Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- [ ] Coloured covers/ Couverture de couleur
- [ ] Covers damaged/ Couverture endommagée
- [ ] Covers restored and/or laminated/ Couverture restaurée et/ou pelliculée
- [ ] Cover title missing/ Le titre de couverture manque
- [ ] Coloured maps/ Cartes géographiques en couleur
- [ ] Coloured ink (i.e. other than blue or black)/ Encre de couleur (i.e. autre que bleue ou noire)
- [ ] Coloured plates and/or illustrations/ Planches et/ou illustrations en couleur
- [x] Bound with other material/ Relié avec d'autres documents
- [x] Tight binding may cause shadows or distortion along interior margin/ La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure
- [ ] Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/ Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

- [ ] Coloured pages/ Pages de couleur
- [ ] Pages damaged/ Pages endommagées
- [ ] Pages restored and/or laminated/ Pages restaurées et/ou pelliculées
- [x] Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées
- [ ] Pages detached/ Pages détachées
- [x] Showthrough/ Transparence
- [x] Quality of print varies/ Qualité inégale de l'impression
- [x] Continuous pagination/ Pagination continue
- [ ] Includes index(es)/ Comprend un (des) index

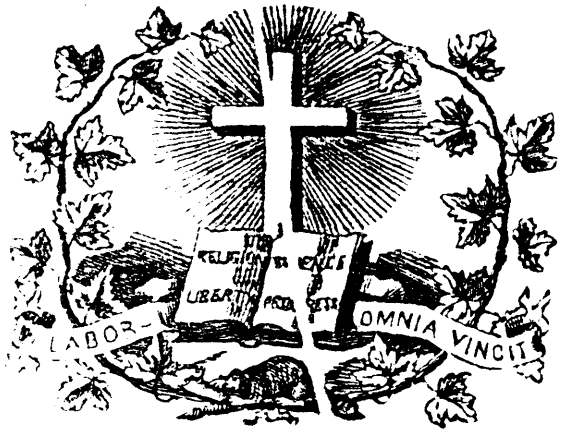
  Title on header taken from:/ Le titre de l'en-tête provient:

- [ ] Title page of issue/ Page de titre de la livraison
- [ ] Caption of issue/ Titre de départ de la livraison
- [ ] Masthead/ Générique (périodiques) de la livraison

- [ ] Additional comments:/ Commentaires supplémentaires:

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
									✓		



THE

JOURNAL OF EDUCATION

Devoted to Education, Literature, Science, and the Arts.

Volume XV. Quebec, Province of Quebec, February, 1871. No. 2.

TABLE OF CONTENTS.

On the Present Social Results of Classical Education.

BY LORD HOUGHTON, M. A., TRIN. COLL. CAMBRIDGE.

That the whole of the boyhood and the greater part of the youth of the higher classes of our countrymen should be occupied with the study of the language, literature, history, and customs of two nations which have long ago disappeared from the surface of our globe, and which, but for the common conditions of all humanity, have no more relation to us than the inhabitants of another planet, would assuredly, if presented to our observation for the first time, appear a strange abuse of the privilege which the wealthy enjoy in the long, sedulous, and uninterrupted education of their sons. And yet the problem has its solution, and the anomaly its excuse, in the story of the intellectual progress of mankind. The empire of the Roman language plays a scarce less important part in the records of mankind than the dominion of the Roman arms. When the central power had collapsed, when the legions had retired from province after province and left the outer world to what they deemed an irreclaimable barbarism, a new and unthought-of influence was yet to come from the same region, and to spread itself over portions of the world, not only inaccessible to the force of Rome, but whose very existence was then unknown. The old tongue became the instrument and auxiliary of the new spiritual authority that rose on the ruins of the material power; and though the Empire was for centuries Greek, Latin was becoming the expression of the thoughts and highest interests of the future civilization. And soon, while the modern languages of Europe by the side of it, and in all cases affected by it, were struggling upwards into individual life, it stood amid the inchoate and changing forms of speech in a distinct supremacy and perfection which gave it the character of the catholic and permanent utterance of the Roman race. So many of the vulgar tongues were but dialects or corruptions of the Latin, and others so interwoven with it in the process of their formation, that the conception of the Latin as the foundation of universal grammar was natural and just; and when, in course of time, it became the means of intercommunication among men from Sicily to the Hebrides, and made Augustine of Hippo intelligible to Pelagius of Wales, what other or better education was possible, than that Youth, wherever born, should be introduced into this great citizenship and community of mind and heart?

And therefore if in this latter time we have to set before us the question, whether it is wise and right that purely classical studies should retain the monopoly which they still possess in the instruction of the present and future generations of those classes of our countrymen who are free from the necessities and obligations of manual labour, and who can exercise and develop their intellectual and moral faculties to the utmost for their own pleasure and advantage and for the profit and guidance of their fellow-men, let it not be thought that there is any desire to derogate from the immense claims that the Latin language, even apart from its literature, legitimately maintains, as an agent in the advance and cultivation of the human race.

But this main utility, this intellectual convenience, greater than ever has been the dissemination of the French, or even than will be that of the English language, among the inhabitants of the earth, has literally ceased to exist. Latin is no longer a spoken tongue; even among scholars in the departments of theology and physical science,—where the advantage of addressing *ad clerum* arguments and facts, that the ignorant may easily misapprehend or misapply, might well be appreciated,—its use is rare and has an air of pedantry: and it is discontinued in our academic disputations and discussions, though retained in the proceedings of some foreign universities. The ecclesiastical allocutions, which are the most living forms of Latin speech, though addressed *urbi et orbi*, affect a small portion of our people, and even in Catholic countries require interpretation and comment. Occasional works of classical investigation and verbal criticism appear in the ancient scholarly costume, but they have

a pretentious and exclusive bearing that repels even the capable reader. The complicated torture and linguistic anomaly of making Latin the vehicle for instruction in Greek is rapidly passing away from our schools, as well as the practice of illustrating the classic writers by annotations and dissertations of doubtful classicality; and in the study and processes of law, which had appropriated to itself, in the lapse of time, a special and corrupt, but in its application throughout Europe a general and recognised, Latin diction, nothing remains, as far as British jurisprudence is concerned, beyond a few isolated and mispronounced expressions.

It has been reserved for an enthusiastic French Phil-Hellène (M. Gustave d'Eichthal) to propose that Greek should now become the Universal Language; but even this is not more hopeless than the rehabilitation of the Latin, and there is no more reason in the teaching of the one than of the other, as far as relates to any intercourse or communication with the actual world and living men.

It will answer no purpose of argument to depreciate the effect and worth of classical scholarship. Let us have as much of it as possible. There is no danger in this time and country of the existence of a class of *Gelehrten*, who should distract the energies of the nation from the broad highways of civic life and lead them into the by-paths of abstract study, so that, while thought and speculation might be busy and free, political action might be inert and shackled. The critic and the searcher, the man to whom the records and productions of these two wondrous peoples is an inexhaustible mine of intellectual treasure,—before whom these languages, in the unalterable passiveness of their structure, lie like the dead subject under the knife of the anatomist,—who combines the curiosity of the antiquary with the induction of the philosopher,— can owe little, if anything, to the present formal routine of classical discipline. It is doubtful, indeed, whether, if he had first come to that study at the age of sixteen, with faculties already strengthened and regulated by any sound system of education, without any ungrateful associations of the daily recurrent task and the natural resistance of boyish distraction to lessons that have no connexion with its instincts or its observation, some four or five years of conscientious and willing labour, with all the stimulus of enjoyment in progress, would not effect at least all that is required within the modest range of an University curriculum, and leave him well armed and equipped for the campaigns and efforts of a further erudition. At any rate, it must be supremely indifferent to a man thus engaged, whether an infinite number of boys are learning one grammar or another, or construing one or other book, which it is clearly understood that they are to lay by and forget, as soon as they confront the businesses or even the pleasures of mature life.

For to the social phenomenon of all this elaborate study, which cannot be applied to any practical purpose, must be added this other peculiarity of the system, that, when once the ordinary British youth has bidden farewell to school or college, any attempt to prosecute, or even keep up, his classical attainments and interests would make him an object of curiosity, if not of censure and alarm, to all who might be solicitous for his future welfare. It is accepted that, whatever other advantages he may have derived from his public education—and they may be many —the knowledge of the ancient languages, which formed so large and indispensable a portion of it, may be at once abandoned without compunction or reproach. He has repeatedly learnt the Odes of Horace by heart, but at the age of thirty he will not be able to repeat one of them; he could once write a sort of Latin verse or prose, but that accomplishment soon utterly disappears, perhaps at no great loss to himself or others. There must be, however, some positive gain in even such a limited command of ancient literature as has been drilled into him, and if we were not case hardened by custom, it would seem to us a scandal that it should be thus altogether thrown aside. The exceptions to this rule, of course, are numerous, and examples of men of too much mental vigour, and memories too well exercised, to abandon easily what they have acquired with much intelligent labour, will suggest themselves to all of us. Yet follow that young lawyer who has won high honours at his University, and whose talents and industry are undeniable. he throws himself with zeal into his new profession, he sets himself to master the knowledge that may, when properly used, gain him wealth and position; he would willingly pursue his former classical studies, but he finds no time for them, even in his hours of intellectual relaxation. For these he has his French or German—which perhaps he once learnt from his sister's governess, but lost at school—or the elements of physical science, of which he now feels himself shamefully ignorant—or it may be some art—music or drawing—for which he is conscious that he possesses a true natural gift, and to which he sometimes regretfully thinks that the supple fingers or eager eyes of his boyhood might have been profitably directed. So that he must content himself with the superior enjoyment which his classical remembrances and associations may give him, if he chances to visit the scenes of ancient history; or, if he becomes the father of a family, with the means of imparting to his children the rudiments of the same education which absorbed all his early life, but to which he has so rarely reverted in his later years.

With the clergy, whose occupations are for the most part *sedentary and unambitious, the results might* be expected to be different, but it is not so. Outside the Universities it is rare to find a clergyman, not engaged in tuition, whose intimacy with his previous studies goes much beyond his Greek Testament, and indeed it would hardly tend to his professional credit if it was known that he spent any considerable portion of his time in company with a literature not akin in thought and principle to his present duties. The old-fashioned conventional standard, *which not only permitted, but encouraged, among ecclesiastics* the familiar intercourse with heathen writers, and by which subjects indecorous or even sacrilegious when expressed in the vulgar tongue, became harmless and becoming when conveyed in Greek or Latin diction, is now obsolete.

If, then, the exclusive classical education, so prolonged, so elaborate, so costly, is acknowledged to be inoperative, as regards the retention of the languages and the interest in their literature, among all classes of society, except those, whose business it is to continue and propagate the study, and a few scholastic amateurs, —can it be maintained that the mental discipline which it enforces is of so peculiar and unique a character as, in itself, to justify this sacrifice of human intelligence and parental expenditure? Admit all that can be adduced as to the superiority of these tongues in the regularity of their structure, the logical accuracy of their expression, the ease with which their etymology is traced and reduced to general laws, and the precision of their canons of taste and style, (1) can it be affirmed that these peculiar excellences are appreciable by the mass of schoolboys, and that these processes of thought cannot be evoked by any other instrumentality? Is the difference between these and other forms of speech such, that grammar cannot be taught efficiently in any living tongue, or that so refined a perception of style and taste in composition can be conveyed to the generality of young minds by these and by no other means? Now no decisive answer can be given to these questions till the test of experience has been fairly applied, and this can only be done when all the other separate and collateral circumstances that affect and distinguish the education of our public schools can be combined with other than exclusive classical teaching. When boys, in all other respects under the same intellectual and moral training, are submitted *to different courses of instruction, when the grammar of living* tongues is taught as accurately and scientifically as that of the dead, when the sense of beauty and fitness in diction is excited and directed by judicious exercise in the masterpieces of native and foreign literature, when diligence and aptitude in the one study or the other are equally considered and rewarded, then,

(1) *See Dr. Temple's evidence before the Royal Commission.*

and not till then, can it be positively predicated that the imagined attributes of a classical education are not referable to circumstances and treatment with which classics, as such, have nothing whatever to do, and whether the most enlightened advocates of the retention of the system are not unconsciously affected by a powerful literary superstition.

Powerful indeed,—so powerful, that its permanence and resistance to all attacks must rest on other grounds than even the intellectual approval of ages or the mental advantage of generations of mankind. It is no doubt in the social conditions and political habits of the inhabitants of modern Europe that such a belief must have been rooted, to maintain its literary supremacy through all mutations of thought and above all storms of public opinion. It is as the proper and recognised education of the governing classes, the honourable accomplishment of all aristocracy, that the classical teaching endures so firmly, even now that it has ceased to be the mysterious speech of the Church and when it is no longer the authoritative exposition of Law. For as soon as it became the qualification of a Gentleman to read and write at all, it was Latin that he read and wrote. From Charlemagne, learning his Latin accidence at the age of forty, to the royal pedant, King James I. of England, the best classical culture of the age was ever appropriate to the highest social station. For centuries the young fancy and fresh wits of the civilized laity were nurtured with the images and incidents of old classic life, and all gentle literature was mimetic of the ancient standards. All else, tongue and word, the vehicle and the substance of native speech, were common, of the people—vulgar.

And as the community of the modes of diction and writing extended itself from the learned to the powerful and wealthy portions of society, and distantly affected the formations of the manners, as well as the mind, of Europe, *Unus sonus est totius orationis et idem stylus*, (1) might be applied, without exaggeration, to all the societies that co-operated in the revival of letters, and a certain identity has come down among them even to this moment, in which we are discussing the question whether or not classical instruction must remain the staple of the gentleman's education. These effects extended to the transactions of daily life, the euphuism of speech, the formation of all that can be comprehended in the notion of Taste. There can, indeed, be no better illustration of these indirect influences than a certain condition of high society that existed in this country in the latter part of the last century. At that time the education of our public schools was no doubt very inferior in accuracy and extent to that now offered or enforced; yet among the patrician class there was a considerable body of men whose tastes and habits were coloured by classical associations and interests to an extent which at this day we can hardly comprehend. Few of them had any pretensions to large or precise scholarship, and their scope and purpose were well expressed by a word which some of them brought back from Italy, *dilettanti*, to which, however, no light or disparaging sense was at that time attached. "*Virtuoso* the Italians call a man," says Dryden, "who loves the noble arts, and is a critic in them;" and it was these men who introduced *Virtù* into the luxuries of British life. They touched the rough manners of their age with jovial grace and a genial delicacy, and they applied their wealth to the acquisition of those fine specimens of Greek and Roman sculpture which adorn our public and private galleries, and to the production of those sumptuous works of antique topography which enrich our libraries and have so few successors. To them we owe the foundation of the British Museum, the introduction of the Italian Opera, and the establishment of the Academy of British Artists. They covered the country with Palladian edifices, that only too often rose on the ruins of the pleasant, commodious, old English mansions; and they decorated the city with palaces of an architecture which Mr. Ruskin tells us has found its final form in Gower Street. The range of classical writers with which they professed an acquaintance was of the most limited, but within it, allusions were frequent and well understood, so that Parliamentary quotations were not exhibitions of erudition, but familiar forms of rhetorical expression. The genteel multitude affected the habits of the more instructed; if the public taste was bigoted and confined, at any rate it knew what it wanted, and, if monotonous, it was never confused: the notion of a Gothic House of Parliament would have convulsed the clubs, but Mr. Swinburne's "Atalanta" would have taken the town by storm. Now it may be said that this was a poor result of what was contentedly regarded as the highest education, but it was, as far as it went, a positive gain; it was a Culture,—and, if the exclusive distinction of a special class, it was at the same time a bond of intellectual sympathy that went beyond it. To men of this temper, no scholarship seemed pedantic or superfluous; they valued all they retained of the old tuition, and they respected all that could make clear to them their own memories and intuition. The acquisition of the French and Italian tongues was facilitated and encouraged, instead of being thrust out of education, by classical teaching, and something of the common speech of former times was at least desired and attempted by this modern society. There are, indeed, still to be found among our elders some few, mostly of those who have been actively engaged in public life, who cling with affection to this literature, often the only one to which they have felt inclined during their existence—a remaining savour of the old *dilettanti* fruit, which we must not look to see repeated in an after-generation.

(1) Cic. Brut. 26.

(To be concluded in our next.)

Education of Miners. (1)

On this subject the Rev. W. A. Scott, M.A., of the Vicarage, New Seaham, read an interesting paper, of which the following is an abstract:—Regretting that this subject had not been committed to more able and practised hands, Mr. Scott proceeded to state the facts and conclusions he had arrived at, after thirteen years' experience as Vicar of a populous pit parish, and a manager of the Londonderry schools in the County of Durham. In a brief sketch of the means of education, he first referred to the day schools. The growth of these had been remarkably rapid. Ten or fifteen years ago, the late Marchioness of Londonderry, and a few others, took a very active part in promoting education in the mining districts, and the progress made since then reflected very great credit on the colliery owners generally. Few pit villages were now without an efficient school. The attendance was not what it ought to be; and to meet this evil he would gladly see a compulsory measure to enforce attendance in schools of this class, where so many parents neglect their duty; or, failing this, there might be a regulation to the same effect by the owners of each colliery. Such a regulation had worked well in one of the schools in his own parish, and a great falling off in the attendance followed the abandonment of it. Infant schools should be established, with a view to make the most of the few years a pit boy had for education. They were generally popular, largely attended, and could be made nearly, if not quite, self-supporting. The religious difficulty was unknown in the colliery schools. Sunday schools, though hindered by the difficulty of obtaining well-qualified teachers, do good service. Educated Christian people, especially ladies, would find our colliery Sunday-schools wide and hopeful fields of labour. The night-schools were specially interesting. Necessarily limited in size, they often contained pupils of indomitable energy and great perseverance. Several had become Dissenting Ministers, and two continued to fit themselves for Durham University; and having passed through it successfully, were now ordained clergymen of the Church of England, and were doing good service in this diocese, The long hours of labour, however,

(1) A paper read before the Social Science Congress, New-Castle, Eng.

made it impossible for the boys generally to avail themselves of the night-school. The Mines Inspection Acts had done and were still doing good as regards the age at which boys begin work in the coal mines. Twelve seemed likely to be adopted as the minimum age. Some would insist upon its being fixed at 14; but, considering the pressing demand for boys' labor, the wishes and necessities of the parents, and the desires of the boys themselves, he was not prepared to object to boys going to work at 12, provided means were adopted for carrying on their education. He stated some amusing facts showing the ambition of boys to commence work. This manful spirit, though open to abuse, is a valuable element of character, which might be impaired or wholly lost if boys were kept at school till they were 14; but care should be taken to provide means and afford opportunities which do not exist at present, for preserving and extending what they have learned before going to work. He next spoke of the long hours of labour. The boys were called out of their sleep soon after 3 a.m. to go to work, and frequently when visiting in their houses he had seen them returning between five and six p. m. Each set or shift of boys worked for and with two shifts of men. The men's hours of labour being less than eight, the boys' hours were never less than twelve, and often 14 and even more. On winter evenings at his home you would see the boy utterly exhausted, lying at full length asleep upon the floor, black as he came from the pit. In summer, if the fine evening entices him out to play, he may stay at it too long, lessening his hours for sleep so much that when he goes down the pit there is danger of his falling asleep and getting maimed or killed. The nature and duration of the work prevented this class of lads from getting much good from the night-schools. These long hours for work lasted through the very years most favourable for instruction, viz, from the time the child first goes to work till he is 18 or 20 years old. About that age his hours become the same as the men's, *i. e.*, less than eight; but meanwhile habits and powers of study have been lost, and evil vicious habits too often have come in their place. The results of all this were pernicious in many ways. Even as a question of pecuniary loss they were very serious. Mr. T. E. Forster, in his evidence before the Select Committee of the House of Commons, stated that from the pay Friday to the following Wednesday, from thirty to forty per cent of the men absent themselves from work. Much of this lost time would certainly be redeemed, and much waste and recklessness avoided, if the men were better educated. Was it too much to expect that at least as much indulgence should be allowed to the boys for the confessedly excellent purpose of education as is now conceded to a large proportion of the men for the purposes of more vice and dissipation? The question of additional expense should not be considered apart from the losses entailed by the present pernicious system. With respect to other difficulties, viz., the insufficient supply of boys and the danger (supposing that boys enough to furnish a second shift could be found) of sending them into the pit while it was working. No doubt these were serious considerations, but surely not beyond remedy. The youngest boys, who most needed time for instruction, were in many cases doing a kind of work that could be done by old men, as indeed it sometimes had been done. Might not this plan be tried with success? However, he placed far less confidence in this or any other plan that he could suggest than he did in the ability and success with which they knew all the colliery managers were in the habit of conquering difficulties every day. Let these gentlemen once really take this matter in hand, and it would soon be accomplished He concluded by commending the case to the sympathies and support of the public. The pit boys were a gallant set of little men. They and their fathers deserved well of their country. They contributed alike to our commercial prosperity and domestic comfort.

University Examinations for Women. (1)

Miss Isabella Todd read a paper on "University Examinations for Women," of which the following is an abstract: — For centuries after the founding of the older Universities, the sphere, however important, was a very narrow one. They avowedly provided for the education of but a small section of the community, and took no care for the intellectual interests of the rest. The great movement in recent times on the general question of education led not only to many changes within these older institutions, but to the establishment of new ones; and the prominent position given by one of these—the London University—to examinations as a means of stimulating and guiding the higher studies, amounted to the discovery of a new motive-power to be brought to bear upon the classes hitherto beyond the reach of University action. The system of examinations was, in 1858, first extended to boys of an age below that at which students usually enter College, by both Oxford and Cambridge. But to Cambridge belongs the honour of having, seven years later, extended the system to girls. More recently Edinburgh followed its example; but London and Cambridge have again led the way in a still more important movement. In answer to a memorial from a large number of ladies, the Senate of Cambridge last year instituted examinations for women, which have proved most useful and valuable. The London University, having obtained a special charter for the purpose, about the same time instituted an elaborate system of examinations for women. This year, Dublin University and the Queen's University in Ireland have both established examinations for girls and women, which in general outline resemble those of Cambridge. It is as yet a defect in the plans of both that there is no arrangement by which a senior candidate can return in any subsequent year to be examined in subjects not previously taken. Edinburgh has at present no advanced examination, and Oxford has only this summer extended its local examinations to girls alone. These examinations are of two types. Those of Cambridge, Dublin, and the Queen's University fix a comparatively small group of obligatory subjects, and give a very wide choice among the higher subjects to each candidate. Those of London fix a complete and rather severe course, with practically no choice at all, for their general examinations, but permit a lady who has passed that one to present herself subsequently for special examination in other subjects. It would be a great mistake to think that either of these types should supersede the other. The first is probably that best suited for immediate use, but the second is most important as a standard of what should be aimed at. Out of the varied experience of both will no doubt come in time much valuable instruction, both as to the systems themselves and as to the teaching which they presuppose. There is room in connection with them for schools, colleges, institutes, associations of all kinds, to try the most various plans, and from the collision of all these to strike out sparks of intellectual light, which may be fanned into a steady flame. These examinations form, for the first time, links of connection between the highest educational authorities and the agencies for the education of women. The effect of such a connection, in breaking down barriers believed to be impassable, removing old prejudices, and teaching society to recognise the importance of the subject, is incalculable. The natural result of this will certainly be the establishment of institutions for teaching, bearing some real proportion to the work to be done. In the meantime, they have awakened the schools, so that even already a spirit of eager anxiety to do the best possible with the means at hand is spreading fast and far. The large and liberal character of these examinations, their freedom from all exclusiveness, either of class or sect, the careful effort and elevated aim which they render necessary, and the dignity and authority which they attach to all educational plans for women, are conducive to the cultivation of many of those moral qualities which have too often occupied a secondary place.

The Education of Girls. (1)

Miss Porter read a paper on "The Education of Girls—How the importance of improvement in girls' education can be more effectually brought before the notice of parents and teachers": —The unsatisfactory condition of girls' education in this country has been very generally acknowledged by those who have turned their attention to the subject. Something has been done in the way of improvement. In London and the larger towns importan-

schemes have been set on foot, such as lectures to classes of ladies, the opening of the University local examinations to girls, and last, but not least, the opening of the new college at Hitchin for women. Many private teachers are also doing what they can to raise the quality of the instruction given in their schools. I want, however, (said Miss Porter), to bring before you the fact that these ideas on female education, with which we are so well acquainted, have not been sufficiently brought to bear on the great majority of the parents and teachers among the middle classes of our country, and I would ask if anything can be done to bring the subject more effectually before them. I can assure you, from my own experience, confirmed by the testimony of others, that the great mass of parents, in provincial towns, do not know how to give good gifts to their children, when it is a question of intellectual food and culture. Now, if these parents could be led to see that the mere fact of sending their children to school is not sufficient, and that they ought to make some inquiry as to the quality of the instruction they receive, and as to the method on which they are taught; then, I think, we should see the way opening towards a great improvement in general teaching. Of course, the difficulty will occur to you, that if the parents are not very well educated themselves, they can hardly judge of the instruction which their children receive: still, I think something might be done to help them in this investigation. I would suggest that popular lectures might be given in provincial towns on the subject of education, by those who are interested in the present movement; and that one or two useful papers on the subject might be printed, under the authority of some such body as the London Association of Schoolmistresses, which might be distributed in our towns. I would suggest that in any attempt to place the subject in a right light before parents, great stress should be laid on the fact that we do not advocate a total change in the subjects of instruction, but that we rather urge them to ascertain whether the branches of instruction which the children learn are thoroughly and properly taught them. They might easily find out whether the teaching of the school merely consists of the learning and mechanical repetition of lessons, or whether the children have also oral lessons, on which they are taught to write simple notes from memory. In the case of schools which sen up pupils to the local examinations now opened to girls by the universities, they might ascertain whether the pupils are prepared for them in the ordinary school, or whether they receive separate instruction. In the latter case, little guarantee would be afforded as to the general teaching of the school. In conclusion, I hold that the point to be insisted on is, that whatever subjects children may learn, they should be thoroughly taught them; and if you can bring this forcibly before the minds of parents, who are now sadly indifferent to the quality of the mental training their children receive, then I think something will have been done towards raising the general level of middle-class education for girls in this country.—*Educational Times.*

On Teaching Dictation. (1)

By E. T. D. CHAMBERS, Stoneham, P. Q.

Having but recently come out to this country from England, where dictation is so deservedly one of the most popular lessons of the day,—some teachers may like to know the different methods used at home, which make it rank so high among the simple branches of a primary education.

First, then let it be clearly understood, that without a knowledge of what is intended to be taught in dictation, two great branches of education would be in a certain degree nugatory, because they would remain severed and unconnected; for it is dictation that teaches how to combine these two studies and bring them to a practical use; I mean writing and spelling.

How many pupils are there in our schools who though they profess to write a good hand, cannot by that means express the simplest thought, or copy a single sentence read to them; and in the same way we know there are many children who can repeat the spelling of lengthy vocabularies of words, and yet are incapable of forming them correctly on paper, from the mere fact that they have not been sufficiently exercised on their practical application.

In teaching dictation, as in teaching everything else, the work must be done gradually, and the scholar easily advance from the known to the unknown.

As soon as a child is able to form the letters and to spell at all, he should be taught how to connect those letters, so as to form the words he spells, upon his slate. This should be done for a time with every spelling lesson, till the pupil becomes acquainted with the method of forming letters into words, where simple sentences may be read or repeated for him to write down.

If this be found difficult, it is a good plan to write the exercise on a black-board, for the scholar to learn it from, or even to copy it, after which he will find no difficulty in writing it from dictation. This is always a good way to simplify any writing exercise, which is considered to be rather difficult for the pupil, though there are many other plans used for the same purpose.

Some teachers prefer spelling aloud the exercise to writing it on the board, others give the children the books containing the passage, to learn the difficult words in it for themselves, or to copy it out, prior to having it read for dictation.

This last is a very good plan especially with advanced scholars, who should be severely dealt with, however, in case of making errors in the dictation after having had a chance of looking over it.

The foregoing methods are all very simple, and cause the teacher but little trouble, while if properly followed out they cannot fail to be effectual in assisting him in teaching writing and spelling (especially if he insist on having all mistakes made in the exercises rectified and learnt), and also the *greater* object of dictation, viz:— the combination of these two great branches of knowledge and their reduction to practical use.

(1) The Conductors of this Journal do not hold themselves responsible for either the *matter* or *manner* of papers contributed.

English Reformatories and Industrial Schools.

The greatest discouragement, perhaps, in successfully dealing with the young, especially of the poorer classes, is the notion, even still very prevalent, that once boys or girls are put out into situations you have done with them. They are able to provide for themselves; they want no more care. It is this notion which if acted upon—and we fear it *is* too much acted upon—will swell considerably the amount of the "unknown" and the number of the "reconvicted" in reformatory and industrial school returns. And yet the very contrary is the truth. So long as these and such like-children are under the care and discipline of the school they are comparatively safe, and want no more than the ordinary school control and superintendence: but it is when they emerge from school restraints into a wider sphere that the need of care, vigilance, counsel, and control is really felt. If we lose too many of our young men and women amid the temptations of London, Manchester, and Liverpool, it cannot be doubted that one cause, at least, of this constant waste and loss arises from the fact that they are too much left to themselves, that they are practically without guidance, and that they are "unknown" in quarters where even they ought to be best known. Experience and necessity will correct the only other mistaken notion which we shall mention. People are being gradually cured of the idea that you can train, teach, and guard a large number of boys or girls, of whatever class, with the sole aid of a matron or a master. No doubt, you can herd a number of children in a large house, and let them be provided for anyhow by a retired soldier and his wife. But the question is, Will you do them much good? How can their morals be protected? How can their persons be kept clean? How can better habits be formed? What about their

ordinary instruction? The thing, in truth, cannot be done. The attempt must come to grief; and we have noticed in the Government Report of the industrial schools, that in almost every case where the school was inefficient, and the children disorderly, the primary cause lay in the want of a proper staff. When you go in for education or reformation, or both, you go in for a very expensive and very arduous undertaking, to whatever rank of life you apply yourself. But your only chance is to do it well. You may, indeed, do it "cheap and nasty," but what is "cheap and nasty" is always unfit for use. Your only prospects of solid success lies in your doing it as carefully and as thoroughly as possible. This will cost you something in money, and more in thought and labour; but your consolation will be, that cost what it may, it will be cheaper in the end to effect a permanent reformation of the wild Arabs of our large towns, to give a civilized bearing and education to the honest children of the poor, to train them to habits of self-control, to give them a taste for industry, and to open to them a useful and honourable career in a country where a man's own good conduct and ability is his best passport to a creditable subsistence—than, by either neglecting them altogether, or by doling out to them an inadequate and niggardly assistance, to to condemn them to remain rough, ignorant, idle, and dissolute, a dishonour to the church, and a danger to society.—*The Month.*

Canadian History.

The Indians.—The Peltry Traffic.

In the history of Canada we often find mention made of the Indians, and of the traffic in furs and skins carried on with them. To these we think it well to devote a chapter before we go on further with the history.

Why were the natives of North America called *Indians?*

In order to answer this question, the young reader must bear in mind that when Columbus, and the other early navigators, first reached the island, and continent of America, they supposed them to be parts of Asia—such as Japan, China, and the East Indies. The natives also were seen to have dark complexions, and, in some other respects, to be like those of Asia. So they all came to be called *Indians*. Even when it was found out that America was not part of Asia, the name first given by mistake, to the savages, was not changed.

The Indians with whom we have here to do were those of New France. They consisted of many tribes, but it would be tiresome to state all their names. The principal ones were the *Algonquins*, *Hurons*, *Montagnais*, and *Ottawas*. There were also the *Micmacs* of Nova Scotia, the *Abénaquis* of the region now called Maine, and five tribes of very fierce people named *Iroquois*.

The Indians whom Jacques-Cartier saw at the mouth of the Miramichi, and in the Bay Chaleurs, were Micmacs. But it is not certainly known of what tribes those were, who were first found at Stadacona, Cap Rouge, and Hochelaga. Some think they were Iroquois, who were afterwards driven away by the Algonquins, Hurons, and Montagnais.

In outward appearance and habits these savages were very much alike. Their skins were of a dark reddish colour. They had coarse black hair, high cheek bones, and piercing eyes, deep sunk in their sockets. They were very swift of foot and active. Their chiefs and warriors were without beards, because they used to pull out the hairs from their faces; also, it was common for them to keep only a single tuft of hair on the crown of the head. On their bodies they smeared grease and streaks of paint or dye. In winter, they clothed themselves with the skins of wild animals. They lived chiefly by hunting and fishing. But some tribes also tilled the ground and raised gourds, melons, maize, or *Indian corn*. Their dwellings, or *wigwams*, were shaped like tents, made with poles, and covered with sheets of bark.

Hunting, fishing, and making war, were the occupations of the men. These thought it beneath them to work at any kinds of labour, and left all this to the women, as well as all the care of their children.

In disposition the Savages were fierce, cruel, and cunning. They seldom forgave an affront. They used to *scalp* the enemies whom they had killed, and to torment those whom they had taken alive. They bore fatigue, hunger, cold, and bodily pain, without shrinking or complaining. Even when tormented by their enemies they scorned to utter any cries except those of defiance. In fact, they gloried in shewing that they could not be made to heed pain.

In the chase, and in war, they made use of various weapons—bows and arrows, knives, clubs, and *tomahawks*. When they came to know Europeans they learned to use fire-arms. For moving about upon the lakes and rivers, they had *canoes* made of bark. They used tobacco, even before the Europeans came, for Cartier describes smoking as a habit common amongst them. On certain occasions, such as meetings of their chiefs, and when those who had been enemies met to make peace, they used a pipe with ornaments, called the *Calumet*. This was passed round, each person in turn taking a few *whiffs*.

When not engaged in warfare or hunting they, for the most part, spent their time in idleness. They learned the use of strong drink from the Europeans, so that drunkenness became common among all the tribes. They were also great gluttons.

The Indians believed in dreams, omens, and evil spirits. As they were heathens, of course they knew not the true God of the Christians. Yet, they had a sort of notion of a supreme Being, of whom they spoke as "the Great Spirit."

We have here spoken of the savages or Indians, because no one can pursue the history of Canada without some knowledge of them. Much more might be said, but it would be tedious to do so in this place.

We must next speak of the *Peltry* trade, that is the traffic in the skins of wild animals, of which mention has already been made.

After the times of Jacques Cartier and Roberval, European traders visited the St. Lawrence to procure skins from the Indians. Both in the waters, and in the forests, the Indian hunters killed various creatures, for the sake both of their flesh and their skins. Amongst the chief were, the *Seal*, the *Porpoise*, the *Beaver*, the *Bear*, the *Otter*, the *Wolf*, the *Fox*, the *Elk*, the *Lynx*, the *Marten*, the *Mink*, the *Weasel*, and *Muskrat*.

The traders brought, in exchange, knives, hatchets, cooking-vessels, and pieces of cloth, besides, many other small articles. The skins and furs, of which the Elk's and the Beaver's were most valuable, were thus cheaply procured. But, in Europe, the traders sold them at high rates.

Afterwards, when settlements were founded on the banks of the St. Lawrence by the French, the peltry trade became a very great business. It was carried on by persons who acted for companies formed in France. In the course of time the traffic was pursued in the most distant parts of North America.

Champlain.—The foundation of Quebec.

We must now make known to our readers that very noble person whose name has been already mentioned. Every lover of Canada thinks with pride and pleasure of *Samuel de Champlain*.

Like Jacques Cartier, Champlain was a great sea-captain during the earlier part of his life. He made several voyages to the West Indies. Afterwards, along with M. Pontegravé, who was both a seaman and a merchant, he made a voyage to Tadoussac, at the mouth of the river Saguenay. From this place, the two went up the St. Lawrence in a large boat, as far as Cartier had been in the year 1535. Champlain took notice of the different places on the river, which, in later years, became the sites of Quebec, Three-Rivers, Montreal, and Lachine.

Next, he took part in the founding of *Port Royal* or *Annapolis*, and made voyages along the coasts of New England, Acadia, Cap-Breton, and of the regions surrounding the gulf of the St. Lawrence. All this happened before the year 1608. Then, with his old friend Pontgravé in another vessel, he was sent by de Monts to found a colony in Canada.

While Pontgravé staid at Tadoussac to traffic with the savages, Champlain went higher up the river to the north end of the Isle of Orleans. Looking around he thought the scene both grand and beautiful. He went over to the foot of the lofty cliff, near the mouth of the small river St. Croix where Cartier had wintered in 1535, and landed there.

The few savages to be seen were different from those of Cartier's time. There were now no traces of the Indian town, Stadacona, which Cartier had found near the St. Croix seventy three years before.

Champlain, with the eye of a prophet, foresaw the advantage of making so goodly a place the chief station of the French power in New-France.

He, therefore, brought on shore his people, with their effects and supplies of food and arms. Men were set at work to raise a dwelling and storehouse. Others cleared ground, in which Champlain sowed seeds, from France, in order to make trial, of the soil of Canada. Steps were also taken to secure the station from attack and cannon were placed. The day of landing happened to be July 3rd, 1608; so this has been taken as the date of the foundation of Quebec.

Champlain had come to found a colony and to remain as its ruler. He spent his time in putting forward the works begun, and in preparing for cold weather. He had already learned, at Port Royal, what sort of winters might be looked for in Canada. Pontegravé went home in the autumn, while 30 men staid at Quebec with Champlain. Of these, 22 died of scurvy. The remaining eight lived through till the spring of 1609, but they also suffered from the disease.

In the course of the winter, Champlain obtained some knowledge of the Indians, and formed some plans, of which an account will be given in our next.—Dr. Miles's *Child's History of Canada.*

English History.

THE SOVEREIGNS OF ENGLAND.

EDWARD III.

(Born at Windsor, November 13, 1312. Died at Richmond, June 21, 1377. Reigned 50 Years.)

Edward would not accept the crown until his father formally resigned it. He was crowned at Westminster, February 1, 1327. His mother, the bad queen, for some time exercised all the regal power, aided by the favourite, Mortimer, Earl of March. But the young king soon showed that he was determined to be independent; and in 1330 he caused Mortimer to be seized in Nottingham Castle, brought to London, and hanged at Tyburn. The queen he ordered to be imprisoned. He had then been about two years married to Philippa, daughter of the Earl of Hainault; and in the following year he claimed the crown of France, as nephew and nearest relation of Charles the Fair, who died in 1328. But he was not prepared to enforce his claim, for a Scotch war broke out. Although David Bruce, the king, had married Edward's sister, Edward himself supported the claim of Edward Baliol to the Scottish crown, and marched with a large army to his support, defeating Bruce's troops, with immense slaughter, at Halidon Hill. The Scotch at length submitted, but not before the English army had destroyed many towns. In 1340 the king took the title of King of France, and shortly afterwards invaded that country, and began that terrible war which for about fifteen years desolated the country. In 1347 Calais was besieged and taken, and six of the principal citizens came in their shirts, with halters round their necks, to deliver up the keys of the town. Edward would have hanged them, but Queen Philippa interceded, and their lives were spared. She had just come over from England, where she had defeated and taken prisoner David Bruce, King of Scotland, who had invaded England. On the 24th of August, 1346, was fought the great battle of Cressy, in which the king's eldest son, Edward, the famous Black Prince, so greatly distinguished himself; and on September 29th, 1356, the Black Prince defeated a much larger force of the French, at Poictiers, and took the French king, John, prisoner, and brought him to London. The brave young Black Prince died of consumption at the age of forty-seven, on the 8th of June, 1376, and was buried in Canterbury. Queen Philippa died at Windsor, on the 16th of August, 1369; and the king himself in 1377, aged sixty-five. He was a very able monarch; and during his reign terminated the Scotch wars and included France in his kingdom.

RICHARD II.

(Born at Bordeaux, February, 1366. Died at Pontefract, Yorkshire, February 13, 1400. Reigned 22 Years.)

When King Edward III. died, his grandson, Richard, son of Edward, the Black Prince, and Joan of Kent, was proclaimed king. He was only eleven years of age, and, of course, too young to govern the State; so his uncle acted for him. He was crowned on 16th of July, 1377, at Westminster. In the first year or two of his reign there was fighting on the Scottish border and in France; and money being wanted to carry on the business of the State, several heavy taxes were levied by Parliament. The people complained very much; and a very objectionable tax, the poll tax, being enforced, an insurrection broke out in Kent and the eastern counties, headed by Wat Tyler (who killed a tax-gatherer who insulted his daughter), John Ball, and others. Tyler's party marched from Kent to London, where they committed great damage. The Essex men returned home under a promise of pardon; but Wat Tyler refused to submit. The young king, then (1381) fifteen years old, proposed a conference, and they met in Smithfield. Tyler, in his earnestness, took hold of the king's bridle, and was immediately killed by Sir William Walworth, Lord Mayor of London. At first the mob were disposed to revenge his death; but the courage displayed by the king, and his generous promises, induced them to submit. As he grew older he weakly allowed himself to be guided by favourites, and the Parliament compelled him to dismiss some of them before it would grant supplies of money. In October, 1396, he married, for the sake of obtaining money, Isabel, daughter of the King of France, a child only seven years old, "the little queen," as she was called. So distressed was the king for money, that he resorted to most unjust means to obtain it. In 1398 a rebellion broke out in Ireland; in the following year the celebrated John of Gaunt, Duke of Lancaster, uncle to the king, died; and his son, Henry, Earl of Hereford, who had been banished by Richard, returned, and being joined by a large number of the nobles, in the king's absence in Ireland, claimed the crown. Richard hurried back, and finding that he could not contend against Henry, resigned his crown. The Parliament decided that Richard should be kept in prison; and he was taken to Pomfret, or Pontefract, where he is generally supposed to have been cruelly murdered; but some writers say he lived for several years afterwards, and died at Stirling, in Scotland.

HENRY IV.

(Born at Bolingbroke, 1366. Died at Westminster, March 20, 1413. Reigned 13 Years.)

Henry, Duke of Lancaster, became king when Richard II. was compelled to resign the crown, on the 30th of September, 1366, and was crowned on the 13th of October, Edward the Confessor's Day, in the same year. His son, Prince Henry, then thirteen years old, was created Prince of Wales, and greatly distinguished himself, young as he was, in the wars against the Welsh, who had taken arms under Owen Glendower, on behalf of King Richard. There was, also, a great effort made by many of the nobles to restore the deposed king; and it was not suppressed until many of the leaders had been executed. In May, 1402, the Scots invaded England, but were beaten at Halidon Hill, on which occasion the Earl of Northumberland took many wealthy prisoners, whom the king desired him to resign to him. The earl was so vexed at this request that, with the Earl of Salisbury, Glendower, and others, he entered into a conspiracy against Henry. The rebellious nobles were defeated near Shrewsbury, and Henry Percy, surnamed Hotspur, son of the Earl of Northumberland, killed. In 1403 the king's first wife, Mary, daughter of De Bohun, Earl of Hereford, having died, he married Joanna of Navarre, widow of the Duke of Bretagne, and she was crowned with great magnificence on the 26th of January, 1404. The next year the Prince of Wales marched against Glendower and the Welsh, and defeated them at Monmouth. These wars cost the king a great deal of money, and he had obtained so much from the Parliament that he was ashamed to ask for more, and called a council of the Lords, who refused to grant him any without the permission of Parliament. Another attempt was made to dethrone the king by some of the northern nobles, but they were defeated: the Archbishop of York and Thomas Mowbray, Earl Marshal, two of the leaders, were beheaded at Pontefract, and Lords Hastings and Falconbridge met a similar fate at York. In August, 1405, a French expedition to aid Glendower landed at Milford Haven, in Wales, but soon re-embarked. Another attempt was made the next year, but also failed. There were several other slight outbreaks, but Henry remained firm on his throne. In January, 1413, feeling ill, he determined to set out on a pilgrimage to Jerusalem, but died in a fit in the following March.

HENRY V.

(Born at Monmouth, August 9, 1388. Died in France, August 31. 1422. Reigned 9 Years.)

This was a very short reign, but a very glorious one in the annal of England. Before his father's death, Prince Henry had led a wild and wicked life, and had even been sent to prison for striking Chief-Justice Gascoigne; but when he came to the throne, he determined on improvement, and his seriousness and talents for business astonished those who had known him in his early days. He was crowned at Westminster on the 9th of April, 1413, and very soon afterward entered into negotiations with France, one object of which was to obtain in marriage Katharine, the French king's daughter. The treaty was not concluded, and King Henry made a claim to the crown of France, which he maintained had been won by Edward III. In answer to his claim, the French dauphin insulted him by sending a number of tennis balls, in mockery of his love of frolic and sport when a boy. Henry immediately determined on invading France; and in order to obtain the necessary money, suppressed more than a hundred priories, and took possession of their revenues; besides which, Parliament granted him 300,000

marks (about £450,000). He embarked at Southampton on the 11th of August, 1415, with an army of 15,000 men, and landed at Havre. Just before his departure he discovered a plot against him, and the Earl of Cambridge, Sir Thomas Grey, and Lord Scroop were executed. In the course of a few weeks he took Harfleur; but soon afterwards great sickness broke out in the English army, so that not more than a fourth part were able to bear arms, and they were nearly starved; yet, on the 24th of October, 1415, he encountered an immense army of the French at Agincourt, in Picardy. Henry himself fought very bravely, and was nearly killed; and though the French outnumbered the English by more than five to one, they were defeated, with a loss of many eminent warriors and about 10,000 common soldiers. In 1417, Henry again invaded Normandy, and took many important towns; but in October, 1419, a peace was made, and Henry married Katharine, the French king's daughter, in June, 1420. The war, however, broke out again, and in 1421 there was another invasion by the king. He was again very successful, and entirely subdued the country, but was taken with a sudden illness, and died, leaving the Duke of Bedford regent in France, and the Duke of Gloucester regent in England. — *Kings and Queens of England.*

"A Snow Piece."

BY MRS. E. SHERMAN SMITH.

Lightly and merrily,
Swiftly and steadily,
Down comes the snow-shower all the day long;
Bright eyes have looked for it,
Young hearts have sighed for it;
Now it is welcomed with laughter and song.

Earnestly watching it,
Eagerly catching it,
Fair little faces and hands reach'd forth,
Childhood and youth can see—
In the white mystery —
Radiant visions of frolic and mirth.

Traversing fields of space,
Running a joyous race,
Beautiful flake after flake flutters down,
Each one a perfect flow'r,
Nurtured in starry bow'r,
Each a gem from some angel's bright crown.

From their cloud palaces,
Faster and faster, these
Delicate children of Winter and Rain
Come upon airy wings,
Come, till all earthly things
Gleam in pure robes, without blemish or stain.

Whiter and whiter still
Grows every roof and sill;
Whiter the domes late so grim and so brown.
Strange is the spectacle!
Changed, as by miracle,
Into a fairy-land seems all the town.

Lo! upon the leafless trees,
Waved by the wintry breeze,
Phantoms of summer's dead garlands appear,
Twining and clinging there,
Pallidly smiling there,
Waking soft dreams of a season more dear

Now, at the twilight hour,
Ceases the snowy show'r;
Listen! already the tuneful bells chime!
Soon will the rich and gay
Speed on their merry way,
Thankful and glad for the carnival time.

But as the night comes down
Cold over all the town,
Many a heart sinks with terror and woe;
Many a heavy sigh,
Many a tearful eye
Greets the chill prospect of Darkness and Snow.

Ye who in happy homes
Smile when the snow-show'r comes,
Think of the sad ones who weep at its fall;
Think, think how pitiful
Object so beautiful
Should, like a spectre, the needy appall!

Pray for these hapless ones;
Give to these suffering ones;
Dry the sad tear-drops that freeze as they flow;
Mercy and Charity
Smooth Life's disparity;
Warm the poor hearts chill'd by Winter and Snow.

— *The Catholic.*

Influence of the Great Reviews in Creating Literature.

It is a fact worthy of special notice that the great reviews—the quarterly reviews particularly—have been in modern times, and since they first appeared, the chief creators and promoters of literature. They have, both in Great Britain and America, raised up a galaxy of fine writers in works of imagination, poetry, history, politics, and philosophy. This truth may not be seen so readily perhaps, by people generally as by the literary man or the student of literary history. The influence of the daily journals is more generally perceived and acknowledged. But, though the reviews have a limited circulation comparatively to that of the newspapers, or even to some of the magazines, they are read by scholars and carefully studied by writers....

We refer particularly to the British and American reviews; for, while the French, German, and other European nations have imitated these in a measure, they still hold the peculiar and high character claimed for them. In originality, analytical power, critical acumen, and classical taste, they have stood and yet stand pre-eminent. The *Edinburgh Review* may properly be called the progenitor of them all. The first number appeared October 10, 1802. Francis Jeffrey, a Scotch judge and famous critic and essayist, was the founder. It was at the social gatherings of Jeffrey and several other prominent young whigs, among whom were Brougham, Sydney Smith and Horner, that this review was suggested and planned. The remarkable ability with which it was conducted was soon perceived, and its power felt. It stirred up a host of able writers and antagonists. It fearlessly dissected the literary pretentions of the authors of that day, and it seemed to revel almost maliciously in the agony of its victims. If it were not always just it did very much to promote literature and the finest writing by its searching, bold, and scathing criticism. The attack on the "Odes and Epistles" of Moore led to a duel between that poet and Jeffrey. From the assault on Byron sprang his bitter response, "English Bards and Scotch Reviewers." A like war was waged for some time against Wordsworth, Southey, and Coleridge. It was the ability and criticism thus displayed that sharpened the intellects and improved the writings of even those authors who were assailed. Had it not been for the *Edinburgh Review* these famous poets probably would never have become so great. Indeed, it was the creator chiefly of the literature of that day and long afterward.

The same remarks will apply to the *North American Review* and the literature of this country. This appeared fifteen years later than the *Edinburgh Review*. Boston, where the *North American* was published, became the seat of American literature from that time. In fact, this review had such an influence upon the New England mind that nearly all our American literature comes from that section of the country. Mr. Tudor, its first editor, was, like Jeffrey, an original thinker, a keen critic, and an able writer. Our school of poets, historians, and other authors, sprang from and was cultivated by this American review, just as that of Great Britain, referred to, arose from the establishment of Jeffrey's quarterly. Longfellow, Whittier, Poe, Bryant, Lowell, Emerson, Prescott, Bancroft, Channing, and others, were the natural product of the classic ability, criticism, and superior style of writing of the *North American*.

More recently—that is, about ten years ago—another American quarterly review was started. It followed the course of empire and population, and found its proper sphere in New York. A young Irishman, a fine classical scholar and graduate of Trinity College, Dublin, though long a citizen of the United States and fully imbued with American ideas, is the presiding genius over this *National Quarterly Review*. This gentleman is Mr. Edward I. Sears. He commenced his career with the daily public press, and has now found, undoubtedly, the vocation for which he is well suited. His review shows that he has talents of the first order for the work. His mind is stored with the Greek and Roman classics, from which nearly all modern literature

sprung, and which gives the most finished style. Looking at the character of the *National Quarterly Review*, and at the progress and circumstances of the times, Mr. Shears may be mainly instrumental in developing in the North and South a new school of writers, of poets, historians, novelists, essaysists, and critics. The war we have just passed through, the wonderful events of the time, and the quickening power of the modern agents of civilization, cannot but develop in this country great mental activity and intellectual culture. We see already the dawn of this state of things. In journalism, as in magazine literature, and in various ways, particularly among the young men, we perceive a growth that may probably place America in the first rank of literary nations. Mr. Sears is in a position to do much in bringing this about. He is, as was said, well qualified. The *National Quarterly Review* may become to this section of the country what the *North American* was to New England and what the *Edinburgh Review* was to the literature of Great Britain.—*New York Herald.*

The Story of the Spectroscope. (1)

The invention of the telescope put into existence new worlds and, at the same time, enlarged the already vast boundaries of human thought. It constituted a mighty and dazzling advance. It opened splendid highways out upon and around the shining borders of the stellar world. It permitted men to gaze upon unheard-of marvels, and pointed to prospects the view of which was almost too splendid to be borne. Human sagacity, it was believed, could go no further, human achievement could do no more.

And yet we have to-day another equally marvellous advance. Notwithstanding the victories gained over the wandering planets, the blazing sun, and the gentle moon—

"Whose orb
Through optic glass the Tuscan artist views"—

it was reserved for the spectroscope to accomplish still greater things, and to give, in reality, a new heaven, if not a new earth. While the telescope brought to men's knowledge the existence of many new globes, showed the forms of suns, and brought almost within apparent reach the huge belted sphere, it could do no more. But the new wonder goes further, and does not leave the child when gazing through some astronomer's glass at the glittering specks, sown like diamond-dust along the sky, to wonder what they are. With this new instrument in his hand, the philosopher smiles at the old difficulties before which he once stood aghast, and reveals with precision the secrets of the nebulous region which he formerly thought must forever remain unknown.

But what is the spectroscope?

In the language of science, this is an instrument for forming and examining spectra produced by artificial or natural flame, in order to determine, from the position of the spectral lines, the composition of the substance which is in process of combustion; or, in simpler language, it is an instrument to observe the lines which cross the spectra of natural or artificial light. This instrument, in reality, involves an adaptation of the telescope. Yet the light may pass through a tube, either from a candle or a star, and, instead of entering the eye, it passes through a prism, when it may be viewed by a common telescope.

In a still simpler way the object may be accomplished.

Let a beam of sunlight pass through a hole in a shutter, go thence through a triangular prism, and on through a bi-convex lens, and fall upon a white screen. Now to the ordinary observer, nothing will be seen on the wall; but look more closely, and there will appear certain dark, parallel lines, which will be developed more strikingly by the aid of a good spy-glass. Here you have the principle of the spectroscope, which has effected within a brief time a marvellous revolution in demonstrative science. How simple is the apparatus and obvious the method!—and yet with instruments operating in this way we attain results which Lord Rosse's telescope struggles for in vain, and are able to declare the nature and condition of those nebulæ which have heretofore baffled the most advanced thought.

Now, therefore, one word more of explanation:

By spectra, of course, are meant the different-colored rays of which the light is composed, and which by the prism are laid upon a white screen. When the light is natural, as from the sun, the spectra will be crossed by a multitude of fine, dark lines; but when the light is artificial, the spectra are crossed by bright lines. And the relative positions of the lines are always fixed, so that the spectrum has been carefully mapped. Every element, when in a state of combustion, is found to produce certain lines in its spectra, so that by examining the spectra we may know for a certainty what substance is burning and producing the light

Here again, therefore, we are led to express our amazement at the results which follow from so simple and beautiful a process, which gives us the long-dreamed-of connection with the sun, and enables us to say with certainty what must be the composition of that vast fiery globe.

It would be interesting to trace the progressive development of the spectroscope, or, perhaps, it might be said, spectrum analysis, did time permit. Beginning in Sir Isaac Newton's discovery of the solar spectrum in 1675, the idea emerged in 1814, in "Fraunhofer's line," afterward to be carried on by Brewster, Herschel, and other eminent men. In 1822, Brewster found strontium and copper in the flame of a common lamp, and observed and found the bright lines of the spectra varying with the color of the flame. In 1834, Mr. Fox Talbot was able to tell lithia from strontium by means of the spectrum; and, in 1845, Professor Miller mapped the spectra of several incandescent metallic vapors. In 1861, Mr. Cook took up the subject with great success, being followed by Roscoe. But it remained for Kirchoff to reveal the mystery that had baffled critical minds for half a century. And this fairly led to the inspiring utterance of the old, but now intelligible, cry, "*Sic itur ad astra*"—this way leads to the stars!

And now, to speak more particularly, what are the present results of these investigations? They must be summed up as briefly as possible. Take first this specimen. Says one writer:

"Let us look, for a moment, as if through Mr. Huggin's beautiful spectroscope, at the well-known star Sirius, of whose amazing distance mention has been made. It appears to us a brilliant point only, albeit we may not doubt it has sixty times the bulk of our great sun, while yet giving us only the six-thousand millionth part of his light. But this is light enough for the prism's work. The slender beam that has been travelling from the star earthward, with a velocity of more than eleven million miles every minute, glides along the telescopic tube, and then steals through the almost imperceptible slit of the spectroscope, and, if we may be pardoned a play upon a word (which we protest is only fair in treating of so *light* a subject), it *hues* its way through the prism, and writes upon the screen in unmistakable colored symbols, some of them as plain to us as English words, the nature of the fiery home from which it has been an exile, for as long a period as it requires among us to transform a new-born babe into an independent man!"

And again let us quote:

"In May, 1866, a small star in the constellation Northern Crown blazed out for several days with a splendor which almost put the first magnitude stars to the blush. The spectroscope served to reveal to us the scarcely hypothetical explanation of the phenomenon. The tell-tale prism detected bright lines in its spectrum. Our readers know, by this time, what bright lines signify. There was manifestly intense gaseous inflammation upon the star. It blazed to a magnificent splendor, and then gradually died out, while its spectrum lines also dwindled. Was this a grand hydrogen combustion, a star on fire? So the markings indicated. Is there nothing here significant to us, as dwellers upon one of the satellites of a fiery star, which has with its luminous shell a probably concentric stratum of hydrogen, so vast in its extent that it can shoot up, from its furnace-throats, rose-tinted flames that stretch a hundred thousand miles up into its atmosphere?"

But now we must epitomize. First, then, note how the spectroscope has reversed the opinion of astronomers in regard to the state of certain nebulæ which they thought were composed of clusters of stars. Some of these nebulæ give no more light than a single sperm candle at a distance of a quarter of a mile, and yet that feeble ray is sufficient to tell the story. In the spectroscope, these supposed worlds fly, and all that is left is a little gas, which writes the story in certain faint, dark lines! Hail, therefore, noble Laplace! The spectroscope praclaims the much-scoffed nebular hypothesis possibly true. Only forty of the seventy nebulæ examined told of a white-hot nucleus by its "absorption bands."

So, likewise, the spectroscope dissipates the notion of a nucleus in comets.

Then it turns to the earth, and reveals metals which have hitherto been unknown. It goes into practical operation in the manufactory for the production of steel, and tells by the "carbon lines" in the spectra the *exact instant* when the air must be shut off to secure the perfect work.

It leads Bunsen to evaporate forty-four tons of water to detect a new mineral in the Dürkheim Spring. It tells of the decomposition of light. It informs us of the substance of the sun, and declares that Sirius, a star sixty times larger than the sun, is rushing away from the earth at the rate of one hundred and eighty miles a minute.

These are results that astronomy alone could never achieve.

(1) Spectrum Analysis. Six lectures delivered in 1868, before the Society of Apothecaries, in London. By Henry E. Roscoe.

Without doubt, the spectroscope, as the scientific community become more familiar with its wonderful adaptations, will be made available, not only in giving us a more minute acquaintance with the mysterious worlds of nebulæ, but also by advancing the common arts of civilization. —*Appletons' Journal.*

Memoir of Michael Balfe.

Michael Balfe, the most popular of Irish composers, died, Thursday, 20th October last, at a quarter past twelve o'clock, at his country house, Rowney Abbey, Herts, in the presence of his wife and son-in-law, at the age of sixty-two years, having been born in Pitt-street, Dublin, on the 15th of May, 1808. At the present moment we need not concern ourselves with an analysis of Balfe's position as a composer. Foremost amongst the musicians of our own time, his fame was European, and there is no country in which his genial, sympathetic melodies have not earned universal popularity. Picturesque, dramatic, vivacious, and essentially original, his works, extending over many years, have never failed to satisfy the exacting expectations of educated musicians, whilst they also enlisted the warmest enthusiasm of the general public.

Balfe's claims to popular favour have rung the ears of English people since 1835, when "The Siege of Rochelle" was first produced. His musical talents were displayed at a very early age. He made his first appearance as a violin player when seven years of age, at a concert given for the poor of Dublin, when he played a concerto of Mayseder. His first composition, which was popularised by Madame Vestris's singing, was a ballad called "The Lover's Mistake," written when he was eleven years old. After his father's death he proceeded to Italy to complete his studies in composition.

It was at Milan, in 1827, that Balfe first came before the public as a composer, when he wrote the music for a grand Ballet, entitled "La Pérouse," which was brought out at the Opera of La Scala, where it created a great sensation by the abundant melody and brilliancy of instrumentation. After this he produced his first opera, "I Rivali," in the year 1828; "Un Avertimento a gelosi," given at Palermo; and "Enrico quarto," at Milan. He then returned to England, where he produced his first grand English opera, "The Siege of Rochelle," at Drury-lane, in 1835, and achieved an immediate triumph. The impression which Mr. Balfe's genius made on the musical public was deepened when "The Maid of Artois" was produced, May, 1836, when he, by his great knowledge of vocal resources, developed all Malibran's marvellous powers.

The popularity of Mr. Balfe was now established, and other operas followed in quick succession. It should be noted that when he brought out his opera of "Falstaff," at her Majesty's Theatre, in July, 1838, he was the only native composer who had produced an opera with Italian words.

He went to Paris, where he composed three French operas. Two were produced at the Opéra Comique, "Les Pernis d'Amour," and "Les Quatre Fils," and the Grand Opéra, "L'Etoile de Seville." On his return to England he produced "The Bohemian Girl" at Drury Lane, 27th November, 1843; then followed "The Daughter of Saint Mark," "The Boudman," "The Enchantress," "The Maid of Honour," "Rose of Castille," "Satanella," "The Armourer of Nantes," "Blanche de Nevers," and "The Puritan's Daughter;" the last being considered one of his best works, not only for the richness of melody, but as a most accomplished musician-like production. Five immensely popular operas seem to be the landmarks in Balfe's career. "The Siege of Rochelle," "Maid of Artois," Bohemian Girl," "Rose of Castille," and "The Puritan's Daughter." These are the works by which the composer's name will be perpetuated, although there are others from the same prolific source which are perhaps superior in intrinsic merit.

Balfe has written twenty-nine operas in all—five Italian, three French, and twenty-one English. Amongst his miscellaneous compositions we may mention the following:—"Come into the Garden Maud," "The Blighted Flower," "The Merry Zingara," "They tell me Thou'rt the Favoured Guest," his settings of Longfellow's Poems, and his last published little gem, "Phœbe the Fair." Out of his operas, which have been for the last thirty-five years popular favourites, and which procured for him in Germany the title of "The King of Melodists," are—"The Light of Other Days," "My Cottage near Rochelle," "Look Forth, my Fairest," "In this Old Chair," "Remember Me," "We may be Happy Yet," "Marble Halls," "Convent Cell," "Muleteer's Song," "I would be a Soldier Still," "The Heart Bowed Down," "Bliss for Ever Past" "The Power of Love."

His last great success was the reproduction at the Théatre Lyrique in Paris, December, 1869, of "The Bohemian Girl," under the title of "La Bohémienne," for which he was made, by the Emperor, Chevalier de la Legion d'Honneur, and Commander of the Order of Carlos III. by the Regent of Spain.

Balfe was assuredly the most gifted of Irish musicians. It may be said that all the music of the present day bears the stamp he gave it, partaking more or less of that style so essentially his own. As the composer of much that has now become the national music of our time, Balfe has claim to some tardy recognition of the services he has rendered, although no monument which could be raised to his memory would equal his beautiful melodies, which will live in the hearts of millions while the word retains a love of sweet sounds.—*The Nation.*

THE JOURNAL OF EDUCATION.

QUEBEC, (PROVINCE OF QUEBEC) FEBRUARY, 1871.

The late Madame Glendonwyn.

We avail ourselves of the present opportunity to thank, on behalf of the Minister of Public Instruction, (under whose direction this Journal is published) the press generally for their kind expressions of sympathy and condolence with that gentleman and family, in the deep grief into which they were plunged through the so unexpected and sudden death of Madame Glendonwyn.

Marie Catherine Henriette Adeline Chauveau was born in Quebec, on the 25th of November 1851, and married in the same city, on the 25th of October last, to Ranald Donald Scott Glendonwyn, Esq., (of Parton, Kirkcudbrightshire, Scotland) Lieutenant in H. M. 69th Regiment, then stationed at Quebec.

She, with her husband, sailed (per troopship Orontes) from Quebec on the 10th of November, arriving on the 25th (her birthday anniversary) of the same month at the Bermudas, where, on the 17th of December, she succumbed to an attack of typhoid fever.

The sad tidings reached the Hon. Mr. Chauveau, through telegram from Halifax, on the 23rd of December, the eve of the prorogation of the Legislature.

Madame Glendonwyn was naturally possessed of more than ordinary talents, improved by an excellent education, and those who knew her will bear testimony to her gentleness, modesty and exemplary piety. The sorrowful circumstances attending her death lent an air of sadness to the event, which was deeply felt by the Hon. Premier's wide circle of social and political friends, proved by the former in numerous ways, and by the latter in the eloquent and feeling speeches delivered in the House, just at its close, by Mr. Joly, leader of the opposition, Hon. Sir George Etienne Cartier, Bart.; Hon. Messrs. Ouimet, and Robertson, and Mr. Chapleau.

We copy the following from the *Court Journal* of the 14th ult:—"It was only recently that we had the pleasure of noticing in our columns the marriage of the accomplished daughter of the Premier of Quebec, a gentleman distinguished alike for his qualities as a statesman, a writer, and for high social attributes. It is now with regret we record the sudden and unexpected death of the estimable young lady at Bermuda, after a severe attack of typhoid fever. Lieutenant and Mrs. Glendonwyn had been but a few days in Bermuda, when both were struck down with the malady, which terminated so fatally to Mrs. Glendonwyn. At the sitting of the Legislature on the 30th ult., a vote of condo-

lence, with the Hon. Mr. Chauveau and his family, was moved by Sir George Cartier, Bart.; expressions of sympathy came from all parts of the House, such is the esteem in which the leader of the Government is held. The Governor's annual ball was postponed on account of the sad event. The many friends of the honorable gentleman in this country will sympathise with him in his sad bereavement."

The New Archbishop of Quebec.

Letters, received on the 13th inst. from Rome, announced that the choice of the Holy See had fallen upon the Very Revd. Dr. Taschereau, as successor to the late regretted Archbishop Baillargeon. The Archbishop elect, the most Reverend Elzear Alexandre Taschereau (son of the late Hon. Justice Taschereau and brother of the present judge of that name) is fast verging on the close of his fifty-first year, having been born at St. Mary, Beauce, on the 17th February, 1820. He received the Tonsure and other minor orders at Rome in 1837 and, although still under the canonical age, was promoted to the Priesthood at Quebec on the 16th of September, 1842. He was immediately appointed Professor in the Seminary and subsequently, in 1847, Director and Prefect of Studies. In 1854 he was sen to Rome, charged with laying the Decrees of the Second Provincial Council of Quebec before His Holiness the Pope for his approval. He there sustained a thesis and was invested with the dignity and insignia of Doctor of Canon Law. On the demise of the late Very Revd. Mr. Cazeau, founder of the Laval University, he succeeded to the dignified position of Rector of that Institution, and in 1862 was nominated as Vicar-General by the late Archbishop. He attended the late Prelate, in the capacity of Theologian, at the Æcumenical Council, and on the demise of that saintly ecclesiastic, he became, conjointly with the esteemed Vicar-General Cazeau, Administrator of the Archdiocese. It is interesting to add that the Archbishop elect was one of the first of that heroic band who went to assist the then Chaplain at Grosse Isle - the Revd. Mr. McGauran, now *Curé* of St. Patrick's Church, Quebec—in his ministrations to the unfortunate emigrants of 1847 when he contracted the dread Typhus to which he was very nearly succumbing. His kindness to his fellow-Catholics—the Irish—during that period, well calculated as it was "to try men's souls," is a good augury of his impartial government of them as of his own compatriots in the new and exalted position to which he has been called.—*Chronicle.*

A Reformatory for Drunkards.

In submitting for the consideration of our readers the following article extracted from the Dublin *Nation*, and entitled: "A Reformatory for Drunkards," we are happy to say that Quebec, like several places in the United States, is in advance of the parent country in respect to these institutions. As early as 1866, Mr. Wakeham, whose experience in the treatment of the insane, highly qualified him for the position, opened the "*Belmont Retreat*," for the recovery of Dypsomaniacs, and we are happy to know that his efforts were attended with no inconsiderable success, though he had to contend with the very great disadvantage arising from the whole system depending on the voluntary residence of all who were induced to become inmates of the Retreat. Several, by a residence of a twelvemonth and a faithful compliance with the rules, have recovered, bringing joy and gladness to their homes, having regained their own self-respect, and feeling happiness in the assurance that they had secured the sympathy of the community.

Last year a step was made in advance by our local Legislature passing an act, placing *dypsomaniacs*, as we prefer to call them, in the same position as ordinary maniacs, and enabling their relatives and friends to place them under compulsory restraint in institutions duly licensed by the Government for that special object. We are also aware that by direction of the Government, the Inspectors of Asylums and Prisons have visited the "Belmont Retreat," with a view to ascertain how far it was capable of forwarding the benevolent intentions of the legislature and we have no reason to doubt but that the result has been to place the establishment in a highly favourable light and to shew its claims for the most favourable consideration. With these remarks we commend the views of the "Nation" to our readers:

How far is the drunkard in possession of his right mind? To what extent should the indulgence of his fatal vice be accounted the result of actual bodily disease? Is there no point in all his sad career at which public authority may take notice of the ruin to himself and the terrible misery to those dependent on him which his vicious self-indulgence causes? These are some of the most serious questions which the friend of humanity can propose to himself at the present day, and in view of a state of things existing widely through the world; nor can there be any reasonable doubt that, as time draws on, and we see the greater truth, and determine with more courage; the scope of our natural duties and accepted obligations, these questions, or some others substantially the same, will be pressed to their only true solution.

Their only true solution, we repeat, because there can be only one clear way out of such a social difficulty as that presented by the drunkard. There is one great reason why the movement of reform in his regard may be very slow and gradual. Men are slow to interfere in any decided way with the course of individual conduct, so long as it is bounded by the lines of that discretion which the judgment of society has permitted the individual to retain. A man may now get drunk as often as he pleases, and inflict the greatest injury on his own health and prospects and the greatest suffering on the innocent who depend on him, without being taken in hand by law for such misdeeds. It is perfectly legal for him to drive himself to crime or madness, or condemn his family to sheer starvation by reason of unrestrained intemperance. When he is found in the public ways, either unable to guide himself, or to refrain from tampering with the rights of others, the law indeed takes note of his condition, but this notice arises not from the drunkenness itself, but from other acts arising out of it. Then, the nature of the legal intervention being considered, it is plain that as men are not punished for the fact of drunkenness, but for the corollaries of helplessness, brutality, or disorder, so the nature of the punishment now commonly awarded forbids us to regard it for one moment seriously as a rational means of cure. The fine is paid, or the term of confinement served, not because the man got drunk, but because when he had done so he came out of doors, or struck or threatened somebody. He pays the penalty of his indiscretion, and goes back to his old life again without having been taught the true lesson by his experience. He may realise the disgrace which he had brought on himself, or he may laugh disgrace to scorn. At any rate, he will be likely, in nine cases out of ten, to feel the decided inconvenience of being fined or put in prison. But this is of small moral value. It leads to caution instead of amendment, and even when the man is not too far gone in recklessness to be moved by any human consideration, he will probably leave quite out of view the propriety of keeping sober, and only resolve to surround his future drunkenness with circumstances of greater caution.

Law, doing no more than this, does little to rid society of one of its greatest curses. The brawling drunkard who staggers and fights from street to street, is certainly a greater scandal in the public eye than the toper who muddles covertly from night to night, taking good care that public authority can find no ground for meddling with him. Yet the last of these men may easily cause as much misery as the first, and be guilty of as grievous wrong. He may work as thorough ruin to himself and all about him, and never be brought face to face with Justice after all. The less skilful drunkard accomplishes a similar deed in spite of the obstacles put in his way by sundry legal penalties; and the grave and terrible fact is, that, in one way or another, this bad work goes on to the anguish of many and the grief of all the friends of mankind, the organised force of society lying idly by the while for want of right direction.

Earnest men have for long years been trying to alleviate one of the great afflictions of the world by bringing some adequate influence

to bear upon the practice of intemperance. Some rely upon education; others would restrict the sale of liquors. The sufficiency of the first proposal seems to be at once disproved by our own experience of the world, which clearly shows us that ignorant men are not the only drunkards, and that education is certainly of itself no safe-guard against intemperance of any kind. To restrict the sale of liquor by subjecting it generally to the collective influence of intelligent popular control is plainly to take a step in the right direction; but the question is, should intervention, to be effectual, extend to the individual as well as to the system? Should public authority be brought to bear directly upon the man whose slavery to a habit is dragging him down the slippery road to ruin? In presence of these great questions, so sure to be appreciated and looked at earnestly ere long, we regard with special interest the motion impending at the North Dublin Union Board, at the instance of Mr. Leger Erson, in reference to the propriety of erecting and maintaining at the national cost a Reformatory for the cure of drunkards who may be found and proved to stand in need of public supervision.

It is well and seemly that this question should be agitated by the Boards of Poor Law Gardians. They are endowed, by their proper functions towards the poor, with special competency for the conduct of this investigation. Among the very poor it is that drunkenness works greatest suffering, and there is scarcely a Poor Law Guardian or agent of relief—no matter in what country—who does not know that the indulgence of the passion for drink is the principal cause of avoidable want among the people. Drunkenness empties the home and fills the workhouse; and so there is a special fitness in any effort made by those who have the care of workhouses to stop the stream of misery at its source.

We have prisons for the criminal. Is he quite free from guilt who starves his wife and children to indulge his greedy appetite? Has society no word to say when a man who has contracted the most solemn obligations habitually fails to fulfil them? We have asylums for the insane. Is the man then sane whom no dictates of reason, no warnings of ruin, no voices of affection or of duty, can rescue from self-destruction? We have hospitals for the sick. Is the confirmed drunkard a healthy man, when his sensual cravings leave him no power to combat the tyrannical impulse to brutalise himself by drinking? Recent medical analyses show that the general effect of excessive drinking is to enlarge the globules of which the brain, the blood, the liver, and other organs are composed, so that those globules, as it were, stand open-mouthed, empty, athirst, inflamed, and most eager to be filled.

In America the questions touching sanity and health have been answered in the most practical way. The Asylums for Inebriates, which have for years been working in various parts of the United States, are conducted upon the central principle that a drunkard, from the insanity or the disease which drives him to excessive drinking, is a person unable to take care of himself, and, as such, to be restrained and duly treated for his unhealthy state of mind and body. The unfortunate dypsomaniac—for such he is considered to be—is withdrawn at once from all opportunities of indulgence, and put under the influence of a moderate and healthy course of life and of skilled advisers, who take every means of awakening him to the reckless folly of his ways, and of convincing him that his only hope is in a wholesome and continual self distrust of his power to indulge in partial drinking and again abstain from it at will. These Asylums have been so far successful that the record of their labour shows, with general uniformity, that two patients out of three have been completely cured of their craving after liquor, and some of the cases in which the most absolute success had been achieved were those of men whose awful slavery to this besotting vice had been long a grief and scandal. Of the institutions which have won such marked success in what would seem a most unpromising adventure, it is to be said that they are conducted by private individuals, and though to some extent maintained by voluntary subscriptions and subsidised from public funds, they generally receive the patient at his own request, or, at least, with his own consent, and he pays in return a certain settled charge for residence. Such a system does not touch the lower levels of society, in which some powerful reforming agency is most sadly needed, but we believe that a full development of the Asylum scheme is going on in the great communities of the West, and we find a recent writer hoping that it may be held a public duty to reform the intemperate as well as to relieve the starving, and even that "there "may one day be in every State an asylum for incurable drunkards, "wherein they will be permanently detained, and compelled to live "temperately, and earn their subsistence by suitable labour." In the presence of the great example of America, and in the face of its splendid work, a peculiar interest attaches to the proposal of Mr. Erson, which is, we understand, for the erection of a Reformatory to be sustained by a National Valuation Rate of about a penny to the pound. We cannot think that the economy of civilised life is complete where the most helpless and most wretched sort of men alive are left to run riot madly, and we feel quite confident that the cost of such a Reformatory as that designed by Mr. Erson would be saved out of the present cost of our great public institutions for the poor, insane, and criminal.

The Quebec Literary and Historical Society.

At the annual meeting of the above Society, held on the 11th ult., the following gentlemen were elected office-bearers for the present year:—

President—J. M. LeMoine.
Vice-Presidents—Wm. Marsden, M.A., M.D., Commander Ashe, H. S. Scott and W. J. Anderson, M.D.
Treasurer—T. H. Grant.
Librarian—Rev. Jas. Douglas.
Recording-Secretary—Cyrille Tessier.
Corresponding Secretary—Chas. Wilkie.
Council Secretary—W. Hossack.
Curator of the Museum—J. T. Belleau.
Curator of Apparatus—G. Thompson.
Additional members to Council—Mr. Faucher de St. Maurice, Rev. H. D. Powis, Messrs. Henry Fry and James Stevenson.

The following were elected Associate Members—Lt.-Col. Martindale, R E, Deputy Controller; J. F. Hossack, W. McLaren and J. F. Gibson.

REPORT OF THE CURATOR OF THE MUSEUM.

On taking charge, in January last, of the Natural History Department of this Society, it became the pleasant duty of the undersigned to allude to several valuable contributions recently made to the Museum.

In reviewing the incidents of that year, it also became necessary to express regret at this Institution not having been in a position to take advantage of the very liberal offer made by a learned Professor of Natural History from Lyons (France), to exchange with us for specimens of our *Fauna* some three hundred species of European birds, natives of the Alps, Pyrenees, Jura, and sea coast of France.

This gentleman had left in the possession of the undersigned these valuable specimens for purposes of exchange:—the Laval University Normal School,—several owners of private collections readily took advantage of this offer. It is, however, satisfactory to know that a great portion of these foreign birds now enrich the museums in Canada.

Should ever a similar opportunity occur, the Society, by means of the duplicates of specimen in skins, which the undersigned has made it his business to procure, will be in a position to effect exchanges.

Amongst the benefactors of the Society conspicuously shines the name of a Quebecer, now promoted to an important position in England—John W. Bligh, Esq., M. D., C. M., R. C. S. E., &c., who forwarded to one of our oldest members, W. Marsden, Esq., M. A., M. D., one of our vice-Presidents, several very handsome and rare birds from Australia and else-where. Thanks to him, Students of Natural History can now find in our collection, that famed wanderer of the great Deep, whose untimely end brought on the head of the "Ancient Mariner" such untold misfortunes. There stands before you, gentlemen, the albatross, whose extent of wing sometimes measures as much as ten feet.

The want of suitable glass cases to exhibit our rapidly increasing specimens, has been severely felt this summer—one or two large ones, which remained unprotected have been eaten by moths and insects, but before further damage was done, the undersigned, under the sanction of the Board, ordered the handsome large centre case, which members now see in the museum. This will afford what was indespensable,—space to exhibit and classify, and preserve large birds, animals and fishes. Though an expensive improvement, it was imperatively required, and no one, the undersigned believes, will be disposed to question its utility.

It is considered advisable to draw attention to the expediency of completing the collection of birds' eggs, which the Society began some years back. Oology is a science which, though of comparatively recent birth, is rapidly increasing in favor, in America as well as in Europe. It has a very practical application as an auxiliary to classify birds, especially the birds of prey, whose real history is yet so imperfectly known. The variety of plumage in the hawk family, caused in a great measure by climate or age, has been a source of endless perplexity to naturalists. Oology, by the inspection of the size, form, markings and colour of the eggs of birds, has frequently afforded a clue to these mysterious changes in plumage, by fixing the species.

Foremost amongst American oologists may be reckoned Dr. Thos. Brewer, of Boston, the publisher of a handsomely illustrated volume on Oology. This science is also a favorite one in New York, Philadelphia, Washington—every city in fact, where large collections exist. A tabular classification of Canadian birds, with their Latin and English names, has also been procured by the undersigned, who looks forward to extensive additions to the museum shortly. The study of Natural History, especially that department which treats of Ornithology, is particularly attractive and ennobling in its aim, making the mind familiar with some of the most lovely—and loveable portions of the creation. Its pursuit, in bringing its votaries amidst the green fields, majestic woods, or boundless prairies of this continent, is healthy and manly. Nor can we find a higher or more eloquent tribute, paid by an able naturalist to American birds, than the words of Wilson, who, though familiar in his youth with the birds of the old country, thus expatiates on those of America, the land of his adoption: "The Ornithology of the United States exhibits a rich display of the most splendid colors, from the green, silky, gold bespangled down of the minute humming bird, scarce three inches in extent, to the black, coppery wings of the gloomy condor, of sixteen feet, who sometimes visits our northern regions; a numerous and powerful band of songsters, that, for sweetness, variety and melody, are surpassed by no country on earth—an ever changing scene of migration from torrid to temperate, and from northern to southern regions, in quest of suitable season, food and climate, and such an amazing diversity in habit, economy, form, disposition and faculties, so uniformly hereditary in each species, and so completely adequate to their peculiar wants and conveniences, as to overwhelm us with astonishment at the power, wisdom, and beneficence of the Creator.

"In proportion as we become acqnainted with these particulars, our visits to, and residence in the country, become more and more agreeable. Formerly, on such occasions, we found ourselves in solitude, or, with respect to the feathered tribes, as it were in a strange country, where the manners, language, and faces of all were totally overlooked, or utterly unknown to us; now, we find ourselves among interesting and well known neighbours and acquantances, and in the notes of every songster recognize with satisfaction the voice of an old friend and companion. A study thus tending to multiply our enjoyments at so cheap a rate, and to lead us, by such pleasing gradations, to the contemplation of the Great First Cause, the Father and Preserver of all, can neither be idle nor useless, but is worthy of rational beings, and doubtless agreeable to the Deity."

What more could be said of this noble science, after the stirring appeal of Alexander Wilson?

J. M. LEMOINE.
Curator.

Current Exchanges and Books Received.

Circumstances over which we had no control prevented acknowledgement in our last issue of our usual exchanges.

Littell's Living Age, Nos. 1393 and 1394, for the weeks ending respectively February 11th and 18th, contain The Social Condition of England under Henry VIII, *Westminster Review;* On Progress, by James Anthony Froude, *Fraser's Magazine;* Seeing Lapland, *Chambers' Journal;* The Lessons of the Eclipse, *Saturday Review;* Mr. Carlyle on Verse, *Spectator;* The Malmesbury Papers, *British Quaterly Review;* Shearing in Riverina, New South Wales, *Cornhill Magazine;* Quarrelling, by the author of "Friends in Council," *Contemporary Review;* The So-called Latin Race, by Francis Lieber, *New York Evening Post;* General Schenck's Mission, *Economist;* The Dressmakers, *Good Words;* Everybody's Baby, *Saint Pauls;* the continuation of "Seed-Time and Harvest, or During My Apprenticeship," translated specially for the pages of this magazine from the *Platt Deutsch*, of the favorite German author, Fritz Reuter; besides shorter articles and poetry.

The Living Age is also publishing a story by George MacDonald, and promises to new subscribers for 1871, the last two numbers of 1870, containing the beginning of the story, *gratis*. A good time to subscribe.

The subscription price of this 64 page weekly magazine is $8 a year, (American currency) or for $10 any one of the American $4 magazines is sent with *The Living Age* for a year. LITTELL & GAY, Boston, Publishers.

The Rhode Island Schoolmaster, February, 1871.

The Western Educational Review, February, 1871.

The Journal of Education for the Province of Nova Scotia, February, 1871.

Appletons' Journal of Literature, Science and Art, March 4th, 1871.

The Pennsylvania School Journal, Organ of the State Teachers' Association and of the Department of Common Schools,—Honorable P. J. Wickersham, Editor, February, 1871.

The Maine Journal of Education, February, 1871.

The Minnesota Teacher and Journal of Education, Organ of the Department of Public Instruction and State Teachers' Association, February, 1871.

The National Teacher, a Monthly Educational Journal, February, 1871.

Ohio Educational Monthly, a Western School Journal, February, 1871.

The Manufacturer and Builder, March, 1871. Only $1.50 per annum. Send your subscription to Western & Co., 37 Park Row, N. Y.

The Northampton Educator, Bethlehem, Pa, February 18th, 1871.

Stewart's Quarterly, Vol. 4, No. 4, January, 1871. The contents are original and varied.

The Irish Teachers' Journal and Assistant, February, 1871.

Prang's Chromo, Boston, Christmas, 1870.

The Young Crusader, (Vol. 3, No. 2, February, 1871,) is a marvel of cheapness,—THIRTY-TWO pages a month for ONE DOLLAR a year.

New Dominion Monthly, February 1871.

Advertisers' Gazette, issued by Geo. P. Rowell and Co., No. 40 Park Row, N. Y., contains much information not to found elsewhere. Every advertiser should read it. Sample copies by mail for 25 cents.

Public School Journal, Vol. 1, No. 1, January 28th, 1871, published by Herrick & Coughlin, No. 382, Broome St. New York. TERMS: $2.50 per annum.

The Connecticut School Journal, January, 1871. This is the first number to hand since Sept., 1866. We would be glad to have the back numbers to bring our file up to date.

Our Dumb Animals, Vol. 3, No. 8, Boston, January, 1871. New Exchange,

The Californian Teacher, a Journal of School and Home Education. and Official Organ of the Department of Public Instruction, February, 1871.

Nineteenth Annual Session of the Lancaster County (Pa.,) Teachers' Institute. The contents of this pamplet Report are exceedingly interesting. We shall reproduce some of the Essays read before the Institute.

The National Normal, an Educational Monthly, edited and managed by R. H. Holbrooke, No. 117, W. Fourth St. Cincinnati, O., January, 1871.

Arkansas Journal of Education, Organ of the State Board of Education and of the Superintendent of Public Instruction, Vol. 11. No. 1. February, 1871.

Old and New, Vol. 3, No. 2. Boston: Roberts Brothers, 145 Washington Street and London. Sampson Low, Son and Marston, February, 1871.

The Christmas Locket, a Holiday number of Old and New.

Scribner's Monthly,, an Illustrated Magazine for the people, conducted by J. G. Holland.

The February issue of this Magazine contains *nineteen* articles (several of them illustrated) by such writers as Alice Cary, Hans Christian Andersen, Gail Hamilton, &c., &c., which is saying enough.

Happy Hours, devoted to News, Literature, Science Romance and Fashion, Art, Music and Poetry, Humour, Pastime and Drama, published at 164 and 166, Washington Street, Chicago, Illinois, February 4th, 1871.

Typographic Messenger, January, 1871.

Vick's Illustrated Catalogue and Floral Guide, 1871

The first edition of one hundred and fifty thousand copies of Vick's Illustrated Catalogue of seeds and floral guide is published and ready to be sent out—100 pages and an engraving of almost every desirable flower and vegetable. It is elegantly printed on fine tinted paper, illustrated with three hundred fine wood engravings and two beautiful colored plates. Sent free to all customers of 1870 as rapidly as possible, without application. Sent to all others who order them for TEN CENTS which is not half the cost. Address James Vick, Rochester, N. Y.

American Educational Monthly, a Magazine of Popular Instruction and Literature, February, 1871.

Trubner's American and Oriental Literary Record, a Monthly Register, Vol. VI, No. 4, December 31st, 1870.

Amerikanische Schul-Zeitung, Organ des deutsch-amerikanischen Gehrerbündes, February, 1871.

The Illinois Teacher, Devoted to Education, Science and Free Schools, February, 1871.

Sabin and Sons' American Bibliopolist, New-York, November and December Nos.

The School Festival, an original Magazine, devoted to School Festivals, Entertainments, Dialogues, Recitations, Readings, Tableaux, Charades, &c., conducted by Alfred L. Lewell, Editor of the Little Corporal, No. 9, Custom House Place, Chicago, Illinois, and published quarterly at (shall we say it?) 50 cts. per annum.

We have to thank Mr. Sewell for the four numbers (forming vol. 1.) of 1870, and number 1. for January, 1871.

This magazine having come to hand late in the month, we have not had time to do more than glance over its pages. From what we there saw, and bearing in mind the opinions of those who have had it before them since the appearance of its first number, we believe we can warmly recommend it to not only Teachers of Day Schools, but particularly to Conductors of Sunday Schools, and to heads of families, in which there are a number of brothers and sisters. The Editor states that the "Festival" aims to supply the great demand for "something for the children to speak" in Day and Sunday Schools. For the latter it has varied and interesting concert articles, all eminently scriptural."

Our thanks are due the following:—

The Superintendent of the Public Schools of the City of Adrian, Mich.,

for a copy of his *Lecture*, entitled "The Relation between the University and our High Schools," delivered before the State Teachers' Association at Ypsilanti, December 27th, 1870.

Honorable Thomas Smith, Superintendent of Public Instruction for the State of Arkansas, for a copy of his Biennial Report, for the year ending Sept. 30th, 1870;

Hon. S. S. Ashley, Superintendent of Public Instruction for the State of North Carolina, for a copy of his *Third Annual Report*, 1870;

Hon. B C. Hobbs, Superintendent of Public Instruction, Indiana, for a copy of his *Eighteenth Report*, being the fifth Biennial Report for the years ending August 31, 1869 and Aug. 31, 1870;

Hon. P. J. Wickersham, Superintendent of Common Schools of the Commonwealth of Pennsylvania, for a copy of his *Annual Report* for the year ending June 6, 1870.

Gen. John Eaton, Jun., Commissioner of Education, Washington, for a copy of his Report for the year 7870, with accompanying papers.

We intend to devote some time to the study of these Reports and give the result to our readers.

MISCELLANY.

Education.

—*Popular Art-Education.*—The Legislature of Massachusetts at its late session passed a law which is destined to produce great results in education:

"Sec. 2.—Any city or any town may, and every city and town having more than ten thousand inhabitants shall, annually, make provision for giving free instruction in Industrial or Mechanical Drawing to persons over fifteen years of age, either in day or evening schools, under the direction of the school Committee."

The first step has been taken under this law in Boston. Arrangements have been made by which six hundred teachers in the employ of the city shall have art instruction, to enable them to give instruction in their respective classes; and hereafter, some knowledge of drawing will be required of all who apply for teachers' situations.

The effect of music in common-schools is social and moral. Its educatory influence upon the intellect is relatively small. But drawing carried through one or two generations of youth, will almost transform the mental habits of the people. It must lead to sharpness and accuracy of observation, to precision of hand, to a minute knowledge of things as they are, which now seldom exists. Most men see only the general. Eyes have they, but they see not. The power, too, of expressing our perceptions by the hand, will make the hand the tongue of the eye. The effect upon manufactures, especially such as depend in any measure upon the arts of design, will be very great. Thus, step by step, New England leads in education. Already first in literature, and in music, she is preparing to make her schools a seed-bed of great Artists.—*Christian Union.*

—*A New Female College.* The will of Mr. John Simmons, a citizen of Boston, lately deceased, contains a bequest for founding and establishing in that city "An institution to be called the Simmons Female College for the teaching of medicine, music, drawing, designing, telegraphing and other branches of art, science and industry, best calculated to enable scholars to acquire an independent livelihood." The whole endowment amounts to one million four hundred thousand dollars.—*Massachusetts Teacher.*

—*Worcester.*—Hon. Stephen Salisbury, of Worcester, has recently given $50,000 in cash, and two and three-quarters acres of land, to the Worcester County Free Institute of Industrial Science. This gift makes the sum of his benefaction to the Institute $150,000.

—*Irish Schools.*—The annual Report of the Commissioners of National Education in Ireland records continued progress in the numbers of children attending the schools as well as in the aggregate number upon the rolls.

—*The Education Act* (England) has been printed in greater numbers than any previous Act of Parliament. More than 20,000 copies have been sold over the Messrs. Spottiswoode's counter, irrespective of wholesale orders from all parts of the country.

—*School Attendance.*—In Birmingham, (England) with a population of 360,000, of which 83,003 are children varying in age between 3 and 13 years, only 16,000 children frequent inspected schools, and 10,000 non-inspected schools. In Leeds, with a population of a quarter of a million, only 12,000 children were educated at inspected schools, and 7,000 at other schools, out of 58,000 of a scholarly age. In Manchester out of 60,000 children, 25,000 were scholars at inspected schools. In Liverpool, the number was 30,000 out of 90,000. These facts were arrived at quite recently.

—*Gratitude.*—In 1811, George Bancroft was a student at Philips Academy, Exeter, N. H., and recently he sent the Trustees *two thousand dollars* for a scholarship, with a letter in which he said: "A school-boy is forgotten in the places of his haunts, but for himself he can never forget them."

—*Vassar College* has a fund of $50,000 whose interest is appropriated to indigent students. The names of those who receive its help are never disclosed, so that the fund may not involve any peculiarity in their relations to the other pupils.

—*Mr. Horace Fairbanks*, of St. Johnsbury, Vt., has completed a library building, at a cost of $50,000, and has presented it to the town for public use. He has fitted up the large Hall of the building for public lectures.

—*Glasgow University.*—The new buildings of this institution were opened on the 7th ult. The Duke of Montrose, Chancellor, presided; and among those present were the Marquis of Bute, the Lord Justice-General, Mr. Gordon, M.P.; Sir Edward Colebrooke, M.P.; and Mr. A. Orr-Ewing, M.P. The Duke of Montrose congratulated the Principal and Professors upon the success which had attended their efforts and that they had lived to see the opening day of the new University. Professor Lushington delivered an address specially prepared for the occasion; and Mr. A. Orr-Ewing, M.P., stated that from subscriptions and from Government, £261,000 had been obtained, and £117,000 had been received for the ground upon which the old college stood Everything in connection with the new building was paid. There was still however, required the sum of £350 for an hospital, and £640 for a college hall. Of the £150,000 in public subscriptions, Glasgow had given nearly all. The University was declared open. In the evening the event was celebrated by a public banquet, at which the Principal and Professors were entertained by the Lord Provost and a number of subscribers to the University buildings. The banquet took place in the Corporation Galleries. Covers were laid for about 200 gentlemen, and the chair was occupied by the Lord Provost of Glasgow.

—*Mr. Vere Foster* has forwarded the result of his prize scheme for good penmanship, from which it appears there were upwards of 600 candidates from every county in Ireland, and from many places in England and Wales. The prizes have ultimately been awarded as follows:—First prize, £10 stg.—Miss McCallum (Omagh), Private School; second prize, £6,—Miss Bradish, Monitress, National Model School, Cork; third prize, £4,—Mr. Wightman, Assistant Teacher, National Model School, Belfast.

Literature.

—"*Highland Cousins.*"—A great deal has been written of late about the ancestors of Lord Lorne, and the Princess Louise. We (*Court Journal*), have not, however, seen any notice taken of one who was not only a citizen of Glasgow, but a common ancestor of both, viz., John Stuart, Earl of Lennox, who died about 370 years ago. He had his country residence at Crookstoun Castle, in Renfrewshire, and his town residence in the High-street of Glasgow. The exact site of the house cannot be pointed out, but the city records show that his garden or orchard now forms part of the Glasgow Gasworks. He married Margaret Montgomerie, a daughter of Lord Eglinton, and had nine children. Matthew, the eldest, is now represented (through Henry Lord Darnley) by Her Majesty; Robert is represented by the Earl of Darnley; William died unmarried; John is represented by a person in the humble ranks of life; and Allan by Lord Blantyre; Elizabeth, the eldest daughter, (married the Earl of Argyle) is represented by the Duke of Argyle; Marion (married Lord Crichton) is represented by the Marquis of Bute; Janet (married Lord Ross) is represented by the Earl of Glasgow; and Margaret(married Colquhoun of Lusse) is represented by Sir James Colquhoun. It would thus appear that Lord Lorne and the Princess Louise are not only descended from a Glasgow citizen, but are what people north of the Tweed call Highland Cousins.

—*Newspapers and Periodicals.*—We learn from the *Canadian Dominion Directory*, that on the 1st of January, 1871, there were 446 publications issued in the Dominion of Canada and the Pro-

vinces of Newfoundland and Prince Edward Island, divided as follows :—

	Ontario.	Quebec.	Nova Scotia.	New Brunswick.	Newfoundland.	P. E. Island.
Daily	24	12	3	3	1	0
Tri-weekly	2	11	6	2	2	0
Semi-weekly	1	8	0	1	5	1
Weekly	195	51	23	24	5	7
Semi Monthly	6	3	0	0	2	1
Monthly	25	11	5	3	0	0
Quarterly	1	0	0	1	0	0
Annually	1	0	0	0	0	0
Total	255	96	37	34	15	9

—*Mrs. James Hogg*, the widow of the Ettrick Shepherd, died on the 15 Nov. last, says the *Scotsman*, at the age of eighty-one, at Linlithgow, where she had long lived in seclusion. Miss Elizabeth Philipps was married to the poet in 1814, and, until his death, presided with mind, grace and amiability over his hospitable home. It was her fate to survive her husband thirty-five years.

—*Mrs. Peterson.*—The death is announced of Mrs. Peterson, whose loss willl be regretted on both sides of the Atlantic. Born in 1811, Hannah M. Bouvier was the daughter of John Bouvier, Recorder of Philadelphia and Judge of the Court of General Sessions. She married Robert E. Peterson, partner in the great publishing house of Childs and Peterson. Mrs. Peterson was an able writer, of highly cultivated education and scientific taste.

—*The late Professor Conington's* library was sold at Oxford in the week (ending 12th Nov.) It consisted of about 3000 volumes of classical and modern literature.

—*Good Language*,.—We would advise all young people to acquire, in early life, the habit of correct speaking and writing, and to abandon as early as possible any use of slang-word phrases. The longer you live, the more difficult the acquirement of correct language will be, and if the golden age of youth, the proper season for the acquisition of language, be passed in its abuse, the unfortunate victim, if neglected, is very probably doomed to talk slang for life. A man has merely to use the language he reads, instead of the slang which he hears ; to form his tates from the best speakers and poets in the country ; to treasure up choice phrases in his memory, and habituate himself to their use ; avoiding at the same time that pedantic precision and bombast which shows the weakness of vain ambition rather than the polish of an educated mind.

Science.

— *The Sun's Corona.* — Mr. Procter has contributed to the last number of the *Popular Science Review* an able article to show that the sun's corona, seen during eclipses, is neither due to the illumination of the moon's atmosphere, as supposed by Halley, nor to the passage of the sun's rays through our own atmosphere, as has since been maintained by some persons; but is a real solar appendage, consisting of a circular mass of matter of some kind, which may be made up of groups of solid or liquid bodies mixed with masses of vapour, and all travelling round the sun. The researches of Leverrier, respecting the motions of the planet Mercury show that there must be a zone or belt of asteroids, or other similar bodies, revolving between Mercury and the sun, and the existence of such bodies would produce the very appearances exhibited by the crown during eclipses. Then the meteor systems, of which the earth encounters more than one hundred, must be very numerous, as also the comets, in the train of which such meteors are usually found ; and these bodies, illuminated and intensely heated by the sun as they come near him, will constitute independent sources of light such as are exhibited in the corona. The zodiacal light—demonstrably not a terrestrial phenomenon, since it rises and sets with the celestial bodies as the earth rotates—would be produced by the matter which is supposed to be the cause of the corona, and Mr. Baxendale has lately been led to infer, from observed meteorological and magnetic changes on the earth, that a zone, disc, or ring of matter, must surround the sun, extending to a distance closely corresponding to that assigned by Leverrier to the family of planets. On the whole the balance of evidence is clearly in favour of the view that the corona of the sun is not an optical phenomenon, but is the result of a thick aggregation of asteroidal or meteoric bodies revolving round the sun, the reflected light of which can only be distinctly seen when the sun is shaded during an eclipse.

—*Writing Ink.*—According to R. Bottger, a very good copying ink can be prepared as follows : Pulverize 30 grammes of extract of Campeachy wood and 8 grammes of crystallized carbonate of soda, and pour on 250 cubic centimeters of distilled water, and boil until the liquid has assumed a deep red colour, and the extract is fully dissolved. Then remove the vessel from the fire, and add, with constant stirring, 30 grammes of glycerine of specific gravity of 1.25, and also 1 gramme of the yellow chromate of potash, previously dissolved in a little water, and 8 grammes of finely pulverised gum-arabic, also previously moistened with water, and the ink will then be ready for use. This preparation will keep indefinitely in well-stoppered bottles, and there is nothing in it to attack the pens. Manuscripts can be copied by it without the aid of the press, by simply moistening the paper and using an iron knife or the thumb nail. The carbonate of soda prevents the gelatinizing of the ink, and the glycerine is a substitute for the sugar formerly employed.

—*Phosphoric Acid.*—Very weak phosphoric acid is a strong poison for all kinds of insects, and yet helps plants, by adding to the soluble phosphates in the soil, and can do them no harm. Extensive use of it is predicted in Agriculture.

—*Heating Apparatus.*—Experiments have been made at the Hotel-Dieu Hospital, Paris, of an electrical heating apparatus, the trial of which has been so successful that it is proposed to warm all the other hospitals of Paris with it, instead of coal.

—*Geological Survey.*—It is believed that Sir Roderick Murchison will shortly resign his office of Director-General of the Geological Survey, which he has held since he succeeded Sir Henry de la Beche in 1855.

—*The American Microscopical Society.*—At the last annual meeting of the American Microscopical Society the following officers were elected :—President, Dr. J. H. Hinton ; 1st Vice-President, Mr. Robert Dinwiddie ; 2nd Vice-President, Mr. T. F. Harrison ; Corresponding Secretary, Dr. S. G. Perry ; Recording Secretary, Dr. J. S. Latimer ; Treasurer, Mr. E. C. Bogert ; Librarian, Dr. John Frey ; Curator, Mr. S. Jackson. Committee on nominations :—Dr. D. H. Goodwillie, Mr. R. A Withans and Mr. J. W- S. Arnold.

—*A New American Natural History and Microscopical Society.*—There has just been started in the city of Baltimore a society of fifty members, called the "Maryland Academy of Sciences." It is intended to pay special attention to microscopy.

The following is a list of the officers, which may be useful to those societies who desire to correspond with the New Academy :— Philip T. Tyson, President ; John S. Morris, Vice-President ; Edwin A. Dalrymple D.D., Corresponding Secretary.

—*Another New Dye.*—The aniline dyes, it seems, have now a rival which not only vies with them in brilliancy and variety, but is of a less fleeting character. The new colouring matter, according to the *Mechanic's Magazine*, is a purely vegetable extract, the plant from which it is obtained being imported from the Western part of Africa, and also from the West Indies. The colouring matter is variously treated, according to the colours required and the dyes to be prepared from it. The process of production is carried on with machinery of a special character, which have been designed by the patentees, Messrs. Walker & Co., for this manufacture.—*Builder.*

—*Chemical Analysis of a Sample of Extract of Meat.*—An analysis of extract of meat by Herr Reichardt is given in *Eingler's Polytecknisches Journal.* The sample was prepared by a private firm, and yielded, on analysis, the following results :—Portion soluble in alcohol (of 83 per cent strength), 80.76 per cent ; water 10 per cent ; fatty matter, 0.2 per cent ; nitrogen, 9.99 per cent ; ash, 21.36 per cent (containing potassa, 9 per cent) ; soda, 2.3 per cent ; phosphoric acid, 6.1 per cent. These results as compared with Liebeg's and the Fra Bentos extracts, are stated by the author to be in favour of the extract tested by him for MM Buschenthal & Co.—*Canadian Naturalist.*

Art.

—*Society of Arts, England.*—Lord Henry Lennox, M.P., presided on Wednesday (16th Nov.) at the opening meeting of the session of the Society of Arts, and delivered an address, in which he surveyed the principal social topics of the day. He said the Council intended to renew their efforts to establish a national training school for the cultivation of music among all classes of the people.

It was matter of congratulation that Parliament had at length voted a sum of money for the construction of a suitable building for

the accommodation of our splendid collection of natural history. With regard to the recent changes at the Post-Office, he said it was generally felt that what had been given with one hand was taken away with the other. The Post-Office authorities must not deceive themselves, but must realise the fact that the question of inland sample and parcel post must yet be revised in a more liberal spirit, and be placed on a broader and more satisfactory basis. The society would agitate for the removal of the present arbitrary distinctions and the establishment of a parcels post, by which a uniform rate of ½d would be charged for every 4 oz. and under, or 2d. a pound for everything up to a specified limit. In conclusion the noble Lord said he had received a telegram from the Prince of Wales desiring him to assure the Society that, like his father, he took a deep interest in everything they took in hand, and his most earnest hope that all their efforts might be brought to an early and successful close; and His Royal Highness begged the Society of Arts to rely on him in every way, that on every occasion, by presence and co-operation, he had determined to help them in promoting to a successful issue that great council of peace which was to be held in the midst of war.

—*Mr. Alexander Munro*, the sculptor, who had been for a long time in bad health, died at Cannes on the 1st, ult.

—*Bust of the late Earl Derby.*—A bust of the late Earl of Derby, executed by Noble, was recently unveiled in Guildhall, London. One of Lord Brougham will shortly be added to the collection.

—*M. P. Schendel*, the popular painter of moonlight and misty scenes, fish markets and the like, died on the 29th Dec. last at the age of sixty-four.

—*International Exhibition.*—The following noblemen and gentlemen have consented to act as judges to select paintings for the forthcoming International Exhibition of 1871: Viscount Bury, M.P.; Lord Elcho, M.P.; Sir Coutts Lindsay, Bart.; Alfred Elmore, Esq., R.A.. (representing the Royal Academy); Alfred Clint, Esq., (representing the Society of Painters in Water Colours); Henry Warren, Esq., (representing the Institute of Painters in Water Colours; F. Dillon, Esq., H. S. Marks, Esq.

—Mr. Frost, the new Academician, and Mr. Burne Jones, who lately seceded from the Old Water Colour Society, have joined the Committee of the Dudley Gallery.

—*Mr. Yvon*, the French painter of battle-scenes, has determined to take up his residence in England. He says there will be no demand for Art in France for many a year to come.

Meteorology.

—Observations taken at Halifax, Nova Scotia, during the month of January, 1870; Lat. 44°39' North; Long, 63°36' West; height above the Sea 175 feet; by Sergt. John Thurling, A. H. Corps.

Barometer, highest reading on the 19th	30.548 inches
,, lowest ,, ,, 22nd	29 120.
,, range of pressure	1.428
,, mean for month (reduced to 32°)	29.906
Thermometer, highest in shade was on 6th	51.2 degrees
,, lowest ,, ,, 26th	13.6
,, range in month	64.8
,, mean of highest	32.3
,, mean of lowest	13 4
,, mean daily range	18 9
,, mean for month	22.8
,, highest reading in sun's rays	92.0
Hygrometer, mean of dry bulb	24.3
,, ,, wetbulb	23 2
,, ,, dew point	16.7
,, elasticforce of vapour	.093
,, weight of vapour in a cubic foot of air	1.1 grains.
,, ,, required to saturate do	0.4
,, the figure of humidity (Sat. 100)	71
,, average weight of a cubic foot of air	573.7
Cloud, mean amount of, (0-10)	8.3
Ozone, ,, ,, (0-10)	3.5
Wind, mean direction of North	4.50 days.
,, ,, ,, East	1.50
,, ,, ,, South	10.00
,, ,, ,, West	15.00
,, daily horizontal movement	Anem. broken.
,, daily force	2.1
Rain. No. of days it fell	6
Snow	11
Amount of rain and melted snow collected	2.50 inches.

From the Records of the Montreal Observatory, Lat. 45° 31 North; Long. 4h. 54m. 11 sec. West of Greenwich; height above the level of the sea 182 feet; For the month of January, 1871, By CHARLES SMALLWOOD, M.D., LL.D., D.C.L.

DAYS.	Barometer at 32°			Temperature of the Air.			Direction of Wind.			Miles in 24 hours.
	7 a.m.	2 p.m.	9 p.m.	7 a.m.	2 p.m.	9 p.m.	7 a.m.	2 p.m.	9 p.m.	
1	29.951	29.998	30.150	17.4	22.3	13.2	W	N N E	W	74.12
2	.601	.464	29.618	19 0	38.2	22 1	S W	W	W	80.00
3	.911	.718	.876	5 8	24.3	10.4	W	W	W	112.16
4	30.211	30.244	30 275	-8.4	1.9	-2.0	W	N E	N E	204.24
5	29 901	29.674	29 560	-6.2	8 2	15.6	N E	N by E	N E	117.11
6	.601	.742	.861	32.3	34.2	27.1	S W	W S W	W	78.91
7	30.200	30.246	30.251	-6.2	13.2	-2 0	W	W	W	94.22
8	.212	.201	.042	-8.3	2.9	-5.0	N E	N E	N E	124.12
9	.349	.402	.400	-12.6	8.0	-5.2	N N E	N N E	N N E	91.10
01	.547	.411	.152	-12 8	10.2	-1.0	N N E	N N E	N N E	81.24
11	.062	.061	.201	7.0	7 8	11.0	N N E	N N E	N E	57.24
12	.300	.352	.446	19 1	20.2	24 1	N E	N E	N E	101.18
13	.411	.401	.362	28.6	40.1	40.1	N E	N E	N E	66.14
14	.441	.562	.650	40.0	33 6	21.0	N E	N E	N E	57.10
15	.324	.114	29 951	17.0	30.4	33.2	N E	N E	N E	221.14
16	29.878	29.914	30.031	30.0	29 1	22.0	N E	N E	N E	197.10
17	30.052	30.126	.201	7.6	19.6	12.0	W	W by N	W by N	114.20
18	.425	.624	.734	7.7	19.6	4.1	N E	N E	N E	247 25
19	.776	.624	.560	-9.4	10.8	0.0	N E	N E	N E	101.10
20	.296	.127	.051	5.1	27.4	29 2	N E	N E	N E	94 00
21	29.882	29.724	29 675	29.0	30.2	27.9	S W	S W	S W	81.12
22	.721	.894	30 095	7.4	1.0	-13.1	N E	N N W	N N W	74.20
23	30.300	30.401	.499	-23.2	-7.2	-21.9	N N W	N N W	N N W	211.10
24	.150	.151	.341	-25.4	13.4	-9 0	N E	N E	N E	204.12
25	.500	652	.951	-12.1	3.3	-12.4	N E	N E	N E	198.14
26	.782	.794	.350	-22.0	-14 0	-12.4	N E	N E	N E	101.14
27	29.850	29.849	.101	-6.6	14.0	4.2	W	W	W	104.00
28	30 251	30.254	.251	-3.1	8.0	-1.0	N E	N E	N E	97.10
29	.000	29.979	29 974	1 1	14 3	21 2	N E	N E	N E	82 10
30	.201	30.173	30.150	20.1	25 0	14.7	N E	N E	N E	66.20
31	29.824	29.521	29 475	19.0	30.1	33 0	N E	N E	S W	54.10

The highest reading of the Barometer was at 10.30 p.m. on the 25th day, and attained 30.985 inches; the lowest was on the 31st day, and was 29.475 inches.

The highest temperature was on the 13th day, and was 40° 1 degrees; the lowest was on the 24th day, and was -26° 8 below zero. The mean for the month was 11.04. which is 3 degrees lower than the *Isotherm* for Montreal.

Rain fell on five days, amounting to 0.427 inches. Snow fell on twelve days, amounting to 16.53 inches.

DEPARTMENTAL NOTICE.

Secretary-Treasurers of School Municipalities will please bear in mind that they are required to sign and return, to the Department of Education, not only *one*, but *both*, of the blank forms of receipt always accompanying official cheques.

LOUIS GIARD,
Secretary.

PRINTED BY EUSÈBE SENÉCAL, MONTREAL.