The Mirror of Literature, Amusement, and Instruction eBook

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BOOKRAGS

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New and expensive works;
POETRY, ORIGINAL AND SELECTED:
The spirit of the public journals;
discoveries in the arts and sciences;
USEFUL DOMESTIC HINTS;

&c. &c. &c.

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Vol. XIII.

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London printed and published by J. LIMBIRD, 143, *Strand*. *(Near Somerset House.)*

1829

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Preface.

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We begin to think that a long Preface in this season of *ennui* would be almost as tiresome as tragedy in warm weather, and much more so than the trite three-line Prologue in Hamlet. Our materials are collected from all quarters, with but little of our own; so that we might praise all the authors without the charge of uncommon vanity; but panegyric savours much of the poppy, and we must use it accordingly.

Our thanks are first due to such Subscribers as have, by personal observation and research, enabled us to throw a light on certain obsolete customs or portions of our domestic history; for these contributions form a prominent feature of the Correspondence of *the mirror*; it being our object, in this department, to gather facts rather than to draw only upon the invention of our friends. In support of this system we could select many specimens from the Correspondence of the present volume, the interest of which is, we hope, be equal to any of its predecessors.

The *Selector* will be found to contain many valuable extracts from New and Costly Works, in almost every class of literature; and the piquancy of the *Notes of a Reader* may be turned to as a convenient little treasury, into which readers of all tastes may dip with pleasure and advantage.

The *Sketch Book* contains rather an unusual number of Narratives, some of them of extraordinary interest, and written in the best style of the best authors.

The *Spirit of Discovery* will be considered characteristic of our times, by illustrating the real economy of science in its application to the conveniences of every-day life. As a collateral branch of this division is *The Naturalist,* under which head we have endeavoured to identify *the mirror* with Zoology, as one of the most popular studies of the day.

The *Spirit of the Public Journals* breathes not a few of the sweetest and most recent poetical compositions from the pens of celebrated authors, some of whose names are passports to high excellence.

The *Engravings* have, probably, been criticised upon first impression; so that we can only hope they have merited the applause of our Subscribers. We may be permitted to remark that some of the illustrations relate to scenes and subjects of no ordinary attraction in Antiquarian Remains, and Architectural Improvements of yesterday; a few of these have been executed at a considerable cost to the Proprietor; for which extra exertion he has been more than requited by the increased demand.

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Several current *Novelties* will be found described at length in this volume—as the circumstantial and accurate accounts of the Colosseum—and the New Swan River Settlement, the last of which is illustrated with an Engraved Chart.

Strenuous as have been our exertions for past patronage, we shall not relax in the ensuing volume. An entirely new Type has been prepared for this purpose, and we feel confident that we shall be enabled to keep pace with the increased typographical beauty of the MIRROR, as well as with the improved spirit of its Engravings.

June 27, 1829.

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LIST OF ENGRAVINGS.

VOL. XIII.

PORTRAIT of the late SIR HUMPHRY DAVY, Bart.

Bruce Castle, Tottenham.

Old Elephant, Fenchurch Street.

Macclesfield Bridge, Regent's Park.

Rupert's Palace, Barbican.

Hanover Lodge, Regent's Park.

Grove House, ditto.

Colosseum, Exterior, ditto.

Marquess of Hertford's Villa, ditto.

Doric Villa, ditto.

Colosseum, Interior, ditto.

Kirkstall Abbey.

Warwick Castle.

Old Covent Garden Market.

York Terrace, Regent’s Park.

Snow Flakes, Magnified.

Rugby School.

Miners of Derbyshire.

Fortune Playhouse, Barbican.

Epsom New Race Stand.

Old Charing Cross.

Exeter ’Change, Strand.

Hyde Park Grand Entrance.

Talipot Tree.

Glowworm.

Deathwatch, Magnified.

Chester Terrace, Regent’s Park.

Guy’s Cliff.

Roman Altar.

Gower’s Tomb.

Hirlas Horn.

Old Somerset House.

Harrow School.

Sussex Place, Regent’s Park.

Clarendon House, Piccadilly.

Relic of John Buryan.

Cornwall Terrace, Regent’s Park.

Chart of the Swan River Settlement.

Laleham Park, the Residence of the Young Queen of Portugal.

Holland House, Kensington.

Cumberland Terrace, Regent’s Park.

Residence of T. Campbell, Esq.

Labyrinth at Versailles.

* * * * *

MEMOIR OF SIR HUMPHRY DAVY, BART.

The present may be regarded as a chemical age; for so extensive, rapid, and important have been the late acquisitions in the science of chemistry, that we may almost claim it as the exclusive discovery of our own times. The popularity and high estimation in which it is held may be ascribed to three causes: 1. The satisfaction which is afforded by its results. 2. Its utility in all the arts of life. 3. The little previous preparation which an entrance on its study requires. To these may be added, the new interest conferred upon the science by the discoveries of Black, Priestly, and Lavoisier, which had already introduced into chemical science the long-neglected requisites of close investigation and logical deduction; but it was reserved for Sir HUMPHRY DAVY to demonstrate the vast superiority of modern principles, by the most brilliant career of discovery, which, since the days of Newton, have graced the annals of science.

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Sir Humphry Davy was born December 17, 1779, at Penzance, in Cornwall. His family was ancient, and above the middle class; his paternal great grandfather had considerable landed property in the parish of Budgwin, and his father possessed a small paternal estate opposite St. Michael's Mount, called Farfal, on which he died in 1795, after having injured his fortune by expending considerable sums in attempting agricultural improvements. Sir Humphry received the first rudiments of his education at the grammar-schools of Penzance and Truro: at the former place, he resided with Mr. John Tomkin, surgeon, a benevolent and intelligent man, who had been intimately connected with his maternal grandfather, and treated him with a degree of kindness little less than paternal. His genius was originally inclined to poetry; and there are many natives of Penzance who remember his poems and verses, written at the early age of nine years. He cultivated this bias till his fifteenth year, when he became the pupil of Mr. (since Dr.) Borlase, of Penzance, an ingenious surgeon, intending to prepare himself for graduating as a physician at Edinburgh. As a proof of his uncommon mind, at this early age, it is worthy of mention, that Mr. Davy laid down for himself a plan of education, which embraced the circle of the sciences. By his eighteenth year he had acquired the rudiments of botany, anatomy, and physiology, the simpler mathematics, metaphysics, natural philosophy, and chemistry. But chemistry soon arrested his whole attention. Having made some experiments on the air disengaged by sea-weeds from the water of the ocean, which convinced him that these vegetables performed the same part in purifying the air dissolved in water which land-vegetables act in the atmosphere; he communicated them to Dr. Beddoes, who had at that time circulated proposals for publishing a journal of philosophical contributions from the West of England. This produced a correspondence between Dr. Beddoes and Mr. Davy, in which the Doctor proposed, that Mr. Davy, who was at this time only nineteen years of age, should suspend his plan of going to Edinburgh, and take a part in experiments which were then about to be instituted at Bristol, for investigating the medical powers of factitious airs; to this proposal Mr. Davy consented, on condition that he should have the uncontrolled superintendence of the expements. About this time he became acquainted with Davies Gilbert, Esq. M.P. a gentleman of high scientific attainments, (now President of the Royal Society), with whom he formed a friendship which has always continued; and to Mr. Gilbert's judicious advice may be attributed Mr. Davy's adoption of and perseverance in the study of chemistry. With Dr. Beddoes, Mr. Davy resided for a considerable time, and was constantly occupied in new chemical investigations. Here, he discovered the respirability of nitrous oxide, and made a number of laborious experiments on gaseous bodies, which he afterwards published in "Researches

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Chemical and Philosophical," a work that was universally well received by the chemical world, and created a high reputation for its author, at that time only twenty-one years of age. This led to his introduction to Count Rumford, and to his being elected Professor of Chemistry to the Royal Institution in Albemarle-street. On obtaining this appointment Mr. Davy gave up all his views of the medical profession, and devoted himself entirely to chemistry.

Mr. Davy's first experiments as Professor of Chemistry in the Royal Institution, were made on the substance employed in the process of tanning, with others to which similar properties were ascribed, in consequence of the discovery made by M. Seguier, of Paris, of the peculiar vegetable matter, now called tannin. He was, during the same period, frequently occupied in experiments on galvanism.

To the agriculturist, chemistry is of the first consideration. The dependence of agriculture upon chemical causes had been previously noticed, but it was first completely demonstrated in a course of lectures before the Board of Agriculture, which Mr. Davy commenced in the year 1802, and continued for ten years. This series of lectures contained much popular and practical information, and belongs to the most useful of Mr. Davy's scientific labours; for the application of chemistry to agriculture is one of its most important results; and so rapid were the discoveries of the author, that in preparing these discourses for publication, a few years afterwards, he was under the necessity of making several alterations, to adapt them to the improved state of chemical knowledge, which his own labours had, in that short time, produced.

In 1803, he was chosen a fellow of the Royal Society, and in 1805, a member of the Royal Irish Academy. He now enjoyed the friendship of most of the distinguished literary men and philosophers of the metropolis, and enumerated among his intimate friends, Sir Joseph Banks, Cavendish, Hatchett, Wollaston, Children, Tennant, and other eminent men. At the same time he corresponded with the principal chemists of every part of Europe. In 1806, he was appointed to deliver, before the Royal Society, the Bakerian lecture, in which he displayed some very interesting new agencies of electricity, by means of the celebrated galvanic apparatus.[1] Soon afterwards, he made one of the most brilliant discoveries of modern times, in the decomposition of two fixed alkalies, which, in direct refutation of the hypothesis previously adopted, were found to consist of a peculiar metallic base united with a large quantity of oxygen. These alkalies were potash and soda, and the metals thus discovered were called potassium and sodium, Mr. Davy was equally successful in the application of galvanism to the decomposition of the earths. About this time he became Secretary of the Royal Society. In 1808, Mr. Davy received a prize from the French Institute. During the greater part of 1810, he was employed on the combinations of oxymuriatic gas and oxygen; and towards the close of the same year, he delivered a course of lectures

before the Dublin Society, and received from Trinity College, Dublin, the honorary degree of LL. D.

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In the year 1812, Mr. Davy married his amiable lady, then Mrs. Apreece, widow of Shuckburgh Ashby Apreece, Esq. and daughter and heiress of the late Charles Kerr, of Kelso, Esq. By his union with this lady, Mr. Davy acquired not only a considerable fortune, but the inestimable treasure of an affectionate and exemplary wife, and a congenial friend and companion, capable of appreciating his character and attainments. A few days previously to his marriage, he received the honour of knighthood from his Majesty, then Prince Regent, being the first person on whom he conferred that dignity.

We now arrive at the most important result of Sir Humphry Davy's labours, *viz*. the invention of the SAFETY-LAMP for coal mines, which has been generally and successfully adopted throughout Europe. This invention has been the means of preserving many valuable lives, and preventing horrible mutilations, more terrible even than death; and were this Sir Humphry Davy's only invention, it would secure him an immortality in the annals of civilization and science. The general principle of this discovery may be described as follows:

"The frequency of accidents, arising from the explosion of the fire-damp, or inflammable gas of the coal mines, mixed with atmospherical air, occasioned the formation of a committee at Sunderland, for the purpose of investigating the causes of these calamities, and of endeavouring to discover and apply a preventive. Sir Humphry received an invitation, in 1815, from Dr. Gray, one of the members of the committee; in consequence of which he went to the North of England, and visiting some of the principal collieries in the neighbourhood of Newcastle, soon convinced himself that no improvement could be made in the mode of ventilation, but that the desired preventive must be sought in a new method of lighting the mines, free from danger, and which, by indicating the state of the air in the part of the mine where inflammable air was disengaged, so as to render the atmosphere explosive, should oblige the miners to retire till the workings were properly cleared. The common means then employed for lighting the dangerous part of the mines consisted of a steel wheel revolving in contact with flint, and affording a succession of sparks: but this apparatus always required a person to work it, and was not entirely free from danger. The fire-damp was known to be light carburetted hydrogen gas; but its relations to combustion had not been examined. It is chiefly produced from what are called blowers or fissures in the broken strata, near dykes. Sir Humphry made various experiments on its combustibility and explosive nature; and discovered, that the fire-damp requires a very strong heat for its inflammation; that azote and carbonic acid, even in very small proportions, diminished the velocity of the inflammation; that mixtures of the gas would not explode in metallic canals or troughs, where their diameter was less than one-seventh of an inch, and

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their depth considerable in proportion to their diameter; and that explosions could not be made to pass through such canals, or through very fine wire sieves, or wire gauze. The consideration of these facts led Sir Humphry to adopt a lamp, in which the flame, by being supplied with only a limited quantity of air should produce such a quantity of azote and carbonic acid as to prevent the explosion of the fire-damp, and which, by the nature of its apertures for giving admittance and egress to the air, should be rendered incapable of communicating any explosion to the external air. These requisites were found to be afforded by air-tight lanterns, of various constructions, supplied with air from tubes or canals of small diameter, or from apertures covered with wire-gauze, placed below the flame, through which explosions cannot be communicated; and having a chimney at the upper part, for carrying off the foul air. Sir Humphry soon afterwards found that a constant flame might be kept up from the explosive mixture issuing from the apertures of a wire-gauze sieve. He introduced a very small lamp in a cylinder, made of wire-gauze, having six thousand four hundred apertures in the square inch. He closed all apertures except those of the gauze, and introduced the lamp, burning brightly within the cylinder, into a large jar, containing several quarts of the most explosive mixture of gas from the distillation of coal and air; the flame of the wick immediately disappeared, or rather was lost, for the whole of the interior of the cylinder became filled with a feeble but steady flame of a green colour, which burnt for some minutes, till it had entirely destroyed the explosive power of the atmosphere. This discovery led to a most important improvement in the lamp, divested the fire-damp of all its terrors, and applied its powers, formerly so destructive, to the production of a useful light. Some minor improvements, originating in Sir Humphry's researches into the nature of flame, were afterwards effected. Experiments of the most satisfactory nature were speedily made, and the invention was soon generally adopted. Some attempts were made to dispute the honour of this discovery with its author, but his claims were confirmed by the investigations of the first philosophers of the age."[2]—The coal owners of the Tyne and Wear evinced their sense of the benefits resulting from this invention, by presenting Sir Humphry with a handsome service of plate worth nearly two thousand pounds, at a public dinner at Newcastle, October 11, 1817.

In 1813, Sir Humphry was elected a corresponding member of the Institute of France, and vice-president of the Royal Institution; in 1817, one of the eight associates of the Royal Academy; in 1818 created a baronet, and during the last ten years he has been elected a member of most of the learned bodies of Europe.

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We could occupy many pages with the interesting details of Sir Humphry Davy's travels in different parts of Europe for scientific purposes, particularly to investigate the causes of volcanic phenomena, to instruct the miners of the coal districts in the application of his safety-lamp, and to examine the state of the Herculaneum manuscripts and to illustrate the remains of the chemical arts of the ancients. He analyzed the colours used in painting by the ancient Greek and Roman artists. His experiments were chiefly made on the paintings in the baths of Titus, the ruins called the baths of Livia, in the remains of other palaces and baths of ancient Rome, and in the ruins of Pompeii. By the kindness of his friend Canova, who was charged with the care of the works connected with ancient art in Rome, he was enabled to select with his own hands specimens of the different pigments, that had been formed in vases discovered in the excavations, which had been lately made beneath the ruins of the palace of Titus, and to compare them with the colours fixed on the walls, or detached in fragments of stucco. The results of all these researches were published in the Transactions of the Royal Society for 1815, and are extremely interesting. The concluding observations, in which he impresses on artists the superior importance of permanency to brilliancy in the colours used in painting, are especially worthy the attention of artists. On his examination of the Herculaneum manuscripts, at Naples, in 1818-19, he was of opinion they had not been acted upon by fire, so as to be completely carbonized, but that their leaves were cemented together by a substance formed during the fermentation and chemical change of ages. He invented a composition for the solution of this substance, but he could not discover more than 100 out of 1,265 manuscripts, which presented any probability of success.

Sir Humphry returned to England in 1820, and in the same year his respected friend, Sir Joseph Banks, President of the Royal Society, died. Several discussions took place respecting a proper successor, when individuals of high and even very exalted rank were named as candidates. But science, very properly in this case, superseded rank. Amongst the philosophers whose labours had enriched the Transactions of the Royal Society, two were most generally adverted to, Sir Humphry Davy and Dr. Wollaston; but Dr. Wollaston very modestly declined being a candidate after his friend had been nominated, and received from the council of the Society the unanimous compliment of being placed in the chair of the Royal Society, till the election by the body in November. [3] A trifling opposition was made to Sir Humphry Davy's election, by some unknown persons, who proposed Lord Colchester, but Sir Humphry was placed in the chair by a majority of 200 to 13. For this honour no one could be more completely qualified. Sir Humphry retained his seat as President till the year 1827, when, in consequence of procrastinated ill health, in great measure brought on by injuries occasioned to his constitution by scientific experiments, he was induced, by medical advice, to retire to the continent. He accordingly resigned his seat as President of the Royal Society, the chair being filled, *pro tem*, by Davies Gilbert, Esq. who, at the Anniversary Meeting, Nov. 30, 1827, was unanimously elected President.

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Since his retirement, Sir Humphry Davy resided principally at Rome, where a short time ago he had an alarming attack of a paralytic nature, but from which he was apparently, though slowly, recovering. Lady Davy, who had been detained in England by her own ill health, joined Sir Humphry, at Rome, on hearing of his alarming state. Thence he travelled by easy stages to Geneva, without feeling any particular inconvenience, and without any circumstances which denoted the approach of dissolution: but on Friday, May 29, 1829, the illustrious philosopher closed his mortal career, in the fifty-first year of his age, having only reached Geneva on the day previous. Lady Davy had the gratification of contributing, by her soothing care, to the comfort of his last days during their stay in Italy, and on their journey to Geneva, where they intended to pass the summer, and hoped to have derived benefit from the eminent practitioners of that city. Sir Humphry had also been joined by his brother, Dr. John Davy, physician to the forces in Malta, whence he came on receiving the intelligence of his brother's danger. But all human art and skill were of no avail. The last and fatal attack took place at half-past two on Friday morning, and the pulse ceased to beat shortly after. The event was no sooner known, than the afflicted widow received the condolence and affectionate offer of services from the most distinguished individuals of Geneva; amongst whom we must mention M. A. de Condolle, the eminent botanist, and M. Sismondi, the historian, both equally beloved for their amiable character, as illustrious throughout Europe for their works. M. de Condolle obligingly took charge of all the details of the interment of his illustrious colleague; and the governor of the Canton, the Academy of Geneva, the Consistory of the Geneva Church, the Society of Arts and of Natural Philosophy and History, together with nearly all the English resident there, accompanied the remains to the burial-ground, where the English service was performed by the Rev. Mr. John Magers of Queen's College, and the Rev. Mr. Burgess. The members of the Academy, in the absence of any relation of the deceased, took their place in the funeral procession; and the invitations to the syndicate, and to the learned bodies who accompanied it, were made by that body in the same character. The whole was conducted with much appropriate order and decency, and whilst every attention and respect were paid to the memory of the deceased, nothing was attempted beyond the unostentatious simplicity which the deceased had frequently declared to be his wish, whenever his mortal remains should be consigned to their last home; and which in accordance to that wish, had been expressly enjoined to her kind friends by the afflicted widow. In the procession, which followed the corporate bodies and the countrymen of the deceased, were many of the most eminent manufacturers of Geneva, and a large body of mechanics, who were anxious to pay this tribute of regard and gratitude to one whom they deservedly looked upon as a great benefactor to the arts, and promoter of sciences, by the application of which they earn their livelihood.[4]

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During his retirement on the Continent, Sir Humphry continued to communicate the splendid results of his labours to the Royal Society, and at the anniversary meeting of the year 1827, the royal medal was awarded to him for a series of brilliant discoveries developing the relation between electricity and chemistry.[5] Upon this interesting occasion, Mr. Davies Gilbert spoke at some length, commencing as follows: "It is with feelings most gratifying to myself that I now approach to the award of a royal medal to Sir Humphry Davy; and I esteem it a most fortunate occurrence, that this award should have taken place during the short period of my having to discharge the duties attached to the office of president; having witnessed the whole progress of Sir Humphry Davy's advancement in science and in reputation, from his first attempts in his native town to vary some of Dr. Priestly's experiments on the extraction of oxygen from marine vegetables to the point of eminence which we all know him to have reached. It is not necessary for me more than to advert to his discovery of nitrous oxyde; to his investigation of the action of light on gases; on the nature of heat; to his successful discrimination of proximate vegetable elements; nor to his most scientific, ingenious, and useful invention, the safety-lamp,—an invention reasoned out from its principles, with all the accuracy and precision of mathematical deduction."

The course of Sir Humphry Davy to the highest rank as a chemical philosopher, was, after his appointment at the Royal Institution, rapid and brilliant; and if he was previously aided by as few of the advantages of fortune as any man living, he had then at his disposal whatever his industry and talents chose to command. We have given but a hasty outline of his labours; but it is possible that he may have left behind him much, not yet made public, for which, science will be still further indebted to him. His works, papers, and letters are numerous, and the greatest portion of them are contained in the Transactions of the Royal Society. One of the most popular and interesting of his recent papers is that on the *Phenomena of Volcanoes*. This contains a series of investigations of Vesuvius, made by the author during a residence at Naples in 1819-20, and bearing upon a previous hypothesis, "that metals of the alkalies and earth might exist in the interior of the globe, and on being exposed to the action of air and water, give rise to volcanic fires, and to the production of lavas, by the slow cooling of which basaltic and other crystalline rocks might subsequently be formed." We have not space for the details of these investigations, interesting as they would prove to an unscientific reader; but we give an abstract of the result of Sir Humphry's observations:

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“The phenomena observed by the author afforded a sufficient refutation of all the ancient hypotheses, in which volcanic fires were ascribed to such chemical causes as the combustion of mineral coal, or the action of sulphur upon iron; and are perfectly consistent with the supposition of their depending upon the oxidation of the metals of the earths upon an extensive scale, in immense subterranean cavities, to which water or atmospheric air may occasionally have access. The subterranean thunder heard at great distances under Vesuvius, prior to an eruption, indicates the vast extent of these cavities; and the existence of a subterranean communication between the Solfattara and Vesuvius, is established by the fact that whenever the latter is in an active state, the former is comparatively tranquil. In confirmation of these views, the author remarks, that almost all the volcanoes of considerable magnitude in the old world, are in the vicinity of the sea; and in those where the sea is more distant, as in the volcanoes of South America, the water may be supplied from great subterranean lakes; for Humboldt states that some of them throw up quantities of fish. The author acknowledges, however, that the hypothesis of the nucleus of the globe being composed of matter liquefied by heat, offers a still more simple solution of the phenomena of volcanic fires."[6]

We have hitherto spoken of Sir Humphry Davy as a philosopher. He was, however, in every respect, an accomplished scholar, and was well acquainted with foreign languages. He always retained a strong taste for literary pleasures; and when his continued illness retarded his scientific pursuits, he made literature his recreation. In this manner he wrote *Salmonia: or Days of Fly-fishing*, in a series of conversations, we gather from the Preface:—“These pages formed the occupation of the Author during several months of severe and dangerous illness, when he was wholly incapable of attending to more useful studies, or of following more serious pursuits. They formed his amusement in many hours, which otherwise would have been unoccupied and tedious.” “The conversational and discursive style were chosen as best suited to the state of the health of the author, who was incapable of considerable efforts and long continued exertion.” The volume is dedicated to Dr. Babington, “in remembrance of some delightful days passed in his society, and in gratitude for an uninterrupted friendship of quarter of a century:” and the likeness of one of the characters in the conversations to that estimable physician abovenamed, has been considered well drawn, and easily recognisable by those who enjoy his acquaintance.

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The philosophical works of Sir Humphry Davy are written in a clear and perspicuous style, by which means he has contributed more to the diffusion of scientific knowledge than any other writer of his time. His three principal works, “Chemical and Philosophical Researches,” “Elements of Chemical Philosophy,” and “Elements of Agricultural Chemistry,” are in a popular and familiar style, and the two last are excellently adapted for elementary study. His numerous pamphlets and contributions to the Transactions of the Royal Society have the same rare merit of conveying experimental knowledge in the most attractive form, and thus reducing abstract theory to the practice and purposes of life and society. The results of his investigations and experiments were not therefore pent up in the laboratory or lecture-room where they were made, but by this valuable mode of communication, they have realized what ought to be the highest aim of science,—the improvement of the condition and comforts of every class of his fellow-creatures. Thus, beautiful theories were illustrated by inventions of immediate utility, as in the safety-lamp for mitigating the dangers to which miners are exposed in their labours, and the application of a newly-discovered principle in preserving the life of the adventurous mariner. Yet splendid as were Sir Humphry’s talents, and important as have been their application, he received the honours and homage of the scientific world with that becoming modesty which universally characterizes great genius.

Apart from the scientific value of Sir Humphry’s labours and researches, they are pervaded by a tone and temper, and an enthusiastic love of nature which are as admirably expressed as their influence is excellent. In proof of this feeling we could almost from memory, quote many passages from his works. Thus, speaking of the divine *Study of Nature*, he has the following reflective truths:—“If we look with wonder upon the great remains of human works, such as the columns of Palmyra, broken in the midst of the desert, the temples of Paestum, beautiful in the decay of twenty centuries, or the mutilated fragments of Greek sculpture in the Acropolis of Athens, or in our own Museum, as proofs of the genius of artists, and power and riches of nations now past away; with how much deeper feeling of admiration must we consider those grand monuments of Nature, which mark the revolutions of the globe; continents broken into islands; one land produced, another destroyed; the bottom of the ocean become a fertile soil; whole races of animals extinct; and the bones and exuviae of one class, covered with the remains of another, and upon the graves of past generations—the marble or rocky tomb, as it were, of a former animated world—new generations rising, and order and harmony established, and a system of life and beauty produced, as it were out of chaos and death; proving the infinite power, wisdom, and goodness, of the GREAT CAUSE OF ALL BEING!”

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Here we cannot trace any co-mixture of science and scepticism, and in vain shall we look for the spawn of infidel doctrine. The same excellent feeling breathes throughout *Salmonia*, one of the most delightful labours of leisure we have ever seen. Not a few of the most beautiful phenomena of Nature are here lucidly explained, yet the pages have none of the varnish of philosophical unbelief or finite reasoning. “In my opinion,” says one of the characters in the Dialogue, (to be identified as the author,) “profound minds are the most likely to think lightly of the resources of human reason; and it is the pert superficial thinker who is generally strongest in every kind of unbelief. The deep philosopher sees changes of causes and effects, so wonderfully and strangely linked together, that he is usually the last person to decide upon the impossibility of any two series of events being independent of each other; and in science, so many natural miracles, as it were, have been brought to light,—such as the fall of stones from meteors in the atmosphere, the disarming a thundercloud by a metallic point, the production of fire from ice by a metal white as silver, and referring certain laws of motions of the sea to the moon,—that the physical inquirer is seldom disposed to assert, confidently, on any abstruse subjects belonging to the order of natural things, and still less so on those relating to the more mysterious relations of moral events and intellectual natures."[7]

Many other passages in *Salmonia* gush forth with great force and beauty, and sometimes soar into sublime truths. Thus says the eloquent author:

“A full and clear river is, in my opinion, the most poetical object in nature. Pliny has, as well as I recollect, compared a river to human life. I have never read the passage in his works, but I have been a hundred times struck with the analogy, particularly amidst mountain scenery. The river, small and clear in its origin, gushes forth from rocks, falls into deep glens, and wantons and meanders through a wild and picturesque country, nourishing only the uncultivated tree or flower by its dew or spray. In this, its state of infancy and youth, it may be compared to the human mind in which fancy and strength of imagination are predominant—it is more beautiful than useful. When the different rills or torrents join, and descend into the plain, it becomes slow and stately in its motions; it is applied to move machinery, to irrigate meadows, and to bear upon its bosom the stately barge;—in this mature state, it is deep, strong, and useful. As it flows on towards the sea, it loses its force and its motion, and at last, as it were, becomes lost and mingled with the mighty abyss of waters.”

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“I envy no quality of the mind or intellect in others; not genius, power, wit, or fancy: but if I could choose what would be most delightful, and I believe most useful to me, I should prefer a firm religious belief to every other blessing; for it makes life a discipline of goodness—creates new hopes, when all earthly hopes vanish; and throws over the decay, the destruction of existence, the most gorgeous of all lights; awakens life even in death, and from corruption and decay calls up beauty and divinity: makes an instrument of torture and of shame the ladder of ascent to paradise; and, far above all combinations of earthly hopes, calls up the most delightful visions of palms and amaranths, the gardens of the blest, the security of everlasting joys, where the sensualist and the sceptic view only gloom, decay, annihilation, and despair!”

Few of those whose fame and fortune are their own creation, enjoy, as did Sir Humphry Davy, in the meridian of life, the enviable consciousness of general esteem and respect, and the certainty of a distinguished place in history, among the illustrious names of their country. “A great light has gone out,”—short but brilliant has been his career; yet let us hope he has but exchanged his worldly fame for unearthly immortality, to shine amidst the never-dying lights of true glory.

[1] This apparatus is of immense power, and consists of 200 separate parts, each part composed of ten double plates, and each plate containing 32 square inches. The whole number of double plates is 2,000, and the whole surface 126,000 square inches.

[2] Memoir—New Monthly Magazine, Vol. I. Mr. Dillon has lately invented an *Improved Safety Lamp*, an Engraving of which will be found at page 137, Vol. XII. of the MIRROR.

[3] It deserves notice, that two of the most illustrious philosophers of our times, Sir H. Davy and Dr. Wollaston, have died within the present year.

[4] Extract of a Letter from Geneva, dated June 1, 1829—*Times*.

[5] These experiments, the last which engaged Sir Humphry Davy’s attention to any extent, were on the application of electrical combinations, for the purpose of preserving the copper sheathing of ships’ bottoms. To this subject Sir Humphry gave much of his time, and personally inspected all the boats and vessels on which the trials were made. Although the theory upon which they were conducted proved eminently correct, no advantage could be ultimately taken of the plans which it suggested. The saving of the copper was wholly counterbalanced by an accumulation of shell-fish and sea-weed on the sheathing, which became sufficient, in a short time, to prevent the proper command of the ship at the helm.

[6] Abridged in the Arcana of Science and Arts for 1829.

[7] *Salmonia*, 1st. Edition, page 161. Several beautiful Extracts from which, will be found in Vol. XII. of the MIRROR.

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