ANSWERS TO CORRESPONDENTS.—This is a feature almost exclusively peculiar to a few English publications. It is found to contribute very successfully to the interest of the reader, and is the means of affording much useful information. We have made arrangements, by means of which, this branch will be carefully attended to, and all enquiries answered so far as practicable so to do.

SINCE our last issue, Winter has stolen rapidly upon us, the piercing bleak wind has played merrily around the cheerless hearth, and the numbing cold has shivered many a shrunken frame, and moistened the sunken eye as the wailings of half-naked humanity has broken upon the unwilling ear. Cowper says

> "If solitude make scant the means of life
> Give me society;"

but how many breathe out a miserable solitude in the midst of society. Surrounded on all sides by busy active life, they pine in penury and want unheeded and uncared for. Throughout our province generally there is not much destitution; but there are many sources of earning a livelihood in the summer and autumn, which are completely shut up, at a time when of all others every necessary and comfort of life should be in the greatest abundance. The snow storm has called into operation the merry jingling sleigh bell and has made many a glad heart; but the cold which has accompanied it has pierced many a family, whose stock of fuel has been scant, and thus a call is made upon those who have wherewith to enjoy the luxuries of life, to be mindful of those who are destitute of the commonest means of subsistence. During the past week we have experienced a mean temperature considerbly lower than has occurred in the same month for the last twelve years, and all have in so far felt its frigid effects, and are the better able to judge how much more severely the bitter wind would have pinched us, had clothing, or food, or fuel, been deficient. A responsible duty then devolves upon all, thus privileged, to endeavour to alleviate the sufferings under which many who are destitute of these blessings may be labouring, and they will have an ample reward in the satisfaction, that they have been so far useful in their generation. Ere another issue of The Family Herald, Christmas—with all its merry carols, will have passed away, and we feel confident that its remembrance will be far more endeared to the memory, if in the midst of our rejoicings an affectionate regard has been had to the welfare of those whose circumstances are such as to render them not only unable to contend with the rigours of a severe winter, but even to rejoice in the return of this merry season, save for the sympathy which they experience from the benevolent and philanthropic.

Toronto Mechanics' Institute.

The lecture on the evening of Friday, the 12th inst., was delivered by T. J. Robertson, Head Master of the Normal School,—subject—The History of Canada. The lecturer said that the history of our own country was especially deserving of consideration, as its advantages of position, soil, climate, and general energy and intelligence amongst its inhabitants were such, that whether it remains a Province of the British Empire, was attached to the United States, or took its station as an independent power, it possessed all the requisites for eventually assuming a high position in the scale of nations. Its extent through several degrees of latitude and longitude, from northeast to southwest, gave it the advantage of a great variety of climate, while its means of internal communication by means of the lakes and the St. Lawrence, afforded peculiar manufacturing and commercial facilities. To the spirit of adventure so successfully called forth by the many important events which characterized the commencement of the 15th century the discovery of Canada is due. John Cabot, in the year 1497, while engaged under the auspices of Henry the VII., of England, in endeavouring to find out a South-west passage to India, discovered the Continent of North America, and visited various portions of its shores. With his voyage commences what may, perhaps, be called the first period of Canadian history, consisting of the details of a series of exploratory voyages, with a view chiefly to the discovery of anticipated gold mines, or the settlement of trading Colonies. Gaspar Cortereal, who was afterwards lost in the same track, conducted one of these voyages in 1500, and brought home but little information. In 1517, something of a practical value resulted from these attempts, by the establishment of the Newfoundland fishery; and in 1523, new interest was created by the voyage of Heragani, a navigator in the service of France, who visited a considerable portion of the coast of North America, and brought home one of the natives. It was not however, till the year 1534, that any clear satisfactory information was obtained regarding Canada, by the voyages of Cartier, whose expedition commences the second period of the history of Canada. He sailed up the St. Lawrence, visited Stadacona, where Quebec now stands,—reached Hochelaga, the site of the present city of Montreal, and brought home from his second voyage the most interesting accounts of the natives, whose chief, with several followers, he had also carried off. He found them dwelling in fortified villages, consisting of large wooden buildings and surrounded by corn fields. They possessed the advantages, also, of a somewhat regular government and settled mode of life. The tribes occupying the banks of the St. Lawrence at that period were the Hurons and Algonquins on the north, and Iroquois on the south. A few years after Cartier's return, the Sieur de Roberval, a French gentleman, was appointed Viceroy, and sending Cartier before him, in the year 1540, started with settlers in the following year. Cartier did not remain in Canada, and Roberval having located his settlers in a fort on the banks of the St. Lawrence, returned to France, whence he again set out in the year 1549, at the head of a well appointed expedition—but never having been heard of again, all attempts on the part of the French to plant colonies in Canada ceased for nearly 50 years. During this period several voyages to the northwest were made by the English; in one of which Newfoundland was formally taken possession of for the British Crown, in 1583. At length at the end of 16th century the Marquis de la Roche carried out settlers with the intention of proceeding to Canada.—These unfortunate men, many of whom had been taken from the prisons of France, were left on Sable Island, and after having been neglected for seven years, the twelve survivors were brought home. After these two unsuccessful attempts, however, an effort proceeding from the French people themselves, with little or no encouragement from the Crown, but directed by two skilful navigators, Pontgrave and Chanoui, assisted by a company of merchant., resulted in the establishment, in 1599, of a colony at Tadousac, at the mouth of the river Saugenay, below Quebec. These adventurers received from the King of France a monopoly of the Fur Trade on condition of bringing out a certain number of Colonists. The colonization of Canada was attempted throughout, since the dream of finding gold and silver had passed away, solely with a view to the establishment of the Fur Trade, and the settlers, at first without the means of self-support, were entirely dependent on the good will of the natives, and the aid of the mother country. The sagacity and energy of the Celebrated Champlain in the beginning of the next century, whose expeditions commence another era in Canadian History, finally established the French in their new settlements.

The remaining part of the History of Canada was taken up by Mr. Robertson in his Lecture last night. The audience on both evenings were very numerous, and the interesting lectures were listened to with the greatest possible attention.

Arts and Manufactures.

CONDIE'S STEAM HAMMER.

About three years ago Mr. John Condie of the Govan Iron Works, constructed a steam hammer on quite a new principle, and having patented the invention, got several hammers manufactured for him at the Abercorn Iron Works, Paisley. Since that time Mr. Condie has had his hammers made at Govan Iron Works under his own immediate superintendence. It so happened that one of these machines having been sent to Vienna about two years since, its operations were there witnessed by a member of the firm of Michiels and Co., and the result was, an order for a hammer with the latest improvements to the order of T. Michiels & Co., Eschweiler Aue, near Aix la Chapelle. The Glasgow Herald thus describes the improvements made upon the original design. This new hammer, which stands fourteen and a half feet high, with a hammer of 30 cwt., having a stroke of 3 feet 4 inches, is beautifully finished in all its parts. The castings are excellent specimens of foundry work, and the gearing and fittings are finished with as much care as are many pieces of cutlery. This hammer is constructed for forging anchor-stocks, shafts, cranks, and such heavy smith work as is required by engineers; and the improvements to which we have alluded above are introduced for the purpose of giving further facilities to the workmen when engaged on such cumbrous and unwieldy masses of malleable iron. The first improvement is effected by having the standards cast with high Gothic openings, like doors, at both sides, through which the workmen have free access to the anvil. By these openings, and the generally altered form of the side standards, there is ample room permitted to turn long and heavy pieces of metal—to crop the end off a shaft—to apply a crest or set (the technical name for a particular tool used in forging)—and, in fact, there is free access all round the anvil, without the necessity of the hammermen having to stoop under the framing, or being exposed unnecessarily to the scorching heat which such masses of heated metal are constantly throwing off. Several minor improvements have also been introduced in the gearing and valves of the hammer, so that we believe the tool is now as near to perfection in these respects as it is possible to arrive in the present state of mechanical science. In the gear, for instance, a compound lever is added, which gives the hammer-tender such command over the instrument, that a small sharp blow may be given from a fall of an inch, or from any point of its upward motion, to a full stroke, at pleasure, and according as the work under it requires a greater or smaller force.