867-†80. (*D. N. B.*)
Cox, John Henry; St. Mary Hall, matriculated, 1841; Worcester.
Yonge, Duke; Exeter, B.A. 1846; Rector of Newton Ferrers, 1877-†81.
Rusher, Richard Eaton; (?of St. Peter's-in-the-East, Oxford).
Newman, Thomas Harding; Demy of Magdalen, 1832-47; Fellow, 1846-73; D.D.; †1882.
Parsons, John Tournay; Balliol, B.A. 1847; Vicar of Much Dewchurch, co. Hereford, 1850-†78.
Hyett, William Henry Adams; Balliol, matriculated, 1844; †1850.
Benson, Richard Meux; Student of Christ Church; B.A. 1847; Vicar of Cowley, 1850-86; Founder of the Society of St. John the Evangelist, Cowley; Bampton Lecturer.
1846. **Eaton, John Richard Turner**; Lincoln, B.A. 1845; Fellow of Merton, 1847-65; Whyte's Professor of Moral Philosophy, 1874-8; Rector of Church Lench, 1886.
Smart, George; Exhibitioner of Lincoln, 1842-8; M.A. 1849.
Layton, Thomas Charles Litchfield; Scholar of Pembroke, 1839-54; Fellow, 1854-6; Vicar of Sempringham, Lincoln, 1877.
Church, Charles Marcus; Oriel, B.A. 1845; Canon of Wells, 1879.

- Fraser, James**; Fellow of Oriel, 1840-61; Honorary Fellow, 1873-85; Bishop of Manchester, 1870-†85. (*D. N. B.*)
- Coleridge, Henry James**; Fellow of Oriel, 1845-52; seceded to Rome, 1852; editor of the *Month*, the periodical of the Jesuit Fathers, 1865-81; †1893. (*D. N. B.*)
- Macaulay, John Jermy**; Brasenose, matriculated, 1845; Barrister-at-Law, Lincoln's Inn, 1852-†59.
- Ouseley, Sir Frederick Arthur Gore, Bart.**; Christ Church, B.A. 1846; D.Mus. 1854; Honorary Student, 1867; Professor of Music, 1855; Canon of Hereford, 1886; †1889. (*D. N. B.*)
- Hall, Richard William** }
Graham, John } not members of the University.
- Neate, Charles**; Fellow of Oriel, 1828-†79; Drummond Professor of Political Economy, 1857-62; M.P., Oxford City, 1863-8. (*D. N. B.*)
- Boileau, John Elliot**; University, B.A. 1850; Barrister-at-Law, Inner Temple, 1852; †1861.
- Le Mesurier, Richard Arthur**; Scholar of Corpus Christi College, 1841-8; Fellow, 1848-51; †1853.
- Hext, George**; Fellow of Corpus Christi College, 1847-58; Rector of Steeple Langton, Somerset, 1873.
1847. **Vincent, Cyril John**; High Street; Magdalen Hall, matriculated, 1849.
- Burne, John Butler**; Christ Church, B.A. 1850; Rector of Wasing, Berks, 1881.
- Barmby, James**; Fellow of Magdalen, M.A. 1847; Vicar of Pittington, 1875; †.
- Cholmeley, Robert**; Fellow of Magdalen, 1843-58; Proctor, 1854; Vicar of Findon, Sussex, 1860-†80.
- Collingwood, Cuthbert**; Christ Church, B.A. 1849; B.Med. 1854.
- Rawstone, Robert Atherton**; Brasenose, B.A. 1846; Vicar of Balderstone, Lancashire, 1859; Archdeacon of Blackburne, 1885.
- Royds, Francis Coulman**; Brasenose, B.A. 1847; Rector of Haughton, co. Stafford.
- Ogle, James Ambrose**; Brasenose, B.A. 1846; Vicar of Sedgford, Norfolk, 1858-74.
- Daubeny, Giles Edwin**; Magdalen, Demy, 1847-†50.

- 1848-9. Stanhope, Walter Thomas William Spencer**; Student of Christ Church, 1847-52; M.P., West Riding, Yorks., 1872-80.
- Aynsley, John Murray**; Christ Church, B.A. 1847; Rector of Walton, Somerset, 1854-5.
- Cross, Henry Assheton**, Christ Church, matriculated, 1845.
- Hooper, James John**; Fellow of Oriel, 1848-84; Recorder of South Molton, 1877-84.
- Ross, Charles Douglas**; Fellow of Wadham, 1848-†82.
- Hector, J. F.**
- Bunny, Edward John**; Christ Church; adopted name **St. John.**
- Board, John**; Christ Church, B.A. 1850; J.P., Kent.
- Bulley, Frederick**; Magdalen, Fellow, 1837; D.D.; President of Magdalen, 1855-†85.
- Massey, Augustus Shakespear Oliver**; Magdalen, matriculated, 1847.
- 1849. Markby, William**; Postmaster of Merton, 1846-50; D.C.L.; Mich. Reader in Indian Law, 1878; Fellow of Balliol, 1883.
- Churchill, B. B.**
- Stokes, Edward**; Student of Christ Church, 1842-60; Vicar of Staines, Middlesex, 1859-†63.
- Marshall, George**; Student of Christ Church, 1837-58; Vicar of Pyrton, Oxon., 1857-75; of Milton, Oxon., 1875; †.
- Conybeare, Charles Ranken**; Student of Christ Church, 1839-53; Vicar of Pyrton, Oxon., 1852-7; of Itchin Stoke, Hants, 1857-†85.
- Prout, Thomas Jones**; Student of Christ Church, 1842; Vicar of Binsey, 1857.
- Thomson, William**; Fellow of Queen's, 1840-55; Provost, 1855; Bishop of Gloucester and Bristol, 1861; Archbishop of York, 1862; †1890. (*D. N. B.*)
- Merriman, Henry Gordon**; Fellow of New College, 1843-52; Head Master of Royal Grammar School, Guildford, 1859-74; Rector of East Woodhay, 1884-†87.
- Bowles, Samuel James**, Magdalen, B.A. 1849; Fellow, 1855; Rector of Beaconsfield, Bucks, 1857-†65.
- Lewis, William Lempriere**; Scholar of Trinity, 1848-52; Fellow, 1852-8; †1872.

- ?**Hester, James Terry**; 'chirurgus,' privilegiatus, June 11, 1821.
Hansell, Henry; Balliol, matriculated, 1848; Demy of
 Magdalen, 1851-61; Fellow, 1861-†89.
Sievers, Albert; Dr. Ph.
Heathcote, William Beadon; Fellow of New College,
 1832-53; Warden of Radley; Rector of Compton Bassett;
 †1862.
Knight, John Walker; Chorister; Fellow of Magdalen,
 1849-66; Demy, 1845-9; Vicar of Washington, Sussex,
 1865-96.
Millard, James Elwin; Chorister, 1835; B.A. 1845; School
 Master, 1846; Fellow, 1853-65; Vicar of Basingstoke,
 1864; Hon. Canon of Winchester, 1882; †.
 Choristers and Schoolboys from Magdalen College School:—
Sanders, William; Chorister, 1846-50; Clerk, 1850-7;
 Master of Woodford Grammar School; †1869.
Standen, George Horn; Chorister, 1848-51.
 ?**Inman, Edward**; Schoolboy, 1848-53; in Holy Orders.
Jones, Everard; Schoolboy, 1849-54.
Acock, Edgar Morton; Chorister, 1844; B.A. 1859;
 Vice-Principal of Carmarthen Training College, 1861-3;
 Chaplain of Christ Church, 1863-73; Vicar of Market
 Lavington, Wilts., 1873-†5.
Vincent, Joseph Henry, 1849-†52.
Hall, Edward Vine; Chorister, 1845-55; Vicar of Spring
 Grove, Middlesex, 1870-8; Minor Canon, &c.,
 Worcester, 1877; Vicar of Bromsgrove, 1889.
Ward, John Budgeon; Chorister, 1842-50.
Giles, Arthur Henry; Chorister, 1849.
 ?**Green, Richard Eling**; Schoolboy, 1849; or perhaps
John Richard Green, the eminent Historian, who
 entered the School in 1847.
Kett, Edward; Chorister, 1847.
Haden, Charles Henry; Chorister, 1847.
Holiwell, Walter Curren; Chorister, 1844-50.
Sutton, Frederick John; Chorister, 1845.
Godfrey, James Alfred; Schoolboy, 1849-51; Royal
 Marines.
Dicks, Edward George; Chorister, 1846-53; matricu-
 lated, Magdalen Hall, 1857.

- Mills, William** ; Schoolboy, 1849-52.
Hansell, Thomas William ; Chorister, 1849.
- 1850-1. **Fox, Edward Long** ; Balliol, B.A. 1854 ; D.Med. 1861 ; †.
Adam, George Read ; St. Mary Hall, B.A. 1852 ; Vicar of Shoulden, Kent, 1877.
Chichester, Charles ; Magdalen, matriculated, 1847 ; J.P., D.L., Devon.
- [**Sanders, W.**]*
- Kempe, Reginald Carlisle** ; Demy of Magdalen, 1850-8 ; M.A. 1857 ; Rector of Hawkwell, Essex, 1858 ; seceded to Rome.
- Hill, Edward** ; Demy of Magdalen, 1849-65 ; Rector of Ashurst, Sussex, 1865-92 ; Vicar of Boxgrove, Sussex, 1892.
- Meyrick, Llewellyn** ; Demy of Magdalen, 1848-54 ; Fellow, 1854-†87. (Orders.)
- [**Sanders, W.**]*
- Mitchell, Alexander** ; Christ Church, matriculated, 1848 ; M.P., Berwick-on-Tweed, 1865-8 ; †1873.
- Clements, Henry George John** ; Christ Church, B.A. 1852 ; Vicar of Sidmouth, Devon, 1865.
- Vaughan, Henry Halford** ; Fellow of Oriel, 1835-42 ; Regius Professor of Modern History, 1848-58 ; †1885. (*D. N. B.*)
- Deane, Charles Henry** ; Demy of Magdalen, 1850 ; Fellow, 1855-63 ; Vicar of Willoughby, co. Warwick, 1885.
- Knox, Arthur** ; Scholar of St. John's, 1844-7 ; B.A. from St. Mary Hall, 1850.
- ? **Hugell, P. T.**
- Wintle, Frederick Thomas William** ; Magdalen, Chorister, 1842-7 ; Clerk, 1849-54 ; Rector of Bere Ferrers, Devon, 1875.
- [**Sanders, W.** ; Magdalen.]*
1852. **Hankey, Frederick Alers** ; Oriel, B.A. 1855 ; M.P., West Lent. Surrey, 1885.

* The frequent appearance of the name of Mr. Sanders in this year recalls an anecdote related to the editor by Mrs. Bulley, the wife of the late President of Magdalen College and niece of Dr. Daubeny, that at one time the undergraduates attending the lectures used to make bets with one another concerning the number of times it was possible to enter their names on the record of attendances at the same lecture without attracting the notice of the learned Professor.

Luke, William Henry Colbeck ; Oriel, B.A. 1853 ; Vicar of St. Matthias, Earl's Court, London, 1878.

Tyler, John Chatfield ; Oriel, matriculated, 1850.

Trevilian, William John Cely ; Oriel, matriculated, 1850 ; †.

Cox, Thomas Adey ; Oriel, B.A. 1852.

Turner, W. H. ; High Street.

Cordeux, Godfrey Pigott ; Fellow of Worcester, 1852-6 ; Vicar of Ravenfield, Yorks., 1874-81.

Hale, John Godwin ; Oriel, B.A. 1852 ; Rector of Therfield, Herts, 1870.

Norman, Alfred Merle ; Christ Church, B.A. 1852 ; D.C.L., F.R.S., F.L.S. ; Honorary Canon of Durham, 1885.

Sutton, Frederick Heathcote ; last Gentleman Commoner of Magdalen, B.A. 1856 ; Prebendary of Lincoln, 1883-†8.

Packe, William James ; Christ Church, B.A. 1855 ; Vicar of Feering, Essex, 1873.

Wilson, John Matthias ; Fellow of Corpus Christi College, 1841-69 ; Whyte's Professor of Moral Philosophy, 1846-74 ; President of Corpus Christi College, 1872-†81. (*D. N. B.*)

Prichard, Constantine Estlin ; Fellow of Balliol, 1842-54 ; Rector of South Luffenham, co. Lincoln, 1854-†69.

Trinder, Daniel ; Exeter, S.C.L. 1851 ; Vicar of Teddington, 1857-78, and of Highgate, 1878-†88.

1852. **Taylor, W. R.** ; Paradise House.

Mich. **Arnold, Edwin** ; University ; English Verse, 1852 ; B.A. 1854 ; Principal of Deccan College, Poona, Bombay, 1856-61 ; K.C.I.E. ; C.S.I. ; Officer of White Elephant of Siam, &c.

Langston, W.

Wellford, John Francis ; Worcester, matriculated, 1851 ; Gentleman Commoner of Magdalen Hall, 1857 ; M.A. 1863.

Brown, Henry ; High Street.

Child, Gilbert William ; Exeter, B.A. 1854 ; D.Med. 1859 ; Nat. Sci. Examiner, 1867 ; †.

Dumbleton, Horace ; Exeter, matriculated, 1850 ; New Inn Hall, B.A. 1855.

Welch, Christopher ; Wadham, B.A. 1855.

- Nicholl, Edward Powell**; Brasenose, B.A. 1855; Vicar of Ascot-under-Wychwood, Oxon., 1883-5.
- Crickmer, William Burton**; St. Edmund Hall, Exhibitioner and Bible Clerk, 1851; Assistant Perpetual Curate of Beverley Minster, Yorks., 1864.
- Richey, James Bellett**; Scholar of Exeter, 1852-4; I.C.S., 1856; C.S.I., 1878.
- Coke, George Francis**; Exeter, B.A. 1854; Vicar of Titley, co. Hereford, 1877-85.
- Hudson, John**; Christ Church, matriculated, 1850.
- Davies, Arthur Henry Saunders**; Christ Church, matriculated, 1850; Student of Inner Temple, 1854; †1873.
- Barker, George William**; Christ Church, B.A. 1853; Barrister-at-Law, Inner Temple, 1857-†69.
- Corbett, Lionel**; Christ Church, B.A. 1854; Vicar of Condoover, Salop, 1873; Rector of Hampton Bishop, 1887.
- Walters, William**; Christ Church, B.A. 1854; Honorary Canon of Worcester, 1881.
- Wethered, Thomas Owen**; Christ Church, matriculated, 1850; M.P., Marlow, 1868-80.
- Mills, Charles Henry**; Christ Church, B.A. 1851; M.P., West Kent, 1868-85; created **Lord Hillingdon**, 1886; †1898.
- Ross, George Gould**; Scholar of St. Mary Hall, 1851-5; D.C.L. 1875; Canon of Grahamstown, 1876-83, &c.
- Cotton, Arthur Benjamin**; Christ Church, B.A. 1854; Rector of Hartley Maudit, Hants, 1879-86.
- Cazenove, Arthur**; Exeter, B.A. 1853; Vicar of St. Mark, Reigate, 1859.
- Smith, Richard Goodlake**; Exeter; B.A. 1854.
- Longe, Francis Davy**; Oriel, B.A. 1854; Inspector Local Government Board, 1871.
- Stent, Henry**; Exeter, B.A. 1853; Vicar of Fairlight, Sussex, 1857.
- Medley, John Bacon**; Exeter, B.A. 1856; Rector of Orchardleigh-cum-Lullington, Somerset, 1875.
- Nicholls, Henry Cornelius**; Exeter, matriculated, 1850.
- Colborne, Joseph Veel**; Magdalen Hall, matriculated, 1850.
- Tucker, Henry William**; Magdalen Hall, B.A. 1854; Secretary of Society for Promoting the Gospel, 1879.

- Le Mesurier, George Frederick**; Exeter, B.A. 1855;
Rector of Didmarton, co. Gloucester, 1870.
- Marshall, Robert Manning**; Exeter, B.A. 1855; Rector of
Hedenham, Suffolk, 1859-1900.
- Garton, Joseph**; Exeter, B.A. 1855; Chaplain to the King
of Hanover.
1853. **Randolph, Bernard Montgomery**; Christ Church, B.A.
Mich. 1857.
- Bligh, Hon. Henry**; Christ Church, matriculated, 1852;
Vicar of Nettlebed, Oxon., and of Abingdon, Berks.,
1874-8; of Holy Trinity, Fareham, 1893-1902.
- Cardwell, Edward Henry**; University, B.A. 1855.
- Dry, Edward**; University, B.A. 1857; M.A. 1859.
- Hawkins, Bradford Robert John**; St. John's, B.A. 1854;
Vicar of Eyton, co. Hereford, 1867-75.
- Webster, Edward Mercer**; Brasenose, B.A. 1854; Rector
of Chingford, Essex, 1872-8.
- Puxley, Henry Lavallin**; Brasenose, B.A. 1855; High
Sheriff, Carmarthen, 1864.
- Wilson, Edward Thomas**; Exeter, B.A. 1855; B.Med.
1858.
- Webb, Godfrey John**; Brasenose, B.A. 1854.
- March, George Edward**; St. Mary Hall; matriculated, 1850;
Clerk in Foreign Office, 1855; Secretary to Royal Com-
mission on Extradition, 1877; C.M.G., 1881.
- Jones, R. F.**
- Rayson, William**; Magdalen Hall, B.A. 1856; Vicar of
Lindridge, co. Hereford, 1873-95.
- Williams, Edleston Richard**; Magdalen Hall, B.A. 1856;
Perpetual Curate of Smallwood, co. Stafford, 1862.
- Harrison, James Harwood**; Magdalen, B.A. 1857; Rector
of Bugbrooke, Northants, 1859.
- Millard, Frederick Maule**; Demy of Magdalen, 1853-67;
Fellow, 1867-70; Rector of Otham, Kent, 1869.
- ‡ **Howell, Robert Williams**; Jesus, Scholar, 1849-54;
Fellow, 1854-†80.
- Willmott, Henry**; Pembroke, B.A. 1856; Rector of Kirkley,
Suffolk, 1860-70; †1872.
- Lee, Matthew Henry**; Scholar of Brasenose, 1850-4;
Vicar of Hanmer, Flints., 1867.

- Foxton, William**; Magdalen Hall, B.A. 1856.
- Battye, William Henry**; Magdalen Hall, matriculated, 1852.
- Tuckwell, Henry Matthews**; Exhibitioner of Lincoln, 1852-7; D.Med. 1863.
- Murray, George**; Magdalen Hall, B.A. 1856.
- Biddulph, Thomas Tregenna**; University, matriculated, 1850.
- Day, Charles**; Lincoln, B.A. 1856; Vicar of Hollym with Withernsea, Yorks., 1864.
- Woodall, Charles William**; University, B.A. 1855; Barrister-at-Law, Inner Temple, 1859.
- Beale, Seaman Curteis Tress**; Wadham, B.A. 1854; Vicar of St. Michael, Tenterden, 1864-81; †1885.
- Lloyd, William Henry**; Magdalen, B.A. 1856; Vicar of Christ Church, Eastbourne, 1864-70; Chaplain at Valparaiso, 1870-83.
- Woodall, John Woodall**; Oriel, B.A. 1854; Banker, and Mayor of Scarborough, 1882, 1886; F.G.S.
- Pellew, George Israel**; University, B.A. 1854; Rector of Peterston, co. Hereford, 1886.
- Johnston, Samuel Henry Nairn**; Pembroke, B.A. 1854; Lieutenant-Colonel, formerly 20th Foot.
1854. **Leigh, Edward Chandos**; Oriel, matriculated, 1851; Fellow of All Souls, 1855-71; Q.C. 1881; Counsel to Speaker of House of Commons, 1883; K.C.B.
- Lent. **Walker, Charles Henry**; Oriel, B.A. 1857; Vicar of Walkhampton, Devon, 1863.
- Henning, William Walter**; Oriel, matriculated, 1851.
- Court, David Alexander**; Oriel, matriculated, 1850; B.A. 1855; Incumbent of Kangaroo Point, Queensland, 1855.
- Willoughby, Edward Carlile**; Oriel, B.A. 1856; Barrister-at-Law, Inner Temple, 1858; †1886.
- Walker, Henry Aston**; Oriel, B.A. 1856; Vicar of St. James's, Hatcham, Surrey, 1879-85; Vicar of Chattisham, Suffolk, 1891.
- Master, Streynsham Mosley**; Balliol, B.A. 1856.
- Almond, Hely Hutchinson**; Balliol, B.A. 1855; Head Master of Loretto School; †.
- Allan, Hugh**; Wadham, B.A. 1856; Vicar of Ravenstone, 1872.

- Sillifant, Charles William**; St. John's, B.A. 1854; Rector of Wear Gifford, Devon, 1857-81.
- De Brisay, Henry De La Cour**; University, B.A. 1855; Diocesan Inspector of Schools for Deanery of Oxford, 1879.
- Saunders, William**; Magdalen Hall, matriculated, 1851; aged 38.
- Broughton, Vernon Deloos**; Magdalen, matriculated, 1853; Master of the Mint, Melbourne, 1880-4; †1886.
- Salmon, Henry Thomas**; Magdalen, B.A. 1858; J.P., D.L., Gloucestershire; Barrister-at-Law, Lincoln's Inn, 1862; †.
- Moreton, Hon. Berkeley Basil**; Magdalen, matriculated, 1853; Postmaster-General of Queensland, 1885.
- Trotman, William Charles**; Fellow of New College, 1852-68; Student of Middle Temple, 1856.
- Witherby, William Henry**; Oriel, B.A. 1855.
- Frye, Arthur William**; Oriel, B.A. 1855.
- Charles, George**; Exeter, B.A. 1856; of Lincoln's Inn, 1857.
- Daubeny, John**; Exeter, B.A. 1857; Chancellor of Sarum, 1868-77; Vicar of Winkfield, Berks., 1881.
- Robinson, Herbert Harold**; Exeter, B.A. 1855; Vicar of St. Andrew's, Burnley, 1867.
- Herklots, Gerard Andreas**; Exeter, B.A. 1856; Vicar of St. Saviour's, South Hampstead, 1872.
- Fisher, Charles Edmund**; Exeter, matriculated, 1851.
- Luney, Thomas Hodson Radcliffe**; Exeter, B.A. 1855.
- Newman, Augustus**; St. John's, B.A. 1855; B.Med. 1859.
- Lewis, Forster**; St. John's, B.A. 1855; Rector of Wotton-Fitzpaine, Dorset, 1864.
- Mellory, George**; Magdalen Hall, B.A. 1857; †1864.
- Birley, Alfred**; Balliol, B.A. 1855; Vicar of Bolton-le-Sands, co. Lancaster, 1874.
- Ravenhill, Henry Everett**; University, B.A. 1855; Vicar of Buckland Newton, Dorset, 1860.
- Denne, Richard Henry**; University, B.A. 1856; Rector of Brimpsfield, co. Gloucester, 1879.
- Good, Charles**; Exeter, B.A. 1856.
- Smallwood, Edward Bosworth**; Worcester, B.A. 1855; Rector of Newton Linford, co. Leicester, 1872-†74.

- Glenn, Richard** ; Worcester, B.A. 1856.
- Monson, Hon. Edmund John** ; Balliol, matriculated, 1852 ; Fellow of All Souls, 1858-82 ; Minister at Copenhagen, 1885-8 ; Athens, 1888 ; P.C., G.C.B., D.C.L., G.C.M.G. ; Ambassador to the Emperor of Austria, 1893, and to the French Republic.
- Bennett, Barwell Ewins Worthington** ; Oriel, B.A. 1853 ; Rector of Corby, co. Lincoln, 1873, and Rural Dean.
- Wodehouse, Hon. Henry** ; Balliol, B.A. 1855 ; Secretary of Embassy, Athens ; †1873.
- Walters, Robert** ; Balliol ; B.A. from St. Mary Hall, 1855 ; of Ware Priory, Herts ; Barrister-at-Law, Inner Temple, 1857.
- Beaumont, Francis Henry** ; Oriel, B.A. 1856 ; Treasurer for the County of Surrey.
- Daubeny, Thomas** ; St. Mary Hall, B.A. 1855 ; Vicar of Ampney, Gloucester, 1876-†87.
- Austin, William George Gardiner** ; Magdalen, Demy ; B.A. 1858 ; Chaplain to Bishop of Guiana, 1860-91 ; Rector of Stanway, Essex, 1891-7 ; †1903.
- Day, Hermitage Charles** ; Brasenose, B.A. 1855 ; Vicar of Bredhurst, Kent, 1864-78.
- Malcolm, John Wingfield** ; Christ Church, B.A. 1856 ; M.P. for Boston, 1860-8, 1874-8.
- Greatorex, Thomas** ; Pembroke, matriculated, 1851.
- King, William Oliver Meade** ; Pembroke, B.A. 1863 ; Inspector of Factories.
- Cooper, Frank** ; Magdalen, B.A. 1857 ; Curate of Long Compton, co. Warwick, 1868-†70.
- Dashwood, Charles Lewes** ; Fellow Commoner of Oriel, B.A. 1855.
- Hankey, Reginald** ; St. Mary Hall, B.A. 1854 ; †1886.
- Thynne, Arthur Christopher** ; Balliol, B.A. 1855 ; Rector of Kilkhampton, 1859 ; Treasurer and Honorary Canon of Truro, 1877.
- Codrington, John Edward** ; Scholar of Brasenose, B.A. 1856.
- Knipe, Christopher** ; Scholar of Brasenose, 1852-7 ; B.A. 1855 ; Vicar of Erlestoke, 1878.
- Hitchcock, William Henry** ; University, B.A. 1855 ; Vicar of Christ Church, Derryhill, Wilts., 1871.

- Owen, Edmund John** ; Scholar of Brasenose, 1850-4 ;
Rector of Tretire, co. Ross, 1860.
- Atwood, Arthur Thomas** ; Brasenose, B.A. 1855 ; Rector
of Bromeswell, Suffolk, 1870.
- Stiles, Robert Canning** ; Scholar of Brasenose, 1851-7 ;
Head Master of Shepton Mallet Grammar School, 1872-80.
- Hasler, William Wyndham** ; Christ Church, matriculated,
1851 ; J.P., Sussex.
- Robinson, Thomas Bond Bird** ; Christ Church, matricu-
lated, 1850 ; B.A. 1854 ; Rector of Milton, Hants,
1875.
- Pember, Edward Henry** ; Student of Christ Church, 1854-
61 ; Q.C. 1874 ; Bencher of Lincoln's Inn, 1876.
- Lendon, George Charles Comyns** ; Christ Church, matricu-
lated, 1850.
- Ethelston, Robert Peel** ; Christ Church, matriculated, 1850 ;
J.P., Salop.
- Nind, Philip Henry** ; Christ Church, matriculated, 1850 ;
Gold Commissioner in British Columbia.
- Luttrell, Edward Fownes** ; Christ Church, matriculated,
1851.
- Pemberton, Richard Laurence** ; Pembroke, matriculated,
1851 ; High Sheriff of Durham, 1861.
- Hooper, Thomas Aylesbury** ; Pembroke, B.A. 1854 ; Rector
of Cooling, Kent, 1863-75 ; †1882.
- Bent, John Oxenham** ; Pembroke, B.A. 1855 ; Vicar of
St. John Evangelist, Woolwich, 1868.
- Gordon, Henry Doddridge** ; Scholar of New College,
1852-61 ; Rector and Vicar of Harting, Sussex, 1864.
- Pode, John Duke** ; Fellow of New College, 1853-61 ;
Barrister-at-Law, Inner Temple, 1858.
- Farrar, Adam Storey** ; Michel Fellow of Queen's, 1852-63 ;
Tutor at Wadham, 1855-63 ; Bampton Lecturer, 1862 ;
Professor of Divinity and Ecclesiastical History, Durham,
1864 ; Canon of Durham, 1878.
- Vernon, Sir Henry Foley, Bart.** ; Magdalen ; High Sheriff,
co. Worcester, 1873 ; M.P., East Worcestershire, 1861-6 ;
created a Baronet, 1885.
- England, Russell** ; Exeter, matriculated, 1851 ; of Lincoln's
Inn, 1852.

- Law, Alexander Patrick**; Corpus Christi College, 1851; of New Inn Hall, 1856; B.A. and M.A. 1860.
- Dowell, Stephen**; Corpus Christi College, B.A. 1855; of Lincoln's Inn, 1863.
- Preston, William**; Oriel, matriculated, 1851 (now William Warcup Peter Consett).
- Alleyne, Arthur Osborn Gibbes**; Oriel, B.A. 1855; Rector of St. Edmund, Exeter, 1863.
- Southey, Reginald**; Christ Church, B.A. 1857; D.Med. 1866; Lunacy Commissioner, 1883.
- Roberts, Erasmus Coryton**; Queen's, B.A. 1855; J.P., D.L., Cornwall.
- Penrose, Samuel Welsted**; Magdalen Hall, B.A. 1856; Incumbent of Rincurran, co. Cork, 1890.
- Brown, George James**; Christ Church, B.A. 1854; Domestic Chaplain to Duke of Marlborough, 1858; Incumbent of St. John Evangelist, Edinburgh, 1883.
- Clark, George O.**; Pembroke; matriculated, 1851.
1854. **Wood, T. J.**; of Broad Street, Oxford.
- Mich. **Jelly, Harry Richardson**; Brasenose, B.A. 1854.
- Hopkins, Thomas Henry Toovey**; matriculated at Trinity; Demy of Magdalen, 1853-6; Fellow, 1856-†85.
- Hutton, Edmund Forster (Drummond)**; Corpus Christi College, B.A. 1856; D.D. 1870; Incumbent of St. Columba, Crieff, 1867-72.
- Barrett, George Kimbell**; Oriel, B.A. 1855.
- Caird, Henry William**; Oriel, B.A. 1855.
- Liddon, Henry John**; Exeter, B.A. 1859; Vicar of South Milton, Devon, 1887-92.
- Welby, Walter Hugh Earle**; Corpus Christi College, B.A. 1855; Rector of Harston, co. Leicester, 1867.
- Ollivant, William Spencer**; Corpus Christi College, B.A. 1858; †1876.
- Browne, Jemmett**; Corpus Christi College, B.A. 1855; Barrister-at-Law, Lincoln's Inn, 1867; Private Secretary to Permanent Secretary, Board of Trade, 1868-84.
- Duthoit, William**; Exeter, matriculated, 1853; D.C.L. 1876; Judicial Commissioner of Oudh.
- Joyce, Charles**; Exeter, B.A. 1857; Rector of Fulmer, Bucks, 1875.

- Des Vœux, Sir George William**; Balliol; Governor of Newfoundland, 1886, and Hong Kong, 1887-91; G.C.M.G.
- Pryor, John Eade**; Magdalen, B.A. 1858; Rector of Bennington, Herts, 1860-81; †1884.
- Bell, William Alfred**; Queen's, B.A. 1856.
- Craster, Thomas Henry**; University, B.A. 1857; Rector of Denton, co. Lincoln, 1886.
- Booth, Thomas**; University, B.A. 1857.
- Shepherd, Francis Burton**; Oriel, B.A. 1856; Rector of Margaret Roding, Essex, 1861.
- Rudd, Henry**; Corpus Christi College, B.A. 1857; D.C.L. 1865; †1880.
1855. **Sergeant, Edmund William**; Balliol, B.A. 1858; Assistant Master at Winchester College; Vicar of Moordown, Hants, 1886.
- Wilson, Robert Dobie**; Exhibitioner of Balliol, 1854-61; Barrister-at-Law, Lincoln's Inn, 1862.
- Curzon, Richard**; Brasenose, B.A. 1857; in Orders; †1863.
- Mather, Edward**; Brasenose, B.A. 1858.
- Risley, William Cotton**; Exeter, B.A. 1856; Rector of Shelstone, Berks., 1878.
- Causton, Charles Purefoy**; Exeter, B.A. 1856; Rector of Stretton-on-Fosse, co. Gloucester, 1866.
- Berkeley, Sackville Hamilton**; Oriel, B.A. 1856; Vicar of St. James's, Devonport, 1884; Heavitree, Exeter, 1885.
- Houseman, John**; Exeter, B.A. 1856; Rector of Brobury with Bredwardine, 1871-77.
- Coulthurst, Nicholas**; Magdalen Hall, matriculated, 1851.
- Sturton, Jacob**; Trinity, B.A. 1856; Rector of Woodborough, Wilts., 1881.
- Sainsbury, Thomas Ernest Langford**; Trinity, B.A. 1856; Rector of Ellingham, 1883; Rector of Beckington with Standerwick, 1892.
- Finch, Henry Charles**; Trinity, B.A. 1856; Barrister-at-Law, Lincoln's Inn, 1859.
- Williams, Anthony**; Exeter, B.A. 1858; Vicar of Coaley, co. Gloucester, †1862.
- Allen, Herbert Lockyer**; Exeter, matriculated, 1854.
- Alexander, William Henry**; Pembroke, B.A. 1856; Barrister-at-Law, Inner Temple, 1860.

- Dickins, Herbert Stewart** ; Pembroke, matriculated, 1852.
Thomson, John ; Exeter, B.A. 1857 ; of Woodperry House, Oxon. ; J.P.
Birley, Arthur ; Pembroke, B.A. 1856.
Molyneux, William More ; Pembroke, B.A. 1857 ; Clerk in House of Commons.
Cornish, Charles John ; Exhibitioner of Corpus Christi College, B.A. 1856 ; Rector of Childrey, Berks., 1882.
Lance, Henry Porcher ; Brasenose, B.A. 1856.
Chamberlayne, Edward Tomes ; Brasenose, B.A. 1855 ; Rector (and Patron) of Witherley, co. Warwick, 1871.
Pritchard, Thomas Sirrell ; Brasenose, B.A. 1855 ; Recorder of Wenlock, †1879.
Swainson, Oswald Lister ; Brasenose, B.A. 1856.
Parker, William Windsor ; Merton, B.A. 1855 ; Barrister-at-Law, Lincoln's Inn, 1861.
Lambert, William Henry ; Postmaster of Merton, 1852-6 ; Rector of Stoke Edith, co. Hereford, 1858.
Mercer, John Francis ; Exeter, B.A. 1857.

LECTURES ON AGRICULTURAL CHEMISTRY.

1855. **Gough, Walter Henzell** ; Worcester, B.A. 1858 ; Vicar of Oct. Great Maplestead, Northants, 1883.
Wyndham, Edmund ; Magdalen, B.A. 1857 ; Barrister-at-Law, Lincoln's Inn, 1861 ; Vicar of Yeovil, 1873-84.
Parry, William Warner ; Worcester, B.A. 1858 ; Chaplain Royal Navy, 1866 ; Retired List, 1885.
Poulden, James Bedford ; Worcester, B.A. 1856.
Young, William Edward Allen ; Worcester, B.A. 1856 ; Rector of Pyecombe, Sussex, 1875.
Joy, Samuel ; Worcester, B.A. 1856 ; Vicar and Precentor of Ripon, 1875-84.
Vaughan, Arthur Chichele Chambrè ; Worcester, B.A. 1857 ; Vicar of Lambley, Northumberland, 1862-95 ; Rector of Ingram, 1895.
Barnwell, John Clement ; Worcester, B.A. 1858.
Allan, William ; Worcester, B.A. 1859 ; Vicar of St. James, Bermondsey, 1874.

- Andrews, William Ryton** ; Wadham, B.A. 1857 ; Rector of Teffont-Ewyas, 1873.
- Allen, William Halphide** ; New Inn Hall, .S.C.L. 1855 ; Barrister-at-Law, Lincoln's Inn, 1861.
- Scott, John Arthur Henry** ; Magdalen Hall, B.A. 1858 ; Vicar of Portfield, Sussex, 1879-†81.
- Bluett, William James** ; Magdalen Hall, B.A. 1859.
- Copestake, John** ; Magdalen Hall, matriculated, 1854 ; M.A. 1864 ; Rector of Trusley, co. Derby, 1866.
- Mason, Charles** ; Worcester, B.A. 1856 ; Vicar of Farlsthorpe, 1880.
- Cooper, Frank** ; Magdalen, B.A. 1857 ; Curate of St. Mary Magdalen, Oxford, 1857-68 ; †1870.
- Hugessen, William Weston Knatchbull-** ; Magdalen, matriculated, 1855 ; †1864.
- Plumptre, Charles John** ; University, B.A. 1858 ; High Sheriff of Kent, 1877 ; †1887.
- Booth, Thomas** ; University, B.A. 1857 ; of the Inner Temple, 1858.
- Barrow, George Staunton** ; Pembroke, B.A. 1857 ; Vicar of Stowmarket, 1876-†84.
- Rolt, John** ; University, B.A. 1857 ; Barrister-at-Law, Inner Temple, 1859-74 ; †1876.
- Field, George Hanbury** ; University, B.A. 1858 ; Barrister-at-Law, Lincoln's Inn, 1861.
- Heberden, George** ; Oriel, B.A. 1856 ; Vicar of Clifton Hampden, Berks., 1882.
- Burroughes, Robert** ; Oriel, B.A. 1858 ; Rector of Beighton, Norfolk, 1867-78.
- Bayley, William Rutter** ; Oriel, B.A. 1858 ; Vicar of Cassington, Oxon., 1869-†75.
- Barter, Robert Bruce** ; Oriel, B.A. 1858 ; Rector of Greinton, Somerset, 1861.
- Trotman, William Charles** ; Fellow of New College, 1852-68.
- Wormald, Robert Bownas** ; Bible Clerk of Lincoln, 1852-6.
- Wintle, Ogle Richard** ; Exhibitioner of Lincoln, 1853-8 ; Head Master of King James's Grammar School, Bishop Auckland, 1864-†75.
- Swann, John** ; Oriel, B.A. 1858.
- Mangles, Arthur Onslow** ; Magdalen, B.A. 1858.

LECTURES ON AGRICULTURAL CHEMISTRY.

- 1856. Downing, Henry Edward**; ? Christ Church, matriculated, 1853 (Magdalen Hall); Rector of Wells, Norfolk, 1864-71.
- Hellier, Thomas Bradney Shaw**; Brasenose, matriculated, 1855.
- Cass, George Grainger**; Wadham, B.A. 1858; Vicar of Middlesmoor, Yorks., 1864.
- Nicholls, Henry**; Wadham, B.A. 1859.
- Inman, Edward**; Oriel, B.A. 1857; Vicar of Gillingham, Dorset, 1882-91; Rural Dean of Potterne, 1892-1900.
- Twiss, Quintin William Francis**; Student of Christ Church, 1853-61.
- Mitford, Algernon Bertram**; Christ Church, matriculated, 1855; Secretary of Embassies at St. Petersburg, Pekin, &c.; Secretary to Commissioners of Public Works, 1874; C.B.
- Lawrence, Christian William**; Magdalen, matriculated, 1855; Minister resident at Quito.
- Forbes, James Hunter**; Oriel, matriculated, 1853; †1881.
- Rendel, Stuart**; Oriel, B.A. 1857; Barrister-at-Law, Inner Temple, 1861-77; M.P. April, 1880; President of University Colleges of Wales; created **Baron Rendel**, 1894.
- Cave, William Cecil Cave-Browne**; Magdalen, B.A. 1860; Incumbent of St. Thomas's, Willoughby, N.S.W., 1871.
- Cassan, Ernest John Plantagenet**; Magdalen Hall, B.A. 1861.
- Courtenay, John Irving**; Trinity, B.A. 1857; Barrister-at-Law, Lincoln's Inn, 1861.
- Elers, Frederick Wadham**; Trinity, B.A. 1858.
- Hartley, Arthur Robert**; St. John's, B.A. 1857; Vicar of Wool, Dorset, 1879.
- Hooper, Haines Edward**; Jesus, B.A. 1857; B.C.L. 1870; Curate of Chedworth, 1858-79.
- Willett, Albert Lewis**, Brasenose, B.A. 1858; Vicar of Meriden, co. Warwick, 1873-1901.
- Fisher, Albert Bulteel**; Corpus Christi College, B.A. 1857; Fellow, 1863-77.

- Otter, Robert Henry** ; Corpus Christi College, M.A. 1863.
- Marshall, Cloudesley Dewar Bullock** ; Merton, B.A. 1857 ; Vicar of Stoke Lyne, Oxon., 1868.
- Mew, James** ; Wadham, B.A. 1860 ; Barrister-at-Law, Inner Temple, 1864.
- Pusey, Henry Bouverie** ; Christ Church, B.A. 1860 ; Lieutenant 76th Foot ; †at sea, 1869.
- Edmondson, Thomas Grassyard** ; Brasenose, B.A. 1858 ; J.P., Lancashire.
- Parkinson, John** ; St. Mary Hall, B.A. 1856.
- Thorp, John** ; Magdalen Hall, B.A. 1859 ; Vicar of Darsham, Suffolk, 1866 ; Vicar of Felbridge, Surrey, 1889.
- Bingley, John George** ; Brasenose, B.A. 1857 ; Rector of Snodland, Kent, 1874.
- Cleather, Henry** ; Oriel, B.A. and M.A. 1860.
- Morris, Frank Howe** ; Worcester, B.A. 1859.
- Matthews, William Edgar** ; Pembroke, B.A. 1857 ; Student of Lincoln's Inn.
- Harvey, Herbert** ; Christ Church, B.A. 1857 ; Rector of Hinstock, Stafford, 1876.
- Buller, James Howard** ; Christ Church, B.A. 1858 ; †1874.
- Dyke, Thomas** ; Christ Church, B.A. 1857 ; Civil Engineer.
- Whish, George Clinton** ; Christ Church, B.A. 1857.
- Browne, William Clayton** ; Christ Church, matriculated, 1855 ; J.P., D.L., Carlow ; High Sheriff, 1859.
- Sale, Thomas Walker** ; Wadham, B.A. 1858 ; Vicar of Skendleby, co. Lincoln, 1872-83 ; Diocesan Inspector of Schools, 1874-86 ; Rector of Halton Holgate, 1883.
- Preston, John Wilby** ; Wadham, B.A. 1858.
- Gully, John** ; Wadham, B.A. 1857 ; Barrister-at-Law, Inner Temple, 1860.
- Lawson, Henry Graham** ; Wadham, B.A. 1856 ; Barrister-at-Law, Middle Temple, 1863.
- Holroyd, Hon. Douglas Edward** ; Christ Church, B.A. 1857 ; †1882.
- Adair, Hugh Jenison** ; Christ Church, B.A. 1859 ; Vicar of Bradford, Wilts., 1861-85.
- Upperton, Clement** ; Christ Church, B.A. 1858 ; of the Middle Temple, 1857.
- Williams, Arthur Charles Vaughan** ; Student of Christ

- Church, 1853-68; Vicar of Down Ampney, Wilts., 1868-75.
- Vincent, Sir William, Bart.**; Christ Church, B.A. 1857; Rector of Postwick, Norfolk, 1864-87; D'Abernon Chase, Leatherhead; J.P., D.L.
- Kennedy, John Gordon**; Corpus Christi College, matriculated, 1854.
- Richards, Walter John Bruce**; St. Mary Hall, matriculated, 1854.
- Otter, John**; St. Mary Hall, B.A. 1858; Vicar of Ranby, co. Lincoln, 1861-5.
- Williams, Llewellyn Paganus**; Magdalen Hall, B.A. 1860; Rector of Dodington, Somerset, 1866-76; Rector of Bourton-on-the-Water, 1888.
- Bosanquet, Charles Bertie Pulleine**; Balliol, B.A. 1857; Barrister-at-Law, Lincoln's Inn, 1861.
- Mackey, Clement William**; Worcester, B.A. 1858.
- Buckland, William John**; Worcester, B.A. 1860; Vicar of Hankerton, Wilts., 1864.
- Williams, John Ignatius**; Jesus, matriculated, 1853; B.A. from New Inn Hall, 1858; Stipendiary Magistrate for Pontypridd, 1884.
- Strother, James Baxter**; Magdalen Hall, B.A. and M.A. 1863; Vicar of Shaugh Prior, South Devon, 1878.

[*End of the 4th Lecture List.*]

REGISTER OF PERSONS WHO ATTENDED THE CATECHETICAL LECTURES GIVEN TO THE MEMBERS OF MAGDALEN COLLEGE, BEGINNING OCTOBER 28, 1855.

[*From the 8vo Lecture List.*]

1855. **Alington, Henry Giles**; B.A. 1859; M.A. 1865; Inspector Oct. of Schools; Vicar of Candlesby, Lincolnshire.
- Allen, Richard Collyns**; matriculated, 1855.
- Farley, William.**
- Griffith, George**; Jesus; II Cl. Mod., II Math. Mod. 1855; I Nat. Sci. 1856; Nat. Sci. Examiner, 1861-2, 1864-5; Assistant General Secretary, British Association, 1862-78 and 1890-1901; †.

- Harrison, James Harwood**; B.A. 1857; Rector of Bugbrooke, Northants, 1859.
- Lloyd, William Henry**; B.A. 1856; Vicar of Christ Church, Eastbourne, 1864-70; Chaplain at Valparaiso, 1870-83.
1856. **Nutt, John William**; Scholar of Corpus Christi College, Jan. 1852-8; Fellow of All Souls, 1858-75; Sub-Librarian, Bodleian Library, 1867-79; Rector of Shelsfield, 1888.
- Hutton, Henry Wollaston**; Trinity, B.A. 1857; Prebendary and Succentor of Lincoln Cathedral, 1877-9.
- Jackson, Robert Hall**; Litton Hall, B.A. 1859; Exeter, M.A. 1866; Rector of Ganarew, co. Monmouth, 1879.
- Harcourt, Augustus George Vernon**; Balliol, B.A. 1858; Senior Student of Christ Church, 1859; Lee's Reader in Chemistry, 1871-1902; F.R.S.; President of Chemical Society; General Secretary, British Association, 1883-97.
- Leeds, Edward**; Wadham, B.A. 1859; B.Med. 1863.
- April. **Dowling, Thomas**; Wadham, M.A. 1862; General Licence, Diocese Bath and Wells; Weston-super-Mare.
- Lewis, George**; Jesus, Clerk; B.A. 1860; Medical Student, 1857.
- Oct. **Norsworthy, George**; B.A. 1861; Barrister-at-Law, Inner Temple, 1866.
- Steward, Charles Edward**; Demy, 1856-61; Perpetual Curate of Churt, Surrey, and of St. Peter's, Southampton, 1869.
- Saunders, William**; Magdalen Hall, matriculated, 1851, aged 38.
- Whinfield, Edward Henry**; Demy; I.C.S. 1858; Barrister-at-Law, Middle Temple, 1872.
1857. **Jordan, Gibbes Walker**; matriculated at St. Alban Hall, Feb. 1856; B.A. Magdalen College, 1860.
- Rivington, Luke**; Demy, 1856-62; of the Society of St. John the Evangelist, Cowley; seceded to Rome; †.
- May. **Spry, Edward George**; Magdalen Hall, B.A. 1857; †1887.
- Plumptre, Charles John**; University, B.A. 1858; High Sheriff of Kent, 1877; †1887.
- Oct. **Alington, John Wynford**; Demy, 1857-63; B.A. 1861; M.A. 1865; †Transvaal, 1879.
- Ostler, John Mountney**; Demy, 1857-63; now Lely; Barrister-at-Law, Inner Temple, 1869.

- Westmacott, Edward Vesey**; Demy, 1857-63; Bengal Civil Service, 1861.
- Arnould, Alfred Henry**; B.A. 1861; D.C.L. 1875.
- Oldham, Ernest Joseph**; B.A. from Magdalen Hall, 1862.
- Crawhall, Septimus Isaac**; B.A. 1862; Vicar of Stratton, Wilts., 1879.
- Stanhope, Philip John Scudamore**; B.A. 1863; Rector of Humber, co. Hereford; †1882.
- Portman, Henry Fitzhardinge Berkeley**; B.A. 1863; Rector of Pylle, Somerset, and of Orchard Portman.
1858. **Morres, Hugh Redmond**; Chorister, 1849-55; Vicar of Feb. St. Sebastian, Wokingham, 1871-†82.
- Tuckwell, Lewis Stacey**; Chorister, 1847-57; Clerk, 1857-63; Chaplain and Precentor, 1866-77; Vicar of Standlake, Oxon., 1876.
- Berners, Hugh Augustus**; B.A. 1863; Rector of Harkstead, Suffolk, 1865.
- Barne, George Hurley**; B.A. 1861; Student of Lincoln's Inn, 1863.
- Middleton, Hastings Burton**; Demy, 1857-62; J.P., Dorset, 1867.
- Nov. **Ley, William Clement**; Demy, 1857-64; Rector of Little Ashby, co. Leicester; Vice-President of the Meteorological Society; †.
- Evans, Francis Stone**; M.A. 1865.
- Mackenzie, William Dalziel**; B.A. 1862; Barrister-at-Law, Inner Temple, 1863; High Sheriff, Oxon., 1873; Fawley Court, Oxon.
1859. **Dering, George Edwardes**; B.A. 1863; Recorder of Faver- Feb. sham, 1872; Assessor of Romney.
- Howard, Charles Francis Arnold**; fifth Earl of Wicklow; †1881.
- Melville, Robert**; B.A. 1861; Barrister-at-Law, Lincoln's Inn, 1864.
- May. **Wylde, John**; Demy, 1858-63; Vicar of St. Saviour's, Leeds, 1877.
- Wigram, Ernest**; Demy, 1859-64; Vicar of Whitby, 1873-5; †1876.
- Oct. **Prince, Edward Becher**; B.A. 1862; Vicar of Cockington, Devon, 1879-82.

- Cameron, George Hampden**; B.A. 1864.
- Earle, Alfred**; M.A. 1866; Rector of Fovant, Salisbury, 1890.
- Burrows, Robert Henry**; Demy, 1859; I Cl. Mod. 1861.
- Gilbert, Herbert Henry**; B.A. 1863.
- Esson, William**; St. John's, Bible Clerk, 1855; Senior Mathematical Scholar and Fellow of Merton, 1860; Mathematical Lecturer, Magdalen; F.R.S., F.C.S., F.R.A.S.; Savilian Professor of Geometry; Fellow of New College, 1897.
- Bedwell, Francis**; Exhibitioner of Corpus Christi College, 1856-60; Vicar of Llangattock-juxta-Caerleon, co. Monmouth, 1885.
- Leith, William Forbes**; Worcester, B.A. 1859; Vicar of Wattisham, Suffolk, 1868.
- Taylor, F.**
- Daubeny, Edmund Thomas**; B.A. 1864; Rector of Market Weston, Norfolk.
- Chamberlayne, Tankerville**; B.A. 1865; of Cranbury Park and Weston Grove, Hants; M.P. for Southampton, 1892-6.
- Gray, Edmund Robert Henry**; matriculated, 1859.
- Whitwell, John Maude**; Pembroke, B.A. 1861; †1868.
1860. **Bateman, Rowland**; M.A. 1867; C.M.S. Missionary in Feb. India, 1868-1902; Rector of Fawley, near Henley-on-Thames, 1902.
- Hay, Frederic Drummond**; B.A. 1863; Incumbent of St. John's, Inverness, 1886-91; Vicar of Neston, Wilts, 1891-96.
- Daubeny, Giles Barnston**; matriculated, 1859; †1879.
- Greene, Thomas Whitcombe**; B.A. 1864; Inspector of Schools, 1876.
- Apr. **Gamble, John George**; Demy, 1859-64; B.A. 1864; of the Middle Temple, 1863; †.
- Russell, James Cholmeley**; B.A. 1864; Barrister-at-Law, Lincoln's Inn, 1867.
- Edwards, Sir Henry**; matriculated, 1859; second Baronet; J.P., Yorks.
- Oct. **Bulley, John Francis**; Demy, 1859-64; Barrister-at-Law, Inner Temple, 1868.

- Jones, John Hampson** ; matriculated, 1860 ; Barrister-at-Law, Inner Temple, 1865.
- Kirkwood, Townsend Molloy** ; matriculated, 1860 ; Bengal Civil Service.
- Toye, Arlingham James** ; Exhibitioner, 1859-64 ; First Daubeny Medallist, 1860 ; M.A. 1868 ; Assistant Master, Winchester College ; †.
- Barber, Edward** ; Demy, 1860 ; Canon and Archdeacon of Chester, 1886.
1861. **Michell, Edward Blair** ; Demy, 1860-5 ; Law Lecturer at Jan. Hertford College, 1874-7 ; Legal Adviser to King of Siam, 1885.
- May. **Henry, Thomas Allan** ; B.A. 1864 ; Captain 14th Hussars ; J.P., Leicestershire.
- Monck, William Berkeley** ; B.A. 1865 ; Barrister-at-Law, Inner Temple, 1868.
- Oct. **Corfield, William Henry** ; Demy, 1861 ; Fellow of Pembroke, 1865-76 ; D.Med. 1872 ; Professor of Hygiene and Public Health at University College, London ; †Aug. 26, 1903.
- Girdlestone, Arthur Gilbert** ; Demy, 1861-6 ; I Nat. Sci. ; lectured for Dr. Daubeny, 1867 ; Vicar of All Saints, Clapham Park, 1877.
- Welby, Philip James Earle** ; B.A. 1866 ; Rector of Stroxton, co. Lincoln, 1868-†73.
- Handley, Edward** ; B.A. 1865 ; Rector of Clipsham, Rutland, 1876-84 ; of Wenthorpe, 1886.
- Tetley, James George** ; B.A. 1864 ; Perpetual Curate of Highnam, co. Gloucester, 1876 ; Canon of Bristol.
1862. **Ogle, Harman Chaloner** ; Demy, 1861-5 ; Fellow, 1865-†87 ; Jan. Schoolmaster, 1876-86.
- Boyle, William Skinner** ; B.A. 1866 ; Vicar of St. Luke's, Torquay, 1874 ; Prebendary of Exeter, 1894.
- Daman, Henry** ; Demy, 1861 ; Fellow, 1868-79 ; Assistant Master at Eton College, 1869-99 ; Vicar of Moulsoford, 1899.
- Sampson, Desmond Henry Wynn** ; Exhibitioner, 1861-6 ; Head Master of Market Bosworth Grammar School, 1883.
- Worsley, Edward** ; Exhibitioner, 1861-6 ; Fellow, 1867-72 ; Vicar of Evenley, Northants, 1871.

- Milward, George**; matriculated, 1861; J.P. of Gloucester, Worcester, and Oxon.
- Lawrence, Anthony Cocks**; B.A. 1865; Rector of Whittington, co. Gloucester, 1868.
- Meek, Alexander Grant**; B.A. 1865.
- May. **Grissell, Francis de la Garde**; matriculated, 1861; Captain 9th Lancers.
- Oct. **Bellairs, Frederick John Walford**; B.A. 1865; Orders.
- Lambert, Greville Henry**; B.A. 1866; Rector of Emmington, Oxon., 1872.
- Anstice, Robert Henry**; M.A. 1869.
- Powell, Edward**; Demy, 1862-5; Scholar of Lincoln, 1865-6.
- Parkinson, Robert John Hinman**; B.A. 1866; Barrister-at-Law, Inner Temple, 1873.
- Warner, John Lee**; Demy, 1862-4; I.C.S. 1863.
- Masters, William Caldwell**; B.A. 1865; Rector of Stanton Fitzwarren, Wilts., 1885.
- Kaye, Arthur**; B.A. 1866; Vicar of St. Paul's, Middlesborough, 1875-84; Vicar of Selborne, Hants, 1894.
1863. **Parsons, Hector Laurence**; B.A. 1866.
- Jan. **Bulsteel, Courtenay John**; Demy, 1862; B.A. 1867.
- Johnson, Frederick Philipps**; Demy, 1862-7; †1875.
- Wakefield, Charles Carthew**; Exhibitioner, 1862-7; Head Master of Nassau Grammar School, Bahamas, 1873-80.
- Apr. **Knight, Montagu George**; B.A. 1867.
- Russell, Robert Bruce**; B.A. 1867; Barrister-at-Law, Inner Temple, 1871.
- Hyndman, Hugh Reginald**; matriculated, 1863.
- Parker, Anthony**; matriculated, 1863.
- Philpott, William**; Clerk, 1863-6.
- Richardson, Arthur John**; Demy, 1862-7; Rector of East Blatchington, Sussex, 1880; Rural Dean of Pevensay, 1890.
- Collins, Clifton Wilbraham**; Demy, 1862; M.A. 1871; Inspector of Schools.
- Girdlestone, Frederick Kennedy Wilson**; Demy, 1862-7; M.A. 1873; Barrister-at-Law, Middle Temple, 1885.
- Moullin, William Hilary (Balliol)**; Wadham, B.A. 1867; Barrister-at-Law, Lincoln's Inn, 1868.

- Oct. **Moir, Robert William**; matriculated, 1863.
Charrington, Percy William; matriculated, 1863.
Clarke, Joseph George; Exhibitioner, 1862.
Bateman, Arthur Wigley; Demy, 1863-8; B.A. 1867; of the Middle Temple, 1864.
Wilkinson, John Henry; Demy, 1863-8; B.A. 1870; Master of St. Paul's School, Stony Stratford, 1871-2.
Peile, Walter Octavius; Demy, 1863-8; B.A. 1867; Chaplain of Bromley College, 1884-90; Rector of Candlesby, 1896-1902.
1864. **Martyn, Thomas Waddon**; Demy, 1863-8; Vicar of Aston
 Jan. Abbots, 1887.
Cundey, John Worsley; Demy, 1863; I Math. 1867; Principal of Bolton Educational Institute, 1870-87; Honorary Canon of Manchester, 1901; Rector of Gorton, 1902.
Cox, Cecil Walker; Exhibitioner, 1863; B.A. 1867; Rector of Atherstone, co. Warwick, 1871.
Palmer, Greville Horsley; B.A. 1868; Master of the Mercers' Company, 1889.
- Oct. **Parsons, Frederick William**; Demy, 1863-8; B.A. 1869; Rector of Tatsfield, Kent, 1884.
Reid, Robert Threshie; Demy; Scholar of Balliol, 1864-9; B.A. 1869; Q.C. 1882; M.P., Hereford, 1880-5, Dumfries district, 1886; Attorney-General; G.C.M.G.
Wilmot, Darwin; Demy, 1864-9; B.A. 1868; Head Master of Macclesfield Grammar School, 1876.
Horner, Henry Bury; Demy, 1864-9; B.A. 1869; Master of Marlborough; †in Florence.
Williams, John Herbert; Demy, 1864-9; B.A. 1870.
Donkin, William Frederick; Demy, 1864; B.A. 1868; Lecturer in Natural Science, Keble College, 1875-7; and Tutor, 1877-80; lost with Fox in August 1888, apparently in trying to ascend Dych-tau in the Caucasus.
Twyford, Thomas; Exhibitioner, 1863-8; B.A. 1869.
Darnell, Robert de Mowbray; matriculated, 1864.
Sibthorp, Coningsby Charles Waldo; B.A. 1868; High Sheriff of Herts, 1877.
Walton, Oriel Farnell; B.A. 1868; Barrister-at-Law, Inner Temple, 1870.

- Frere, William John**; Demy, 1863-8; B.A. 1868; Vicar of St. Mary, Wolverhampton, 1874-82; Chaplain of Hockerill Training College, 1884; Vicar of Stanway, Essex.
- Powles, George le Blanc**; Demy, 1863-8; M.A. 1874.
- Swire, John**; Clerk, 1864-8; B.A. 1869; Rector of Peasemore, Berks., 1881-1902.
1865. **Bull, Cyril John Spier**; B.A. 1868; of the Inner Temple, Feb. 1869.
- Everett, Thomas Marsh**; Academical Clerk; B.A. 1870; Vicar of Ruislip, Middlesex, 1878; †.
- Oct. **Gamble, James Sykes**; Demy, 1864-9; M.A. 1877; C.I.E. 1899; F.R.S., F.L.S.; late Conservator of Forests in India, and Director of the Imperial Forest School, Dehra Dun.
- Campbell, John Arthur Kenneth**; M.A. 1872.
- Haggard, William Henry Doveton**; matriculated, 1865; Diplomatic Service, 1869; Minister Resident at Caraccas, 1897; C.B.
- Robinson, William Grey**; B.A. 1868.
- Eaton, William Cheetham**; matriculated, 1865; M.A. 1872.
- Bird, Francis Corrie Wilberforce**; B.C.L. and M.A. 1872.
- Scott, Samuel Gilbert**; Demy, 1865-70; B.A. 1870; Rector of Woolwich, 1883-92; Rector of Havant, 1892.
- Baker, George Edward**; Demy, 1865-70; B.A. 1870; Fellow, 1870; Barrister-at-Law, Inner Temple, 1870; Estates Bursar.
- Fletcher, Philip**; Demy, 1865; B.A. 1870.
- Heal, Francis**; Demy, 1865-70; B.A. 1870; Barrister-at-Law, Inner Temple, 1872.
- Stirling, Arthur Frederick Gresley**; Demy, 1865-70; B.A. 1870; Barrister-at-Law, Inner Temple, 1872.
1866. **Haly, Henry John Canton**; matriculated, 1866; later of Feb. Magdalen Hall; of the Inner Temple, 1872.
- Apr. **Tunnard, John Bartholomew**; matriculated, 1866.
- Bazalgette, Charles Norman**; M.A. 1879; Barrister-at-Law, Inner Temple, 1874.
- Oct. **Hicks, Frederic John**; Demy, 1866; Daubeny Medallist, 1863; I Nat. Sci. 1869; B.Med. 1880; M.R.C.S. Lond.

- 1879; late Resident Medical Officer, Consumption Hospital, Brompton; late Consulting Surgeon to Seamen's Hospital, Funchal, Madeira; Buckingham Gate, London, 1903.
- Amcotts, Edward Weston Cracroft**; B.A. 1870; J.P., D.L., Lincoln; adopted surname of **Cracroft** in 1885.
- Wilson, Roderick John**; B.A. 1870; Barrister-at Law, Inner Temple, 1872; †1881.
- Brock, William**; Demy, 1866; Orders; †1879.
- Steward, Arthur Bennett**; Demy, 1866-71; I.C.S.; Postmaster-General, Bombay, 1884.
- Muir, Robert James**; Science Demy, 1866-71; Inspector of Schools, Scotland, 1879.
- Bradshaw, James Dixon**; Demy; II Nat. Sci. 1870; B.Med. 1877; M.R.C.S. Lond.; late Resident Medical Officer, Cheadle Convalescent Hospital, and Assistant Physician, Manchester Royal Infirmary.
- Strutt, Hon. Richard**; Magdalen Hall, matriculated, 1866; M.A. from Hertford, 1875.
1867. **Paulson, William Henry**; Demy, 1866-71; B.A. 1871.
- Jan. **Clarke, William Alexander**; Demy, 1866-71; B.A. 1871.
- Cosser, Walter Wilson Leroux**; Exhibitioner, 1866; Barrister-at-Law, Lincoln's Inn, 1875.
- Berry, Digby Marsh**; M.A. 1876; Chaplain of St. James's Cathedral, Mauritius, 1880.
- Devas, William Frederick**; M.A. 1878.
- May. **Massingberd, William Oswald**; B.A. 1871; Rector of South Ormsby, co. Lincoln, 1873.
- Thomas, Richard Gerard de Visme**; matriculated, 1867; Barrister-at-Law, Inner Temple, 1875.
- Oct. **Brown, George Thomas Gilpin**; matriculated, 1867.
- Butler, Charles Stokes**; Demy, 1867; Head Master of Archbishop Holgate's Grammar School, Hemsworth, Yorks., 1878.
- Allen, William Dennis**; Demy, 1867; Fellow and Tutor, 1871-81; Vicar of Findon, Sussex, 1881.
- Pitcairn, David Lee**; Demy, 1867-72; Vicar of Monkton Combe, Somerset, 1883.
- Southey, Henry Edmund**; Demy, 1867-72.
- Edmundson, George**; Demy, 1867; I Math. Mod. 1869;

I Math. 1870; Fellow and Tutor of Brasenose, 1871-81; Vicar of Northolt, Middlesex, 1881.

Sherwood, William Edward; entered Magdalen College School, 1862; Daubeny Medallist in Natural Science, 1868; Junior Student of Christ Church, 1870-5; Chaplain, Bath College, 1881; Head Master, Magdalen College School, 1888.

Warham, —; Magdalen College School.

? **Dudley, Francis**; St. Alban Hall; B.A. 1869; Vicar of Wrenthorpe, Yorks, 1876-83.

[*End of the 8vo Lecture List.*]

Dr. Daubeny died in December of this year.

[**Mr. Edward Chapman** of Merton College was appointed Lecturer in Natural Science in 1869.]

1869. **Billing, Campbell Pymar**; Demy, 1868; Daubeny Medallist in Natural Science, 1866; †1871.

Goolden, Walter Thomas; Academical Clerk; I Nat. Sci. 1871; Chorister; Daubeny Medallist, 1865; Jackson Scholar, Merton, 1867; †Sept. 16, 1901.

Valpy, Frederic Harris; Pass School; B.A. 1873; Domestic Chaplain to the Earl of Scarborough, 1886-97; Rector of Faulkborn, Witham, Essex.

Howell, Frederick Broke; Merton; II Nat. Sci. 1869; M.A. 1871; Vicar of Charlton, Wilts., 1883.

Taylor, Charles Samuel; Merton; I Nat. Sci. 1870; Burdett-Coutts Scholar, 1871; Vicar of St. Thomas-the-Martyr, Bristol, 1877.

Macdonald, Archibald Simon Lang; Exhibitioner of Merton, 1868; Fellow, 1873-85; Millard Lecturer in Physics, Trinity, 1873-6; †1885.

Childs, Christopher; Jackson Scholar of Merton, B.Med. 1878; D.Med. 1887; D.P.H. Camb. 1895; Lecturer on Bacteriology in relation to Hygiene, University College, London; Surgeon, Weymouth and Dorset Royal Eye Hospital.

Lewis, William James; Scholar of Jesus, 1865-9; I Math.

Mod. 1867; I Math. 1868; I Nat. Sci. 1869; Fellow of Oriel, 1869; Sen. Math. Scholar, 1871; M.A. 1872; Professor of Mineralogy at Cambridge, 1881.

Hake, George Gordon; Jesus, matriculated, 1867.

Sharkey, Seymour John; Scholar of Jesus, 1866-71; B.Med. 1875; D.Med. 1888; F.R.C.P. Lond. 1885; Gulstonian Lecturer, 1886; Physician, St. Thomas's Hospital; Radcliffe Travelling Fellow, 1873.

Tanner, Henry William Lloyd; Scholar of Jesus, 1868-73; B.A. and M.A. 1875; Professor of Mathematics and Astronomy in the University College of S. Wales; D.Sc., F.R.S., F.R.A.S.

Fowler, William Weekes; Scholar of Jesus, 1868; B.A. 1873; Head Master of Lincoln School, 1880.

Hatton, James Wright; Wadham, B.A. 1872; M.A. 1873; Vicar of Calverley, Yorks., 1877.

Blencowe, Charles Edward; Wadham, B.A. 1870; M.A. 1873; Vicar of Marston St. Lawrence, Northants, 1876.

Johnson, John Barnes; Wadham, B.A. 1870; M.A. 1875.

London, Edwin Harding; Gunsley Exhibitioner of University College; I Nat. Sci. 1870; B.Med. and M.A. 1876.

Yule, Charles John Francis; Brackenbury Scholar of Balliol, 1867; Daubeny Medallist, 1867; Scholar of St. John's, Cambridge, 1868; I Nat. Sci. Tripos, 1872; Fellow of Magdalen, 1873; Vicar of Ashbury, Berks., 1892-1900.

Malan, Arthur Noel; Oriel; B.A. 1872; Orders; Head Master of Eagle House School, Wimbledon, 1874.

Hardy, Charles Robert William; Scholar of Oriel, 1865-69; II Cl. Mod. 1867; B.A. 1870; Vicar of Offley, 1885.

Woodforde, Francis Cardew; Exeter, B.A. 1869.

Treacher, William Hood; Dyke Scholar of St. Mary Hall, 1866-70; M.A. 1881.

Jacob, Ernest Henry; Corpus Christi College, II Cl. Mod. 1869; I Nat. Sci. 1871; B.Med. and M.A. 1875; D.Med. 1880.

Jowitt, John Fort; Exeter, I Nat. Sci. 1869.

Fisher, Walter William; Postmaster of Merton; I Nat. Sci. 1870; IV Cl. 1871; Fellow of Corpus Christi College, 1871; Aldrichian Demonstrator of Chemistry,

1873; Public Analyst, Berks., Bucks and Oxon.; Natural Science Examiner, 1877-8, 1890-1.

Wharton, Henry Thornton; Wadham, III Nat. Sci. 1871; M.A. 1874.

Browne, Frederick Herbert; Scholar of Wadham, 1868; I Math. Mod. 1869; II Math. 1871; M.A. 1874; Head Master of Ipswich School, 1883.

Baynes, Robert Edward; Wadham, I Math. Mod. 1870; I Math. 1871; I Nat. Sci. 1872; Senior Student of Christ Church; Lee's Reader in Physics; Proctor, 1886.

Kay, John Cunliffe; Wadham, S.C.L. and B.A. 1872; M.A. 1875.

Roberts, Edwin; Exhibitioner; II Math. Mod. 1871; B.A. 1872; Head Master, Alford Grammar School; Rector of Swaby, Lincs., 1896.

Hill, Arthur du Boulay; Demy, I Nat. Sci. 1873; Science Master, Winchester College, 1874-82; Chaplain, Winchester College, 1881-2; Rector of East Bridgford, Notts, 1898.

Dynham, John; B.A. 1877; Chorister, 1857.

Ballachey, Frederick Gurney; Wadham, matriculated, 1866.

Wilkinson, John Frome; Wadham, II Theol. 1873; F.L.S., F.S.A.; Rector of Kilvington, Notts, 1887-94.

Randall, William Sidney; Wadham; B.A. from Hertford, 1875; Chaplain to the Forces, 1882.

Davies, Thomas Davidson; Jesus College until 1872.

Phillips, Walter Hibbert; Jesus, II Nat. Sci. 1873; M.A. 1878.

1870. **Poole, William Harry Wilkes**; Exhibitioner, 1870-5; I Nat. Sci. 1874; B.A. 1874; M.A. 1877; Science Master, Charterhouse; †Feb. 1890.

Mahony, Pierce Charles de Lacey; Assistant Land Commissioner, 1881-4; M.P. for North Meath, 1886-92; Grange Con, co. Wicklow.

Moberly, Edward Hugh; Corpus Christi College, II Theol. 1872; M.A. 1875; Vicar of Chute, Wilts., 1880-5.

Robertson, Edward Lewis; Demy, 1869-73.

Butt, Walter William Arthur; B.A. 1873; Vicar of Minety, Wilts., 1886-1901; Licenced Preacher in Diocese of Gloucester from 1901.

- Stancomb, William**; B.A. 1872; S.C.L. Student, Inner Temple.
- Neville, William**; Academical Clerk; B.A. 1873; Vicar of St. Mary, Reading, 1897.
- Chaplin, Thomas Hanby**; B.A. 1873; †1876.
- Smallpeice, Frank Freshfield**; Pass School; B.A. 1872; Curate of St. Bartholomew, Brighton, 1897.
- Ellis-Jervoise, Arthur Tristram**; Magdalen Hall, matriculated, 1868; Pass School.
1871. **Faber, Henry Mitford**; Demy; I Nat. Sci. 1874; Science Master, Malvern College, since 1875; Orders, 1886.
- Evans, —**; Jesus. [Four of this name were up in 1871.]
1872. **Ridley, Stuart Oliver**; Magdalen; elected Nat. Sci. Scholar of Exeter, 1873-7; I Nat. Sci. 1875; Assistant in British Museum, 1878; Vicar of Staverton, Trowbridge, 1898.
- Denton, George Henry**; Wadham, B.A. 1873.
- Clarke, Arthur Noble**; Wadham, IV. Nat. Sci. 1874; B.A. 1875; M.A. 1877.
- Greenough, John Knox Montgomery**; Wadham, matriculated, 1870.
- Kitson, George Andrew Noble**; Keble, matriculated, 1870.
- Pitcairn, David Lee**; Demy; I Mod. 1869; II Cl., B.A. 1871; Vicar of Monkton-Combe, Bath, 1883.
- Brackenbury, Arthur Charles**; matriculated, 1871; †1873.
- Anderson, Charles Archibald**; matric. 1870; B.A. from St. Alban Hall, 1876.
- Willoughby, Hon. Leopold Vincent Harold**; B.A. 1875.
- Middleton, William Frederick**; B.A. 1874.
- Wood, William Jocelyn Palmer**; III Nat. Sci. 1876; †1883.
- Turnor, Charles Edward**; †Sept. 16, 1875.
- Christie, George Robert**; Nat. Sci. Demy; I Math. Mod. 1874; II Math. 1875; I Nat. Sci. 1877; M.A. 1879.
- Steel, Robert Elliot**; Demy; III Math. Mod. 1874; I Nat. Sci. 1876; Senior Science Master, Bradford Grammar School, ten and a half years; Head Master, Technical Schools, Plymouth; Head Master of Northampton and County School since 1895.
- Wade, Claude Fitzroy**; Exhibitioner, 1868-73; B.A. 1873; Barrister-at-Law, Middle Temple, 1874.

- Woodd, Lawrence Henry Orde**; B.A. 1874; Student of Inner Temple, 1873; †1879.
- Knox, Frederick Vivian**; Classical Demy; II Mod. 1872; II Nat. Sci. 1874; Assistant Master, Merchant Taylors' School, 1875-82; Chaplain (Eccles. Est.) at Umballa, 1882-86; Chaplain, C.M.S. Children's Home, Limpsfield, Surrey, 1886-99.
1873. **Jones, William Wansbrough**; Demy; I Nat. Sci. 1876; B.Med.; M.R.C.S. Lond.; Radcliffe Travelling Fellow, 1880; I B.Sc. Lond.; Open Scholar, St. Thomas's Hospital; Resident Medical Officer, Barnes Convalescent Hospital, Manchester.
- Poulton, Edward Bagnall**; Scholar of Jesus, 1873-8; Fellow; I Nat. Sci. 1876; Burdett-Coutts Scholar, 1878; Tutor, Keble, 1882; Hope Professor of Zoology, 1893; F.R.S.
1874. **Bell, Francis Jeffrey**; Exhibitioner, 1874-8; II Nat. Sci. 1877; M.A. 1880; Emeritus Professor of Comparative Anatomy, King's College, London; Assistant, Zoological Department, British Museum; Natural Science Examiner, 1892-3.
- Kermode, Robert Crellin**; Wadham, matriculated, 1873.
- Jones, Griffith**; Scholar of Jesus, 1872-6; I Nat. Sci.; B.A. 1875; M.A. 1878.
- Francis, Lloyd**; Scholar of Jesus, 1872; B.A. 1875; B.Med. 1881; M.A. and D.Med. 1885.
- Greswell, Dan Astley**; Junior Student of Christ Church, 1872-7; B.A. 1875; B.Med. 1881.
- Coates, George**; Scholar of Balliol, 1870-4; B.Med. and M.A. 1878; D.Med. 1886.
- Scarth, Leveson Edward**; St. John's, B.A. 1874, M.A. 1877.
- Wade, Charles Henry**; Demy, 1872-7; II Nat. Sci. 1877; B.A. from Charsley Hall, 1880; M.R.C.S.; L.R.C.P.; D.P.H. 1891; F.L.S.
- Schofield, Robert Harold Ainsworth**; Scholar of Lincoln, 1870-4; B.Med. 1877; Radcliffe Travelling Fellow, 1876; tin China, 1883.
- Wright, George Arthur**; Non-Collegiate, B.A. 1874; B.Med. 1877.

1875. **Rees, George Edward**; Scholar of Jesus, 1872-7; M.A. 1879; Rector of Bagendon, co. Gloucester, 1881.
- Price, Hugh Brocas**; Demy.
- Robinson, Henry Halliburton**; Demy; III Math. Mod. 1877; I Nat. Sci. 1879.
- Stubbs, Thomas Walker**; Demy, 1875; resigned Demyship in 1878 through marriage; †.
- Wilson, Herbert Amyot Brereton**; Chorister, 1867-73; Exhibitioner, 1875-6; †a missionary at Zanzibar, 1882.
- Oliver, Sydney James**; matriculated, 1874.
- Falls, William Coulthard**; Merton, B.A. 1877; B.Med. and M.A. 1881.
- Evans, Owen**; Scholar of Jesus, 1874-7; M.A. 1886; Chaplain to Bishop of Chester; Warden of Llandoverly College, 1889.
- Evans, William Franklin**; Scholar of Jesus, B.A. 1877; M.A. 1880.
- Armitage, Joseph**; New College, B.A. 1876; B.Med. and M.A. 1880.
- Williamson, Robert Isherwood**; Junior Student of Christ Church, 1871-6; M.A. 1878; B.Med. 1879; Radcliffe Travelling Fellow, 1879; †at Florence, 1882.
- Benson, Alfred**; Exhibitioner, Queen's, 1872-6; B.Med. and M.A. 1880.
- Acland, Theodore Dyke**; Christ Church, B.A. 1874; M.D. 1883; Physician, St. Thomas's Hospital.
- Hoare, Arthur Fanshawe**; Scholar of Balliol, 1873-7; B.A. 1878; M.A. 1883; Assistant Master at Haileybury College.
1876. **Colenso, Robert John**; Trinity, B.A. and M.A. 1877; B.Med. 1879.
- Solly, George Edward**; Group C; B.A. 1877; M.A. 1880.
- Dixey, Frederick Augustus**; Scholar of Wadham, 1874-8; III Cl. Mod. 1876; III Nat. Sci. 1878; B.Med. 1884; Fellow, 1885; D.Med. 1891; Demonstrator in Physiology.
- Fox, Bonville Bradley**; Christ Church, B.A. 1874; B.Med. and M.A. 1879; D.Med. 1882.
- Maitland, Hugh Fuller**; Group C; B.A. 1881.
- How, Henry Walsham**; Wadham, M.A. 1881; Vicar of St. Mary, Mirfield, Normanton, 1889.

- Capell, James Partridge**; Wadham, M.A. 1881.
- Jupp, Herbert Basil**; Mathematical Demy; III Math. Mod. 1874; II Math. 1876; II Nat. Sci. 1877; Science Master, Clifton College; †.
- Gridley, Arthur Robert**; Scholar of Wadham, 1874-8; B.A. and M.A. 1881; of the Inner Temple, 1877.
- Jackson, Arthur Percy**; Non-Collegiate, 1876; Magdalen, 1877-8.
- Broadbent, George**; Demy; II Cl. Mod. 1877; I Nat. Sci. 1880; Solicitor, 1884.
- Anderson, Alfred Jasper**; Demy; II Math. Mod. 1877; I Nat. Sci. 1878; M.A. and B.Med. 1883; M.R.C.S. Lond. 1882; D.P.H. Camb. 1888; Radcliffe Travelling Fellow, 1881; Medical Officer of Health, Cape Town; late of Blackpool.
- Bulley, Frederic Pocock**; B.A. 1880; Home Bursar, Magdalen College, 1884-97; of Marston Hill, near Fairford.
- Blomfield, James Edward**; Demy; I Nat. Sci. 1879; B.A. 1879; Radcliffe Travelling Fellow, 1884; B.Med. 1890; sometime Resident Medical Officer, Hertford British Hospital, Paris; Sevenoaks, Kent.
- Saunders, Alfred Hugh**; Jesus, B.A. 1879; M.A. 1883 (Orders).
- Williams, Thomas**; Scholar of Jesus, 1874-9; M.A. 1881.
- Davies, —**; Jesus. [Identification uncertain.]
- Jenkins, Edward Johnston**; Trinity, B.A. 1878; B.Med. 1882; D.Med. 1885.
1877. **Hanham, Sir John Alexander, Baronet**; Group C; B.A. 1878; Barrister-at-Law, Inner Temple, 1881; Apparitor-General for the Province of Canterbury.
- Ryle, Reginald John**; Trinity, B.A. 1877; B.Med. and M.A. 1884; D.Med. 1894; Assistant Surgeon, Sussex Eye Hospital, Brighton.
- ? **Pearce-Brown, Reginald**; Trinity.
- Smith-Chatterton, Sinclair Dickson**; Trinity, B.A. 1877.
- Dugdale, James Broughton**; Trinity, M.A. 1883; of Wroxall Abbey, co. Warwick.
- Brook, Charles Lewis**; Trinity, B.A. 1878.
- Jelly, James Osborne**; Mathematical Demy; I Math. Mod.

- 1876; I Math. 1878; II Nat. Sci. 1880; Master at Grammar School, Middleton, Manchester; †.
- Cave, Arthur Wilson**; Mathematical Demy; Prelim. Chem.; I Math. Mod. 1876; I Math. 1878; B.A. 1878; Head Master of Oxford High School for Boys; formerly Lecturer in Natural Science at St. Thomas's College, Colombo, Ceylon.
- Williams, William**; Scholar of Jesus, 1877-82; B.Med. and M.A. 1887.
- Jones, Edmund Osborne**; Postmaster of Merton, 1876-81; M.A. 1883; Vicar of Llanidloes, Montgoms., 1891.
1878. **Jackson, Raynsford Valentine**; Demy; I Nat. Sci. 1881.
- Walker, Archibald**; Trinity, M.A. 1886; of Glasgow.
- Woolcombe, Walter George**; Trinity, B.A. 1880; M.A. 1883.
- Nias, Joseph Baldwin**; Scholar of Exeter, 1876-9; I Nat. Sci. 1878; Burdett-Coutts Scholar, 1881; Radcliffe Travelling Fellowship, 1882; B.Med. 1883.
- Hawker, George Loraine**; Exhibitioner of Exeter, 1875-8; B.A. 1878; Solicitor, 1881.
- Peck, Robert Holman**; Scholar of Exeter, 1875-8; M.A. 1882; B.Med. 1884.
- Power, D'Arcy**; Exhibitioner of Exeter, 1876-8; B.Med. 1882; Assistant Surgeon, St. Bartholomew's Hospital.
- Davy, Thomas George**; Exeter, B.A. 1880.
- Flaxman, Americ Edwin**; Junior Student of Christ Church, 1874-9; B.A. 1878.
- Ridley, Henry Nicholas**; Exeter, B.A. 1878; M.A. 1881; Director of the Botanical Gardens, Singapore, 1888.
- Davies, Sidney**; Scholar of Exeter, 1874; B.A. 1877; B.Med. and M.A. 1883; D.Med. 1889; late Principal Medical Officer, Egyptian Police; Medical Officer of Health, Woolwich.
- Ellison, William Augustine**; University, B.A. 1879; B.Med. 1884.
- Willett, Edgar William**; New College, B.A. 1879; B.Med. 1885.
- Ward, Richard Moody**; Exhibitioner of Exeter, 1875-80; B.Med. 1885.
- Rosenstock, Rudolph**; St. Edmund Hall, B.A. 1882.

- Zoete, Charles Septimus de** ; Merton, B.A. 1880; M.A. 1883.
- Heyes, John Frederick** ; I Nat. Sci. 1881; late Senior Science Master, Christ College, Brecon; F.R.G.S.; Vicar of St. Barnabas, Bolton-le-Moors, Lancs, 1900.
- Turnbull, George Lindsay** ; Nat. Sci. Demy, who read Mathematics; II Math. Mod. 1880; I Math. 1882; B.Med. 1887; D.Med. 1892; of Ladbroke Grove, London.
- Chitty, John Shaw Willes** ; Demy; resigned his Demyskip on ground of ill-health in 1880; †.
- Haines, William Francis** ; Jesus, B.A. 1885.
1879. **McRae, Charles** ; Scholar of Exeter, 1875-80; B.A. 1879; M.A. 1883.
- Whittaker, Thomas** ; Scholar of Exeter, 1877-81; B.A. 1881.
- Beddard, Frank Evers** ; New College, B.A. 1880; M.A. 1883; Prosector, Zoological Society; F.R.S.
- Smith, Frederick John** ; Scholar of Balliol, 1875-80; B.Med. 1885; D.Med. 1891; Radcliffe Travelling Fellow, 1885; Lecturer on Forensic Medicine, London Hospital.
- Jackson, Arthur Molineux** ; Non-Collegiate, 1878; Queen's, B.A. 1880; B.Med. 1884; D.Med. 1891; Medical Superintendent, Notts County Asylum, near Radcliffe-on-Trent.
- Milner, Edmund Taylor** ; Scholar of Merton, 1877-82; B.Med. and M.A. 1886; Surgeon, Salford Royal Hospital.
- Thorpe, James Cole** ; Non-Collegiate, matriculated, 1877; a Commoner of Corpus Christi College, 1880; M.A. 1887.
- Hewlett, Charles Edward** ; Magdalen, Demy, 1876-9; B.A. 1879.
- Cholmeley, Henry Patrick** ; Magdalen, B.A. 1880; B.Med. and M.A. 1886; Assistant Sub-Editor of *The Lancet*.
- Scott, William Duncan** ; Exhibitioner of Balliol, 1877-81; M.A. 1883.
- [During Mr. Chapman's absence in Lent Term his pupils were taken by Messrs. Yule, Pike, Lecturer at Merton, and Macdonell, Millard Lecturer.]
- Bothamley, Westley** ; Demy, 1879-83; II Math. Mod. 1880; M.A. 1886; Curate of Emmanuel, Wimbledon, 1890.

[Owing to Dr. Pike resigning his Lectureship at Merton, on going to Toronto, the combination with Merton College came to an end, and Dr. Watts subsequently took men reading Chemistry for the Honour Schools until 1899.]

1880. **Crowdy, Francis Demainbray**; Oriel, B.A. 1881; B.Med. and M.A. 1885; Torquay.
- Chalmers, Robert**; Scholar of Oriel, 1877; B.A. 1881; Treasury; C.B. 1900.
- Stuart, John**; Exhibitioner of Balliol, 1877-82; B.A. 1881.
- Buckmaster, George Alfred**; Demy, 1877; I Nat. Sci. 1881; D.Med. 1887; D.P.H. Oxon. 1887; B.Sc. London; Burdett-Coutts Scholar, 1882; Radcliffe Traveling Fellow, 1883; Lecturer in Physiology and Biology, St. George's Hospital, London; Member of the Indian Leprosy Commission, 1890-1.
- Cunningham, Joseph Thomas**; Scholar of Balliol, 1877; B.A. 1881; Fellow of University, 1882-9.
- Andrewes, Frederick William**; Junior Student of Christ Church, 1878-83; Burdett-Coutts Geological Scholar, 1883; Sheppard Fellow of Pembroke, 1886-96; B.Med. and M.A. 1887; D.Med. 1895; Assistant Medical Tutor, St. Bartholomew's Hospital.
- Horton, William Pingo**; Group C; B.A. 1883; Barrister-at-Law, Inner Temple, 1886.
- Daubeny, Arthur Giles**; II Nat. Sci.; Assistant Master, Bradfield College, 1885-8; Rector of Ashurst, 1892-6; Vicar of Benenden, Kent, 1897.
- Ellis, Robert Kingdon**; Demy; III Nat. Sci. 1884; B.Med. 1892; Medical Officer and Public Vaccinator, Lowdham District, Southwell Union, Notts; late House Physician, St. Thomas's Hospital.
- Heaton, George**; Demy; I Nat. Sci. 1883; B.Med. and B.Ch. 1888; F.R.C.S. Lond. 1891; Senior Laurence Scholar and Gold Medallist, St. Bartholomew's Hospital, 1888; Honorary Surgeon, General Hospital, Birmingham.
- Lascelles, Brian Piers**; II Nat. Sci. 1882; Science Master, Harrow, 1885-1901; Librarian, Harrow School, since 1888; F.C.S., F.S.A.
1881. **Hawkins, Herbert Pennell**; Scholar of Pembroke, 1879-83; B.A. 1882; F.R.C.P.; D.Med. 1894; Radcliffe

- Travelling Fellow, 1886; Lecturer on Medicine, St. Thomas's Hospital.
- Waite, Davis Allan**; Exeter, B.A. 1881; M.A. 1884.
- Hichens, James Harvey**; Scholar of Queen's, 1878-83; B.A. 1882.
- Scattergood, Bernard Page**; Exhibitioner of Queen's, 1881-6.
- Colby, James George Ernest**; Wadham, B.A. 1882; M.A. 1885.
- Evans, John Edwardes**; Jesus, B.A. 1882; M.A. 1887; Head Master of Conway College, 1886.
- Roxburgh, Alexander Bruce**; Exeter, B.A. 1882.
- Mackness, George Owen Carr**; Junior Student of Christ Church, 1879-84; B.A. 1883.
- Dawson, William**; Exhibitioner of Exeter, 1878-83.
- Lancaster, Ernest le Cronier**; Scholar of St. John's, B.A. 1883; B.Med., B.Ch., and M.A. 1887; Lecturer on Biology, Swansea Municipal Schools.
- Todd, Robert Henry**; Hertford, B.A. 1882.
- Hands, Charles Hubert**; Non-Collegiate, B.A. 1882; B.Med. 1887; Totland Bay, I.W.
- Ord, William Wallis**; University, B.A. 1883; B.Med. and M.A. 1887; Physician, Salisbury Infirmary.
- Roth, Walter Edmund**; Demy, 1880-5; II Nat. Sci. 1884; B.A. 1885; M.R.C.S., L.R.C.P. 1892; Medical Practitioner, Sherwood, and the Northern Protector of Aborigines, Queensland.
- Brodie, Sir Benjamin Vincent Sellon, Bart.**; Group C, 1886; M.A. 1889; Barrister-at-Law, 1889; F.S.A.
- Johnson, John Tysilio**; Demy; II Nat. Sci. 1885; Science Master at Oakham for nine years; Senior Science Master, Durham School; F.C.S.
- Prior, George Thurland**; Demy; II Math. Mod. 1883; I Chem. 1885; I Physics, 1886; Assistant, Mineral Department, British Museum.
1882. **Ogle, Wilfrid Rathmell**; Trinity, B.A. 1881; M.A. 1884; Vicar of Highgate, 1896.
- Jones, Enoch**; Jesus, B.A. 1882; Curate of Withercombe Raleigh, Exmouth, Devon.
- Gordon, George**; New College, B.A. 1885.

- Price, William Arthur**; Scholar of New College, B.A. 1882.
- Brown, Frederic Hewlett**; Demy, 1882; I Physiol. 1886; M.D. 1902; first place by examination for Indian Medical Service, 1891; assumed name of **Burton-Brown**; late Regius Professor of Medicine at Lahore; Physician, British Embassy, Rome.
- Gossage, Alfred Milne**; Demy; I Chem. 1886; B.Med. and B.Ch. 1891; M.R.C.P. 1893; Entrance Scholarship Westminster Hospital, 1888; late House Physician, Consumption Hospital, Brompton.
- Hulbert, Henry Harper**; Prelim. Phys. and Chem.; B.A. 1884; M.R.C.S. Lond.; late Assistant House Surgeon, St. Thomas's Hospital; Medical Lecturer and Examiner on Voice Production, Ambulance, and Home Nursing, School Board for London.
- Savage, Edwin Sidney**; Prelim. Chem.; B.A. 1885; matriculated from Magdalen Hall; Rector of Hexham, Northumberland, 1898.
- Stovin, Cornelius Frederick**; B.A. 1886.
1883. **Kent, Albert Frank Stanley**; II Physiol. 1886; sometime Assistant Demonstrator, Owens College, Manchester; and at the Physiological Department, Oxford; Demonstrator in Physiology at St. Thomas's Hospital, London; Lecturer in Pathology, Bristol.
- Abrahall, John Leigh Hoskyns-**; Demy; II Math. Mod. 1885; I Chem. 1887; Berkeley Fellow, Owens College, Manchester; †Oct. 12, 1891, aged 26.
- Withington, Edward Theodore**; Balliol, B.A. 1883.
- Bennett, Lawrence Henry**; Trinity, B.A. 1884.
- Farmer, John Bretland**; Demy; I Bot. 1887; Demonstrator to Professor of Botany, Oxford, 1887-92; D.Sc. 1902; Fellow of Magdalen, 1889; Professor of Botany, Royal College of Science, South Kensington; F.R.S., F.L.S.; Natural Science Examiner, 1892-3.
- Unwin, William Sully**; Prelim. Chem.; B.A. 1886; matriculated from Non-Collegiate Students; Vicar of Ivegill, Carlisle, 1900.
1884. **Girdlestone, Henry**; III Math. Mod. 1883; III Chem. 1886; Master at the College, Bath; Head Master, St. Peter's College, Adelaide.

- Hawkins, Charles Caesar**; Classical Demy; I Mod.; I Lit. Hum. 1886; Prelim. Sci.
- Nicholls, Benjamin Ernest**; Prelim. Chem. and Phys.; B.A. 1886.
- Hall, Charles Oswin**; matriculated, 1883.
- Jourdain, Francis Charles Robert**; Group C, 1886; B.A. 1887; Vicar of Clifton, Ashbourne, Derbyshire, 1894.
- Dempsey, Hugh Paul**; Group C, 1886; B.A. 1886; Vicar of Hebden Bridge, Diocese of Wakefield, 1899.
- Giles, Robert Sidney**; Demy; II Chem. 1888; Science Master, Bromsgrove School.
- Harper, Henry Guy**; Licentiate in Dental Surgery of the Royal College of Surgeons, England.
- Highton, Hugh Percy**; Exhibitioner; I Chem. 1888; Science Master, Rugby.
- Tollit, Percy Kitto**; Demy; I Math. Mod. 1882; I Math. 1885; I Physiol. 1886; late Mathematical Master, Bromsgrove School; Head Master of Derby School, 1898.
1885. **Best, Edward Shiffner**; Group C, 1886; B.A. 1888; Rector of Ludgershall, Andover, 1899.
- Gilliatt, Frederic Hatfeild**; Group C, 1886; B.A. 1887.
- Holt, Harold Edward Sherwin**; Group C, 1886; B.A. 1886.
- Lindley, Walter Delmar**; Group C, 1886; B.A. 1886; Rector of Elmstone, Kent, 1895.
- Pryor, Percival Arthur Leonard**; Group C, 1886; B.A. 1887.
- Ferguson, Edwin Augustus**; B.A. 1887; Rector of Holdenby, Northants, 1900.
- Debenham, Frank Bridgewater**; Prelim.; B.A. 1888.
- Ritchie, David**; B.A. 1886.
1886. **Charlesworth, Basil Arthur**; Group C, 1886; B.A. 1887; Barrister-at-Law, Inner Temple, 1895.
- Bird, Douglas Smith**; Math. Demy; I Math. Mod. 1885; II Math. 1888; Chem. Prelim.; B.A. 1888; Master of Cheam School; ? Head Master of Arnold House Preparatory School, Llanddulas, North Wales.
- Wood, Walter John**; Math. Demy; II Math. Mod. 1889; II Math. 1891; B.A. 1891; Master at Tettenham College six years; Bury School, 1901.

- Walker, Joseph Cyril**; Prelim. Physiol.; B.A. 1889; Curate of Averham, Notts, from 1897.
- Frost, Percival Gildart**; Prelim. Chem.; Group C; B.A. 1890; Medical Student; †1893.
- Partridge, Lionel Stroud**; Group C; B.A. 1888; Middlesex Hospital; M.R.C.S., L.R.C.P. Lond.; late House Surgeon of the Royal Bucks Hospital, Aylesbury; Warminster, Wilts.
- Bingley, Frederic Sparkes Norman**; IV Chem. 1888.
- Gardner, John Addyman**; Demy; I Chem. 1889; Lecturer in Chemistry, and chemical adviser to the Clinical Department, St. George's Hospital, London; Chemistry Examiner, 1900.
- Bennett, Reginald' Arthur Renaud**; Group C, Chem. and Phys.; B.A. 1886.
1887. **Merry, William Joseph Collings**; II Physiol. 1889; B.Med. and B.Ch. 1893; St. Thomas's Hospital, London; D.Med. 1896; Eastbourne.
- Percival, John Guthrie**; II Chem. 1889.
- Inman, Arnold**; Demy; II Chem. 1890; Barrister-at-Law, Inner Temple, 1892.
- Young, Walter George**; Math. Exhibitioner; Prelim. Phys.; I Math. Mod.; II Math. 1888; Librarian to H.M. the King of the Belgians; Assistant Master at Harrow School.
- Chaine, James**; Prelim. Phys.; Group C, Chem.
- Church, Percy William Palmer**.
- Tattersall, J. G. William**; matriculated, 1885; Prelim. Phys.
- Pedder, Arthur Lionel**; Math. Demy; I Math. Mod. 1887; I Math. 1890; Fellow and Mathematical Tutor of Magdalen College.
- Howell, David Lewis**; III Hist. 1887; B.A. 1887; Assistant Master, Dulwich College.
- Hulse, Richard Lamplough**; matriculated, 1886.
1888. **Bremridge, Richard Harding**; Demy; I Chem. 1891; I Physiol. 1893; B.Med. and M.A. 1901; Senior Science Entrance Scholarship, St. Bartholomew's Hospital, 1893; Head of Honour list in Chemistry in First B.Sc. London; Senior Demy, 1894-8; Assistant Medical Officer, Mysore Goldfields.
- Fairbairn, John Shields**; Demy; I Physiol. 1891; B.Med.

- 1895; F.R.C.S. 1900; M.R.C.P. 1901; Assistant Obstetrical Physician, St. Thomas's Hospital.
- Mowbray, Archibald John Holme**; Demy; II Chem. 1891.
- Childs, James Francis**; Demy; III Chem. 1891; settled in New Zealand, 1900.
- Paget, Richard Arthur Surtees**; III Chem. 1891; Barrister-at-Law, Inner Temple, 1895.
- Caldwell, William Henry McKennel**; B.A. 1889; Vicar of Bagshot, Surrey, 1900.
- Blood, John Neptune**; B.A. 1891; Barrister-at-Law, Inner Temple; B.C.L. 1898.
- Long, Samuel Charles**; B.A. 1891; Major, Prince Consort's Own Rifle Brigade, 1900.
1889. **Günther, Robert William Theodore**; Demy; I Morph. 1892; University Student of Biology at Naples, 1893; Lecturer in Natural Science at Magdalen College, Feb. 1894; Geographical Student, 1894; Fellow and Tutor, 1896; F.R.G.S., F.L.S.
- Hichens, Peverell Smythe**; I Physiol. 1892; B.Med. 1895; M.R.C.P. 1899; D.Med. 1903; Honorary Physician, Northampton General Infirmary; honourable mention for Essay for King's Sanatorium Prize Competition.
- Mallam, Ernest**; I Physiol. 1892; B.Med. 1895.
- Stainer, Edward**; Demy; II Physiol. 1892; B.Med. 1896; Physician, Skin Department, St. Thomas's Hospital, 1903.
- Clouston, Joseph Storer**; IV Physiol. 1892; B.A. 1892; Barrister-at-Law, Inner Temple, 1895; Writer of Novels.
- Case, Thomas Bennett**; I Chem. 1893; B.A. 1892; Brewer at Guinness's Brewery, Dublin.
- Wright, Arthur Columbine**; Demy; III Math. Mod.; I Chem. 1893; Demonstrator, Yorkshire College of Science.
- Ward, Arthur**; Demy; resigned 1891. Settled in British Columbia.
- Chambers, Arthur John**; Math. Exhibitioner; III Math. Mod.; III Math. 1888; Prelim. Chem.; matriculated, Merton; B.A. 1891; Curate of St. Mary, Worsborough, Barnsley, Yorks., 1901.
1890. **Fennell, Charles Henry**; III Physiol. 1893; D.Med. 1902; Governors' Clinical Gold Medallist, Charing Cross Hospital.

- Jelly, Frank Edward**; Mathematical Demy; I Math. Mod. 1889; I Math. Final 1891; III Physiol. 1893; Assistant Master, St. John's School, Leatherhead.
- Sturdy, William Arthur**; III Chem. 1893; B.A. 1893.
- Pilcher, Alexander Munsey Warton**; IV Chem. 1893; B.A. 1893.
- Parker, Arthur Percy**; B.A. 1889; B.Med. 1896; Assistant Surgeon, Radcliffe Infirmary; Demonstrator in Anatomy; late Surgeon, Imperial Yeomanry Hospital, Deelfontein, South Africa.
- Foster, John Kenneth**; M.A. 1893.
- Tomlinson, Robert George**; B.A. 1892.
1891. **Walker, John Allsop**; III Chem. 1894.
- Hilliard, Francis Porteus Tyrrell**; IV Physiol. 1894; D.Med. 1902.
- Buzzard, Edward Farquhar**; IV Physiol. 1894; B.Med. 1898.
- Eichholz, Oreste**; Demy; II Chem. 1894; B.Med. 1898; D.Med. 1903.
- Gilbertson, Francis William**; III Chem. 1894.
- Gray, Herbert Edward**; III Physiol. 1894.
1892. **Hill, Ernest George**; II Chem. 1895; Professor of Natural Science, Muir Central College, Allahabad.
- Burnaby-Atkins, John**; matriculated, 1892.
- McDermot, Edward Terence**; III Chem. 1895.
- Poole, William Mansfield**; III Math. Mod.; formerly Master at Merchant Taylors' School; Tutor on H.M.S. *Prince George*, Channel Squadron, 1902.
- Powell, Douglas**; B.A. 1896; Lieut. Royal Welsh Fusiliers, 1900; served in South African war on Staff.
- Simpson, Herbert Clayton**; Exhibitioner; II Chem. 1895.
- Walden, Allan Frederick**; Exhibitioner; I Chem. 1895; Lecturer at New College, 1898-1902.
- Lindley, Lennox Hannay**; M.A. and B.Med. 1898; Assistant Physician to H.I.M. the Shah of Persia.
1893. **Ashby, Harold Francis**; III Physiol. 1896.
- Balfour-Browne, William Alexander Francis**; II Bot. 1896.
- Bayley-Worthington, Alan Brocklehurst**; matriculated, 1893.

- Jex-Blake, Arthur John** ; Demy ; I Chem. 1896 ; II Cl. Mod. 1894 ; Radcliffe Travelling Fellow ; B.Med. 1901.
- Odling, George Smee** ; III Physics, 1896 ; assumed name of Odling-Smee, 1901.
- Page, Alfred Finch** ; Demy ; I Chem. 1896 ; formerly Master at Mill Hill School ; Junior Inspector, Board of Education, 1902.
- Shorter, Harry Vivian Spencer** ; Demy ; II Chem. 1896 ; Assistant Master, Wheelwright Grammar School, Dewsbury.
- Stancomb, William** ; II Chem. 1896 ; Brewer at Guinness's Brewery, Dublin.
- Sherwood, Edward Charles** ; Demy ; II Math. Mod. 1894 ; II Math. 1896 ; II Chem. 1897 ; Science Master, Westminster School, 1901 ; F.C.S. ; Orders.
- Scott, Samuel Geoffrey** ; III Physiol. 1897 ; B.Med. 1902.
- Jones, George Arthur** ; III Physiol. 1897.
- Chapman, Edward Henry**, II Morph. 1897 ; Barrister-at-Law.
- [**Mr. R. T. Günther** was appointed Lecturer in Natural Science in 1894.]

1894. **Armitage, Francis Paul** ; Exhibitioner ; I Chem. 1898 ; Assistant Master of St. Paul's School.
- Hunt, Richard** ; matriculated, 1894.
- Blaine, Gilbert** ; matriculated, 1893.
- Ormrod, John Baxter** ; Demy ; I.C.S. 1898 ; Collector and Assistant Commissioner of North-West Provinces and Oudh.
- Tinne, Philip Frederic** ; III Physiol. 1897 ; M.R.C.S., L.R.C.P. 1902.
1895. **Wilson, Duncan Randolph** ; Demy ; I Chem. 1898 ; Lecturer in Chemistry, Magdalen College, 1899-1903.
- Crossley, Kenneth Irwin** ; III Chem. 1898.
- Grazebrook, George Ward William** ; IV Chem. 1898.
- Hildesheim, Oscar** ; Exhibitioner ; I Physiol. 1899 ; B.Med. 1902.
- Sartoris, Arthur Hugh** ; matriculated, 1895.
- Spilsbury, Bernard Henry** ; II Physiol. 1899.
1896. **Cardwell, Hugh Brodie** ; matriculated, 1895.
- Golla, Frederic Lucien** ; Demy ; I Physiol. 1900.
- Turnbull, Hubert Maitland** ; II Cl. Mod. 1896 ; II Physiol. 1898 ; B.Med. 1902 ; Welsh Memorial Prize, 1899.

1897. **Kaye, Henry Wynyard**; II Cl. Mod. 1896; III Physiol. 1898; B.Med. 1903.
Maclachlan, Alexander Fraser Campbell; matriculated, 1894; Lieut. King's Royal Rifles, 1901, D.S.O.
Singer, Charles Joseph; Exhibitioner; II Zool. 1899; Surgeon to Sir J. Harrington's Expedition to the Sobat River, 1903-4.
Fleischmann, Friedrich Noel Ashcroft; I Chem. 1901.
Hertz, Arthur Frederick; Demy; I Physiol. 1901; Scholar at Guy's Hospital.
Johnson, George Montague; IV Physiol. 1901.
Ryder, Charles Frederick; Demy; II Zool. 1901.
Strutt, George Aston; matriculated, 1897.
Vickers, Vincent Cartwright; matriculated,*1897.
Whitnall, Samuel Ernest; III Zool. 1901; Welsh Memorial Prize, 1903.
1898. **Curling, Bryan James**; Lieut. King's Royal Rifles, 1901.
Medlicott, Walter Sandfield; matriculated, 1898.
Neave, Sheffield Airey; III Zool. 1902; Naturalist on Geodetic Survey of Rhodesia, 1903.
Spencer, William Kingdon; Demy; I Zool. 1902; Burdett-Coutts Scholar, 1902; Demonstrator to the Professor of Geology, 1903; F.G.S.; Junior Inspector of Schools, 1903.
Webb, Arthur James; Exhibitioner; II Chem. 1901.
Dutton, Henry Hampden; III Geol. 1902.
Hilton, Harold; Exhibitioner of Hertford; Fellow of Magdalen, 1898; I Math. Mod. 1896; I Math. 1898; Senior Mathematical Scholar, 1899; Lecturer at Bangor.
1899. **de la Rue, Ivor Andros**; III Chem. 1902.
Galloway, John; III Physiol. 1903; of the Inner Temple, 1903.
Girdlestone, Morrell Andrew; Lieut. Royal Garrison Artillery, 1902; Native Artillery, India, 1903.
Monck, George Stanley Stevens; matriculated, 1899.
Riley, Percy Herbert; IV Chem. 1903.
Semon, Henry Charles Gustav; II Physiol. 1903; Entrance Scholarship, University College Hospital, London.
Simonds, John Hayes; Lieut. Royal Berkshire Regiment, 1902.

- Stewart, David Macfarlane**; Demy, 1897-1901; I Math. Mod. 1898; II Cl. Mod. 1899; I Physics, 1900; II Lit. Hum. 1901; I Math., II Law, 1902; I.C.S. 1902, Bengal.
- Sturrock, William Duncan**; Exhibitioner, 1899; I Physiol. 1903; Entrance Scholarship, King's College Hospital.
- Walker, Bertram James**; matriculated, 1899; 2nd Lieut. Northamptonshire Imperial Yeomanry, South Africa.
1900. **Clowes, George Charles Knight**; matriculated, 1900.
- Knight, John Guy Douglas**; matriculated, 1900; South Africa.
- Wallin, Charles Ethelbert**; Exhibitioner; II Chem. 1903.
1901. **Douglas, Claude Gordon**; Demy; matriculated at New College, 1900.
- Everitt, Charles**; Demy; I Math. Mod.; I Chem. 1902; IV Geol. 1903.
- Martin, Charles Herbert George**; matriculated, 1900.
- Daniel, William Rothwell**; Demy; II Math. Mod.; I Chem. 1903; in South Africa, 1903.
- de la Rue, Stuart Andros**; matriculated, 1901; until 1903.
- Fisher, Kenneth**; Demy, 1901.
- Potter, Ley Francis**; Demy, 1901.
- Flower, Conrad Herbert**; matriculated, 1902.
1902. **Stewart, Robert Henry Rynn**; matriculated, 1901.
- Ackers, Charles Penrhyn**; matriculated, 1901.
- Aldridge, Frederick James**; matriculated, 1902.
- Bethell, Hon. Richard**; matriculated, 1902.
- Carlisle, Kenneth Methven**; matriculated, 1901.
- Gardner, Thomas Edward**; Demy, 1902.
- Osborne, Charles Glidden**; matriculated, 1902; of Harvard, U.S.A., 1903.
- Stancomb, John**; matriculated, 1902.
1903. **Morrell, James Herbert**; matriculated, 1901; III Math. *Cl.* Mod. 1903.
- Stobart, James Douglas**; matriculated, 1902.
- Fry, Herbert John Burgess**; Exhibitioner, 1903.
- Nalder, Howard Gilbert**; matriculated, 1903.
- Beevor, Charles Ferrier**; matriculated, 1903.
- Birchall, Edward Vivian Dearman**; matriculated, 1903.
- Dutton, Francis Bridger**; matriculated, 1903.
- Hubbard, Hon. Raymond Egerton**; matriculated, 1903.
- Willett, Herbert William Mills**; matriculated, 1903.

REGISTER OF PERSONS, NOT BEING MEMBERS OF MAGDALEN
COLLEGE, WHO HAVE WORKED WITH MR. J. J. MANLEY¹
IN THE DAUBENY LABORATORY SINCE 1893.

A large proportion of those whose names occur in this list have attended the evening courses of practical instruction. Ever since the commencement of these courses under Mr. Manley's superintendence they have become increasingly popular, and a very valuable adjunct to the ordinary classes. So much so, that but for this opportunity many men, some of whom have been Elementary Schoolmasters, would not have been able to read for the Honour Chemistry School.

It is to be hoped that, for the benefit of this class of student, and also in the interests of others, the University will find means to open laboratories to those who wish to devote the evenings to practical work.

1893. **Liddell, Henry Andrew**; Non-Collegiate; B.A. 1896; Head Master of Wesleyan School, Oxford.
Judge, Thomas; St. John's, I Chem. 1896; Professor of Chemistry at Bangkok.
Phillips, Harry Edward William; Non-Collegiate, II Chem. 1895; Science Master of Boys' High School, Oxford, and Training College for Girls, Banbury Road, Oxford.

¹ Mr. Manley received the degree of Honorary M.A. on December 8, 1903, and the Public Orator, on presenting him to the Vice-Chancellor, made the following speech:

Insignissime Vice-Cancellarie, vosque egregii procuratores:

Praesento vobis spectatum et bene instructum virum, Joannem Job Manley, per annos XVI. officinae Daubeniensis apud Collegium S.M. Magdalenae curatorem: qui singulari habilitate praeditus et scientiae physicae rudimentis imbutus mox tirocinium posuit et ad investigationes altiores suoapte se ingenio contulit et scriptis exposuit. Quorum quidem scriptorum neque titulos neque argumentum facile est coram vobis effingere: sunt enim istae res non modo non versu sed ne pedestri quidem oratione dicendae: quippe propter Latini sermonis egestatem neque acidi nitrici vim et naturam et densitatem, neque exquisitas metiendi rationes verbis possim exprimere. Constat autem has auctoris gravissimi lucubrationes doctis Societatibus cum nostratium tum externarum gentium adeo se commendavisse ut in linguam Teutonicam conversae multum habeant ponderis et momenti.

Duco ad vos eruditum et expertum virum, discipulis pariter et collegis acceptum, de scientia chemica optime meritum, ut admittatur ad gradum Magistri in facultate Artium, honoris causa.

1894. ¹Simpson, Herbert Clayton; Exhibitioner of Magdalen, II Chem. 1895; Professor at Toronto, 1903.
 Lysons, Nigel Lucius Samuel; Captain, the King's Own (Royal Lancaster Regiment); Adjutant, 1902.
 Fisher, Harold Pearson; son of W. W. Fisher (p. 112).
1895. Hartland, Brantford; St. John's.
 Hughes-Games, Harold James Wynn; Worcester, B.A. 1895.
 Walter, Ralph; New College, III Chem. 1896.
 Young, John William Alexander; New College, II Chem. 1896.
 Bevers, Edmund Cecil; St. John's, II Physiol. 1897.
 Elford, Stanley; St. John's, III Chem. 1898.
 Pinching, Charles James; St. John's, III Physiol. 1898.
 Hastings-Wilson, David Herbert; St. John's, M.A. 1899.
 Hoare, Charles Hervey; New College, Aegrot. Chem. 1898.
 Tyser, Lionel Robert; New College.
 Farncombe, Edgar Leonard; St. John's, III Physiol. 1898.
1896. Carpenter, Henry Cort Harold; Postmaster of Merton, I Chem. 1896.
 Chaundy, J. H.
¹Knollys, Reginald William; Magdalen.
 Johnson, Bertie Cecil; St. John's, III Chem. 1898.
 Crum, Walter Erskine; New College, II Chem. 1897.
 Bennett, George Lowe; Casberd Exhibitioner of St. John's; M.A. 1901; F.C.S.; Curate of St. Saviour, Everton, 1899.
 Ryman-Hall, Bertie Ryman; St. John's, B.A. 1896.
 Richards, Owen William; Fellow of New College; I Cl. Mod. 1894; II Physiol. 1896.
 Richardson, George Beigh; Worcester, B.A. 1896.
 Blakelock, Lawrence Neville Salts; Queen's, IV Chem. 1899; Curate of Odd-Rode, Cheshire, 1900.
 Billinghamurst, Walter Binsmead; Scholar of St. John's, II Chem. 1898.
 Sparrow, Robert Burslem; Lincoln.
 Spicer, Edward Clarke; New College, I Geol. 1899; Late Scholar of Trinity College, Melbourne, M.A. 1879; Queensland Mission, 1884-5; Java, 1885-6; Burdett-

¹ These two entries should have appeared in this form in the lists on pp. 126 and 127.

- Coutts Scholar, 1899; Rector of Throwleigh, Devon, 1889-95.
- Scrivenor, John Brooke**; Hertford, I Geol. 1899; Burdett-Coutts Scholar, 1899.
- Smith, George Frederick Darwall**; New College, II Cl. Mod. 1894; I Physiol. 1896.
1897. **Gorst, Henry Sidney**; St. John's, I Chem. 1898.
- M'Lachlan, John**; M.D. Edin.; Queen's, II Chem. 1900.
- Elliott, Arthur Abercrombie**; B.A. 1897.
- Frewin, James Gilbert**; Non-Collegiate, I Chem. 1899.
- Purnell, George Sykes**; Non-Collegiate, IV Chem. 1900.
- Freeman, Willie Ludford**; St. Edmund Hall, III. Chem. 1900; F.C.S.
- Taylor, Arthur Henry**; St. John's, IV Physiol. 1896.
- Barber, Charles Harrison**; Non-Collegiate, I Physiol. 1900; Shute Scholar, 1897.
- Smith, Eric McLeod**; Queen's, III Physiol. 1900.
1898. **Eling, Thomas Henry James**; Non-Collegiate, III Chem. 1899.
- Rowlands, David Ellis**; Jesus, IV Phys. 1899.
- Williams, Jeremiah**; Jesus, III Chem. 1900.
- Soddy, Frederick**; Postmaster of Merton, I Chem. 1899.
- McMullen, Alexander Percy**; Postmaster of Merton, I Chem. 1898.
- Inman, Harold Mundee**; St. John's, IV Physiol. 1901.
- Day, William Leigh Maule**; Exeter, B.A. 1899.
- Crosfield, George Henry**; University, III Physiol. 1901.
- Young, Harold Spencer**; Balliol, matriculated, 1901.
- Grosvenor, Norman Edward**; Brasenose, IV Physiol. 1899.
- Baker, Henry Hugh**; University, III Physiol. 1900.
- Mullins, Arthur Francis**; Keble.
- Tordoff, Bertram**; Casberd Scholar of St. John's, I Physiol. 1902.
- Hubble, Harry Oswald**; St. Edmund Hall.
- Roberts, Jonathan Hugh**; Jesus, II Chem. 1901.
- Elford, Bertram**; St. John's, Aegrotat. Chem. 1902.
- Elford, Archibald Sefton**; St. John's, III Chem. 1902.
- Henderson, Turner**; University, B.A. 1901.
1899. **Allen, Francis Wellwood**; Jesus, IV Chem. 1902.

- Spear, Robert Heron ; Jesus, II Chem. 1899.
 Tidy, Henry Letheby ; New College, II Chem. 1900.
 Lee, Edward Cornwall ; University.
 Shelley, Arnold ; Keble, B.A. 1899.
 White, Thomas Richard ; Non-Collegiate, IV Chem. 1901.
 White, Robert Murray ; Non-Collegiate, matriculated, 1897.
 Bibby, Robert Gordon ; New College, matriculated, 1899.
 Murray, Ælfric Charles Ruthven ; Wadham, IV Chem.
 1902.
 Ping, Lawrence Spencer ; Non-Collegiate, II Chem. 1901.
 Billings, George Michael ; Jesus, matriculated, 1896.
 Griffith, William Edward ; Non-Collegiate, B.A. 1902.
 Pridham, Charles Albert ; St. John's, III Chem. 1902.
 Davis, John Sidney ; Non-Collegiate, III Physics, 1902.
 1900. Cooper, Jabez Horace ; Scholar of Jesus, I Chem. 1903.
 Baker, Sydney Harold ; Scholar of Jesus, II Chem. 1903.
 Naab, Frederick ; Non-Collegiate, B.A. 1901.
 Collins, Charles Edwin ; Lincoln.
 Bott, Arthur Everard Hulton ; Jesus, II Chem. 1903.
 Buck, Henry Charles ; Non-Collegiate, III Chem. 1903.
 Moore, Claude ; St. Mary Hall, B.A. ; Head Master of the
 Boys' Central School, Oxford.
 Seys, Roger C. }
 Seys, G. William } not members of the University.
 Mockridge, Albert James ; Head Master of School for
 Pupil Teachers, Oxford.
 Loxley, Frederick Lionel Keith, of Oxford.
 Monier-Williams, Gordon Wickham ; University, I Chem.
 1903.
 Marshall, Reginald Philip ; Keble, III Chem. 1901.
 Scott, John Irwin ; Exhibitioner of Merton, I Chem. 1901.
 Cooke, Henry Harwood ; New College, II Chem. 1901.
 Mortimer, Alfred ; Exhibitioner of Exeter.
 1901. Thomas, William Jones ; Jesus, matriculated, 1900.
 John, William Alfred ; Scholar of Jesus, matriculated, 1901.
 Cocks, Reginald Henry ; Lincoln, II Chem. 1903.
 Graham, Richard Percival Devereux ; Non-Collegiate,
 matriculated, 1900.
 Beards, Clifford ; Scholar of Jesus, matriculated, 1901.
 Morris, Joseph ; Non-Collegiate, II Chem. 1903.

- Coles, Alfred Bertram**; Non-Collegiate, matriculated, 1901.
James, Garnet Williams; Jesus, matriculated, 1901.
Taylor, Reginald Lionel; Hertford, matriculated, 1900.
Lambourne, Christopher; Non-Collegiate, matriculated, 1900.
- 1902. Bentley, Walter Henry**; Exhibitioner of Merton, matriculated, 1899.
Sadler, Ralph Trego; Non-Collegiate, Shute Scholar, 1901.
Starley, Bertram Allan; Wadham, matriculated, 1899.
Stote-Fox, Robert; Hertford, IV Chem. 1903.
Adlam, George Henry Joseph; Wadham, matriculated, 1901.
Scott, Robert Watson; Non-Collegiate, Leathersellers' Exhibitioner, 1902.
Farrands, Harry; Non-Collegiate, matriculated, 1901.
Wright, Thomas Josiah; Non-Collegiate, matriculated, 1900.
- 1903. Evans, Charles Irwin**; St. John's, III Chem. 1903.
Scothern, Albert Edward; Non-Collegiate, matriculated, 1902.
Swallow, Luther James; Exhibitioner of Lincoln.
Japp, Darsie Napier; St. John's, matriculated, 1901.
Benson-Baker, William Henry; University.
Moss, Albert Henry; Non-Collegiate, matriculated, 1902.
Ford, Leonard Talman; Postmaster of Merton, I Chem. 1903.
Micklewright, Harry George Fletcher; Postmaster of Merton, I Chem. 1903.
Lambert, Bertram; Exhibitioner of Merton, I Chem. 1903.
Simpson, James Charles; Non-Collegiate, matriculated, 1902.
Thomas, Robert Edward; Non-Collegiate, matriculated, 1900.
Hawtin, Herbert Edwin; Non-Collegiate, matriculated, 1900.
Wheatley, William; Non-Collegiate, matriculated, 1903.
Trump, Richard John; Jesus, matriculated, 1902.
Kenrick, Kenrick Lloyd; Scholar of Jesus, 1902.
Pinnock, Henry Tremayne; Exeter, matriculated, 1901.
Myles, Charles Derwentwater; Exeter, matriculated, 1901.
Bond, William Frederick; Exeter, matriculated, 1901.

Batchelor, Tremlett Brewer; University, matriculated,
1903.

Pearson, Wilfrid John; University, matriculated, 1903.

Zacharias, George Jessel; Scholar of University, 1902.

* * *The original MS. Registers consist for the most part of columns of signatures and lists of names, often without initials, and sometimes hardly to be deciphered. In printing them in the form of Appendix E, we have added certain biographical information with the intention of facilitating the identification of the names, but without any pretence to completeness or to uniformity of treatment. While selecting such material as was most readily accessible to us, we have endeavoured to indicate by date of matriculation or of degree the academical status of each person at the time he attended the lectures. If no name of a College be stated after a person's name, he may be presumed not to have been a member of the University. The initials (D.N.B.) show that some account of the individual is to be found in the Dictionary of National Biography. It must also be stated that in cases where the same name appears at intervals for a number of years, we have only recorded the first entry, so that no attempt has been made to distinguish between persons who worked in the Laboratory for a prolonged period and those who only attended for a single term.*

The errors in the lists, both of omission and of commission, would have been much more numerous if we had not enjoyed the help of many of our colleagues, and especially of Messrs. Chapman, Turner, Webb, and Wilson.

INDEX

This Index does not include Appendices D and E.

- Abrahall, Hoskyns, 49.
 Acland, Sir H., 6, 12.
 Agas's Map, 2.
 Apparatus, Early Chemical, 14.
 Aquarium, 11.
 Arctic Rocks, 18.
 Armitage, F. P., 49.
 Artisans, Lectures to, 21.
 Ashmolean Lecture Room, 8, 12.
 ——— Society, Papers read to, 54-64.
- Bedford, Duke of, 11.
 Bell, Professor F. J., 21.
 Biological Courses, 21.
 Boron, Atomic Weight of, 49.
 Botanical Garden, *see* Physick Garden.
 ——— Library, 4.
 ——— Museum, 11.
 Botany, Professor of, 4; his Residence, 4.
 British Association Committee, 33.
 Brodie, Sir B., 11.
 Buckland, Dr., 18.
 ——— Frank, 6.
 Buckler, 11.
 Buckmaster, G. A., 48.
 Bulley, President, 12.
 Bunsen's Spectroscope, 15.
 Burdon-Sanderson, Professor, 23.
- Chaetognatha, Atlantic, 50.
 Chapman, Edward, 2, 19, 30, 111.
 Cherwell, Height of, 32.
 ——— Temperature of, 33-47.
 Choristers, 12, 87.
 Church, R. W., 6.
 Clayton, Dr., 3.
 Coelenterata, Atlantic, 50.
 Coleridge, H. J., 6.
 Collections, 10, 14, 51.
 Commission on Scientific Instruction,
 20.
 Cox, Rev. J., 15.
- Danby, Lord, 1, 3.
 Daubeny, Dr. C. G. B.—
 Agricultural Researches, 7, 13.
 Bakerian Lecturer, 7.
 Bibliography, 53.
 Books, 18.
 Collections, 14-18.
- Daubeny (*continued*) :—
 Election to Professorship of—
 Botany, 4, 6.
 Chemistry, 5.
 Rural Economy, 7.
 Lecture Register, 65-111.
 Lectures, 5, 8, 13.
 Memorial Tablet, 19.
 Meteorological Record, 30.
 Researches, 12, 53.
 Will, 18.
- Dawson, 3.
 Dickson, H. N., 49.
 Dionaea, 23.
 Dixey, Dr. F. A., 23.
 Dixon, Professor H. B., 23, 24.
- East Bridge, 2.
 ——— Street, 3, 4.
 Electric Conductivities, 50.
 Evening Classes, 130.
 Examinations, Preliminary Scientific, 26.
- Fletcher, Lazarus, 23.
- Garden, Physick, 3, 5.
 Gardener, 4.
 Geological Collections, 17.
 Girdlestone, A. G., 13.
 Gotch, Professor F., 23.
 Groom, P., 48.
 Günther, R. T., 49, 127.
- Harris, John, 1, 18, 25, 30.
 Head, Sir Edmund, 6.
 Herbarium, 4, 5.
 Hilton, H., 50.
 Hopkins, T. H. T., 13, 17, 19, 24, 30.
- Jameson, Professor, Lecture Notes, 53.
 Jervis-Smith, Rev. F. J., 25.
 Jews' Burial Ground, 1.
 Jupp, H. B., 23.
- Kidd, Dr., 5.
 Kingsley, H., quoted, 8.
 Krakatoa Sunsets, 24.
- Laboratories of—
 Balliol College, 12, 24.
 Christ Church, 12, 24.

- Laboratories of—
 King's College, London, 8.
 Royal College of Science, 8.
 School of Mines, Jermyn Street, 8.
 University College, London, 8.
- Laboratory, Daubeny—
 College Orders concerning, 9, 11,
 22, 27.
 Extension, 26.
 Height above Sea-level, 30.
 New Building, 10.
 Old Building, 28.
- Lawes, Sir J. B., 6.
 Lawson, Professor, 11, 21.
 Lectures, Attendance at Scientific, 6,
 65-135.
 ——— Combined, 20.
 ——— Evening, 21, 130.
- Liddell, H. G., 6.
 Liebig, Baron, 8.
 Light, Action on Plants, 7.
 Lime Trees, 4.
 Loggan, 2.
- Madan, H. G., 13, 52.
 Magdalen Bridge, 4.
 ——— Gate House, 2, 4.
 Manley, J. J., 25, 30, 48, 130.
 Maskelyne, Nevil Story, 6.
 Meteorological Instruments, 31.
 ——— Record, 30.
 Mineral Collection, 16.
 ——— Waters, 16.
 Mnestra parasites, 50.
- Nitric Acid, 48-50.
 Noah's Ark Inn, 4.
- O'Brien, M., 48.
 Ouseley, Sir F. Gore, 6.
 Ozone, 13, 30, 33.
- Parry, Captain, 18.
 Parys Mede, 1.
 Pattison, M., 6.
 Paving Act Commissioners, 4.
 Payne, Dr. J. F., 10.
 Peirce, Dr., 3.
 Perrot, 2.
 Persehowse, R., 15.
 Phillips, H. E. W., 29, 50.
- Phillips, Professor, quoted, 17.
 Phosphorite, 18.
 Physical Chemistry, 26, 28.
 Physick Garden, 3, 5.
 ——— Wall, 1, 3, 10.
 Physics, Preliminary, Apparatus for, 51.
 Physiological Instruction, 22.
 ——— Laboratory, 21-3.
 Playfair, Lord, 8.
 Pusey, E. B., 6.
- Researches, List of Recent, 48.
 Robertson's Anatomical Preparations,
 51.
 Rocks of Greece, 18.
 ——— United States, 18.
 Rolleston, Professor G., 21.
 Rose Lane, 2.
 Ruskin, John, 6.
- Schoolboys, Instruction of, 25, 87.
 Scientific Instruction, Royal Commission
 on, 20.
 Sea-water, Collecting Bottle for, 17.
 ——— Physical Constants of, 49.
 Sherwood, Rev. W. E., 25.
 Sibthorp, Professor, 4.
 Sidgwick, N. V., 29.
 St. Frideswyde's Gate, 2.
 St. John the Baptist's Hospital, 2.
- Tait, A., 6.
 Tatham, Edward, 6.
 Teckew Gate, 2.
 Telescopes, 11, 15.
 Trinity Hall, 2, 4.
 ——— Lane, 2.
- Urmi Lake, Fauna of, 49.
- Veley, V. H., 48-50.
 Vines, Professor S. H., 48.
 Vivisection, 22.
- Warren, T. H., President, 28.
 Weather Records, 30.
 Whately, Archbishop, 6.
 Wilson, D. R., 26.
 Wood, A., quoted, 1, 2, 3.
 Wyndham, T. G. H., 16.
- Yule, C. J. F., 21, 22, 24.

14 DAY USE
RETURN TO DESK FROM WHICH BORROWED
LOAN DEPT.

This book is due on the last date stamped below,
or on the date to which renewed. Renewals only:
Tel. No. 642-3405
Renewals may be made 4 days prior to date due.
Renewed books are subject to immediate recall.

MAY 5 1973 48

REC'D CIRC DEPT MAY 29 1974

LD21A-20m-3,73
(Q8677s10)476-A-31

General Library
University of California
Berkeley

