

## NOTICES OF BOOKS.

*The Debatable Land between This World and the Next.* With Illustrative Narrations. By ROBERT DALE OWEN. London: Trübner and Co.

SIXTEEN years ago the author of this book, then American Minister at Naples, spent the evening of the 25th of March at the house of the Russian Minister, Mons. K—, in the company of several visitors from different parts of the world, among whom were the Chevalier de F— (the Tuscan Minister) and his lady. Madame K— introduced the subject of automatic writing; and declared her conviction that some persons had the power of thus replying correctly to questions, the true answers to which were entirely unknown to them. It was proposed to try the experiment; and each person present accordingly took pencil and paper, and waited the result. After a few minutes one lady's hand began to move, making irregular figures on the paper. Mr. Owen proposed that questions should be asked; whereupon Madame de F— said "Who gave me these pins?" pointing to three gold-headed pins that fastened her dress; adding "If Mrs. M— can answer that I shall believe." After a short time the lady's pencil slowly wrote out—(the last two words being written backwards)—"The one that gives you a Maid and a Cook. E." Madame de F— turned pale, and cried "Magic, if there be such a thing;" and then told the company that the pins had been given her by her cousin Elizabeth, who lived at Florence, and who at her request had sent her, a few days before, a lady's maid and a cook. Mr. Owen pondered over this strange occurrence, and determined to get to the bottom of it. Mrs. M— was not a Spiritualist. Madame de F— had only been a few weeks in Naples, had not mentioned even her cousin's name to any one, and had the slightest possible acquaintance with Mrs. M—, having only just exchanged cards with her. She expressed the strongest conviction that the three or four facts, accurately stated in the few words written, could not possibly have become known out of her own family. Mr. Owen was then a complete sceptic; but this circumstance induced a course of study which has been continued for fifteen years, and which eventually changed the whole feelings and tenour of his life. He is now a confirmed Spiritualist; that is, he not only believes the phenomena to be real, but he has satisfied himself that they furnish a sufficient proof of a future existence for man. Yet, it may surprise some of our readers to hear, he is fully imbued with the spirit and teachings of modern science; and his book is one continued protest against the miraculous. He maintains that all these phenomena happen under law, just as much as do the various phenomena (many of them still inexplicable by science)



presented by plants, animals, or man. He treats this question seriously and dispassionately, as the great question of the age; which he may well do, since he claims that it furnishes an experimental proof of immortality. He writes with the earnestness suited to such a theme, and with the sense of responsibility of one who, by long and patient study, has arrived at important truths of the highest value to his fellow men. Rationalism, he tells us, cannot object to this belief, that it contravenes the doctrine of law; for its phenomena occur strictly under law: nor yet that it assumes the existence, in spiritual matters, of that direct agency of God which the naturalist finds nowhere in the physical universe; for its revealings come to man mediately only: nor yet that it is dogmatic, exclusive, or intolerant, as Infallibility is; for its adherents adduce experimental evidence, open to all men, and gleaned after the inductive method, for the faith that is in them. He shows us how important it was for the welfare of man that the belief in such phenomena should die out when it did, and leave us free to develop the doctrine of law, and to overthrow the very idea of infallible or absolute truth in matters of religion. All the horrors of witchcraft, and all the persecutions of priests, arose from the dogma of infallibility; for if that dogma had been true, persecution would not have been a crime, but a duty. The world could not reach the fundamental truths of these phenomena, or understand their real import, as long as they believed in the devil and in their own infallibility. Now, they are able to investigate the phenomena calmly, and reason upon them logically; and it is a suggestive fact that a large proportion of investigators are persons untrammelled by dogmatic creeds, and fully imbued with the teachings of modern science and philosophy. Mr. Owen thinks that the belief in modern spiritualism is spreading as fast as can be wished, and even faster than can be expected, considering that almost every educated man is prejudiced against the very attempt to investigate it. He well remarks, that the growth of any new-born hypothesis so startling in character, resembles that of a human being. During its infancy its suggestions carry small weight. It is listened to with a smile, and set aside with little ceremony. Throughout its years of nonage it may be said to have no rights of property, no privilege of appropriation. Proofs in its favour may present themselves from time to time, but they are not deemed entitled to a judgment, by the rules of evidence; they are listened to as fresh and amusing, but they have no legal virtue; they obtain no official record; they are not placed to the credit of the minor. An adolescent hypothesis is held to be outside the limits of human justice.

One of the best features of the book, as a literary work, is the distinctness with which each piece of evidence is presented, and the fulness and logical force with which its teachings are discussed. This is so different from what is usual when ghost



stories are narrated (the authors appearing afraid to contemplate the logical consequences of a story they yet maintain to be true) that it will be well to give a few of the cases in outline, with the author's summing up at length, in order to see what a well-educated and highly-intelligent man can say in favour of what is generally considered to be an exploded superstition. Let us first take an old but well-authenticated story. Lord Erskine related to Lady Morgan (herself a perfect sceptic) the following personal narrative. On arriving at Edinburgh one morning, after a considerable absence from Scotland, he met, in the street, his father's old butler, looking very pale and wan. He asked him what brought him to Edinburgh. The butler replied, "To meet your honour, and solicit your interference with my Lord, to recover a sum due to me, which the steward at the last settlement did not pay." Lord Erskine then told the butler to step with him into a bookseller's shop close by, but on turning round again he was not to be seen. Puzzled at this he found out the man's wife, who lived in Edinburgh, when he learnt for the first time that the butler was dead, and that he had told his wife on his death-bed that the steward had wronged him of some money, and that when Master Tom returned he would see her righted. This Lord Erskine promised to do, and shortly afterwards kept his promise. Lady Morgan then says, "Either Lord Erskine did or did not believe this strange story: if he did, what a strange aberration of intellect! if he did not, what a stranger aberration from truth! My opinion is that he *did* believe it." Probably hundreds of readers of this narrative by Lady Morgan have said with her, "What a strange aberration of intellect!" and have thought no more about the matter. Mr. Owen is not satisfied with this careless mode of getting over a difficulty. His remarks are as follows: "What sort of mode to deal with alleged facts is this? A gentleman distinguished in a profession of which the eminent members are the best judges of evidence in the world—a gentleman whom the hearer believes to be truthful—relates what, on a certain day, and in a certain place, both specified, he saw and heard. What he saw was the appearance of one, in life well known to him, who had been some months dead. What he heard, from the same source, was a statement in regard to matters of which previously he had known nothing whatever; which statement, on after enquiry, he learns to be strictly true; a statement, too, which had occupied and interested the mind of the deceased just before his decease. The natural inference from these facts, if they are admitted, is that, under certain circumstances which as yet we may be unable to define, those over whom the death change has passed, still interested in the concerns of earth, may, for a time at least, retain the power of occasional interference in these concerns; for example, in an effort to right an injustice done. But rather than admit such an inference—rather than accept disinterested evidence coming



from a witness acknowledged to be sincere, and known to the world as eminently capable—a lady of the world assumes to explain it away by summarily referring the whole to the ‘dog-ears and folds of early impression!’ What human testimony cannot be set aside on the same vague and idle assumption? It is time we should learn that the hypothesis of spiritual intervention is entitled to a fair trial, and that, in conducting that trial, we have no right to disregard the ordinary rules of evidence. Either Lord Erskine, one morning in Edinburgh, issuing from a bookseller’s shop, met what wore the appearance of an old family servant who had been some months dead—or else Lord Erskine lied. Either Lord Erskine heard words spoken, as if that appearance had spoken them, which words contained a certain allegation touching business which that servant, dying, had left unsettled—or else Lord Erskine lied. Either Lord Erskine ascertained, by immediate personal interrogation of the widow, that her husband, on his death-bed, had made the self-same allegation to her which the apparition made to Lord Erskine—or else Lord Erskine lied. Finally, either, as the result of this appearance and its speech, a debt found due to the person whose counterpart it was, was actually paid to his widow—or else Lord Erskine lied. But Lady Morgan expresses her conviction that Lord Erskine did not lie.”

“In itself, the thing was a trifle. Thousands on thousands of such cases of petty injustice occur, and pass away unnoticed and unredressed. To the widow it was, undoubtedly, of serious moment; but I think no sensible man will imagine it a matter to justify the direct interference of God. If so, and if Lord Erskine spoke truth, *an apparition is a natural phenomenon.*”

How is such evidence as this refuted or explained away? Scores, and even hundreds, of equally well attested facts are on record, but no attempt is ever made to explain them. They are simply ignored, and, in many cases admitted to be inexplicable. Yet this is not quite satisfactory, as any reader of Mr. Owen’s book will be inclined to admit. “Punch” once made a Yankee debtor say—

“This debt I have repudiated long ago;  
’Tis therefore settled. Yet this Britisher  
Keeps for repayment worriting me still!”

So our philosophers declare that they have long ago decided these ghost stories to be all delusion; *therefore* they need only be ignored; and they feel much “worrited” that fresh evidence should be adduced and fresh converts made, some of whom are so unreasonable as to ask for a new trial on the ground that the former verdict was contrary to the evidence. Let us, however, consider another case, the parties to which are intimately known to our author, and whose character is vouched for as above suspicion.



A young lady, Miss V., while at her aunt's country mansion, was, owing to press of visitors, asked to occupy a room believed to be haunted. Miss V. accepted it willingly, being quite fearless. Awaking in the night, she saw in her room a woman in old-fashioned dress, who, after a little while, came towards her, and seemed to try in vain to speak. Miss V. became frightened, drew the clothes over her face, and when she looked again the figure had disappeared. She then jumped up, and found the door of her room locked on the inside. With the light of day the impression somewhat faded; she began to think she must have imagined or dreamt it, and in a short time thought no more of the ghost. Some time afterwards Miss V. met with a friend interested in spiritualism, and had with her several *séances*. At one of them an alleged spirit announced herself as Sarah Clarke, a name unknown to both ladies. A communication was then received to the effect that she had many years ago been housekeeper in Miss V.'s family, and had vainly endeavoured to communicate with the young lady while she was staying in the old mansion; that her object was to confess a crime of which she had been guilty, and to ask her old mistress's pardon for it. She had stolen some family plate, and begged Miss V. to tell her aunt, and beg for her forgiveness. Next time Miss V. visited her aunt, she ascertained that Sarah Clarke *had* been housekeeper in the family thirty or forty years before,—that some plate *had* mysteriously disappeared, but that Sarah was much trusted, and was never suspected. The aunt declared that if Sarah Clarke had taken it she freely forgave her. From that time the haunted chamber was free from all disturbance. Mr. Owen comments on this, as follows: "Knowing the standing of the parties I am able to vouch for the truth of this story. Let us consider what it discloses as to the next world. There is repentance there as here. There is restless regret and sorrow for grave sin committed while here. There is anxious desire for pardon from those whom the spirit wronged during earth-life. In other words, the natural effects of evil doing follow us to our next phase of life; and, in that phase of life as in the present, we amend, and attain to better things by virtue of repentance. . . . Another corollary is, that when such spiritual phenomena present themselves, an endeavour to establish communication with the manifesting spirit may result in benefit, alike to a denizen of the other world and a disturbed inhabitant of this. In this way Mrs. Propert (see p. 224), getting rid of the midnight foot-falls, might have been in quiet possession of her villa at this day. I invite attention also to the strong proof of identity furnished by Miss V.'s story. The name of the housekeeper was unknown to both ladies when her (alleged) spirit gave the message. There was nothing to suggest such a name or such a confession as was made. Yet on enquiry both name and confession were found to correspond with facts that had taken



place thirty or forty years ago; to say nothing of a new fact, tallying with all the rest—the cessation of the spiritual visits, as soon as the visitor had no longer any motive to show herself.”

“How extraordinary,” many readers will exclaim, “that a man of Mr. Owen’s ability should waste his time in discussing ghost stories!” It is indeed extraordinary; for do we not know all about possible and impossible spirits? Our men of science and our philosophers are not quite sure that a spirit is possible; but *if* possible, they are all quite clear that *spirits* would never behave in the ridiculously human way in which reputed ghosts invariably act. Let us, therefore, refuse to listen to these ghost stories told by people we know nothing of, and hear what Mr. Owen has to tell us of the wonders he has himself witnessed.

He spent an immense deal of time in trying to discover that gross imposture, the spirit rap, but in vain! For this purpose he once lived for a week in a medium’s house, with full power to investigate. He walked all over the house with the medium, but the raps came everywhere. They sounded on the floor, walls, or ceiling of every room, on every article of furniture, on doors and windows, on the marble mantel-piece, and the steel grate. With the same medium they occurred on board a steamer, on the stool he sat on, on the keel of a small boat in the water, on the ground out of doors, on trees, and on rocks by the sea-shore. With every test that he could apply, he could find no physical cause for these sounds. Sometimes they occurred as delicate tickings, at others like blows of a sledge hammer—so tremendous that it seemed impossible any article of furniture could resist them: yet the table on which they resounded showed not a scratch! On almost all these occasions the rooms were searched, the doors were locked, and the mediums were held fast; yet Mr. Owen could never find out the trick! How strange, when the thing is said to be so simple that our men of science will not even take the trouble to refute it!

In the matter of table-moving he had no more success. When Faraday exposed table-turning, he remarked that experimenters who thought tables even rose in the air should suspend them in a balance, and see if the weight was affected by this supposed force. Mr. Owen, at the suggestion of the late Dr. Robert Chambers, did this. Together, they suspended a table, weighing exactly 121 lbs., about 8 inches from the floor, by a powerful steelyard: two mediums were present, whose feet and hands were attended to; yet, without any contact whatever, the table, when requested, became lighter, coming down to 60 lbs., having thus lost half its weight: when requested to be made heavier it weighed 144 lbs. What are we to make of this? Two thoroughly reliable witnesses and a balance tell us one thing; but men of science say it can’t be true: which are we to trust?

Continuing his researches, Mr. Owen had sittings alone with a medium. He examined the room, he locked and *sealed* the



doors, and took with him privately marked slips of paper. He held the medium's hands; yet writing was somehow effected on the paper placed under the table, both in pencil and ink. Yet more; on one occasion he saw part of the writing done, by a small luminous hand on the floor, holding the pencil. On this experiment Mr. Owen remarks as follows: "Were these spiritual autographs? What else? Had I not *seen* one of them written? Had I not seen one of these slips rise higher than the table, and sink back again? Had I not felt Kate's two hands under mine at the very time when that hand wrote and that paper rose and fell? Did Kate write eight or ten lines with both her hands clasped? Did I write them with my left hand without knowing it? Or had Kate brought the slips ready written? I picked them up, and examined them critically, one by one. My private mark on one corner of each—letters of the German alphabet, written in the German character—still there! What way out? Are the senses of seeing, hearing, and touch, in sane healthy persons, unworthy to be trusted? For me, common sense bars that way out. I see nothing unlikely—not to say incredible—in the theory that God may vouchsafe to man sensible proof of his immortality. For others, to whom spiritual intercourse seems an absurdity,—for those more especially to whom the hypothesis of another life wears the aspect of a baseless dream,—let them select their own path out of the difficulty. I think that, on any path they may take, they will have to accept theories infinitely less tenable than those they decide to reject."

Mr. Owen also saw much of Mr. Foster, the medium who has names written on his hands and arms. On one occasion Mr. Foster extended his hand upon the table; it was perfectly free from any mark whatever. Gradually a faint red mark appeared on the wrist, which increased till it formed the letter F, remained visible two or three minutes, and then faded away. This was the initial letter of a name Mr. Owen had secretly written on a piece of paper, and folded up tightly, and which was mixed with about twenty others on the table. Dr. Carpenter tells us (in a letter published in "*The Spiritualist*" of March 15, p. 21) that this is done by first tracing the writing on the tense skin with a hard point, and then rubbing the place to bring out the red blush. But unless we are to believe that Mr. Owen and the late Dr. Robert Chambers, as well as many other careful observers who have narrated their experiences with Mr. Foster, all make grossly false or imperfect statements, this explanation by no means covers the facts; as will be admitted by all who read Mr. Owen's narrative or the evidence of Mr. E. L. Blanchard given at page 135 of the "*Report of the Committee of the Dialectical Society.*"

Having seen so many inexplicable things himself, Mr. Owen is quite ready to believe others, when they narrate their experiences; yet he often takes an immense deal of trouble to test



and confirm them, as is well shown in the marvellous story of M. Bach and the old Spinet. To be properly understood this must be read in the full detail given by Mr. Owen: in outline it is as follows: Mons. Leon Bach purchased, at an old curiosity shop in Paris, a very ancient but beautiful *spinet*, as a present to his father, who is a great-grandson of *the* Bach, and is a composer and musical amateur. The next night the elder Bach dreamt that he saw a handsome young man, dressed in old court costume, and who told him that the spinet had been given to him by his master King Henry. He then said he would play on it an air, with words composed by the King, in memory of a lady he had greatly loved: he did so, and M. Bach woke in tears, touched by the pathos of the song. He went to sleep again; and on waking in the morning was amazed to find on his bed a sheet of paper, on which was written, in very old characters, both words and music of the song he had heard in his dream. It was said to be by Henry III., and the date inscribed on the spinet was a few years earlier. M. Bach, completely puzzled, showed the music to his friends, and among them were some spiritualists, from whom he heard, for the first time, their interpretation of the phenomena. Now comes the most wonderful part of the history. M. Bach became himself a writing medium; and through his hand was written, involuntarily, a statement that inside the spinet, in a secret niche near the key-board, was a parchment, nailed to the case, containing the lines written by King Henry when he gave the instrument to his musician. The four-line stanza, which it was said would be found on the parchment, was also given, and was followed by the signature—Baldazzarini. Father and son then set to work to search for this hidden scroll; and after two hours' close examination found, in a narrow slit, a piece of old parchment about eleven inches by three, containing, in very old writing, nearly the same words which M. Bach had written, and signed—Henry. This parchment was taken to the Bibliothèque Impériale, and submitted to experienced antiquarians, and was pronounced to be an undoubtedly genuine autograph of Henry III.

This is the story; but Mr. Owen is not content with ascertaining these facts at first hand, and obtaining photographs of the spinet and the parchment, of both of which he gives good representations. He also sets himself to hunt up historical confirmation of the story, and after much research and many failures, he finds that Baltasarini was an Italian musician, who came to France in 1577, and was in great favour with Henry III.; that the King was passionately attached to Marie de Cleves, who became wife of the Prince de Condé; and that several of the allusions to her in the verses corresponded to what was known of her history. Other minute details were also found to be historically accurate.

Mr. Owen then carefully discusses the nature of the evidence, the character of the persons concerned, and the possibility of



deception. M. Bach is an old man of high character; and to suppose that he, suddenly and without conceivable motive, planned and carried out a most elaborate and complicated imposture, is to suppose what is wholly incredible; but Mr. Owen shows further, that the circumstances are such that M. Bach could not have been an impostor, even had he been so inclined, and concludes by remarking: "I do not think dispassionate readers will accept such violent improbabilities. But if not, what interesting suggestions touching spirit-intercourse and spirit-identity connect themselves with this simple narrative of M. Bach's spinet!"

Recurring to Mr. Owen's own experiences, perhaps the most astounding is his account of the gradual formation of an apparition, distinctly visible to several spectators. Every precaution was taken to render trick or imposture impossible; yet if so, what marvel of modern science is equal to this? What natural phenomenon so worthy of investigation! Our author's remarks on this case will sufficiently indicate its nature. He says: "My faith in the reality of this appearance is not at all shaken by reflecting that a Signor Blitz, or a Robert Houdin, having a theatre at command, arranged with ready entrances and exits, with practical trap-doors, with dark lanterns in the wings, with the means of producing dissolving views, could probably reproduce all I witnessed. But here were a few ladies, in private life and in moderate circumstances, quietly meeting in two apartments which were daily used as school-rooms by one of their number, containing not even a recess where a chair could be hidden away. They meet to satisfy a laudable curiosity, admitting visitors now and then by courtesy only. No remuneration is demanded, nor, very surely, would any have been accepted. They meet, on this occasion, at my request, after having discontinued their researches for months, vexed with unjust suspicions. They allow us to lock every exit, after a close examination of the rooms. Here is neither motive nor opportunity—to say nothing of qualification—for deception. The coin of the realm may be counterfeited, but the coiners must have professional skill, an appropriate location, and expensive machinery. Nor do counterfeiters ply their unholy calling except with the prospect of large gains. Certain it is that I beheld the gradual formation of the figure; that I witnessed its movements; that I received from its hand an actual flower; that I saw the figure disappear. Add to this, that the place of its disappearance was illuminated by invisible agency, in answer to an unexpressed thought of mine."

We may particularly commend to the sceptical reader's attention the very full account of the bell-rings at Major Moor's, at Greenwich Hospital, and other places, continuing for months, and baffling all attempts to find a cause for them; to the disturbances at Lydersterne Parsonage, continued for sixty years; and to many others, none of which have ever been explained.



Mr. Owen is not content to let these matters rest (with the sceptical), or contemptuously to ignore them (with the scientific); but actually imputes them to spirits, whose agency he believes is proved by other evidence, of the nature of which we have already given some examples. This evidence, taken as a whole, proves, he thinks, that there is not habitual intercourse between the two worlds; that we seem, probably, something like apparitions to those spirits who visit us; that they often seek communion, from affection or from other motives; that they have difficulties in reaching us,—difficulties wisely interposed, because, if spiritual intercourse were as common as earthly communion, we should many of us be dissatisfied with our lot, and neglect our earthly duties. "They seek from time to time to visit us. But coming from their world of spirits, invisible to ordinary sight, inaudible by ordinary speech, how are they to make their presence known? How are they to attract our attention? In what manner does a traveller, arriving under cloud of night before a fast-closed mansion, seek to reach the in-dwellers—seek to announce his presence? Is it not by KNOCKING or RINGING?" This is our author's reply to sneers at "rapping" and "bell-ringing" phenomena.

We have devoted so much space to a sketch of Mr. Owen's book, because, in the first place, it merits notice as a literary work of a high class; and in the second, it brings prominently before us what is either the most gigantic and mysterious of delusions or the most important of truths. In either case it deserves a full and fair discussion. Neither is such a subject out of place in a scientific journal, for, in whatever light we view it, it is really a scientific question. If a fallacy or a delusion, it is of so wide-spread a nature, and influences such numbers of well-educated and even scientific men, that we have a right to demand of science a full and satisfactory exposure of it. If a truth, then it is certainly, as Mr. Owen maintains, a science of itself; a new science, and one of the most overwhelming importance in its bearings upon philosophy, history, and religion. It is now becoming almost a common thing to acknowledge that there is a certain amount of truth in the facts; with a proviso, always, of the writer's repudiation of the spiritual theory. For my own part, the only thing that makes the facts credible on evidence is the spiritual theory. Mr. A., or Prof. B., or Dr. C., may state that *they know* certain of the facts are true, but that all these facts can be explained without calling in the aid of spirits. Perhaps they can. But why should I, or any other reader, accept A., B., or C.'s facts, and reject Mr. Owen's, when the former are not one whit more intrinsically probable, or supported by one iota better testimony, than the latter? Yet these latter actually *force* upon us the spiritual theory, just as the facts of Geology *force* upon us the belief in long series of ancient living forms, different from those now upon the earth. I must accept all the equally



well-attested facts, of equal intrinsic probability, or reject all. I cannot believe in Cretaceous fossils as realities, and reject Silurian as freaks of nature; neither can I accept the facts B. may have witnessed, and reject those of the rest of the alphabet. Yet if all the main classes of facts are admitted, the spiritual theory appears as clearly a deduction from them as the theory of extinct animals follows from the facts presented by their fossil remains. The position of the Quarterly Reviewer is, that there are no facts worth speaking of, and, therefore, no true spiritual theory can be founded on them. This is safe ground, as long as all the evidence for the facts is carefully denied, misrepresented, or ignored. But when there are ten thousand witnesses to these facts, of whom say nine thousand are as good and competent as A. or B., it is not safe ground for A. or B. to admit just so much of the facts as they have witnessed themselves, and reject the rest. The problem we have now to solve is—how much of the facts are true. Till this is done by some better test than individual experience, it is premature to discuss what theories may or may not explain them. In the meantime, let no one prejudge the question till they have studied Mr. Owen's facts and carefully weighed his arguments.

ALFRED R. WALLACE.

---

*Spectrum Analysis in its Application to Terrestrial Substances and the Physical Constitution of the Heavenly Bodies.*  
Familiarly explained by Dr. H. SCHELLEN. Translated  
from the Second Edition by JANE and CAROLINE LASSELL.  
Edited, with Notes, by W. HUGGINS, LL.D., D.C.L., F.R.S.

THE first edition of this work, though a valuable contribution to the literature of Spectroscopy, was not free from defects, and, although published so late as 1870, it failed to give as complete an account as could be wished of some of the more remarkable applications of spectroscopic analysis. The present edition (we refer for the moment to the German editions) has been carefully revised, and several of the sections have been enlarged and enriched, more particularly those which relate to observations of the sun. The work thus forms a sufficiently complete and tolerably exact synopsis, as well of the phenomena of spectrum analysis as of the methods by which they have been applied to the interpretation of some of the most recondite problems of nature.

Such a work well merited translation into English, and those students of spectroscopic analysis in England and America who do not read German owe thanks to the Misses Lassell for undertaking the labour of translation, and to Dr. Huggins for editing and annotating this excellent treatise.

The work is divided into three parts. The first deals with the artificial sources of high degrees of heat and light; the second,