

not, perhaps, a better soup.' Then a happy inspiration passed through the mind of my eldest son, and he said, 'Father, you ought to send a cask to their Majesties.' Sire, we are giving effect to the idea. May the vegetables be agreeable to you, and we shall esteem ourselves so fortunate to have procured you that trifling pleasure! (We have more of them still.) I am, with the most profound respect, Sire, your very humble and very devoted subject, P. BOLMONT, Koissav (Ain)."

## Facts and Scraps.

**STRENGTH OF BODY AND OF MIND.**—The marvelous and still juvenile vitality of Lord Palmerston has long been matter of surprise. But it was his pride and pleasure as a youth to be the best rower, jumper, and runner; to be first in the sports of the field, as he has since been first in the senate; and to this day his horse and gun are invariably resorted to in his hours of relaxation. As for Lord Brougham, legends of his enormous powers of labour and triumphs over the frail *physique* of humanity have gathered round him like a Hercules; and with reference to him and others of his class, the observation of a public writer has doubtless some foundation that "the greatness of great men is quite as much a bodily affair as a mental one."

**CONSISTENCY.**—A father never gains the affection of his children by refusing to decide their disputes, or settle them; but he loses a vast deal of their respect if he evades or shuns the subject. And those opinions expressed before the younger members of the family should be held consistently. It will not do to state one thing in theory, and allow your children to see you reverse it in practice daily and hourly. By such a method one thing is insured—contempt; and contempt is alike fatal to love, respect, or imitation.

**THE SPOILED CHILD.**—A spoiled boy, of an age midway between cradlehood and jackethood, is the pink of family bores and household tyrants. He makes a "horse" of his sister, a servant of his mother, and a fool of his father. If they rebel, he lies down upon his back and screams until they return to their duty, and it is only after much humiliation on their part that he sullenly receives them back into bondage. Of course, the pigmy tyrant has military instincts. He would be a general, and *mater-familias* presents him with a newspaper cocked hat and corresponding epaulets. But he insanely associates the idea of a drummer and a trumpeter with that of a commander-in-chief. The required implements are forthcoming, and thereupon he proceeds to "make Rome howl." Placing the trumpet's mouth at the drum of his mother's ear, he shoots her through the head with acoustic thunder-bolts. The full-grown Nero, who fiddled over his burning capital, was not more remorseless than this tyrant four years old and three feet high. By way of training for the conflicts of after life, he kicks his nurse, pulls out by hand's-ful his sister's hair, bites the servants like a vicious rat, torments the dog and kitten, and wings the flies whenever he can catch them. And so young Hopeful, or rather Hateful, grows up from boyhood to youth, from youth to manhood, his vices growing with him. A child thus permitted to tyrannise over his parents and household—indulged in every whim, caprice, and evil propensity of crime, too often makes a vicious youth and a bad man.

## Humour and Anecdote.

THE following subject for discussion has been proposed at a City debating society:—Question before the meeting. If two lovers are about to part, and wish to exchange photographs, and the gentleman can only afford to pay for one picture in a handsome case and one in an ordinary one, which portrait ought he to put in the handsome case—his own or hers? If he put her portrait in the common case, wouldn't that be very ungalant? If he put it in the handsome case, which he is to keep himself, would not that be very shabby? Question still under discussion.

A GENTLEMAN having gone to a crowded public meeting, could only find standing room in one of the entrances, when his vision—like that of those about him—was seriously obstructed by a person wearing his hat. Though asked to do so, again and again, he refused to uncover; when the one alluded to said, "Don't trouble him any further; he looked out for a peg, and has put his hat on the *only one* he could find." The hat was instantly removed.

NOT many weeks ago, a rifle corps, which had just been formed in a manufacturing town in the north of England, held a meeting for the purpose of choosing officers. It was known that there were many candidates for the office, but the exact state of the case was not understood until the time of election. It was then proposed that all those desirous of becoming officers should leave the room, when, to the general astonishment, it was found that only three members of the company were left to proceed with business. The three gentlemen left to do the work, however, did not flinch from their duty; and on those who had retired being summoned back to the room, they were informed that the meeting had felt great difficulty in making a selection among so many eligible candidates, and that the meeting had adopted the most obvious way of escaping the difficulty by electing themselves to the vacant posts.

A SCHOOLMASTER in a country village, who was fond of legal studies, was brought before a magistrate on a charge of assaulting one of his pupils, by hitting him on the head with a volume of "Blackstone's Commentaries." The defendant treated the matter lightly, in every sense of the word; for his defence was, that "it was only a striking instance of a man taking the law into his own hands." The magistrate, however, informed him that legal learning should be applied to the head of the scholar internally, and not externally; and, in order to give that opinion its due weight, he fined the defendant ten shillings and costs.

THE following anecdote of Benjamin Franklin, though vouched for as authentic, will probably be new to many of our readers. Franklin, the strict economist, had a nephew who was the opposite of himself, a sad spendthrift, for whom, however, in spite of his faults, his uncle seems to have entertained a warm regard. Being in Philadelphia, John Williams was on one occasion reduced to great straits, and found himself compelled to have recourse to his friends. His first application was to his uncle. John stated his wants to be about sixty dollars. Franklin told him to call next morning, when, if possible, he would accommodate him. Of course, John was there, and had the gratification to see his uncle counting out the cash. While this operation was going on he took a sheet of paper from the desk, with the intention, no doubt, of giving his I. O. U. If such was his design, he was disappointed; for Franklin gently drew away the paper, and, with a benevolent smile, said, "You need not waste my paper too, John."

## THE NEW RAILWAY BRIDGES OVER THE ST. LAWRENCE.

THE engineering achievements of modern times have been singularly characterised by originality and boldness of design, and success in execution. In the construction of the system of railways, both in England and other countries, material difficulties—which must have daunted the courage and enterprise of any less-determined men than the engineers of the nineteenth century—have been encountered and overcome. It is thus that a number of noble structures have been raised—structures which cannot fail to excite admiration for the genius which planned them, and which teach us that science practically ignores the word impossible.

In dealing with the material obstructions with which they had to contend, railway engineers have found the most difficulty in carrying their lines over extensive pieces of water. To form cuttings through cliffs, or to tunnel where cuttings were impracticable, is comparatively easy; but to throw a railway bridge over a broad, navigable river, requires a large amount of engineering skill. Those eminent engineers, Stephenson and Brunel—whose valuable lives have so prematurely ended—have both furnished examples of what can be accomplished by science in subduing material difficulties of this description.

The railway bridge over the Menai Straits—the strait which separates Anglesea from Caernarvon—was planned and erected by Robert Stephenson. This stupendous work forms, as most of our readers are aware, a portion of the railway between Chester and Holyhead. It consists of two vast tubes of wrought iron, 1,513 feet in length—one for the up and one for the down trains from Holyhead. These tubes are elevated 100 feet above high water mark, and consequently offer no interruption to navigation. The tubes are supported by abutments and towers at both ends, and by a tower in the centre. The erection of this colossal structure formed a new era in engineering.

The railway bridge crossing the Wye at Chepstow is the work of Brunel. The problem which the engineer was called upon to solve was not easy. The Wye is a navigable river, and the Admiralty required that the span over the mid-channel should be about 300 feet, and that a clear headway of 50 feet above the highest known tide should be secured. The length of the bridge is 610 feet; it consists of four spans, three of about 100 feet each, and one of 200 feet.

Interesting as the tubular bridges of Menai and Chepstow unquestionably are, they have been rivalled by the recent completion of that gigantic work—doubly interesting, inasmuch as the late Robert Stephenson was its engineer—the Victoria Bridge, Montreal. The entire length of this enormous structure is about six times that of the bridge over the Menai Straits, and more than twelve times the length of the bridge at Chepstow. The cost of the Chepstow bridge was £65,000; that of the Britannia bridge, £600,000; that of the Victoria bridge, £1,300,000, being £200,000 less than the original estimate—a very unusual circumstance in engineering works.

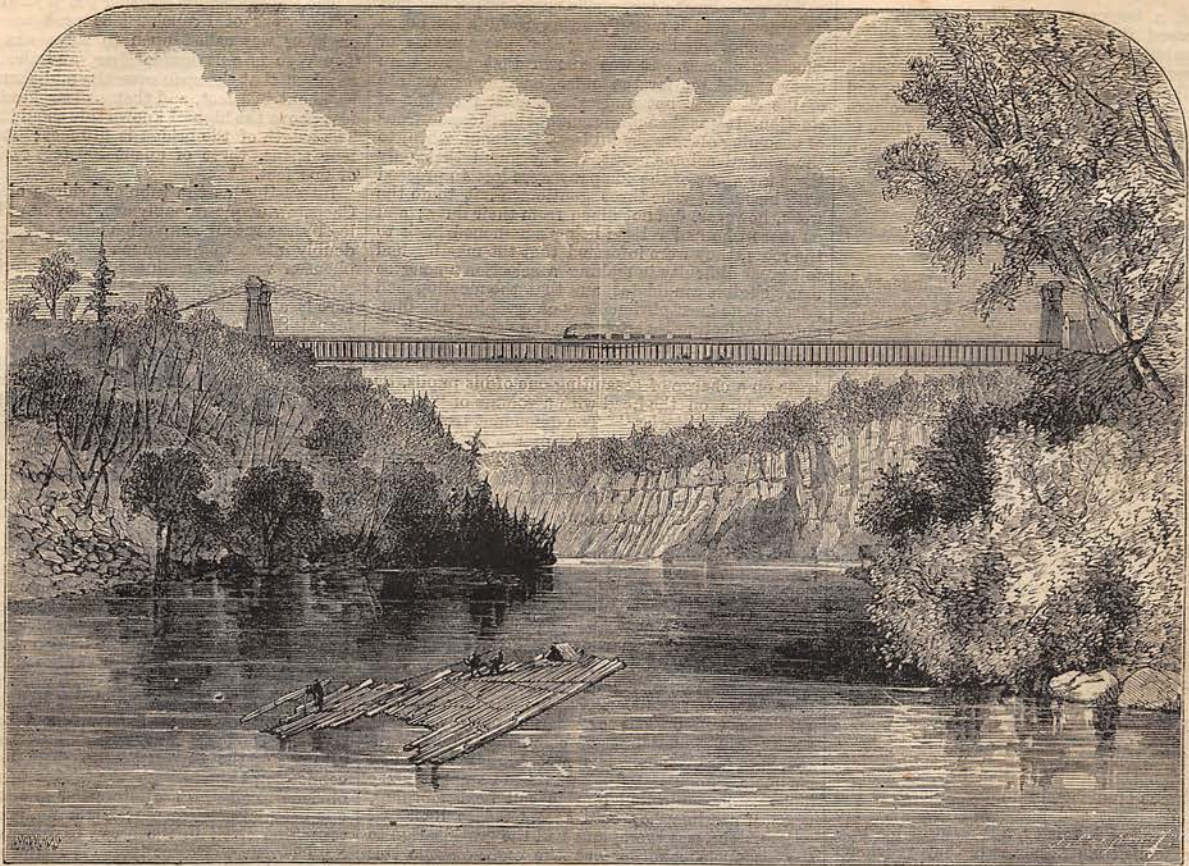
The importance of having some direct and certain means of carrying on traffic from one side of the St. Lawrence to the other will be evident to the reader who takes into consideration the following facts.

An extensive system of railway communication prevails in almost every part of the United States of America. From the time when railways were first commenced they have been carried on with extraordinary vigour, and nowhere more so than in the United States. In the British settlements in Canada, also, the railway system has made considerable progress. Under the wise direction of Sir Francis Hincks, the Grand Trunk Railway throughout Canada was widely extended, and brought into as close connection as was practicable with the railways of the United States. The desirability of connecting Canada with the States has long been obvious to all who are interested in the welfare of our colonial settlements; but a material difficulty presented itself in the broad expanse of the river St. Lawrence, effectually—so it appeared—preventing the junction of the British and American railway lines. The success of engineering enterprise at the Menai Straits, Chepstow, and other places, naturally suggested the possibility of overcoming the difficulty by similar means. Mr. Robert Stephenson undertook this great work, and the result has been everything that could be desired—except that this eminent man did not live long enough to witness the completion of a work which contributes so largely to swell his well-earned reputation. In constructing the Victoria Bridge, Mr. Stephenson had to contend with no ordinary difficulties. The work demanded the highest efforts of mechanical and constructive skill, but the bold and experienced mind of the engineer was not overtaken by the exigencies of the case.

The St. Lawrence is the principal river of North America. It is 2,000 miles in length. Its source being about 1,100 feet above the sea level, its average fall should be six inches in the mile. The fall, however, of this river, is most unequal; in its course it forms many cataracts—the largest of them, the Niagara, being for depth and dimensions the most extraordinary fall in the world. The width of the St. Lawrence differs also very considerably at various parts of its course. At Quebec it is not more than thirteen hundred yards; beyond the Orleans it is eleven miles broad; and its breadth is upwards of thirty miles at Point Pelee. At Montreal the width of the river is about 2,000 yards, which, in itself, is a formidable difficulty for engineering skill to overcome. To this is added the strong tides which prevail, and which drive forward with irresistible strength the enormous masses of ice which annually cover the river. The Coteau rapids, near Montreal, give immense impetus to the course of the stream at this point; and the construction of a bridge was at first regarded as one of the wildest schemes ever proposed. It was necessary that the bridge which should span the rushing river should be capable of supporting the heaviest burdens of which passing trains could consist; it was also necessary that its supports should be of immense strength, so as to withstand the force of the drifting icebergs. Both of these requirements have been fully met; and the work combines perfect efficacy with singular economy of material.

The Victoria Bridge was opened on the 24th of last November. On that day the first train crossed over the St. Lawrence—an event which is to be remembered amongst the most interesting in Ame-





THE NIAGARA SUSPENSION BRIDGE.

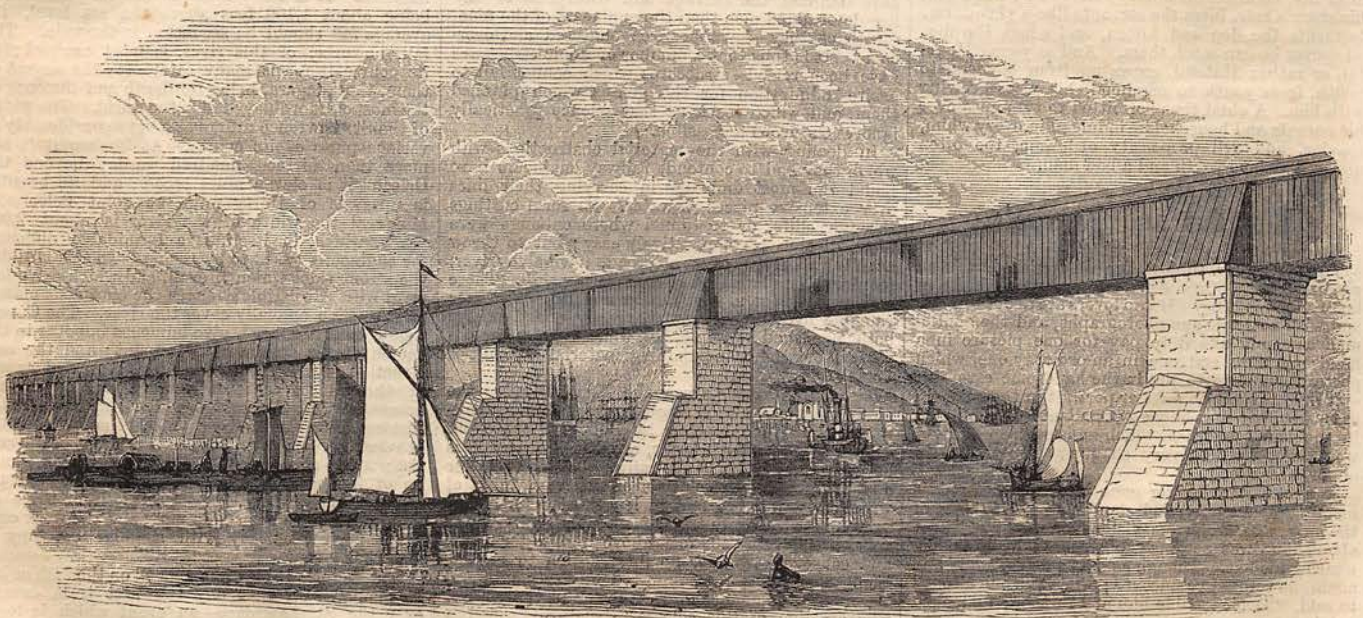
rican history. The trip over the bridge took twelve minutes and a half. The party consisted of about forty gentlemen, among whom were the Hon. Mr. Cartier, premier of Canada, and Mr. Blackwell, of the Grand Trunk Company. The whole of the arrangements are said to be of the most satisfactory character.

In connection with the subject of the Victoria Bridge, we may appropriately allude to another engineering work, of older date, over the St. Lawrence—which was intended to answer, and to a considerable extent does answer, the same purpose—namely, the Niagara Suspension Bridge. This

bridge connects the Great Western Railway of Canada with the New York Central Railway, and was opened for traffic on the 19th March, 1855. The span is 821 feet 4 inches, from the centre of one tower to the centre of the other. These towers are 60 feet high, and the rails are 250 feet above the water. The cables and suspending cords are of steel wire; there are two platforms. The lower floor is used for carriages and foot passengers, and the upper floor for the passage of trains. That it should be as perfectly rigid as a tubular bridge was never expected; but, that it possesses all the strength contemplated, and fully answers the purpose for

which it was designed, has been satisfactorily proved. The engineer is Mr. John A. Rochling.

Everything which facilitates intercourse and commercial enterprise between the British settlements in Canada and the United States of America, helps to strengthen the bond of union which binds together the old country and the new. There is always less political misunderstanding when the interests of the people at large are socially and commercially connected; and thus both the Suspension Bridge at Niagara and the Tubular Bridge at Montreal are commercial and political, as well as engineering, triumphs.



THE VICTORIA BRIDGE, MONTREAL