

LITERARY NOTICES.

A GLANCE AT THE VICTORIA BRIDGE AND THE MEN WHO BUILT IT. By Charles Legge, Esq., Civil Engineer. Published by John Lovell, Montreal.

(CONCLUDED.)

We have thus seen George Stephenson at the commencement of his career deprived of his loved companion, early with a helpless infant and blind father left to pursue his journey alone. But "Onward" was his motto, and when in after years he emerged from the depths of the coal mines, to the upper world, it was with a mind matured and equal to the position he was then to assume. At this time he was in receipt of £100 a year, a sum sufficiently large to admit of Robert, now a lad eleven years of age, being sent to a good academy, where he reaped advantages to which George had been a stranger. On Saturday afternoon he visited his father, bringing scientific books from a circulating library to which he had subscribed, and for a number of years became a joint student with him; the father not disdaining to learn from a boy, and the son happy in having the privilege of learning from a man.

While thus employed in self instruction, he was also engaged in solving the important problem of railway locomotion, and rapidly acquired experience in that department, which soon made him the first engineer of the age. Struggling genius in this case, as in that of his predecessor Watt, found a friend in a British nobleman, Lord Ravensworth to whom all praise is due for furnishing means by which he was enabled, in the year 1814, to inaugurate the Railway system, by starting the 'Blucher Engine' up a grade of 1 in 450, drawing a load of thirty tons at the rate of four miles an hour. This engine was soon followed by an improved edition, bearing the euphonious name of 'Puffing Billy,' and justly regarded as containing the germ of all that was subsequently effected. From this period up to the year 1825, we find him vigorously prosecuting his improvements, in which he received valuable assistance from his son (who had returned from Edinburgh University) in all the elaborate calculations required. Rich indeed was the recompense he now received for all the care shown and sacrifices made in the education of Robert, who, at this most important period of his father's life, wielded his powerful pen in bringing his vigorous and well-cultivated intellect to bear on the advocacy and development of the great experiment now about to be made by his revered parent.

What may well be termed the crowning and successful achievement of George Stephenson's life took place on the 27th day of September, 1825. On that day the first passenger-train in the world was driven by him, over the Stockton and Darlington Railway. Other works of greater magnitude afterwards emanated from him, but none that can for all time be viewed with the same interest.

And now commenced a movement in Britain and on the continents such as the world never before witnessed. Rivers were spanned, deserts crossed, impassable marshes bridged, valleys filled, and mountains levelled. The slumbers of eighteen centuries were dispelled, and an energy infused into the commercial community which a few years before would have seemed Utopian. The spirit of the Stephensons apparently animated kings, princes, and nations; and where before the footsteps of conquerors left desolation and misery, the shrill whistle of the locomotive brought back life and animation. From the country of the Pharaohs, the Ind, the land of the cocoa and the palm, from the wilds of America, or following the course of the sun and the drum-beat, westward till it reached from the east, was heard that same piercing sound, carrying civilization and liberty in its train, and in eloquent language telling all nations and tribes the story of the collier lad's success. It would under other circumstances be a pleasing and instructive duty to dwell upon the early struggles and subsequent success of George Stephenson, but enough has been said to draw attention to how great were the first and complete the last, to point him out as a bright beacon to young mechanics and others, now entering on the arena of active life, as well as to those who have experienced its hardships and crosses, teaching them that no matter how severe may be the discouragements under which they labour, they were far surpassed by those which attended up to middle age the father of railways; and, though they may not reach the goal he did, yet, with the same indomitable perseverance united with honesty of purpose and thirst for knowledge, the difficulties will vanish and honorable positions be attained. The name of his illustrious son, though not so immediately connected with the motive power of Railways, yet in other fields bears, if possible

a still brighter lustre from the extraordinary difficulties he surmounted in developing the railway system of the world. The impetus given by the elder Stephenson, was augmented by the son. New principles of construction were discovered, and adapted to the requirements of the age. Mountains were perforated and bridges of fabulous spans thrown across mighty rivers for the accommodation of traffic, without a parallel. No space of time such as the ancients occupied in their works, was allowed, but, with the principles of construction grasped intuitively, the mighty structures, Aladdin-like, sprang into existence. A relative comparison of the genius and works of those two illustrious men, is a difficult thing to arrive at, from the circumstance of their labours being to a certain extent of a joint character. Thus the father, having fought the locomotive battle for nearly twenty years single handed, against the combined scientific and commercial world, who were of opinion that this wild scheme originated in the diseased brain of a 'Northumbrian maniac,' when after having, by the force of his indomitable will and persistent earnestness not less than by powerful arguments, induced the Directors of the Liverpool and Manchester Railway to offer a prize of £500 for the best Locomotive Engine, which by a certain day should be produced on the railway, and perform certain specified conditions in the most satisfactory manner, now saw himself in a position to carry out the day-dream of his life, and, knowing that success must be now or never, determined to call to his assistance a fast friend and helper, to stand by and aid in developing his plans for the locomotive railway system, and, feeling that every dependence could be placed on the matured judgment and scientific ability of his son Robert, he consequently urged him to return from South America, which he did and joined his father in England during the latter part of the year 1827.

A gentleman yet living remembers the vivid interest of the evening discussions which then took place between father and son as to the best mode of increasing the powers and perfecting the mechanism of the locomotive. He wondered at their quick perception and rapid judgment on each other's suggestions, at the mechanical difficulties which they anticipated, and at once provided for in the practical arrangements of the machine and speaks of these evenings as affording most interesting displays of two actively ingenious and able minds, stimulating each other to feats of mechanical invention, by which it was ordained that the locomotive engine should become what it now is. The son also found abundant occupation with his pen, in answering the arguments of the learned and scientific: 'That a speed of six miles an hour was a physical impossibility: that there were strong probabilities of the engine blowing up at any moment; that the cows in the neighbouring fields would cease giving milk from the severe shocks their nervous system would sustain from the passage of these hideous monsters; that the birds of the air, in flying over the line of railway, would suffer collapse and die; then the breed of horses would be destroyed, country inn-keepers ruined, posting towns depopulated, the turnpike roads deserted, and consequently the institution of the English stage-coach, with its rosy coachman and guard, known to every huxton landlady at roadside country inns, would be discarded; fox-covers and game preserves would be interfered with, agricultural communications interrupted, and land thrown out of cultivation, with owners and farmers alike reduced to beggary; the poor rats increased in consequence of the number of labourers out of employment; and lastly, the danger of women miscarriage from the sudden shock of the locomotive.' A peculiarity belonging to these arguments was they generally wound up with the concluding reflection that railways would prove only monuments of the folly of their crazy projectors, whom they must inevitably involve in ruin and disaster. Many wise doctors, amongst whom was Sir Anthony Carlisle, insisted that tunnels would expose healthy people to colds, catarrhs, and consumption; and in the very laudable desire of guarding the public against such maladies, they painted in all their horrors the noise, darkness, and danger of this mode of travelling.

With what pride could he Robert Stephenson not point to the fact that the close of the year 1856 exhibited the enormous sum of £308,775,891 sterling embarked in the construction of 2635 miles of railway in Britain alone, the whole of which had been raised by private individuals, without the aid of a single penny from the public purse! With what exultation he might have mentioned that the almost incredible number of 129,317,522 individuals had travelled over

this net-work of roads, at the rate of 21 miles an hour to an average distance of 12 miles, at the rate of 1 1/2 penny per mile, and that, during the year above mentioned, the proportion of accidents to passengers from causes beyond their own control, was only 1 person killed to 16,168,149 conveyed. And going beyond his native country, he could show 10,000 miles on the European continent, and 26,000 miles in the United States, in active operation, together with 1500 miles in course of construction in Canada, all tending practically to annihilate distance in bringing the ends of the earth together and nations into close relationship, by enabling them to exchange more freely their respective commodities, abating national antipathies, and uniting more closely the families of mankind! What a forcible answer would all this not have been to the arguments brought forward by his croaking adversaries as to the curse which would be entailed were the system carried out which was advocated by his father and himself!

We have written at some length on the Father of Railways, and on his son, the designer of the Tubular System, which now spans the Menai Straits and the mighty St. Lawrence. It has been done with the belief that many who read this, will for the first time be made acquainted in a slight degree with the early history of those remarkable and noble-hearted men, and lead them to a more intimate knowledge, from other sources, of the talents and energies they devoted to the material welfare and happiness of the human race, in all countries and of every tongue,—to know and thereby honour individuals, who, by the force of circumstances they themselves created, were brought into close and intimate relationship with kings, princes, and dukes, yet, while yielding the respect due to their exalted rank, never forgot they sprung from and belonged to the people, proudly preferring the simple appellations of George and Robert Stephenson to all the titles and distinctions repeatedly pressed upon their acceptance; and as the ponderous locomotive, instinct with life, drawing its enormous train of living freight, dashes past, causing the very earth to tremble, to lead the mind of the spectator back to the humble inmates of the clay hovel, and the long weary years of struggle before George Stephenson was enabled to bring forth this creature of his brain, and, while following with the eye the resistless, rushing thundering mass, as it approaches and enters the gigantic structure high above the angry waters, cause the thoughts to revert to the genius of him who planned it, and now resting from his labours in the venerable and time-honoured Abbey, surrounded by Britain's illustrious and mighty sons.

EXTRAORDINARY JOURNEY BY A CAT.—A wonderful instance of feline affection occurred a short time ago. A person named Marsh Allen, residing at Willoughton, England, who is in a very delicate state of health, went to Hull to put himself under medical treatment, leaving his cat, which is under twelve months old, at Willoughton. One day, after he had been there some time, happening to go out into the back-yard of the house at which he was staying, he observed a cat sitting on the outer wall. He carelessly called 'Fussy,' when the animal, to his great surprise, jumped from the wall, rushed upon his shoulders and into his bosom, commenced licking his face, and exhibiting every other evidence of delight and affection of which it was capable. He at once perceived that it was his own cat, which he had left safely at Willoughton; and his astonishment at the startling fact may be readily imagined. On examining the animal he found that its claws were completely worn off with walking and that it presented other appearances of having undergone great fatigue, hardship and hunger. How it succeeded in crossing the Humber, or indeed in performing the journey (about fifty miles) at all, must now remain a mystery. It may be mentioned as partly accounting for the violent affection shown by this poor member of the feline race, that Allen was very fond of the animal, and in his sickness, had been in the habit of taking it to bed with him.

EMERSON ON LOVE.—The philosopher thus discourses on the great secret:—'Be our experience in particulars what it may, no man ever forgot the visitations of that power to his heart and brain which created all things new; which was the dawn in him of music, poetry, and art; which made the face of nature radiant with purple light, the morning and the night varied enchantments; when a single tone of one voice could make the heart beat, and the most trivial circumstance associated with one form, is put in the amber of memory; when we became all eye when one was present, and all memory when one

was gone; when the youth became a watcher of windows, and studious of a glove, a veil, a ribbon, or the wheels of a carriage; when no place is too solitary, and none too silent, for him who has richer company and sweeter conversation in his new thoughts, than any old friends, though best and purest, can give him; when all business seemed an impertinence, and all the men and women running to and fro in the streets, mere pictures. For, though the celestial rapture falling out of heaven, seizes only upon those of tender age, and although a beauty, overpowering all analysis or comparison, and putting us quite beside ourselves, we can seldom see after thirty years, yet the remembrance of these visions outlasts all other remembrances, and is a wreath of flowers on the oldest brows.'

MENTAL EXERCISE.

ENIGMA.

- I am composed of 61 letters. My 24, 6, 8, 11 is used in war only by a few. 39, 3, 35 is what the ladies admire the most. 26, 32, 18, 25, 4 is an extract from a plant of much value. 4, 21, 13, 58, 49 is a large river in Europe. 55, 3, 25 is a body of water south east of London. 47, 23, 54 is the name of a valuable ear in the south-west of England. 9, 13, 12 is of much value to the people of Newfoundland. 21, 25, 43 is that which an Englishman admires, but a Turk despises. 24, 42, 30, 43 is of little value to the people of Canada, but the same in the United States is of more value than money. 6, 25, 43, 1, 4 is that which no person could live without, nor within. 18, 20, 39, 44 is as harmless as a dove, yet it has been the means of taking the lives of thousands. 6, 1, 30, 30, 60, 58, 12, 31, 13, 39 was much beloved by England's nobles. 34, 1, 25 is a great favorite with the Canadian ladies. 12, 7, 30, 9 has caused many a good man to leave his home and wander and die among savages. 39, 13, 23, 1, 5 (the love of) is the root of all evil. My whole, when put together is the saying of a wise king, which we all ought to cherish as the apple of our eye. B. S.

- I am composed of 32 letters. My 22, 5, 17, 17, 11, 13, 28, 3 is a guide. 7, 19, 11, 9, 28, 1, 15, 23 is a vessel. 14, 21, 32, 18, 7, 24 is a painting. 5, 4, 12, 31 is a poem. 18, 8, 20, 6 is a small coin. 26, 2, 30, 18, 15, 31, 10 is a troublesome weed. 27, 20, 14, 25, 39, 6, 6 implies insulence. My whole is one of the most important events of the present century. ARTHUR.

- I am composed of 19 letters. My 1, 2, 3, 4, 5 is a boy's name. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 is the name of a medical man in Welland. 11, 12, 13, 14, 15, 16, 17 is the name of a village in Upper Canada. 18, 19 is the province wherein the above village is located. My whole is the name of a medical gentleman in Upper Canada, and the village wherein he resides. G. W. W. Fenwick, Aug. 3, 1863.

CHARADE.

Fifty is my first, and nothing is my second, Five just makes my third, my fourth a vowel reckoned; And now to form my whole, and put the parts together, I die when I get cold, but I never mind cold weather. B. S.

ANSWERS TO ENIGMAS IN C. I. N. AUGUST STH.

- J. J. M.'s answers 'G. W. W.' Fenwick—'Diffin House, Fenwick, C. W.' D. R. and 'Arthur' the same. 'Arthur' answers 'Adam,'—Hamilton and Gore Mechanic's Institute.' J. J. M. and D. R. do. 'Arthur' answers J. J. M.,—'Full many a flower is born to blush unseen, And waste its sweetness in the desert air.' Problem and enigma by 'B. S.'—'Canfield, enigma by 'Arthur,' and many others held unavailably over for our next. 'Ma Belle Canadienne'—Your verses will not bear scanning. Your ideas are very good. Try again.