

REVIEWS.

The Anglo-American Magazine: Thomas Maclear, Toronto.—The fifth number of this excellent periodical has been laid upon our table, and continues to sustain its character as a very interesting and important addition to Canadian Literature. Mr. Maclear announces his intention of introducing into succeeding numbers of the *Anglo-American*, a general History of the American War of 1812, '13 and '14. We feel confident that a truthful relation of the stirring incidents of a war in which the people of this country bore so active and honorable a part, will secure for the enterprising proprietor of the Magazine, an extensive and remunerative support from the Canadian public.

The British Colonial Magazine: Henry Rowsell, Toronto.—The subjoined extract from the prospectus of this "*Weekly Journal of Literature, Science, Instruction and Amusement*," fully expresses its very comprehensive design:—

"The projectors of this Periodical believe that the time has arrived when, from the extent of its population, progress and prosperity, Canada is capable of supporting, and should possess, a *Literary Journal* of its own, and no longer remain dependant upon the United States for the gratification of a large portion of its intellectual necessities. Each number of this Journal will contain 24 pages of the choicest reading matter, selected from every available source, both Ancient and Modern, comprising:—Original Articles; Literary Intelligence from every quarter of the civilized world—from the "Great Metropolis" to the "Celestial Empire"; Interesting Discoveries by Sea and Land; Progress of the Arts and Sciences; Improvements in Manufactures; Notices of New Discoveries, and Investigations in History, Geography, Zoology, Botany, Entomology, Conchology, Mineralogy, Chemistry, &c. Nor will our fair friends be forgotten. Selections of the "Gems of Poesy" will be made occasionally from the productions of the best writers of the past and present day; and, as soon as practicable, arrangements will be entered into for the contribution of Original Articles by some of the first living Authors of Europe."

We shall be delighted to find the *British Colonial Magazine* fulfil the expectations which its high-sounding title, and the almost illimitable field of Literature it proposes to range over, naturally excite. It has already reached its sixth number; we shall, however, postpone advertizing to its varied contents until future numbers confirm or modify the opinions we have formed.

Progress of Electric Telegraphing.

The European Telegraph Company are constructing a new line from Dover to London by the old coach road, leading through Deptford, Greenwich, Shooter's-hill, Dartford, Gravesend, Rochester, Chatham, and Canterbury. The line is sunk in the old turnpike road. The copper wires are encased in gutta percha, and deposited in a trough constructed of kyanised timber, which is placed in trenches, eighteen inches from the surface of the ground. The trenches are dug and the wires are laid at the rate of one and a half mile per day. Six separate wires are deposited in each box, by from two hundred to three hundred workmen. The wires are to be divided in the proportion of two for the Paris, two for the Brussels, and two for the Mediterranean routes.

The British Telegraph Company are constructing a line on the old system between Glasgow and Greenock, on that railway. The line would have been more important before the efforts made to establish submarine telegraphs. Glasgow, by the steamers to Belfast, furnished the latest telegraphic intelligence to Ireland, and the formation of this line would have brought each day's intelligence one hour farther down. By that route all British telegraphic intelligence to four P. M. of the previous day would have been published in the North of Ireland each morning.

We understand that a line will be formed from Edinburgh to Perth, Dundee, Aberdeen, and the North East of Scotland. That line appears to be required, and will probably answer as a commercial speculation. The business and the population to be accommodated by the line are very considerable. A melancholy example of its necessity occurred on the recent death of the Duke of Wellington. That event occurred on the afternoon of Tuesday, the 14th ult., and was known in Edinburgh and Glasgow, a distance of 460 to 470 miles, from the telegraphic intelligence on the same afternoon. The distance of Balmoral by the ordinary routes from either Glasgow or Edinburgh is 120 to 130 miles. Its distance from Aberdeen is 50 miles. The Court and the Premier were at the date resident at Balmoral. The information did not reach the Royal residence until the afternoon of the 16th. If a telegraphic line had been completed to Aberdeen, it is obvious that the intelligence

might have been accelerated by six or seven hours. This event was not calculated to produce great and immediate political results; although England contains not the remains of any man more generally honoured than the late Duke of Wellington; but it is obvious that events requiring immediate measures might occur under the same circumstances, and that, therefore, this proposed line is one of great public importance, irrespective of its commercial merits, which are, we think, sufficient to repay the outlay necessary in its formation.

The following appears in the Times:—

"An amalgamation between the Electric Telegraph Company and the Irish Submarine Telegraph Company, recently incorporated by Royal charter, is being carried out for effecting this object. The principle upon which the cable now manufacturing at the Millwall works, where the wire ropes for the Admiralty are made, is constructed, differs from that hitherto adopted, and consists in insulating the interior wires by means of india rubber as well as gutta percha. These, after being laid up or twisted into a rope, are passed through an anhydrous solution, and then covered with spun-yarn, and formed into a hempen rope, which is again passed through another, but different anhydrous solution. The whole is then passed through a wire rope machine, worked by steam, which encases the interior core in a metallic wire rope, formed of twelve separate strands of six wires each, or seventy-two wires, in all forming a solid three inch cable. These plaits or close convolutions of wire are thought preferable to the single spiral wire, as calculated to give greater flexibility and strength, and to prevent any portion of the cable from becoming unstranded. As it is manufactured it is payed off the machine and formed into a Flemish coil. The cable is seventy miles long, allowing ten miles for contingencies, the distance from shore to shore being only sixty miles. There are to be four wires, making a total of two hundred and eighty miles of copper wire, and of this one hundred and eighty miles are completed."

On Wednesday a new line of pipe was being laid down along the Strand to connect the General Post-office with the Admiralty, Houses of Parliament, and the Telegraph Station at Charing cross.

THE GREAT TELESCOPE ON WANDSWORTH COMMON.—The following are the particulars of the refractive powers and focal lengths of the lenses in the great achromatic telescope at Wandsworth-common, made by Mr. Thomas Slater, of Somers-place West, Euston-square:—The object glass is achromatic, consisting of plate and of flint glass. The plate glass was cast by the Thames Plate Glass Company, and is a most excellent piece, being perfectly homogeneous and free of striae. The refractive index of this glass turned out to be 1.5103, and it is worked to a positive focal length of 30 feet 1½ inch. The flint glass is a very superior piece, and does great credit to the manufacturers, Messrs. Chance, of Birmingham. It is of uniform density, and very transparent; its refractive index is 1.6308, and it is made to a negative focus of 49 feet 10½ inches. The combined focal length of the plate and flint glass lenses is 76 feet to parallel rays; the focal length will be 85 feet only to objects at about 700 feet distance from the object glass. The diameter of the image of the full moon in this telescope is about 8 inches, and Mr. Slater has made an eye piece of that diameter, having a magnifying power of 125; another eye piece, which takes in about half the moon's diameter, has a magnifying power of 230; other eye pieces are also made, the powers of which vary from 500 to 3000.

THE CANADIAN JOURNAL

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Persons desirous of being admitted into the Institute, as Members, are requested to communicate with the Secretary. The Entrance Fee (including one year's subscription) is One Pound Currency.

There are three classes of persons who may with propriety join the Institute,—1st. Those who by their attainments, researches, or discoveries, can promote its objects by their union of labour, the weight of their support, and the aid of their experience. 2nd. Those who may reasonably expect to derive some share of instruction from the publication of its proceedings by the *Journal*; and an acquaintance with the Improvement in Art and the rapid progress of Science in all countries, a marked feature of the present generation. 3rd. Those who, although they may neither have time nor opportunity of contributing much information, may yet have an ardent desire to countenance a laudable, and to say the least, a patriotic undertaking—a wish to encourage a Society, where men of all shades of religion or politics may meet on the same friendly grounds; nothing more being required of the Members of the CANADIAN INSTITUTE than the means, the opportunity, or the disposition, to promote those pursuits which are calculated to refine and exalt a people.

All communications relating to the CANADIAN INSTITUTE to be addressed to the Secretary. All communications connected with the *Journal* to be addressed to the Editor. Remittances on account of the *Journal* received by the Treasurer of the CANADIAN INSTITUTE, Toronto.