## CHAPTER XVII.

## CHARACTERISTICS.

WHAT's perfect on poor earth? Is not the bird At whose sweet song the forests ache with love Shorn of all beauty? Is the bittern's cry As merry as the lark's? The lark's as soft As the lost cuckoo's? Nay, the lion hath His fault; and the elephant (though sage as wisdom) May grieve he lacks the velvet of the pard.

BARRY CORNWALL.

There was never yet philosopher That could endure the toothache patiently. SHAKESPEARE.

THAT would be an unsuccessful picture which was all light and no shadow; that would be an inferior school of music which dealt only in concords; that would be a poor biography which told only the better part and threw a veil over the rest; nay, may it not be said that that would be a poor life which could recount no progression by antagonism,—no harmony from discord,-no light shining the brighter out of the darkness,-no falls, and therefore no risings again,-no temptations, and therefore no victories?

This certainly could not be said of David Brewster, for it was not untruthfully affirmed of him that he had been "a man of war from his youth." Life was no bed of roses to him. Almost every step was trod with a difficulty, not the less difficult, that it was often entirely of his own creating; whilst those that really existed he

made more difficult by a power of magnifying them as by the lens of one of his own powerful microscopes. This exaggeration was not only of feeling but still more of expression. He used the strongest language to express what to other minds would have been a comparatively small trial or event.—the smallest circumstances connected with food, servants, visits, journeys, or such like, were created by a naturally irritable temper and finely strung nerves into serious events, and if the slightest thing went wrong, were commented on in terms so distressed as would have led a stranger to believe that some calamity of unusual magnitude had occurred. In that work to which his practical life was much devoted—the reformation of abuses wherever found—it is easy to see that this habit of feeling and of expression did not tend to make it an easy or a placid task. During the years of Brewster's connection with the University of St. Andrews, constant and many were the causes of irritation—the feuds and the lawsuits in which he was engaged. The affairs of the ancient University, as before stated, had undoubtedly fallen under a lax administration, and many of his principal measures were those of wise practical reform. To those behind the scenes it appeared very evident that while in many cases he was right in the main, he was often wrong in his way of carrying out the right thing, and always thoroughly and singularly unconscious of any fault in himself. The strength of expression, the calm stinging terseness of his letters, and the exaggerated views he would take of a slight failure of business habits, did not tend to conciliation. His power of telling sarcasm was indeed very great,—it was a weapon which he too much delighted to use, and which came too easily to his hand when it

wielded a pen; his entire freedom from it in daily life and speech was, however, as remarkable,-I cannot remember hearing him make use of a sarcastic word or expression. On the other hand, if he caused distress and trouble to others, it was but a tithe of what he caused to himself. A troublesome Senatus meeting, or a quarrel with a brother professor, caused him a distress. a gloom, a shadow over his life, which those little dreamed of, who saw him bright and genial in society. It was impossible, however, not to see and admire the real placability which mingled with all the vehement and distressed feelings. Few men more strikingly united a capacity for suffering, with a temperament which could forget the depths through which it passed, so that times which seemed fullest of discomfort and trial, looked to him in the retrospect, bright with happiness. When the affair was over and gone, and the thunder-cloud was spent, he could become as intimate and friendly with those who had most deeply wounded him as if nothing had happened, and if his life were one of battles, it was not without victories, as the true and touching words of his last days testify, "I die at peace with all the world."

Whatever the causes, and wherever is due, the principal blame of all the St. Andrews troubles, their rumour went before him to the Scottish metropolis, and much fear was expressed lest there might be a repetition there of the same scenes; yet the same parties said, eight years after, "Would that Sir David Brewster could have lived for ever; we shall never see his like again." The minutes of the University Court of Edinburgh expressed their grief "for him as one whose warm interest in the University never abated to the last, and

who on the many occasions on which he presided over their deliberations, or was associated with them in business, evinced the sagacity of a clear and disciplined intellect, and the courtesy of a kind and Christian gentleman, while each member of it feels that by his death he has lost a valued and respected friend." One professor writes, "I had the happiness of being associated with your father as a member of the Senate during the eight years in which he presided as Principal of the University of Edinburgh, where he formed fresh friendships, and never made an enemy, nor, so far as I know, excited even a passing unkind feeling amongst us. His strong academical sympathies and expressions were of inestimable advantage to the University." A member of the University Court writes, "I almost uniformly differed from him on 'University politics,' and yet his kindness and courtesy were invariable, and I uniformly found him thoroughly tolerant of opposition. I remember, for example, calling at Allerly with Professor Crawford, soon after Dr. Playfair announced his intention of standing for the University representation. I was then doing my utmost to secure the return of the Dean of Faculty (now Lord Justice-Clerk Moncreiff), whom I expected to see ousted from his seat for the city of Edinburgh. I expressed my views with considerable warmth, when Sir David quietly said, 'Now, that is a strong statement of the Dean of Faculty's claims, just hear what I have to say for Dr. Playfair.' I adhered to my side, and he never again even alluded to the subject."

It must not be forgotten, however, that Sir David Brewster left St. Andrews reluctantly, carried with him warm and cordial feelings to his colleagues, of whom a more modern school had arisen, and left behind many attached friends and admirers.

Brewster's character was peculiarly liable to misconstruction from its distinctly dual nature; it was made up of opposites, and his peculiarly impulsive temperament and expressions laid him open to the charge of inconsistency, although he never recognised it in himself, conscious that he spoke what was consistent with the point of view whence he took his observations at the time. Accustomed to look at every subject with the critical investigation of the man of science, he vet united the feelings of the man of impulse, and he spoke as moved by either habit. Nothing could show this better than his views and feelings with regard to clairvoyance and spirit-rapping. Like many Scotchmen of genius and intellect, he had had a strong leaning to the superstitious from the days of the steeple vault and the cottage under the apple-tree, balanced, however, by a scientific mind, which required proof and demonstration for whatever came before it. His own quaint confession, that he was "afraid of ghosts, though he did not believe in them," was as near the truth as possible. Living in an old house, haunted, it was said, by the learned shade of George Buchanan, in which certainly the strangest and most unaccountable noises were frequently heard, his footsteps used sometimes to perform the transit from his study to his bedroom, in the dead of night, in double-quick time, and in the morning he used to confess that sitting up alone had made him feel quite "eerie." On one of these occasions, when the flight had been more than usually rapid, he recounted having distinctly seen the form of the late Rev. Charles Lyon, then Episcopal clergyman of St. Andrews, and an

attached friend of his own, rising up pale and grey like a marble bust. He often mentioned his relief when he found that nothing had occurred to his friend, and pointed out what a good ghost story had thus been A certain pleasurable excitement was combined with this "eeriness," and many will recollect the charm of his ghost stories, recounted with so much simplicity and earnestness, and vraisemblance of belief. as on one occasion to be rewarded by the perplexing compliment of a fair young listener at Ramornie fainting dead away. On the other hand, he was equally fond of giving natural and scientific explanations of ghostly marvels, and used to dwell with great interest upon the difficulties of evidence in everything connected with the supernatural, pointing out the unconscious deviations from exact testimony given by persons of undoubted rectitude under the influence of prepossession. Much of this mingled feeling he carried with him into his investigations of clairvoyance and its kindred mar-He really wished to believe in many wonders to which his constitution of mind utterly refused credence, and this feeling, combined with a characteristic courtesv and wish to please, often misled those into whose pretensions he was most critically examining. occasion, when the exhibition of a lady clairvoyante moved his companion to an expression of indignant unbelief, which was declared to be the cause of failure. his gentleness and courtesy, smoothing away difficulties, apologizing for the mistakes of the supernatural powers. and giving every facility for greater success, prevented the dim-sighted clairvoyante from recognising the equal but far more philosophical unbelief which was brought to bear upon her case. He always affirmed that, of the

many cases which had thus come within his ken, he had never seen anything so wonderful as to render a natural explanation impossible, though, of a few, he said frankly that he could neither see nor understand the solution. He latterly took even deeper views of this school of wonders, searching the Scriptures minutely for passages describing the spirits that "peeped and muttered" of old, or those whose "lying wonders" are yet to come, and giving it as his belief that, if modern spiritualism with its manifestations were a truth, it might be a fulfilment of the prophesied work of the evil one and his agents. His views of the important service, or suffering, or enjoyment of all parts of the spiritual creation were so high, that even in such an aspect of the case, he had special difficulty in believing that spiritual agents were likely to confine their operations to chairs and tables, badly spelt letters, and mawkish sentiments conveyed from the world of awful thought and intelligence.

Perhaps nearly allied to his tendency to the superstitious, there was a certain want of self-control, a curious timidity, and a dread of pain, which he used to express with a naïveté which was irresistibly amusing. Several of these stories became quite legendary. Mrs. Harford Battersby writes as follows:—

"In illustration of the great philosopher's singular timidity, my father used to tell the following story:—At the time Lord Rosse's telescope was drawing so many scientific men across the channel, he was asked if he were going too,—'Oh no!' he said, 'he was too much afraid of the sea.' My father tried to represent to him what a simple matter it was; he thought nothing of it himself; he just went straight to bed on going on board,

and awoke on arriving at his destination; Sir David exclaimed in unaffected horror, 'What! go to your naked bed in the middle of the ocean?'

"Another favourite story somewhat betrayed the philosopher's want of self-control: he was talking of a severe fit of toothache he had had, and my father asked him, 'What did you do?' (meaning what remedy had he applied). 'Do?' said Sir David, 'I just sat and roared!'"

He always declined to have recourse to dentistic operations, never having had a tooth drawn; and his answer to the proposal of any such operation always was, "What! would you have me part with one of the bones of my body?"

Although his timidity had the dual element-displayed long before in the Grammar School and playground of Jedburgh-of never "fearing the face of man," he exhibited much of it in connexion with the lower The whole canine race he looked upon as imbued with probable hydrophobia, while cats he declared gave him an electric shock each time one entered the room. A pet cat, however, having been surreptitiously introduced into the old house, it one day trotted into the forbidden precincts of the philosopher's room -looked straight at him-jumped on his knee-put a paw on each shoulder, and kissed him as distinctly as a cat could. He was so surprised at her audacity, and so touched by her affection, that he quite forgot to feel the electric shock; his heart was won—from that time they were fast friends, and every morning the cat's breakfast-plate was replenished by his own hands. One day she disappeared, to the unbounded sorrow of

<sup>&</sup>lt;sup>1</sup> A Scotish expression for going really into bed.

her master; nothing was heard of her for nearly two years, when pussy walked into the house, neither hungry, thirsty, nor footsore—made her way without hesitation to the study—jumped on my father's knee —placed a paw on each shoulder—and kissed him exactly as on the first day! The joy of the reunion was quite touching, although it was never known where she had been during her aberrations; and when, a year or two after, pussy was obliged to be shot, owing to disease produced by over gastronomic indulgence, the distress produced by the event was so great, that, by mutual consent, we never had another favourite.

The humility, true and unfeigned, of Brewster, was so marked a characteristic, that it cannot pass unnoticed Those who knew him best and watched him closest, saw it as clearly as those who met him only in society. It pervaded his life; although there was also the dual element which is found in all successful workers, intense consciousness of the powers which he really possessed. None knew better what he had done and could do; none knew better the limits which the Highest had put upon his intellect; "Hither shalt thou come, and no further." Though, like his master Newton, he was well aware of the value and variety of the pebbles he was able to gather on the shore, yet, like Newton, he saw and recognised the far-stretching ocean of knowledge, in which he could but lave his feet, and nought but humility was possible. It is interesting to compare the account of this quality in the mind of the one philosopher written by the pen of the other.

"The modesty of Sir Isaac Newton, in reference to his great discoveries, was not founded on any indifference to the fame which they conferred, or upon any

erroneous judgment of their importance to science. The whole of his life proves that he knew his place as a philosopher, and was determined to assert and vindicate his rights. His modesty arose from the depth and extent of his knowledge, which showed him what a small portion of nature he had been able to examine. and how much remained to be explored in the same field in which he had himself laboured. In the magnitude of the comparison he recognised his own littleness, and a short time before his death, he uttered this memorable sentiment:--'I do not know what I may appear to the world, but to myself I seem to have been only like a boy playing on the sea-shore, and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me.' What a lesson to the vanity and presumption of philosophers,-to those especially who have never even found the smoother pebble or the prettier shell! What a preparation for the latest inquiries and the last views of the decaying spirit—for those inspired doctrines which alone can throw a light over the dark ocean of undiscovered truth!"

In a letter from Sir Isaac to Mr. Hooke, on some controverted point in science, the biographer puts into italics the following brief and beautiful sentence, so expressive of genuine humility and appreciation of others:—"If I have seen further, it is by standing on the shoulders of giants."

It has been said that there is no connexion between merit and modesty except the letter m, but all who have been brought into contact with first-class minds will acknowledge thankfully the profound humility which

has been their general law. Though there is no rule without exception, yet even those exceptions might, upon examination, be found deficient in some important elements of greatness—perhaps too clear-sighted to the pebbles, and too short-sighted for the ocean.

It was not only that Brewster's humility was reverential with regard to that which is highest and beyond, but it was also reverential with regard to that which was around and beneath. His own craving after knowledge made him ever on the outlook for it in others, and marvellous was the gift he had of drawing it out or creating it.

One, himself the possessor of genial gifts and genius, remarked,—"When I have been with other great men, I go away saying, 'What clever fellows they are;' but when I am with Sir David Brewster, I say, 'What a clever fellow I am.'" This jocular testimony had much truth in it, as many of far less intellect will recollect,—so strange a gift had he of keeping his own knowledge out of sight, and drawing forth gifts in others, unexpectedly even to themselves. That he enjoyed the honours which his merits had won is very true, but he disliked flattery or any unnecessary allusion to his successes; and when with fond pride any compliment was repeated to him, the invariable reply was, "Oh, don't tell me any flummery."

One thing was very noticeable in Brewster's mental formation, which is not in itself a rare gift amongst men of success. In Joseph John Gurney's expressive language, he was "a whole man to whatever he did." Whatever subject he was engaged in he made completely his own, and brought everything to bear upon it, becoming quite absorbed in its individuality. The

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rarity of this power of absorption in his case, was its combination with so much versatility; and he more than fulfilled Lord Brougham's definition of "a perfectly educated man,—one who knows something of everything, and everything of something." His mind was like his own kaleidoscope, full of countless beautiful bits, all forming into many beautiful wholes. the case with lighter subjects as well as those of his own demesne. He rarely read a novel, but when he did he became quite absorbed in the characters, discussing and criticising them as if each were a living being. One day he picked up Uncle Tom's Cabin at a railway station, and was soon absorbed in its perusal. The curious glances at him of the other passengers drew my attention, and I saw that he was in tears, quite unconscious of observation. On arriving at his destination, nothing was done or thought of till he had finished the story. On another occasion, when reading Macaulay's History of England, for the purpose of reviewing it, which he afterwards did enthusiastically, he became so completely interwoven with the exciting events, that when my mother one day entered his study, she was astonished by the exclamation, with sparkling eyes and flushed cheeks, "Only think what that villain James has done next!" causing a moment's perplexity as to who the offending individual might be.

At St. Leonard's College one morning I was surprised to find my father, an hour earlier than usual, established at the breakfast table, upon which was his microscope and an extraordinary-looking old volume, sent for from the University library, at an unprecedentedly early hour that morning. It was upon a very unsavoury subject, and it contained engravings unfavourable to

breakfast eating, being neither more nor less than a full and particular account of the natural history of the pediculus and its congeners! The night before, in examining microscopically a piece of mica, my father had descried embedded in it some specimens of ancient and minute insect life, which were new to him, and which he thought might bear a family likeness to the figures in the old book. Portraits were at once taken of the interesting individual, specimens were sent to friends. amongst others to Miss Mary King (Mrs. Ward), who also took a likeness, and the result was a very interesting paper on the "Acari found in mica." His delight in the discovery, his complete absorption for the time in the subject, and his eagerness in describing and exhibiting the hideous little mite, stand out in memory as one instance of that wonderful freshness and vigour of mind which he brought to bear upon his work day by day.

His versatility of pursuits and interests, combined with his extreme accessibility, naturally produced an immense network of correspondence. The letters that remain, from all degrees and conditions of people, on every possible variety of subject, are really a curiosity, and being mostly answered with care and punctuality, show what treasures of replies may yet be gathered in. Letters from working men abound; many upon the most abstruse points of science; some upon mechanical inventions; others detailing observations of light and colour; one writes "because he is haunted by an idea about a lens;" another thanks him for "half promises fully performed;" another for his "inspiring letter;" lady authoresses thank him for "a helping hand;" most, indeed, abounding in expressions of gratitude. His

letters from men eminent in every department of science, literature, rank, peace or war, would drive an autograph-collector into raptures of covetous delight. His habits of minute observation were very remarkable; a valuable gift in all, and capable of being highly cultivated, it was in him both natural and acquired to the uttermost. In the walk, at the meal, on the journey, in society, in solitude, there was a constant observing and experimenting upon some common daily circumstance,—the colours and forms of plants, the eye-balls of fish and other creatures, the habits of gold-fish, the gambols of mice, abounding in his old house, the scratching of snail-shells on the window, the jewels and the tinted ribbons of his lady visitors, the patterns of wall-papers and carpets, the shadows of carriageblinds, the apparent evolutions of telegraph wires or iron railings seen during rapid movement, the blues and violets of distant mountains, the formation of the rose-petals, the surfaces of silk, satin, cotton-wool, swan's-down, etc., were all matters of interest, expanding into higher relation with some scientific truth or discovery. Such a habit of mind was necessarily accompanied by the intense love of scenery, which has been already alluded to. We find it breathing through many of his finest compositions; and such a passage as the following owes much of its charm to the reality of the sensations he depicts:-

"Occupying, as we do, a fixed place upon the surface of the terrestrial ball, treading its verdant plains, surveying its purple-lighted hills, gazing upon its interminable expanse of waters, and looking upwards to the blue ether which canopies the whole, the imagination quits the contemplation of the universe, and ponders over the mysterious realities around. The chaos, the creation, the deluge, the earthquake, the volcano, and the thunder-bolt, press themselves upon our thoughts and while they mark the physical history of the past they foreshadow the dreaded convulsions of the future Associated with our daily interests and fears, and emblazoning in awful relief our relation to the Great Being that ordained them, we are summoned to their study by the double motive of a temporal and spiritual interest, and of an inborn and rational curiosity. When we stand before the magnificent landscape of hill and dale, of glade and forest, of rill and cataract, with its rich foreground at our feet and its distant horizon on the deep, or on the mountain range tipped with ice, or with fire, the mind reverts to that primæval epoch. when the everlasting hills were upheaved from the ocean, when the crust of the earth was laid down and hardened, when its waters were enchannelled in its riven payment, when its breast was smoothed and chiselled by the diluvian wave, and when its burning entrails burst from their prison-house, and disclosed the fiery secret of their birth.

"When we turn to the peaceful ocean, expanding its glassy mirror to the sun, embosoming in its dove-like breast the blue vault above, and holding peaceful communion with its verdant or its rocky shores, the mind is carried back to that early period when darkness was over the face of the deep, when the waters were gathered into the hollow of the hand, and when the broken-up fountains of the deep consigned the whole earth with its living occupants to a watery grave. But while we thus linger in thought over the ocean picture, thus placid and serene, we are reminded of the mighty

influences which it obeys. Dragged over its coral bed by an agency unseen, and stirred to its depths by the raging tempest, the goddess of peace is transformed into a fury, lashing the very heavens with its breakers, bursting the adamantine barriers which confine it, sweeping away the strongholds of man, and engulfing in its waves the mightiest of his floating bulwarks.

"When on a Sabbath morn the sounds of busy life are hushed, and all nature seems recumbent in sleep, how deathlike is the repose of the elements, yet how brief and ephemeral is its duration! The zephyr whispers its gentle breathings—the aspen leaf tries to twitter on its stalk—the pulse of the distant waterfall beats with its recurring sound—the howl of the forest forewarns us of the breeze that moves it—the mighty tempest supervenes, cutting down its battalions of vegetable life, whirling into the air the dwellings and defences of man, and dashing the proudest of his warships against the ocean cliffs, or sinking them beneath the ocean waves."

It was a joy to him to sit quite still, gazing quietly on a lovely scene and "looking away from himself," as he expressively phrased it. Travelling also was a delight, especially in any new country; the liveliness of his remarks and the perpetual calls for sympathetic admiration being not always thoroughly appreciated by over-wearied fellow-travellers; nor was it only scenery to which his love and admiring appreciation was devoted—it extended to every work of God. The following beautiful anecdote of this feature of his character has already been given in Sir James Simpson's interesting Address before the Royal Society of Edinburgh: 1—

<sup>1</sup> Now published by the Tract Society.

"A near connection, but not a relative, who in former vears often lived in his house, and latterly formed one of the three loving watchers by his deathbed, writes me this characteristic and striking anecdote:--When we were living in his house at St. Andrews twelve years ago, he was much occupied with the microscope; and, as was his custom, he used to sit up studying it after the rest of the household had gone to bed. I often crept back into the room on the pretence of having letters to write or something to finish, but just to watch him. After a little he would forget that I was there, and I have often seen him suddenly throw himself back in his chair, lift up his hands, and exclaim, 'Good God! Good God! how marvellous are Thy works.' Remembering these scenes, I, on Sunday morning (the day before he died) said to him that it had been given to him to show forth much of God's great and marvellous works, and he answered, 'Yes, I found them to be great and marvellous, and I have felt them to be His."

Associated with these characteristics there was the early and late love of poetry, and the wish to write it himself, which has been already noticed. His ear for rhyme and rhythm was peculiarly good, though he was himself conscious of the lack of poetic fire and expression, which are gifts distinct from the deep inner sense and love of poetry. His prose, however, was often far less prosaic than his poetry, and the music and consonance of its stately march show that within him there were the elements of the true poet. My earliest recollection is that of sitting upon his knee while he read aloud *Gertrude of Wyoming*, his voice faltering and his eyes filling with tears at the more pathetic passages. "Sir Walter's" poems were also read aloud in the same

way. His strong wish was to have those of his family who manifested any scribbling tendency to turn their attention entirely to poetical composition, and he therefore wholly discouraged at first any prose attempts.

His charm in society was great; he mingled in it without thought of himself, contented and grateful because of the universal kindness he received, and ever on the watch to see and admire something good and beautiful in others. One clever old lady who much prized his homage, said in a quaint pet one day, "It's no use to be admired by Sir David,—he admires everybody!" It is also told that "his manner towards the gentler sex, old and young, had in it an indescribable air of deference and chivalrous respect which was singularly winning, and made him a universal favourite among them. During the fierce strife which he waged with the St. Andrews Professors, they used to complain with a vehemence highly comical that the ladies utterly refused to believe that the gentle and high-bred Principal could give utterance to the violent and abusive language which his colleagues ascribed to him in their wordy war."1

His kindness and love of children were marked. Many of mature age can recall some little act of his thoughtful, cheerful kindness long years ago. One lady tells me what an impression a trifling circumstance made upon her in her childhood. She had asked the philosopher to draw something in her album, he took it to his room, and after many patient attempts brought it the next morning, with a mortified confession that he had completely failed; and then, to make up for this mutual disappointment, he drew a few lines with pen and ink

<sup>1</sup> Rev. James Taylor, D.D.

on one page of the album, folded it down, and produced by blotting it the figure of a symmetrical vase,—a simple but pretty experiment, with which I have seen him keep a whole circle of young people in amused and varied occupation. The following playful letter to the daughter of his friend Mr. Lyon, shows the kind way in which he remembered the requests of others; having been asked to use his influence that a son might be allowed to study art, which was not the profession desired by his father:—

"MY DEAR JESSIE,—I had a walk of nearly two hours with your papa vesterday, and after settling a deep theological question, we had a long talk about James. I think I made an impression upon him, so far as to induce him to think seriously of sending him to the School of Design. Your papa thinks that you have too exalted an opinion of James's powers, though he admitted that he had 'a wonderful talent for painting horses.'-as if this were all he could do. You must therefore make James turn his hand upon cows, pigs, and poultry, and, if possible, empty Noah's ark upon any of the carpet canvasses you can command. I would recommend also the more poetical subject of Daniel in the Lions' Den, and if after this you fail in your plans, which a lady seldom does when she chooses to lay them well down. I would recommend as James's last resource a picture of a herd of Covenanters on the hill-side, in which he may place me, in the richest caricature, either of a deacon or an elder. Your papa has just been here asking me to attend a sermon which he is to deliver to-day at three o'clock, which I of course will do. told him that I was going to write to you, without mentioning the subject, so that you must follow up what I have done.—I am, my dear Jessie, ever most truly yours,

D. Brewster.

"St. Leonard's College, Nov. 5th, 1850."

A contradictory feature of my father's habits was the order which prevailed in the midst of apparent confusion. No "antiquary" more dreaded the advent of a housemaid or a duster, and yet all his books, papers, and instruments were in a state of perfect arrangement and preparedness for his own use, although unintelligible to others. His powers of contrivance and "garrin'"1 the most unlikely things "do" his bidding were to an amusing extent. Much of his apparatus to unlearned eyes appeared a mass of bits of broken glass, odds and ends of brass, tin, wire, old bottles, burned corks, and broken instruments. Yet it was kaleidoscopic in its nature, and all resulted in effective and beautiful work. Experiments in the midst of this dusty medley formed the chosen and delightful occupation of his life. Writing was performed "doggedly" as the labour and the duty, but the long dark passages, the round hole or chink in the shutter, the ingeniously cobbled instrument, as well as his more elaborate telescopes and microscopes, formed the material of his greatest earthly enjoyment. He always on these occasions indulged in a sort of low purring whistle, which though utterly destitute of music, was the sweetest of sounds in the ears of those who loved him, for then it was known that he was entirely free from all malaise of mind or body.

Since I wrote the above, I have received a letter<sup>2</sup>

1 To gar is a Scotch verb for to make. A "gar-doer" is a very old Scotch expression for any one with the special gift mentioned above.

<sup>2</sup> From the Rev. Mr. Cousin.

which seems to me so descriptive of some "characteristics" of my father, that I make no apology for quoting from it:—

"In anything Sir David had not himself studied he was singularly receptive, making his inquiries with a sort of child-like earnestness that was very touching in one so stored with knowledge. With all his amazing keenness and subtlety of intellect, and the glancing acuteness with which he would detect any fallacy, it always struck me, notwithstanding, that it seemed to come more natural to him to believe and accept than merely to start objection. His mind seemed more inclined to belief than to doubt, except in so far as his keenness of vision guarded against anything like credulity. was a most patient listener, and was singularly fair and courteous in conversational discussion. If at any time he started an objection, he was of all men I ever met, the readiest to admit the full force of anything that might be said in answer. Sometimes, indeed, as is mentioned also of Goethe, he would take up an argument against his own opinions that struck him, repeat it in his own words, and present it with greater force and Those who did not know his way, would precision. sometimes fancy he had accepted their conclusion, when thus, in the exercise of mere logical clearness and candour, he was but admitting, as he felt it, the weight of an individual argument. With those less candid or less logical than himself, his very frankness and candour in discussion would thus sometimes lead to misconception. After such free admission of the force of their argument, they were surprised to find him afterwards still retaining his own views."