

Literary and Scientific Intelligence.

Construction of the Niagara Suspension Bridge.—The following interesting account of the first steps taken for the construction of the temporary bridge across the Falls of Niagara is given in the Rochester *Daily Advertiser* :—

"Early in the spring of 1847, while at dinner in the Eagle Hotel, in the village of Niagara Falls, there were present Charles Ellet, Jr., the engineer of the bridge, the writer, and several other gentlemen, when the subject came up how the first wire was to be got over the river. One proposed a bombshell—another a small boat to take a line across; another would throw a bombshell over, with a cord attached to it, and several other equally practicable projects were advanced: when Mr. Ellet himself suggested the use of a rocket, by which he suggested to throw his first line across the gulf. This seeming to be the end of propositions, a gentleman named Fisk, addressing Mr. Ellet, said, 'with your leave, and a promise not to ridicule the idea, if it would prove a failure, I will, in a more simple and cheaper mode, attempt to get a line across the gulf.' This being agreed to, those present desired to know what method he should pursue to get a line across. 'Well, gentlemen, I have not the least objection to tell you all about it, provided you adhere to the promised condition, not to laugh at me. Now, gentlemen, says Mr. Fisk, my plan, and the instrument used, will be the same kind used by Franklin to draw lightning from the clouds: an instrument that any ingenious schoolboy can make in an hour—a kite.' Mr. Ellet remarked he did not see why it would not succeed, and gave his consent to have it tried. Mr. Fisk then called upon an intelligent boy named Walsh, who soon had a kite constructed, and on a second trial threw a line across, making it fast on the opposite side, by doubling which a small rope was drawn over, and in six or seven doubles strength sufficient was acquired to take over the first small cable of thirty-six wires. This was the one used to pass Mr. Ellet over in his little iron car, and next, himself and lady, and many others passed over on this slight fixture. Since which the present structure has been reared, resting on wooden towers, 50 feet high, over which pass 14 cables, of the following dimensions, viz.: five of 36 wires each, five of 72, one of 125, and three of 150 wires—1,115 in all. From these is the bridge suspended, which is capable of sustaining a weight of nearly 1,000 tons; and so slight in its appearance to strangers, that some will not pass it, through fear of its instability, yet heavy teams pass it; five at one time were on it, and many droves of cattle also have passed it. It is now perfectly safe as a common thoroughfare; but will all give way to one of the grandest structures in the world, as soon as it is required for railroad purposes, for which, from the exertions now made by the directors and people on both sides, it seems likely to be required within a year or two. The railroad structure will require 16 cables of 600 wires each, all laid straight—not twisted, as some have it—but wound with small wire, and when completed, with its massive stone towers, will sustain a weight of more than 6,000 tons beyond its own weight; a structure worthy, as one of art, to stand by the side of nature's grandest—the Falls of Niagara. For this, and other improvements, contemplated or finished, are the public indebted to the Hon. Chas. B. Stuart.

Origin of Literary Degrees.—The practice of conferring the honours of literary institutions on individuals of distinguished erudition, commenced in the twelfth century, when the Emperor Lothair, having found in Italy a copy of the Roman law, ordained that it should be publicly expounded in the schools: and that he might give encouragement to the study he further ordered that the public professors of this law should be dignified with the title of Doctors. The first person created a doctor, after this ordinance of the Emperor, was Bulgarius Hugolinus, who was greatly distinguished for his learning and literary labors. Not long afterwards, the practice of creating doctors was borrowed from the lawyers by divines also, who in their schools publicly taught divinity, and conferred degrees upon those who had made great proficiency in science. The plan of conferring degrees in divinity, was first adopted in the Universities of Bologna, Oxford, and Paris. [See Mather's *Magnalia Christi Americana*, B. IV. p. 134.] It is remarkable that the celebrated Dr. Samuel Johnson when he had become eminent in literature, could not obtain the degree of Master of Arts, from Trinity College, Dublin, though powerful interests were made in his behalf for this purpose, by Mr. Pope, Lord Gower, and others. Instances of the failure of similar applications, made in favour of characters still more distinguished than Johnson then was, are also on record. So cautious and reserved were literary institutions, a little more than half-a-century ago, in bestowing their honors!

New Uses of Electricity.—Dr. Wall, of London, has discovered and patented a process for manufacturing steel and iron through the agency of electricity, which promises to cheapen immensely the cost of their production, and at the same time improve the quality of the metal. It has

been tested at several of the leading iron furnaces of Maryland and Virginia, with the most satisfactory results. It is said electricity will revive persons who have taken too much chloroform.

Death of Lord Jeffrey—Edinburgh Review.—The following interesting sketch is taken from the European correspondence of the *N. Y. Christian Advocate and Journal*, March 7th: The last week has borne beyond the breath of fame one who for many years has soared loftily among the celebrities of literature. Just about the opening of the present century the beautiful capital of North Britain, (the modern Athens, as its sons delight to call it,) contained a group of remarkable young men. Of these three, were Henry Brougham, Sydney Smith, and Francis Jeffrey. They resolved on establishing a periodical which would outpeer all its forerunners. Not rushing on with the diurnal or even hebdomadal haste of the newspaper, nor even with the monthly despatch of the magazine, but producing itself at stately and solemn intervals of three months, it was to advance into the arena of politics and letters with an awe and puissance not before attempted. The *Edinburgh Review* well answered the ambition of its originators. It soon fixed the eye of the first politicians, and made the most noted literati stand respectfully awaiting its judgment. It fascinated the drawing-room, stimulated the club, abbreviated the path to knowledge for many a general student, and wielded a notable influence on the great parties of the nation. For the first year its editor was Sydney Smith, an Englishman and a clergyman, but one little bound by ecclesiastical tastes, and less by strict religious scruples. But after the first year it passed into the hands of Francis Jeffrey, a Scot, and a lawyer. For nearly thirty years he held the potent sceptre of that literary dominion, and then, after having held all literary Europe before his tribunal, he passed to the bench of the judges, and awarded decisions of more importance doubtless to individuals; but less cared for by the world at large. Lord Jeffrey never attained a rank at the bar proportioned to his fame as a writer and a critic. He sat in Parliament for some four years, but there was almost obscure. As a judge he was never considered very able. That, therefore, by which he has been distinguished in his masterly writing as a reviewer. Here he sparkled, flogged, instructed, fascinated, and made men wonder how one pen could with such ease and effect deal with subjects varying from the deepest philosophy to the airiest fiction, and yet be on all equally masterly. His castigations were sometimes more severe than just, and in one noted instance, his criticism of Byron, he paid a heavy penalty for his cholera. But really when one reads the vague, fulsome commendation by which volumes of the most plebeian talent are introduced to the world one does sigh for some master hand to cut keenly, even though now and then he might wound too deeply, or strike fire from some sound breastplate he had thought to pierce. Well, Francis Jeffrey is gone!—Byron, whom he flagellated; Scott, whom he extolled; Southey and Coleridge, whom he corrected; Sydney Smith with whom he laboured, having all gone before. Their poet passions, their critic studies are quenched and ended. And what influence has poetry or criticism on that life which these late wrestlers on the arena of letters have now begun? What is the precise value of stanza, or hexameter, of sonnet or of epic, in the psalmody of the skies? What the precise office of rhetoric and logic, of concord, trope, alliteration, antithesis, simile, metaphor, and apostrophe, in that new land where things are all judged of by a medium clearer far than the words of earth? Thomas Moore, with whom Jeffrey fought a duel, and Henry Brougham, who was the most noted of all his collaborators yet remain. But they remain as monuments of the vanity of fame. Moore has been for some time living in poverty and obscurity, and Brougham, for some years past, has been as much an object of public ridicule as before he was of public admiration. Of those who build on fame as a foundation of happiness, it may be said, that they are those who in the words of Moore,

"Make

Their tower upon an icy lake,
When thawing suns begin to shine."

And yet coldly as many sink under the brittle ice of fame, how greedily do others seek to build on the same foundation!

Carbon.—When a piece of charcoal which is very clean and free from ash, is immersed in a solution of metallic salt, the metal itself is deposited upon the charcoal with its natural brilliancy. Salts of tin, copper, platina, silver, and gold, furnish very beautiful deposits. When the salts are too acid these effects are not produced.—The weak salts of copper often yield upon the charcoal the most varied shades of colour, from the rich azure blue to the deep copper colour. There are some parts of charcoal for which some metals exhibit a preference to that of others.

The Boiling Springs of Iceland.—In one part of the island, more than fifty have been counted in the space of a few acres. Of these, some are constant and others are periodical. The most magnificent are the Great Geyser and the Strokt, which are situated about 35 miles north-west from