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THE CITED CURATE.

BY MISS MURRAY.

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READER! have you ever visited the county of Wicklow, the fairest of all the fair counties in Ireland's green isle? There lie scenes which artists have painted and poets sung; there young wedded lovers resort to spend that month sweet as "the honey of Hybla;" there the votaries of the rod and gun congregate, slaughtering the gallant grouse among his heathy mountains, or luring the speckled trout from his silvery stream; and there one who belongs to neither of the aforesaid classes, but is simply a lover of nature for her own sweet sake, may find her in some of the wildest and softest phases she ever assumes. In that lovely region, valleys of Arcadian richness, scattered with gigantic timber, watered by full rivers, adorned by stately mansions, and flourishing, thriving villages, are enclosed by gentle and fertile hills, beyond which are hidden fairy dells, where flower and shrub, crag and moss, half-hide the sparkling little streams that leap among them, - narrowing into deep wild glens, traversed by mountain torrents, and glorious in the mingled beauty and grandeur of water, rock, and wood,-

"The oak, the ash, and the bonnie ivy tree!"

or widening into lonely moorlands, where the golden furze and purple heath make gorgeous the summer day; where the hum of the bee and the chirp of the grasshopper are heard, and innumerable larks soar over head, carolling their joyous lyrics above their mossy nests. Farther again rise frowning granite-browed mountains, heathy coverts for game, and hiding in their recesses many a secret glen, sterile and savage, yet in spite of its lonely austerity wearing on its bosom some deep, glassy lough, like a gem; or, perhaps, sheltering the grey ruins of some

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monkish retreat, covered with strange, antique carvings, and legendary devices, wrought in the days when Ierne was a sacred Isle!

All these charms have long been familiar to me; for not only being an ardent lover of nature, but also something of a sportsman, though cockney-bred, there is not a nook or corner of my favourite country's mountain scenery I have not explored. But there is one spot—though perhaps inferior in beauty to many better known places—which possesses for me a stronger interest than all the rest, for it was the scene of some occurrences which can never be effaced from my memory.

Just where the mountains fall down into stretches of moorland, barren but for heath and furze, there stands a picturesque little church, above the doorway of which a stone tablet is placed, bearing the following inscription:—

"This house was erected to the honour of God by Sir Percy Denzil. A. D. 1700."

There was not another building in sight—not a tree grew near; a few tombstones lying within the low wall of the graveyard, were the only signs of man's habitation; and the barren hills rising beyond,—

"Crag over crag, and fell o'er fell!"

gave an isolated aspect to the place. Only in one spot was any change of scene to be descried, and that was where the moor suddenly dipped down into a lower region of copsewood, interspersed with rough pasturage, on which small, hardy sheep fed. In that direction, glimpses of soft woodlands and cultivated fields could be caught; there, on clear days, some blue thread of smoke, ascending into the bright sky, could be dimly seen; and thence after rain would come the sound of the swollen river, and mingle its murmurs with the reverie of any lonely loiterer on the moor!

Proceeding towards that fairer and more fertile region, you descend into a richly-cultivated valley, through which the river just mentioned wound its full rapid current, fed by the mountain streams; and following its course a little way, you come to a venerable old one-arched bridge, muffled with ivy. Beside the bridge stood a pleasant little inn, possessing a pretty old-fashioned garden overhanging the river. At the opposite side was the post office, and at no great distance, a new Roman Catholic chapel. A little farther on was the "ford"—a narrow wooden foot-bridge, shadowed by some old ash trees; then came the old mill, with its big black water-wheel, its smooth mill-dam, and its stepping stones, and a few scattered houses stretching up the hillside, were called a village. In the very heart of the valley lay the handsome domain of Sir Francis Denzil, its magnificent trees hiding the house—a fine antique

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pile of grey stone—and all around, lovely green leaves, sunny banks, and shadowy dingles, blended in the richest luxuriance of sylvan beauty.

The lord of this fair domain (a descendant of that Sir Percy Denzil who had built the church on the moor) visited it but seldom. He was said to be a vain, extravagant man, residing chiefly in England, and endeavouring to rival in style those of thrice his income; never visiting Ireland but when retrenchment had become absolutely necessary, and then execrating for their poverty and crimes the country and people, whose character and prospects he had not in one single instance attempted to improve. His eldest son was an officer in the Guards, and a young man of fashion about town; his second had been compelled to enter the church sorely against his will; and though he was rector of the parish in which his father's estate lay, and possessed another church preferment in England, he contrived to evade the duties of both, and to spend the most of his time on the continent. There was only one daughter—much younger than her brothers—the child of a second marriage. Her mother was dead.

One autumn I had been enjoying a week's shooting among the mountains, and coming down to the little inn at the "Ford," one Saturday evening, weary with wandering through bogs and briars, I resolved to take up my quarters for the ensuing day at that pleasant haven of rest. Refreshed by a sound sleep, and a good breakfast, I began the next morning to speculate on the manner in which I was to pass the day. I had no books with me, and it was not likely that the good people of the inn could furnish me with any; my limbs were in no mood for wandering far in search of the picturesque, yet vapid idleness was always intolerable to my nature. Suddenly I recollected the lonely church on the moor. It was within an easy walk. I had passed it the preceding night in the gloaming, feeling somewhat impressed at the time with the dreary solitude of the spot, and its unrivalled attractions for ghosts and ghostseers. "Why should I not go there?" thought I. "No one can deny that it will be a suitable manner of spending Sunday morning; and then my artistic tastes may be satisfied by the sight of some mountain faces and mountain costumes as interesting as the garb and features of the land." True, I had no dress but my shooting attire, but it was well enough for a country church, and a peasant congregation. With this reflection, I rang the bell, and the landlady herself appearing in her Sunday black silk gown, and white rockspun shawl, nearly ready for church, I enquired when the service commenced. She was a kind, motherly soul, not above attending to the comfort of her guests, or gossiping with them, if they were so inclined; so after answering my question, she began to expatiate on the merits of the preacher I was to hear at Ardcross (for so was the church on the moor called), a new curate who, it

seemed, had lately come to the parish. If my hostess was to be credited, his learning, eloquence and piety were not to be equalled in all Ireland; he had the handsomest face and figure she had ever seen in her life; and she assured me, with all an Irishwoman's respect for ancient descent, that he came of one of the oldest families in the kingdom. The neighbouring churches, she affirmed, had all been deserted for his, and the gentry came "miles upon miles" to listen to this wonderful young orator. This last piece of intelligence brought my thoughts back again to the somewhat slaug appearance a velveteen shooting-jacket would exhibit in church; but I consoled myself that I had no acquaintances within a morning's drive of the place; and with a glance at the glass, to assure myself that in spite of my dress I did not look exactly like a gamekeeper, I set forth.

CHAPTER II.

I have not vet forgotten the beauty of that morning. It was late in September, but not a leaf had yet fallen, and the woods were radiant with their autumnal splendour; the sky was a lovely blue, flecked with silvery-white clouds, soft and shining as masses of glossy floss silk; the air was clear as crystal, yet balmy as June; and the river, very full, but not turbid, flowed, now deep and calm, now more shallow and rapid, over its stony bed, rushing and gurgling with a pleasant sound. The tired .horses were resting in the fields; the big mill-wheel was still and silent: levery thing around seemed full of peace. Late as the season was, the meadows and pasture were emerald green, except where ripe fields of grain and potatoes surrounded some cabin perched on the upland, or sheltered in the valley. The pure fresh atmosphere raised my spirits. always ready to sympathise with nature's moods, and I strode gaily along, enjoying the ripe, but not yet mournful, beauty of the year, the river's flow, and the tolling of the church bell,-a peculiarly sweet and full-toned one, - whose echoes came solemnly down the vale from the mountain solitudes among which it lay, making rich music to my ear. Ere long I climbed the heights, and entered upon the moor where the grey church rose so still and lone. The lights and shadows resting on the hills were exquisite; and my blood, bounding in a joyous flow with youth, and health, and exercise, made me in a mood to be delighted with every thing. Even the blue harebells and the fairy rings over which I trode, were as rich in magic charm to me as if I had been where Shakspeare was when he dreamt his Midsummer Night's Dream.

When I entered the church, I found that it was yet very early. But few of the congregation had yet assembled, and these were all of a very humble class. Peasant girls, in grey frieze cloaks, and coarse straw bonnets, beneath which the lace borders of their Sunday caps, trimmed with

bright-coloured ribbons, surrounded faces innocent, shy, and mirthful; and men in dark blue tail coats with brass buttons, and corduroys; tall, athletic, and good-looking. A row of charity school children occupied the aisle. The clerk was in his place a spare old man, sharp-featured, consequential, and prim; but the clergyman's desk was still vacant. The roof and walls of the church were ornamented with a profusion of stucco-work, winged scraphs, and cherubs' heads; the pews were of oak, long and narrow, except one large one near the door, hung with crimson velvet, which I afterwards found belonged to the Denzil family. The pulpit and reading-desk were also hung with crimson velvet. Beside the chancel door, a highly wrought marble font was conspicuously placed; and near the altar was a small monument also of white marble, on which a lovely female figure was sculptured, kneeling with upturned face, while an angel, bending down, held suspended over her head a crown of glory. The inscription told that this monument was dedicated to the memory of Sir Francis Denzil's second wife, who had died a year after her marriage, aged nineteen. After examining the church for a while, my attention again wandered to the congregation; and this time I caught sight of a face that I had not noticed before. It was a young girl's face, shaded by one of those common cottage bonnets, but so lovely that I almost started when it first flashed upon me. Her complexion was not fair, approaching more nearly to that pale olive fint peculiar to southern climes than we usually meet with in these islands, but it was soft and clear as the petal of a flower; her broad brow, from which her raven hair was drawn back in Madonna folds, had something haughty and grave in its aspect; and her large violet-grey eyes, though deep and tender, had a flash of fire amidst their softness; but it was the fire of enthusiasm and imagination-not of anger or scorn; and on her crimson lips, the concentrated essence of sweetness, purity, and truth, seemed to dwell. Her glance was generally bent on the floor; only at intervals did she raise her eyes, look timidly up the aisle, and then drop them again beneath their dark fringes. So I watched her without fear of her perceiving my admiring gaze, and never noticed the entrance of several stylish people whom I afterwards observed, or even that of the clergyman, till his voice disturbed the day-dream into which I was fast falling. At the first word he spoke, the faint rose-colour on the young girl's cheek flushed a deeper tint, though her eyes seemed more determinedly downcast than ever; but the next moment my attention was diverted from her by the sound of those accents which seemed so strangely familiar. Surely I could not be mistaken in that remarkable voice; no other had I ever heard so calculated to impress the hearers-deep, clear, rich, and silvery. I looked eagerly towards the reading-desk, but a tall lady, in a huge green satin bonnet with ostrich feathers, obstructed my view.

Every word that reached my ear, strengthened my belief that those melodious tones were accents well known and loved, and I was in a fever of anxiety to catch sight of the speaker. At length the congregation knelt; the green satin bonnet sank its lofty crest, and my view of the reading-desk and its occupant was unimpeded. One glance resolved every lingering doubt; it was certainly my old college chum, Eardley Temple, whom I had believed to be in Italy. Now that I could no longer doubt his identity, wonder and conjecture ran wild. Eardley Temple-the witty, the gay, the wild Eardley Temple-transformed into the curate of an obscure country church! How different from the delicate lachrymose conceited youth, the pet of foolish old ladies-the idol of sentimental young ones-my landlady's praises had prepared me to see. When we parted, Eardley had been engaged to accompany a young man of rank abroad; and it was understood, that on their return, his pupils friends were to use their influence to get Eardley into Parliament, where, all who knew him believed, he was certain to distinguish himself. Well might my hostess talk of his learning and eloquencepearls, I could not help thinking, thrown before swine indeed; well might the petty aristocracy of the neighbourhood flock to listen to one whose flashes of oratory had so often enchanted the under graduates of Cambridge, as well as the wits and men of taste about town; and strangely out of character with the low, narrow foreheads and unintellectual faces around me, his noble head and glance of power seemed to me that morning.

Eardley Temple was now about six and twenty—tall, strong, graceful; his form moulded without a fault. His head and features were as perfectly shaped as a Greek statue; and his large and lofty forehead had that statue-like breadth between the temples so rarely seen, its massive dignity somewhat softened by glossy waves of bright brown hair; his eyes were a dark and brilliant blue, possessing a mingled fire and softness which I have never beheld in any other orbs. In fact he was superlatively handsome; and the power, energy and vigour, the fire, determination and spirit in every word and look, made him, in my eyes, the most perfect representation of an Athenian orator my imagination could conceive.

During the Litany and communion service, he seemed calm and quiet, and his voice, though clear and harmonious as ever, was, I fancied, somewhat subdued and restrained; but when he ascended the pulpit, I saw the daring, ardent spirit rising within him, and asserting its empire over the trammels in which it had been held; it flashed in his eye, it thrilled in his voice, it commanded in his attitude; and as he looked around with a glance, which had in it more of the hero and poet than the priest, I asked myself, "Does he deem himself standing in some tribune, about to

harangue assembled nations, and forget altogether that he is in the house of God, deputed to deliver a message to those whose souls are precious in their Father's sight?"

He took for his text the words of the prophet Ezekiel-" And lo! thou art unto them as a very lovely song of one that hath a pleasant voice, and can play well on an instrument: for they hear thy words, but they do them not." He began by enlarging upon the importance of the message, which the preacher of the Gospel was commissioned to bear; its divine and lovely character, and man's urgent need of the gift; its eminent suitability to human wants and weakness, and the immortal and glorious goal to which it led. Yet vivid and graphic as were his words, strong and well-chosen as were his arguments, I felt that one thing was wanting-the power which sincerity and earnestness alone can give. I knew as certainly as if I had read his secret soul, that on his own ears, the eloquent words he poured forth fell as cold and barren as the words of the text could ever have fallen on those of the stiff-necked nation to whom it was first addressed; but as I listened to the splendid imagery in which they were enveloped, the musical tones in which they were uttered, and the zealous warmth with which he insisted on the most high-wrought Calvanistic dogmas (for just at that time, Calvanism was the most popular form of Christianity in Ireland). I did not wonder that others less accustomed to displays of oratory, and wanting that intimate knowledge of the preacher's character and its manifestations that I possessed, should mistake the fascinations of eloquence and imagination for the influence of fervent piety and Christian zeal. But when he came to the second part of his subject, any mind of ordinary acuteness might have noticed the change; there was all the difference between one making the most of an uncongenial subject, and embellishing with every ornament and aid genius could bestow, and the fervid outpouring of the same gifted mind on its darling theme; the difference between the fountain sparkling through the greenwood at its own sweet will, and turned from its natural channel to fertilize a strange and barren soil. After enlarging on the stronger attraction every earthly good possesses for the volatile nature of man than the heavenly blessing which only is immortal, immutable, all-sufficient—the fervour and constancy with which men pursue the worldly objects that gratify their favourite passions, compared with the neglect and indifference bestowed on the Gospel; he described the career of some mighty and ambitious soul, -ambitious after the fashion of earth's conquerors and rulers, and followed it from its dawn to its close. And now, indeed, I thought I looked upon the very impersonation of impassioned eloquence; now his voice truly kindled, his eye burned, his whole form seemed instinct with power and enthusiasm,

while the living, dazzling words poured on, an irresistible tide. Who that looked upon his haughty brow, his curved, imperious lip, his brilliant, flashing eye, and the proud carriage of his handsome head. and could read such signs, but must have recognised in the preacher himself the largest measure of that superb passion which, seeming to condemn, his eloquence exalted. One or two sentences I must try to recal-not in the speaker's exact words, for that would be impossible, but in such a manner as to make the reader understand a sudden fancy

which arose in my mind while he was uttering them.

"Aspiring to reach the topmost pinnacle of glory, will the hero whose mind is nobly tempered, suffer any obstacle that poverty, obscurity, scorn or oppression can cast before him, to check his career; any temptation to seduce his senses, enfeeble his powers, delay his course, and rob him of the power genius and energy command, -the earthly immortality which crowns them? No! not all the bonds tyranny could cast round him, not all the attractions art or nature can offer, not all the rapture love itself can bestow, will be able to stay his course. He breaks their chains, he tramples their meshes, he scorns their barriers, he despises their delights, marching ever onward and upward to the goal of his ambition. What matters it, if in so doing he must sacrifice many soft and lovely feelings which are his, perhaps, not less than other men, but more? What matters it, if in so doing he must rend other hearts as well as his own? The prize is before him, the victory must be won; and he counts not the cost, he endures the toil, he murmurs not at the pain! For the prize for which he strives is that which Cæsar, Cromwell, Napoleon, grasped-the power of leading and controlling men and nations by one mighty intellect, one indomitable will-a power which lasts even after the conqueror has gone to join the ranks of the silent dead, and makes his name still a spell for strongest conjuration!"

And such is the ambition that stirs within your own soul, Eardley Temple! thought I. But can other emotions be struggling with this master passion? For as he had pronounced the words, "Even the rapture love itself can bestow," his glance had turned towards that remote corner of the church where the fair peasant girl sat whose beauty had so struck me. She was watching him with the most eager, rapt, absorbing attention, like one whose whole soul was hanging on his words. His glance was probably involuntary, but there was a strange depth of feeling in its expression, a sudden passionate softness blending with its fire and determination, that I well knew no light emotion could have caused. As to the girl, when she met his gaze her face crimsoned, and she bent her head till it was hidden from my view. The next instant, Eardley had looked away, and I did not see him glance in

that direction again.

I scarcely heard the conclusion of the sermon; I only know that it was in the same style as its commencement, and seemed in my opinion, as utterly incongruous with the passionate burst of eloquence which had interposed between, as an oration of Mirabeau's thrust into the middle of Calvin's sermons.

CHAPTER III.

And now the closing blessing was uttered, and the congregation rose to depart. I was one of the first out, but my rustic beauty was before me, and without staying to exchange a single greeting with any one, she took her way towards the mountains; her grey cloak hiding her figure as she vanished across the moor, but not concealing the grace of her movements or the clasticity of her step. As I was still watching her retreating figure, indifferent to the country beaux and belles, whom horses, jaunting-cars and even carriages, were bearing away, my shoulders were grasped from behind, and when I turned, my friend's handsome face met my view, bright and speaking, as I had often seen it in days of yore.

"Walter! old fellow, how are you? How did you find me out?"

"Is it really your own self, Eardley, and not your double? I can hardly believe it. What in the name of caprice are you doing here, and why have I never heard from you?"

"Oh, it is a long story, and not very agreeable, and so I reserved it for a viva voce communication, for I am meditating a speedy trip to Dublin, where of course I should have seen you. But never mind that now; we'll talk of it by and bye. The sight of your face in this land of anthropophagy is like a draught of good old wine."

"I am glad you think so," I answered, laughing, "but are such bon camarado comparisons suitable to your new character?"

"New character," he repeated, ironically, as he passed his arm through mine and drew me into a path leading towards a spur of the chain of hills that enclosed the moor, "habits change, opinions vary, creeds alter, but character remains ever the same—and so do I."

"You proclaimed as much in my ears to-day, Eardley."

"Did I? well, it is true. Ambition was the governing principle of my life when you first knew me, and it is so still."

"Yet to bury yourself in this obscure spot seems a strange road to greatness. I shall expect to hear of your going as a missionary to the Esquimaux, next."

"On my word, it would be better than the life I lead now. There would be the dog-trains to carry one over the snow, and seals and walruses to hunt, and other excitements of the same kind, but here ——. Can you imagine anything more stultifying than babbling homilies to the gaping rustics, fox-hunting squires, pudding-making dames, and their

hopeful sons and daughters, you saw here to-day; holding evening lectures at their houses; presiding over Dorcas' societies, and doling out meal and potatoes to the beggars by the stone? Don't you think such occupations highly calculated to call forth the energies of an aspiring mind, and prepare it to

'Fill the speaking trump of future Fame!'"

"Why, then, have you undertaken them?" I asked.

"I had no choice. I was compelled either to do as I have done, or go usher in a school, and I suppose you will allow that out of two evils I chose the least."

"There may be two opinions about that, perhaps," I said.

"Oh! I know what you mean, but I am only doing like all the rest of the world, except a few unfortunate enthusiasts, giving up impracticable ideals, and accepting facts."

By this time we had entered a gorge among the hills, where green holly bush and yellow broom nodded from every crag with foxglove and fern intermixed, rivulets leaped in tiny cascades across our path, and the red berries of the mountain-ash dipped in the sparkling current. At the moment I was going to reply to my companion's last speech, the bark of a dog attracted my attention, and looking up to the spot whence the sound proceeded, I saw a little rough brown terrier followed by a man whose rather odd appearance I thought I recognised, springing over rock and bush, and coming from that side of the glen nearest the valley I had left that morning. As dog and man drew near, I saw I was not mistaken. The man was Freney Macnamara, or Freney Mac, as he was popularly called; one of those merry, reckless, hair-brained, good-for-nothing fellows so common in Ireland. When I say good-for nothing, I mean nothing that could essentially benefit himself or his friends, for in another sense he was good for a great deal. He was unequalled in his own county and those adjoining for his swiftness of foot, and strength of wind, often following the Kildare fox hounds for a whole day; he could ride the wildest horse, break the most unmanageable colt, train pointers, setters and greyhounds in the most approved style; always knew where a covey of partridge, a brace of grouse, a hare or a snipe could be found : could tell some wild legend about every old ruin; sing old ballads, of which love's truth or falsehood was always the argument, sweetly enough, the young maidens averred, "to charm the birds off the bushes," and tell tales of fairies, or highwaymen, which ever suited your taste, "better than those in the story books;" his skill at hurling, wrestling, and wielding a shillelagh was matchless; his mirth and good humour inexhaustible; and his kindness and courtesy to old and young, gentle and simple, not the least of his good qualities. Perhaps, like some other geniuses, Freney thought the possession of so many rare gifts and extraordinary talents entitled him to an exemption from any kind of usefulness or steady industry; in such labour as the whim of the moment prompted, no one could expend more energy of mind and body, and "for love," as he called it, that is, to assist some friend in the midst of a busy harvest, or some "lone widow that could n't afford to hire a man, the crature;" he would often work from dawn till dark with unflagging zeal. No great wonder then that he was the most popular man in the county, and that no dance, wake or wedding was held complete without the presence of Freney Mac. He was almost as great a favourite with the gentry as with those of his own class; his skill in dogs, horses, fishing, hunting, and all kinds of sport; his adroit flattery, his odd stories, his shrewd gossip, all served to establish him in their good graces, and the petty misdemeanors that in others would have called down the blackest magisterial frown were smiled or winked at in Freney. Even his poaching propensities were passed over; and all agreed, that though where horses were concerned, his oath was not worth a whistle, and that in taking game from the mountain, salmon from the river, turf from the bog, or timber from the woods, he was as unscrupulous as Rob Roy or any other celebrated "scorner of the Social Compact," in all other respects he was as honest as the sun.

In all my shooting and fishing excursions I generally contrived to secure Freney as my attendant; and a more capable and obliging one I could not have had. If there was a trout in the stream or a bird on the hill, Freney was certain to find it; his ready wit and practical shrewdness found a resource for every difficulty, a palliative for every vexation, and his quaint sayings and buoyant temper made his company a capital antidote against dullness or fatigue. I believe I was somewhat of a favourite with him; partly, perhaps, because I had plenty of money and was no niggard in its use, but partly also, I think, because I was tolerably hardy, patient to fatigue, and indifferent to personal privations or discomforts; for he had the most thorough contempt for all sorts of affectation, selfconceit, efferinacy, or any other weakness of character, and always contrived to show it, too, in a sly way, to any one that exhibited the slightest symptom of such unmanly failings. He was now in his Sunday costume, a green hunting-coat, a present from some patron, black velveteen breeches and waistcoat, white worsted stockings, brogues and a comical little felt hat, in the band of which was stuck a short pipe and a fox's brush. His face might have been called handsome but for its almost elfish expression of recklessness, yet at the same time there was nothing Positively bad in his physiognomy; on the contrary, I used to think that good nature, frankness and generosity were written there legibly enough. His small, straight features were well cut; his teeth white and even; his hair black and curly, and though his complexion was as dark as a Spaniard's, his eyes were the brightest blue I ever beheld, and flashed with fun and fire beneath his arched and jetty brows. But never in any other mortal saw I the same dare-devil gleam as shot from those eyes when he was thoroughly excited. A painter who could have transferred that expression to the eyes of some Puck or Caliban on his canvas would have made himself immortal. Close at his heels came his inseparable companion, little Whiskey, "who," his master used to boast, "was as full of spirits as a keg of poteen run by starlight; and sure, while I've him to the fore there's no fear of my being short taken for whiskey any how!" He might have avoided us by continuing his path along the rocks, but when he saw us, he instantly turned, and springing down the precipitous banks like a roebuck, quickly stood before us.

"Good day to you, Mr. Temple," was his salutation to my friend. "God save you, Mr. French," to me, "is this yourself? When did you come into these parts?"

"I have been at Glenmalure with a shooting party for some days, and I came to "the Ford" last night. I can tell you, we wanted you badly at Glenmalure, but you were not to be found."

"No," said Freney, "I was away at the Duke's. He's a fine young horse mighty bad with the distemper, and he knows I've a cure never fails; but them grooms are such devils I have to watch them all the time, or they'd ruin every thing; that's what kept me away so long. And so your honour knows, Mr. Temple?" he added, giving a hasty glance at Eardley, who had turned away, and stood waiting for me with some evident impatience.

"Oh, yes; we're old friends."

"Musha now! do you tell me so. Who'd have thought that?" and once more he glanced at Eardley, and again at me.

"And where are you and Whiskey bound for now?" I asked, caressing the little terrier, which had come up to me, dancing and wriggling, to claim old acquaintanceship. "I suppose you are not going to look for hares to-day."

"I wonder at you, Mr. French," said Freney, with a ludicrous grin. "Such jokes might get a poor boy into trouble, let alone the harmless little dog. No; it's not after hares I'm going. Pat Clancy, that lives a little beyond Croneran, is to be married to-morrow, and of course I must be at the wedding."

"Croneran?" said Eardley, turning quickly round, "then you'll pass by Ulick Redmond's door?"

"It's the shortest way, sure enough," said Freney. "I see your honour knows the road."

Freney's words were simple enough, apparently, but they seemed for a moment to embarrass my companion; however, he answered quietly,

"yes, I know every spot of ground in my parish, and I often preach to the people about Croneran on Sunday evenings. I cannot go to-night, however, as I am detained by particular business, so you will oblige me by calling at Redmond's and letting them know that I shall not be there."

I was looking at Freney at this moment, and I saw a fierce flash of fire come from his eyes, but almost before I had time to feel that it was there, he looked away, and saying "certainly, sir; with the greatest of pleasure in life," seemed about to hurry on, when a sudden thought appeared to strike him, and he added, "I suppose it's to Miss Kate I'm to give the message?"

"Oh, any one will do," said Eardley, with the same indescribable expression of repressed vexation I had before remarked in his manner, and he drew me hastily onwards, while Freney crossed the path and sped over the opposite bank at the top of his speed.

(To be continued)

THE CANADIAN ON HIS TRAVELS.

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days and the state of the By J. H. SIDDONS.

It is very natural that people who trace their not very remote ancestry, if not their immediate parentage, to the Anglo-Saxon stock, should desire, at some time or other, to visit "the old country," and realize the scenes and incidents of which they had only heard and read. This feeling is strong in the United States, where the descent from the British stock is remote, extending, perhaps, through three or four generations, and where there lingers but little, if any, attachment to the ancestral soil. How deeply-seated, then, should it be in Canada, where the grandfathers, grandmothers, and often the fathers and mothers of our youth, "hail" from England, Ireland, or Scotland! How natural it seems that they should cherish, from their earliest years, a wish to know all that they can possibly learn by observation of the country whence they originally sprung, and to which they owe and cheerfully acknowledge a profound allegiance! Yet it is very doubtful if this wish is sufficiently potent to suggest the effort requisite to its accomplishment; and when, by a happy accident or systematized parental arrangement, the object is attained, how very few can boast that they have benefitted, to any considerable extent, by their passage across the Atlantic, their journeys in England and other attractive parts of Europe?

The truth is, that travel is an art; and the man who has not diligently

studied it before he attempts to put it in practice, will be as much at a loss as the pseudo artist, who should attempt to paint like Claude, or Raffaelle, or Wilkie, or Lawrence, before he had mastered the laws of color, or the first principles of perspective; or the pianist, who should sit down to execute a sonata of Beethoven's, or a capriccio of Rossini's, without having studied counter-point, or become familiar with time.

"Home-keeping youth," says Shakspeare, "have ever homely wits." The phrase is not exactly founded in fact, and it is doubtful if Shakspeare himself believed it, for it is not asserted by his painstaking biographers that he travelled much abroad; yet no one would accuse him of having possessed a homely wit. It is nevertheless the fact, that the wit is much quickened by foreign travel and intercourse, always providing that the traveller has carried with him to Europe something more than a well-filled purse-a trunk full of clothes, and the requisite passports. Many a youth-many a man of mature years-returns to Canada, with no other result of his wanderings, than that he has been to such and such a place. When Tom Sheridan asked his father to let him go to Constantinople, the matter-of-fact parent asked him what benefit he expected to derive from the trip. "Why go?" "Oh! only that I may say I have been there!" "Couldn't you," rejoined pater familias, "say you have been without the trouble of going?" With no higher purpose do thousands of others leave their native country, and with little better results do they return. And whence this aimless, profitless trip? The absence of adequate preparation. The neglect of the study of the true objects of foreign travel, and of the manner of so proceeding, that those objects shall be effectually carried out.

In an excellent book, written, we believe, by the late Colonel J. R. Jackson, who held a high appointment in the Quartermaster-General's department, and called "What to Observe," there are very many detailed instructions for the traveller who proposes to visit strange countries, of which little is known, with the settled purpose of bringing home a rare accumulation of facts. Without insisting upon so elaborate a preparation for our Canadian youth who are favored with the means and opportunity of visiting Europe, with which the works of hundreds of intelligent tourists have made us more or less familiar, we may at least maintain, that knowledge is requisite for the attainment of knowledge, even as money is requisite to make money. A familiarity with the sciences of surgery, chemistry, geology, botany, mineralogy, are valuable to the explorers of Asia and Africa, who aspire to produce such books, and work out such consequences, as were achieved by an Emerson Tennant, a Livingstone, a Hargreaves, a Mungo Park, or a Broughton; but these sciences constitute too large a capital for the man or woman who only purposes going over beaten ground-valuable, as they undoubtedly are, on the

principle that all knowledge is pleasant, and a source of power. We will be content with a moderate possession, and hope that with even that, very happy and valuable results may be accomplished.

And first let us insist upon a fair acquaintance with European history. The interest attaching to the major part of the principal cities and countries of Europe, unquestionably arises from their connection with great historical events. Every palace is in itself the locale of some mighty occurrence-every monument is a piece of biography. Half the ground in France, Belgium, Germany, Italy, Spain and Portugal, is celebrated for battle fields, where the destinies of nations, and the fate of dynasties, have been determined. There is not a town which has not its galleries of pictures and statues, very many of which noble works of art commemorate mighty events, or perpetuate the renown of distinguished sovereigns, generals, statesmen, poets, philosophers, priests, from the days of Cyrus, Miltiades, Solon, Cæsar, Cicero, to those of Napoleon, Chatham, Byron, James Watt, Chalmers and Heber. How humiliating, then, it must be to travellers, to look upon these glorious productions, without being aware of the causes of their existence, in so honourably enduring a shape! How small they must appear in their own estimation, when the only remark they can safely attach to the verbose description of garrulous ciceroni is, "Oh, really!" "Well-indeed!" Those guides, who abound in all towns, are quick to perceive whether their hearers do or do not appreciate the information they expect a fee for imparting; and when they find that their instruction-such as it is-is thrown away, they immediately minimize their talk, and the visitor comes away as wise as he went. Thus ignorance begets indifference and inattention. The writer of this paper remembers contemplating the Hannibal Fountain, at Montebello, in Italy, and revolving the incidents of the great Italian wars, when a young cockney tourist accosted him with the question-"Pray, sir, who was this Annibale, about whom my valet is bothering me?" Of course he was told that "Annibale" was Italian for the great Carthaginian "Hannibal," the potent enemy of Rome in the third century before the Christian era. But our friend had never "heard of the gentleman;" and thus he was not led to reflect upon the singular influence which the physical conformation of a country has upon its fortunes. Montebello, from its position, has often been a battle field. Two thousand two hundred years after Hannibal's time, Napoleon Bonaparte defeated the Austrians at Montebello; and fifty years later, another Franco-Sardinian army encountered the Austrians in the vicinity of the same spot. Waterloo, for the same reason, has three times been the scene of a conflict; and there are many places on the banks of the Rhine, the Danube, and the Tagus, hallowed by contests for human freedom.

Next to the study of general history, a familiarity with the biography of illustrious men, and some acquaintance with their works (if writers or statesmen), is very desirable. England is peculiarly rich in statues of eminent individuals. "Poets' Corner," in Westminster Abbey, is a feast of memory in itself; and the interior of grand old St. Paul's Cathedral, is a history of the achievements of mighty warriors and statesmen. To look upon the effigies (in Germany) of Frederick the Great, Guttenberg, and Schiller—in Russia, of Peter the Great—in France, of Molière, Louis XIV., and Henri IV.—and not to be able at once to recall the salient points of their several careers, must be mortifying to the intelligent mind. In fact, no more profit is to be gathered from the contemplation of such objects, than if they were so many shapeless blocks of stone, unless previous reading had rendered them "household words" to the spectator.

Inferior in importance to an acquaintance with history and biography, but still in itself of material consequence is a knowledge of the French language. It would be very desirable that a traveller should be able also to speak German and Italian. But this, perhaps, is exacting too much from a young Canadian. French, however, is easily acquired; and, in the Eastern Province, the opportunities of conversing in the language, and acquiring a tolerably pure accent, are considerable. In all the cities of Europe, there are guides, under a variety of denominations-commissionaire, valet de place, cicerone, &c.,-who, if not Frenchmen, speak the language sufficiently well to offer their services as interpreters to the stranger. But who would use the eyes and ears of other men-and such men too !- and trust to their expositions of one's wants and wishes, when direct communication with the people of the country visited may be made so facile? Then, just consider what a mine of wealth is unlocked to the individual who can read and understand French! What a vast field of rich literature is opened to him or her who can peruse the grand and original works of Molière, Racine, La Place, Voltaire, Montesquieu, Montaigne, Chateaubriand, and the host of romance writers, beginning with Bernardin de St. Pierre, or the charming authoress of Corinne, and coming down to the vigorous author of Les Misérables. The French honor their illustrious men. The Pantheon proclaims their gratitude:

"Aux grands hommes la patrie reconnaissante!"

Everywhere in Paris there is some substantial token of the reverence in which real talent is held. Indeed this holds good throughout France. At Rouen, the memory of Corneille is hallowed. How delightful an evening can be spent in the theatre of the old city, when one of the master-pieces of the illustrious author of Le Cid is being played! Book

in hand—you follow the the actors, and, aided by their intelligent interpretation, you place a new feather in your cap of knowledge.

One more qualification for travel, and we have finished our brief homily. It is that without which all the others are unavailing-Money! Not much-no-with good management, and an economy of time in so shaping your course that you need never go twice over the same ground-a few hundred dollars will last for a year, and you may see everything that Europe contains. Do not shrink from a little pedestrianism. Half of the prettiest parts of Europe may be travelled on foot, and greatly to the profit of a voyageur who is not pressed for time-and at how slight a cost! We knew a young American who went over to England-saw the chief lions, i. e., Shakespeare's birthplace, London, Bath, Birmingham, a few noblemen's seats-especially Eaton Hall, in Cheshire-the Liverpool docks, thence to Dublin, Edinburgh, Paris, Rome, Naples, Florence and Switzerland-the banks of the Rhine, Bremen, and so back to New York. He was absent eleven months-spent only five hundred dollars, including the two trips across the Atlantic, and, being musical, bought a Cremona! Verb. sat. sap.

This is but a sketch of what may be accomplished—what ought to be accomplished—by every young Canadian who desires to take a place in society, and garnish his conversation with something better worth hearing than local gossip, Niagara, the Thousand Islands, and—the shop of Quebec politics.

The writer, who has travelled over half the world, with but a moderate degree of preparation, confesses to have derived inestimable advantages from his pilgrimages. It has not been so much in their actual performance as in the boundless souvenirs which they have supplied, and in the immense additional enjoyment and instruction he derives from the perusal of works treating of the countries over which he journeyed. There is no difficulty in realising scenes and events described in books and public newspapers, if the locality of their occurrence is fresh in the recollection of the reader.

TO AMORET.

BY S. J. DONALDSON, JR.

I.

One smiling eve, slow steps I turned
To where the Santee flows;

The dewy valleys clothed in green, Lay glistening with silver sheen, For in the blue the planets burned As Cynthia fair arose.

II

When lo! just near I chanced to spy A sweet-brier blooming fair; Each opening bud with promise smiled, Whilst those full blown in radiance mil As though to tempt the passer-by, Swayed gracefully in air.

III.

Such beauty waked the warm desire To win one to my hand; With critic glance I gazed on all, When lo! I heard a footstep fall, That warned me in swift haste retire And at a distance stand.

IV.

A handsome stranger won his way
Straight to the fragrant tree;
My heart beat loud with anxious fear
Lest that fair glory disappear,
Plucked hastily and borne away
Which won my heart and me.

V.

But ah! so various is the taste That reigns o'er mortal's choice; His sleeve but dashed the roseate dew In reaching for a flower which grew In beauty near, so fine and chaste, It bade the eye rejoice.

VI.

Thus Amoret I feared thy grace Might win a wooer's eye; But he o'er-looked thy wondrous worth,
And stooping nearer to the earth,
Became enamored of a face
That beamed in radiance nigh.

THE TORONTO OBSERVATORY.

BY PROF. G. T. KINGSTON, M.A., DIRECTOR.

THE magnetic observatory at Toronto was established and is now maintained for the purpose of procuring materials to aid in the general advancement of two great objects of physical research—Terrestrial Magnetism and Meteorology. The expediency of adding hereafter an astronomical department is an open question, but up to the present time the science of astronomy has formed no part whatever of the objects of the Toronto establishment.

Imperial in origin and Provincial as respects its present maintenance, its aims and work are cosmopolitan, while any direct benefits that it has conferred or may yet confer upon the Province, should be regarded as incidental and in no respect a measure of its claim on Provincial support. That claim should rather be rested on the fact that it has supplied and still continues to supply a valuable Canadian contingent to that common intellectual property in the advantages of which the whole human family enjoys a share, and towards which it is the bounden duty of each nation to contribute according to the opportunities afforded by its geographical position and physical peculiarities.

It is proposed in this article to touch briefly on the general character of the researches which the Toronto Observatory, and kindred observatories are designed to institute—the condition of our knowledge with respect to magnetism at the time of its foundation—the circumstances that led to its establishment—the important results that it has achieved, and the work that lies before it.*

The direction in which the earth's magnetism acts, or, what is the same thing, the position of the magnetic axis of the needle is defined by two angles, namely, the

^{*} The direction in which the earth's magnetic force takes place is determined by the line in which the axis of a magnetised needle would rest if supported at and capable of a free motion about its centre of gravity. When the needle is in this position, the magnetic force, manifesting itself by attracting the north pole of the needle and repelling its south pole by exactly equal amounts, and along two lines of action that coincide, will maintain equilibrium; but if the axis of the needle be placed so as to make an angle with the direction of the earth's magnetic force, the attracting and repelling forces will turn the needle, so as to cause it to oscillate about its position of equilibrium.

A joint application to the British Government, from the British Association and Royal Society, made in 1838, resulted the following year in the equipment of a naval expedition for a magnetic survey of the high

DECLINATION, (called by sailors the variation) which denotes the angle between the plane of the astronomical meridian and the vertical plane in which the axis of the needle lies, and the DIP, or INCLINATION which is the angle made by the axis of the needle with the plane of the horizon.

The declination is obviously the same thing as the angle between the meridian line, and the axis of a needle balanced in such a manner as to remain horizontal.

The number that expresses the intensity of the earth's magnetic force, and the declination and dip that define its direction are called the magnetic elements, a term extended to include the horizontal and vertical components of the force, named for brevity the horizontal and vertical forces. To distinguish it from its components the magnetic force is commonly termed the total force.

The values of the magnetic elements at a given epoch exhibit very great dissimilarities at different parts of the earth's surface, the declination and dip undergoing every possible variety of angular magnitude and the total force varying in the ratio of 1 to 2.5 nearly. The geographical distribution of the magnetic elements for any epoch is represented by magnetic charts, on which are traced Isogonic lines, or lines through the several points on the globe at which the declination is the same, Isoclinal lines, or lines of equal dip, and Isodynamic lines, or lines of equal total force.

The magnetic elements not only differ with geographical changes, but at the same place they are affected by progressive changes from year to year, to which the name secular variations is given, and which, if they be periodic, must occupy a cycle of several years. These secular variations render a magnetic chart applicable in strictness only to the particular epoch for which it was constructed.

Again, the magnetic elements do not pass continuously from their condition at one epoch to that of another epoch, but are at the same place in a state of almost perpetual fluctuation of greater or less amount, consisting of a combination of periodic changes, or such as recur at similar epochs in successive like periods of time, and disturbances which, though irregular and non-periodic in the sense that they are not repeated at the recurrence of the same hours of successive days, are nevertheless regulated by periodic laws, inasmuch as they manifest a preference, so to speak, for certain hours of the day and certain months in the year.

Acquaintance with these periodic variations and disturbances is of value, both on account of the light it is calculated to cast on the origin of terrestrial magnetism and its modifications, but also that the mean condition of an element at a proposed epoch is affected by the superposition of these variations, and cannot be accurately known till they are ascertained and allowed for.

In 1819, Hansteen of Christians, in his great work, "Magnetism of the Earth," published charts containing lines of equal declination for the years 1600, 1700, 1710, 1720, 1730, 1744, 1756, 1787, and 1800; and lines of equal dip for the years 1600, 1700, and 1780. These, with charts subsequently constructed of the isodynamic lines, though valuable aids in the prosecution of the study of terrestrial magnetism, were all more or less affected with the errors occasioned by the superposition of diurnal and annual variations, besides those produced by disturbances.

The existence of a diurnal variation in one element—the declination, was discovered by Graham as early as 1722, and the approximate character of its connection with the solar hours, as observed in Europe, was known in the latter part of the last

southern latitudes and subsequently to the establishment at the expense of the British Government of fixed magnetic observatories, at certain stations of prominent magnetic interest within the British Colonial possessions. The stations chosen were Canada and Vandiemen's land, as approximate to the points of greatest magnetic intensity in the northern and southern hemispheres, St. Helena, as approximate to the point of

century, but, encumbered with the effects of irregularities that followed apparently no law, it was inaccurate as far as it went and was limited to a very few stations in Europe. Respecting these variations in distant parts of the earth little was known as regards their correspondence, whether in kind or degree or hours of occurrence.

The contemporaneous occurrence of disturbances affecting the declination at stations as distant apart as London and Upsal, was noticed as early as 1741 by Graham and Celsius, but this remarkable fact was suffered to sink into obscurity, till its rediscovery by Arago in Paris, and Kupffer in Kasan, in the years 1825-26, and its further extension by preconcerted observations in different parts of Europe, when it was found that abnormal conditions of the magnetic elements were wont to prevail simultaneously, and to a great extent in the same degree over the whole area of observation. This correspondence, which as far as it extended went counter to the common belief that these irregularities were attributable to atmospheric changes and local influences, suggested the probability and stimulated the hope that more extended observation at distant parts of the globe would conduct to a knowledge of their causes, and thereby reveal to us the nature of the more permanent forces engaged in the production of the earth's magnetism.

Now, while materials for the construction of magnetic charts may be procured through the labours of navigators and travellers, and the more systematized efforts of magnetic surveys and scientific voyages, with such accuracy as is consistent with the uncompensated effects of periodic and irregular variations, it is manifestly only by fixed observatories, carried on systematically and for many years, that a perfect knowledge can be acquired of the periodic variations of the magnetic elements, the disturbances or transient changes with which these are mixed up, and the secular variations, by which the magnetic condition of the earth gradually passes into that found to exist at a subsequent epoch. A very general feeling prevailed among scientific men both in England and the continent, that ignorance on these interesting questions should be no longer suffered to continue, and that the points of systematic observation hitherto limited to the magnetic observatories of Russia. France, Germany, and Italy, should be greatly multiplied and extended, when the attention of British Philosophers was specially directed to the subject by a letter from Humboldt to the Duke of Sussex, then President of the Royal Society, suggesting the claims of the world at large on a nation possessing such facilities for magnetic research as were furnished by the extensive dominions and dependencies of England.

The immediate fruit of this appeal was the establishment in the spring of 1837, of a magnetic observatory under the care of Dr. Lloyd, in connection with the University of Dublin. Another in the following year was attached to the Royal Observatory at Greenwich, and a third some time after at Makerstoun, in Scotland, at the expense of General Sir Thomas M. Brisbane.

least intensity on the globe, and the Cape of Good Hope.* The general superintendence of these observatories was committed to General (then Major) Sabine, while, with the exception of the Hobarton observatory, each was placed under the care of an officer of the Royal Artillery, assisted by non-commissioned officers of the same corps. The officers selected were Lieut. F. Eardley Wilmot, for the Cape of Good Hope, Lieut. Lefroy, for St. Helena, and Lieut. Riddell, for Canada.

Lieut. Riddell, accompanied by three non-commissioned officers, Messrs. (a) Johnston, (b) Walker, and (c) Menzies, reached Canada in November, 1839, when after examining various localities with the view of finding one suitable for a magnetic observatory finally gave the preference to Toronto.

In the spring and summer of 1840, the observatory building with quarters for the officer in command and his assistants, was erected on a block of 21 acres of ground granted by the council of King's College, with the sole condition that the building should not be appropriated to any other purpose than that of an observatory, and should revert to the college when the observatory should be discontinued. The site is in latitude 43° 39' 25" N., longitude 5h. 17m., 33s. W. at a height of about 108 feet above Lake Ontario, and 342 feet above the level of the sea. The observations, that had been temporarily carried on in a barrack in Bathurst Street during the construction of the observatory building, were recommenced in December, 1840. In February, 1841, Lieut. Riddell returned to England on account of ill health, leaving the observatory in charge of Lieut. Younghusbaud. In October, 1842, Lieutenant Lefroy, who had been transferred from St. Helena, reached Toronto, and took charge of the establishment, but left it again in April, 1843, under the care of Lieut. Younghusband, in order to proceed on a magnetic survey in the North West, from which he returned in the autumn of 1844.

Lieutenant (now Colonel) Lefroy, continued in charge from that date till the withdrawal of the detachment of the Royal Artillery in the spring of 1853. Preparations had been made for removing the instruments, when in consequence chiefly of (†) a memorial from the Canadian Institute to the Legislature to continue the magnetic observatory under Provincial management, an arrangement was effected between the Imperial and Provincial governments, by which the former handed over the

^{*}Observatories at Simla, Singapore, Madras, and Bombay, were about the same time established by the East India Company.

⁽a) Assistant-Secretary of the Canadian Institute.

⁽b) (c) Assistants at the Toronto Observatory.

[†]For a copy of the memorial, see page 145, Vol. II. Canadian Journal, 1st Series.

buildings and instruments to the Provincial authorities, on condition of their continuing the observations. The non-commissioned officers, Messrs. Walker, Menzies, and Stewart, whose services were temporarily granted by the commander-in-chief, till they were permanently secured by their discharge from the army in 1855, carried on the duties of the establishment under the general supervision of Professor Cherriman, of University College, till the appointment of the present director in 1855. The original observatory erected by the Royal Engineers was demolished in the summer of 1854, and was replaced by the present stone building in the following year.

It is now time to give a brief description of the more important results which the Toronto observatory has taken so conspicuous a share in bringing to light.

SOLAR DIURNAL VARIATION OF THE MAGNETIC ELEMENTS.

To take the case of the declination. If from each of the twenty-four hourly averages derived from observations of the declination taken every hour for a month, (with the omission of certain exceptional cases), the mean of the twenty-four averages be substracted the remainders will be the twenty-four diurnal variations, which indicate for each hour the position of the needle with respect to its mean position during the day. From examining the variation thus derived from observations in Europe, the needle was found to be affected by a periodic movement regulated by local solar time, its north pole reaching its greatest eastern elongation from the mean position at about 8 A. M., and its greatest western elongation at about 2 P. M. It was found also that the amplitude of the oscillation, or angle between the extreme positions of the needle, was greater in summer than in winter, while the hours of turning were approximately the same throughout the year.

This diurnal movement of the needle, as regards at least its more prominent characteristics, had, as we have observed, been long known in Europe; and connected as it evidently was with the diurnal motion of the sun in the hours of extreme elongation, and with his annual motion in the extent of the elongation, was attributed to the sun as its primary cause, which was supposed to act through variations of temperature and thermo-electric influences, naturally expected to be more energetic in summer than in winter.

In order better to appreciate the light cast on this question by the colonial observatories it will be convenient to consider separately the mean diurnal variation for the whole year, and the two semi-annual means corresponding to the two portions of the year when the sun is north and south of the equator.

The mean diurnal variation for the whole year, at all stations that were examined, was found to follow the same law as to the local time of its extreme elongations, but in opposite directions in the northern and southern magnetic hemispheres, the extent or amplitude of the oscillation being nearly the same at Toronto and Hobarton, and generally greater for high magnetic latitudes, and less as the magnetic equator was approached, being very small at St. Helena.

Again if for 8 A. M., the hour of the greatest eastern and western elongations in the northern and southern hemispheres, the annual mean position of the needle be compared with its two semi-annual mean positions for that hour, it will be found that in both hemispheres the north pole of the needle is to the east or west of its mean annual position for 8 A. M., according as the sun is north or south of the equator. Similarly for 2 P. M., the hour of opposite elongation, the north pole of the needle in both hemispheres is found to be west or east of its annual mean position for 2 P. M., according as the sun is North or South of the equator.

The circumstance that the points of extreme elongation at the same local hour are in opposite directions in the two hemispheres through the year, while their annual periodic displacement is independent of the place of observation, being in opposite directions in the two half years in which the sun is north and south of the equator, occasions a semiannual inequality in the amplitude of the diurnal variation, causing it in the northern hemisphere to be greater in the northern summer, and in the southern hemisphere to be greater in the southern summer, thus producing that apparent connection between the extent of the amplitude and the heat of summer to which this phenomenon, long known in Europe, had been attributed. The fact, however, that the annual movement in the north pole of the needle at each hour relative to its mean position at that hour is all but identical at every station where the investigation has been made, proves incontestably that the phenomenon is independent of geographical position and is occasioned by a direct action of the sun on the magnetism of the earth, depending on his position relative to the equator, a result whose significance in a theoretical view can hardly be overrated.

The comparison of the observations at Toronto and Hobarton have elicited other corroborative evidence in support of the direct, in contra distinction to the indirect agency of the sun in the production of magnetic phenomena. It was found that in December when the earth is in perihelion the magnetic intensity both at Toronto and Hobarton, was somewhat greater than in June. Had this been noticed in Toronto only, the greater intensity in December might have been ascribed to the cold of winter, or if in Hobarton only to the heat of summer, but occurring

alike at both stations it is to be attributed without hesitation to the increased magnetic effect of the sun when the earth is in perihelion.

In addition to the semi-annual inequality lately referred to, the amplitude of the solar diurnal variation of declination at all stations, and indeed of that of the other elements, are found to be affected by a progressive increase and diminution, occupying a cycle of about ten years, that conforms both in its length and in the years of maximum and minimum to a periodical change in the number of spots on the solar disk, proving that whatever be the nature of these spots, and whatever the mode by which the sun produces the diurnal variation, an increase in the number of the spots accompanies an increased energy in the solar action.

MAGNETIC DISTURBANCES .- Another important result effected by the colonial observatories has been the extension and precision that they have given to a knowledge of the magnetic disturbances, which, prior to 1840, had been attributed chiefly to atmospheric causes. From intercomparison of the observations at different stations it was shewn that parts of the globe widely remote were affected by them at the same absolute time, though it might be that different elements were affected, or the same element to a different extent, or in an opposite direction; while the most careful comparison with meteorological changes failed to detect any mutual connection between the phenomena. Again, though irregular as regards their duration and times of occurrence, on collecting the aggregate amounts of abnormal digression of an element at each hour for a series of years, it was found that the numbers so obtained exhibited a well marked diurnal period, manifesting an evident dependence on the sun as their primary source. Concurrent testimony was borne to this important fact by six different classes of disturbances, namely, those in which the needle is deflected to the east and to the west of its normal position, those which increase and diminish the dip, as well as those which increase and decrease the total force, although there was a dissimilarity in the hours of maximum and minimum of their respective diurnal progressions.

Again if the aggregate amount of disturbances of any kind be collected in monthly groups, an annual distribution substantially the same for each of the six classes will be made apparent. Diurnal and annual progressions in the disturbances, first brought to light from the earlier Toronto observations and confirmed by those of recent years, have been found at every station at which the observations have been subjected to a similar analysis, exhibiting however considerable contrariety at distant stations. Analogies have been traced out between their laws, but our knowledge is limited to too small a portion of the world to enable us to represent distinctly the dependence of these varieties on geographical position.

DECENNIAL PERIOD IN THE DISTURBANCES .- Again, if at any

station the aggregate amount of disturbance in each of several years be collected, the annual numbers for each element are found to increase and diminish from year to year in a cycle of about ten years, coinciding in the years of maximum and minimum disturbance with the periodic change in the number of solar spots, and in the periodic fluctuation of the amplitude of the diurnal variation of the magnetic elements.

LUNAR DIURNAL VARIATION.—The existence of a small variation in the declination dependent on the hour angle of the moon was first discovered by Kreil, superintendent of the Magnetical Observatories in Austria, but it was from the Toronto Observations that the connection was first detected between the moon and the variations of Dip and total force. Similar deductions have since been made for the other observatories, but which it would be foreign to our purpose to describe in detail. One important point to be noticed in connection with the magnetic variations occasioned by the moon consists in the fact that there is no trace whatever of a decennial period which is so distinctly marked in all the variations connected with the sun.

In recapitulation, the facts revealed and work effected by the Colonial Magnetic Observatories are as follows:

- (1.) The dependence on local solar time of the diurnal magnetic variations at all stations, and the approximate identity as to the epochs of maximum and minimum.
- (2.) The contrariety in *direction* of the extreme deflections of the declination in opposite magnetic hemispheres.
- (3.) A semi-annual inequality in the diurnal variations of declination depending on the sun's position in the ecliptic, and which is approximately the same at all stations.
- (4.) A small annual variation in the absolute total force at all stations, having a maximum when the earth is in perihelion, and a minimum when it is in aphelion.
- (5.) A decennial inequality in the amplitude of the diurnal variations of the several elements independent of geographical position, and approximately coinciding in the periodic variation in the number of solar spots.
- (6.) The contemporaneous occurrence of magnetic disturbances at remotely distant stations.
- (7.) The detection and determination at several stations of the laws that regulate the diurnal and annual distribution of the disturbances of the several elements.
- (8.) The discovery of a decennial period in the annual amount of the disturbances coinciding with that of the solar spots.
 - (Q.) The extension to other stations and to the other two elements of

the discovery of Kreil, on the existence of a variation depending on the

hour angle of the moon.

In addition to the foregoing results in the establishment of which the Toronto Observatory has taken so prominent a part, there yet remains to be mentioned that proper work of a magnetic observatory—a work not of a few years only but of centuries, and whose claims on public support would remain unimpaired, if no discoveries properly so called could be enumerated—the determination of the absolute values of the magnetic elements, by which the present magnetic condition of the earth is defined, and the secular changes, by which we seek acquaintance with the laws and thereby with the causes of the change by which the magnetic condition of one age passes gradually into that of another.

In the science of Meteorology among the many problems that present themselves for solution, one very important one is that which relates to

the distribution of temperature on the globe.

To determine correctly the mean monthly temperature of any geographical area, the points of observation must be sufficiently numerous to eliminate the effects of local irregularities, but if they be thus numerous it is practically inconvenient or impossible for the observations at each station to be taken with sufficient frequency to eliminate the diurnal variation, or to be continued for a sufficient number of years to neutralize the irregularities of particular years. It is one special function of a central meteorological station such as Toronto to meet this difficulty. From hourly observations at Toronto tables of diurnal variation have been derived by aid of which a monthly mean derived from one or more daily observations, may be reduced with tolerable accuracy to the value that it would have had if the observations had been made at every hour. Such tables, according to the highest authority, are applicable not only to the observations of other years at the station which supplied materials for their construction, but also for other stations within a considerable geographical distance, and whose absolute temperatures may differ considerably from each other. It has also been found that an abnormal deviation of the mean temperature of a month in a particular year at one station is attended by an equal deviation at other stations within a considerable distance; hence from the deviations at a normal station such as Toronto, when the observations are extended over a series of years, we are enabled to deduce the corrections to be applied to the results at other stations whereat the observations are carried on only for a few years.

The researches in magnetism and meteorology in which the Toronto Observatory has been and continues to be engaged, and which have been referred to in the above cursory glance, bear chiefly on the general advancement of these sciences; there are, however, in such an establish-

ment certain secondary and incidental advantages of a more local kind affecting directly the province itself. Some of these will occur to the minds of many, but there is one that deserves special notice.

In the early part of 1857, through a paper in the Canadian Journal, attention was called to the question of employing the electric telegraph to warn shipping of approaching storms by messages communicated from the Toronto Observatory.

Though it may not perhaps be expedient to carry this project into immediate effect, preparations for its future realization might in the meanwhile be going forward, by the formation at the Toronto Observatory, of a collection of all available meteorological observations in the province, with a view to the preliminary study requisite for the correct interpretation of the facts communicated by telegraph from distant stations. Towards such a collection a valuable accession might be made, by the systematic transmission to the Provincial Observatory of copies of the observations carried on at the county grammar schools of Upper Canada, under the auspices of the Board of Education.

The general results of the Meteorological observations now carried on uninterruptedly for a period of twenty-two years, will form the appropriate subject of another article.

THE EMIGRANTS.

A TALE OF THE BACKWOODS.

(Continued from page 54.)

XII

His wife was younger far than he,
A comely matron still was she;
Her manner graceful, grave and kind,
Told she was suffering, yet resigned.
In childhood, many a sweet caress
Was lavished on her loveliness.
In riper years—midst courtly hall,
In stately dance and festival—
You might have heard th' admiring praise
Men rendered to her beauty's blaze.
But Sickness, in his sallow cloak,

Wrapped her fair form, all health before; And Pain, with his relentless stroke, Struck her till he could strike no more.
'T was in those hours of watchful grief—
When suffering's bitterest paths she trod—
That she was taught to seek relief

In deep communion with her God.
Since those deep trials passed away,
It seemed as the some heavenly ray
Lit up with pure and gentle grace
Each line of that submissive face.
And yet with all her meekness, she
Was stronger in adversity
Than those on whom, in trial's hour,
She might have leaned for strength and power;
Because she felt that suffering here

Was meant to purge our soul from dross,
And make us cling, with holy fear,
More closely to the Saviour's cross;
And that it was the hand of God
That o'er her waved His chastening rod.

XII.

They had two sons—a nobler pair Ne'er stood beneath the good greenwood; A daughter, too, of beauty rare, Just bursting into womanhood! They for a time had deeply felt The crushing blow misfortune dealt To all those glowing hopes that rise Within youth's bright and buoyant breast, Like sun-dyed clouds of evening skies, Floating in glory round the west; And which, alas! so oft like them, When the bright sun has passed away, Gleam faintly for a while—and then Die darkly with the dying day. But this soon ceased—care seldom cast A shadow o'er youth's onward ways— At least, a shadow that would last Throughout the lapse of many days-For it is like the shade that flees O'er the glad waves of sunlit seas,

Cast by some fleecy cloud on high,
Floating across a summer sky.

'T was thus with them, for soon they smiled To think of that rude life and wild, Which they should follow midst the woods, Of far Canadian solitudes.

And when they thought of it, Romance Would wrap them in his magic trance, And bathe all things in those bright hues That he is skilled so well to use.

Hope, with her sweet but lying tongue, Finds her best listeners 'midst the young, For in our youth, all outward things Seem breathing forth her whisperings.

We fondly deem a joyous voice Is calling on us to rejoice;

And seems to promise joys, whose ending Shall only be, when life shall part,
While it, in truth, is echo sending
Back but the tones which from our heart
Are ever, in our youth, ascending,
Ere from life's first bright dream we start,
And find all round us dark and chill—
Enduring and foreboding ill.

XIV.

About a mile beyond the bay
On which the Chester's clearing lay,
Breaking the lake's bright fringe of green,
Another clearing might be seen.
Close by the narrow beach there stood
A simple hut, both small and rude;
And many a blackened stump was there,
Marring a scene that else was fair:
For from the shore there might be seen
Point, bay and isle—the lake between
Seem'd like a pure and crystal sea,
Studded with emeralds beauteously.
Here dwelt alone a gentle youth,

Weston his name—his age might be Some twenty years, tho' he, in sooth,

Was older than he seemed to be.

His dark brown eyes—his clustering hair,
His open face, his quiet air—
Simple, yet self-possess'd, did tell

That he'd been gently rear'd and well.
But there was something more in him
Than pleasing face and well-turn'd limb;
For tho' so young, yet he had store
Of ancient and of modern lore.
And he had brought from Oxford's tow'rs,
A mind whose strong and native pow'rs
Had been so nurtured, that at length
They rose in beauty and in strength,
Like some strong Gothic arch that tow'rs
In airy lightness to'ards the skies;
Or like a shaft that, wreathed in flowers,
Hides half its strength to careless eyes.

Nor was this all: in early youth,

XV

Thoughts deep and strange would o'er him roll, And even then he worshipped truth With all the pulses of his soul. Low whisperings o'er his spirit fell, Tho' whence they came he scarce could tell; He knew not-like the prophet-child-The Author of those accents mild That called him, thro' this world of sin, In lowliness, to follow Him. Strange lights fell o'er the things of earth, Making them but of little worth, For all their glory seemed to be O'ershadowed by eternity. He learned to sound those depths of sin That have their cherished home within; And with a true and honest heart, He gladly chose "the better part;"

Grateful to Him, whose boundless love,
Had led Him from His throne on high;
And from the adoring Hosts above,
For us to suffer and to die.
He strove to follow in the way
In which his Lord had gone before:
And still he sought, from day to day,
To serve Him, and to love Him more.
But his was not the love that dwells
In loud profession on the lip:

His was the blamelessness that tells
Of that deep inner fellowship
With Him whose spirit is the spring
Of every pure and holy thought,
That lifts Devotion's lagging wing,

And cheers our hearts when sorrow-fraught.
And yet withal, 't was seldom he
Had not a heart as full of glee
As those with whom he mingled there,
Amidst those woodlands wide and fair.
But yet at times there might be seen

Upon his brow the stamp of sadness, For his a trying lot had been, That cast its shadow o'er his gladness.

XVI.

Well born was he (as has been said);
And as to'ards manhood's years he grew,
Still choicer gifts were round him shed,

And hope grew brighter in his view. Tho' but his father's younger son He might be called his only one, For, years before, his brother fled, And they had mourned him long as dead. That brother was a wayward soul-High and impatient of control; And maddened by a just reproof, He proudly left his father's roof; And swore that he would sooner be A wanderer, than in slavery. They sought him long, but sought in vain, And then they heard, that on the main He'd sought his fortunes; then that he Had perished in a storm at sea. Their youngest child was now their all-Heir to his father's ancient hall; The plaything of his sisters fair, And his sweet mother's chiefest care; And richly was their love returned By him o'er whom their bosoms yearned. While yet a child—a kinsman died

On whom his sire had little claim; Yet left him lands, both fair and wide, With which he was to take his name.

And thus the name of "Neville" died,
And "Weston" its proud place supplied.

XVII.

T' were long and tedious now to tell How thro' strange wrongs it came to be, That suddenly the Westons fell From affluence to poverty. Yet so it was-and Edward now, That son whom they had cherished so. Uprose, and with a tranquil brow, Showed that 't was fitting he should go To that young Western land, whose soil Richly repays the slightest toil, And make for those he loved so well. A home in some deep forest dell. He pictured forth a life so free, Midst the dim wood's obscurity; That on their life's dark, troubled stream, Hope's smile again appeared to gleam; And while her glances dried the tears, And her sweet whisperings stilled the fears That rose within each loving heart, When Weston from his friends did part; She brighten'd with her purest ray, His distant and his lonely way. And thus it was that he had sought Those woods which seemed with blessings fraught; And fixed his home beyond the bay. On which the Chester's clearing lay. Oh, ancient woods! how many a tale Of sorrow might thy depths reveal! Oft hath thy sighing seemed the wail Of suffering thou could'st scarce conceal. How many a cheering hope hath faded, Like thine own leaves in Autumn time, From out young hearts that thou has shaded. And manlier spirits in their prime. And Oh! how oft misfortune's son, Has in his sadness fled to thee; Hoping, when he thy depths had won, To bid farewell to penury. And so thou art a refuge rare,

For Labour's simple sons and rude;

But Oh! the gentle-born and fair,

Should selcom seek thy solitude.

XVIII.

Weston a cordial welcome met, Wherever through the woods he went; Each hand and heart was open yet, Throughout the wide-spread settlement. Community in hardship formed A bond towards which their feelings warmed; Hope sang them still a Siren song Of comfort and of wealth ere long. Their trials were but food for glee, And warm their hospitality; And merry jest, and courteous air, Soothed their rude homes and simple fare. There was not, 'midst them all, a board More pleasant, or more amply stored, Than Chester's-who, to every friend, His warmest welcome would extend. The father's frank and courteous greeting-The mother's soft and gentle grace; The manly son's warm-hearted meeting-The beauteous daughter's beaming face-Shed o'er that wild and woodland spot, A charm that might not be forgot. Here, when the clear and silent dew Was weeping o'er the sun's last ray; When sombre Eve her shadows threw Over the darkening face of Day; When stalwart Labour, casting down His weary burden, sought for rest; And dark-browed Night, with deep'ning frown, Scared the faint Twilight from the west. Here at such times would Weston seek To while the evening hours away, In converse with the mother meek, Or laughter with her children gay. Or else, perchance, their voices blended Into some old true-hearted song, On Music's trembling wings ascended

In no untutored unison. Weston soon found that feelings rose That marred his bosom's still repose; By day his dreamings all were bright, And sweeter visions came by night; And in them, ever smiling fair, Sweet Edith Chester still was there. At length he woke as from a trance, In which, upon his dazzled glance, A glorious gleam of joy had broken, Too blessed to be lightly spoken. A sad awak'ning 't was for him, For well he felt that it were sin, To woo a maiden such as she, Amidst his own deep poverty. And when his much-loved mother's face Before his mental vision came; His father's form, his sisters' grace-His very soul did blush for shame, To think that he should e'er have thought Of aught save that unselfish aim For which he first the forest sought, When to its silent depths he came.

XIX

The Chester's marked his altered mein, His sadder looks, his visits rare. And wondered much what it could mean: And feared that some coroding care, Which he, perchance, was loath to tell, Weighed on the friend they loved so well. To Edith he had never showed The love that in his bosom glowed; And yet she often wondered why Her heart should now unbidden sigh; And why a sort of dreamy sadness, Was dearer than her former gladness. And as for Weston—sooth it seemed As if the very heavens above No longer in their glory beamed, As when at first he learned to love. With him youth's first and sweetest dream. Seemed now as tho' 't was doomed to be

A fading thing before the gleam Of this world's cold reality. 'T was true that he might win her heart. And hope for brighter days beyond; And that it was a manly part, Never to waver or despond. But Weston's breast would never brook A thought that Honor might not scan: He was in word, and deed, and look, A christian and a gentleman! Say! wert thou ever forced to bear That first deep grief to nature known. When with a quivering hand we tear Some idol from our heart's high throne; When thoughts and feelings all combine In one low wailing of distress; And round the bosom's broken shrine, Gather in utter loneliness? If so, then may'st thou fitly tell The voiceless anguish that did swell In Weston's heart, when from his gaze Faded the dream of those bright days. He knew that midst the settlers there Were others who deemed Edith fair: And one he knew, whose burning eve. Oft looked upon her lovingly. Oh! wildly was his bosom tossed By dark repining thoughts within; And for the wealth that he had lost, Longed with a longing that was sin: Because at times he seemed to be Faithless in His abounding love, Who guides us o'er life's troubled sea, To'ards His own glorious rest above. Devotion would not heavenward soar On Passion's scorched and flutt'ring wings; And holy thought was more and more Pressed from his thought by earthly things. But this was brief—for soon he sought His aid who can our thoughts control; And to His footstool humbly brought A sorrowing, but submissive soul. He thought of Him who once below

Earth's darkest path of suffering trod, With none to soothe Him midst His woe, With few to love Him save His God; And Who was strengthened and upheld Upon His lone and weary path, When He the griefs of others quelled, And snatched the sinful soul from wrath: Who-homeless, friendless, sorrowing-yet For others, could Himself forget. And Weston felt if this could be The road his Master trod of yore, That he must not repine to be A follower where He went before. Thus with a Christian's holy art, He strove to still his aching heart; And tried to think how often we-Like wayward children-long to clasp The poison fruit upon the tree, Tho' wiser love withholds our grasp. That there's an Eye that marks full well The dangers of that flow'ry way; On which our hearts would love so well To wander on the live long day; And bids us, tho' our hearts may break, A safe, tho' rougher, pathway take.

From whence you could wax 'T was eventide; the sun's low ray Was turning into molten gold Each wavelet that across the bay Its gleaming waters gently rolled; The summer wind that all the day Its tale of joy had sweetly told To the young leaves, had died away: And the long shadows, growing bold, had to find Stole from their forest haunts, to play O'er that strange clearing, where of old At noon they had been free to stray, As the 't had been their strongest hold. But o'er it now full many a ray From the sun's eye, so fierce and bold, Chased them in terror far away. And never but at Eve's still hour,

That then was brooding o'er the scene, Could they regain their ancient power, And be once more as they had been. The poplar's quivering leaves grew still-The sunlight slept upon the hill; as and all mod U. As the' before it sunk from sight, 'T would shower around its richest light. E'en the dark pines, that o'er the wood Towered in majestic solitude, Like giant Ethiops, fierce and wild, and more W hard Glowed in that gorgeous blaze and smiled. The gushing brook that danced along, and and the Seemed now to sing a drowsier song; And at a distance rose and fell The music of a cattle bell. Nature in stillness seemed to bend Before its God, and upwards send Its mighty homage, due to none, and more aft But only to the Viewless One.

XXI. The dangers of The Control of T Such was the scene, and such the hour, When Edith Chester slowly strayed Down to a sweet and woodland bower That her fond brothers for her made, Just on the point that formed the bay. From whence you could with ease survey The windings of the indented shore, And the bright isles, all wooded o'er, And the wide lake, all pure and free, That ever rippled restlessly. 'T was thitherward her steps she bent, For there full many an hour was spent; For she was at the age to be Full of wild dreams and reverie. She was a fair and gentle thing-As gentle as the breath of May, That wantons with the flowers of Spring,

Then bounds from their embrace away; And breathes its odours o'er your brow So sweetly, yet so gently, thou Canst scarcely feel the fragrant air Lift the light locks that cluster there.

And as for beauty-well, I ween, and are plant al That all those glorious forms that come danothiA Before us in youth's gorgeous dream, Had scarce her loveliness outdone! Her step was bounding, light and free, Her brow all thought, her voice all glee, Her large and speaking eyes, bedight With pensive dreams, or laughing light; Her tresses like dark streams that flow, Adown some slope of spotless snow; with said back Her swelling form, whose buoyant grace. Rivalled the beauties of her face! Her low laugh seeming as tho' sent in about out and To teach men what true music meant; Making e'en echo dumb-for she Appeared to listen breathlessly, And seemed to feel, that to repeat That sound, would all her skill defeat.

XXII

Such was the maid who in the bower,

Built by the bright lake's wooded side,

Sat midst the glorious sights that shower

Their beauty round the eventide.

Her book was closed; her beaming eye

Wandered o'er wood, and lake, and sky,

As tho' 't was fearful it would lose

One of those bright and dazzling hues,

Which shipe in richest colours when

Which shine in richest colours when the dying evening sinks in night;

Even as a warrior, death-doomed, then
Is in his choicest paint bedight.
A ling'ring floweret of the Spring,
Still blooming 'neath the Summer's wing,
Called to her mind a simple lay,
Learnt from a youth who loved to pay
Deep homage to the muse, and long
Had nursed a secret power of song.
And now those strains are ringing free,

Upon the trembling breath of eve,
As the with that rich minstrelsy,
She would her dreamy heart relieve;
And these the words that floated then,

In music, over lake and glen,
Although, in sooth, they seemed to be
More full of sadness than of glee;
And fitter for the Springtide's hour,
Than for the Summer's day of power.

XXIII.

Ye come! wild flow'rs of the early Spring
Ere the frost and the cold depart,
And the simple smile of your blossoming
Flings its light o'er my shaded heart.
Ye come! ye come, from the earth's bleak breast,
Ere the woods in their robe of green are drest;
In your starry eyes there's a glance of mirth,
Ere we dream that such fragile things have birth;
Ye gem our path thro' the woodland brake,
Tho' Winter's still throned on the icy lake.

Ye come, sweet flowers! like a pleasant thought
Of the lov'd and the holy dead,
That we find in our hearts, though we seek it not,
Where mem'ry her train hath led.
Through the long drawn vista of bygone years,
Whose trees are cypress—its fountains tears;
Though we own with thanks that full many a ray
Of joyous light on their waters play;
For the darkest pathway we e'er have trod,
Was cheer'd by His smile, if we walked with God.

Ye come like the morning star, whose ray
Tells that night, on her darksome wing,
Doth flee from the face of the coming day,
Like a fearful and guilty thing.

For ye come to tell, with your own glad voice,
That the trees of the forest may now rejoice,
That the night of the Winter is waning fast;
That its iron reign is o'er at last;
That the day of the Summer's about to break,
With its glorious beams over wood and lake.

Then hail! bright flowers of the early Spring,
Whose home is the forest dell;
I welcome the smile of your blossoming
With a love that I scarce can tell.

XXIV.

While o'er the lake's now slumb'ring tide She sent that strain of melody, She failed to mark a light skiff glide Close to her wild bower, noiselessly : And ere her latest note had died, A manly form was by her side. She tried-but tried in vain-to shriek, And the warm blood forsook her cheek; For such her terror and surprise, That she had failed to recognise In him who now before her stood, A settler in the neighbourhood, Well known to her, for often he Had shared their hospitality; And many a winter evening spent With them in harmless merriment; And she had read, with woman's art, The love that dwelt within his heart. Yet Edith felt her secret mind Repelled by something undefined That hovered round him, even while His lip put on its blandest smile, And she had seen his glance of ire Burst forth as from a soul on fire. She rose with cold yet courteous greeting,

And to'ards the cottage took her way; Said that the evening fast was fleeting—

That she had made too long a stay;
But that her brothers within call,
Worked by the little waterfall.
Clifford forgiveness asked, retreating

Before her on her homeward way,
And told her he had sought that meeting

With panting heart from day to day. "Edith!" he said, with voice all trembling,

"Stay but a single moment—stay!
My soul will burst, if still dissembling,

The feelings that upon it prey.

Love! colder souls might call it love!

But by those bright clouds throned above,

Madness is far too mild a name

For that which sets my heart on flame.

In other days, my iron will Could bid that rebel heart be still; But now 'tis vain. The rushing storm Does not more wildly laugh to scorn The puny barriers man would raise To stay it on its onward ways, Than my heart mocks the effort vain, Its tameless passion to restrain. Blame the still waters slumb'ring there, Because upon their faithful breast The clouds of heaven are mirror'd fair, Now in this tranquil hour of rest. But blame-Oh! blame me not, that I Have felt my bosom's inmost core Stamped with thine image, which can die Only when life itself is o'er! Nay! turn not with disdainful start-Let me not offer all in vain The homage of my flaming heart That never can be free again. I've knelt before at Beauty's shrine, But never till this torturing hour-When now in doubt I kneel at thine-Dreamt I of love's wild, madd'ning power. Oh! break not from me! Love like mine Is scarce in this dark world and cold; And like those beams that round us shine, From yonder sinking orb of gold. 'T would bathe in beauty all around Where'er our future path might lead; And e'en in sorrow would be found A blessing in the hour of need."

(To be Continued.)

THE SETTLER'S DAUGHTER.

BY MRS. HOLIWELL.

Authoress of the "The Old World and the New." "The Earles in Canada," &c.

CHAPTER I.

MAPLETON.

In 1820 the site of the present village of Mapleton was the abode of the red man. In the solitudes of his native forest, he roamed far and free, his title deeds received from nature, not lawyers; and tradition, not acts of Parliament, defining his boundaries. The shores of Lake Huron had hitherto been out of the reach of the emigrant, the most adventurous regarding those parts as the Romans did Britain, beyond the limits of the known world. At length the ancient sovereignty of the Indian was shaken,—grants of land in some instances were made by the British Government, to individuals deserving well of their country, which cause among others helped to turn attention in that direction. The impetus once given, crowds of the striving, vigorous, Anglo-Saxon race followed in the wake of the early pioneers of Western Canada, and fair villages and busy towns soon sprinkled the virgin bosom of the beautiful tract.

One of the first settlers of that part of the Province was Lieut. Mapleton, a naval officer in His Majesty's Service, who with many more received an extensive grant of land as the most economical reward for past services, and as a means of promoting the settlement of the country. Few on the list thus favored availed themselves of their new acquisitions immediately, but Lieut. Mapleton had an object in view that made him anxious for a home; when he bid farewell to one of England's proudest and loveliest daughters, neither believed it would be too long to wait, while the gallant officer hewed out of the forest a home fit for refinement and beauty to dwell in. Love is an enchanter; under his influence months flew by like days, as one by one the giant trees succumbed to the axe of the settler, the primeval forest echoed with the refrain, "Leonore," and for ever "Leonore." When the lonely emigrant skimmed the clear waters of the beautiful lake, in a birch-bark canoe, -a form lovely as a fairy dream sat at the prow and held sweet communing with him. In the inclement winter when weather-bound for weeks, he sat by his blazing log fire, the vacant chair beside him was filled by an angelic visitant who whispered of hope and patience, and pointed onward to the fruition of his anticipations. But with all the gilded hues of imagination, clearing wild land is one of the sternest realities of life, and cannot be accelerated one acre by brilliant hopes, or enlivening songs. After a while others followed in the track of Mapleton and aided him with their labor and experience. Shanties sprang up around, in due time farms were partially cleared—and the nucleus of a village formed. An enterprising Scotchman called McLeod, put up a saw mill, which greatly facilitated the settling of the neighborhood.

Still it was long, very long before the Lieutenant could exchange his rude log cabin for a house commodious and elegant enough for his queen to live in, and reduce the surrounding wilderness to an appearance of cultivated beauty. He was a tall, straight, brown-haired man, of perhaps thirty years when he entered those primitive woods, now when prepared to summon loveliness to preside over his magnificent and promising estate, he was bent and withered and the brown curls streaked with iron grey. He forgot his fatigues, his hopes deferred, his altered appearance, when the period at length arrived for him to bring out the new mistress of all his hard won riches, riches wrung from the stern grasp of forest and rock, and too dearly paid for by a premature old age. Letters from Leonora had been less frequent of late, but absorbed in his busy life he had not noticed the circumstance; certain of his own constancy, he never thought of doubting hers, and full of affection and proud delight he wrote to announce his speedy arrival to claim the long expected guerdon of his labours. An answer by return of post crushed all hope and almost life out of the faithful heart of the lover. Leonora, weary of so long a delay and alienated by absence, had accepted the hand of titled old age in preference to the choice of her youth.

None guessed Mapleton's grief, but he became even shyer and more distant than he was before with his plain but well-meaning neighbours. He withdrew within himself and fed in silence on his great sorrow. About a year after the event the village was astir with the news that Mapleton had married poor Alice McPhail, the orphan child of some Irish peasant who had lived in one of the Lieutenant's cottages, whose career had been brought to a sudden close six months previously by cholera. The gossips had scarcely left off talking over the wonderful affair, and discussing the probable happiness or unhappiness of the ill assorted couple, when another, and more melancholy circumstance occurred. Young Mrs. Mapleton died within a year of her marriage, leaving an infant daughter to console the bereaved husband. Great was the excitement and curiosity of the neighbourhood, but nothing more could be extracted from old Nurse Wilkins, but that the young wife bore her trial bravely, and died in her husband's arms, blessing him for his goodness to her. Many from curiosity, and others from real kindness, would have liked to penetrate the mysteries of Mapleton Vale, and pierce through the reserve, that concealed the domestic grief of its inmates; but the sensitive, proud man, shrank from any demonstration of sympathy, and as he appeared to go on just the same as before, public interest died out, and he was allowed to bring up his baby daughter without interference from the happy and experienced mothers of the village. As his little companion grew up beside him, passing from infancy to child-hood, from childhood to girlhood, the bent, grey headed man became erect and cheery, less misanthropical in his intercourse with the outer world, and altogether more genial and agreeable. Many a little child has been sent by Divine mercy into saddened and desolate households to cheer and console. Blessings come robed in humility and stand at the door and knock.

Mapleton Vale, the residence of Lieut. Mapleton and his daughter was charmingly situated on rising ground two or three miles from the village, which was perched like a wild white bird on the very borders of the lake, and formed a picturesque object from the windows of Mapleton Vale. It was a low stone house, covering a good deal of ground and almost smothered in flowering shrubs and bushes. A stone's throw, from the house stood a log shanty, used as a milking shed by Maggie, the farm servant. It was under its rough shelter that the settler spent the first dozen years of his life in the backwoods : he seldom remembers it, but his daughter has a kind of reverence for this memorial of her father's labours and privations. On still higher ground, about a mile further from the village, was McLeod's Mill, and his white painted frame house hard by, in summer concealed from view by the luxuriant foliage of the surrounding forest, but in winter looking bleak and bare-a lonely sentinel over the snow covered wastes. The creek that turned the ever busy mill skirted the Lieutenant's farm, and then making a sudden curve dashed off towards the village, where a little bridge spanned it, ere it mingled its busy stream with the deep still waters of the great lake.

Lawrence Mapleton grew to woman's estate without more education than she could derive from her father, whose capacities were somewhat limited in that department. They read the Bible together, and the Penny Magazine; perused with the attention personal interest alone can give their "Weekly Agriculturist," for Lawrence loved everything that pleased her father. Their nearest neighbour, with the exception of McLeod, was a Major Glegg, an old army officer, a very jovial and convivial companion, though scarcely a congenial one to the Lieutenant. He also was indebted to a paternal government for the acres he possessed, but he had made a far different use of them, for while Mapleton by dint of years of toil and careful management was reputed the richest man in the district, no one would take the Major's note of hand, or believe that when his affairs were wound up he would leave a dollar behind him. He retained all the prejudices of his early education, and looked with contempt on the plodding habits of his neighbours. Field-

sports and drinking were essentials to his existence, and what was not accomplished on his farm by his hired men was left undone. His daughter Ailsa, resembled him as far as her sex would permit; she was a bold rider, a rough talker, and assumed everything masculine but the attire; beneath her foibles, however, she concealed an honest, affectionate heart, and some generosity of mind, although these fair attributes were marred by an uncurbed temper, and self-indulgent disposition. Association, not choice, had produced the friendship existing between her and Lawrence, for there was as little sympathy with each other's sentiments and feeling as there was between their respective fathers.

Lawrence was naturally the belle and pet of Mapleton; for little villages are not above the weakness of seeing peculiar charms in the child of affluence. Perhaps had the girl been dull and clumsy, wealth alone could not have made her popular, but combined with beauty and sprightliness, it rendered Lawrence the idol of the village circle. She proved a social medium between her father and the Mapleton people; she coaxed him out, and showed them hospitality at home, where she presided with mingled dignity and grace. Care and sorrow had never dwelt for a moment on her sunny head, she had no wish ungratified; a little wilful, perhaps over-confident, in her power of pleasing and dispensing happiness, but as she really never failed in winning all hearts the foible was excusable. The proud consciousness of being beloved gave a certain dignity to her character, and her generous disposition strove to merit the good opinion of her father and friends. Never checked by so much as a frown she had been accustomed from infancy to express every thought and fancy of her inmost mind, and a sacred regard and love for truth in every relation of life, formed a prominent trait in the young girl's character. When Lawrence was sixteen a very pleasant visitor came to Mapleton.

Mr. and Mrs. Mouncy, people of polish and education, came to Canada early in 1851, hoping that the anticipated railways would open a situation for Mr. Mouncy, who was an engineer of some experience. His brother had long resided in the neighborhood of New London, and had married one of McLeod's daughters from Mapleton. Thither of course the strangers bent their steps, but only to find the poor wife weeping over the coffin of her husband, who had been thrown from his waggon and killed on the spot. McLeod came quickly to his daughter's assistance, and after settling her affairs prepared to take her and her two children home, and much commiserating the uncertain prospects of the Mouncys, invited them to "come along, there was room enough at the old mill for them all." Mr. Mouncy declined for himself as he wished to go to Toronto to look about him, but accepted gladly for his wife, who wearied with travelling and anxiety, sorely needed the repose and com-

fort of home. The parting was indeed a trial, but they looked forward to a speedy re-union, and it was a cheerful, pleasant addition to the Mapleton circle that McLeod brought back with him in company with his sorrowing daughter. A something in common drew Clara Mouncy and Lawrence Mapleton together, morning visits were exchanged, then country rambles planned, social evenings and entire confidence followed. Mrs. Mouncy was a highly educated woman, and while she admired the lofty tone of her young friend's moral qualities and did full justice to her refinement of feeling and true politeness that would not wound the lowest, she grieved that her mind was altogether fallow, and in return for Lawrence's kindness and hospitality she resolved to try and repair the want in her education and give her a general view of the world, its history and literature. Lawrence possessed a comprehensive mind and readily grasped a new subject, though remembering words was almost impossible to her, unless poetry, for which she had a singular power of retentiveness. It was summer time, and their reading was generally pursued out of doors, Lawrie's attention being often distracted by a chirping, saucy bird or daring chipmunk; occasionally her father would join them and stretch himself on the grass within hearing. He began to fear Lawrence was growing too learned and would become discontented with Mapleton and her old father's society. A few afternoons spent with the fair students re-assured him, they talked and laughed quite as much as they read, and one day the girl fairly flung down "Irving's Columbus" to go into ecstacies over a quarrel among the humming birds in the trumpet honeysuckle. "No fear of her, I believe," murmured the old man as he wandered off alone, "better she grow up like poor plain Alice than resemble Leonora."

Mrs. Mouncy was often accompanied to Mapleton Vale by McLeod, who dearly loved a chat about country matters with the Lieutenant and a little bantering talk with his daughter. Sometimes the conversation took a political turn and then the social old Scotchman always looked to Lawrence for support. Mapleton felt but little interest in politics, he had never cared for them in his youth and now whatever pleasure he took in public affairs he reserved for the country of his birth. distrusted change and preferred putting up with small evils to seeking a difficult and perhaps doubtful redress; he lacked the moral courage that would attack a wrong because it was wrong, while McLeod liked nothing better than to be put on the track of some rascality perpetrated or supposed to be perpetrated by the party he opposed. Major Glegg often joined the family circle; he was a violent and unreasoning opponent of McLeod's, Mapleton a languid one, while Mrs. Mouncy lent to their cause the more efficient aid of her pointed repartees and well considered arguments. Lawrence was keen sighted to perceive a weak point in the

enemy, and knowing her father enjoyed the battle and was quite indifferent as to the issue she racked her ready wit to supply her old friend with all the assistance in her power. He was a host in himself, cool, laconic, practical, he advanced nothing he could not prove, and never lost his temper, while the Major hit at random and was often convicted

of contradicting himself a dozen times in the evening.

Lawrence's sole accomplishment was music and in this she excelled. It was quite accidental that her fine voice and ear were discovered and cultivated. A few years previously an erratic German called Maurice Strauss sojourned in Mapleton to recruit his health. He was an enthusiast in his art and soon awoke all the dormant talent for music in the neighbourhood. His first intention had been simply to spend the summer, but he was persuaded so cordially to stay longer that he consented, and at the earnest desire of the young men of Mapleton he got up a band and devoted himself vigorously to their instruction, The young farmers soon learned to blow their horns and trumpets as efficaciously as they wielded the flail or the axe. Two or three of the wealthiest settlers procured pianos from New York and employed Strauss to teach their daughters to play on them. Lieutenant Mapleton followed their example and Lawrence speedily became the master's best and favourite pupil. Strauss had partly studied in Italy and excelled in the beautiful music of that musical land. He was a restless mortal, and although acknowledging himself happier than he had ever been before in his life, he began to hanker after the busy noisy world, and suddenly went off as silently as he came after a stay of nearly three years. However the direction thus given to public taste was permanent, and possibly the innocent recreation of practising music may have had something to do with the fact that the Mapleton young men were remarkably sober and steady, and the sweet, gentle manners of the Mapleton girls were commented on far and near. Maurice Strauss was an unconscious missionary; he who introduces healthy and refining amusements is a labourer in the good work of humanising and elvevating his fellows. Lawrence, although deprived of further instruction, practised industriously, for she loved music dearly, both for the pleasure it gave her and as a means of amusing others. Often when conversation flagged Lawrence stole to the piano, and those were proud moments when the social party gathered round her and listened with silent and hearty appreciation to her clear, full voice; it was enough, for her ambition went no further than the honest admiration of McLeod or the critical approval of Clara Mouncy.

With such associates and in such employments another year rolled over Lawrence's head, a year fraught with much improvement to the young girl, who learned in her readings with Mrs. Mouncy to know how very ignorant she was, a piece of self knowledge seldom acquired in boarding schools, and yet shared by the greatest and most cultivated minds of all ages. Mrs. Mouncy had passed the Christmas with her husband, but he was still unsettled and she was glad to return to McLeod's hospitable roof, who indeed began to regard her with the affection of a father. However as the Spring wore on prospects grew brighter and Clara expected by every mail good news of a home and a permanent situation; it was midsummer, however, before the missive arrived.

CHAPTER II.

SWINTON'S ADVERTISEMENT.

Lawrence was presiding at the breakfast table one July morning when she spied Paddy, their out of door factotum, approaching the house from the village; he had newspapers in his hand, the semi-weekly post had delivered up its treasures, and Lawrie, tripping to the open window, received them with smiling thanks.

"The English Mail must be in, dear papa; here are two papers and a letter from across the Atlantic."

"Who is the letter from my child?"

"Indeed I don't know the handwriting, but here are your spectacles papa, you can look for yourself."

The old gentleman turned the missive over and over and at length deliberately broke the seal, Lawrence going on silently with her breakfast. It took some time to decipher but it was laid down at last, and meeting his daughter's inquiring eye her father handed it to her, saying, "Read it, my love, it is from an old and almost forgotten friend of my youth, Arthur Claridge, of Ulton Rectory, Yorkshire." Lawrence with some difficulty read the following:—

"To Lieut. Mapleton of Mapleton Vale, Lake Huron.

"Dear Marleton.—I believe nearly twenty years have elapsed since your handwriting has gladdened my eyes, but you were ever a poor correspondent, and since your matrimonial projects in this country were broken off I suppose you took a distaste to the rest of its people. Still, in spite of your silence, I feel sure you have not forgotten our boyish friendship at college, ripening with our manly years into mutual respect and confidence. I write to ask a favour; my eldest boy, who, I regret to say, has shown a great indifference to study and a love of rural sports, is going into your neighbourhood. Through an advertisement, I have become acquainted with a gentleman by name Swinton, living near Mapleton, who boards young men for a handsome consideration.

and teaches them Canadian farming, having a model farm on which to instruct them practically. His pupils are to enjoy all the comforts of home and a sedate Mrs. Swinton acts a motherly part by them. I shall be able to give the boy a few hundred pounds in a year or two (I am economising my income, for you remember I have no private property,) and then he can settle in Canada; he would be a pauper here and prevent the girls from marrying well. It is all arranged, he sails in a week's time. What I ask of you, if you live anywhere near, is to show my boy a little kindness and attention for his old father's sake. I never heard news of you beyond your marriage, have you a large family? I rejoice in five girls next to Hemsley and two boys in petticoats. Squire Hemsley of the Manor House is the lad's godfather, gave him a silver pap boat, and ever since has filled his silly head with nonsense: so much for a grand sponsor. God bless you, write if you have not forgotten how, in that barbarous home of yours in the backwoods.

"Yours sincerely,

"ARTHUR CLARIDGE."

"Surely papa, Mr. Claridge does not mean that coarse, unprincipled man Swinton, at Hogg's Hill, when he says, 'a gentleman by name Swinton."

"Indeed, my dear, I fear he does, I have heard that the rascal has been advertising in the English papers, the pity is, it is too late to prevent the boy from coming, I suppose he is on the Atlantic now; it will be the ruin of the lad; what can be done?"

As Lawrence could devise no satisfactory answer to her father's query, she left the room to attend to her usual domestic duties. Later in the day Lieut. Mapleton called her attention to an advertisement in the "News of the World."

TO PARENTS AND YOUNG GENTLEMEN OF SMALL MEANS.

A RCHIBALD SWINTON, Esq., of Mapleton, Lake Huron, boards and educates young men in practical farming, suitable for the country. Possessing a tract of land in the highest state of cultivation, his pupils enjoy every advantage in thoroughly acquainting themselves with agriculture. Mr. Swinton being a family man can offer his boarders unusual home comforts and agreeable society. Terms, £100 per annum, paid half yearly in advance. A year's residence is sufficient to prepare any one to go on his own land, and Mr. Swinton being extensively connected in land purchases is well able to recommend a locality and give sound advice on the subject. Address, Archibald Swinton, Esq., Mapleton Post Office.

Lawrence's great brown eyes flashed fire as she read the printed swindle, her nostril dilated with scorn. "What a contemptible wretch!" she exclaimed vehemently, "why, he has not ten acres cleared, and his wife is a drunken Irishwoman who, I expect, never wore a shoe in her life."

"I never regretted anything more than selling those fifty acres to Swinton, yet the fellow was fair spoken, and seemed honest and industrious; I would gladly buy the land back at double the price he gave, to get rid of him."

"You have no need to reproach yourself, dear papa; you cannot be responsible for everybody's character, but I do feel so sorry for this young man and his deceived parents. I am going into the village, can I do anything for you?"

"No, love, but what takes you there such a hot day? you had better let Paddy drive you.

"Oh no! it will be shady for an hour yet. I want to see Mrs. Mouncy, she expected a letter from her husband this morning and I am so afraid it will be a summons to join him.

"Fie! daughter, fie! wishing to keep separate two loving hearts."

"I know it is wrong, but oh dear! she will be such a loss. I am sure I love her as well as her husband does and, I daresay, enjoy her society more."

"Pray, what do you know about husbands and wives enjoying each other's society?"

"Oh! I know a great deal," she returned laughing, "I do not see any married people in Mapleton talk so long together without wearying as Clara and I do."

Papa kissed the saucy lips that uttered such treason, and the young creature went off singing "I'll never be married at all."

When the sun was declining in the west and the forest trees cast a pleasant shade Lieut. Mapleton sought his walking companion and found her weeping in her favourite arbour, not silently as from a heart deeply wounded, but childishly, passionately; tears of disappointment, of angry sorrow, tears shed on the stern altar of necessity; Clara Mouncy was going, husband summoned, wife rejoiced, friendship was forgotten and they must part.

Her tears were quickly dashed aside when her father appeared, the brown old man could always command a smile from beauty. He greeted her sadly.

"Weeping my darling! Has grief reached you whom I fondly hoped to shield from worldly trouble, what is it? father must share it."

"Clara is going away," answered Lawrence without a subterfuge, "and worse than all, seems glad."

A faint smile flickered over the father's face, he drew his daughter's arm within his and they sat down side by side.

"That you regret Mrs. Mouncy's departure, I can well understand, but that you are vexed because she is glad seems unreasonable and selfish. What can your affection be, sweet and loving as you are, to the

tender protecting devotion of her husband? My child you should have rejoiced with her, that after so many months of patient waiting she goes to her beloved husband; I should have but an indifferent opinion of your friend were she not inexpressibly happy."

"But she might have been sorry to leave me," pouted the injured bosom friend.

"So she is, I am sure; possibly you arrived just as she was exulting in the certainty of meeting Mr. Mouncy again; think of the hope deferred, the yearnings for his sympathy, and love for his face and voice, my child you should rather excuse your selfishness to this kind lady, than be displeased with her."

"I dare say you are right, papa, but I do not acknowledge any feeling stronger than friendship; but, dear papa, I should like to ask you a question."

"Well, my love, what is it?"

"You speak so beautifully and feelingly of conjugal happiness, did you and mamma love each other in this manner?"

"The memory of your mother is very dear to me."

"That is not a fair answer."

Father had never equivocated or prevaricated with daughter in the most trifling matter, he would not do it now, and in a low, broken voice replied, "No."

"Oh! dear papa, I have wounded, hurt you; forgive my thoughtlessness."

"I have nothing to forgive Lawrence; your inquiry was a natural one, though it chanced to recall bitter recollections."

Lawrence looked her curious sympathy, her heart was ready to melt, but she would like to know wherefore. The passage in Mr. Claridge's letter alluding to her father's broken matrimonial engagement had surprised her; she knew her own mother was a native of Mapleton, or at least resided there when married, she had no maternal relatives, and had scarcely ever heard her spoken of. The girl's disposition was too buoyant to brood over anything that did not immediately affect her, the English letter had been the first occurrence to excite any curiosity about the past.

"Dear papa, if it would not pain you, I should so like to know a little about mamma, and what Mr. Claridge meant in his letter about some marriage being broken off, but don't tell me a word if you had rather not, just say so, and I'll never mention the subject again."

"My child, there is little to tell, your mother's life and mine ran in a very quiet equable course, and what there is to relate might not add to your happiness to hear."

Yes papa, I should like to know, I have hitherto been so happy, I

have never thought I experienced any loss in having but one parent, but now the subject has been broached, I must confess I should like to hear more."

"How would you like our Maggie for your mother?"

"Not much, but I could not say properly until I knew the circumstances that could have made her so."

"Lawrence, your mother was as plain, as uneducated, as low born, as Maggie; could you have loved her had heaven-spared her to you?"

"And what of the English lady?"

"She wearied of waiting and married another."

Lawrie's bright face flushed up.

"And was my mother a good wife?"

"Obedient, loving, and true."

"God bless her, dear, dear mother," exclaimed the girl, her eyes gemmed with tears, "and was that the reason you never spoke of her?"

"What reason?"

"Because she was poor and low born?"

"Not alone, I always reproached myself for not loving her as her genuine nature deserved, but my heart had been wasted in its youth, and I had nothing to offer her but kindness and respect."

Lawrence could not help thinking that kindness and respect from such a man as her father were enough to make anyone happy.

"Dear papa, I am very glad you have told me all this, I seem to know mamma now; I have often thought how sad it was to die so young "Alice Mapleton, aged 18," have always appeared such cruel words. I hate that English lady," she continued with energy, "what became of her?"

"I saw her death in the newspaper about ten years ago, she left no children, so the name and wealth she sacrificed so much for, passed to a nephew of her husband's."

"How selfish I have been to you dear papa, I never had the sense to see you had suffered, or had sad thoughts, I have been enjoying myself all my life without a dream of care, but it shall be different now."

"Not if you love me, my darling, your gaiety is my joy, your laughter and fun my daily food; I have become young again since you have grown up a little companionable friend. Not for the world would I have you altered. I have spoken of the past because you wished it, but believe me it is all dead and gone, I live in the present, and look to the future, your future, my sweet one in this world, and mine in the world to come."

Lawrie's warm kisses covered his cheek and brow, she murmered after a pause, "Have you no little relic of my mother? I should like to possess something belonging to her."

The old man returned her caresses and bade her follow him. They

walked back to the house; he led the way to his sanctum, and closing the door after him, he placed his daughter in his high-backed chair, and proceeded to unlock a cabinet in which he kept those things he prized most highly. Presently unfolding a silver paper discoloured with age, he displayed a lovely tress of golden-brown hair, "This is a lock of your mother's hair, I cut it off when she lay dead in my arms, it is exactly the shade of yours, Lawrie."

The old man paused and sighed, his eyes grew dim with memories sad and sweet; recovering himself he went again to the cabinet and took from it a sheet of paper, yellow and crumpled, written over in round childish characters, the poor unskilled hand that had traced them, long since returned to its parent dust. Lawrence reverently kissed it as her father gave it to her.

"There my child, keep this relic of an angel mother, guard it as I have done for seventeen years. It is the only scrap of her handwriting I possess, a little memorandum of her daily life during my absence from home, and found in her desk after her death. Business had required my presence in Montreal. I expected a person, the Jonathan Smythe she names to call in the meantime; she was to transact my business with him and admirably she did it. You are like your mother in many things Lawrence, practical, true, as the needle to the pole; there may be more brilliant qualities, none more useful, or more conducive to the welfare of others, but go to your chamber and peruse your treasure in solitude."

"But your walk, papa?"

"Paddy shall get the buggy ready, and you shall drive me to Mc-Leod's, I wish to see Mrs. Mouncy and hear particulars of her husband."

When Lawrence joined her father her eyes were red and her manner subdued and tender, that pure child-like revelation of an earnest humble spirit striving to reach the level of him she loved, haunted her for days, and long afterwards when it had faded into the past, a word, an accident would recall these lines written ineffaceably on her retentive memory. Her true nature recognised the gold of her mother's character by intuition, and from that day she loved and honoured her side by side with her father.

"March 20th, 183—. My dear Mr. Mapleton is away, the house is so lonesome, I know not what to do. I try to read and write as long as I can that I may improve enough to send him a letter when he goes away again. Jonathan Smythe came here this morning, he brought the deed of the land he was to exchange with Mr. Mapleton. I did not like his manner. I don't know why, but I thought he was glad the master was out. He said he was in haste and asked if Mr. Mapleton had left the receipt. I answered "yes," but that I would not give it to him without witnesses, he was much put out and swore, but at last agreed to return

to-morrow. I have sent to the village for Mr. McLeod and Lawyer Short to meet him. I hope they will be sharp enough and see that justice is done. I am writing on Mr. Mapleton's beautiful gift. Oh! when shall I be worthy of his indulgence and kindness towards me, I strive to learn, but I feel very stupid and I am ashamed to tell him how ignorant I am, or I know he would help me, he is so good to every body. I have one great comfort, I feel so happy in loving him, that I can wait patiently for him to love me back again, for I cannot help seeing that his gentleness and kindness are but forbearance. I went over the farm yesterday, the early spring flowers are in bud, I hope he will come back before they are all gone. Job brought two sacks of flour in payment of his old debt, that will please dear Mr. Mapleton, who was afraid the old man was not honest."

The evening passed away pleasantly enough at McLeod's. Mrs. Mouncy was as unwilling to bid farewell to Lawrence as even the enthusiastic girl could wish. They agreed to spend the following day together, their last of uninterrupted friendship. Lawrence felt almost low spirited when Clara was really gone, but she remembered her young mother striving to please her father, and she resolved to do likewise with heart and soul.

(To be continued.)

NORTH-WEST BRITISH AMERICA.*

BY THE EDITOR.

THE ATHABASKA RIVER—THE ROCKY MOUNTAINS—THE LEATHER PASS
—THE CANADIAN EMIGRANT ROUTE IN 1862.

Public attention has been almost exclusively directed to the valley of the Saskatchewan, and the Basin of Lake Winnipeg. The comparatively small area drained by the Athabaska or Elk River has not received a tithe of the attention it merits. Events of no small importance are likely soon to draw towards this little known river, an equal if not a greater share of interest than the broad, open praries, draining the more magnificent river to the south, now attract. The Athabaska belongs to a water system wholly distinct from the Saskatchewan, yet the valleys of the two rivers are separated by so low and narrow a parting that the country they drain may be considered as one and the same gently slop-

^{*}Continued from page 11.

ing plateau, from which the Rocky Mountains rise in bold and abrupt ranges.

That part of the Athabaska district which will first attract attention, is bounded on the south by the dividing ridge which separates its valley from that of the Saskatchewan; on the north by Peace River; on the north-east by English River, Methy Lake, and Cold Water River, and the Athabaska itself to its junction with Peace River, and on the west by the Rocky Mountains. It forms an extensive and most interesting region, and its western portion in the neighborhood of the Rocky Mountains may ultimately become of immense importance. Its area is approximately forty thousand square miles; it lies between the 53rd and 56th parallels of latitude. Sir John Richardson describes the valley of Clear Water River, which forms the eastern boundary of the district referred to, as not excelled, or indeed equalled by any that he has seen in America for beauty. "The view from the Cockscomb extends thirty or forty miles, and discloses in beautiful perspective, a succession of steep and wooded ridges descending on each side from the lofty brows of the valley to the borders of the clear stream which meanders along the bottom."(*)

Where Clear Water River joins the Athabaska the latter stream is between a quarter and half a mile wide, with a considerable current, but without rapids. Limestone forms the bed and banks of the Athabaska for 30 miles below Clear Water River; there the limestone is capped by bituminous shale, over one hundred feet thick. A copious spring of bitumen issues from the banks lower down, and so impregnated is the whole country with bitumen that the oily liquid flows readily into a pit dug a few feet below the surface. The distance in a straight line from Clear Water River to the sources of the Athabaska is about three hundred miles. It meanders for a considerable distance through prairie lands which are frequented by Buffalo, the Elk, or American Red Deer, and the Moose. From the Saskatchewan and Lesser Slave Lake the country can be travelled by horsemen. In 1849 a body of forty horses came to Methy portage from Lesser Slave Lake early in the season, and in good condition. Colonel Lefroy, who has travelled through the Athabaska country, describes the district between Peace River and the Saskatchewan as remarkable for its gradual and regular ascent, and preserving throughout much of the character of a plain country.

At Fort Assinniboine, four days journey from Edmonton, the Athabaska is three hundred yards wide, and flows through a valley two hundred and fifty feet deep, and from one to two miles broad; the country between these Posts is densely wooded. Along the banks of this fine river sections of the same coal-bearing strata were observed by Dr. Hector, that

^(*) Arctic Searching Expedition.

are exhibited on the Saskatchewan and Red Deer Rivers, with their associated clay iron-stone bands. Jasper House is in latitude 53°, 12' N., and stands in a wide valley within the second range of the Rocky Mountains. Although it was the depth of winter when Dr. Hector travelled in this region, yet he was able to ascend the mountains seven thousand three hundred feet above the sea, so singular is the climate along their eastern flank; thaws alternate with severe cold, preventing the snow from accumulating to any great depth. The winds are either from north or south, following the course of the Athabaska valley, which traverses the mountains in that direction. Although ice forms to a great thickness on the lakes, there are few places where the river freezes within the mountains, as even a slight rapidity of current serves to free the ice during a partial thaw. From Jasper House Dr. Hector followed the course of the Athabaska for four or five days on horseback, as far as the point where the pass branches off into British Columbia, and where the Athabaska is but a small rivulet closely hemmed in by mountains. This journey being made at the most unfavorable period of an unusually severe winter, "I am," says Dr. Hector, "enabled to state, that whatever may be the amount of snow on the heights of land and their western flank, the valleys of the eastern ranges are actually less encumbered by snow than much of the prairie country." (*) The south-west wind affects the climate of the eastern flanks of the Rocky Mountains to such a degree, that there is a narrow tract lying close to them where the snow is never more than a few inches deep, and the rivers, when rapid, remain open during the winter. In consequence of this, a few ducks are found to linger throughout the whole season in the mountains, while from the Plain Country, in latitudes much further south they are necessarily absent from October till May. (†)

The country between the Athabaska and the Saskatchewan, drained by McLeod's River and Pembina River, is densely wooded. On the Pembina a bed of coal eight feet thick was observed, an important fact, showing the wide area over which thick beds of this important mineral exist on the east flanks of the Rocky Mountains. On Arrowsmith's Map of British Columbia, 1859, the country on the south bank of the Athabaska is described as "Swampy ground," and it will be remembered that it is not unfrequently urged by some who are familiar with the physical character of the Prairie region in the north-west, that the wide areas covered by so called 'swamps,' will prove a very great, if not an insuperable drawback to their speedy occupation by an agricultural people. There can be no doubt that the best and dryest land will be first settled,

^(*) Blue Book.

^(†) Ibid. Is sent to some the sent has all her claims in a factories

and subsequently the swampy areas will be submitted to drainage. But the term swamp when applied to the wet prairies of the north-west, is very likely to mislead and create very unfavorable impressions of large tracts of country. Even near the banks of Red River, within a few miles of the settlement, there are extensive areas known by the name of the Big Swamp, Nine-mile Swamp, &c., which are in reality nothing more than wet, marshy prairies, which result from very shallow depressions in the uniformly level country in which they are found, and which might be easily drained into the nearest water course by a trench two or three feet deep. . The knowledge derived from the results of recent British and Canadian explorations in North-West British America, shows with what caution and latitude such terms as "swampy region," "barren region," must be received when they proceed from authorities interested in the Fur trade, or in the maintenance of the NORTH-WEST in its present state of comparative isolation. Father de Smet visited Jasper House in 1855, after having crossed the Rocky Mountains in lat. 51°. He thus relates in his "Oregon Missions" the results of his experience of the present means of subsistence in that remote region, although so near the gold yielding terraces of Cariboo in British Columbia, and the auriferous sands and gravels of the Upper Saskatchewan.

"Provisions becoming scarce at the fort at the moment when we had with us a considerable number of Iroquois from the surrounding country, who were resolved to remain until my departure, in order to assist at the instructions, we should have found ourselves in an embarrassing situation had not Mr. Fraser come to our relief by proposing that we should leave the fort and accompany himself and family to the Lake of Islands, where we could subsist partly on fish. As the distance was not great, we accepted the invitation, and set out, to the number of fifty-four persons and twenty dogs; I count the latter because we were as much obliged to provide for them as for ourselves. A little note of the game killed by our hunters, during the twenty-six days of our abode at this place, will afford you some interest; at least, it will make you acquainted with the animals of the country, and prove that the mountaineers of the Athabaska are blessed with good appetites. Animals killed: twelve moose deer, two reindeer, thirty large mountain sheep or big horn, two porcupines, two hundred and ten hares, one beaver, ten muskrats, twentyfour bustards, one hundred and fifteen ducks, twenty-one pheasants, one snipe, one eagle, one owl; add to this from thirty to fifty-five white fish and twenty trout every day."

For a grazing country, the district between the Saskatchewan and the Peace River, appears to be admirably adapted. This region formerly swarmed with buffalo and elk, and even at the present time it is regard-

ed as one of the best hunting grounds on the east side of the Mountains, nor is its climate too rigorous for the production of garden vegetables.

In the summer of 1788, a small spot was cleared by the Fur traders at the 'old establishment' on Peace River, which was situated on a bank thirty feet above the level of the stream, and was sown with turnips, carrots and parsnips. The first grew to a large size and the others thrived well. Potatoes were also successful, but cabbages, for want of care, failed.

In the fall of 1787, when Mackenzie first arrived in that country, Mr. Pond was settled on the banks of the Athabaska or Elk River, where he remained for three years "and had formed as fine a kitchen garden as ever I saw in Canada," (Mackenzie's voyages). In Mackenzie's time, the plains on either side of the Peace River abounded with buffaloes, elks, wolves, foxes and bears. - That enterprising and intelligent traveller and observer, records that geese appeared on the Peace River (near Fort Vermillion, lat. 57° 50') on the 13th of March, 1793, much earlier than he had observed them in that part of the world at any time before, and the river was cleared of ice on the 25th of April. When Mackenzie was on his voyage of discovery to the Pacific, he describes the scenery on Peace River on the 10th of May, (1793) in lat. 55° 58' 48" in the following words. "This magnificent theatre of nature has all the decorations which the trees and animals of the country can afford it : groves of poplars of every shape vary the scene; and their intervals are enlivened with vast herds of elks and buffaloes, the former choosing the steps and uplands, the latter preferring the plains. At this time the buffaloes were attended with their young ones who were frisking about them; and it appeared that the elks would soon exhibit the same enlivening circumstance."

Although the Athabaska district, as a whole, may be remote from the line of settlements which will be first established across the continent, vet it is a vast territory in reserve, and one which as time rolls on will become peopled with a pastoral race, and eventually exercise an important influence upon the more fertile and arable districts of the North Saskatchewan. As a great grazing country it will early attract attention; and its vast stores of bitumen will be a source of immense profit where portable fuel and means of creating artificial light must command a remunerative price when the increase of population calls into existence those necessities which belong to civilized communities. The Athabaska district should by no means be shut out of view in contemplating the future of the Basin of Lake Winnipeg. Its proximity to the auriferous valleys of the west and east flanks of the Rocky Mountains will soon secure for it a conspicuous position in the future of the NORTH-WEST. It is, however, in connection with an OVERLAND ROUTE that the Athabaska acquires paramount importance.

THE ROCKY MOUNTAINS.

An inspection of Arrowsmith's recent map of British Columbia will show that the Rocky Mountains form a series of ranges separated by distinct valleys, which valleys are again divided by a transverse waterparting. The Kootanie River, for instance, which rises in the Vermillion pass in lat. 51° flows south-easterly and crosses the boundary line in 115°, or 350 miles form the Pacific.

The Columbia rises in a more westerly valley, flows for 150 miles in a north-westerly direction, and then turning into a third Rocky Mountain valley flows south-easterly almost parallel to its former course and crosses the boundary line in long. 118° or 250 miles from the Pacific. Fraser River rises also in long. 118°, and not 30 miles from the north bend of the Columbia, but separated from it by a high mountain ridge. The Fraser flows north-easterly for about 200 miles, and then like the Columbia turns suddenly to the south, and flowing altogether through British territory reaches the Pacific, a few miles north of the Boundary Line.

The peculiar structure of the Rocky Mountains is also remarkably shown by the sources and flow of the rivers on the eastern flank. It has been shown that the Missouri rises on the East of the great chain: Belly River, a tributary of the South Branch of the Saskatchewan rises near the boundary line in the first mountain range; the Kananaskis River still further north, has its source in the second range; Bow River in lat. 51° draws water from the third range; the North Saskatchewan comes from the fourth range in lat. 51° 40′; the Athabaska rises in the fifth range, and the Peace River receives contributions from the western summits of the Rocky Mountains.

It is also important to notice that there are two rivers flowing respectively into the Columbia and Athabaska, which rise a short distance from the Fraser, and there is a portage between that river and each of the eastern tributaries, namely—between the Fraser and Canoe river, a tributary of the Columbia, and between the Fraser and the Miette river, a tributary of the Athabaska.

It is by this last named river, the Miette, that the Canadian emigrant party reached the Fraser in September, 1862. They passed through the Leather or Yellow-Head pass, and thus established a direct communication between the Fraser and the Athabaska, without crossing any other impediment than the low dividing ridge between those separate river systems.

Dr. Hector *describes the average limit of vegetation on the Rocky

[•] On the Geology of the country between Lake Superior and the Pacific Ocean; by James Hector, M.D. Proceedings of the Geological Society, 1861.

Mountains, within the limits of the basin of Lake Winnipeg, as lying between 5,000 and 6,000 feet; so that the greater mass of the mountains display naked and bold surfaces, which are generally very precipitous. The division of the mountains into groups, separated by great longitudinal valleys through which the rivers flow, has already been noticed. There are three of these great longitudinal valleys running in a general direction towards the north-east and south-west. On the Athabaska river gneissoid rocks, traversed by quartz veins were observed by Dr. Hector to form the floor of the second longitudinal valley. The age of these gneissoid rocks is not stated, but when it is borne in mind that gold has been found over a considerable area on the east side of the mountains, it is not improbable that these rocks may consist of altered Palæozoic Strata and be the source of some of the gold on the eastern flank, the precious metal having been found in the neighbourhood of Edmonton in quantities sufficient to 'pay' four dollars a day.* It has also been discovered higher up the river, at the Rocky Mountain House, and was most probably washed out of the shingle terraces along the eastern base of the mountains. On the Athabaska River, fifteen miles from the mountains in a direct line, the river terraces, probably remodeled from the shingle terraces before referred to, were found at altitudes varying from 15 to 370 feet above the River level. Within the mountains the valley, which is more dilated than even that of the North Saskatchewan, has terraces better developed than any observed by Dr. Hector on the east side of the chain. These terraces not only form a margin of level ground along the edge of the rivers, but they are, as already stated, most probably the source of the gold found in the Saskatchewan. The country occupied by the terraces is easily passed through, as the forests there are free from brushwood, and "the only obstacle to the traveller arises from his having so often to make a steep descent to the base of the deposit, which is cut through by every little stream, and then to climb again the opposite bank."+ The surfaces of the terraces are level and

^{*} As an instance of the attention which the Upper Saskatchewan as an auriferous field is now attracting, the following extract from a letter written by a well known Red River trader may be quoted:

[†] Hector.—Proceedings of the Geological Society.

firm; on gaining the Vermillion Pass the only steep climb is, at first, up the face of these terraces for 180 feet; and then a gentle slope leads to the height of land.

THE LEATHER PASS-THE CANADIAN EMIGRANT ROUTE IN 1862.

The interest attached to the Vermillion Pass has been in a great measure withdrawn since the discovery by the Canadian emigrants of 1862 of the remarkable facilities presented by the Leather Pass for establishing a communication between the valley of the Athabaska and the Fraser. The character of the communication between the Saskatchewan and the Fraser remains to be discovered. Canoe River, a tributary of the Columbia, appears to afford some facilities, but until the route has been surveyed, the known and practicable Leather Pass will claim and receive public attention.

The details of the following sketch of the course of the emigrant party, one hundred and fifty in number, have been received by the writer from two of the travellers:

On the 9th of August some of the party reached Edmonton, journeying by way of Fort Ellice, Carlton House and Fort Pitt. At Edmonton they exchanged their carts for pack saddles and bags, with the intention of packing with oxen across the mountains through the Leather Pass to the Fraser. Each ox was 'freighted' with a load of 160 lbs. The surplus provisions which the party were unable to take with them were sold to the employees of the fort, at the rate of twenty-five dollars for each 100 lbs. of flour, and one dollar and fifty cents for each pound of tea. A valuable fact with reference to the distribution of gold on the Saskatchewan, in the neighbourhood of Edmonton, is mentioned by our correspondents, which speaks well for the future Saskatchewan gold-field. "About four dollars a day is the amount which the gold in the bed of the river will pay." Fresh butter, new potatoes, and fresh fish, were procured at St. Ann's, a settlement some fifty miles west of Edmonton. Between St. Ann's and the Leather Pass, the country contains dense woods of pine and tamarac. Four of the party, including our informants. descended the Fraser from the TETE JAUNE CACHE for 500 (probably 400) miles, as far as the forks of the Quesnelle, in a small cotton-wood canoe. It took them seven days only to make this distance; they arrived at the forks of the Quesnelle before the 25th of September. Others descended the Fraser on rafts, and were swept with extraordinary rapidity down that comparatively unknown and impetuous river.

The results of this remarkable journey are very important when viewed in connection with the practicability of a route across the continent.

The distance between the several posts of the Hudson Bay Company, on the line of route, are approximately as follows by the shortest road:

Red River Settlement to Fort Ellice	220
Fort Ellice to Carlton	
Carlton to Fort Pitt	170
Fort Pitt to Edmonton	180
Fort Edmonton to Jasper House	230
Jasper House to the Fraser, viâ the Miette River and the	
Leather Pass	60
The navigable part of the Fraser (in canoe) to the forks of	
the Quesnelle	500
pain a militari sa coducationi Pina supplies o may	
Total distance from Fort Garry, Red River, to the forks of	
the Quesnelle and Fraser	640

MUNIT

From Mr. W. H. T. Ellis, one of the travellers who has just returned to Toronto, we learn the following important facts:—The entire emigrant party separated into two divisions at Fort Garry. The first division, containing about one hundred emigrants, started a week in advance of the second division, numbering sixty-five persons in all. The first party took the north route by Carlton to Edmonton; the second division the south trail. At Edmonton they all changed their carts for horses and oxen. The total number of oxen taken through the Rocky Mountains was one hundred and thirty; the number of horses about seventy. When in the mountains, they killed a few oxen for provisions; others were sold to the Indians at Tête Jaune Câche on the Fraser, and others were rafted down the Fraser River to the Forks of the Quesnelle.

At the Tête Jaune Câche, a portion of the party separated from the rest; and, with fourteen horses, went across the country, by an old, well-worn trail, to Thompson's River, and thus succeeded in taking their horses from Fort Garry through the Rocky Mountains, through a supposed impassible part of British Columbia, to the wintering station on Thompson's River and Kamloop's Lake, for the pack-animals of the British Columbia gold seekers.

Others of the party descended the Fraser on rafts, some in cotton-wood canoes—others, again, in oxhide canoes, constructed by themselves at Tête Jaune Câche. Many of the oxen rafted down the Fraser were sold at Quesnelle in fair condition. When the adventurous emigrants reached the height of land separating the waters flowing into the Athabaska from those tributary to the Fraser, they were only made aware of their triumphant success by observing that the waters flowed to the west instead of towards the eastward—so gradual, and, indeed, imperceptible,

is the passage from the Athabaska valley to that of the Fraser. Gold was found in numerous places and over very extensive areas on the EAST side of the mountains, but as the distribution of gold in the valley of the Sakatchewan and elsewhere in the North-West will form the subject of a future article, it is unnecessary to refer to it at present.

Probably there is no other stretch of country in the world exceeding one thousand six hundred miles in continuous length, and wholly in a state of nature, which it would be possible for one hundred and fifty people, including a woman and three children, to traverse during a single season, overcoming such apparently formidable obstacles as the Rocky Mountains have been supposed to present. The simple fact that these emigrants were enabled to take a large number of oxen and horses through the mountains, by an undescribed Pass, supplies a most satisfactory answer to those who have uniformly represented the dangers and difficulties of a route across the continent within British Territory, as insuperable without extraordinary outlay. Here we have an instance of a large party of emigrants, nearly all unaccustomed to the work, effectually combating those difficulties, by proving that they were either grossly exaggerated or in great part imaginary. Another important fact which this journey has developed, is the ease with which the Fraser river is capable of being navigated by canoes or rafts, as far down the stream as the forks of the Quesnelle, the point from which a road will most probably strike off in a nearly direct line to the Pacific, touching the ocean at one of those deep indentations which form so curious a feature of the British Columbian Coast. There can be no doubt that great privations were endured by many of the party, but at least until they reached the Fraser, there are happily no sad memorials left on the route they took, like those which distinguish every mile of the inhospitable desert which separates the valley of the Mississippi from the Pacific States and Territories of the United States.

The Leather Pass lies in latitude 54°, and has long been known to the employees of the Hudson Bay Company, and is called by them the "Old Columbia Trail" or Jasper Pass. It will be observed that it forms an immediate and direct connection with the great artery of British Columbia, namely, the Fraser river. The other passes to the south connect with the Columbia river, which flows for many hundred miles through Washington Territory. It will not fail to be noticed too, that the existence of this route, viâ the Leather pass, has only very recently appeared on published maps. It is shown on Arrowsmith's map of British Columbia, published in 1860; but the success with which its long established connection with the Fraser has been concealed by the Hudson Bay Company, is a singular instance of the unity of purpose which has pervaded all the actions of that powerful corporation during

their long tenure of absolute control over a portion of British America, containing more land suitable for the abode of man than the Province of Canada itself, which has already cost in its defence from aggression many millions of money and many thousands of lives. It seems remarkable that the Leather Pass, and its easy connection with the Fraser River escaped the attention of the exploring party sent by the British Government, under Captain Palliser, in 1857, '58 and '59. If the existence of this unobstructed communication between the Athabaska valley and British Columbia, had been made known to the world as one of the results of that expedition, probably long ere this, the British Government would have taken measures to establish a separate government in Central British America, and open a communication across the continent through British Territory. Mr. Ellis describes the "Old Columbia Trail" through the mountains to the Fraser as not only well worn, but showing everywhere traces of having once been laboriously cut out; and when the emigrant party passed through it last autumn, young trees, four or five years old, blocked up some portions of it, showing that it had not been used recently. Dr. Hector actually passed the "Old Columbia Trail," but neither his guides nor the people at St. Ann's or Edmonton appear to have informed him of its existence. Fortunately, the Leather Pass has now been traversed by men, a woman, children and numerous oxen and horses; the Fraser has been safely descended for five hundred miles from its source, in canoes and on rafts, by a very numerous party, and it has been ascended in a boat from Cariboo to the Tête Jaune Câche; and from this last named place there is a well known trail for horses to the Thompson River, and thence to New Westminster, which has also been traversed by Canadian emigrants, with horses. The difficulties of the Rocky Mountains have thus in great part melted away, and the 'impossibilities' of the overland route have vanished, just as the 'uninbabitable deserts and swamps' of the Saskatchewan have given place to boundless fertile prairies, which will probably become, even in our generation, the seat of an enterprising and prosperous people.

The successful journey of the Canadian emigrants across the Continent in the summer of 1862, will be an event in the history of British America which will continually grow in importance as the great future of this vast portion of the empire begins to be more clearly discerned. It is a fitting opportunity to repeat here the words of the Hon. W. H. Seward, the American Secretary of State, on the future of British America. The thoughts they express might with becoming propriety find a place in the hearts of many who have been accustomed to ignore the vast capabilities of Central British America, to magnify the difficulties which attend its occupation and settlement, and even to question the policy of retaining

it as an appendage of the British Crown-of them we may say, reversing the oriental compliment, "May their shadows for ever grow less."

"Hitherto, in common with most of my countrymen, as I suppose, I have thought Canada, or to speak more accurately, British America, a mere strip lying north of the United States, easily detachable from the Parent State, but incapable of sustaining itself, and therefore ultimately, nay, right soon, to be taken on by the Federal Union, without materially changing or affecting its own condition or development. I have dropped the opinion as a national conceit. I see in British North America. stretching as it does across the continent, from the shores of Labrador and Newfoundland to the Pacific, and occupying a considerable belt of the Temperate Zone, traversed equally with the United States by the Lakes, and enjoying the magnificent shores of the St. Lawrence, with its thousands of Islands in the River and Gulf, a region grand enough for the seat of a great empire. In its wheat fields in the West, its broad ranges of the chase at the North, its inexhaustible lumber lands, the most extensive now remaining on the globe-its invaluable fisheries, and its yet undisturbed mineral deposits, I see the elements of wealth. I find its inhabitants vigorous, hardy, energetic, perfected by the Protestant religion and British Constitutional Liberty. I find them jealous of the United States and of Great Britain, as they ought to be; and therefore when I look at their resources, I know they cannot be conquered by the former nor permanently held by the latter. They will be independent, as they are already self-maintaining. Having happily escaped the curse of slavery, they will never submit themselves to the domination of slaveholders, which prevails in, and determines the character of the United States. They will be a Russia behind the United States, which to them will be France and England. But they will be a Russia civilized and Protestant, and that will be a very different Russia from that which fills all Southern Europe with terror, and by reason of that superiority, they will be the more terrible to the dwellers in the southern latitudes.

"The policy of the United States is to perpetuate and secure the alliance of Canada while it is yet young and incurious of the future. But on the other hand, the policy which the United States actually pursues is the infatuated one of rejecting and spurning vigorous, perennial, and ever-growing Canada, while seeking to establish feeble States out of decaying Spanish Provinces on the coasts and in the Islands of the Gulf of Mexico.

"I shall not live to see it, but the man is already born who will see the United States mourn over this stupendous folly, which is only preparing the way for ultimate danger and downfall. All Southern political stars must set, though many times they rise again with diminished splendour. But those which illuminate the Pole remain forever shining, forever increasing in splendour."

QUINTE.

BY CHARLES SANGSTER.

Spirit of Gentleness! what grace
Attends thy footsteps. Here thy face
With fine creative glory shone,
Like a mild seraph's near the throne,
On that fair morn when first thy wing
Pass'd o'er the waters, brightening
The solemn shores that gravely lay
Far, far along the tranquil bay.

No lofty grandeur piled supreme, But like a sweet, prophetic dream, The landscape stretched, unfolding still, In gently sloping vale and hill; Bright woods of every shade of green; And over all, the sun, serene, Rolled back the shadowy mists of gray That vailed the bosom of the bay.

What spirit of sublime Repose
Was with thee when the forest rose
And flung its leafy mantle o'er
The changeful wild on either shore?
Spirits of Rest and Peace! for here
They build their bowers year by year,
Creating yet, from day to day,
Fresh graces for their favourite bay.

And still the charming landscape lies
The fairest 'neath Canadian skies,
Trembling with grace and beauty rare,
Blushing to know how sweet and fair
The lovely features yet remain,
Untouched, untainted, tree from stain;
The matchless face as warm and gay
As when first mirrored in the bay.

Broad, wavy grain fields touch the shore, Receding from the dash and roar Of the hoarse billow from the deeps Of the wide Lake; rare woodland sweeps Of upland wild, and deep ravine, In undulating swells of green; And grassy banks that shoreward stray, To toy with the delightful bay.

Fair meadows basking in the sun,
Dotted with stately herds that shun
The summer heats beneath the shade
Of some old remnant of the glade;
Or having sought the cooling stream,
Defy the sun's intensest beam,
Fanned by the grateful airs that play
O'er the calm surface of the bay.

Far as the eye can trace the view
The Indian rolled his wild halloo;
The wide expanse of shore and sea
Quailed at his perfect archery;
And desperate fields were lost and won,
'Neath pitying moon and burning sun,
Staining with blood of deadliest fray
The pure, bright waters of the bay.

Within these narrow bounds confined,
We scarcely heed the minstrel wind,
That through the slumberous wildwood plays
Its strathspeys to the drowsy maze,
Waking the wild airs from their trance,
Till branch and bough and leaflets dance;
Now to the blythe winds' roundelay
We dash across the broader bay.

At the blest hour of saintly eve,
When fancy dreams, and young hearts weave
Their fictions that make life divine,
When Love erects his pilgrim shrine:
How witching is the purple glade,
The dreamy woods, half light, half shade,
Stretching in mazes far away,
Mile after mile along the bay.

Or when beneath the moonlight mild, The zephyrs slumber in the wild; When all the stars in heaven gleam Like glimpses of an angel dream; The prospect brightening more and more:

The night with all its grand array

Ne'er shone upon a lovelier bay.

Bay! where the Soul of Quiet seems
Self-lulled in visionary dreams;
A bark—a gallant bark—and thee,
With a fair breeze and dashing sea,
A tight'ning mast, a swelling sail,
That yields to, but defies, the gale:
Thus bounding through the surf and spray,
What scene can match proud Quinté's Bay!

EARLY NOTICES OF TORONTO.

BY THE REV. DR. SCADDING.

(Continued from page 31.)

At length came Lord Sydenham, in 1839. An instinctive apprehension in regard to the revolution which he was about to attempt, caused his first reception in Toronto to be cold. Claiming in their address to be "the highest municipal body of the Province," the corporation of the day ventured to demand "ascendency" for the very principles which the newly-arrived Governor had expressly come to correct and modify; and spoke of their Lower Canadian fellow-subjects as "aliens to our nation and our institutions." On his return, however, in the following year from an extensive tour, after the assent of the Parliament to the re-union of the Canadas had been procured, the city offered a more cordial welcome. On this occasion it was that he deemed it useful to offer the following piece of advice :- "I trust that the inhabitants of Toronto will emulate the general feeling of the Province, by discarding violent, party, and personal feeling, and lend their willing assistance in the great work which is before us." In a private letter of this period, published afterwards in his Life, he thus refers to this occasion :- "Even the people of Toronto," he says, "who have been spending the last six weeks in squabbling, were led, I suppose, by the feeling shewn in the rest of the Province, into giving me a splendid reception, and took in good part a lecture I read them, telling them they had better follow the good example of peace and renewed harmony, which had been set them elsewhere, instead of making a piece of work about what they did not understand."

The compliment was paid Toronto, of deriving from it one of the titles conferred on the first Governor General of rc-united Canada. Mr. Poulett Thompson was created Baron Sydenham of Sydenham in Kent, and Toronto in Canada, as Lord Amherst had been in 1788 of Holmesdale and Montreal. This proved, however, for Toronto an unprofitable and short lived distinction. Its liege-lord issued his arrièreban for the assembling of the first parliament of united Canada, on the 13th of June, 1841—not there—but at Kingston, where, on the 19th of the following September, he died, leaving no heir to his name.

Thus, amidst varying fortunes, and through more evil report than good, the chief City of Wester 1 Canada grew, advancing from obscurity and insignificance, to what it now is. The rebukes, friendly or otherwise, of critics interested or disinterested, proved, on the whole,

"precious balms" which healed while they scathed.

"Grown wiser from the lesson given,
I fear no longer, for I know
That where the share is deepest driven,
The best fruits grow.

The outworn rite, the old abuse,

The pious fraud transparent grown,

The good held captive in the use

Of wrong alone.

These wait their doom, from that great law

Which makes the past time serve to-day,

And fresher life the world shall draw,

From their decay."

After the Union, the Genius loci seems to have become benign and winsome. Since that epoch the notices of Toronto have been only friendly. The Observatory and University speedily caused its name to be enrolled with honour amongst those of seats of Science and Learning; and in quick succession the Grand Trunk, Great Western, and Northern Railways, brought its inhabitants at large into favorable relations with the general life of the North American continent, and of the world.

The Toronto of 1860, the year of the Prince's visit, had risen above the fear of criticism. An American writer, in regard to the memorable event of that year, could thus express himself:—

"The prosperous young city that is capital to Canada West, desired its Sovereign's son to witness what Englishmen, undisturbed by any admixture of races, could effect, and the very progress and condition of their city is evidence. A rich land of sure harvest is the back-ground,—a wide blue sea is the highway over which all the markets of the world can be reached. These wharves see the rigging through which

the breeze of the Atlantic whistles; and if the ocean is too distant, the merchants of Oswego willingly indicate to the Canadians the convenience of the inland navigation to New York. . . Toronto's beautiful bay," he continues, "has its proudest page to inscribe in its annals on the 7th of September, 1860. It has seen the sails of a hostile fleet, and has witnessed the coming of successive Governors General; but of the Royal House, none until this hour. The reception was worthy of the guest. . Such a scene of wild, enthusiastic joyous, uncontrolled excitement in that grand multitude, that enormous concourse of human beings—few shall ever again see,—few have ever seen. Something that was either hospitality or affection or loyalty—whatever its precise name—something in great and glorious fact was there, and no one that witnessed that enthusiasm,—that kindled amphitheatre, will forget it while his senses live to paint the pictures of the past for him."*

Simply an assemblage of streets, gardens and pleasure grounds, spread far and wide over a level expanse, between a long wooded ridge and a line of blue water—between, that is to say, an ancient margin and the present limit of a sea-like lake,—possessing nothing to set it off in the way of fine scenery, excepting a sky almost always cheerful, and often times magnificent; the Toronto of to-day has succeeded in attracting to itself a multitude of kindly regards. While its substantial home-comforts secure for it, of course, the warmest affections of its own people, its social amenities produce pleasant impressions on the stranger; and on the memory of most whose lot it has been to make there from time to time a lengthened sojourn, it retains an agreeable hold.

Nor in passing, let us forget one other point of view from which, we may be sure, the name of Toronto stirs a chord in many a heart. Think of the number of its fair daughters who have been translated from their native firesides, by contingencies, military, commercial, ecclesiastical, which need not be detailed; think with what yearning bosoms these—comely matrons now, presiding over happy households in widely diverse regions—turn occasionally hitherward, when in quiet intervals, among the memories of the past, come up again, the

PRINCEPS AFFATVR.

CIVIBVS. VMBRA. CAPAX. FIAS. CITO. SVRCVLE. SIC. TV

HESPERIAB. CAPITIS. MOX. ACER. INSTAR. BRIS

(Translated.)

God speed thee, little maple, till thou tower a stately tree— So of our West's fair Capital meet symbol shalt thou be.

^{*} The following was the Prince's reply to a request that he should plant a memorial-maple in the Botanical Gardens of Toronto: "I shall have great pleasure in doing anything which will tend to encourage amongst you a taste for the cultivation of gardens, such as may increase the comfort and enjoyment of the citizens of Toronto. I shall be content if the tree which I am about to plant, flourishes as your youthful city has already done." Amongst the innumerable ephemera inspired by the Prince's visit was an epigrammatic rendering in Latin of this brief response.

ARBYSCYLAM SVI MEMOREM, TORONTO IVXTA SATAM,

"Thrice happy days!
The flower of each, the moments when we met!
The crown of all—we met to part no more."

In like manner also, how many of its sons there are, exiled by duty or circumstance, by the avocations of a soldier's or sailor's life, by the spirit of enterprise, adventure or travel, to a hundred nooks and corners of the habitable earth, who would at this moment, before all other sights, behold once more if they could, the Sphacteria, so to speak, of the old Pylos; who would hail as

"The eye
Of all peninsulas and isles"

the long low spit of poplar-shaded sand, which in the days of their youth guarded so faithfully the play-place of their boyhood, and which, perhaps they are grieved to hear, is disappearing inch by inch in a gallant unaided effort, to fulfil to the last its primeval mission.

As one of the latest notices of Toronto, we may in conclusion add, that the Messrs. Nelson and Sons of London, Edinburgh, and New York, have devoted to it one of their sets of topographical views; and from these many strangers at a distance will derive their first ideas of the place. The people of Toronto can afford to forewarn visitors that, whilst these pleasing pictures are in the main very admirable representations, in a few respects they depict matters in colours somewhat rosyhued. In the general view, for example, a spaciousness and softness are given to the Railway Esplanade towards the east, which will lead to disappointment; and in two instances, handsome spires appear where as yet the spires are not. On the whole, however, the city has reason to be thankful to the enterprising publishers named above, for the fair portraiture of itself, with which they have furnished the public. as well as with the Hand-Book in which the same views may be found incorporated. Great as is the progress which has been made in the course of the last twenty years, as these cheerfully tinted engravings will help the outside world to see, -should "industry, intelligence, integrity," continue to be actual characteristics, as they are the civic watchwords of its people, with energy, self-sacrifice, good-taste, taking no rest until disfiguring, imperilling damages by fire and flood, whenever and whereever occurring, be more than made good-should such qualities as these continue active, and the country at large be blessed with peace and propitious seasons, -it is not to be doubted but that the western capital of Canada has still before it, in respect of both its physical and moral well-being, a career in the future, which shall be worthy of its annals up to the present time. So may it be, prays many a pious son and daughter. So may it be, responds everywhere the Alarge-hearted Canadian.

FLOREAT TORONTO: ESTO PERPETUA.

has one hour god of " IN THE BUSH. God of a design of being

A SETTLER'S OWN. TALE.

BY W. W. S.; OWEN SOUND.

In the year 1835 I emigrated to Canada. I was advised to come by the way of New York, as offering, at that time, better facilities for reaching the Upper Province, and, meeting with some Scottish friends, I remained there two or three months, hoping to fall into some employment to better my situation. Not succeeding according to my wishes, I proceeded to Upper Canada; having in the meantime considerably reduced my little purse of ready money, which represented all I had of fortune. Again I erred; for instead of accepting employment as a farm laborer for a year or two, I was impatient while my money yet lasted, to get a farm of my own. Of course I was only able to buy a bush farm. I obtained in the north-eastern part of the Gore District, which is now a beautiful farming country, but was then a rude wilderness, a very good hundred acres of land. The timber, which covered every part of it, was very heavy; immense maples, basswoods, beeches and elms interlaced their branches above and their roots below, in undisturbed possession. There were no saw-mills within reach, at which lumber could be obtained for house building; and as I knew that the axe, in skilful hands, could supply that want, I engaged two men for a month to assist me in putting up a house. It was in the month of September when I first began my bush life. Delightful sunny days, with no oppressive heat, and cool, breezy nights, gave freshness and vigour to my frame; for my health was impaired from the heat of the last two months. Perhaps a nervous anxiety about my family and prospects, had tended to increase my ailments. Now, I was in high spirits. Was I not the bona fide owner of a hundred acres? Should I not be able to make a comfortable living for my wife, my little ones, and myself? It is well for us we do not know the future. I should have shrunk from the prospect had I known all that awaited me. I left my family in a little village that has since changed its name and become an incorporated town. A log house of two rooms, for a dollar a month, seemed not only most suitable to our wants and condition but was at the time the only house to be rented in the place. So kissing "good bye" to wife and weans, (I like the oldworld expression yet, Canadian as I have become) and returning over and over again the caresses of little Jeanie-poor dear, lost Jeanie !- I started with my two assistants one Monday morning, to travel fifteen miles into the bush, to "hew out a home." It would lengthen this part of my story too much to particularize the incidents of the month we passed in the woods. Suffice it to say that my two friends (for such they proved themselves to be,) pronounced my "lot" to be a good one, and prophesied that I should "do well on it;" basing this prediction on my seeming "to get the hang of things first-rate, for an old countryman;" praise which Canadians and old settlers do not always accord to new beginners, We slashed down an acre or more of the wood; finished the house, such as it was; "underbrushed" about two acres more, and made a beginning towards opening out the road for a mile or two from my lot. Then we returned; and with the aid of one of these men (and his oxen.) we managed to get ourselves settled down in our own home, on the 15th day of October. It was on a Wednesday, and it was my wife's birthday. Seven years before we had spent the day together, beside the burn and among the knolls of our native place; and now, wandering over a portion of our "domain," while our two children gathered beechnuts and crimson maples leaves, or watched the squirrels aloft among the branches, and the third, the youngest, crowed and danced in his mother's arms, we named the stream and the farm after some of the old haunting memories of home. But the name would never stick to it; and even we ourselves, in after years, almost forgot that the farm had any other name than "Mr. Wood's place." But I am anticipating; for at the time there was not a living being within several miles. My wife had always had a dread of wild Indians. She had read old and highly coloured stories of their outrages; and it was certainly much to the satisfaction of us both that we learned that we should not probably see an Indian thrice in a year, and that they were perfectly harmless. I myself had always had a feeling of insecurity with respect to wild beasts; and I had been informing myself on that subject. An occasional wolf was found in that part of the country, but generally kept at a respectful distance from any dwelling: though not all to be trusted in the matter of sheep, (which were always securely folded at night.) Bears were also known to exist, but I was cautioned that it was probable I should never have an opportunity of seeing one. Foxes were more numerous in the old settlements than in the new. There were said to be no poisonous serpents near us. Game was scarce. Wild pigeons for a few weeks in summer, a few partridges, quails, &c., in the autumn, and an occasional deer in winter, and, in some places, a considerable number of wild ducks in the spring, made up the most important page of our natural history.

Winter set in about the fifteenth of November. That is to say, the snow first fell then, and never quite went away again. By the beginning of December, it was settled wintry weather. The cold did not strike me at all as severe. I had been prepared to expect a greater extreme. The dryness of the air, and the absence of wind, (the latter peculiarity more observable in the woods than in the "old settlements,") tempered the severity of the winter so much that I had no complaints to make of it, except its length.

Our house, which has long been replaced by a better, was very snug, though now we would think it extremely small. It was eighteen feet square. Of course it was all in one apartment; but we had a chamber, above, which we found very useful. The floors, both above and below, were of cedar and basswood, hewn into planks, with a rough dressing with the jackplane. The door creaked on wooden hinges, and, was fastened with a wooden latch, Locks we had none. The chimney was made of clay, upon a frame work of sticks; the back of the fireplace contained the only stones in the whole building. The roof was of cedar shingles about three feet long, each course of which was held down by a heavy pole, laid across the roof, and fastened at the ends. We had but one window of six small panes below, and one of two panes above. The spaces between the logs were plastered with well wrought clay; and if we could have got enough lime to whitewash the inside of our house, my wife would have been quite proud of her little home. I dwell with the more pleasure on this part of our experience, for our troubles had not then begun. My days were spent in hard chopping, within sight and hearing of the little cabin; and our evenings, round the fire, high blazing with "fat pine," were seasons of happy content. My eldest, little Jeanie, was six years old; and with her golden hair, which she inherited from her mother, laid upon my shoulder, she would look up into my face, and wile me into relating some old tale that I had read or heard; or if I had neither read nor heard it, 'twould be all the better! Willie would be on the other knee, and sound asleep, in the meantime; and when gently removed by his mother, would always be sure to wake up enough to hold up his mouth for a good-night kiss, and to murmur his little prayer, ending with "God bless father and mother, and little brother and sister, and make Willie a good boy!" I may say we saw nobody through the winter; -only twice any strangers came to the door-once, two hunters after deer; and once three young fellows who were returning from finishing a "chopping" two or three miles beyond us. I myself was only absent from home one night. When Spring came, I was still busier than ever. I had logging and burning to do, and I had no oxen with which to log. So I "changed work" with the nearest neighbour-more than two miles away. When my turn came to have his oxen, I managed to get about four acres logged. I had previously burned the "brush," though I had not a good "burn"-it was damp weather. This waiting on my neighbour's convenience was unfortunate for me; for it was a very bad season for crops, and many fields of spring wheat, put in late, as mine was, never ripened at all, but rotted during the fall rains. Had I depended altogether upon potatoes and other green crops, I should have done better; but I was a little ambitious to have a crop of wheat of my own raising, and devoted nearly all my ground to it. I waited wearily on my crop,

and when at last I cut it, and carried it all in on my own back, to a little shed I had put up to serve the purposes of a barn, I found that not only was its bulk exceedingly small, but the "sample" was so miserably shrunken, that our year's bread could not possibly be got out of it. This was a serious business for us, for I had now no money left. However, with brave hearts we prepared to face our second winter in the bush.—I hoped, for the children's sakes, to have got a cow this summer; but I dared not face the responsibility of running into debt without the prospect of paying. Besides, I did not seem to have fodder enough to keep her over the winter. The only live stock we had were a few hens.

Were such noble trees as surrounded my house and covered my land, in Britain, they would be greatly admired and valued; and had I not been obliged to win my children's bread out of the land, (and only as fast as I destroyed the trees,) I should have admired them too. They were very grand in winter, when their naked arms were hanging in icicles, or piled up with narrow ridges of soft snow. But there was nothing in sympathy with my circumstances-all was hard, stern, and unrelenting. I threshed out my crop, and winnowed and sifted it by a makeshift process, and found I had twenty bushels of very poor wheat. Six or eight bushels of this I must keep for seed till Spring, and the remainder we might eat. I took it, before the snow was too deep, to my nearest neighbour's, and he kindly allowed me to have his oxen to take it to the mill-This took two days; and I was glad to accomplish it without any necessity for ready money, which was not now to be thought of in my case. My wheat was so poor, that, though I took twelve bushels to the mill, it was not anything like twelve bushels to the standard weight of 60lbs. and so I made the miller separate the coarsest of the bran, and put all the rest together as "flour." It was coarse, but made wholesome bread.

I worked harder than ever this winter. It seemed to be "the darkest hour before day." I hoped for a short winter and a mild Spring, and that I should be able to get out of all my difficulties. But I never had the faculty of "taking things easy." When March came, and no signs of Spring, my prospects were gloomy indeed.

We made a little maple sugar this spring, which was of benefit to us. Had we possessed a large kettle we should have had a great deal more.—We could only make 20ths. Though it seemed as if the Spring was never going to come, it came at last; and with it a repetition of the process of the former season, I got into the ground, and in somewhat better season, my eight bushels of wheat. I also planted five bushels of potatoes, and a little corn; and when the time came, I sowed half-a-pound of turnip seed. So late was the season (1837,) that when first of June arrived, I had, by incredible exertions, just got my sowing over.

I had been revolving in my mind for some time, the possibility of

leaving home for a month, to earn some money to get provisions; but I gave it up. I dared not be away so long, especially now that little Jeanie seemed to labour under ill health. I could not tell what ailed the child; but she seemed to get weak and puny—her eyes grew larger and brighter, and her voice softer and more tender—and yet she did not complain of any actual pain. Could it be that she had divined the sorrow and trouble in the house? She often asked me "When I got my supper?" and when once I told her I should get it with her mother—after she was in bed—she looked at me with such a glance that I had to turn away; and returning a few minutes after, I found her sobbing as if her little heart would break. I could but press her in my arms, and then rush out to the shelter of the woods. Another reason against going out to work, was the great uncertainty of getting it. People were trying to manage as best they could; for there was neither money nor money's equivalent in the country, with which to pay labourers.

In coming to America, away beyond all game-laws, I had promised myself much sport in gunning, and brought a fowling piece with me.-But I had done little or nothing with it; and now I determined to turn it into bread if possible. On the 16th June I took a survey of our stores. A very few poor potatoes, not more than 10 lbs. inferior flour, and a very little maple sugar-and that was all. We had sacrificed some of the laying hens for Jeanie, but thought it good policy to leave three, for the sake of an egg each for the children. I had turned botanist and herbalist in my extremity. Cow-cabbage, docks, and dandelion leaves, furnished us with limited quantities of very wholesome greens; but these could never take the place of bread, and it would be more than a month before we could expect to have any new potatoes. So, a day or two afterward, I started off early one morning, without waking little Jeanie, who knew nothing of my intention. I promised my wife I should be back at the end of five days, and shouldered my gun and all the paraphernalia belongto it, and took my journey southward. Two or three hard cakes of brown flour were my stock of food for the journey. I knew the way, and with a heavy heart pursued it. By night I was twenty-five miles from home, and in the midst of a prosperous settlement: that is, prosperous in good times; but people are looking at each other in blank despair, which was not much removed by the appearance of the season. Rain almost every day; the hay crop would be immense, but the wheat! In low situations, it would lodge as soon as headed, and probably before, and never fill; and if the rains continued long, it would neither ripen well, nor could it possibly be secured. I got lodgings without much trouble, in a settler's house (hospitality will never die out, I hope, in Canada); but when I learned the exact state of affairs, I could not accept this hospitality for nothing. I gave the eldest boy, who owned a ricketty gun, my shotpouch and powder-flask. In return they loaded me with thanks, and made me promise to stay over night on my return. "For," said the settler, "we're nearer help, if we should get quite run out, than you are; and I trust we will now get the 'daily bread' we pray for."

Before the second night, I got a country storekeeper to take my gun for eight dollars "in trade." Flour was worth twelve dollars a barrel in the towns, and so I got something less than half a barrel for six dollars-about eighty pounds-and "took out" the rest in other things. I had been fond of a pipe of tobacco; but in famine times a man has something else to do with money than to smoke it away; and although the struggle (such creatures of habit are we!) was a severe one, I remembered my little pining one at home, and mastered the longing. I have never gone back to it. I got some tea, and a little rice and oatmeal, and two or three little articles of drugs we could not well do without; tied them and the flour all securely up in one bag, and started. I found I was very heavily laden. The perspiration was pouring down my face, when, after several rests, I got back to my lodgings of the previous night. It was some time after dark. The days were at the very longest. I had been accustomed, in Scotland, to find the twilight last, sufficient to read by, till half-past nine; but in Canada, I found the darkness came on an hour sooner. I passed a pleasant night with the man who, from henceforth, was my friend. A community of suffering, makes a community of feeling. 'T was only last month, as we we were sitting together in the County Council, we talked these old times over again; and his son, now the Reeve of a neighbouring township, was sitting opposite to us, and I am sure he guessed our conversation. In the morning, Mr. G -- insisted that his son should take "the old mare," and carry my flour just as far as he could get back from before night. As this was rather indefinite, and I knew that the lad's good-will would take him further north than he could retrace again, it was arranged that he should accompany me as far as Mr. S-'s-turn out the mare for two hour's pasturage, and then return. So John mounted, with the bag of flour before him, and I walked. John wanted to change places; but I did not like to oppress the poor beast. Indeed I was secretly very much pleased to see John dismount before we had gone two miles-declaring that "old Nell had quite enough to do to carry the flour!" and he would walk. He said he could ride going home. We had one shower on the way. We took shelter under a beech, and did not get much of it; but the roads were execrable. I had not so much observed it when coming down alone; but when I saw the poor beast struggling through great sloughs of mud, and getting her feet fast among the roots, and the flour reeling on her back-only kept in its place by a girth about her-I thought, indeed, "These are Canadian roads!" However, about midday

we got to the house of Mr. S ---. He too, like everybody else, was pinched for everything like food for man or beast-except that for the latter he had plenty of grass. As that was the extent of our demand, we fared not so badly. We had bread with us; and while the beast was baiting, we gathered some handfuls of fine strawberries. They were very early ones. It was only on one stony knoll any were ripe. I made a little paper bag, put some cool basswood leaves inside, and saved a handful to take home. Parting with John, and shouldering my heavy burden, I pressed on. I rested every quarter of a mile. It did not seem to be always thus requisite; but I thought it best to husband my strength. The fact was (though I did not think of it before), I was weak for the want of sufficient food; and the better providing of the last two days had not yet made much difference in my strength. About three miles, as I afterwards found, from my nearest neighbours, and six miles from my own house, night began to come on, and I had to make provision for "camping." I was not quite unprepared for it, for I had a small hatchet, such as hunters carry, and flint and frizzel. I had seen friction matches, but they did not get into common use in the backwoods for about five years after. A good sound, lying tree, to build my fire against, seemed the first requisite; and that was soon found. Then, despite damp tinder, a fire was soon crackling against it. It was not necessary to build my booth very near the fire, as the night was warm-only to be near enough to it for protection. Nothing prowling about on four feet will come near a fire; and mosquitoes never venture on the smoky side of a fire, so on that side I raised my tent. I placed a layer of hemlock twigs for my bag of flour, and covered it (quite rain-proof) with bark. Then a bed of the hemlock for myself: and as much of shelter from rain and dews as I could manage in half an hour. Having taken a good draught from a little stream trickling near by, and discussed the last crust of bread I carried, I gathered a few more sticks for night fuel, and prepared to seek repose.

Ah, that sleeping in the woods! I have slept in the woods three or four times since, but I always most vividly remember that first night I slept thus, alone. The woods are so solemn. 'Twas only three days ago, a young man from Australia told me, that there you are deafened by the noise of insects and paraquets, and I don't know how many creatures—but in Canada there is a solemn stillness prevailing. You will, in the day time, hear an occasional thrush, or bullfinch, or song sparrow, or a robin; but (dear little warblers!) they like best to be near our little fields and cottages, and to see "how we do?" about the settlements, and so the wild woods are drained. And at night, when these have rolled themselves up into little balls of feathers, and are fast asleep, there is not the voice of any creature heard but the ever-

present mosquito, and now and again a solitary owl or whip-poor-will. And as you lie on your back, and look through the openings of your wigwam, and of the interlaced branches, up to the starry sky, you feel yourself an atom in the lone creation—insignificant as one of the withered leaves you press beneath you.

A hasty toilet by the side of the little stream; a handful or two of dry oatmeal, washed down by a few laps of the clear water, and I was "homeward bound." There seemed to be less need of rest than on the previous day. Perhaps it was excitement. As my neighbour's house was right on the path I was to take, I took a rest there for half an hour, and went on again. They were not expecting me home that day, being only the fourth. But who could ever deceive the instinct of affection? As far as I could be seen (and much further than any step could be heard.) through the wood, my wife had her eye on me; and soon I saw my children coming. Jeanie, weak as she was, could far have outstripped Willie, but with a noble self-control she put out all her little strength to pull him along, and they came bounding hand in hand. I threw off my burden and sat down with outstretched arms. In a moment Jeanie was in my arms, and her little mouth close to my ear, -" Father, father, mother did not eat a bit all vesterday; I watched her, and when I asked her if we'd ever have bread again, she just lay down and opened her eyes wide, and did not speak for ever so long!" I knew that she had faintedfainted for want of bread. "God be praised, your mother shall not faint again!" I exclaimed, as I picked up both the children and ran toward home. She knew that bread was found, for she had seen me lay down my burden; and in a moment more she was weeping on my breast. "I know it all, Mary!" I said, "But the worst is now past I hope!" She raised her head, and shook it mournfully. Neither of us had voice to speak. After running back and picking up the bag, I opened out my treasure-we should have a good meal this time! I made Mary sit down, and Jeanie beside her-pale, both of them, as lilies. The two boys had a carte blanche to do as they pleased, I had learned a little homely cooking in the school of necessity on board ship, and now I put it to use. A good bowl of gruel seemed the best thing for them all; and if ever oatmeal, salt, and sugar, were artistically metamorphosed into the most delicious of gruels, it was on that occasion. For bread, I had some cakes baked in the ashes. It was not that I loved to hear myself praised but because I wanted them to eat, that I extolled the dish, and pressed more upon them; and although I had never been in the habit of "returning thanks" after meals, (I don't know why,) I did so that day, and every day after. It seemed to be so sweet to thank the Father for daily bread secured.

We had no more trouble about bread. The practical sort of botany I

had practised still furnished me with further spoils as the season advanced; and by the first of August we began to use new potatoes. The harvest was not very late, but miserably wet. I cannot remember so wet a harvest since, as was that of 1837. There was a thunderstorm almost every afternoon, and it did seem well nigh impossible to get wheat sheaves dry enough to take in. And then everybody was flailing out a bushel or two to take to the mill for bread, drying it for days on sheets in the sun, to get it hard enough for grinding. I had to do the same with my small "grist;" and to "back" it for three miles, before I obtained the privilege of tying it on a sled and driving off through the mud, and over the roots and stones, to G ----, to get it ground. And when, after waiting two nights and a day, (for the mill was full of bags,) I got it, I could hardly tell which was flour and which was bran; for, from the rawness of the wheat, the bran would not separate, and was nearly as heavy as the flour. On this occasion I sold some of the flour and all the bran, and bought a dried ham-the first "meat" in our house for a twelvemonth.

Next year "I got up a barn, and I kept on clearing a little every year." Ten years from that date I was out of the reach of actual poverty, owning a good farm, cleared, and paid for. Now, (I don't know why I should not say it,) I am considered one of the pillars of the township—there being about a dozen of such "pillars." Willie is living on a farm of his own; and a younger "Willie" runs to meet me when I go there—a wonderful boy for feretting in pockets. And Johnnie, who has run some danger of being an old bachelor, is likely to leave me too, if I may believe certain hints I got, and a pair of blushing cheeks I met yesterday. And a younger boy and girl, you are not acquainted with, dear reader, are still at my fireside; and according to the custom (not exactly law) of the country, this youngest son, in the course of events, is sure to be the heir. You see the elder sons are always portioned off; and so, much to the "puzzlement" of old country people, the youngest son becomes "The Laird," as the Scotch would say.

"But what of Jeanie?" ah! I wish my tale ended here. Go back softly with me over the furrows of five and twenty years, and step with hallowed tread around a little grave, where lies the dust of one too sweet to linger here. From the day you last caught a glimpse of her, she faded away, like a flower in the presence of frost. She got thinner and weaker, and more spiritual in expression, day by day. No murmur, no forgetfulness of the present; as ready to suggest plans of easing her mother's cares, as if she were twice the age and in good health. Willie could not understand it, and it was well for him. But it was overpowering beyond expression to hear the little fellow pleading with his sister to "come out and play." And she would not break his heart by telling

him she was too sick and could never play again, but would put him off; "Not just now, Willie," "Some other time, maybe;" and once, when either she had said she was too tired to walk, or he had understood her so, the little fellow discovered she was almost as light as air, (though he had no idea of the cause,) and picked her up in his strong arms, and ran out to the sunshine with her. We smoothed her passage to the tomb, and she smoothed the rough path that lay between her tomb and ours. From the day when the light of those dear eyes was quenched, a new light sprung up in the hearts of the parents, and though it was some time ere nature would cease her convulsive sighing, yet the peace came, and remains.

We had not a soul at the burial but ourselves. My nearest neighbour had fled the woods, and the man who was to succeed him had not arrived. And so, on a little sunny bank, where I afterwards planted a bower of wild roses, we laid our darling down. I have often remarked, in emigrant families, one dropping away during the first years of their residence; and I never yet knew it but the verdict in the heart of the survivors was, "The best of all our family is gone!" I believe everyone thinks so, who mourns a lost one. I know not how true it may be in other families, but in my own case my heart has never disputed it for twenty-five years, and never will!

A MOONLIGHT WALK.

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A sudden thought came o'er me,

Last night as I sat in my room,

And the open book before me

Breathed of the rich perfume,

That flows from the olden story,

That "Legend of Women True,"

Dan Chaucer, old England's glory,

Sang when old England was new.

The moon was up; and the sky
Was thickly studded with stars;
The wind was asleep on high;
And glimmered auroral bars;
Still trembled over the west
The dying flush of the day,
Though half of the world was at rest,
And the sun had been hours away.

A sudden thought came o'er me—
I stole down the creaking stair,
I saw the long lane before me,
I saw the long street appear;
On thro' the moonlit meadow,
On thro' the silent fields,
Till I stood within the shadow
Between the old house and the trees.

Her dog barked fierce at the stranger,
Then knew me and lay by my side;
Conscious how little the danger
From me to my promised bride.
I heard no noise break the stillness,
I saw no light pierce the gloom,
But I gazed at her curtained window,
And thought of the light of that room.

The moon rolled on o'er the ocean,

New stars were spaugling the sky,

And the wind with a stately motion

Was drifting the young clouds by—

I looked once more at the window

I patted her old dog's herd,

And strolled through the moonlit meadow,

Dreamily home to my bed.

WERT.

FRANZ LISZT.

FROM THE FRENCH OF P. SCUDO.*

THERE is nothing perhaps which more strongly presents itself to the mind of the lover of music in the present day, than the unhappy tendency of the period to substitute artifice for inspiration, and mere physical sensations for the emotions of the heart. The abuse of instrumentation, the coarse effects of sound, the monstrous employment of the brass instruments, whether in the theatre or concert-room, have altered

[.] Translated for the BRITISH AMERICAN.

the delicacy of our ears, and rendered us insensible to things simple and truly beautiful. Everywhere there is displayed a science as pompous as it is useless. Dissonance accumulated upon dissonance serves to hide poverty of ideas, and, under the glare of a pompous title, and having their works executed by several hundred musicians, too many composers of the present day take as evidence of genius that which is only an endurable mediocrity. They stun the public ear in place of charming it—astonish without moving, and instead of eliciting sympathy by the charm of melody, they at best can only dazzle the mind with endless yet unmeaning coruscations of sound. If the truth of these observations required to be supported by an especial illustration, we shall find one in the career of M. Liszt.

It is now many years since Franz Liszt first occupied public attention. Born at Ræding, on the twenty-second of October, 1811, he proceeded to Paris at the period of the Restoration of the Bourbons. There we find him surrounded by noble ladies of the Faubourg St. Germain, marvelling at the agility of his hands and the youthful graces of his person, caressing his fair hair and hailing him as a bambino santo, who, coming later, should yet revive the glorious image of Mozart! It was in the midst of this charming world, in an atmosphere redolent with the perfume of the boudoir, that the young Liszt was delicately nurtured. He had hardly reached the mature age of fifteen when he aimed at effect. He composed his countenance, was fastidious as to the manner of dressing his hair, and equally solicitous as to the decoration of his person. His self-complacency was increased by having the term Florentine applied to his profile, by the most enthusiastic of his worshipping admirers.

M. Liszt is without doubt a great pianist. Nothing can equal the strength of his wrists, the quickness of his hands, or the energy and impetuosity of his execution. He has supreme command over the keyboard, and perfectly understands its capabilities. He makes the instrument speak—a language of his own, certainly—and alternately cry or groan under his iron fingers! No difficulty presents any obstacle to this surprising virtuoso, who, for vigour, rapidity, and neatness, possesses all the qualifications which belong to the practice of the instrument. His performance dazzles and intoxicates. He showers a deluge of notes, heaps scales upon scales, difficulty upon difficulty, Pelion upon Ossa, yet are we never once moved by this extravagant display to any other feeling than that of simple amazement! His immoderate execution—in which the thread of his ideas escapes him as often as does the common sense—crisps the nerves, but never affects you. In a word, he plays the piano-forte in place of singing on it.

M. Liszt believes that art, as he interprets it, requires all the advan-

tages of stage-effect. In his performance, accordingly, he omits nothing which can strike the eye or seize the imagination. Observe his entrance at a public concert! Casting his hat and gloves to the attendant of the room, he noisily seats himself, traverses his numerous audience with imperious glances, and then, placing his hands on the key-board, forth rolls a noise like thunder from which the ear tries in vain to escape—quite oppressed from the first note of commencement to the end!

We have little to say of Liszt's compositions. They are nearly incapable of being executed by any other than himself, betray a want of order and few ideas, are as ambitious as they are bizarre, and whose sole

merit consists in the extreme difficulty of their performance.

Ye tender souls, elevated spirits, true artists! You to whom music is not an empty noise, a cohort of sounds which astonish the senses, but a sublime language elevating and ennobling all who can own its influence, and expressing that which no ordinary language can express—leave Franz Liszt and his executive marvels; go and study Chopin,* and derive instruction and delight. The one is only a pianist, but the other is a true poet.

REVIEWS.

Manual of Geology: Treating of the Principles of the Science, with Special Reference to American Geological History. By James D. Dana, M.A., LL.D. Illustrated by a chart of the world, and over one thousand figures, mostly from American sources. pp. 798, 8 vo. Theodore Bliss & Co., Philadelphia; Rollo & Adam, Toronto.—1863.

Amidst all the troubles and vexations which so unhappily disturb the people of the United States, from the frontiers of Canada to those of Mexico, Science still pursues her tranquil, undeviating course, although with fewer votaries than in more peaceful times. Two new publications have just issued from the American press which would have done honour to any country in periods of prosperity.

Harvard University has recently contributed a most beautiful and valuable record of the history of Donati's Comet, and Dr. Dana, already well known to the scientific world, has just published the most complete and best illustrated manual of geology which has yet been written. This valuable work is

^{*} Frederic Chopin, born at Zelszowawola, near Warsaw, in 1810, died at Paris on the seventeenth of October, 1849. An artist of the first rank, and a most exquisite composer, Chopin belonged to the school of which Weber and Schubert were the founders. His numerous compositions for the piano-forte are the only truly original works which have appeared in France for many years.

divided into four parts, treating separately of—I. Physiographic Geology, or a general survey of the earth features. II. Lithological Geology, or a description of the rock materials of the globe. III. Historical Geology, comprehending an account of the rocks in the order of their formation, and a review of the laws of progress and the kingdoms of life in the globe. IV. Dynamical Geology, an account of the forces that have produced geological changes.

It is our intention to limit this notice to "Historical Geology," which forms by far the largest and the best illustrated portion of the work before us.

An excellent feature in Dr. Dana's manual, is the carefully compiled notice of the distribution of rocks contemporaneous with the American series in different parts of the earth's surface. The discovery of Lower Silurian fossils of Chazy age in the Arctic regions, shows that the great northern fossiliferous basin, formerly supposed to be dry land, during the Lower Silurian epoch, west and south of the Laurentides, was really occupied by a sea filled with forms of life like those observed in Canadian rocks.

The number of Lower Silurian species that are known to have become extinct in the American seas, from the beginning to the close of that period, is estimated at one thousand two hundred and fifty. A great and prolonged convulsion ushered in the Upper Silurian, and two rock formations (Oneida Conglomerate, and the Medina Sandstone) were deposited over wide areas without any considerable development of animal or vegetable life. It was not until the Niagara Limestone period that the waters of the ocean again teemed with corals and shell-fish from the tropics to the arctic, as in the former ages of the Lower Silurian.

The enumeration of the fossil forms, with their distribution and the dimensions of some of the species, will strike the unprofessional reader with surprise.

The seas of the Trenton period (Lower Silurian) were densely populated with animal life. Huge Cephalopods, allied to our modern cuttle-fish, with shells ten to fifteen feet long, and a foot in diameter, roamed over the bottom of the seas. At Ottawa, two feet thick of limestones is wholly made up of a small bivalve crustacean only one-ninth of an inch long. The Orthocerata were the giants of those days. In the next succeeding formation, the Endoceras is the largest fossil. The thick strata of limestones in the Arctio Zone, shows that during the Lower Silurian epoch, life must have swarmed there in tropical profusion.

The geographical views of the world at different geological periods, are well, and sometimes strikingly, drawn. The infinite profusion of corals in the Niagara Limestone epoch, suggests the distribution of shallow seas in the interior of the American continent, and a perfect garden of beauty on the floor of the ocean. All records hitherto point to salt-water oceans—no freshwater lakes or rivers, no land or fresh-water remains of animal life have yet been discovered in American rocks of Silurian age. Possibly some vegetable remains from Anticosti may ultimately be referred to land-plants, but their true character is still doubtful. In the distant Arctic Ocean, the same, or parallel species, flourished between the parallels of 65° and 80°, as are found to have existed in the warm seas between 30° and 45°. How changed, since that remote period, has the Arctic Zone become!

The Devonian period, or age of fishes, is a great starting point in American geology. It contains the earliest remains thus far discovered of fishes. The life of the American seas, up to this time, had only included the three sub-kingdoms. Radiates, Mollusks, and Articulates; in the Devonian period, Vertebrates were created, and complete the list of all the animal sub-kingdoms. The earliest American fishes were the Sharks, and fishes (ganoids) covered with long scales or plates like the Gar-pike and Sturgeon of existing waters. Just before the Devonian period closed, there were reptiles in the world; and the tracks of Amphibians prove that air breathing animals existed. The Rocky Mountains had not yet made their appearance—the Appalachian chain was still a reef, or islands in shallow waters. The Green Mountains were low, but still dry land. In Canada, the Ottawa river probably existed, with other streams flowing into the sea, covering the valley of the St. Lawrence, and draining the Laurentide Mountains; but of other rivers, except those coming from this low axis of metamorphic rocks, there were none on the American continent.

The introduction of land-plants (Conifers and Acrogens) and fishes are the two great steps of progress in the Devonian age, and reptiles are supposed to date from the latest Devonian rocks. Considerable alterations occurred in Canada, Nova Scotia, and Maine, during the Devonian period, for these formations are found uplifted at various angles beneath unconformable carboniferous rocks.

The Carboniferous age is one of immense interest and importance to man; but it is to be observed that there are three great and well-marked divisions in this series:—I. The Sub-Carboniferous; II. The Carboniferous; III. The Permian. Rocks belonging to this age occur over a great part of the United States, also on the Rocky Mountain ranges in British America, and over much of New Brunswick and Nova Scotia, as well as in the Arctic regions.

Although plants are found in abundance in the lower sub-Carboniferous, yet they do not generally form coal in sufficient quantity for economic pur-It is in the true Carboniferous or coal-measures that this valuable fuel is found. The aggregate area of all the productive coal-fields in the United States is 125,000 square miles. In the British Provinces, the area is 18,000 square miles. The area of the Arctic coal region is unknown. Although rocks of Carboniferous age have been discovered in many parts of the Rocky Mountains extending from latitude 52° to Santé Fé in Mexico, yet no coal has been found associated with them. The Nova Scotia coal region abounds in erect trunks of fossil trees standing on the ground where they grew—the dirt-bed of the mines. Some of the logs in the Ohio coal-measures are sixty feet long, and three feet in diameter-true forest giants of the far past world of vegetable life, whose luxuriance and beauty surpasses belief, and can only be approached by the tropical vegetation of our day. The mammoth vein of Pennsylvania is 293 feet thick, consisting of pure coal. At Picton, Nova Scotia, one of the coal-beds has a thickness of 371 feet, and another 221 feet. Forest, marsh and marine vegetation are all represented in the coal-measures. The land-plants afford striking evidence of the progress of life on the globe. The most prominent plants of this period were

Conifers, like the Araucarian Pines which now grow in Brazil and in Australia. The Sigillaria tribe appear to have formed much of the coal: they grew as simple ribbed trunks to the height of sixty feet; the surface and summit were covered with long narrow leaves, without branches. The fronds of some of the ferns of this age were six to eight feet in length. The animal life of the coal-measures is either of land, fresh-water, brackish water, or marine origin. Air-breathing Vertebrates, prophetic of the Reptilian age, now began to give life to the swamps and marshes on the earth. In the European coal-measures, we find cockroaches, termites, locusts, scorpions, and weevils. In that wonderful age of the world, the dry land was probably covered with Conifers and Lepidodendra, lofty wooded trees, with scarred trunks and branches. The great marshes were filled with Siggilaria and Calamites-jointed, rush-like plants, twenty feet high. The entire ocean on the globe must have been nearly of the same temperature. The now frozen Arctic was a coral-growing sea. The coal-beds of that frozen region are evidence of a profuse growth of vegetation extending over a vast period of time. How wonderfully is the earth changed since the time when the dreadful icy solitudes of the polar circles were fresh and teeming wildernesses of hill, dale and marsh, full of vegetable and animal life! The air, probably-warm, moist, impure, and loaded with fogs-furnished conditions for vegetable growth, and the life of cold-blooded reptiles of low order of vital activity, insects and mollusks. No birds or mammals were yet in the world; great forests and jungles everywhere existed; but there was no butterfly among the insects of this great damp, vegetable age. Often swept away by convulsions, as often renewed again, through countless years, the great Carboniferous lasted until 14,510 feet of deposits had accumulated in Nova Scotia; vast beds of iron ore were segregated, and treasures in infinite abundance laid up for the use of man, when the earth should be fit for him who was to receive it, in the fulness of time, as his inheritance. The Permian period closed the Carboniferous age; but respecting the American Permian Flora, nothing is known. With this age, the Palæozoic rocks, or rocks of ancient life, came to a close. Of its enormous duration, an idea may be formed from the thickness of the strata of different ages. The maximum thickness of the North American Silurian rocks is 22,000 feet; of Devonian age, about 14,400 feet; and of the Carboniferous age, nearly 18,000 feetmaking an aggregate thickness of 54,400 feet, or ten miles; the mean thickness probably not less than seven miles. What time does that vast accumulation represent? What wonderful scenes this earth must have presented in its early history; and what changes and convulsions was it still destined to undergo ere it became fit for the abode of man! The only mountains which existed within the limits of Palæozoic times, in the United States and British America, were the Laurentides, the Adirondack, the Black Hills of Nebraska, the Ozark Mountains, and a part of the Green Mountain range. There may have been isolated ridges in the Rocky Mountain chain of Laurentian age.

After the long quiet of Palæozoic time, a change of great magnitude began: the Appalachian revolution was ushered in, and that vast mountain range was raised, its strata folded and plicated, and the whole mass pressed by some gigantic force from the south-west, and forced up into numerous ridges.

Among the consequences of the "Appalachian revolution," were an extermination of existing life, an extinction of several great Palæozoic races, the decline of others, and a general change in the character of the life. These revolutions were accompanied by the extensive folding and crystallizing of Palæozoic formations, and the development of a number of prominent mountain ranges. A new world, as it were, was called into existence. Gold was laid up in store in veins penetrating the Palæozoic rocks. Tin, copper, and lead, the topaz, emerald, sapphire, and diamonds, are supposed to be among the results of the metamorphic action during the great "Appalachian revolution" at the close of Palæozoic Time.

We come now to the Medieval TIME, or MESOZOIC, in the earth's historyto the Reptilian age. The era of the first mammals, the first birds, the first osseous fishes, the first palms and Angiosperms. Throughout the Mesozoic age, North America was, in general, dry land. West of the Mississippi to the Rocky Mountains, and northwards to the Arctic Sea, these rocks are found, as well as on the Pacific coast, but their entire thickness is not above 8.000 feet. There was a communication between the Gulf of Mexico and the Arctic Ocean; but the entire country east of Lake Winnipeg, or the 98th degree of longitude, was dry land. Many animal and vegetable forms, characteristic of the Palæozoic, declined and disappeared from the earth; others new to this era, culminated and passed away-such as the Swimming Sau-At the close of the Cretaceous epoch, the last of the series of Mesozoic rocks, complete extermination of many species took place; and CAINOZOIC TIME, or the Tertiary period, ushered in the great Mammalian age. But all the Mammalian species of the Tertiary are now extinct. A few relics of the Post Tertiary still survive; the invertebrates, however, of the last epoch, have nearly all still living representatives on the globe.

The Missouri or Upper Saskatchewan region on the American continent, is the great field for Tertiary rocks of fresh-water origin. The great Tertiary Lignite Group of the Upper Missouri is 2,000 feet thick; it extends far north into British America, and contains some important beds of Lignite. Turtles and crocodiles existed in this age in vast abundance. But the Mammals are of the greatest interest. The large vertebræ of a whale (Zeuglodon cetoides) which attained dimensions exceeding sixty-five feet, were once so common in Alabama, that they were used for making walls and fences. A wall made of the vertebræ of whales would be a novelty any where; but how strikingly does the fact of such a structure being in common use impress us with the amazing fecundity of life in the Tertiary period. Forty species of extinct quadrupeds have been already found in the beds of White River on the Upper Missouri. Rhinoceroses, Camels, Hyenas, Peccarys, Horses, and the animals allied to the extinct Anoplothere and Palæothere, were once common in the Upper Missouri country during the Tertiary age. The Rocky Mountains were elevated to a great extent during this period, as the folds of Cretaceous rocks in British America distinctly indicate. It was probably late in the Tertiary that they attained their full altitude. Up to the close of the Tertiary, the continent of America had been receiving a gradual extension to the southward by the uprising of the land, spreading itself south-eastward on the Atlantic side, and south-westward on the Pacific. In the next succeeding

period, namely, that of the Post Tertiary, the great phenomena of change are northern. Space does not admit of more than a brief reference to this deeply interesting period. It must suffice to say, that the tendency of modern discovery is towards the belief that a vast glacial field covered both poles of the earth during this epoch, and produced the phenomena of the old unstratified drift without marine fossils; the grooves and scratches on rocks and pebbles, the excavation of Lake Basins, not excluding the great Canadian Lakes or those of the Winnipeg Basin; and finally, the infinite number of boulders which cover the country, or are embedded in the clays and gravels, from the Arctic Ocean to the 42nd parallel of latitude. The second period of the Post Tertiary or Champlain epoch, reveals to us remoddled drift, river terraces 1,700 feet above the sea, and establishes a period of depression, as the Glacial epoch was one of elevation. The animal life of this last age before man, had its chief representatives in the form of the huge Mastodon, an Elephant, Horses of larger size than modern, the Ox, Bisons, Tapir, gigantic Beavers, and numerous other animals of large size.

The approximate number of living species of plants is 100,000; of animals belonging to the sub-kingdom:—Radiates, 10,000; Mollusks, 20,000; Articulates, 300,000; Vertebrates, 20,000—making a total belonging to the animal kingdom of about 350,000. The number that have become wholly extinct, denizens of former worlds, are, as far as known, as follows:—Of Trilobites, 500 species once lived, and of the Ammonite group, 900 species. These have all long since ceased to exist.

Of Ganoid fishes, 700 species have been discovered; the tribe is now nearly extinct.

Remains of nearly 40,000 animal species have been gathered from the rocks, ALL of which are now extinct; and 28,000 species of plants have passed from the earth, "which cannot be over a twentieth of all that have covered it during former ages."

The author's views on the position of man in the scale of creation, are wholly untainted with those dangerous doctrines involving a fearful tendency towards scepticism, which some modern geologists boldly hint at, although they stand as yet upon the threshold of the temple of knowledge. "Man," says Dr. Dana, "was the first being that was not finished on reaching adult growth, but was provided with powers for indefinite expansion, a will for a life of work, and boundless aspirations to lead to endless improvement. He was the first being capable of an intelligent survey of nature and comprehension of her laws: the first capable of augmenting his strength by bending nature to his service, rendering thereby a weak body stronger thon all possible animal force; the first capable of deriving happiness from beauty, truth and goodness; of apprehending eternal right; of looking from the finite towards the infinite, and communing with God his Maker. Made in the image of God, surely he is immeasurably beyond the brute, although it shares with him the attribute of reason."

The period of man's creation is one of the most interesting and exciting scientific questions of the day, although the facts which have been brought to light respecting the association of the remains of man with those of many extinct animals, are too few in number to admit of generalization. The

earliest remains of man and his art, it is stated, occur with the bones of extinct Post Tertiary animals. What this may mean, does not yet appear. The age of the deposits in which the remains of man are found, is still undetermined.

We shall close this notice by a quotation from the author, which demands careful attention, especially from those who are inclined to look upon geology as subversive of many Scripture truths we ought to hold most sacred.

"Geology appears to bring us directly before the Creator: and while opening to us the methods through which the forces of nature have accomplished His purpose,—while proving that there has been a plan glorious in its scheme, and perfect in system, progressing through unmeasured ages, and looking ever towards man and a spiritual end,—it leads to no other solution of the great problem of creation, whether of kinds of matter or of species of life, than this:—Deus Fecir."

Dr. Dana's manual will be welcomed not only by all students of geology, but it is a most acceptable gift to the teacher of this delightful and fascinating science. We feel it to be a pleasant duty to tender our best thanks to the author for his valuable and labour-saving book, as well as for the many delightful hours we have passed in perusing its varied contents, and admiring the faithful representations it gives of those varied forms of life which have peopled, adorned and enlivened the past ages of the world.

The Geological Evidences of the Antiquity of Man, with Remarks on Theories of the Origin of Species by Variation. By Sir Charles Lyell, F.R.S. Illustrated by wood-cuts. George W. Childs, Philadelphia. Rollo & Adam, Toronto. 1863.

In the preceding review of Dr. Dana's work, we have given a general outline of the different geological epochs of the world's history. Sir Charles Lyell's Evidences of the Antiquity of Man may appropriately follow, as they adduce facts bearing upon the momentous question of man's duration as an inhabitant of the earth, which cannot be studied from mere motives of curiosity, but necessarily awaken a higher interest. The whole question of the antiquity of the human race, appears to depend upon the age of certain deposits in which his undoubted remains have been found. If we assume that the antiquity of those deposits is clearly shown to be very considerably greater than it has been hitherto customary to assign to the existence of man upon the earth from historical data, and the interpretation given by common consent, within certain limits, to the chronology of the Bible, the inference is clearly deducible, that the ordinary representation of Biblical chronology is incorrect. If, on the other hand, it can be established that geologists have incorrectly estimated the antiquity of those deposits, the epoch of man's existence on the earth is reduced to those limits which many learned and able men have assigned to it from received chronological data. In the present state of our knowledge on this subject, it would be both vain and

foolish to place implicit reliance upon geological data. In all its teachings, geology affords striking manifestations of the power, wisdom and goodness of the Almighty; and no one who approaches the subject in a proper spirit, need fear that his faith in the inspired revelation of the Almighty's will is in danger of being shaken. Whatever may be the tendency of certain geological opinions in the minds of those who are driven to and fro by every wind of doctrine, the Christian's hope and trust rest upon foundations which can never be unsettled or overturned by mere speculative enquiry. It remains to be seen whether the numerous facts which Sir Charles Lyell enumerates, have been accurately described and correctly interpreted. Should they really appear to assign to man a much greater antiquity than the Bible seems to give according to the commonly received interpretation of its chronology, it will be time to study the sources of human error, for we may rest assured that it is with us, not with the inspired word of God, that these apparent discrepancies have their origin.

Four Years in British Columbia and Vancouver's Island: An account of their Forests, Rivers, Coasts, Gold-fields, and Resources for Colonization By Commander R. C. Mayne, R.N., F.R.G.S. With map and illustrations. 1 vol., 8vo., pp. 468. John Murray, London. 1863.

Commander Mayne's book bears palpable traces that it was written in a hurry, and "revised in great haste, amid the bustle of fitting out a ship for foreign service."

"The first to reach these regions," says the author, "crossing the Rocky Mountains from Canada—the first at least who left the impress of his name there—was Mr. Simon Frazer, an employé of the North-West Company, an association formed in Canada to rival the Hudson's Bay fur-trade. Mr. Frazer, penetrating the range of mountains from Fort Chipewyan, in 1806, formed a trading establishment upon a lake bearing his name, situate on the 54th parallel of latitude."

A reference to the map which accompanies Commander Mayne's book, prepared by Arrowsmith, has on it marked McKenzie's Route, 1793; and the author refers to this journey in the body of his work more than once. The fact is, that in 1806, Mr. Frazer followed McKenzie's track from Fort Chipewyan up the Peace River, thence to Frazer River, to which his name was given, but which McKenzie had previously called the Tacoutche River, or Columbia—supposing it to be a branch of that river. Sir Alexander McKenzie's description of his adventurous journey to the Pacific from the east side of the Rocky Mountains, was published in 1801—five years before Mr. Frazer followed in his footsteps: and the deep Sinus, now called Belhoula Inlet, the distinguished and enterprising traveller called by his own name "McKenzie's Outlet," and it is so named on McKenzie's map accompanying his work. The new road from the Pacific to the interior, runs a little south of McKenzie's track, and will open up a far more rapid communication with the gold region than by the Tacoutche or Frazer River.

Our author will astonish Canadians when they read that in attempting to form some opinion respecting the cost of cutting a clear line through the forest on the 49th parallel, Col. Estcourt's opinion was asked, which was of formed upon his experience of cutting a line thirty feet wide from Lake Superior to the Lake of the Woods." This imaginary road on the boundary line from Lake Superior to the Lake of the Woods was 207 miles long to Rainy Lake, of which 191 miles were water navigation, and the remaining fifteen miles made up of portages from lake to lake. Rainy Lake and the Lake of the Woods are connected by Rainy River, eighty miles long, a splendid navigable stream, and the boundary line runs through the centre of the lakes and rivers as far as the outlet of Rainy River. We sincerely wish a road thirty feet wide had been cut out between "Lake Superior and the Lake of the Woods." The author really refers to the boundary line between Lower Canada and the United States. The British Commissioner was the late Major General Estcourt. The reference to "Lake Superior and the Lake of the Woods," is a sad jumble.

"The North American Indians," we are informed, and "the Canadians as well, paddle much more steadily when they sing." This is a novel feature of North American Indians, which the author of Prehistoric Man will do well to note. It has, however, been observed, we venture to say, as a general fact, or as a speciality of the North American Indians, by no one but Commander

Mayne.

The author invites adverse criticism, by revealing to the reader that he has not fully studied his subject; that he has written about things respecting which he has no personal knowledge; and that "haste," or want of opportunity, has prevented him from having recourse to authorities. Notwithstanding these drawbacks, there is a great deal of useful and, indeed, valuable information in this "hurried" volume, and we shall endeavour to cull from its ill-arranged details a synopsis of such portions as may be of interest to British Americans.

The islands at the entrance of the Gulf of Georgia, between Vancouver's Island and Washington Territory, are thirty in number; there are three channels between them leading to the Gulf of Georgia from the Pacific, called respectively the Haro Strait, the Middle Channel, and the Rosareo Strait. The Haro Strait is the most westerly, and is claimed, as a matter of course, by the Americans, as the boundary line—the Rosareo Strait is claimed by the British as the boundary line; and when the treaty with the United States was made, this was the only known channel, and the words of the treaty are, that the boundary line is to run down "the channel." The Island of San Juan is so situated that it commands the Haro Channel; so that the country that holds Vancouver's Island and British Columbia must also hold San Juan Island, or give up the right of way to her own possessions.

The boundary question being shelved in consequence of the civil war now raging in the United States, the Island of San Juan is held by equal numbers of British and American troops—about one hundred men of each nation.

The main route to the upper country no longer takes the Frazer River between Caernarvon and Lytton, but goes by Harrison and Lilloeet Lakes. A canal has been cut, forming a connection between the Frazer and Harrison

Lake for loaded steamers; and between the upper lakes, a broad waggon road affords a far easier route than the rapid current of the Frazer River—the town of Hope being the head of steam navigation.

The coast of British Columbia is fringed with dense forests, covering mountain ridges, from which here and there shoot up irregular peaks, varying in altitude from 1,000 to 10,000 feet. Behind the minor ranges of hills and mountains, the Cascade range runs nearly parallel to the coast, at a distance of sixty to one hundred miles from it. Mount Baker, in lat. 48° 44′ N.—consequently in American territory—is 10,700 feet in altitude. Some of the coast indents penetrate thirty to forty miles into the interior, up which a steamer may pass to the head of the inlet.

Coal exists all along the shores of British Columbia and Vancouver's Island. After the Cascade range is passed, from Lytton upwards, the country assumes an entirely different aspect from that of the coast. The dense pine forests cease, and the land becomes open, clear, and, in the spring and summer time, covered with bunch-grass, which affords excellent grazing for cattle. The country lying south-east of the Thompson, Buonaparte, and Chapeau Rivers, is reported to be the best agricultural district in the Colony. On Vancouver's Island, the quantity of agricultural land is very small in comparison to that of British Columbia. The coast swarms with fish, but the absence of animal life on the main land is remarkable.

Commander Mayne's explorations did not extend to the Cariboo district, so that we are deprived of any description except those already known to the public. Indeed, respecting the resources of British Columbia, and its physical features, little information is given in addition to what has already appeared in the "Blue Books," whose contents have already been presented to the public in readable shape by the English press. The chapter on Routes to British Columbia, quotes Capt. Pallisser and his well-known "difficulties" of an overland route, which the successful accomplishment by over 150 emigrants from Canada last year, affords sufficient answer. In another part of this number we have described the journey of the Canadians through the the Leather Pass, and noticed the fact that they took through the mountains 130 oxen and 70 horses.

The aboriginal inhabitants of British Columbia and Vancouver's Island are divided into the Fish-eating Indians and Inland tribes. Those who inhabit the interior are vastly superior to the coast tribes. They have had but little intercourse with the whites, and the demoralizing trade in slaves, which exists to a great extent among the Fish-eaters, is not admitted by Inland tribes. The coast Indians number about 40,000 souls, who are divided into four distinct nations, each speaking a separate language. The similarity between some of the customs of these people and those of the Iroquois or Mohawks is remarkable. Commander Mayne thus describes them: "I have previously had occasion to refer to the fashion among the Indians of carving the faces of animals upon the ends of the large beams which support the roofs of their permanent lodges. In addition, it is very usual to find representations of the same animals painted over the front of the lodge. These crests, which are commonly adopted by all tribes, consist of the whale, porpoise, eagle, raven, wolf and frog, &c. In connexion with them

are some curious and interesting traits of the domestic and social life of the Indians. The relationship between persons of the same crest is considered to be nearer than that of the same tribe; members of the same tribe may, and do, marry—but those of the same crest are not, I believe, under any circumstances allowed to do so. A Whale, therefore, may not marry a Whale, nor a Frog a Frog. The child, again, always takes the crest of the mother; so that if the mother be a Wolf all her children will be Wolves. As a rule, also, descent is traced from the mother, not from the father." At their feasts they never invite any of the same crest as themselves, they will never kill the animal which they have adopted as their crest. Whenever an Indian chooses to exhibit his crest, all individuals bearing the same family-figure are bound to do honour to it by casting property before it, in quantities proportionate to the rank and wealth of the giver. They have fish priests who are supposed to be capable of "working on the hearts of the fish" to be abundant during the coming season.

As with other Indians east of the Rocky Mountains, the most influential men in a tribe are the Medicine-men. Their mode of initiation into the mysteries of their profession is also accompanied by fastings, ceremonial observances and incantations. At the great feasts of the tribe, the chiefs and heads of families give away and destroy a great deal of property, and for this purpose different articles are hoarded. As a rule the Indians of British Columbia and Vancouver's Island burn the dead and bury the ashes. Sometimes they are deposited in canoes, or in trees, or buried in the ground. When the corpse is buried they mourn for about thirty days, wailing and singing at sunrise and sunset. The process of flattening the head is carried to a great extreme. At the north-west end of the Island of Vancouver the head of a girl belonging to the Oantsino tribe was measured and "she was found to have eighteen inches of solid flesh from her eyes to the top of her head." Both men and women wear ornaments in their ears, nose and lips. The lip here is often a sad disfigurement from the continual enlargement of the hole made when young in the under lip; an aged woman will have a lip ornament three inches long and two inches wide in her lip. The custom is practised among the northern tribes, and it makes the women the most hideous creatures imaginable. The size of the lip is considered a mark of rank among the women, and, on occasion of dispute, one woman will remind another of the inferior size of her lip. The sacrifice of slaves among the coast Indians is common. The ceremonies attending some of these sacrifices are too revolting for description. Cannibals are common among them, and small cannibal parties sometimes spread dismay and terror among numerous

The Indians of the interior of British Columbia number about 20,000; but our author gives little additional information respecting their customs to what is already known.

Commander Mayne closes his book with the following remarks: "In concluding this rough summary of the resources of the colonies, let me repeat, that in our North American possessions we have, independently of its mineral wealth, a country of immense extent and natural beauty, of—so far as it has been tested—invariable fertility, and with a climate closely resembling our

own. Against these advantages, however, it must be remembered that all that is required to develope and utilise the many natural advantages of the colonies has yet to be done, and that for many years to come stout hearts and strong hands will find abundant occupation in accomplishing this work. He who is not possessed of these requisites of a bush-life is as unfit for British Columbia as for any other colony. But the man whose heart does not fail him at the prospect of hard living and harder work, will find there welcome and plenty awaiting him."

The impression with which the majority of readers will close this book will be one, we think, more partaking of disappointment than pleasure. Commander Mayne is not a pleasing writer; he indulges in frequent repetitions, and, although the nature of his duties may have prevented him from acquiring a more complete personal knowledge of the resources of this new and interesting country, yet the title of his book is sufficient to awaken higher expectations than it is found, upon perusal, capable of satisfying.

The Internal Condition of American Democracy; Considered in a Letter from the Hon. Thomas D'Arcy McGee, M. P. P., President of the Executive Council of the Province of Canada, to the Hon. Charles Gowan Duffy, M. P. P., Minister of Public Lands of the Colony of Victoria. London: Robert Hardwicke. 1863.

The source from which this brief letter emanates, and the subject of which it treats, confer upon the opinions expressed considerable interest and importance. From a long residence in the United States, Mr. McGee speaks as an authority who will be listened to with careful attention and respect. The picture he draws of the present social position of the Boston school of Americans, is anything but flattering to their pride; the future national character, he half predicts they will attain, is the reverse of encouraging.

"Their vain proclamations, rightly weighed, are words of warning. Their social discoveries are often fatal secrets, over which our wiser ancestors would have made the Sign of the Cross. Their irreverent youth and independent matronage are not moral improvements to be desired. Their inbred contempt for 'foreigners' is fit only for the latitude of Pekin. Their State school system seems to me false in its basis, and fatal in its effects. While, last of all, the examples set by their recent political men, are examples for the most part devoutly to be avoided."

Hesperus and other Poems and Lyrics. By Charles Sangster. John Lovell, Montreal; Rollo & Adam, Toronto.

Mr. Sangster's poems are not yet justly appreciated in Canada. We have no doubt, however, that the day will come when Canadians will point with pride to a poet whose effusions have already attracted favourable notice from the critical press in England. In a future number of the British American,

we shall describe the works of this author in detail, as well as those of other Canadian poetical writers who, notwithstanding the infant age of literature in this country, merit far wider publicity and appreciation than have hitherto been accorded to them.

The Field and Garden Vegetables of America: Containing full Descriptions of nearly Eleven Hundred Species and Varieties; with Directions for Propagation, Culture and Use. By Fearing Burr, jr. Crosby & Nichols, Boston. Rollo & Adam, Toronto. 1863.

This work is offered to the public as a guide to assist in the selection of varieties, rather than as a treatise on cultivation. It nevertheless embraces all the directions necessary for the successful management of a vegetable garden. Some idea of the copiousness of this work may be obtained from the statement that it contains the characteristics which distinguish nearly eleven hundred species and varieties of vegetables cultivated in the United States. It is well illustrated, and well printed on good paper. As an example of its contents, it may be stated that it embodies descriptions of no less than seventy-one varieties of the common onion, more than one hundred and fifty varieties of the pea, sixty-two varieties of the potato, &c., &c.

The origin of the most important varieties is generally given, and their

adaptation to certain climates, soils, and mode of cultivation.

To the practical gardener and seedsman, this work will be an excellent guide, and an invaluable book of reference.

THE BRITISH QUARTERLIES.*

THE NORTH BRITISH REVIEW.—FEBRUARY, 1863.

"Convicts and Transportation" have formed a prominent subject for the British Reviews during the last quarter. The presence of a large criminal population in the heart of England, periodically awakens a sense of danger to the community. There are annually committed to, and liberated from, the county jails in England and Wales, upwards of 130,000 offenders. Besides these, there are 3000 convicts turned loose every year at the expiration of their sentence of penal servitude. Habitual criminals may be dealt with in three ways, they may be deterred from committing offences, reformed, or got rid of. The question which now agitates the public mind in England, is what method to choose, and when chosen, how to put it in practice.

" Recent Atttacks on the Pentateuch."

"Professor Wilson-Christopher North."

^{*} The American reprints of the British Quarterlies, together with Blackwoods Magazine, can be procured from Messrs. Rollo & Adam, Toronto.

"Professor Fairre's Scientific Biography of Goethe."—Among the biographies of the distinguished men who flourished during the last century, there is none so remarkable, so instructive, and so distressing, as that of Johan Wolfgang Goethe, a poet of undoubted genius, a naturalist with a disputed title to the name, and a natural philosopher, without even the elements of Science. With his various claims to a high reputation, he was the demigod of his country and of his age, with crowds of worshippers, as eager to admire and defend his errors, as to applaud and exaggerate his merits. Though a student of nature in some of her richest domains, and an admirer of the beauty and adaptations of the material world, he neither recognised the divine hand that made it, nor the bountiful providence by which it was sustained. Without even the sentiment of a high morality, he had no faith in those great truths which had been accepted by the first of poets and the greatest of philosophers.

"Greece during the last Thirty Years."—Historians who, in future ages, will take up the subject of a resuscitated Greece, will treat these thirty years of King Otho's reign as a period of national torpor.

"Novels and Novelists of the Day."—Dickens and Thackery are at present the lords of the novel; and as partisans of one or the other, the world of novel readers are pretty equally divided. George Eliot has achieved the greatest literary success of recent years, and now she stands in the first rank of living novelists. Mr. Wilkie Collins has, in his own way, achieved eminent success. 'To go to bed after the perusal of the Woman in White or No Name, is like going to bed after supping on a pork-chop.' Few men have won their laurels so swiftly and easily as Mr. Trollope, and few writers deserve them so well. Orley Farm is, as yet, his best book. Lady Audley's Secret has recently rushed into a sudden and, to some extent, an inexplicable popularity.

"Domestic Annals of Scotland."—These valuable and instructive historical notices, by Robert Chambers, pretend to be nothing more than a miscellaneous collection of notices of old life and manners, generally given in the very words of the old authors. They are not unlike a carefully kept note-book of a studious reader of history. The 'Domestic Annals of Scotland' occupy three closely printed large octavo volumes. They extend in time from the Reformation to the Rebellion of 1745.

"Dr. Cunningham's Historical Theology."

"The Prospect of Parties."—'The Conservative party has seldom been stronger in point of numbers; it never was weaker in point of reputation and character.'

N VEGY

THE BRITISH MONTHLIES.*

MACMILLAN. - JANUARY AND FEBRUARY.

A visit to Lutzen in October, 1862, describes once again the celebrated battle of 1832.

The Wealth of Nations and the slave power, argues against the Slave Power, as one who fights against all the principles of civil and religious liberty on which England rests her glory, and all the principles of political economy to which she ascribes her wealth.

Vincenza; or, Sunken Rocks, has already reached the XXIII. chapter, and is to be continued. It will be time to notice this singular romance in some future number.

Life's Answer, by the Dean of Canterbury, we cannot refrain from giving in full:-

I know not if the dark or bright
Shall be my lot:
Of that wherein my hopes delight
Be best, or not.

It may be mine to drag for years

Toil's heavy chain:

Or day and night my meat be tears

On bed of pain.

Dear faces may surround my hearth
With smiles and glee:
Or I may dwell alone, and mirth
Be strange to me.

My bark is wafted to the strand
By breath divine:
And on the helm there rests a hand

Other than mine.

One who has known in storms to sail

I have on board:

Above the raving of the gale

I hear the Lord.

He holds me when the billows smite,

I shall not fall:

If sharp, 'tis short; if long 'tis light;

He tempers all.

^{*} The British Monthlies, including Blackwood (American reprint), Cornhill, Temple Bar, The St. James' Magazine, Good Words, London Society, The Churchman's Magazine, The Exchange, &c. &c., can be procured each month at Messrs. Rollo & Adam's, Toronto.

Safe to the land—safe to the land,

The end is this:

And then with Him go hand in hand

Far into bliss.

The Water Babies—a Fairy tale for a Land-Baby. An extremely amusing and imaginative rhapsody, with plenty of moral, but sometimes rather difficult to discover. It would be quite impossible to describe the chapters in these numbers—"Tom" is introduced to Mother Cary, but the journey he had to undertake before he found her in the Polar seas, making everything make itself, involved such marvellous powers that any attempt at illustration would be fruitless. It requires no small knowledge of Natural History in order to follow the Rev. Professor Kingsley in his ærial flight and submarine plunges, with Master Tom to the other end of nowhere.

Dr. Stanley's Lectures on the Jewish Church.—This is an excellent comparison between a book written for edification, and one like the Bishop of Natal's, written to unsettle and confound. Dr. Stanley speaks of the Bible so as to maintain the sense of its Divine virtue unimpaired. Everywhere he keeps in mind the purpose for which the religious life seeks the Bible—to be enlarged and strengthened, not to be straitened and perplexed.

GOOD WORDS. - JANUARY AND FEBRUARY.

This able and valuable publication is now three years old, and has already attained a circulation larger than any other periodical of its class. It is edited by Dr. Norman Macleod, one of Her Majesty's chaplains for Scotland. As a domestic and religious magazine it surpasses all its predecessors, and knows no equal among cotemporaries. Among its contributors are many well-known names, Sir David Brewster, Miss Mulock, Archbishop Whately, Principal Leitch of Queen's College, Kingston, the Countess de Gasparin, Piazzi Smith, P. H. Gosse, author of the Canadian Naturalist, Miss Greenwell, The Astronomer Royal for Scotland, Sir John Herschel, Bart., Dr. Caird, Dr. Norman Macleod, &c., &c.

The paper on "The characteristics of the Age," by Sir D. Brewster, exposes the celebrated pendulum experiment. It has, however, been of use to mankind, although as with the divining rod, table-turning, the magnetoscope, the ring, &c., in the hands of unscrupulous and weak-minded persons it leads to imposture, yet led by it Dubois Raymond has constructed a delicate galvanoscope by which the electricity of the human body can be exhibited by its action upon the needle of the galvanoscope, and even by its power to decompose water. The muscular motion of the arm causes the pendulum to vibrate, and M. Chevreul has established an intimate connexion between the execution of certain movements and the thought which is relative to it, though this thought is not yet the will which commands our muscular organs. Fourteen hundred years ago, a ring suspended by a thread was an instrument of divination. Every one is familiar with the experiment of telling the hour of the day by means of a suspended ring and a glass of water.

Anthony Trollope writes "The Widow's Mite." This author is acquiring a high reputation. The tale of "The Widow's Mite," is about the Cotton famine, a marrying of an American with an English girl, who bargains to dispense with the usual wedding clothes, and give the price of them to the soup kitchen, for suffering operatives. The tale is prettily told, and encourages a love for the unselfish, warm-hearted sympathisers with wide-spread distress.

About Volcanoes and Earthquakes. Earthquakes are always at work says Sir John Herschel. The thin solid crust of the earth above the intensely heated central sphere is continually changing in thickness and consequently in strength. The Continents are always getting lighter, the bed of the sea, on the other hand, is receiving additional weight continually, and as the necessary result the bed of the sea is constantly sinking and the continents rising, in relation to the central heated nucleus. The sea bed being thus pressed down and the land wearing away and becoming continually lighter, a crack in the crust of the earth takes place at the weakest point, and an earthquake with volcanoes result. There is scarcely an instance of a volcano remote from the sea coast, and it is in the neighbourhood of the sea that the earth crack takes place. The highest mountain ranges always face the largest oceanswhile sound travels in air about 1,140 feet per second, in water 4,700 feet, in iron 11,400, so do earthquake waves travel with different speeds in different media, and they vary from 12 to 13 miles a minute, to 70 or 80. During the passage of a wave, the whole mass of the earth up and down for a certain distance will be compressed, and it is this compression which carries the shock forwards. When an earthquake wave runs under a row of buildings, they fall in succession, the base flying forwards, and leaving the tops behind to drop on the soil on the side from which the shock came. An earthquake wave has been seen to run along a wall, the wall bowing forward and recovering itself with the swell of a wave rushing forward with immense rapidity, Notwithstanding the awful power of earthquakes, we must remember that the energy requisite to overthrow a mountain, is as a drop in the ocean compared with that which holds it in its place and makes it a mountain.

Reminiscences of a Highland Parish begins. The parish is described, the lakes, the mountains and the deep secluded dells of Highland scenery. It is the Righi of Argyleshire, and under a bright blue sky is surpassingly grand and fair.

The February number contains "A Vindication of Bishop Colenso," in which the author professes to disbelieve the authenticity of the work on the Pentateuch, alleging as the groundwork of such belief the absurdity of supposing a man with so clear a head as stands on Bishop Colenso's shoulders capable of writing such an accumulation of trash, objections, absurdities and distortions as make up the sum of this pseudo-Colenso work. The letters are very cleverly written, in rather facetious style and sufficiently crushing. The writer charitably supposes Bishop Colenso is not the author, and he cites numerous examples which go to prove that no sensible Christian would wish to be considered as the parent of this reproduction of the objections of such infidel authors as Celsus, Bolingbroke, Voltaire, and a host of others.

Experiments with the Trophy Telescope at the First Exhibition, point out

the wonders of the heavens as regards the fixed stars. The little that we know of the stars only stimulates the desire for more extended knowledge. Conceive one of the few stars whose distance from the sun has been measured, and consequently one of the nearest to us, so far away in the depths of space as to require for its light, moving at the rate of 192,000 miles in a second of time, thirteen years to reach the earth. The great mystery of dark or non-luminous worlds, is hinted at. The intervals of changes in the appearance of the star designated "o Ceti," point to the revolution of a large dark planet round that distant sun.

The History of Earthquakes and Volcanoes, by Sir John Herschel, Bart., continued from the last number, is replete with interesting facts, as might be expected from the well-known reputation of the distinguished author. The first great earthquake of which any very distinct knowledge has reached us, is that which occurred in the year 63 after our Saviour. In August 79, Pompeii and Herculaneum were buried, and among the treasures found in the last named of those buried cities about 100 hundred years ago. 60 feet underground, was a library full of books, and those books still legible; hundreds and hundreds of which still remain unopened. What a storehouse of knowledge unexplored! Why do not the wealthy learned of Europe make every effort to examine those hidden treasures? Discoveries might be made which would upset a thousand Bishops Colenso. Vesuvius again alarmed Europe in 472, scattering ashes over a Continent. Basaltic colonnades are supposed to be produced by floods of lava poured forth at the bottom of seas so deep as to repress, by the mere weight of water, all outbreak of steam, gas or ashes, and reposing for ages in a liquid state, protected from the cooling action of water by a thick upper crust, take on a columna structure. Earthquakes and volcanoes are among the most sublime and terrific phenomena which occur on the earth's surface; they have been largely instrumental in producing its present geographical outline, and as manifestations of awful power they are perhaps the 'most grand and striking in the whole range of terrestrial phenomena.

The Reminiscences of a Highland Parish is a charming description, concontinued from the last number, making one long to be an actor in those exciting scenes of flood and field which are so graphically described. The tone is delightfully encouraging, there are no puritanical ideas about religion inculcated, all is sterling and real. The religious and moral essays of this magazine are distinguished by their eminently practical character, and have led to its extraordinary circulation. The illustrations are generally excellent, and are drawn by Millais, Burton, Tenniel, Graham, Watson, &c.

LONDON SOCIETY.

This is certainly an illustrated magazine of light and amusing literature for the hours of relaxation. The most distinguished artists are engaged to grace its pages, and admirably is their part of the work done. Indeed, some of the short tales and poems derive their interest from the exquisite engravings.

Toboggining is evidently written by one who has been in Canada.

The Tenant of the Chintz Chamber grows in interest.

Why the Bishop gave Thompson a Living is a severe, and, it is to be hoped, now-a-days, an unmerited sarcasm on the Episcopal bench.

THE ST. JAMES'S MAGAZINE-JANUARY AND FEBRUARY.

Madeline Graham is a cleverly written tale, and will be read with eagerness by confirmed novel readers, but the characters and details are frequently tediously spun out; the material occupying two pages, might advantageously be condensed into one. As to the sentiments, they are on the whole coarse, satirical and scandalous; it is, in fact, a work which any one would be averse to place in the hands of a pure-minded girl.

Strange Sights is amusing and instructive, and describes, but does not explain, the phosphorescent phenomena which frequently give a resplendent character to the fly, the worm, the flowers, a chrystal, and damp wood. The reader is left to reflect over the equisite phenomena which the author

describes.

The Mission of Ticket-of-Leave Men, contains some useful information of a peculiar kind, and also some valuable hints. Ticket-of-Leave Men are not the most desirable companions in the world. We have, fortunately, not arrived in Canada at that state of police supervision which would make the Ticket-of-Leave system possible with us.

The Tangled Skein winds off well and rapidly. The language used is rather strong, and those expletives, conveying a sense of high-wrought feeling or passion, usually rendered by an initial letter and a dash, are given at full

length, and plenty of them.

Chamois Hunting is a truthful picture, but it sadly lacks that heart-stirring and spirited style which should belong to so exciting a subject. While read-

ing, you cannot fancy yourself a Chamois hunter.

Born to be a Poet, is a short and lively narrative, in which an unfortunate individual is brought up to be a poet from his cradle; he is christened Chaucer Milton, but does no credit to his illustrious namesakes; and, like a sensible man, marries a pretty girl, and consents to become a soap-boiler.

The Reign of Madame de Pompadeur is too stale and hackneyed a subject to attract many readers; and at the best, it is not the style of histor-

ical biography which should be selected by preference.

The Disinherited is a Mexican tale, full of Indians, ounces, intrigues, murders, priests, and miraculous escapes. It is much in the style of the "Pirate of the Praires," and other tales of supposed Mexican life.

Mexico. From Cortez to the French expedition, Mexican history is briefly reviewed. What is now wanted is protection for the foreigner. If France chivalrously choose to squander millions in producing a healthy state of affairs in one of the finest countries of the world, it may prove of value to England. The idea that France is about to pluck the chesnuts out of the fire, is soothing to British bondholders.

A Midnight Marriage. Here we have the Rector of a Parish dreaming three times that his church is on fire. He actually goes out to see if anything is the matter. At the witching hour of night, he meets at the vestry

door a young girl, who informs him that she has come to the church, at the instance of her lover, to be married at that unseemly hour. But no lover is there to greet her, although from her situation she requires more than a lover's consolation. The Rector, in going through the churchyard, stumbles on a man digging a grave. It is the lover! He is preparing a cold bridal bed for his victim. The unexpected visit of the Rector prevents murder. The tale is said to be true, but the names are fictitious.

Physical Training is a good article on the proper mode of developing the human figure. The arguments advanced are based, as they should be, on a knowledge of the anatomy of the human body. The tractile power of different people varies remarkably. From the age of twenty to twenty-five, the Englishman possesses tractile power of 366 to 384 lbs.—the Scotchmar the same—while the Irishman rises as high as 397 to 413 lbs. Longevity is not known amongst the race of athletes. Height ought to be in proportion to weight: thus a lad of 18, if he be 5f. 4in. in height, ought to weigh 8 stone, 10 lbs. If 21 years of age, and 5f. 5in. in height, he ought to weigh 9 stone, 5 lbs.; at 25, if 5f. 6in. in height, he should weigh 10 stone 5 lbs.; and at 30 years, 10 stone, 1 lb. The converse of the above proportions also holds good, as deductions from statistical tables.

Passing over Part I. of "Secrets of my Office" for the present, "A Revolutionary Breakfast" creates an appetite for more sketches in the same style. If one could only believe it to be true, it might be considered by many as an admirable though rather overdrawn caricature of some of the men whose names may live for a hundred years or more, and who, in their time, were proud to be considered as the enemies of the immortal Pitt.

THE CHURCHMAN'S FAMILY MAGAZINE-JANUARY AND FEBRUARY,

If we may judge from the time which has been devoted to the preparation of this Magazine—nearly three years—it ought to be of superior excellence, but we are not left to this speculative ground for opinion, as the first three numbers sufficiently mark its character and stamp. As a literary publication, it is fully up to the standard of modern requirement. Some of the illustrations with which it is adorned are of a high order of merit.

The Prince of Wales' Tour in the East is a very attractive and striking description of the chief points of interest in Egypt and Palestine. All the solemn associations and recollections which would crowd on the mind of the Royal traveller, as he trod the sacred soil of Zion, are forcibly yet delicately brought into the light—Jerusalem, once the joy of the whole earth, still exists, a "stern-sad monumental city, the prey of the stranger, the sport of the infidel, while the banished Israelites on their appointed days of national mourning exclaim, beating their breasts and rending their garments," "For the desolation of Jerusalem we sit silent and weep!" The Mosque of Omar, on the side of Solomon's Temple—all but closed to the gaze of Europeans—was visited by the Royal party. But the associations even here aroused would be tame compared with the solemn, overwhelming recollection, that in Jerusalem, the Son of Man dwelt and taught, suffered and died.

The Archbishops of Canterbury is the title of series of articles which em-

body in a great measure the history of the Church of England, continued through two numbers.

The New Curate shows the utter inefficiency of human resolves in pursuing a definite course of life, traced out under the influence of inexperience and religious zeal. The Curate resolves to devote himself exclusively to his profession, and strives for the mastery over earthly love. He finds a ministering angel, however, and like a sensible man submits to the incontrolable passion, and his angel becomes his wife.

Ladies work in a Country Parish would do many a lady a vast deal of good if faithfully pursued.

In the February number "The Painter's glory" is a delightful tale.

Lancashire under a Cloud gives a sad picture of the distress among the cotton spinners, but it shows the noble character of the operatives. In the midst of the appalling calamity which has befallen them, they have preserved order and respected the law. They have maintained a demeanor in the pressure of the most trying adversity which will long cause the British people to look back in proud admiration to the astonishing self-denial, patience and confidence of her sons.

All the articles of the Churchman's Family Magazine breathe a high toned morality, and as its name implies, it is especially adapted to the firesides of members of the Church of England.

TEMPLE BAR, -JANUARY AND FEBRUBRY.

Towns on the Thames will awaken many recollections, but the article is written by one whose ideas on certain subjects are not very well defined. The writer calls Shelley "the purest, most loving, most maligned of men." He was a musical and passionate infidel and scoffer. He suggests that to the noble Prince now dead should arise no mystic monolith, or oriental obelisk, or triumphal arch, befitting a Cæsar or Napoleon, "but a Christian Cross," such as our ancestors built.

G. A. S.—George Augustus Sala, treats us in his usual style to a wordy Breakfast in Bed, leading the way "through a desert of demolitions with scarcely an oasis of stability." A more intelligible title than "Breakfast in Bed" would have been "Metropolitan Improvements."

The 1st and 2nd chapters of "The Trials of the Tredgolds" call to mind something we have read before in the same style, and on the same subject: it is a Dotheboys Hall over again on a refined and enlarged scale. The characters in the 3rd chapter are also suggestive of well known novels. Those who have read Dickens' works will find nothing particularly refreshing or new in the "The Trials of the Tredgolds," so far.

A Royal Dane in England has nothing to do with the Princess of Wales. It describes the doings of a royal Dane in England a hundred years ago.

Bags of Gold, means in Temple Bar phraseology, "Savings Bank." From 1840 to 1857, 116 millions of money were received from depositors by the trustees of these useful institutions. Post Office Saving Banks, with a Government guarantee, not only greatly simplifies the system of depositing, but removes the flaws incident to the machinery and unbusiness-like manage-

ment of these Depositories and the want of security against the frauds of treasurers. The business of the Post Office Banks has attained an enormous magnitude, and marvellous results have already been realized. A man deposits money in a Post Office Bank in London or any other town, and he can have it paid to him in any other town he chooses by writing to his Bank of Deposit. Seven hundred Friendly Societies, Charitable Associations and Penny Banks have already deposited their funds with the Postmaster-General. What an amazing amount of real confidence and faith the English people must have in the English Government!

John Marchmont's Legacy, so far, is a good and natural tale in which the interest is so well kept up, that one longs for the next numbers of the magazine to know the fate of the gentle, loving Mary.

Sitting up, is in some instances strikingly true to the life. Well can we bring before the mind's eye the loving, self-denying sister waiting for her libertine brother, and fondly hoping that each error will be the last, but that hope too often flutters like the bird in the story, and then flies away. The sermon-reading old lady we can look upon as an old friend.

The Blackburn Sewing Schools is an article which may be read with interest and profit, as one of the most perfect delineations of the character of the suffering English operatives. The sewing school is a benevolent institution, affording work, means to live, and practical education in a most useful art to thousands who claim our sympathy under extraordinary and unexpected trials.

CORNHILL .- JANUARY AND FEBRUARY.

The admirable illustrations and high literary talent which distinguish this magazine have been attested by a wide-spread public appreciation. The Cornhill is not only remarkably well sustained, but now that the principle engravings are printed on separate sheets of plate paper it is especially attractive as a work of art, belonging to a certain class. The names of the artists are sufficient to establish a reputation. Holman Hunt, Maclise, Watson, Tenniel, Millais, Lawless, Sandeys, Armstead, Doyle, make drawings on wood for the Cornhill, London Society, Good Words, and other admirable periodicals. Cornhill stands at the head of the illustrated monthlies, and well does it deserve the wide circulation it enjoys.

Romola has reached the XXXV. chapter, wherein we are told what Florence was thinking of. When Romola is finished it will be time to give an analysis.

Indian Cossacks is the title of a paper on the irregular cavalry of India. It is principally directed towards a description of Cureton's regiment of Mooltanee cavalry. They are wild, uncouth, fiery-eyed, swarthy horsemen, and terribly impulsive. The description of their charge is splendid, and cannot be read without a thrill of excitement.

Richmond and Washington during the war. Both of these cities have increased amazingly during the war. Land around Washington has risen 400 per cent., and its population has doubled. The great personages at Washington are too well known on this side the Atlantic to require notice; and first among

those at Richmond is the President, with his slight agile figure and intense face. The Vice-President is bowed, furrowed, and hollow of eye and cheek—something to see with a shudder and never to forget. Washington is overrun with rogues, spies and demagogues. Richmond is governed by Martial Law, and a single supreme will that must not be gainsaid, is all-prevading. Neither city can be commercially great, but both will be famed as the basis for the greatest armies that ever met in the shock of civil war.

Modern Taxidermy gives the results of certain processes in the art, but does not pretend to point out those niceties of manipulation which confer on many splendid examples, such as those in Mr. Waterton's Museum, their extraordinary merit.

Roundabout papers, from the pen of Thackeray are continued. They are both amusing and instructive.

Science.—The rotation of the earth on its axis cannot be left out of consideration in the pointing of long range of artillery, inasmuch as in a flight of five miles, occupying twenty-five seconds of time, it would carry a projectile pointed northwards about 45 feet to the east, and southwards as much to the west of its line of fire. The same cause, namely the rotation of the earth, throws the water of a river preferentially against its right bank, so that the right bank of a river flowing toward the north or south is generally higher and steeper, the left the flatter and the more alluvial one.

It is gratifying to know that puddings and tarts are scientifically digestive agents; the demand for sweets on the part of children is a correct instinct, the sugar being of use in assisting assimilation of food.

In the astronomical world, the attention of astronomers has been recently directed with increasing interest to the variability of Nebulæ. Some of these cosmical wonders have been specially noted, and when the enormous magnitude, the remoteness and singularity of the changes are considered, they certainly rank among the most wonderful and inexplicable marvels of the starry heavens.

AMERICAN PERIODICALS.

THE ATLANTIC MONTHLY, -FEBRUARY AND MARCH.

"Sovereigns and Sons," conveys a high and just tribute to the memory of Prince Albert. Her Gracious Majesty the Queen is styled a model Sovereign, and her career as a mother is said to be as pleasant as her career as a Sovereign is splendid. This is high praise coming from a republican source, and will be appreciated on this side the frontier line. The article is chiefly about the quarrels of Sovereigns and their families. It is not a pleasant subject; the domestic dissensions, even of Kings, are painful, and often fraught with terrible troubles to those over whom they rule.

"The Siege of Cincinnati" is a laudation of General Wallace. It is to be regretted that the writer has omitted dates altogether; not even to the re-

markable proclamation issued by General Wallace, is there any date attached, and no one who is unfamiliar with the excitement at Cincinnati, when Kerby Smith threatened that city, can suppose from the narrative that the event belongs to the "Great Rebellion."

"The Chasseurs à Pied" embraces a history of this celebrated branch of the French army, and suggests its introduction into the American service.

"Shelley," an article containing little that is new, and introducing some of the most objectionable, and to a well constituted and religious mind, some of the most repulsive extracts from his works, which, however great may have been his genius and exquisite his poetry, are sufficient to suppress admiration in the shudder which comes over one when his shocking delineations of the attributes of the Deity strike the eye and offend the heart.

"A London Suburb" is a pleasant description of English summer weather, Greenwich fair, Greenwich hospital, and some of its glories. The writer, though an American, appears to have imbibed a thorough English feeling, and while, not forgetful of his country and countrymen, he seems to have enjoyed his long sojourn in a London Suburb, and gratefully acknowledges it.

"The last Cruise of the Monitor" is an excellent and stirring narrative of the loss of that celebrated iron-clad. The Monitor's deeds and the Monitor's fate will never be forgotten in the history of the United States.

"America the Old World" is sadly at fault in its geology. The Laurentian Hills are styled a granite range, stretching from Eastern Canada to the Upper Mississippi, and along its base the so called Azoic rocks are said to be gathered. The Laurentian hills are, in fact, wholly composed of the so called Azoic rocks, consisting of Gneiss and Crystalline Limestone. It is only here and there that Granite and trap out-bursts have taken place. The Laurentian Hills are composed of sedimentary rocks, and there is good reason for supposing that they are not Azoic, but contain the remains of Corals and other Granite is comparatively a rare rock in America, as elsewhere-Gneiss has been and is still often mistaken for Granite. There are only a few extensive areas of Granite in the Laurentian Hills yet known-all the rest is Gneissoid, and was once sedimentary, and very probably contained abundant remains of animal and vegetable life. The true Azoic rock lies below the Laurentian, and they have yet to be discovered. The fundamental gneiss north of Scotland is of the same age as the Laurentian, and is now so named by British Geologists; so also are the Scandinavian mountains, and it is very probable that they were islands in a Laurentian ocean at the same period as the detached peaks of the Laurentide mountains. The idea that the "Granite band" of the Laurentian Hills has not been submerged since its upheaval is novel; where was it during the Drift period, when the great Laurentian chain was strewed with boulders, and when the states and territories of the northwest were covered with Drift-clays, and the great Coteau of Missouri denuded? How were the terraces formed 1500 feet above the sea level, west of Lake Superior; and 4000 feet above the sea level on the eastern flank of the Rocky Mountains; and boulders perched 3000 feet above the sea in Labrador?

THE AMERICAN JOURNAL OF SCIENCE AND ARTS. - JANUARY AND MARCH, 1863.

This Journal, published every two months, is altogether scientific in subject-matter. It was commenced in 1818, and has been uninterruptedly continued up to the present time. The first series includes fifty volumes—from 1818 to 1845. Up to the year 1838, it was edited by Professor B. Silliman and B. Silliman, jr. The second series was commenced in 1846 by the Sillimans and J. D. Dana. It is at present conducted by these gentlemen in connection with the well-known names of Professor Asa Gray, Louis Agassiz, Dr. Wolcott Gibbs, Professor S. W. Johnson, and Professor Geo. J. Brush. The American Journal of Science and Arts is a standard work. It obtains a considerable European circulation; and as the expositor of the condition of science in the United States, it is the highest, and, indeed, the only authority.

HARPER'S NEW MONTHLY MAGAZINE .- JANUARY, FEBRUARY, AND MARCH.

"A Californian in Iceland" gives a graphic description of that isolated island. Some of the illustrations are excellent. It is to be hoped that the name of the artist (Peter Cramer) who furnished the Carte de visite of the lively tourist is not suggestive. The description of the tour occupies three numbers, and is a very amusing production.

"Hole-in-the-Day" is a Chippeway chief who has played an important part in the recent Indian troubles in Minnesota. He it was who sent orders to his braves to rob the stores and mission at Leech Lake. Description is given of a meeting between "Hole-in-the-Day" and the United States Commission near Crow-Wing last year, when the Indians, fully armed, to the number of three hundred warriors, met about one hundred and twenty-eight State troops. Although treachery was suspected, and a conflict imminent, yet the council passed off without disturbance. An excellent wood-cut, from a photograph of "Hole-in-the-Day," accompanies this well-written narrative.

"The League of States" is a rehash of the causes which produced the war of Independence, and is interesting, especially to Americans,

"Romola" and "The Small House at Allington" are reprinted from Cornhill. So also is "Mistress and Maid" from Good Words.

"The Revolving Tower, and the Inventor."—In this article, the credit of inventing a revolving tower for military purposes, is accorded to Theodore R. Timby, a native of the State of New York. Mr. Timby took out a patent for revolving metallic towers in 1843. Plans are given for a defence of New York harbour with revolving gun-towers—it being conceded that such vessels as the "Warrior" would be able to pass the present forts without difficulty, or even danger to themselves.

The writer of "The Gentlemen of the Press" pays a high compliment to the literary superiority of English reports; but in everything else, they are surpassed by the American. The American reporter represents the characteristics of the country—celerity, enterprise, audacity, and independence. Some capital anecdotes are told of reporting feats, which could only have been accomplished in America. The story of the reporter of a New York

paper (the Herald) retaining possession of the wires at Niagara, to report the Prince of Wales' doings, by telegraphing the Book of Genesis and then of Revelations, differs in detail from that given in Temple Bar, in "The Newspaper Press of America." No doubt the enterprise and energy of the American press is immense, but is it not too much tinged with a taste for "sensation items" designed to be contradicted the next day?

The article on "Continental Money" is well illustrated with wood-cuts of

bank notes and coins.

"European Souvenirs" read well; but the period over which they extend, and the very miscellaneous grouping of characters which the author describes, suggest at the outset doubts of their truthfulness. The possibility of such scenes and incidents having come under the notice of one and the same individual, implies an astonishing memory, extraordinary luck, and a most distinguished circle of acquaintance. There are few men now living who were present at the ball given to the assembled Emperors, Kings and Princes in England in 1814; and if the "Souvenirs" cannot be entitled to the credit of personal sketches, why are they called "Souvenirs" at all? They are, however, very cleverly written, and the anecdotes are well told. Similar "Souvenirs" have appeared in Harper before, perhaps from the same ubiquitous author. By the majority of readers in the United States, they will be taken for facts, and the writer for a great unknown.

Numerous short stories, of different degrees of merit, appear in each number of this popular monthly. The Editor's Easy Chair, and the Monthly Record of Current Events, are generally faithful records of what is going on at home and abroad.

American Publishers' Circular and Literary Gazette. Vol. I.—No. 1.
October. p. 96. George W. Childs, Philadelphia; Rollo & Adam,
Toronto.

We have just received No. 1 of this bi-monthly, which we think will become of great interest and value to all literary men, and the trade generally. Its contents are varied, and embrace London Correspondence; the Authors at Home; the Authors Abroad; Changes in the Trade; Obituary; Literary Intelligence; The National Academy of Sciences; Notes on Books and Booksellers; Periodicals, Auction Rooms, Bibliography, Notes and Queries, Book Notices, Amusements, and "Our Book List." The advertising list occupies fifty pages. We shall refer, in a succeeding number, more at length to this periodical.

CANADIAN PERIODICALS.

THE CANADIAN JOURNAL OF INDUSTRY, SCIENCE AND ART. - FEBRUARY AND MARCH.

"Descriptions of Some Species of Nocturnal Lepidoptera found in Canada," have been prepared by the Rev. C. J. S. Bethune, with a view to second the

efforts made by Professor Hincks for the accumulation of materials for a "Fauna Canadensis."

"A Popular Exposition of the Minerals and Geology of Canada" (Part IV. and V.), by Professor Chapman. This very useful series of papers will be concluded in Part VII. They are intended to serve as an introduction to the Revised Report on the Geology of Canada, by Sir William Logan and the Officers of the Geological Survey. They cannot fail to be of great advantage to the student, and may be read with profit by all who wish to acquire a

general knowledge of Canadian Palæontology.

"Illustrations of the Significance of Certain Ancient British Skulls." By Daniel Wilson, LL.D. The author of this paper says that "the traces of purposed deformation of the head, among the Islanders of the Pacific, have an additional interest in their relation to one possible source of South American population by oceanic migration, suggested by philological and other independent evidence. But for our present purpose, the peculiar value of those modified skulls, lies in the disclosures of influences operating alike undesignedly, and with a well-defined purpose, in producing the very same cranial conformation among races occupying the British Islands in ages long anterior to earliest history; and among the savage tribes of America, and the simple Islanders of the Pacific, in the present day. They illustrate with even greater force than the rude implements of flint and stone found in early British graves, the exceedingly primitive condition of the British Islanders of prehistoric times."

"On the Magnetic Disturbances at Toronto during the Years 1856 to 1862, inclusive." By G. T. Kingston, M.A.

"The President's Address." By the Rev. John McCaul, LL.D. In this address of the President of the Canadian Institute to its members, the general progress of science throughout the world during the past year, is glanced at. The learned President has presented a luminous outline of the yearly advancement of scientific research. If he were as ardent a student of nature as he is an acknowledged authority in classical and Archæological literature, he could not have touched more apropos on the progress of human

knowledge in the physical world.

The Canadian Journal contains also a number of translations and selected articles, reviews, scientific and literary notes, &c., &c. The March number contains the Annual Report of the Council for the years 1862-63.

THE CANADIAN NATURALIST AND GEOLOGIST .- FEBRUARY AND APRIL.

"The Air-Breathers of the Coal Period in Nova Scotia." By J. W. Dawson, LL.D., F.R.S. The tenants of the coal forests of Nova Scotia form the subject of this paper. Most of the air-breathers of the Carboniferous period have only been recently recognized. This much, however, has been ascertained—that the dark luxuriant forests of the coal period were not destitute of animal life. Reptiles, land-snails, millipedes, and insects, gave life to the gloom of those damp and marshy forests.

"On the Gold Mines of Canada, and the Manner of Working them."

From the General Report on the Geology of Canada.

"On the Parallelism of the Quebec Group with the Llandeilo of England and Australia, and with the Chazy and Calciferous Formations." By E. Billings, F.G.S. An important paper on one of the most interesting and valuable rock series in Canada.

"On the Land and Fresh-Water Mollusca of Lower Canada." (Part I. and II.) By G. F. Whiteaves, F.G.S., &c. Besides an enumeration of Canadian land and fresh-water shells, almost all which are found in the Atlantic States north of Cape Hatteras, the paper contains an excellent summary of Edward Forbes' famous essay, and Mr. Lubbock's paper on the Swiss Pfahlhausen, in the hope that attention drawn to the subject may possibly result in the discovery of works of human art in Canadian Tertiary (?) or Post-Tertiary deposits.

"On the Antiquity of Man: a Review of Lyell and Wilson." By J. W. Dawson, LL.D., &c. The recent works of Sir Charles Lyell and Dr. Daniel Wilson, to which this review refers, have already been noticed in this magazine. We have pleasure in quoting the following paragraph from Dr. Dawson's excellent review:—

"We must now shortly consider our third question, as to the bearing of these facts and doctrines on our received views of human chronology, derived from the Holy Scriptures, and the concurrent testimony of ancient monumental and traditional history. It is certain that many good and wellmeaning people will, in this respect, view these late revelations of geology with alarm; while those self-complacent neophytes in Biblical learning who array themselves in the cast-off garments of defeated sceptics, and when treated with the contempt which they deserve, bemoan themselves as the persecuted representatives of free thought, will rejoice over the powerful allies they have acquired. Both parties may, however, find themselves mistaken. The truth will in the end vindicate itself; and it will be found that the results of such careful scrutiny of nature as that to which naturalists now devote themselves, are not destined to rob our race either of its high and noble descent, or its glorious prospects. In the mean time, those who are the true friends of revealed truth, will rejoice to give free scope to legitimate scientific investigation, trusting that every new difficulty will disappear with increasing light."

"On the Remains of the Fossil Elephant found in Canada." By E. Billings, F.G.S. It seems quite certain that there are several species of American fossil elephants, but the question, how many? remains yet to be decided. The author thinks that if it be admitted that Elephas Jacksoni is distinct from E. primigenius, then we have no proof whatever that this latter species ever lived so far south in America as the United States and Canada.

"Remarks on the Genus Lutra, and on the Species Inhabiting North America." By George Barnston, Esq. The object of this paper is to introduce to naturalists a rare variety, or perhaps a distinct species, of Otter, smaller than the common Otter of Canada.