

CHAPTER III.

THE COMPANIONS.

SAY, shall my hand with pious love restore
 The faint fair picture Time beholds no more,
 How the grave senior
 Saw from on high, with half paternal joy,
 Some spark of promise in the studious boy,
 And bade him enter with paternal tone
 The homely precincts which he called his own.

OLIVER WENDELL HOLMES.

It is always interesting to know the quantity and quality of the mental pabulum which has fed and nourished the men who have left their mark on the age. In David Brewster's case the quantity was great, and the quality of unusual excellence. Besides several intelligent gentlemen resident in the neighbourhood, there were among the citizens of Jedburgh, during Brewster's youth, various men of original character, scientific tendencies, and especially of inventive genius. There was Mr. John Ainslie, land-surveyor, well known in Edinburgh for his large map of Scotland; Mr. Alexander Scott of Fala, afterwards factor to the Earl of Hopetoun, a man of sterling integrity of action and speculative mind, inquisitive about every new invention and discovery, whether steam-engines or balloons, reaping-machines or orreries; Mr. George Forrest, gun-maker, whose inventions were honourably mentioned in the *Edinburgh Philosophical Journal*; Mr. William

Hope, ironmonger, who invented a printing-press, for which he held a patent for many years, and who also introduced gas into his shop and foundry at a very early period; and Mr. Gibson, watchmaker, who made barometers and reflecting telescopes. We are told also "that there then resided in the town several families, if not wealthy yet of good intelligence and respectability; amongst whom were the Rutherfurds; the Murrays, cousins of the Earl of Home; the Halls, of the Covenanting family of Haughhead; the Fairs and the Shortreeads. The Halls were of the medical profession; and Mrs. Hall, the relict of one of the brothers, latterly living in London, was a contributor to the principal periodicals, and was honourably mentioned in the obituary of the *Athenæum* not many years ago; she wrote an interesting article on Jedburgh in the time of Boston for one of the early numbers of *Fraser*. James Fair, one of Brewster's companions, though a military man, aspired to literature, both in prose and poetry. Sheriff Shortreed is well known as the early friend of Sir Walter Scott, and his son, Major-General Shortreed, has distinguished himself by his mathematical and scientific attainments as an engineer in India. Amongst the contemporaries of Brewster may also be mentioned Robert Easton, known as 'Lang Rob'—a land measurer, fond of astronomical and botanical pursuits, whose apology for blunders in his calculations was—'All men err since Adam fell!'"

Dr. Somerville, the minister of the parish, and the successor of Dr. Macknight, whom Burns described as "a man and a gentleman, but sadly addicted to punning," was the author of several respectable literary works; he was the historian of William and Mary,

and Queen Anne, and wrote a volume of *Reminiscences of his own Times*. He was a man of great literary research and industry, and he was the kind friend and patron of the young men who in the course of his unusually long life and ministry crowded around him, before entering on their several busy lives. He availed himself of their services as amanuenses in his literary labours, explaining to them the art of composition, the nature of idioms, and the reason for preferring one form of speech to another. Brewster had his turn in the office of amanuensis, and often recurred with much interest to the hours thus profitably spent. It was a great disappointment to him when he found, long years afterwards, that the well-remembered room in which this congenial work was carried on had perished with the old manse. He continued occasional correspondence, in a tone of much respect and regard, with the venerable Doctor, who wrote the article JEDBURGH for the *Edinburgh Encyclopædia*. Dr. Somerville died at the age of ninety, in 1830. It is interesting to trace the effects of these early lessons, not only in Brewster's peculiarly careful composition, but in the zest and interest with which he would point out to those around him, during the correction of proofs, the why and the wherefore of the minutest alteration, and in the peculiar quickness of his long-practised ear for the formation and sound of language, though utterly destitute of musical appreciation. Dr. Somerville was the uncle and father-in-law of Miss Mary Fairfax (Mrs. Greig), who married her cousin and second husband, Dr. William Somerville, in 1812. Owing to the absence of her father, Sir William Fairfax, on public service, she was born and nursed in the manse (one year later than David Brew-

ster), and was looked on by her uncle and aunt as if she were their own child. She still lives to show to the world what woman can accomplish of intellectual and scientific work, without sacrificing one iota of her feminine and household gracefulness and dignity. The literary character of Dr. Somerville, his family and connections, brought to Jedburgh many visitors of intellectual tastes and superior habits, whom it was both pleasant and advantageous for young men to meet.

But of all the helps and training, the greatest that Brewster met with was from James Veitch of Inchbonny, ten years his senior, a man so remarkable himself for genius and talent, that it is passing strange so little is known of him in this generation.

Half a mile to the south of Jedburgh, on the Newcastle road, in a charming little valley, environed by lofty banks of wood and red rocky scaurs, is situated a substantial dwelling, most pleasant to sight and sound, with its walls covered with pear-trees, its sunny little garden, its hive of bees, its song-birds, and its murmuring brook. There resided James Veitch, one of a respectable family who had possessed that beautiful little property since 1730, although obliged to combine some manual labour with their inheritance. The sort they chose seems to have been known in the family for good three hundred years, as in the neighbouring churchyard of Bedrule there is an ancient burying-place of Veitches, who had for their monumental emblems an axe and hand-saw. Dr. William Veitch of Edinburgh, the well-known "Grecian," is descended from the family buried at Bedrule, so that in this case, as in that of the Inchbonny branch, manual labour and mental gifts seem to have gone hand in hand.

James Veitch, to the ordinary education of his class at that time, had added an amount of self-education which would have qualified him for any situation in life. Had he fully known his powers, been actuated by ambition, or followed the advice of friends such as Sir Walter Scott, he might have risen to distinction in other spheres of greater publicity. He wished for nothing better, however, than to throw the subtle halo of genius even upon his humble daily occupation, while his choicest relaxation was found in abstruse study.

Originally taught the making of ploughs by Small, Veitch improved them by lightening them, and relieving the draught, both as to the form of the mould-board and the bearing of the beam. He contributed several articles on these improvements, illustrating mechanical science, to the *Edinburgh Encyclopædia*. There was scarcely any work of mechanical skill, however, which he was unequal to undertake, and he executed many delicate pieces of work usually done only in Edinburgh and London. Whatever he did was done not in mere imitation, but on scientific principle, calculation, and experiment. The construction of telescopes was his most favourite occupation. The curves of his specula, and also of the lenses for achromatic object-glasses, he determined most carefully and laboriously. Much of his time was, however, wasted in the mere mechanical work, in which he delighted, of tubes, stands, and other apparatus, which could have been better done by ordinary workmen. The timepiece engaged his attention as well as the telescope, and, with the late Earl of Minto, manifold were his measurements of heights and distances, the use of the barometer being carefully tested by the circle or sextant.

He was extremely fond of calculation, and devoted much time to finding the places of the planets, the eclipses of sun and moon, occultations of stars, the transit of Mercury and Jupiter's satellites, often unnecessarily, as he might have found the same from the Nautical Almanac, accommodating the projection to the latitude and longitude of the place. He was the first to discover the great comet of 1811, as is mentioned in the fourth edition of Mrs. Somerville's *Connexion of the Physical Sciences*; and he was also among the first to observe several other comets, and one especially, of great brilliancy, which appeared only thrice, under cloudy weather, in the morning, and seemed to have escaped the attention of astronomers. He assisted Mr. Francis Baily in the observations made at Inchbonny of the great annular eclipse of the sun in May 1836, of which an account is given in the *London Astronomical Transactions*. He was extremely interested, not only in the construction, but in the management of the microscope; in fact, there was scarcely any branch of learning and research to which this remarkable man of industry and science did not turn his attention. In the years 1827-8 he was engaged in ascertaining the relations of the old Scotch local standards of weights and measures to the Imperial, as established by Act 5 Geo. IV. cap. 74, and drew up the reports for the counties of Roxburgh and Selkirk, acting in that capacity for Berwickshire along with Mr. James Jardine, C.E. He drew up and published tables for each of the three counties for the conversion of the old measures into the new.

Veitch was not without honour even in his own country, and he was much appreciated by many at a distance. He had a kind invitation from Sir William

Herschel, who had frequently heard of him from mutual friends, to visit him at Slough, and see his instruments and operations. He made the acquaintance of Dr. Wollaston, when that philosopher was on a visit to Jedburgh with Mrs. Somerville, and of Professor Sedgwick in later years, while his correspondence with Professor Schumacher, Professor Playfair, Sir Thomas Brisbane, Lord Minto, and others, shows how fully able he was to hold scientific intercourse. Sir Walter Scott was a firm and valued friend; he used to say, "Well, James, when are you coming amongst us in Edinburgh, to take your place with our philosophers?" and the reply generally was, "I will think of that, Sir Walter, when you become a Lord of Session." To Mr. Ellis of Otterburn Sir Walter writes in April 1818:—"I heard these particulars from James Veitch, a very remarkable man, a self-taught philosopher, astronomer, and mathematician, residing at Inchbonny, and certainly one of the most extraordinary persons I ever knew. He is a connection of Ringan Oliver, and is in possession of his sword, a very fine weapon. James Veitch is one of the very best makers of telescopes, and all optical and philosophical instruments, now living, but prefers working at his own business as a ploughwright, excepting at vacant hours. If you cross the Border, you must see him as one of our curiosities; and the quiet, simple, unpretending manners of a man who has, by dint of private and unaided study, made himself intimate with the abstruse sciences of astronomy and mathematics, are as edifying as the observation of his genius is interesting."¹

¹ Letter to James Ellis, Esq., printed in Willis's *Current Notes*, Jan. 25, 1856.

Sir Walter sent an artist to take a portrait of his old uncle, who resided near Jedburgh, and also one of James Veitch, with the latter of which he wrote to his friend Mr. Shortreed that he was much pleased. He had also a clock made by Veitch, for which he prepared a place, and wrote :—" As I am about to build at Abbotsford, I will not trouble you to fetch over the clock till that job is finished ; I will then have a better and more distinguished situation for the work of your hands. We will talk over this when I come to the Circuit." At the pass between Jedburgh and Inchbonny, on Veitch's property, is the celebrated precipice where the red sandstone in horizontal beds covers the vertical grauwacke, separated by layers of conglomerate, in a striking formation, which attracted Hutton's attention, and which he has rendered classical by giving a drawing and interesting description of it in his *Theory of the Earth*. It became, in consequence, a place of great attraction to the geologists of that time. The Circuit Court brought regularly, in spring and autumn, a visit of the judges and advocates, under the guidance of Sir Walter Scott, to see this geological lion, as well as the observatory and philosopher of Inchbonny. On one occasion Lord Jeffrey, on coming down the dark stair from seeing the planets, was heard repeating the verse of the Scotch metrical psalm—

" Yea, though I walk in death's dark vale,
Yet will I fear none ill."

Sir Walter Scott never omitted at these visits to hold in his hand the sword of Ringan Oliver, or properly Oliphant,¹ " a certain bold yeoman, the strongest man

¹ Mr. Veitch's great-grandmother was Ringan Oliphant's sister.

in our country," who dwelt in old times at the Tower of Smailcleugh, three miles from Jedburgh, and was a hero after Sir Walter's own heart, although he fought on the side of the Whigs at the battle of Bothwell Bridge, with the said good sword, which is still carefully preserved.

A little to the north of the present house of Inchbonny there stood, towards the end of the last century, a workshop, of which, unfortunately, not a stone or beam remains; from it went forth good and useful ploughs to the agricultural world, always constructed, however, as we have seen, on scientific principles, showing forth the inventive genius of their maker.

It is not to be wondered at that this scientific workshop on the Jedburgh turnpike became a gathering-place for all the young men of intelligence in the neighbourhood, most of them being in training for the ministry, for medicine, and other liberal pursuits. They had lessons in mathematics and mechanics, and in natural science generally, but especially in the favourite science of astronomy. The telescopes were tested in the day-time, by the eyes of the birds perching on the topmost branches of the "King of the Wood," a noble relic of the past forest days,¹ about half a mile from Inchbonny. When the bright sparkle of the bird's eye was distinctly visible by day, James Veitch's specula and lenses were considered fit to show the glories of the sky by night. Nor were discussions in theology wanting. Mr. Veitch was a truly God-fearing man of the old Scottish school, and was well fitted to

¹ Another magnificent tree near Inchbonny is called the Capon Tree,—one of the many traditions of its name being a "kain" or tax of as many fat capons as could shelter beneath its far-spreading branches, paid to the monks by the tillers of the Abbey lands.

guide such conversation. One of a later generation,¹ receiving good advices from the then aged man, recalls vividly the energy and pith of Veitch's concluding words, "Ye hae a cunning adversary, mind that; Satan's no a 'prentice hand!"

Many original characters swelled the group. Mr. James Scott, son of the Relief minister, was an object of great interest and amusement, from his cleverness and eccentricity; of peculiar appearance too, being afterwards described as "a little man, of long corpulent body, short legs, and large head, with a brown wig and wide hat." Although at first not appreciated in Edinburgh, he became a very popular preacher, attracting crowds to the large chapel in the Cowgate, now occupied by Roman Catholics, though hints were rife in Jedburgh that certain volumes of sermons borrowed from the Inchbonny bookshelves were returned in a suspiciously well-thumbed state at the very texts of the most popular of his discourses. David afterwards expressed much regret that he had never heard him preach, so vivid were his recollections of the picturesque little man and his odd ways. As might have been expected, practical scientific jokes went merrily on among the young Inchbonny philosophers. An electrifying machine was an unfailing source of interest, and we are told that "a favourite experiment of the youngsters was that of artfully placing the conducting-wires on the seat usually occupied by a frequent visitant of dignified presence, Laird Gray, with his broad blue bonnet and white locks, and worsted overalls reaching above the knee. Delighted to get

¹ The Rev. Mr. Ritchie, the present incumbent of Jedburgh, who keeps up the character of his predecessors for intelligence and urbanity.

him seated, they sedulously engaged him in conversation until one or two in a separate apartment worked the machine to its full discharge, when the Laird's sudden jump and tone of amazement was the catastrophe which called forth their warm sympathy and anxious philosophic investigation into the cause, the Laird being satisfied that the mischief lay in a sparkling piece of quartz, which no persuasion would induce him to approach. The fun was at sundry intervals repeated, and they always took care to have the stone in suspicious juxtaposition."

The charm of foreign visitors was not lacking. The workshop was visited daily by the French prisoners who resided in Jedburgh on parole during the French war. Several naval officers were peculiarly noted for their zeal in science. "M. Charles Jehenne—captured at Trafalgar, who from the mast-head observed Nelson's fleet bearing down on the French,—'They saw us,' he said, 'before we saw them,'—successfully constructed a telescope. Another old naval lieutenant, M. Scot, with a long grey coat, was to be seen with every gleam of sunshine at the meridian line, with compasses in hand, resolved to determine the problem of finding the longitude."

Such was the man to whom Brewster was attached from his earliest youth, and such were the companions and the scene of his truest and best education. I have driven slowly past the site of that little workshop, some seventy years after those happy days, while, with the peculiar tearful light which always came into his eyes when warmly touched, he pointed out the localities with the freshest, liveliest interest. He was the very youngest of the quaint and varied group. When he began his visits I do not know, but we find

that at the age of ten he finished the construction of a telescope at Inchbonny, which had engaged his attention at a very early period, and at which he worked indefatigably, visiting the workshop daily, and often remaining till the dark hours of midnight, to see the starry wonders and test the powers of the telescopes they had been making.¹ His brothers were often with him, but they had other outlets of amusement, while David's ardent love of science made him prefer the hours of study and observation at Inchbonny to all ordinary youthful sports. The young philosopher, however, was not at all above accepting his friend's escort past the "eerie" part of the dark road at the "Scaur," till the outlines of the old Abbey towers could be seen clear against the sky, when the trees and their shadows became scantier, and the hooting of the owls less dreary. Philosophical as were his pursuits at this period, he does not seem to have had entirely an old head upon young shoulders, and many amusements of his age were participated in. It is told of him, indeed, that in the playground as well as in the schoolroom he took the position of leader,—that he was ready to face any foe, and that he rarely confessed himself to be vanquished. For one favourite sport the means were borrowed from his beloved Inchbonny. "The 'auld wood,' as it was called, was a grand scene of boyish exploits in spring. It was a magnifi-

¹ There is a most interesting room at Inchbonny, though of more recent date than the time which we are describing, in which Mr. Veitch carried on his studies for many years before his death in 1838. His telescopes, books, papers, and microscopes are carefully preserved, and the ancestral relic of Ringan Oliver's sword. Mr. William Veitch, his eldest son, resides at Inchbonny, and inherits his father's taste for constructing telescopes. Another son, whom Mr. Veitch lost in boyhood, gave the finest promise of scientific distinction.

cent wood of Scotch firs, about three hundred years old, on the estate of Stewartfield (now Hartrigge, the property of Lord Campbell). Many of the stems rose forty or fifty feet without a branch. These the boys ascended, with 'speilers'¹ or iron cramps on their ankles, to reach the crow-nests. Those who could command a gun availed themselves of that weapon. Armed with one belonging to his friend, Brewster was one day very valiant in his onslaught of the young French; when, in the heat and confusion of the fray, the shot in passing struck a young Hilson, whose scream ended David's sport. He returned to Inchbonny with the gun, crest-fallen, staying till night was setting in, when it transpired that he was afraid to go home without some intercession. The request was complied with, and the tragic affair became a good joke, no great harm having been done."

There were other influences besides these scientific ones, although we know so little of their precise nature that they can only be indicated. The orthodoxy of a very early first love can be traced even at this period. Margaret Somerville, a child of the manse, was its object. The boy-lover often stole from his games in the Abbey aisle to clamber up to an ancient window from whence he could watch her in the manse garden. It seems to have been a deep, tender, and reverential feeling on his side, lasting into his early manhood, although it is supposed that "he made no sign," and that the young lady was unconscious of the impression she had made. She died unmarried in 1843, and was buried near the very window whence she was gazed upon by her youthful adorer.

¹ From "speil," to climb, an old Scotch word.

A soldier was billeted upon one occasion on the Brewster family, and to this man the future President of the Peace Congress formed the strongest attachment. The depth of the feeling may be conjectured from the fact that, in 1860, when pointing out to his daughter-in-law, Mrs. Macpherson, the grave of Margaret Somerville, he could not visit the soldier's grave with any one—he went to *it* alone.

On the other side of the river there lived a weaver named Robert Waugh, a man of intelligence and humour, and also an excellent singer. The boy, athirst for knowledge, spent many an hour amongst the looms listening to songs, old stories, recitations from favourite authors, and literary dissertations. On one occasion James Scott and David Brewster had each written a poetical effusion, and each believed his own undoubtedly the superior. They agreed to make Waugh the umpire; having accepted the office, David impressed on him the necessity of reading both compositions aloud with due care and emphasis. The weaver, being fond of a joke, proceeded to recite mournfully an absurd rhyme, to the horror and indignation of Brewster, who had set himself to listen with his usual intent earnestness. Scott enjoyed the joke, and laughed heartily, which made matters worse, but Waugh went up to the angry boy, clapped him on the shoulder, and said, "Never mind, Daavid, ma man, your heid 'll be a frontispiece to a buke when that lad's forgotten!"

Other elements of adventure also there were in his circle of acquaintance. Colonel Rutherford, the laird of Edgerston, and his cousin, "the Major," were men of great intelligence. The life of the latter had been one of most varied adventure, having been for many years

in the wilds of America, where he was detained as a prisoner for some time by a tribe of Indians. He lived at Lintalee Cottage, a farm a little above Inchbonny, and it is said that David greatly delighted in his conversation,—he kept up his intercourse with the Edgerston family for many years, visiting them whenever he returned to his native town.

Just opposite the Brewsters' house lived a family of the name of Robertson—the father being the Anti-burgher minister of Jedburgh. The intimacy between the families was great, and there was a system of telegraphs carried on between the youngsters of the two houses. A son of Mr. Robertson was afterwards an eminent London solicitor, of the firm of Spottiswood and Robertson. Miss Robertson, the last of the family, and a contemporary of David's, died shortly after her old friend's death, but had survived her faculties for some time, so that no early information could be gleaned from her.

At the back of the rector's house there was a large open space, half garden and half orchard, containing many old gnarled pear-trees, and a few stones of a ruin, which probably indicated the remains of a monastic building. At the opposite end was Queen Mary's house, which was occupied in Brewster's youth by Dr. Lindsay and his family, the "sweet Isabella Lindsay" of Burns being one of his daughters. Dr. Lindsay and Mr. Brewster were intimate friends, as well as their families. This house was till her recent death, in the ninety-third year of her age, occupied by a charming old lady, Miss Armstrong, who was in the perfect possession of every faculty except that of hearing. She was a descendant of Riccaltoun, minister of Hobkirk, whose

works are well known, and who befriended Thomson the poet in his youth. This lady did not reside in Jedburgh when David was a boy, but her friend Miss Robertson had often told her old stories of him and his family, and some of those early incidents which I have related are upon her authority. Her descriptions of Miss Lindsay (her brother's wife) and Margaret Somerville were very graphic, and given with much animation. Burns's beauty, she said, possessed "auburn hair and violet eyes," was very fair, not very tall, but "*verra sweet*." Margaret Somerville had the same auburn hair, a small long face, and extreme fairness.

It is interesting to trace in these various intimacies and acquaintanceships the source of much of the social character and vivid variety of interests and sympathies, as well as the fostering of the inventive and scientific genius, which alike distinguished in after life the subject of these Notes.