## CHAPTER XV.

NOTES OF LIFE IN 1854-55.

A SPECK to us! a world to those
Who bask within its sphere;
Whose sun-bright sky with ardour glows,
That would consume us here!

For what are matter's noblest forms If mind be wanting there? A chaos Reason's rays ne'er warms, Were dark midst brightest glare.

ETA.

THE year 1854,—although one of most engrossing work,—commenced with prostrating illness, in the form of a long low influenza. Before my father had recovered from it, he received a request from Professor Fraser, then editor of the North British, to review a certain anonymous volume entitled Of the Plurality of Worlds, an essay which was exciting much attention. All illness was forgotten, and he was soon in one of his entirely absorbed states upon the subject. The severity of the review has been ascribed to a certain amount of personal feeling which existed between the author and the critic, owing to some passages of arms at "the tournament of science," at various times and places. may afterwards have added a shade of severity to his satire, but he had fully made up his mind as to the merits of the argument and the volume, before he knew who had written it. I make the following extracts from two contemporary letters :-

" Feb. 4, 1854.

"Tell me anything you know or can collect about 'the Plurality of Worlds;' he [Sir David] has been particularly requested to review it, and is going over it just now, groaning at every line; he says it is 'quite disgusting,' and displays great ignorance; he wants very much to know who is the author. He has not finished the perusal, and may be in better humour with it before he closes. You will make allowance for his strength of expression! I must say, however, that the passages he has read to me are rather weak. We are also reading Fontenelle's little book on the same subject, or rather the same name, more honestly used, and it is very amusing, quaint, sparkling, and vivacious."

"Feb. 10.—Many thanks about the 'Plurality.' We have since heard from authority that it is by Whewell!!! which is surprising, as his views in his Bridgewater Treatise seem rather different."

To those behind the scenes, it was abundantly evident that the personal depth of feeling which he displayed upon this occasion arose from his characteristic liveliness of participation in any subject which deeply touched him. The eye and the mind, accustomed from early childhood to gaze out at the beautiful worlds rolling above, felt personally injured by the dreariness and narrowness of the views which he combated. Sir Isaac Newton had written long before,—"For in God's house (which is the universe) are many mansions, and He governs them by agents which can pass through the heavens from one mansion to another. For if all places to which we have access are filled with living creatures, why should all these immense spaces of the

heavens above the clouds be incapable of inhabitants?" And his disciple had clung to the same belief since the days of his youth.

I shall never forget the delight and satisfaction with which, in the course of his own private study of the Bible. he came upon this verse in Isaiah,—" For thus saith the Lord that created the heavens, God himself that formed the earth, and made it; he hath established it, he created it not in vain, he formed it to be inhabited:"1 which his mind at once seized with ardour, as a logical demonstration that the others, if uninhabited would have been "created in vain." In fact, as he studied this subject, the habitation of "more worlds than one" by intelligent creatures seemed impressed on his mind as if written by a sunbeam; and although in the midst of his greatest work, the extended biography of Sir Isaac Newton, he felt impelled to lay it aside for a time, and bent all his energies in preparing a volume with the above happy title. Rapidly his occupied mind poured itself upon paper, and the work was soon in proof. Just at this time we proceeded to Clifton, on the occasion of the marriage of a young friend and connection to whom he was much attached.<sup>2</sup> We visited, en route, his friend and correspondent, Mr. Chance of the great glassworks at Birmingham, where he was much interested in seeing the English and French methods of blowing glass, the latter with its inventor, M. Bontemps, as cicerone. It was at No. 9 Princes Buildings, Clifton,-where we were with his old friends and neighbours of Coates Crescent days, Mr.

<sup>&</sup>lt;sup>1</sup> Isaiah xlv. 18.

<sup>&</sup>lt;sup>2</sup> Miss Charlotte Heriot Maitland, the wife of Frederick King, Esq. of Frederick

and Mrs. George Forbes,—that the proof sheets of *More Worlds than One* were corrected. There, in an invalid room, he read day by day his proofs to me and a favourite young friend of his,<sup>1</sup> who sends me the following recollections of a time, when the humility of the great mind was very touchingly manifested:—

"I may now hope to put down a few long-cherished reminiscences of that dear father of yours, whom I loved so well, and in whose society we all so delighted. I am only sorry that my bad memory does not retain many more vivid impressions and traditional stories, having enjoyed so many opportunities of intercourse with him, and having heard so many characteristic traits of him from my own dear father. One of the episodes in our intercourse which I remember most clearly, occurred that spring we all spent at Clifton. Sir David was then writing his More Worlds than One, and he asked you and me to help him in correcting the In the course of this most interesting work we came across several expressions we thought much too severe, and we summoned courage to point these out to the learned author-who at once altered them in the meekest way to our entire satisfaction; there was, however, one whole sentence which we much objected toyour father said he had looked at it; he did not see anything so very objectionable about it; he did not think he could put it differently; it was printed, so it must just stand, otherwise there would be a blank in the page, which would never do. We still ventured to persist that we did not think the passage could remain as it was, upon which he said, half provoked and half

<sup>&</sup>lt;sup>1</sup> Miss Forbes, now the wife of the Rev. Canon Harford Battersby, St. John's Parsonage, Keswick.

amused at our audacity and pertinacity, that we were welcome to strike it out if we could write a paragraph to fill the space; this we accordingly did, and inserted something which was at all events an improvement in point of amenity! Another thing I remember in connection with this subject, is my mother gently remonstrating with Sir David in regard to the somewhat unmeasured terms in which he spoke of the author in his review in the North British of the Plurality of Worlds. She said such expressions were calculated to hurt his feelings. 'Hurt his feelings!' broke in Sir David, 'why, it is he that has hurt my feelings!'

"All who knew him will, I am sure, unite in testifying to his readiness to explain, it might be, the simplest principles of a science to some insignificant person, and the wonderful enjoyment he seemed to find in so doing, quite as much indeed as in talking of some of his latest discoveries to the most learned,—if only his listener were thoroughly interested, and anxious to learn. In illustration of this, I may mention that my dear mother says she has two sheets he wrote out for her many years ago, explaining some scientific point she had had some difficulty in understanding.

"It was delightful too to observe the fresh admiration, delight, and wonder which he himself felt, each time he spoke of or exhibited some of the exquisite and infinitely small works of creation as revealed by the microscope, or the infinitely large and splendid heavenly bodies as presented to us by the telescope. And now how blessed it is to think that, with all his acquired learning, and his many marvellous discoveries, above and beyond all these—which he prized so much, and which he had laboured perseveringly throughout

his whole life to attain—he rejoiced most of all in the 'knowledge of Christ and in the power of His resurrection.'"

More Worlds than One became a very popular volume, and produced a flood of correspondence,—many quotations, original poems, and notices of old books being sent to him. He wrote on one occasion:—"Mr. Monckton Milnes gave me yesterday the following poetical translation of a fine sentiment of Immanuel Kant's for another edition of More Worlds:—

'Two things I ever tremble when I scan— The star-lit heavens, the sense of Right in man.'"

Another sends, for "next edition," the following quotation from Samuel Rogers:—

"Now the day is spent,
And stars are kindling in the firmament;
To us how silent—though, like ours, perchance,
Busy, and full of life and circumstance."

Another, the following by Sir E. B. Lytton-Bulwer:—

"Can every leaf a teeming world contain,
Can every globule gird a countless race;
Yet one death-slumber in its dreamless reign
Clasp all the illumed magnificence of space?
LIFE crowd a grain, from air's vast realms effaced?
The leaf, a world—the firmament, a waste?"

And he received the following letter:—

"REFORM CLUB, 17th May 1860.

"DEAR SIR,—I have met with so very amusing a proof of the non-plurality of worlds in a fusty old book, that I cannot resist the temptation of sending it to you, as it is probably unknown. Two French clergymen were arguing the question on theological grounds, and one of them took refuge in the parable of the lepers (Luke xvii. 17), quoting the Latin version, 'Erant decem

MUNDI; 'to which the other answered by continuing the quotation, 'ubi sunt reliqui novem.' If Sir Thomas Browne had written on this subject I am sure he would have trotted out this argument with great energy; at least in the humble opinion of, truly yours,

"C. DE LA PRYME."

It is right to state that these two knights of science, true and brave, Brewster and Whewell, both now passed beyond earthly conflict, were thoroughly reconciled to each other some years after this severe test of literary friendship.

After some time spent in London, we went to Leamington, to visit Dr. and Mrs. Burbidge, where my father enjoyed much congenial society. Among his many interests there, were Mr. Craig, the constructor of the large achromatic telescope, and Mr. Buckle, the photographer; it was a great pleasure to him also to see his old friend Dr. Jephson, who, although in blindness and feebleness, and thus enforced leisure, still was in possession of all his former vivacity of mind.

Thence we went to Manchester, paying a most interesting visit to Mr. Fairbairn, which was shared by the late Mr. Hopkins, of Cambridge, the celebrated private tutor in mathematics, whose society always afforded my father peculiar pleasure. No sight, no kind of information, ever came amiss to the latter, who was, as of old, deeply engrossed in "examining" the Manchester factories, the locomotives, and engineering improvements of his host, and the steam-hammer and numberless curious experiments and inventions of another Scotch friend, Mr. James Nasmyth. One day's expedition he counted as "a white day" of his life. It was a visit

to Saltaire in company with Mr. Fairbairn, his accomplished daughter Mrs. Bateman, and Mrs. Gaskell, the popular authoress, now, alas! no more. He was deeply interested in the alpaca factory, in the flourishing flock of alpacas, in the model town of 1000 workers and their families, in which was church and school, and not one public-house, and, most of all, in Mr. (now Sir) Titus Salt, the creator and proprietor of all this well-regulated power and wealth, and in his beautiful and refined home, "The Crow's Nest."

In August of the same year we went for the first time to Aberdeenshire, afterwards to be a place of many tender and happy memories of him. We first visited Keith-hall, the seat of the Earl of Kintore, whence he was taken to see many of the fine old castles for which Aberdeenshire is celebrated,—Fyvie, Castle Forbes, Castle Fraser, etc., which he enjoyed much, and also made the acquaintance of Lord Aberdeen, the statesman, at Haddo House. The next visit was to Banchory House, where his previous acquaintance with Alexander Thomson of Banchory ripened into a warm and sympathetic friendship.

The letters forming his London journal at this period turn very much upon spirit-rapping and table-turning. As these letters give his vivid impressions as thrown off at the time, I give them together, although of different dates. Regarding a kindred subject, the following quotation well illustrates the lively interest, mingled with scientific caution, with which he treated these topics. He went down to Brighton to see the curious experiments connected with the magnetoscope, and I find a rough draft of his opinion of these experiments, with this note prefixed:—"This was drawn up

at the desire of Mrs. Lee of Hartwell, who wished my opinion of the Magnetoscope, and of Mr. Rutter, who was, I believe, her nephew."

"On the 6th of August 1851, I was requested by Lady Byron and Lady Lovelace to accompany them to Mr. Rutter's, at Brighton, to see his experiments with a pear-shaped ball of wax suspended by a fibre of silk. The experiments were very successful, and from Mr. Rutter's character and talents we were sure that they were honestly performed. The general result was that the waxen ball revolved from left to right when held by a male hand, but stopped and revolved in the opposite direction when any article belonging to a female was laid on the hand or arm of the male. Various changes on the motion of the ball were produced by animal substances, by light, galvanism, and electricity. It would be desirable to have these experiments carefully repeated when the operator is blindfolded, for there is reason to believe that when there is a previous knowledge of the effect to be produced, a desire that it should be produced may involuntarily influence the mind of the operator, and that this desire as involuntarily may influence his hand to give such an impulse to the suspended line, as may be required to produce the expected result. Mr. Rutter, indeed, showed us an experiment in which his hand was separated from the suspending thread by a fixed arm of glass and metal, supported by a stand; but the effect was too evanescent to entitle us to regard the result as a scientific fact upon which implicit reliance could be placed.

" DAVID BREWSTER.

<sup>&</sup>quot;HARTWELL HOUSE, Oct. 21, 1851."

"London, May 1851.

"I have been at two mesmeric séances, one with Dr. Macdonald and the Duke of Argyll, at a Mrs.. Holmes', who failed utterly in her clairvoyante pretensions. A Count Possenti mesmerized her. The other was at Dr. Ashburner's, where I saw things that confounded me."

"LONDON, April 25, 1851.

"We had really a delightful breakfast party at the Chevalier Bunsen's, one of the most learned men of the age, and so frank and kind. The great subject of talk here is spirit-rapping, and the moving of tables; when the party sitting round the table place both their hands upon it, the thumb of the left hand touching the thumb of the right, and the little fingers touching the little fingers of the hands of the persons on each side of you, it is then said to shake and tremble, and often to be moved along the floor. Just as we were discussing the subject, Mr. Bunsen received a letter from the King of Prussia, saying that the experiment was made at the Palace by the royal party, who were alone, and no con-Three of the young ladies had each juror present. letters from Berlin, mentioning these experiments, which sometimes fail. One letter stated that it succeeded three times out of seven. Another account described the size of the table, the wood of which it was made, and all the particulars of the experiments, with the greatest minuteness. Of course it is nonsense, and there must be some trick in it. . . .

"... Mr. Monckton Milnes asked us to breakfast with him to-morrow, to meet Mr. Galla, the African traveller, who assured him that Mrs. Hayden told him the names of *persons* and *places* in Africa which nobody

but himself knew. The world is obviously going mad. An American whom I met at Rogers' the other day told me that hundreds had been sent to lunatic asylums in consequence of the communications made to them by the spirit-rappers. . . . The spirit-rapping is exciting great interest in London, but very few believe in it, and there are many facts which tend to prove that it is done by some machinery or apparatus by which the hands and feet of the medium may produce the observed phenomena.

"In the table-turning the table moves round, and you are obliged to follow it. It often runs away!! and it is now found that it obeys the commands of one of the movers, and tells secrets to him when asked. Chevalier Neukomm, who inquired in the kindest manner after you, told me that the table when questioned told his age. One of the party desires it to do this by lifting up one leg, and rapping just one rap for every ten years, then quick raps for every unit. pressed me to go and see this done at a private party. where he was to dine with a scientific medical friend. I went, and saw and heard the table do all these It told my age, but blundered a little. Now all this was done by an involuntary action of the fingers of the party. My hands were on the table. and I could perceive no trick on the part of the others there. . . .

"I believe the truth to be this. Electricity and magnetism have nothing to do with it. Neither the one nor the other can pass from the body unless by a strong muscular effort, and in that case it requires the most delicate galvanoscope to make it visible. But even if there was an abundance of electricity in the

body, it could not enter the table, which is a non-conductor, and, even if the table were a conductor, its effect would not be to turn it. When a number of hands are so placed, either in contact with one another or not, there is necessarily a tremulous motion from the circulation of the blood, and the fatigue of remaining in one position; and when this motion is communicated to the table, and the party wish it to move, as they are directed to do, from right to left, they involuntarily help it forward, while following its first motion. In this way it succeeds with most operators. I have no doubt that there are thousands of tables turning every night in London, so general is the excitement on the subject."

"LONDON, June 1855.

"Last of all I went with Lord Brougham to a séance of the new spirit-rapper, Mr. Home, a lad of twenty.

... He went to America at the age of seven, and though a naturalized American, is actually a Scotchman. Mr. Home lives in Coxe's Hotel, in Jermyn Street; and Mr. Coxe, who knows Lord Brougham, wished him to have a séance, and his Lordship invited me to accompany him, in order to assist in finding out the trick. We four sat down at a moderately-sized table, the structure of which we were invited to examine. In a short time the table shuddered, and a tremulous motion ran up all our arms; at our bidding these motions ceased and returned.

"The most unaccountable rappings were produced in various parts of the table, and the table actually rose from the ground when no hand was upon it. A larger table was produced, and exhibited similar movements.

"An accordion was held in Lord Brougham's hand

and gave out a single note, but the experiment was a failure; it would not play either in his hand or mine.

"A small hand-bell was then laid down with its mouth on the carpet, and after lying for some time it actually rang when nothing could have touched it. The bell was then placed on the other side, still upon the carpet, and it came over to me and placed itself in my hand. It did the same to Lord Brougham.

"These were the principal experiments; we could give no explanation of them, and could not conjecture how they could be produced by any kind of mechanism. Hands are sometimes seen and felt, the hand often grasps another, and melts away, as it were, under the grasp.

"The object of asking Lord Brougham and me seems to have been to get our favourable opinion of the exhibition, but though neither of us can explain what we saw, we do not believe that it was the work of idle spirits."