is reported to be Mr. W. Scott Russell. That letter written on the field of battle has excited admiration in all quarters. Mr. Somerville, "one who has whistled at the plough," is said to be the *Morning Herald* correspondent in the Crimea.....Sebastopol is pronounced with the accent on the penult, being analogous to Constantinople, Adrianople, etc. The termination is derived from a Greek word meaning a town....The Government has ordered a copy of every Government *Gazette* containing news of the war to be sent to every sub-postmaster in the kingdom, in order that the contents might be made public....At the burial of Marshal St. Arnand, the flags of England and France, for the first time in history, covered the same coffin, and Mussulman cannon resounded in sign of grief at the funeral of a Christian General....John Gibson Lockhart, the son-in-law of Sir Walter Scott, died of paralysis on Saturday evening, the 24th, at Abbotsford, whither he had gone in the hope of recruiting his health....Professor E. Forbes, the eminent professor of natural history in the University of Edinburgh. The Professor was only in his 39th year....English papers announce the death of George Mogridge. Esq., better known as "Old Humphrey," under which name he has, in his numerous writings, long ministered to the amusement and instruction of both old and young....There are 160,000 books in the public libraries of Boston. They will soon be increased to 200,000 volumes. The great city of New York, with colleges and theological schools, has but 295,500 volumes in all its public libraries, while Philadelphia has but 238,500 ....There are three classes of readers; some enjoy without judgment; others judge without enjoyment; and some there are who judge while they enjoy, and enjoy while they judge. The latter class reproduces the work of art on which it is engaged. Its numbers are very small....After five years of uninterrupted labour, a construction, which for grandeur and solidity surpasses any other work of modern architecture in the States of the Church, has just been completed in the mountains of Albano. It is a bridge of five arcades, placed one over another, and each as high as a house; it has been built in order to form a direct communication over the deep valley between Albano and Aricia, on the road from Naples....It is a curious fact in science, that glass resists the action of all acids except fluoric; it loses nothing in weight by use or age; it is more capable than all other substances of receiving the highest polish,—if melted several times over, and properly cooled in the furnace, receiving a polish almost rivalling the diamond in brilliancy. It is capable of receiving the richest colors produced from gold or other metallic coloring, and will retain its original brilliancy of hue for ages. Medals, too, embedded in glass, can be made to retain forever their original purity and appearance... According to a correspondent of *Herapath's Journal*, steam power is to be superseded by "Poulson's Patent Pendulum T-lever," which will be brought before the public in about a month. Two men in a sitting position will be able to propel a railway engine of twenty-five horse-power, with its full complement of carriages, at any speed to be attained by steam-power. The tenders and boilers of the present engines will be constructed of about one-fourth the weight, and at, say, one-sixth or one one-eighth the cost. The wheels and frames of the present engines will be available for the new ones.

Niagara Suspension Bridge.—The suspension bridge at Niagara Falls will be finished by the first of January next. The following dimensions will give an idea of the magnitude and strength of this incomparable bridge:—Length of distance from the centre of the towers 822 feet, height of the towers above the rocks on the New York side 89 feet, height on the Canada side 37 feet, height of the track above the water 260 feet, number of wire cables 4; diameter of the cables 10 inches, number of strands of No. 9 wire in cables; 3.659; weight of the entire bridge 750 tons, weight of the bridge and of the heaviest load that can be put on it 1250 tons, greatest weight which the cables and supports can bear 7300 tons.

The Wonders of Photography.—At a *conversazione* at the Polytechnic Institution in Paris, a curious illustration was given of the capabilities of photography in experienced hands. Two photographs were exhibited, one the largest and the other the smallest, ever produced by the process. The first was a portrait the full size of life, and the last was a copy of the front sheet of the London Times on a surface scarcely exceeding two inches by three. Both pictures were exceedingly perfect, the portrait, it is said, being more pleasing and far more correct than those usually produced, while the copy, nothwithstanding its exceeding minuteness, could be read without the aid of a magnifying glass.

Parliamentary Grants in Aid of Education, Literature and Science in Upper and Lower Canada for 1854.

The Legislature has, in the late estimates, granted £20,376 in aid of various colleges and academies in Lower Canada; £17,265 of this sum are derived from exclusively Lower Canadian sources—leaving but £3,111 to be provided for out of the general revenue, to equal a like sum granted from the revenue in aid of colleges, &c., in Upper Canada. £15,000 are also added to the School Grant of the two sections of the Province. In addition, £250 are granted to each of the Faculties of Medicine in McGill College, Laval University and Montreal School of Medicine, Lower Canada; and the same amount to the School of Medicine, Queen's College, Kingston, Upper Canada; £1200 to the Nautical College, Quebec; £500 to the Industrial Farm connected with University College, Toronto; £400 to the Quebec Magnetic Observatory; £1,200 to the Toronto Observatory, including the purchase of some instruments; £2,000 to the Parliamentary Library; £121 13s. 4d. to M. De Rottermund, for his expenses in procuring, in Paris, books, maps and scientific objects for the use of the Province; £5,000 towards the expenses in contributing to the French Industrial Exhibition; £2,000 additional for the Geological Survey of the Province, and $4,300 in aid of various Institutes and Literary Societies in Upper and Lower Canada.

Electric Telegraph Between England and America.—The project of connecting telegraphically, Great Britain with America is at the present moment seriously engaging the attention of scientific and commercial men. Daring engineers are sanguine of the practicability of laying a submarine cable directly across the Atlantic, from Galway to Cape Race, in Newfoundland. The chief question is, whether, if a line were laid, an electric current can be passed through three thousand miles of a cable! Professor Faraday and others, whose opinions must be regarded as weighty, believe that it could not. And so (says the Glasgow Commonwealth) by far the larger proportion of scientific men favor the route to America *via* Scotland.

"To escape the at present dubious ocean path," says a well informed writer in the current number of the Quarterly Review, "It is proposed to carry the cable from the Northernmost point of the Highlands of Scotland to Iceland, by way of the Orkney, Shetland, and Ferroe Islands—to lay it from Iceland across to the nearest point in Greenland, thence down the coast to Cape Farewell, where the cable would again take to the water, span Davis' Straits, and make right away across Labrador to Quebec. Here it would lock in with the North American meshwork of wires, which hold themselves out like an open hand for the European grasp. This plan seems quite feasible, for in no part of the journey would the cable require to be more than 900 miles long; and as it seems pretty certain that a sand bank extends, with good soundings, all the way to Cape Farewell, there would be little difficulty in mooring the cable to a level and soft bottom. The only obstacle that we see is the strong partiality of the Esquimaux for old iron. The mere expense of making and laying the cable would not be much more than double that of building the new Westminister Bridge across the Thames.

The Magnet.—The magnet or loadstone is an oxygen of a peculiar character, found occasionally in beds of iron ore. The colors vary in different specimens, but usually of a dark grey hue, and has a dull metallic lustre. It was first discovered in Magnesia, Asia, hence the name magnet. It is found in considerable masses in the iron mines of Sweden and Norway, in the Isle of Elba, in different parts of Arabia, China, Siam, in the Philippian Islands, and in North America. Though commonly met with in irregularly formed masses only a few inches in diameter, yet it is found of much larger size. One carried from Moscow to London, a few years since, weighed 125 pounds, and supported more than 200 pounds of iron. Artificial magnets are so constructed as to have a greater intensity of attractive power than the natural ones. It has likewise been found that meteoric stones possess a strong magnetic virtue, resembling the loadstone of the earth.

Discoveries in the Old Red Sandstone in Scotland.—The *John O' Groat Journal* says, within the last few weeks two very important and highly interesting discoveries have been made in the Lower Old Red Sandstone beds of Wick and Thurso, by Mr. Peach of this place, the well-known naturalist and zoologist. Fossil wood and shells, the existence of which in Caithness was hitherto unknown, have been abundantly found *in situ;* the former at Thurso and both wood and shells at Wick and in the vicinity; the shells having undergone considerable abrasion. These are facts extremely interesting to geologists, and will give new life to the explorers of the old red sandstone formation, bestowing as they do, positive evidence of what has formerly been considered at best but doubtful—the existence of vegetable organism *in the land* of the Old Red period

"All forms that perish other forms supply;
By turns we catch the vital breath and die."

Instantaneous Flowering of Plants.—On Saturday, M. Laurent, of Onslow House, Brompton, exhibited to a few visitors some experiments in the instantaneous flowering of plants by a process said to be peculiar. The