

CALENDAR FOR THE WEEK ENDING SATURDAY,
JULY 27, 1872.

SUNDAY,	July 21.—	Eighth Sunday after Trinity. De La Barre's Expedition against the Senecas, 1684.
MONDAY,	" 22.—	St. Mary Magdalen. Battle of Tyconderoga, 1759.
TUESDAY,	" 23.—	Canada Union Bill assented to, 1840.
WEDNESDAY,	" 24.—	Gibraltar captured, 1704. Fort Niagara captured, 1789. Alexandre Dumas born, 1803.
THURSDAY,	" 25.—	St. James, Ap. Battle of Lundy's Lane, 1814.
FRIDAY,	" 26.—	St. Anne. Capture of Louisbourg, 1758.
SATURDAY,	" 27.—	Atlantic Telegraph finished, 1866.

TEMPERATURE in the shade, and Barometer indications for the week ending Tuesday, 16th July, 1872, observed by HEARN, HARRISON & Co., 242 & 244 Notre Dame Street.

	W.	Th.	Fri.	Sat.	Su.	M.	Tu.
July 10.	86°	81°	80°	75°	82°	90°	93°
" 11.	86°	81°	80°	75°	82°	90°	93°
" 12.	86°	81°	80°	75°	82°	90°	93°
" 13.	86°	81°	80°	75°	82°	90°	93°
" 14.	86°	81°	80°	75°	82°	90°	93°
" 15.	86°	81°	80°	75°	82°	90°	93°
" 16.	86°	81°	80°	75°	82°	90°	93°

LIST OF ILLUSTRATIONS.

- Page 33.—Montreal: Pic-nic in Aid of the St. Patrick's Orphan Asylum. The Race of the Day.
- Page 36.—Manitoba: View of St. Boniface. House where the Richmond Hill Murder of 1849 was committed. New Brunswick: The Plaster Mills at Hillsboro', recently destroyed by fire.
- Page 37.—Montreal: Building of the Faculty of Medicine, University of Bishop's College. Charlottetown, P. E. I.
- Page 40.—"The Happy Mother." From the Paris Salon.
- Page 41.—Fraser's Falls, Murray Bay.
- Page 44.—"Un Coup de Canon." From the Paris Salon.
- Page 45.—Science and Mechanics.—Murray's Continuous-Delivery Brick-Making Machine.
- French Rifled Field Artillery.
- Page 48.—The Camp at Niagara: Tossing the Blanket.

THE CANADIAN ILLUSTRATED NEWS.

MONTREAL, SATURDAY, JULY 20, 1872.

THE subject of the new Patent Law is one on which our neighbours on the other side still feel a little sore. They complain that the provisions of the Act are not sufficiently liberal; that though the principal restrictions which prevented them heretofore from patenting their inventions in this country are removed, there still remain several little inconveniences which, though not of sufficient importance to deter them from taking advantage of the law, are, to say the least, troublesome and vexatious. Nor are their complaints entirely without foundation, for on going through the Act we find several conditions and restrictions which might very well be done away with, and which we hope to see repealed at the first session of the new Parliament. In the mean time we have no doubt that, with the trifling exceptions mentioned, the law will work well, and that the policy followed in framing it will be found to be to the advantage of the country.

The *Scientific American*, an American journal especially devoted to mechanics and manufactures, in reviewing the new law, remarks that it appears to contain a mixture of the English, American, and Continental systems, together with a few original articles. Than such a mixture, supposing it to contain the best features of each system, there could be nothing better, and we hope shortly to see amendments made which shall be based on such a judicious selection. The first objection raised by the journal mentioned is to the clause requiring that an invention for which a patent has been obtained in Canada shall be actually worked in the country within two years from the date of the patent, under pain of forfeiture. Such an arrangement is certainly not so much in the favour of the inventor, but it must infallibly prove a great benefit to the commercial prosperity of the Dominion. Before the close of the second year after the date at which the Act comes into force, we may expect that many new industries will be introduced into Canada, which but for this limitative restriction would have remained on the other side. On the whole we have but little fault to find with this section.

The *Scientific American* next goes on to speak of the clauses affording facilities for the sale of part rights in patents, and for the record of assignments. The wording here is somewhat obscure, and one clause reads as though it were intended to empower the owner of a paltry town right to destroy the validity of the entire patent, should he choose to do so, thus sacrificing the interests of all other owners or workers under the patent, without their knowledge or consent. To effect this nullification of the patent, a part owner has only to import or cause to be imported into Canada a single example of the patented article. Some alteration is required here and will no doubt be made. Another condition that cannot fail to be irksome is that which requires the inventor to stamp every patented article sold by him with the word "patented," followed by the date. The neglect of this precaution renders the patentee liable to a

fine not exceeding one hundred dollars, or two months imprisonment in default. As the *Scientific American* very justly remarks:—"The law is specific upon this point; but compliance with it would in many cases be almost impossible. For example, upon needles, hooks and eyes, percussion caps, eyelets, etc., it would be difficult to place a legible stamp." A more practicable way would be to affix a label upon the package where it is not possible to stamp or engrave each separate article.

With these two exceptions the law, as it now stands, is fair and impartial, and there is no doubt that American inventors will avail themselves largely of the inducements offered to them. Already many persons in the States have ordered Canadian patents, and a still larger number are about to make applications as soon as the law comes into force, which will be on the first of September next. The impulse thus given to Canadian manufactures will be immense. What with the influx of foreign capital and the competition that must necessarily arise, a new interest will be imparted to all branches of mechanics and manufactures.

Bearing in mind these facts, and wishing to support the character of the CANADIAN ILLUSTRATED NEWS as a representative journal for all classes of readers, we have decided upon devoting a certain space each week to the description and illustration of new inventions, patented articles, and other matters pertaining to Science, Mechanics, and Manufactures. To those of our readers who are interested in such matters we especially recommend this feature in the News. From inventors, patentees, and others, we solicit contributions, which will be the more acceptable if accompanied by maps, drawings or diagrams. In the absence of original matter, we shall select from the best sources; and as we have been promised assistance from several high authorities in such matters, we trust to make the mechanical department of the News a decided success, and by its means to introduce to the public many ingenious inventions and appliances, and familiarise our readers with a most interesting branch of science.

OBITUARY.

THE HON. GEO. L. HATHEWAY.

The death of the Hon. Geo. L. Hatheway, Provincial Secretary of New Brunswick, took place on the 5th instant at the Queen Hotel, Fredericton, N. B., after an illness of little more than a week. It will be remembered that towards the end of last month Mr. Hatheway was injured, though it was not then thought seriously, in jumping from a train in motion. In so doing he fell, breaking several ribs and receiving a very painful wound on the left hand, which was considerably lacerated by a large seal ring, worn on the little finger, and which was forced upwards about three-quarters of an inch into the flesh. At the first, fatal results were not anticipated. He at once returned to Fredericton, and remained at the Queen Hotel until the sad termination of the accident. Inflammation set in and was checked by his physicians, and it was hoped that he would recover; but on the afternoon of the 4th a change for the worse was apparent, and congestion of the brain having taken place, he died at half-past one o'clock in the morning on the day mentioned. Mr. Hatheway was a kindly, genial man, and although in the course of his political career he came in collision with many persons and parties, he was a very general favourite. His portrait and biography have already appeared in our pages, together with those of the other "Better Terms" Commissioners.

NEW PUBLICATIONS.

THE CANADA MEDICAL AND SURGICAL JOURNAL, Montreal, G. E. Desbarats.—The first number of this new publication has just appeared. It is conducted by George E. Fenwick, M.D., professor of Clinical Surgery and Medical Jurisprudence at McGill College, assisted by the Hon. D. McNeill Parker, M.D., of Halifax, Dr. Canniff, of Toronto, and Dr. Bayard of St. John, New Brunswick. The *Medical and Surgical Journal* is conducted in the same form and manner as the *Medical Journal*, recently discontinued, of which it is apparently a continuation.

RECEIVED—reviews to appear next week—"Niagara, Its History and Geology, Incidents and Poetry," G. W. Holley, New York, Sheldon & Co., Toronto, Hunter, Rose & Co.; "In the Track of Our Emigrants," Alex. Rivington, London, Sampson Lowe, Marston, Lowe & Searle; "The Golden Lion of Granpère," Anthony Trollope, Toronto, Hunter, Rose & Co. Also the first volume of the Hon. J. H. Gray's "Confederation of Canada," published by Copp, Clark & Co, Toronto.

A GUTENBERG Bible, one of the few remaining copies of the so-called 42 liners, being a Latin copy printed by Gutenberg between the years 1415 and 1454, has been sold at Erfurth for £212. The book, which was bought by an Englishman, is in a very good state of preservation, barring the loss of a few leaves.

GAMBLING SUPERSTITIONS.

It might be supposed that those who are most familiar with the actual results which present themselves in long series of chance-games would form the most correct views respecting the conditions on which such results depend,—would be, in fact, freest from all superstitious ideas respecting chance or luck. The gambler who sees every system—his own infallible system included—foiled by the run of events, who witnesses the discomfiture of one gamster after another that for a time had seemed irresistibly lucky, and who can number by the hundred those who have been ruined by the love of play, might be expected to recognise the futility of all attempts to anticipate the results of chance combinations. It is, however, but too well known that the reverse is the case. The more familiar a man becomes with the multitude of such combinations, the more confidently he believes in the possibility of foretelling,—not, indeed, any special event, but the general run of several approaching events. There has never been a successful gambler who has not believed that his success (temporary though such success ever is, where games of pure chance are concerned) has been the result of skillful conduct on his own part; and there has never been a ruined gambler (though ruined gamblers are to be counted by thousands) who has not believed that when ruin overtook him he was on the very point of mastering the secret of success. It is this fatal confidence which gives to gambling its power of fascinating the lucky as well as the unlucky. The winner continues to tempt fortune, believing all the while that he is exerting some special aptitude for games of chance, until the inevitable change of luck arrives; and thereafter he continues to play because he believes that his luck has only deserted him for a time, and must presently return. The unlucky gambler, on the contrary, regards his losses as sacrifices to insure the ultimate success of his "system," and even when he has lost his all, continues firm in the belief that had he had more money to sacrifice he could have bound fortune to his side for ever. We propose to consider some of the most common gambling superstitions,—noting, at the same time, that like superstitions prevail respecting chance events (or what is called fortune) even among those who never gamble. Houdin, in his interesting book, "Les Tricheries des Grecs dévoilées," has given some amusing instances of the fruits of long gambling experience. "They are presented," says Steinmetz, from whose work, *The Gaming-Table*, we quote them, "as the axioms of a professional gambler and cheat." Thus we might expect that, however unsatisfactory to men of honest mind, they would at least savour of a certain sort of wisdom. Yet these axioms, the fruit of long study directed by self-interest, are utterly unworthy. "Every game of chance," says this authority, "presents two kinds of chances which are very distinct—namely, those relating to the person interested, that is the player; and those inherent in the combinations of the game." That is, we are to distinguish between the chances proper to the game, and those depending on the luck of the player. Proceeding to consider the chances proper to the game itself, our friendly cheat sums them all up in two rules. First: "Though chance can bring into the game all possible combinations, there are, nevertheless, certain limits at which it seems to stop: such, for instance, as a certain number turning up ten times in succession at roulette; this is possible, but it has never happened." Secondly: "In a game of chance, the oftener the same combination has occurred in succession, the nearer we are to the certainty that it will not recur at the next cast or turn up. This is the most elementary of the theories on probabilities; it is termed the *maturity of the chances*," (and he might have added that the belief in this elementary theory had ruined thousands.) "Hence," he proceeds, "a player must come to the table not only 'in luck,' but he must not risk his money except at the instant prescribed by the rules of the maturity of the chances." Then follow the precepts for personal conduct: "For gaming prefer roulette, because it presents several ways of staking your money—which permits the study of several. A player should approach the gaming-table perfectly calm and cool—just as a merchant or tradesman in treaty about any affair. If he gets into a passion it is all over with prudence, all over with good luck—for the demon of bad luck invariably pursues a passionate player. Every man who finds a pleasure in playing runs the risk of losing."—*Cornhill Magazine*.

OUR SALT EXPORTS.—The altered American tariff in favour of Canadian salt has already enabled our producers to compete successfully with those on the other side of the lines, and to undersell them on their own ground. A hundred sacks of Canadian salt arrived in Saginaw a few days ago, and sold at a profit. The effect has been to depress this branch of industry at that place, and will in a similar degree, we presume, reduce the scope of operations in New York, Ohio, and the Kenawha Valley. It is claimed by our dealers that they can lay down Canadian salt in Chicago, under the new tariff, at less than the cost of manufacture in the United States. Of course, American producers will do their best to reinstate the old duty of 18c. per 100 lbs., but doubtless the consumer is quite willing to continue under the present arrangement.

TWO MILES OF TRACK LAID IN ONE NIGHT.—The new Baltimore and Potomac Railway, which is being now built as a rival to the Baltimore and Ohio, a through line between the East and Washington, was completed through to Baltimore last week in a novel and characteristic manner. The opponents of the road, having failed in all other expedients, had determined to get out an injunction to prevent its passage through Baltimore. Their project becoming known to the officers of the company, all hands—some 300—were massed from all along the line, and, as soon as the court adjourned on Monday, work was begun in earnest in constructing the road and laying the track through the city. Night setting in, they were retarded a little; but the moon soon came out, and they went on the same as ever. At twelve o'clock, nearly half the track was completed, and the men, tired and hungry from their excessive labor, pitched into four waggon loads of provisions, that had been brought along, with a fine relish. Work was renewed with vigour, and before nine o'clock in the morning—the time when it was supposed the injunction was to have been made—the last spike had been driven. The distance of the track laid was about two miles, and crossed three streets, Calverton Road, Franklin and Townsend. At the two latter, double tracks were laid. The hands belonging to the lower section of the road embarked on the train for their quarters, and they moved off amid a chorus of yells and screaming of engine whistles.