

his case, it is founded upon single hearted, disinterested regard. Once only, when the three years had nearly expired, did she receive a letter from her absent lover; and it was delivered to her by a messenger who gave it into her own hands, when she was one evening wandering along by the banks of a trout stream, which ran through Lady Mowbray's estate.

At first she did not guess whence it came, and supposing it to be some petition, had almost reached the castle in order to consult her governess about it, when the seal caught her attention, and suggested ideas which made her hastily tear open the enclosure, and retreat to a little grove where she felt secure of not being seen. Two large, well-filled folio sheets—for in those days penny posts and notes were not created—then greeted her, and turning to the top of the first she read as follows:—

London, May 27th, 1740.

Never before, my beloved Kate, since we parted in the lane behind the summer house, have I had an opportunity of writing and sending a letter to you which I knew could be delivered privately. Now, I hardly know how to address you; for when I remember where and with whom you have been living for three long, long years, dreadful fears come into my mind that you may no longer love Henry Liddell; that you have perhaps even forgotten his name; and that you will blame his boldness in presuming to write to one so far removed from him—in all that the world holds worthy of estimation. But there are other times, when I look on the precious flowers, gathered by your own hand, and given to me as a token of regard from your own dear self; and when I recall your sweet promise that you would one day be mine, that I cannot and will not believe that you can be changed, or have broken the pledge so solemnly given to one who loves you more dearly than father or mother, or the whole world besides. Yet there are other thoughts which also disturb this fancied security: one is, whether, if you still feel towards me as formerly, I should be justified in claiming your promise made when you were too young to comprehend its importance; and whether I am not asking too much when I treat you to give up rank, wealth and family to descend to my lowly sphere of life, where all I have to offer for your acceptance is one poor but devoted heart, which will beat for you alone through weal and woe until death shall part us. Another consideration also alarms me. How far will the claims of others upon your duty and obedience affect me? A parent's rights are sacred; and I cannot expect Lady Mowbray should ever consent to bestow her peerless daughter upon a penniless, homeless, unknown adventurer; and then if she forbids our union how can you disregard her commands? Oh Kate, Kate, these reflections drive me almost out of my senses; and were I sure that you had forgotten me—a knowledge which would and must inevitably render me miserable for life—I hope I should not be so selfish as to trouble your peace. But I do not, thank heaven, know that such wretchedness awaits me; and if, my beloved one, you shall still retain your esteem and friendship for me, I should not be acting rightly were I to remain silent. I beseech you, if it be possible let me hear soon what are your present feelings. Until I do I seemed stretched on the rack; and before closing my letter I will give you directions where a letter will find me. Should you send no reply, I shall of course conclude that the worst has happened, and that we shall never meet again. The agitation I experience at this idea, and at this moment, is terrible; and I must leave off writing until to-morrow, when I must endeavor to be calm, and give you some account of how my time has been spent since we parted, and of my present prospects. Will you care to read it? Oh! by the religion of our love, I conjure you to think favorably of my suit, and to grant me at least some hope that you will hear me plead my cause in person before you utterly reject me.

May 28th.—Not many days after the sad one which witnessed your departure, Mr Crutchley, (our curate, told me that a messenger from my father had arrived, and wished to see me immediately. In great astonishment, and with a heart wildly beating in expectation that I might now hear the secret of my birth and parentage, I hastened to him and was introduced to a gentleman of noble aspect, and commanding manners, which were however, gentle as well as dignified.—Without giving me any information, he proceeded to ask me numerous questions relating to my studies and attainments; nor did he seem satisfied until he had obtained a thorough knowledge of my tastes and pursuits, and even of my amusements in my leisure hours. To our great surprise he had heard of our adventure in the boat, and questioned me closely as to our after intercourse. I said as little as I could upon this subject; but he has the art of extracting from others all he wishes to know, and I found it impossible to conceal anything from him. When our dialogue seemed brought to a conclusion, I ventured to ask about my father, but could obtain no satisfaction respecting him, and was only told he wished me to travel abroad with the earl of Whitehaven, as private secretary. My astonishment was great, indeed, at these tidings; and my regret not much less when I learned that we were to set out that very evening for the metropolis, without time being allowed for a parting visit to the many dear scenes hallowed by sweet remembrances of my fondly loved Kate. I soon understood from Mr Crutchley that my examiner was the earl of Whitehaven, who had

wished to satisfy himself regarding my qualifications for the proposed situation of his secretary; and he also informed me that the earl had expressed himself pleased with my acquirements and readiness. Two hours later I took leave of my schoolfellows and of my kind master, and started with my patron in a coach and six, accompanied by four outriders. The earl did not speak much; but I cannot describe the fascination of his manners, and occasional remarks, nor do I know how to account for the singular influence he at once exercised over me. By the time we reached London, a journey of three days, I felt bound to him hand and foot, and as much afraid of displeasing him, as I should have felt of incurring blame from yourself.

Of our journey abroad I cannot now tell you. We met with many adventures, in some of which I had the good fortune to distinguish myself, and the inexpressible pleasure on one occasion of saving the earl's life. He was a strict master, and I worked hard while under his charge; but he never failed to afford me time for seeing everything curious or beautiful in our route, and directed my private reading with sedulous care. At Rome, and at Berlin and Paris, where we successively stayed a considerable time, my admiration for his talents and respect for his virtues increased with every transaction in which we were engaged. He was so honorable in all his dealings; and trusted so much to the fidelity of others, thereby securing the most faithful and devoted attention in his service; while his opinion was courted and his advice sought for by high and low, rich and poor, wherever we went.

After eighteen months thus spent, we returned to London, and I am now residing in the humble abode of one of the most devoted of our Stuart adherents; where I spend my time in writing and copying papers, chiefly in cypher, relating to the great cause. I have not seen the earl for at least five months, and my situation here would be insupportably tedious were it not for the hope of liberation before long, and the still dearer hope of hearing from you. I am not permitted to show myself in the streets, but take my solitary exercise in a small back garden; where I should be as much out of the world as we used to feel in Devonshire, were it not for the power I possess of climbing to the top of our door office, which commands a view of one of the most crowded thoroughfares, and of a perfect wilderness of houses. How I long for a sight of the open sea, and fresh fields, you will easily imagine; though I would still more willingly remain in London, if I were only allowed to enter the army, or commence some honorable course to earn a livelihood and render myself more worthy of the great honor to which I aspire.

You will wonder (if, indeed, you still retain an interest in your devoted friend) when this mode of life is to end; and all I can tell you is, that I am fully twenty years of age, and that the earl has promised to inform me of everything relating to my parents and my future destiny, when I am twenty one. He, or some one in power, is, I am told, sending off this evening an express, with news from St. Germain, I believe, to Craven Castle; and I have bribed the messenger to deliver it safely when you are alone. He will probably leave the north in two days after you receive this letter, and once more I implore you, by all that we hold most sacred in this world or the world to come, that you will let me hear from you. A rose or a leaf from your myrtle, if you can send no written message, will give me some cause to hope. The messenger is just come in, and he says he must set out immediately; he cannot delay a moment longer, and so I must conclude abruptly—Oh, Kate, have pity on your attached and faithful

HENRY LIDDELL.

[To be Continued]

From Chambers's Edinburgh Journal.
TERRESTRIAL MAGNETISM.

POLITICAL disturbances, always ruinous to the calm researches of the man of science, for many years prevented Humboldt carrying his wishes into effect; and it was not until 1828 that he was enabled to erect a small observatory at Berlin, whose more immediate object was to institute a series of simultaneous observations at concerted hours at Berlin, Paris, and Freiburg. In 1829 magnetic stations were established throughout Northern Asia in connection with an expedition to that country which emanated from the Russian government; and in 1832 M. Gauss, the illustrious founder of a general theory of terrestrial magnetism, established a magnetic observatory at Göttingen, which was completed in 1834, and furnished with his ingenious instruments.

In 1836 Baron Humboldt addressed a long and highly interesting letter to the Duke of Sussex, then president of the Royal Society, urging the establishment of regular magnetical stations in the British possessions in North America, Australia, the Cape of Good Hope, and between the tropics, not only for the observation of the momentary perturbation of the needle, but also for that of its periodical and secular movements. This appeal was nobly responded to.

The Royal Society, in conjunction with the British Association, called on government to advance the necessary funds to establish magnetical observatories at Greenwich, and in various parts of the British possessions; and in 1839-40 magnetical establishments were in activity at St. Helena, the Cape of Good Hope, Canada, and Van Diemen's Land. The munificence of the directors of the East India Company founded and

furnished, at the request of the Royal Society, magnetic observatories at Simla, Madras, Bombay, and Singapore, and the observations will be published in a similar form to those of the British observatories. We will now briefly describe the scheme of observations, and the manner of making them in the different observatories.

Each observatory is supplied with three magnetometers, or bars of magnetised steel, delicately suspended by threads of raw silk, which measure the magnetical declination, horizontal intensity, and vertical force—and such astronomical apparatus as is required for ascertaining the time and the true meridian. To these have also been added in each case a most complete set of meteorological instruments, carefully compared with the standards in possession of the Royal Society, not only for the purpose of affording the necessary corrections of the magnetic observations, but also with a view to obtaining at each station, at very little additional cost and trouble, a complete set of meteorological observations. In order that the observations may be made at the same periods of time, it was resolved that the mean time at Göttingen should be employed at all the stations, without any regard to the apparent times of day at the stations themselves. Each day is supposed to be divided into twelve equal portions of two hours each, commencing at all the stations at the same instants of absolute time, which are called the magnetic hours. At the commencement of each period of two hours throughout the day and night, with the exception of Sundays, the magnetometers are observed, and the meteorological instruments read off. Independently of these observations, others are made at stated periodical intervals every two minutes and a-half during twenty-four hours. These are known by the name of 'turn-day observations.' Printed forms for registering the observations have been prepared with great care, in order that a complete form of registry may be preserved—a point of great importance, when it is remembered that all the observations made at the different stations must eventually be reduced and analysed. A singularly felicitous adaptation of photography has been carried into effect with the magnetometers. By means of mirrors attached to their arms, reflected light is cast on highly-sensitive photographic paper wound round a cylinder moved by clockwork, and the slightest variation of the magnets is registered with the greatest accuracy.

The period has not yet arrived for reaping the fruits of all the labor carried on in the magnetic observatories at home and abroad, but already certain results have been deduced from the observations which are highly interesting. It appears that if the globe be divided into an eastern and a western hemisphere by a plane coinciding with the meridians of 100 deg. and 280 deg., the western hemisphere, or that comprising the American and the Pacific Ocean, has a much higher magnetic intensity distributed generally over its surface than the eastern hemisphere, containing Europe and Africa, and the adjacent part of the Atlantic Ocean. The distribution of the magnetic intensity in the intertropical regions of the globe affords evidence of two governing magnetic centres in each hemisphere. The highest magnetic intensity which has been observed is more than twice as great as the lowest. It had long been known that in Europe the north end of a magnet suspended horizontally (meaning by the north end that which is directed towards the north) moves to the east from the night until between 7 and eight o'clock in the morning, when an opposite movement commences, and the north end of the magnet moves to the west. Recent observations have shown that a similar movement takes place at the same hours of local time in North America, and that it is general in the middle latitudes of the northern hemisphere; but to show the capricious nature of magnetism, it may be mentioned, that altho' in the southern portion of the globe the movement of the magnet in the contrary direction is constant throughout the year, yet at St. Helena the peculiar feature of the diurnal is, that during one half of the year the movement of the north end of the magnet corresponds in direction with the movement which is taking place in the northern hemisphere, whilst in the other half of the year the direction corresponds with that which is taking place in the southern hemisphere.

Another striking result of these investigations is the estimate of the total magnetic power of the earth as compared with a steel bar magnetised one pound in weight. This proportion is calculated as 3,464,000,000,000,000,000 to 1, which, supposing the magnetic force uniformly distributed, will be found to amount to about six such bars to every cubic yard of the earth's surface.

Thus measured, it will be seen how tremendously mysterious is the power of magnetism, and how potent an influence it must possess over animate and inanimate objects! And not one of its least wonderful mysteries is its singular exception to the character of stability and permanence. The configuration of our globe, the distribution of temperature in its interior, the tides and currents of the ocean, the general course of winds, and the affections of climate—all these are appreciably constant. But magnetism, that subtle, undefinable fluid, is perpetually undergoing a change, and of so rapid a nature, that it becomes necessary to assume epochs which ought not to be more than ten years apart to which every observation should be reduced. The extreme importance of knowing the exact amount of magnetic variation can scarcely be overrated for maritime purposes; and the establishment of a complete magnetical

theory, based on an extensive series of observations must be regarded as a desideratum by the first nautical country.

The numerous magnetical surveys that have been made by our government, taken in conjunction with those in progress on the continent of Europe, and particularly in the Austrian dominions, give a full promise of the realisation of M. Humboldt's wish so earnestly expressed, that the materials of the first general magnetic map of the globe should be assembled; and even permit the anticipation, that the first normal epoch of such a map will be but little removed from the present year.

NEW WORKS.

THE DUKE OF WELLINGTON'S HABITS.

The Duke is the creature of method. He suffers nothing to disturb the even tenor of his course, either in official or in household existence. There is no occasion for him to weigh himself every day, or to take a greater amount of exercise to-day than he did yesterday, for the equilibrium of his health is rigidly preserved through the uniformity of his regimen, the unvarying duration of his rest, and the punctuality of his hours of equitation. Rising at four o'clock in the morning, he lights his own fire, performs his own toilette, and proceeds to read and write—if that may be called writing which has become to the unpractised eye a mass of curious hieroglyphics. But these are not the materials of the "page." I mean to speak of Apsley House. Beneath the road which runs under the archway, contiguous to the Duke's residence, is a great excavation, walled in with the strongest masonry above, below, and at the sides. It is divided into apartments, papered, warmed, and kept dry by means of flues (when necessary) with hanging lamps. In each subterranean apartment are shelves, drawers, and cupboards, all locked and secured after the most approved methods. To one chamber are devoted all the documents connected with the Duke's early career, before he went to India; in another all the documentary illustrations of his Indian life; a third contains the papers (and how voluminous they are may be guessed) referring to the Peninsular War; a fourth is appropriated to the operations in the Netherlands—the occupation of Paris by the Allied armies; a fifth to the Duke's missions; and a sixth to his political life at home. All this vast mass of documents is arranged with precision, endorsed, lettered, numbered, and indexed, so that when the curtain shall fall upon the great man who has imparted to England a military career, and who has occupied more space in the contemporary world's thought, than any one in the whole range of history, the biographer and the historian to whom he may bequeath the office of writing his remarkable life, may know where to lay his hand upon every paper that may serve to elucidate both the most striking and the most insignificant events.

EVENINGS AT HOME.

One of the grossest neglects of youth, producing incalculable mischief and ruin, is in the improper spending of the evenings. Parents should look at the truth, that evening pleasures and recreations are often dearly purchased—the price, their own impaired comfort, and the blighted prospects of their offspring. It must be obvious, that in this matter there can be no prescribed rule. There can be no interdict of all evening recreations and employments, yet here is an evil not only destructive to youth, but planting thorns in many paths, and covering many lives with desolation. The reformation demanded must proceed from judgment and conscience, and for this purpose judgment and conscience must be enlightened. Heads of families must learn, that the place on earth best adapted to be a blessing is—home; and by example and wholesome restraint, they must teach this truth to all under them. Especially should home during Sabbath hours be consecrated.

Sabbath mornings and evenings are blessed indeed when they gather the family into the circle of converse and instruction; and parents and children, masters, apprentices and servants, in the presence, and by the grace of God, who has made them, and placed them in their respective stations, raise themselves to the exalted level of the truth, that they are invested with capacity and obligation in their respective conditions, assigned them by an all-wise Providence, to help each other onward to honor, glory and immortality; eternal life.—Souls perish in everlasting death; they perish through neglect; who would stand at the judgment of the great day, under the imputation of that neglect? Do you say 'Not I?'—then think of these things.

A DOUBTFUL COMPLIMENT.—A well-known pianist recently played some of his most astonishing pieces before the Grand Seigneur. At the conclusion of the performance, the Sultan, who had been observing him with great admiration, said to him—"I have heard Thalberg—(a low bow of the artist and a modest smile)—I have also heard Liszt—(a still lower bow, and devout attention)—but not one of all that have played before me—perspired as much as you do."

A witty word spoken by a rich relative is a very witty affair, even when the wit is not very apparent; but nobody laughs at the wit of a man in disgrace, or whose coat is out at the elbows.

Labor rids us of three great evils, irksomeness, vice, and poverty.