

that will not build the Canal in ten years. We hope, and the people of this vast region of country hope, the Canadian Government will proceed at once to construct this important work. In connection with the Northern Railroad from Toronto to Lake Huron, and in view of the rapid settlement of the northern portions of Canada, the country about Lake Superior, and the vast territory west of this great lake, this channel of communication will prove of immense advantage to Canada; and we have assurance in the many fine, substantial public works of this kind, which the Government has already built, that a St. Lawrence Canal will be constructed here creditable to that Province.

Effect of the Earth's Rotation on Locomotion.

Mr. Urah Clarke, of Leicester, has called our attention to an article in the *Mechanics Magazine*, by himself, on the influence of the earth's rotation on locomotion. It is well known that as the earth revolves on its axis once in the twenty-four hours, from west to east, the velocity of any point on its surface is greater nearer the equator and less further from it in the ratio of the cosine of the latitude. Mr. Clarke says—"Some rather important conclusions in relation to railway travelling arise out of the view now taken. The difference between the relative velocity of the earth on surface motion at London and at Liverpool is about twenty-eight miles per hour; and this amount of lateral movement has to be gained or lost, as respects the locomotive in each journey, according to the direction we are travelling in from the one place to the other; and in proportion to the speed will be the pressure against the side of the rails, which, at a high velocity, will give an engine the tendency to climb the right-hand rail in each direction. Could the journey be performed in two hours between London and Liverpool, this lateral movement or relative velocity of the locomotive would have to be increased or diminished at the rate of nearly one quarter of a mile per minute, and that entirely by side pressure on the rail, which, if not sufficient to cause the engine to leave the line, would be quite sufficient to produce violent and dangerous oscillation. It may be observed, in conclusion, that as the cause above alluded to will be inoperative while we travel along the parallels of latitude, it clearly follows that a higher degree of speed may be attained with safety on a railway running east and west than on one which runs north and south." There is no doubt of the tendency Mr. Clark speaks of on the right-hand rail, but we do not think it will be found to be as dangerous as he says. It will be the greatest on the Great Northern and Berwick lines, and least on the Great Western.—*Herapath.*

Razors.—Barbers often tell us that razors get tired of shaving, but if laid by for twenty days they will then shave well. By microscopic examination it is found that the tired razor, from long stropping by the same hand and in the same direction, has the ultimate particles or fibres of its surface all arranged in one direction, like the edge of a piece of cut velvet, but, after a month's rest, these fibres re-arrange themselves heterogeneously, crossing each other and presenting a saw-like edge, each fibre supporting its fellow, and hence cutting the beard, instead of being forced down flat without cutting, as when laid by. These and many other instances are offered to prove that the ultimate particles of matter are always in motion, and they say that in the process of welding, the absolute momentum of the hammer causes an entanglement of orbits of motion, and hence a re-arrangement, as in one piece; in the cold state, a leaf of gold laid on a polished surface of steel, and stricken smartly with a hammer, will have its particles forced into the steel so as to permanently gild it at the point of contact.—*Scientific American.*

ORNAMENTAL ZINC.

The application of zinc to merely ornamental purposes is a novelty that, judging from some specimens we have recently seen, there is no doubt will become very general. The metal may, of course, be had of any thickness, a coating is then attached to it by a

chemical process, on which ornamental designs in unlimited variety are colored, among none submitted to us were imitations of Mosaic work, marbles of every description, landscapes and figures. The uses to which this zinc may be applied are too numerous to specify, but it seems peculiarly adapted to flooring, chimney-pieces, pillars, trays, waiters, chess-boards, &c., &c. Its cost is moderate, and the durability of the material is unquestionable.—*Art Journal.*

EXHIBITION OF INDUSTRIAL ART.

Mr Dorgan, a most liberal and enterprising individual who amassed considerable property as a railway contractor in Ireland, has offered to place at the disposal of a committee of the Royal Dublin Society the sum of £25,000 to be applied in giving prominence and completeness to an exhibition of manufactures in 1853. His conditions are, 1st—That a suitable building shall be erected on the lawn of the Royal Dublin Society. 2nd—That the opening of the exhibition shall not be later than June, 1853. 3rd—That the special executive committee shall be nominated by him and three gentlemen, to be selected by the Council of the Royal Dublin Society from that body. 4th—Mr. Dorgan shall have the nomination of the chairman, deputy chairman, and of the secretary of the special executive committee. 5th—That at the termination of the exhibition the building shall be taken by Mr. Dorgan and shall become his property at a valuation by competent persons. 6th—That, after payment of all expenses, if the proceeds of the exhibition do not amount to £20,000, with interest thereon at 5 per cent, Mr. Dorgan shall receive the proceeds, less all the expenses incurred. This liberal offer has been accepted by the Society to whom it was made. A Committee will be formed without delay, and the building commenced in the vicinity of Merrion Square, on a piece of ground belonging to the Dublin Society. The exhibition will differ from that recently opened in Cork, inasmuch as it will be open to all countries, whereas the latter was limited to Irish productions.

HALIFAX, Sept. 7.—The Nova Scotia telegraph line, heretofore owned by the Government of this Province, has been purchased by a private company, of which the Hon. S. Cunard is president. The line is to be put in the very best repair, and will be worked by gentlemen who are thoroughly acquainted with their business and fully aware of the importance of doing their business promptly and correctly. The tolls between here and Calais, Nè, have been reduced to fifteen cents on the first ten words, and one cent on each additional word.

Biographical Calendar.

Sept. 19	1825, Comte de Lacedpede, diod.
	1841, Lord Sydenham died.
20	1377, Edward II. murdered.
	1815, William Hutton died.
	1810, Dr. Francis died.
21	1558, Charles V. (Emperor of Germany) died.
	1750, Silvestre de Lacy, born.
	1832, Sir Walter Scott, died.
	1840, Lord George Bentinck, diod.
22	1606, Richard Dussy, born.
	1851, Mrs. Sherwood, died.
23	1738, Boerhave, died.
	1824, Major Cartwright, diod.
	1835, Bellini, diod.
	1836, Madam Mahbran, died.
24	1404, William of Wykeham, died.
	1501, Jerome Cardan, born.
25	1714, William Rosalme, born.
	1750, A. G. Werner, born.
	1791, Mrs. Hemans, born.

Dr. Jose Caspar Rodriguer Francia, the celebrated dictator of Paraguay, was the son of a small French proprietor in that country, and born at Assumcion

in 1757. His mother was a Creole. Arrived at the proper age, he was sent to the University of Cordoba, with a view to entering the Church; but his plans underwent a change while he was yet a student, and on his return to his native town with the degree of doctor of laws, he began his public career as a lawyer. His high reputation for learning, but more for honesty and independence, procured him an extensive practice; and he devoted himself to legal pursuits for thirty years, varying his professional avocations with the study of mathematics and mechanical philosophy, to which he remained addicted throughout his life. In 1811, soon after the revolution of the Spanish possessions in South America became general, Dr. Francia, then in his fifty-fourth year, was appointed Secretary to the independent junta of Paraguay, and such was the ability he displayed in this capacity, that, on the formation of a new Congress in 1813, he was appointed consul of the republic, with Yegras for his colleague. From this moment the affairs of his country underwent a favorable change; the finances were husbanded, peace was preserved in Paraguay while the rest of the South American Continent was a prey to anarchy; and the peoples' gratitude to their deliverer was characteristically exhibited by conferring upon him in 1817, unlimited despotic authority, which he exercised during the remainder of his life. He died 24th Sept., 1840, aged 83 years.—*Alquis.*

Advertisements.

GREAT ATTRACTION!

THE Committee of the Temperance Reformation Society have much pleasure in stating that J. B. GOUGH, Esq., the great Temperance Lecturer, will deliver a lecture in St. Lawrence Hall, on Monday evening, at 7 o'clock. Admission 7½ cents.

Mr. Gough will lecture in Mr. Roof's Chapel, Adelaide St., every night during the week except Monday. 41-11.

ROSS, MITCHELL, & Co,

DEG to inform their Customers, and the Trade generally, that they will commence on the 17th inst. in their NEW PREMISES, to open upwards of 1,600 Packages newly imported Dry Goods, Of British, French, German, American, and Home Manufacture, and in order to ensure a ready sale, their Prices will be Low, and TERMS LIBERAL.

Toronto, Sept. 17, 1852.

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Tenders for Weigh-House.

TENDERS will be received at this Office until Noon on FRIDAY the 18th Instant from Builders willing to contract to erect a New Weigh House, according to a plan and specification to be seen at this office.

By order of the Market Committee.

CHARLES DALY,

Clerk's Office, Toronto, Sept. 17, 1852.

C. C. G.

All the Papers in the city to copy once.

DRY GOODS IMPORTATIONS.

Fall Arrivals—1852!

THE subscribers beg to announce that they are now receiving a large and varied assortment of FALL IMPORTS, via the St. Lawrence consisting of

Seasonable Fancy and Staple Dry Goods, Which have been carefully selected by themselves in the British Markets, and which they offer to their customers and the Trade on the most advantageous terms.

SHAW & TURNBULL,

Wellington street, Toronto, 11th Sept., 1852.

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