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The Canada School Journal.

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CANADA SCHOOL JOURNAL HAS RECEIVED

*An Honorable Mention at Paris Exhibition, 1878.
Recommended by the Minister of Education for Ontario.
Recommended by the Council of Public Instruction, Quebec.
Recommended by Chief Superintendent of Education, New Brunswick.
Recommended by Chief Superintendent of Education, Nova Scotia.
Recommended by Chief Superintendent of Education, British Columbia.
Recommended by Chief Superintendent of Education, Manitoba.*

The Publishers frequently receive letters from their friends complaining of the non-receipt of the JOURNAL. In explanation they would state, as subscriptions are necessarily payable in advance, the mailing clerks have instructions to discontinue the paper when a subscription expires. The clerks are, of course unable to make any distinction in a list containing names from all parts of the United States and Canada.

THE PROFESSIONAL QUALIFICATIONS OF HIGH SCHOOL MASTERS.

The Education Department of this Province insists, and rightly so, on as thorough a professional training as the circumstances will admit of in the case of public school teachers. Each candidate is required to spend a certain time in a county model school before he is licensed to teach at all, and then he is required to show that he has taught successfully for a still longer time before he can rise from a lower to a higher grade. The average time occupied by public school teachers in obtaining first-class certificates is probably not less than ten years, and when they have reached this rank they are still far from being in as good a position on the average as head masters of high schools. This is true of even the fortunate few amongst public school teachers who are head masters of central schools in towns and cities, and who succeed in becoming inspectors of school districts.

The intending high school master, on the other hand, who is a graduate of a university, is allowed to commence work as an assistant without any professional training, however youthful or inexperienced he may be, and after a very brief experience as an assistant he is allowed to take charge of a school. Matters are in this respect not so unfairly arranged as they once were, but something more should be required than is at present required, by way of professional qualification, from those proposing to take charge of high schools. Mere scholastic attainments are not enough—are not even the most important matter to be considered in the selection of a schoolmaster of any grade in the profession.

It is often easier to discern a defect than to point out the best remedy, but one way of minimizing it would be the establishment of a chair of education in connection with University College. A movement is now on foot to reorganize to some extent the staff of that institution, and we would like to see

both the authorities of the College and the Minister of Education make an effort to secure the creation of such a department of academical work. But even if nothing of the kind is undertaken it would still be open to the Education Department to exact a longer probation from graduates before they are allowed to become head masters. In many instances the position of head master of a high school means the placing of all the public school masters in the same place in a relation of subordination, and to able and experienced teachers this is a positive injustice when the high school master is an inexperienced youth however thoroughly he may be acquainted with literature, science, or philosophy. A change in the direction indicated would be beneficial alike to the schools and the profession, while it would tend to keep out of the latter many who now enter it for the purpose of making it a stepping-stone to something more congenial or more profitable.

TOWNSHIP INSTITUTES.

At the last meeting of the Wentworth Teachers' Association, Mr. J. H. Smith, the inspector for the county, obtained the sanction of the convention for the adoption of a plan which, if properly worked out, should be productive of great benefit to the teachers in rural schools. His proposal is to ask all the teachers of a township to spend one day together in one of the schools of that township in company with himself, and engage by turns in the actual work of conducting classes in various subjects. None of the time will be taken up in the kind of work usually done at district conventions, such as the discussion of methods. The work is to be entirely practical and the best methods, when thus illustrated, will become models for those teachers whose experience has not been varied or whose opportunities for acquiring professional training have been limited.

Mr. Smith proposes to go through all the townships of his district in succession and to do this at least once a year. His plan is not a new one, but it has not been very often attempted in so systematic a manner as he contemplates, and the result of his experiment will be watched with some interest. It will be strange indeed if some of the teachers do not benefit by it. Those who have had only a model school professional training will have opportunities of making observations from a more advanced point of view than the one they occupied before commencing to teach. What little experience they have had will enable them to gain more useful lessons in teaching in one day than they formerly learned in a month, and even skilled teachers will profit by observing each others' methods. No class of workmen are more in danger of running in grooves than teachers, and the township institute, conducted as Mr. Smith proposes to conduct his, would be the most effective means of preventing this.

TEACHERS' INSTITUTE PROGRAMMES.

One of the practical difficulties in connection with teachers' institutes is the backwardness of those present in taking part in the proceedings. Many a good programme has been spoiled and many a meeting made a partial failure by the want of variety due to this cause. It is not enough that the subjects selected for treatment should be numerous and that they should be entrusted to those who have the ability to handle them in a masterly and interesting way. Indeed those who prepare programmes err more frequently by making them cover too much ground than by including too little. What is wanted in the case of associations, which are permanent organizations, is that more teachers should come prepared to take part in the discussion of practical questions, and that the views of those who prepare papers should be thoroughly and intelligently criticised by a large proportion of those who have heard them read.

As associations meet half-yearly there is no reason why at each meeting the programme should include more than a few topics except the difficulty of filling up the time. It would be much better to limit the number and allow more time to each if there were more readiness on the part of members to contribute. In order to secure this it would be well to appoint several persons to criticise freely each paper or discuss the subject of which it treats. We have before us the programme of an institute held recently in North Wellington which contains some features that might be advantageously copied in other districts. One of these is that while the subjects are given in regular order on the programme no special division or length of time is set apart for any particular one and it is not even stated on which day it will be taken up. This method has the advantage of leaving it uncertain when any subject in which a teacher may be interested will come before the convention, and its tendency will be to secure a better attendance at the meetings; and it has the further advantage of leaving the programme more flexible and therefore less liable to derangement from the unforeseen absence of persons appointed to prepare papers.

Another feature is the appointment of critics under each topical head on the programme. For example, one of the topics is the "Science of Education," to be discussed by the introducer and four critics; another is the "Characteristics of a Good Teacher," to be discussed by the introducer and three critics; and so on through the list. The idea is a good one and we commend it as such to the officers of associations everywhere.

OSCAR WILDE.

This now celebrated apostle of "aestheticism" has come and gone, has been interviewed and feted, and has lectured and made his observations. He has left behind him, as we expected he would, an impression on the whole rather favorable to him. He is a man of excellent physique and of good intellectual powers, with youth on his side and the advantage of a good training. He has also the merit of being on the right track though much of the mannerism of himself and his school is

calculated to bring both them and their movement into ridicule. All who have any taste or sense of the beautiful will readily admit that, other things being equal, an object should be handsome rather than ugly. It is better, if the cost and durability of a carpet are not affected, to have it made with harmonized colours and a graceful pattern than to have it florid or mottled in appearance. In substance this is Oscar Wilde's contention, but it is too much to expect those who go with him so far to go into ecstasies over blue china or sunflowers. To do him justice he does not bring with him the worst exaggerations of his school and it is to be hoped that his American tour will help him to get rid of some minor ludicrous eccentricities of thought and manner.

The least defensible point in Oscar Wilde's position is his somewhat egotistical assumption that he and his immediate associates are entitled to the chief credit of the movement in favour of a higher kind of art decoration. The movement is really much older than Mr. Wilde himself, and the man to whom, more than to any other, the chief credit is due is the poet, Wm. Morris. But, indeed, there have been many participators in the good work, and much has been effected in the same connection by successive international exhibitions and by the establishment of such institutions for art education as the celebrated one in South Kensington. Men like Ruskin and Hammerton have, by their writings, done much to modify the views of the English speaking world on art in its relation to daily life, and if Oscar Wilde fancies that the inspiration which he has apparently caught from them and other masters is a mere scintillation of his own genius he is committing after all no greater blunder than we see committed by mediocre people every day around us.

VICTORIA COLLEGE.

The proceedings connected with the usual "Commencement" of Victoria University were this year of more than ordinary interest, owing partly to the death of the man who may be said to have been the founder of Victoria College as he was of our Public School system, and partly to the success attending the movement to increase the College staff. As a fitting memorial of the late Dr. Ryerson it has been resolved to endow a chair of "Moral Philosophy and Christian Evidences" to be called by his name. The amount required is \$35,000 and with comparatively little effort some \$15,000 of that sum has been secured. There is little doubt of the final success of the attempt and in all probability it will be found practicable to increase the amount. The endowment of a chair of Chemistry by Mr. Moore is one of those acts of private munificence which are still too much like "angels' visits" in Canada. Wealthy men are still too much disposed to make their donations to colleges in the form of bequests instead of enjoying the satisfaction of seeing their money disposed of according to their own intentions in their lifetime. If there were a few more public-spirited men in the country like Mr. Moore of Hamilton, Mr. McMaster of Toronto, or Mr. Redpath of Montreal our higher institutions of learning would be in a position to do let-

ter work, and those who manage them would be freed from many embarrassing anxieties.

With Dr. Nelles' and Dr. Young's protest against the consolidation of teaching colleges every sensible man will be in entire accord. No one college could be made adequate in all respects to meet the wants of such a country as ours and if all existing colleges were consolidated into one, people who did not like that one would soon start another in accord with their own ideal. The great end to be aimed at after all is culture in the better sense of that term, and the best way to diffuse culture is to allow full play to all agencies which by any motive can be enlisted in the work. Whatever may be said in favour of having only one body to confer degrees there is no standing ground whatever for the contention that there should be only one college to do the teaching. The various colleges in Canada are doing a good work each in its own way and the great matter for regret is that they are not all in a position to do it better.

DALHOUSIE COLLEGE.

This now venerable institution does not show, with advancing years, any falling off in vigour or capacity for usefulness. On the contrary it, like some other Canadian colleges, seems to have obtained a new lease of life and to be in a better position than ever to do the work it was brought into existence to do. Mr. Munro, the well known "Seaside" publisher has by his liberality to his *Alma Mater* done much to put her on a better financial footing and it is to be hoped that other distinguished *alumni* of this and other colleges will follow the noble example he has set. Whatever objections may fairly be urged against state-supported institutions for higher education there can be no objection to wealthy citizens taking the common sense course of seeing their money spent in this way during their own lifetime, instead of leaving it to endow colleges after they are dead.

All truly liberal educationists will welcome the sentiments so admirably expressed by Dr. Allison, when he discussed the question of college courses of study. We are in the habit in these modern days of applying the term "mediæval" to anything antiquated by way of reproach; but in this use of the word we do a very great injustice to the Middle Ages in so far at least as higher education is concerned. In those days both sexes were freely admitted to halls of learning and the college curriculums represented the most advanced thought and knowledge of the time. Is this the case now? Certainly not in Ontario at all events when the faculty of a leading college persist in refusing admission to women, and protest against the creation of a chair of political economy lest it might injure the institution by the incidental teaching of party politics. If state support for a college means necessarily a fettering process of this kind then it is easy to predict early and triumphant success for those voluntary institutions which are not afraid of the breezes or even the storms of public opinion. The tree which is sheltered is never deeply rooted.

MCGILL UNIVERSITY.

Like the other colleges of Canada McGill, as will be seen by a reference to the closing proceedings elsewhere, is much in need of funds, and Dr. Dawson seems to be equal to the occasion. He has hosts of warm and wealthy friends who have already done much to place McGill College in the very foremost rank of institutions of learning in America, and who will probably respond still more liberally than they have yet done to the appeals addressed to them. The many friends of McGill will be glad to hear of Dr. Dawson's success in overcoming all the difficulties which at present lie in his way.

GAGE'S NEW CANADIAN READERS.

References to what appears in the columns of the *Canada Educational Monthly* are, as our readers know, extremely scarce in the CANADA SCHOOL JOURNAL, but the gross misrepresentations contained in a recent editorial notice of the above series of school readers have induced us for once to act on the truth that occasionally forbearance ceases to be a virtue. The article in question refers to so many passages in the readers, that we have no intention of taking them up in detail. Instead of doing so we select one or two of the *Monthly's* statements about one of the books and lay before our readers the text of the passages which have been misrepresented and misquoted. The passages referred to are to be found in the Fifth Book, not in the Fourth, as the critic in his careless haste states. For convenience we place the extracts in parallel columns:—

Educational Monthly.

We are told * * * * that the Indians of Manitoba, representing the different tribes of Half-breeds, Icelanders, French, English, Irish, Scotch, and Mexicans, jostle one another in the streets of Winnipeg! On the same page we learn that the stone with which the brick buildings are faced, contains all the modern improvements!

Fifth Reader, p. 372.

The small wooden buildings which the principal merchants found large enough for the business of six or eight years ago, are being everywhere replaced by fine brick buildings, some of them faced with stone, containing all the modern improvements * * * * Indians representing different tribes, Half-breeds, Mennonites, Icelanders, as well as Frenchmen, Englishmen, Irishmen, Scotchmen, Canadians from the older Provinces and Mexicans jostle one another on the streets, &c.

The italics are the *Monthly's*. Any one who knows anything about the structure of English sentences can see at a glance that the writer of the critique is as ignorant of the first principles of punctuation as he is destitute of ordinary fairness. We shall not insult the intelligence of our readers by adding another word of comment, but content ourselves with assuring them that the spirit and value of the whole article may safely be estimated from the above specimen trick.

Gage's Readers have now been in the hands of inspectors and teachers for a considerable time and the cordial approval extended to them by practical men in all departments of school work is a sufficient offset to the misrepresentations of an interested critic. Equally valuable for this purpose is the favour with which they have been regarded at different teachers' conven-

tions throughout the Province. They have, in many instances, been submitted to thorough inspection at the hands of expert and disinterested committees; in every instance the report has been favourable, often highly eulogistic, and in a large number of cases the reports have been adopted by the Associations which thereby recommend the Readers for authorization. In this way requests for permission to use them have been made by the teachers of Frontenac, Halton, Haldimand, North Wellington, Dufferin, South Oxford, Prince Edward, and Northumberland. In the light of such endorsement the misrepresentations of interested parties appear in their true proportions.

MR. P. A. SWITZER.

To the deep regret of a wide circle of friends Mr. Switzer, who has for some years past held the position of inspector of public schools for the District of Algoma, has succumbed to a disease which long threatened his life and compelled him to discharge his onerous duties under the greatest difficulties. Mr. Switzer successfully filled for some time the position of head master of the Elora high school, and, physical strength apart, was admirably qualified for the post of "guide, philosopher, and friend" of the teachers and trustees of the new district in which his official lot was cast. In spite of growing weakness he never lost his energy and prepared to face the last conflict in harness. He made the town of Collingwood his headquarters and from it he was compelled to make his inspectorial journeys to the Parry Sound, Algoma, and Manitoulin districts partly by stream and partly over highways of extreme roughness. The field of his operations was a large one, and it is time the Ontario Government were thinking about subdividing it. Those who know how hard Mr. Switzer toiled in his vocation will regret that he was not relieved of some of the work long ago, but it would be doubly a mistake to place his successor in the same difficult position.

Mr. J. B. Ferguson, late principal of the Winnipeg Schools has since his retirement from that position gone into the book and stationery business in company with Mr. Parsons. Mr. Ferguson was a successful teacher, and that his services in that capacity were appreciated is manifest from the address, accompanied by a handsome gold watch, which was presented to him on the occasion of his giving up his recent charge. Like many others Mr. Ferguson is reported to have been fortunate in real estate speculations, and his many friends in Manitoba and elsewhere will be glad to hear of his being equally successful in his new venture. J. H. Stewart, M.A., formerly of Perth, Ontario, who has held for some years the inspectorship of the schools in Winnipeg and the adjacent district, has given up the supervision of the schools and gone into real estate business. Mr. Stewart's services in the cause of education in Winnipeg have been very valuable. He also carries with him into his new sphere the best wishes of those in connection with whom he has been labouring, and was presented with a handsome testimonial on his retirement.

—Nothing travels faster or grows faster than falsehood. Richard Grant White's monstrous misrepresentation of modern education circulated with amazing rapidity and really acquired portentous dimensions while the friends of the assailed system were preparing to defend it. The truth can never be vindicated too promptly. At the meeting of the National Educational Association of the United States held two summers since the question of high schools was discussed with some warmth. A prominent member of the Association asserted that *at that time* a majority of the inmates of one of the State Penitentiaries of Pennsylvania were graduates of high schools. The discussion had scarcely ended when the Association appointed a Committee of its representative men to ascertain if facts afforded any justification of the singular, and, if true alarming, statement made. The gentleman who preferred the charge was placed at the head of the committee of investigation. We need not be greatly surprised to learn that he declined to act and that he did not present himself at the next annual meeting of the Association. During the year, however, the committee under the direction of Hon. J. P. Wickersham, State Superintendent of Education, and now United States Minister to Denmark, made exhaustive inquiries into the matter of the charge preferred. It was found that in the penitentiary referred to out of upwards of four hundred and eighty inmates, not more than *eight or nine* had attended high schools for terms however short, while only five, or at most six, were high school graduates. Mr. Wickersham's report, enlarged by the addition of other relevant matter has been published by the National Bureau of Education under the appropriate title of "Education and Crime."

Geographical Notes.

THE GRAND TRUNK AND NORTHERN PACIFIC RAILWAYS.

We gave last month a description of the present condition of the Canada Pacific Railway. The company chartered by the Dominion Parliament to build that line secured the insertion in their contract of a clause intended to prevent any other company from obtaining the right to build a railway across the 49th parallel for 20 years. This has not prevented steps from being taken to create another through route for the produce of the Canadian Northwest to the Atlantic. At this writing the privilege of crossing the United States frontier has not been granted to any other railway besides the Canada Pacific, but efforts have already been made to secure that privilege and they will no doubt be repeated. The transcontinental system contemplated as a rival to the C. P. R. is made up chiefly of the Northern Pacific Railway of the United States and the Grand Trunk Railway of Canada, the intention being to connect them by means of the Midland Railway of Canada and by the construction of intermediate links by way of Sault Ste. Marie, and French River. The capitalists who control the Northern Pacific control also the Manitoba South Western Railway, and it is apparently the intention of the promoters, as soon as permission to do so can be obtained, to connect the latter across the frontier with a branch running northward from the main line of the Northern Pacific. The various portions of this contemplated traffic route from Montreal to Winnipeg are, therefore as follows:—

- (a) The Grand Trunk from Montreal to Belleville, Port Hope, Whitby, or Toronto.
- (b) The Midland from Belleville &c. to Gravenhurst.

- (c) The Ontario Sault Line from Gravenhurst to Sault Ste. Marie.
- (d) The Northern Pacific and its eastern extensions from the Sault to the southern boundary of Manitoba.
- (e) The Manitoba South Western from the frontier to Winnipeg and other points in the North-west.

The Grand Trunk from Montreal to Toronto is one of the oldest pieces of railway in Canada and therefore it is unnecessary to say anything more about it here. The Midland is also an old line from Port Hope to Lake Simcoe, but the section of it known as the Grand Junction, connecting Belleville with Peterborough is now, and the loop line from Peterborough to Omamee, which is really a continuation of the Grand Junction, is at present under construction. The Midland is connected with Gravenhurst, the southern terminus of the Ontario Sault line, by the Northern Railway, but an independent connection is probable, and it can be effected by extending either the Midland towards the north or the Sault line towards the south. The Ontario Sault line is now located from Gravenhurst to Sault Ste. Marie by way of Contin's Island in French River. After crossing that stream it skirts the shore of the Georgian Bay and St. Mary's River till it reaches the Sault Ste. Marie, which it will cross by an international bridge to connect with the eastern extension of the Northern Pacific. The Northern Pacific proper commences at Montreal River, the boundary line between Michigan and Wisconsin, and runs to the Pacific Ocean. From Casselton, a few miles west of Red River, a branch runs northerly towards the Canadian frontier, and by means of this branch it is expected that connection will yet be made with the Manitoba South Western. The latter line is projected from Winnipeg in a south westerly direction towards the Souris district. The first fifty miles are finished and the remainder of the line, which will be over 300 miles long, is under contract. For a considerable part of its entire length it runs almost parallel to the frontier and within twenty miles of the latter, but the point from which the southern spur to connect with the Northern Pacific is to be thrown out has not yet been announced. The following table of distances by this route will give some idea of the merits of the scheme in comparison with other transcontinental routes:—

GRAND TRUNK.—Montreal to Belleville.....	220	miles.
MIDLAND	{	
Belleville to Peterborough	66	"
Peterborough to Lindsay by way of Omamee	23	"
Lindsay to Orillia	43	"
Orillia to Gravenhurst	28	"
ONTARIO SAULT.—Gravenhurst to Sault Ste. Marie	340	"
NORTHERN PACIFIC. {		
Sault Ste. Marie to Superior City	350	"
Superior City to Thompson Junction	25	"
Thompson Junction to Fargo	230	"
Fargo to Casselton	20	"
Casselton to the Canadian frontier, say	130	"
MANITOBA SOUTH WESTERN. }		
Winnipeg to the same point, say	145	"
Montreal to Winnipeg	1620	"

NEW DISTRICTS IN THE NORTH-WEST.

The Dominion Government have, by Order-in-Council, divided the North-west Territory into four districts for certain purposes of administration. These, with their boundaries and areas, are as follows:—

1. ASSINIBOIA, which is bounded on the south by the 49th parallel; on the east by the western boundary of Manitoba; on the north by the ninth correction line,* near the 52nd parallel; and on the west by a line dividing the 10th and 11th ranges of townships, numbered from the fourth initial meridian.* It contains about 95,000 square miles and includes the Qu'Appelle, Souris, and part of the South Saskatchewan rivers, Fort Pelly, Fort Ellice, and the Touchwood Hills.

* In the Dominion system of land surveys.

2. SASKATCHEWAN, which is bounded on the south by Assiniboia, on the east by Lake Winnipeg and Nelson River; on the north by the 18th correction line, near the 55th parallel; and on the west by a continuation northward of the western boundary of Assiniboia. It contains 114,000 square miles and includes Carleton, Battleford, and Prince Albert settlements.

3. ALBERTA, which is bounded on the south by the 49th parallel; on the east by Assiniboia and Saskatchewan; on the west by British Columbia; and on the north by the 18th correction line. It contains about 100,000 square miles, and includes the Battle, Bow, and Belly river countries.

4. ATHABASKA, which is bounded on the south by Alberta; on the west by British Columbia; on the east by a continuation northward of the western boundary of Assiniboia and Saskatchewan until that intersects Athabaska River, then by that river and Athabaska Lake and Slave River to the 32nd correction line, near the 60th parallel; on the north by the 32nd correction line. It contains 122,000 square miles, and includes what is known as the Peace River country.*

MISCELLANEOUS.

The British North America Act provides for a revision of the scale of representation of the various Provinces of Canada in the House of Commons of the Dominion Parliament after each decennial census. The unit of representation is fixed by giving sixty-five members to Quebec, irrespective of population, and then allotting to each of the other Provinces the number of members it is entitled to on a comparison of its population with that of Quebec. The census taken last year showed that Ontario was entitled to four members in addition to those she already had, and effect has been given to this arrangement by Act of Parliament. In view of the rapid increase of her population an additional member has been given to Manitoba, and for some time to come, therefore, the membership of the House of Commons will be 211, made up as follows: Ontario, 92; Quebec, 65; Nova Scotia, 21; New Brunswick, 16; Prince Edward Island, 6; British Columbia, 6; and Manitoba, 5.

The Dominion Parliament has voted a subsidy of \$150,000 a year for twenty-five years in order to secure the construction of a ship railway across the Isthmus of Chignecto from Baie Verte to the Bay of Fundy—a distance of seventeen miles. The project of connecting the Gulf of St. Lawrence with the Bay of Fundy is an old one but no Canadian Parliament has ever approved of undertaking the work, and the ship railway project, the chief promoter of which is Mr. H. G. C. Ketchum, has been offered as a cheaper substitute. The Bay of Fundy terminus is fixed at the mouth of the La Planche River, and the Baie Verte terminus at Tignish Head. If vessels can be carried from the Gulf of St. Lawrence to the Bay of Fundy by such a railway the length of the ocean voyage from Shediac and points further north to St. John, N.B., will be reduced by about 500 miles. It is estimated that the railway and the necessary docks and other works will cost nearly four and a half millions. The annual subsidy just voted by Parliament is equivalent to a capital sum of less than two and a half.

* The boundaries of these districts can be traced on the ordinary school maps of the Dominion with sufficient accuracy for all practical purposes. Beginning at the 49th parallel, at a point midway between the two points where it is crossed by the Sauts River, draw a line due north to a point in the latitude of Fort a la Corne, and from this latter point draw a line due east across Lake Winnipeg; these lines will be the new western and northern boundaries of Manitoba. From the point where the northern boundary of Manitoba strikes the western shore of Lake Winnipeg draw a line northward along the Lake and down Nelson River to a point slightly south of the 55th parallel, and from this latter point draw a line due west to the 120th meridian and north along that meridian to a point near the 60th parallel of latitude. Beginning again at the 49th parallel slightly west of the 110th meridian, draw a line due north till it strikes Athabaska River; from the point of intersection continue it along the west shore of Athabaska Lake and Slave River to a point just south of the 60th parallel; and from this point draw a line due west to the one previously indicated on the 120th meridian. Finally through a point slightly north of Fort Pelly draw a line due west from the Manitoba boundary to the line just west of the 110th meridian.

Mathematical Department.

UNIVERSITY OF TORONTO.

MATRICULATION—1881.

ARITHMETIC AND ALGEBRA.

Examiner—ALFRED BAKER, B.A.

1. Define the terms "abstract" and "concrete" as applied to numbers.

Is $6 \times 3 = 18$ a correct solution of the question: What will be the cost of six postage stamps at three cents each?

Book-work. Yes, if we are careful to understand 3 as an abstract and not as a concrete number. Multiplication is merely a short way of doing a peculiar kind of addition in which the addends are all equal. The multiplier is the number which shows how often this addend is repeated, and cannot therefore stand for anything but the number of times. It cannot, for instance, be three cents. But $6 \times 3 = 18$ may be explained thus:—If the price were one cent each, the cost would be $1 \times 6 = 6$ cents, but as the price is three times greater than one cent, the cost is 6 cents $\times 3 = 18$ cents, where 3 is a purely abstract number.

2. Define the numerator and denominator of a fraction, and from your definition prove $\frac{1}{5} \div \frac{1}{2} = \frac{2}{5}$.

When a unit is divided into equal parts there are two things to be considered, viz: (1) The NUMBER of equal parts, (2) The SIZE of these equal parts. The numerator is the number used to express the former, and the denominator the latter of these two things.

$\frac{1}{2} \div \frac{1}{5} =$ quotient. $\therefore \frac{1}{2} = 5$ times quotient. $\therefore \frac{1}{2} \times 4 = 20$ times quotient. Now to multiply 3 fourths by 4, take the same number of parts, but increase the size of each part by 4 times; i.e. instead of 3 fourths take 3 units. So then we get $3 = 20$ times quotient, or quotient $= \frac{3}{20}$ of $3 = \frac{9}{20}$ of $1 = \frac{9}{20}$.

3. Prove the rule for pointing in the extraction of the cube root of a number.

There is a metal cubical box of 96 feet surface and $1\frac{1}{2}$ feet thickness; also three solid cubes of another kind of metal whose surfaces are as the numbers 1, 4 and 9, and whose combined weight equals that of the box. Find the lengths of the edges of the cubes, the weight of the latter metal being to an equal bulk of the former as 3:4.

Book-work.

Surface of one face of cubical box = 16. external edge = 4, internal edge = $\frac{5}{2}$.

Solidity of box = $4^3 - (\frac{5}{2})^3 = 64 - \frac{125}{8} = \frac{387}{8} = 48\frac{3}{8} \times \frac{1}{2} = 24\frac{3}{8}$ cub. ft. of the second kind of metal.

Now in cubes the sides are as 1.2.3, and their solidities are say $x^3, 8x^3, 27x^3$, i.e. their mass = $36x^3$, and = $1\frac{2}{3}x^3$ cub. ft.

$\therefore x = \sqrt[3]{1\frac{2}{3} \times 29} = \sqrt[3]{\frac{29}{3}} = 1.21456$; and the sides are

$1.21456, 2.42912$ and 3.64368 .

4. \$500.00 is offered by a Building Society to be repaid in two annual instalments of \$285.00 each, so that the debt is liquidated at the end of two years from the present. Find the Society's rate of interest.

We have $285\{1 + (1+r)\} = 500(1+r)^2$

i.e. $57(2+r) = 100(1+r)^2$

or $100r^2 + 143r - 14 = 0$

$\therefore r = \frac{-143 \pm \sqrt{(143^2 + 400 \times 14)}}{200}$

\therefore Rate % = $\frac{1}{2}(-143 \pm 161.4) = 9.2$.

The lower sign is inapplicable to the problem.

5. A bank wishes to realize 4 per cent. interest on its discounting operations. Form a table of the rates at which it must discount notes payable in 30, 60 and 90 days respectively.

Omitting days of grace, as included in given times, and taking 360 days—year, after the manner of banks, the times are $\frac{1}{12}, \frac{1}{6}$ and $\frac{1}{4}$ of a year respectively. And the interest of \$1 for these times at 4% is $\frac{1}{30}, \frac{1}{15}$, and $\frac{1}{7.5}$ respectively; and the amounts $\frac{101}{100}, \frac{102}{100}$, and $\frac{104}{100}$. Hence the P.W. in each case is $\frac{100}{101}, \frac{100}{102}$, and $\frac{100}{104}$ of the face of the note.

The discounts are therefore

$\frac{1}{101}$ for 30 days, $\frac{1}{102}$ for 60 days, $\frac{1}{104}$ for 90 days.

6. State the advantages arising from the employment of Bills of Exchange. Define "Par of Exchange" and "Course of Exchange"; mention any causes that influence the latter.

Book-work. In answer to the last part, we may mention a high protective tariff. This will increase the cost of all imports into the protected country, and thus increase the demand for bills and raise the rate of exchange in the protected country.

7. Prove the following:—

The difference between any common number of three digits and a number consisting of the same three digits in reversed order, is divisible by nine, eleven, and the difference of the extreme digits.

Every number of four places, in which two like significant figures have two cyphers between them is divisible by seven, eleven and thirteen.

Let a, b, c be the digits

(1). $\therefore N_1 = 100a + 10b + c$

$N_2 = 100c + 10b + a$

difference = $100(a - c) - (a - c)$
 $= 99(a - c)$, hence the proposition.

(2). Let a be the digit at the right and left of the given number,
 \therefore Number = $1000a + a = 1001a = 7 \times 11 \times 13a$.

8. Extract the square root of

$\frac{1}{4}x - \frac{2}{3}x^{\frac{1}{2}} + \frac{2}{3}x^{\frac{1}{4}} - \frac{1}{3}x^{-\frac{1}{2}} + \frac{1}{15}x^{-1}$

If this is a perfect square it consists wholly of two sorts of terms viz., square terms, like a^2, b^2 &c., and double products, like $2ab, 2ac$ &c. The negative terms cannot be squares; $\frac{1}{2}x^{\frac{1}{2}}$ and $\frac{1}{2}x^{\frac{1}{2}}$ are the square roots of the extreme terms, twice their product is $\frac{1}{4}$, subtracting this from $\frac{2}{3}x^{\frac{1}{4}}$ we have $\frac{1}{3}x^{\frac{1}{4}}$ the other square term. Having regard to the signs of the two remaining terms we see that the square root is $\frac{1}{2}x^{\frac{1}{2}} - \frac{1}{3} - \frac{1}{2}x^{-\frac{1}{2}}$.

9. If $\frac{a}{b} = \frac{c}{d} = \frac{e}{f} = \dots$, then

$\frac{a^n + c^n + e^n + \dots}{b^n + d^n + f^n + \dots} = \frac{(a + c + e + \dots)^n}{(b + d + f + \dots)^n}$.

State the general theorem of which this is a particular case:—

(1) Let $a = bx, c = dx, \&c.$

$\therefore a + c + e \&c. = x(b + d + f + \dots)$

$\therefore x^n = \left(\frac{a + c + e + \dots}{b + d + f + \dots}\right)^n$ (A)

Also $a^n = b^n x^n, c^n = d^n x^n, \&c.$

$\therefore x^n = \frac{a^n + c^n + e^n + \dots}{b^n + d^n + f^n} =$ (A)

(2) If $\frac{a}{b} = \frac{c}{d}$, then any fraction whatever formed by combining a and b or any of their powers, is equal to a similar and similarly formed fraction from the powers of c and d .

10. Give the different methods that may be employed in the solution of simultaneous equations.

Solve $\begin{cases} ax + by = c \\ a_1x + b_1y = c_1 \end{cases}$

Interpret your results when (1) $\frac{a}{a_1} = \frac{b}{b_1}$; (2) $\frac{a}{a_1} = \frac{b}{b_1} = \frac{c}{c_1}$

The methods in common use are (1) Method of comparison. i.e. finding the value of x in each equation and putting these values equal. (2) Substitution of the value of x in one equation, in the remaining equations. (3) Method of Indeterminate Multipliers. (4) Cross-Multiplication.

Multiply 2nd. equation by m and add it to 1st.

$\therefore x(a + ma_1) + y(b + mb_1) = c + mc_1$ (A)

Now give m such a value as shall cause the coefficient of one of the unknowns to vanish, e.g. put $a + ma_1 = 0$, i.e. $m = -\frac{a}{a_1}$. Substi-

tute this value of m in (A) and we get $y = \frac{a_1c_1 - ac_1}{a_1b - ab_1}$. Similarly by

putting $b + mb_1 = 0$, we get $x = \frac{b_1c - bc_1}{a_1b - ab_1}$

(1) If $\frac{a}{a_1} = \frac{b}{b_1}$ then $a_1b - ab_1 = 0$ and $x = y = \infty$.

The fact is the equations are contradictory under this condition. For if $a=ka_1$ and $b=kb_1$, we get on substituting these values

in the first equations $a_1x+b_1y=\frac{c}{m}=c_1$, i.e. the same quantity equal to two different quantities.

(2) If $\frac{a}{a_1} = \frac{b}{b_1} = \frac{c}{c_1}$, then $a_1b-ab_1=a_1c-ac_1=b_1c-bc_1=0$

$\therefore x=y=0$ which is the symbol of indetermination; x and y

are indeterminate, and one equation is in reality a multiple of the other, so that in fact we have only one equation between two unknowns. For let $a=ka_1$, $b=kb_1$, $c=kc_1$. Substitute these values in the first equation and it becomes $k(a_1x+b_1y)=kc_1$, a multiple of the second equation.

11. Solve $x^3+4x^2+7x+1=0$

Arrange $(x^3+2x^2+2x+1)^2-x^2(x^2+x+1)=0$

i.e. $(x+1)^2(x^2+x+1)^2-x^2(x^2+x+1)=0$

$\therefore x^2+x+1=0$ or $x=\frac{1}{2}(-1 \pm \sqrt{-3})$

$\therefore (x+1)^2(x^2+x+1)-x^2=0$

i.e. $x^4+3x^3+3x^2+3x+1=0$

or $x^4+3x^3+\frac{1}{2}x^2+3x+1=\frac{1}{2}x^2$

$\therefore x^2+\frac{3}{2}x+1=\pm\frac{x}{2}\sqrt{5}$

or $2x^2+x(3 \mp \sqrt{5})+2=0$

$\therefore x=\frac{1}{4}\{-3 \pm \sqrt{5} \pm \sqrt{-2 \mp 6\sqrt{5}}\}$

which are the other four roots.

12. If m and n are the roots of $x^2+px+q=0$, then p and q are the roots of the equation

$x^2+(m+n)x=mn(x+m+n)$

Find the quadratic equation which, when reduced to the standard form, has one root for co-efficient of x and another for third term.

(1) We have $m+n=-p$, and $mn=q$. Substitute these values in the second equation and

$x^2-px=q(x-p)$, or

$x^2-(p+q)x+pq=0$. From which by inspection it is plain that p and q are the roots.

(2) Let α and β be the roots, so that the equation is

$\alpha x^2+\alpha x+\beta=0$

Then $\alpha+\beta=-\alpha$, and $\alpha\beta=\beta$, $\therefore \alpha=1$, $\beta=-2$;

and required equation is $(x-1)(x+2)=0$

i.e. $x^2+x-2=0$

13. When we have an expression equated to zero, when is it allowable to strike out a factor and still maintain the equation?

If $a^2+a^2b+ab^2+b^2=0$, then $a+b=0$.

(1) If an equation can be separated into factors, functions of x , the roots, obtained by equating each of these factors to zero, will be roots of the original equation. But if any factor does not involve the variable, x , or if it is necessarily a positive quantity, it will not be allowable to equate this factor to zero.

(2) Expression $=(a+b)(a^2+b^2)=0$

Now, either one of the factors, or both the factors must $=0$, since their product $=0$. But a^2+b^2 is not $=0$ under any circumstances unless $a=0$ and $b=0$; for, being squares, a^2 and b^2 are both positive and $\therefore a^2+b^2>0$, unless each is separately $=0$. In this case therefore we cannot infer $a^2+b^2=0$, except under the conditions $a=0$, $b=0$.

14. For all possible values of x the quantity

$\frac{x^2+2x+3}{x^2+x+1}$ lies between 0 and 4.

Put given fraction $=k$, clear of fractions and arrange in powers of x , and we have

$x^2(1-k)+x(2-k)+(3-k)=0$

Now, in order that x may be possible we must have

$(2-k)^2$ not less than $4(1-k)(3-k)$.

i.e. $3k^2-12k+8 > 0$

Now when $k=4$, left hand member $=8$

and when $k=0$, " " " " $=8$ and for all positive values above 4, and all negative values below 0 the expression >8 , and it is not <0 for any values ex. pt those <4 and >0 .

$\therefore k$ lies between 0 and 4 when x is a possible quantity.

15. Show how to find the sum of a geometric series.

If a circle be inscribed in a square, a square in that circle, a circle in that square, and so on *ad infinitum*, show that the area of the original square is equal to the sum of the areas of all the rest; and

that the sum of the perimeters of the first two squares is equal to the sum of the perimeters of all the rest.

Let s = side of original square, then, by Euclid I. 47., the series

of sides is $s, \frac{s}{\sqrt{2}}, \frac{s}{2}$, &c. *ad infinitum*;

and the areas of the squares form the series

$s^2, \frac{s^2}{2}, \frac{s^2}{4}$, &c. *ad infinitum*.

Now sum of areas of all squares but first

$=\left(\frac{s^2}{2}+\frac{s^2}{4}+\frac{s^2}{8} \text{ &c. ad infinitum}\right)=s^2$ = area of first square.

Similarly, sum of all perimeters except first two

$=4\left(\frac{s}{2}+\frac{s}{2\sqrt{2}}+\frac{s}{4} \text{ &c. ad infinitum}\right)$

$=4s\left(1+\frac{1}{\sqrt{2}}\right)=4s+\frac{4s}{\sqrt{2}}$

=perimeter of 1st. + perimeter of 2nd. square.

Special Articles.

THE TEACHER'S INFLUENCE.

BY G. H. BURNETT, RICHIBUCTO, N. B.

Every mind, in a greater or less degree, influences or is influenced by other minds. The mingling of individuals together and the different relations which ensue on this account must put those of greater strength in places of superiority; the weaker give way to the stronger. By personal contact with one another the opinions, wishes, or sentiments of one person affect others in such a way as to have a bearing on their lives and conduct. A single individual may possess in a remarkable degree this power of influencing others, which is mainly inherent but may to a certain extent be acquired. It is known under various names; by some it is called "will-power;" by others "magnetic influence;" by others "force of character." By whatever name it is called it is always power.

Instances can be recalled by almost any person who is at all observant of human nature. An incident which came under the writer's notice well illustrates this point. In a small town a religious meeting conducted by young men on Sunday evenings was frequently interrupted by a number of boys, who took a special delight in whistling, groaning, and stamping during the service. This always occurred when a certain gentleman was absent. If he was present no sooner would the noise begin than he would rise from his place, walk down and seat himself in the very midst of the boys. He would never speak to them a single word but his presence had such power that they remained perfectly quiet. It seemed as if they were seized by a magic spell and the greatest confusion was turned into stillness. Probably not another individual in the meeting could have done the same thing.

Now what was the secret of this man's power? It was not his physical strength, for others apparently as muscular as himself would have been hooted at. It was not his personal appearance, for there was nothing extraordinary in it. It was that indefinable something which certain persons possess and which constrains us whenever we are near them to acknowledge them as our superiors. The teacher above all others should possess this power. Many teachers fail on this very point. There is nothing natural to them which commands the respect of others. They cannot gain and hold the respect of pupils and soon leave their profession in disgust. They may maintain order by a forced submission solely on account of their physical strength but they do not influence the lives of those entrusted to their charge.

We meet some persons and mingle with them it may be for years, yet they never by their words or actions influence us in the slightest degree; with others again our contact may be only in the form of a conversation of a few hours' duration, yet they have given our thoughts such an impetus that we remember them for years. Our relations with others may tend to elevate our thoughts and feelings, to lift us, as it were, to a higher plane; or they may tend to drag us down, to degrade and pollute us. They may fill us with longings for the true and the good, the ideal of beauty; or they may lower us in the depths of despair and destroy in us every feeling of strong endeavour.

It is mainly by the powers of mind and intellect that one person controls and sways the minds of others. That a teacher does, by his personal force, influence his pupils is granted by all. Long after his voice is silent his opinions will colour the lives of those with whom he may have mingled. They in their turn will influence others, so who can estimate the power of a strong-willed man? What is communicated thus unconsciously will remain long after the knowledge gained by books is lost. Some maintain that any one will do for a teacher as long as certain facts are remembered from books; that the teacher is nothing, the knowledge everything. How much that is learned in childhood is entirely forgotten in adult life! But that which moulds our destinies and develops our character is gained chiefly by our contact with the minds which influence us.

SCHOOL CALISTHENICS AND GYMNASTICS.

As a matter of theory all teachers readily admit the necessity of allowing physical education to have a place in a good school system, but all do not as a matter of practice pay systematic attention to it as a part of school work. The training of pupils in the regular and beautiful exercises comprehended under some good system of gymnastics and calisthenics is really the only way in which physical education can be efficiently conducted, and it would be a good thing for the youth of this province of both sexes if the excellent example set by the High School authorities of Chatham were more generally followed. They have engaged the services of a thoroughly scientific and ingenious master, Mr. E. B. Houghton, himself an old pupil of Upper Canada College, and if some of those who are responsible for the management of the schools would pay a visit to Chatham and see for themselves the results he has achieved, there is little doubt that his services would be in demand in at least some of the neighboring towns.

The gymnasium building was erected and the appliances were purchased with money voluntarily subscribed by friends of the school, the total cost being \$450. This sum sufficed to put up a building 35ft. by 50ft., well furnished with bars, trapeze, ladders, ropes, poles, clubs, wooden rifles, single-sticks, foils, masks &c., &c. Regular class instruction is given for at least two hours a week to each form, and the pupils of both sexes attain to such proficiency that the annual exhibition they give to the citizens of Chatham is by far the most popular public entertainment of the season. The funds raised by these exhibitions is utilized in keeping up the gymnasium and making additions to the school library.

Only those who have seen what can be accomplished by an enthusiastic and gentlemanly teacher of physical exercises with a class of pupils, are in a position to estimate calisthenics and gymnastics at their true value either æsthetic or sanitary, but both teachers and school boards may depend upon it that they are losing opportunities of conferring unspeakable benefits on the rising generation when they fail to give these exercises a place on their school programmes.

CORNELL UNIVERSITY.

The Annual Register of the Cornell University supplies interesting information concerning that institution. The history of the University is a somewhat unique one. The institution owes its existence to the bounty of the United States and of Ezra Cornell, an eccentric, but wealthy and philanthropic citizen of the state of New York. In the year 1862, the Congress of the United States passed an Act granting certain public lands to all States which should "provide at least one College where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts." The amount of land thus appropriated consisted of thirty thousand acres for each senator and representative which each state had in the National Congress. The share thus accruing to the state of New York was no less than nine hundred and ninety thousand acres.

In 1865 the legislature of the state of New York incorporated "The Cornell University" appropriating to it the income arising from the sale of the land thus granted. The chief conditions attached to this munificent gift were that Mr. Cornell should endow the University with a minimum fund of five hundred thousand dollars, that the University should provide approved instruction in agriculture, mechanical arts, and military tactics, and also receive annually one student from each Assembly District in the state, to whom instruction should be given free of charge. Mr. Cornell more than fulfilled the condition imposed on him by adding to the required endowment a splendid farm with the necessary appurtenances. As there are one hundred and twenty-eight Assembly Districts in the state, the free scholarships if all filled up would amount to five hundred and twelve.

The University was opened in October 1868. The faculty consisting of professors and assistant-professors, is aided by non-resident professors and lecturers. Among the latter are found in the Register for 1881-2 the distinguished names of Goldwin Smith (English Constitutional History), Edward Augustus Freeman (General European History), Dr. Adams of the University of Michigan, and others almost equally noted.

The University being established by a government recognizing no distinction of religious belief, seeks neither to promote any creed nor to exclude any. By the terms of its charter "persons of any religious denomination are equally eligible to all offices and appointments," and it is expressly ordered that "at no time shall a majority of the Board Trustees be of one religious sect, or of no religious sect." The University, however, possesses a chapel in which religious services are held and discourses delivered by representative clergymen of the various Christian denominations. The Register publishes the list of clergymen appointed, or requested, to officiate during the current year. The selection seems to have been made on broad principles, almost all shades of religious opinion being represented. The Right Rev. Bishop Doane of Albany and James Freeman Clarke of Boston, may be taken as typical extremes. The Canadian pulpit is worthily represented by Principal Grant of Queen's.

The President of the University from the beginning has been Andrew D. White, LL.D., one of the most distinguished Alumni of Yale College. Dr. White takes a lively interest in politics as well as in Education. For several years—while on leave of absence from the University—he represented his country as United States Minister at the imperial Court of Berlin. The Register enrols the names of 361 undergraduates.

PHYSICAL GEOGRAPHY.

BY G. R. CRUICKSHANK, M.A., SCIENCE MASTER IN CHATHAM HIGH SCHOOL.

(From an address delivered before the Chatham District Teachers' Association.)

In no branch of study should a youth desiring a liberal education be more thoroughly drilled than in geography. In conversation, in reading the newspapers, at every turn of life he is called upon to make use of his store of geographical knowledge. That Yankee who imagined Canada to be about the same size as Pennsylvania, seemed to be ridiculously ignorant; that Englishman impaired the prestige of the *London Times* who said that Montreal was connected with Detroit by the Victoria tubular bridge. The treasure of geographical facts is an unfailing source of gratification to its possessor, and their judicious use in conversation will stamp him among his fellows as a well read man. But do we not devote too much attention to the position of places? Are we not limiting geography too much to one branch of it, topography?

The object of education is to train the faculties so that the best use may be made of them to teach the mind to think intelligently and to form correct conclusions. Education should not only improve reason and judgment but also store up in the mind valuable facts—food for thought. How far does geography work out these results? Are these numerous details of foreign lands desirable in a liberal education? Do our well read men, our shining lights in science and letters, know them? I am not giving you my own opinion only when I contend that fully one-half of our University graduates would be inevitably plucked at the intermediate in geography. Why are they content to remain in such gross ignorance? Why do they not take their attention from letters and learn to sketch the coast line from Copenhagen to Lishon; to name the chief towns on the rivers which flow from near the St. Gothard Pass? Such questions as this do not train the reason, nor do they cultivate good judgment. They exercise the memory; they give a false training and cram it with details intended to be forgotten.

And yet our pupils are expected to trace the outlines of foreign coasts, to remember long lists of towns on far off rivers, while they would not be considered at all ignorant if they know almost nothing of the air they breathe, or of the ground on which they walk. Of the wind which fans them they know not "whence it cometh or whither it goeth." A friend, who had been a teacher, on being asked the position of an American city, expressed surprise at forgetting it, remarking that a few years ago he knew every important town and stream in every state in the Union. On being asked if he was not sorry that he had forgotten, he replied that he was not sure whether he was or not. "What did you learn it for then?" "To pass the intermediate examination," was the reply. Such is "cram."

A good general knowledge then of places, a particular one of home and of foreign lands attracting public attention by war or notable events, and a sketch of mathematical and physical geography would realize more nearly the object of study. A youth leaves school to settle on the farm; most of the facts he has acquired are forgotten never to be recalled; but the stars, the wind, the rain, the rocks—will day after day suggest thoughts to his mind, keep him thinking, and keep his mind from becoming a cultivated waste. His geography would then be to him a pleasure in solitude, an ornament in society, a benefit always.

[The remainder of Mr. Cruickshank's prelection, to which the above is merely the introduction, contained a sketch of the topics he would include under a course of physical geography, these topics being all arranged under the three heads: (1) Land, (2) Water, and (3) Air.—ED. JOURNAL.]

HOME LESSONS.

BY D. C. McHENRY, M.A.

(Read before the Northumberland Teachers' Association, and published by request of the Association.)

In order fairly to discuss this question, it will be necessary first to agree upon some basis as to the true relation of the teacher to the parent—the school to the home.

That this relation is a very intimate one will appear if we consider that, primarily, every parent is directly responsible for the education of his own children. He may undertake the work himself, not only before his children reach school age, but also during the entire course of their studies. Some parents prefer this method and adopt it. Our school law recognizes the right of parents thus to educate their children—a right which no one thinks of calling in question. In this case *home lessons* are the only lessons formally given or received.

If all parents were personally qualified thus to conduct the education of their children, and if they could devote to the work that amount of attention which is necessary there are at least some very good reasons why it might be generally adopted.

It has been found, however, that in most families this plan of home instruction cannot be carried out. For many reasons it is, as a rule, quite impracticable. Hence the school, and the school-teacher.

Again, the parent may bring the teacher to the home, and, under the parental roof his children may receive instruction. Or, as a matter of convenience, the children may be entrusted to the care of the teacher at a public school, for a certain number of hours a day.

Has the responsibility of the parent ceased, by reason of this transfer? Has it even very materially changed in its character?

Contrary to the prevalent notions of many of the parents, I think we must maintain that they are still directly responsible, in a great degree for the educational progress of their children; that the teacher is but the assistant of the parent; and that it is only in a limited sense that he can be said to stand *in loco parentis*.

The question as to whether there shall be home-lessons thus becomes one merely of convenience or expediency. For, if all that the child properly requires at his age can be obtained at school, there need be no school-work at home. If, however, the child cannot complete at school all that is reasonably required of him, a part of his work should be done at home.

The teacher must be held responsible for his share of the work of supervision and instruction; and the parent must be held responsible for that part of the work which naturally falls to him while the child is at home.

At this point such questions as the following naturally arise:

- I. What is the object of home-lessons?
- II. What should be the nature of home-lessons?
- III. How should home-lessons be assigned?
- IV. What are the duties of parents in relation to home lessons?
- V. What time is required for home lessons, by the various grades of pupils?

I. I think the true object of giving home-lessons will be seen if we can first decide what we do when we are said to educate a child.

I assume that all present are prepared to accept the statement that the art of education consists in the practical application of principles gained by studying child-nature—the central principle being that it is what the child does for himself and by himself that educates him.

If this be true, no system of education can be accepted as correct which does not aim at securing such an exercise of natural powers as leads to their healthy development, and generally renders the pupil practically independent of the teacher's assistance. It must come to this if a child is to be *educated*. He begins at a point where he is entirely *dependent*. His advancement in true education is exactly in proportion to the progressive mastery he gains over his work, and the *self-reliance* thus developed.

What is learned at school merely lays the foundation. The pupil's subsequent life is spent in building upon this foundation, and that, too, without the aid of his teacher.

If he has *comprehended* the work of laying the foundation, especially if he has *participated* in the work, under skilful guidance, he will be able to proceed *independently* with the superstructure and his life will so far be a success.

If, on the other hand, the teacher has merely *instructed*, filled the mind with facts, made it easy for the pupil at every step of his course—the pupil will be a weakling; the "foundation" will be left without a superstructure—a monument at once of the teacher's indulgent self-sacrifice, and of his *folly* as an educator of youth.

Since, then, the pupil must ultimately be left without the immediate aid of his teacher, the natural inference is that he should be prepared for this period by doing a certain amount of home-work and this work should be increased as the pupil's powers are developed. In this way he is naturally led from a condition of entire dependence to a state of practical independence.

The object of home-lessons is not, therefore, for the mere purpose of preventing idleness; nor for the purpose of relieving the teacher of his due share of the work; nor even to give parents something to do; certainly not to *punish pupils* for short-comings at school. Our aim should be to train the pupils to *self-exertion*, to give them the ability to depend upon their own efforts as students.

As a first result they will do better work in school. When it falls to their lot to leave school, they will have been prepared for manfully facing the stern realities of responsible life.

II. *The character* of home-lessons will be determined, of course, by *the object* we are aiming at. On this point I merely remark that home-work should be such as lies directly in the line of ordinary school-work, and should be of such a character that the pupil by a fair amount of application will be able to do it, and do it well—that, too, without the aid of others, either parents or schoolmates.

We have lately heard a great many complaints from parents and physicians against home-lessons. While I believe that many of the objections are frivolous and unreasonable, I am prepared to admit that in too many cases good ground for complaint is to be found in the following causes:

1. Home-lessons have been assigned to pupils of *too tender years*.
2. The *amount* of home-work assigned has been *too great*, in the case of pupils capable of taking home-lessons.
3. The *character* of the work assigned, and failure on the part of teachers properly to prepare pupils for doing home-work, prove to intelligent parents that we are not really aiming at the *true object* of home-lessons.

If complaints are based on either of these causes, they are well founded; and we will consult our own interests as teachers, as well as the interests of our pupils, if we look carefully into the *nature* of the work we are assigning and the *object* we have in view in assigning this work.

III. The character of the work will be further referred to in considering the next point, "*How should home-lessons be assigned by the teacher?*"

My first answer is—he should assign no work until he is satisfied that his pupils have been prepared to do it; that is, they should be

in possession of all that is necessary to enable them fully to comprehend and faithfully perform what is required of them. Unless we carefully guard this point, our home lessons will become a positive injury to the pupil, and a perfect torment to all concerned.

It is not enough that the lesson be one of importance; it must be relatively appropriate as home-work for the pupil in question. From this it would follow that home-work, especially in case of young pupils, should consist mainly of *reviews*, that is reviews and *exercises* on the work which has been taught during the day.

Even in the case of senior pupils the assignment of home-work must proceed, to a certain extent, on the same principle. There should first be lucid explanations and ample illustrations by the teacher.

This done, we shall have more satisfactory results, and fewer complaints from parents.

Every observant teacher knows that nothing tends to discourage pupils more than the imposition of unreasonable burdens; and every good teacher will admit that it is unreasonable to demand work of our pupils for which they have not been suitably prepared.

Neglect on our part in this particular first shows its effects in a long list of delinquents in home-work. Our first impulse is to regard it as neglect, and repeat the task—probably with something added. A second failure follows; but no awakening of our dull powers of comprehension—even though among the delinquents we find pupils whom we had hitherto considered bright and clever. The only conclusion we arrive at is that we have altogether overestimated their ability, and must give them a lower class. Possibly we may conclude that a flogging is about the best corrective, and punishment is invited with all the formal solemnity which is befitting the occasion. Of course this has its effect, though probably not the desired effect. Our work is yet undone, and our once bright, clever, and able pupils now appear to be both *stupid* and *stubborn*. There are various ways in which bright and clever pupils may be made dull and even stupid. I know of no way more effectual than the one just described, in connection with home-lessons.

On a former occasion I ventured to express the opinion that many failures at examinations are directly traceable to the practice, on the part of some teachers, of allowing a few clever pupils to guide and control them in dealing with ordinary class work. I am only confirmed in my opinion, and now apply the remark to the assigning of home-lessons.

If our pupils have been classified, (and this is of prime importance) we may safely take as our guide, in class explanations and assigning home-work, not those who are always ready with an answer, but rather that portion of our class who fail to solve problems with rapidity and accuracy. That school inspector understood this principle who, on visiting a school, asked the teacher to show him his *poorest* pupils, that he might first examine them. If *classification* is at fault, of course it must be rectified. But this point settled, let us beware of overlooking the just claims of those who most need our help, to impose on whom the home-work of others would be not only a waste of labor but a positive cruelty.

The charge is frequently made against us that there is now comparatively little actual *teaching* done—that we have substituted therefor the *assigning of home-lessons* and the *hearing of recitations*. I am not prepared to say that this charge is wholly unfounded; though I trust that the evil is disappearing with the more general dissemination of correct views on the science and art of teaching. If, however, I were specially commissioned to test any school, or number of schools, on this point, I would look for evidence first in connection with home-lessons. If the assigning of lessons in mathematics, for example, has been preceded by suitable explanations of the principles involved, and accompanied with a few practical

ests by which the teacher might know that his remarks had been understood by all—I would naturally expect a faithful night's work, and a good account of it in the morning recitation. If, on the other hand, these preparatory explanations were not given, but now work hurriedly dealt out by the page or chapter as the classes were being dismissed, I would anticipate hours of weary work, faithful but fruitless toil, and a poor return in the morning on the part of the weaker but no less meritorious pupils.

In a word, no true teacher will assign home-work until by his teachings he has made the desired results reasonably attainable by his class. More than this, he will endeavor to appreciate the honest efforts of his pupils by carefully examining their home-work and giving credit where it is due. Failure in this respect is extremely discouraging, and will surely foster carelessness and even dishonesty in those who would otherwise be studious and self-reliant.

IV. *Duties of parents in relation to home-lessons.* I would suggest that parents, first of all, come to a *distinct understanding* with the teacher as to the nature and amount of home-work required of their children. This mutual understanding can be arrived at by a visit to the school on the part of the parent or by a call on the part of the teacher. It may be kept prominently before both parents and children by our inserting in the monthly report the length of time the pupils should devote to home-work modified, of course, as this work increases.

I fear that from a want of intimacy to this extent, at least, many teachers are practically alienated from the families of their pupils.

The true relation of parents and teacher—working for a common object—is never realized while practical sympathy and mutual co-operation are wanting.

No teacher can properly teach a child until he first learns his disposition and general character. In order to this he must know something of his home-life.

Failing in this particular, he is in danger of treating all his pupils alike, by assuming that they are equally capable of doing the same work; that all are alike favorably situated at home for doing the work prescribed; and he accordingly holds all equally responsible.

Parents may co-operate (1) by setting apart certain hours, and, if practicable, a private room for home-study; (2) by faithfully adhering to this plan—never permitting trifles to interfere with established regulations; (3) by encouraging their children to surmount obstacles, without actually doing their work for them; (4) by keeping prominent the true object of home-work, showing their children that real success is measured rather by mental development than by rapidity in learning lessons; (5) by carefully guarding the teacher's reputation; (6) by occasionally visiting the school. With such co-operation the school would indeed become the friend of the home, and the home the friend of the school.

VI. *The time required for home-lessons by the various grades of pupils.* On this point I shall merely give the result of some inquiries as to the practice which obtains in certain villages, towns, and cities.

In *Brighton Public Schools*, I understand that—

In the *first form* no home-work is assigned.

“ *second* “ about 1 hour's work.

“ *third* “ about 1½ “ “

“ *fourth* “ about 2 “ “

In *Coboury Model School and Public Schools*.

first form, no home-work.

second “ ½ hour's “

third “ 1½ “ “

fourth “ 2 “ “

Toronto Model School—

First form, no home-work, unless it be a question in addition at solicitation of pupils.

Second form, only two lessons—one in spelling and one in arithmetic or writing; time half an hour.

Third form, only three lessons—spelling and arithmetic, and grammar or geography; time ¾ hour.

Fourth form, usually three lessons; time 1 to 1½ hours depending on the ability and application of pupils.

Fifth form, three or four lessons; time about 1½ hours.

Such subjects as grammar, geography, &c., are always taught at school, and the home-lessons are simply reviews. This is true of all subjects assigned, except spelling, until the higher divisions are reached.

City of Hamilton Public School—

First form, no home-work.

Second “ ½ hour's “

Third “ 1 “ “

Fourth “ 1 to 1½ “

To show how home-work increases with promotion, I give the average time devoted to home lessons by pupils of Coboury Collegiate Institute.—

Primary Division, girls, 2½ hrs.; boys, 3½ hrs.

Junior “ “ 2½ “ “ 3½ “

Senior “ “ 4½ “ “ 5½ “

Upper Sch'l “ average 6 hrs.

Average for the school, about 4½ hours.

In conclusion, permit me to suggest that we try to bring our schools and homes into a closer and more friendly relationship, in order that both parents and teachers may more efficiently discharge those duties which belong to them in the work of education.

Examination Questions.

STRATHROY HIGH SCHOOL MONTHLY EXAMINATIONS.

LITERATURE.—*Cowper's Task, Book III.*

I.

(a) Lines 48 —54.

(b) “ 71 —74.

(c) “ 567—569.

(d) “ 687—688.

(e) “ 261—262.

- Quote the three lines that follow extract (a).
- Point out and name all poetic figures in the several extracts.
- Expand all metaphors.
- Parse, as (a), *white* (b), *to own* (b).
- Parse, *of mine* (b), and give reasons for your view.
- Quote lines similar in language or sentiment to any in the extracts, and name the authors of the lines quoted.
- Derive, 'nurse' (a), 'zoneless' (a), 'frail matrons' (b).
- Discuss the appropriateness of the epithets, 'reeling' (a), 'fickle' (a), 'exotic' (c), 'dishvelled' (e).
- Show the connections in the poem in which the last three extracts occur.
- Show in what way any of those lines reflect Cowper's charac-

II.

(a) Lines 173—176.

(b) “ 249—251.

(c) “ 757—759.

(d) “ 803—810.

- Point out all poetic figures in the extracts.

2. To what is the reference in extract (a). Give a quotation similar in language or sentiment.

3. 'Piety has found friends in the friends of science.' Refer to examples of this in the past and present. Explain the reference in 'Castalian dews.'

4. Explain fully the meaning of extract (c).

5. Paraphrase extract (d).

6. Parse, but (a), proves (a), so (b).

7. 'Surfeited,' 'lewd,' (c). Write notes on the meaning and derivation.

8. Give a sketch of Cowper's life at the time of his writing this poem, and show how his manner of life is reflected in the poem.

9. "If Cowper was not the founder of a new school of poetry, he was the pioneer of a new era."

Explain the meaning of this and discuss the statement fully.

10. Wordsworth speaks of the Task as combining the Philosophical Satire, the Didactic Poem and the Idyl. Discuss the appropriateness of this description.

GRAMMAR.

I.

1. Analyze

For *what* are men better than *sheep* or *goats*,
That nourish a blind life within the brain,
If, *knowing* God, they lift not hands in prayer,
Both for themselves and those who call them *friends*!

2. Parse all words in italics.

3. Is 'that' in second line preferable to 'who' or 'which'? Give reasons for your answer.

4. Give the mood of all the verbs in the following sentences, with reasons;—

(a) If these boys were yours, what would you do with them?

(b) Had you been there you would have seen a strange sight.

(c) If my father and mother were not at home they were in London.

(d) If he lost his money he would never be happy again.

5. Correct or justify the grammar of the following sentences, with reasons;—

(a) I called on him and wished to have submitted my manuscript to him.

(b) I had not the pleasure of hearing his sentiments when I wrote the letter.

(c) Having to pass an examination for admission, a few months preparation at a High School is strongly recommended.

(d) I had intended to come before I received your letter.

II.

1. Analyze.

(a) "So live that when thy summons comes to join
The innumerable caravan, which moves
To that mysterious realm where each shall take
His chamber in the silent halls of death,
Thou go not like the quarry slave at night,
Scourged to his dungeon."

(b) "All men think all men mortal but themselves."

(c) "Here rests his head upon the lap of earth.
"A youth to fortune and to fame unknown."

2. Parse all italicized words.

3. Correct, where necessary, giving reasons.

(a) I think I will return home next week.

(b) I expected to have been at home when you called.

(c) I never have nor never will forgive him.

(d) That is seldom or ever the case.

4. Define the terms 'tense,' 'person,' 'strong conjugation.' How many primary tenses are there? Why so many?

5. Explain the basis on which verbs are classified into strong and weak, and illustrate your answer by an example. Conjugate and classify *flow*, *clay*, *sit*, *set*, *loose*, *fly*.

6. What is an auxiliary verb? Explain the use of each of the auxiliary verbs? Give examples illustrating both the auxiliary and the notional use of those verbs.

Practical Department.

LESSONS IN CHEMISTRY.

(Continued from last month.)

CHAPTER II.

18. An acid is a body containing one or more atoms of hydrogen, which are capable of being displaced by a metal, either partially or entirely. The term was originally applied to substances soluble in water, having a distinctly sour taste and capable of turning vegetable blue into red. Blue litmus is the common test.

Bases are compounds which never become acids, but which will under all circumstances combine with acids and neutralise them either partially or entirely; the latter are called *Alkalies*.

Alkalies are generally soluble in water, have an acid, nauseous taste, restore the blue color which has been turned red by acids, turn vegetable blues into green, and browns into yellow. Ammonia, potash, and soda are the common alkalies.

There are two classes of bases.

(1) *Oxides* of the metals, as Ag_2O .

(2) *Hydrates*, which are compounds of metals with hydroxyl (H_2O_2). To this class we must add ammonia (NH_3).

Salts are compounds formed from the union of an acid and a base. There are three classes of acids.

(1) Acids containing oxygen, and having names ending in *-ic* or *-ous*, as nitric acid, HNO_3 .

(2) Acids containing sulphur, instead of oxygen. These prefix *sulph-* or *sulpho-*, as sulphocyanic acid $(\text{CN})\text{HS}$, sulpho-carbonic acid, CH_2S_3 . Some writers use the prefix *thio-*, from *theion* the Greek name for sulphur, as thiocyanic, thio carbonic, thio-stannic acids.

(3) Acids formed by the union of hydrogen and another element. These prefix *hydr-*, or *hydro-* as hydrobromic acid HBr , hydrocyanic acid HCN , hydrochloric acid HCl .

The first class are called *oxiacids* and the third *hydracids*. When a portion of water is abstracted from any oxiacid the residue is called an *anhydride*, thus:—

Sulphuric acid —water=sulphuric anhydride.

H_2SO_4 — H_2O = SO_3

2 HNO_3 (nitric acid) — H_2O = H_2O_5 (nitric ")

Acids are merely salts of hydrogen, and the amount of hydrogen present determines the *basicity* of the acid. Thus nitric acid contains only one atom of displaceable hydrogen, hence it is *mono-basic*; sulphuric acid (H_2SO_4) is *di-basic*, and has two atoms of hydrogen; ortho-phosphoric acid, H_3PO_4 , is *tri-basic*, etc.

Salts containing oxygen are of three classes:—

(1) *Normal salts* in which all the hydrogen of the acid is replaced by a metal, or by a group of elements that goes in and out of combination like an element. (N.B. A group like this is called a *radical* and its name generally ends in *-yl* as hydroxyl, HO).

Examples:

KClO_3 , potassic chlorate from HClO_3 .

NaSO_4 , sodic sulphate " H_2SO_4

AgNO_2 , argentic nitrite " HNO_2 , nitrous acid.

$(\text{NH}_4)_2\text{SO}_4$, ammoniac sulphate from H_2SO_4

(2) *Acid salts* in which the hydrogen of the acid is partially replaced by a metal or a radical. Examples: carbonic acid, H_2CO_3 yields sodic hydric carbonate, NaHCO_3 , with only one atom of hydrogen replaced. Sulphuric acid, H_2SO_4 yields KHSO_4 , potassic hydric sulphate.

(3) *Basic salts* are derived from normal salts by the substitution of oxygen for an equivalent amount of the radical.

COMMON ACIDS.	COMMON SALTS.
HNO ₃ , hydric nitrate.	KNO ₃ , Potassic nitrate.
HNO ₂ , " nitrite.	AgNO ₃ , Argentic "
H ₂ SO ₄ , " sulphate.	CaSO ₄ , Calcic sulphate.
H ₂ SO ₃ , " sulphite.	PbSO ₃ , plumbic sulphite.
HClO ₃ , " chlorate.	KClO ₃ , potassic chlorate.
HClO ₂ , " chlorite.	NaClO ₂ , sodic chlorite.
HClO, " hypochlorite.	KClO, potassic hypochlorite.
	FeSO ₄ , ferrous sulphate.
	Fe ₂ Cl ₆ , ferric chloride.

19. The following list gives the composition of a number of common substances. The student will do well to make himself thoroughly familiar with their chemical names and formulas. He should notice the class to which each belongs:—

COMMON NAME.	CHEMICAL NAME.	FORMULA.
Water	Hydric oxide	H ₂ O
Quick-lime	Calcic "	CaO
Oxide of Zinc	Zincic "	ZnO
Black oxide of copper	Cupric "	CuO
Red oxide of mercury or } Red precipitate	Mercuric "	HgO
Oxide of silver	Argentive "	Ag ₂ O
Oxide of lead or } Litharge	Plumbic "	PbO
Magnesia	Magnesian "	MgO
Potash	Potassic "	K ₂ O
Slaked lime	Calcic hydrate	CaH ₂ O ₂
Caustic soda	Sodic "	NaHO
" potash	Potassic "	KHO
Carbonic acid } Choke-damp, After-Damp }	Carbonic anhydride, or " dioxide	CO ₂
White sand, quartz, flint &c	Silica, or silicic "	SiO ₂
Black oxide of manganese	Manganic "	MnO ₂
Tin-stone	Stannic "	SnO ₂
Red oxide of iron } Alumina (clay)	Ferric oxide	Fe ₂ O ₃
Loadstone or } Black oxide of iron }	Aluminic "	Al ₂ O ₃
Red lead	Ferrous " and } Ferric " and } Red plumbic oxide	FeO, Fe ₂ O ₃ , Fe ₃ O ₄ , Pb ₃ O ₄
Vitreous copper	Cuprous sulphide	Cu ₂ S
Galena	Plumbic "	PbS
Zinc Blende	Zinc "	ZnS
Common salt	Sodic chloride	NaCl
	Calcic "	CaCl ₂ + 6H ₂ O
	Argentive "	AgCl
Muriatic or hydro- chloric acid }	Hydric "	HCl
Fluor-spar	Calcic fluoride	CaF
Bleaching powder } chloride of lime }	Calcic hypochlorite	CaCl ₂ O
Oil of vitriol, } sulphuric acid }	Hydric sulphate	H ₂ SO ₄
White vitriol	Zinc "	ZnSO ₄ + 7H ₂ O
Blue vitriol, blue } stone }	Cupric "	CuSO ₄ + 5H ₂ O
Green vitriol	Ferrous "	FeSO ₄ + 7H ₂ O
Plaster of paris, } gypsum }	Calcic "	CaSO ₄ + 2H ₂ O
Heavy spar	Baric "	BaSO ₄
Glauber's salts	Sodic "	Na ₂ SO ₄ + 10H ₂ O
Epsom salts	Magnesian "	MgSO ₄ + 7H ₂ O
Aqua fortis, nitric acid	Hydric nitrate	HNO ₃
Saltpetre, nitre	Potassic "	KNO ₃
Chili saltpetre	Sodic "	NaNO ₃
Lunar caustic or } Nitrate of silver }	Argentive "	AgNO ₃
	Cupric "	Cu(NO ₃) ₂ + 6H ₂ O

Chalk, limestone, } marble &c	Calcic carbonate	CaCO ₃
Washing soda	Sodic "	Na ₂ CO ₃ + 10H ₂ O
Potashes, pearlashes	Potassic "	K ₂ CO ₃
White lead	Plumbic "	PbCO ₃
Smelling salts	Ammonic "	(NH ₄) ₂ (CO ₃) ₂
	Phosphoric anhydride	P ₂ O ₅
	Tribasic phosphoric acid	H ₃ PO ₄
Bone-earth, bone ash	Tricalcic phosphate	Ca ₃ (PO ₄) ₂
Vinegar, acetic acid	Hydric acetate	C ₂ H ₃ O ₂
	Potassic acetate	CC ₂ H ₃ O ₂
Sugar of lead	Plumbic "	Pb(C ₂ H ₃ O ₂) ₂ } + 3H ₂ O }
Verdigris	Cupric "	Cu(C ₂ H ₃ O ₂) ₂ } + 3H ₂ O }
	Zinc "	Zn(C ₂ H ₃ O ₂) ₂ } + 3H ₂ O }
	Chromic anhydride	CrO ₃ , (chromium,) Cr=52.5)
Chromome acid	Hydric chromate	H ₂ CrO ₄
Chromic yellow	Plumbic "	PbCrO ₄
Chromate of potash	Potassic "	K ₂ CrO ₄
Sugar	Sucrose	C ₁₂ H ₂₂ O ₁₁
Alum	Aluminic potassic }	Al ₂ K ₂ (SO ₄) ₄ + } 24H ₂ O }
Cast iron cores- } ponds closely to }	sulphate	Fe ₄ C
Coal oil "		C ₁₂ H ₂₄

Many of the metallic salts owe their crystalline character to a certain definite number of atoms of water which they hold in a state of chemical combination, and this is termed *water of crystallisation*. It determines the crystallographic form and often modifies the color of the crystal. It is held with varying tenacities. Some salts give up their water of crystallisation to the air at ordinary temperatures and fall to a powder (*efflorescence*), as sodic carbonate. Others, as common alum, require considerable heat to drive off the water. This water is essential to the crystalline form but not to the chemical properties of the salt. It is chemically combined, as is proved by its strict obedience to the law of multiple proportions, but it is less powerfully combined with the other materials than the water in hydrates, as CaH₂O₂. The latter requires a comparatively high temperature to effect its expulsion and is called *water of constitution*, *constitutional water*, or *water of hydration*. Often a salt of this kind when dried will again absorb water from the air and become a hydrate, (*deliquescence*).

NOTES ON HYGIENE.

BY J. A. WISMER, PRINCIPAL OF PARKDALE PUBLIC SCHOOLS.

(Continued from last month.)

Let us next examine the ear. It consists of three distinct parts the outer ear or lobe, the middle ear or tympanum, and the inner ear or labyrinth. The lobe you can examine for yourself, consequently I need not describe it. It is so fashioned that it can with the greatest success receive sound and transmit it to the inner ear through the auditory canal. The tympanum or drum is a cavity behind a dense slanting fibrous membrane called the *membrana tympani*, behind which there is a tube leading to the pharynx or upper part of the throat, called the *Eustachian tube*. The labyrinth or internal ear consists of three parts, called the vestibule, the cochlea, and the semicircular canals. Sound is transmitted from the vestibule to the brain through the auditory nerve. The cochlea is shaped somewhat

like a common snail shell. The semicircular canals are six in number all opening into the chamber or vestibule of the inner ear. There are three curiously shaped little bones in the inner ear, namely, the malleolus or hammer, the incus or anvil, and the stapes or stirrup, all of which move when sound is transmitted. Very loud and unexpected sounds, as the discharge of a cannon close to the ear, are apt to rupture the membrana tympani and cause permanent deafness in one ear if not in both. Boiler-makers, engine-drivers and many machinists in time, become more or less deaf from the continuous strain on the ear made by loud sounds. Nothing should ever be allowed to enter the ear, or be put into it, with perhaps the single exception of a little warm sweet oil and a few drops of laudanum in severe cases of ear-ache which is exceedingly painful. If any foreign substance as a bean, pea, or an insect should accidentally get into the ear you had better call in the aid of a surgeon as quickly as possible. Good eyesight and good hearing are two of the greatest blessings conferred on man by his beneficent Creator; take great care, therefore, of both the eye and ear in youth, in order that they may serve you well, even to extreme old age.

We will consider next the hygiene of the bones and muscles, and then vary our course by some hints on bathing, swimming, common accidents, &c. which will no doubt prove more interesting, (especially to the boys).

The muscles and bones require activity or use to make them strong and healthy; labor improves and strengthens the muscles, while laziness or inaction weakens them. Great benefit may be derived from athletic exercises within certain limits, also from dumb-bells, club-swinging, and military drill. The bones of a young child consist of a very little lime or earthy matter and are comparatively weak. Those of old people, on the contrary, contain much more lime than animal matter, and are therefore more liable to break. A broken bone may be detected, generally, by the abnormal displacements of the muscles or soft parts surrounding it. A grating noise can also be heard when the broken ends are slightly moved against each other. If the fracture be one of the bones of the arm or leg, bind strips of cotton or a couple of pocket handkerchiefs around it after extension and straightening, then apply two splints made of shingles or whatever thin wood may be handy, and send for the nearest surgeon.

Everybody should remember to sit, stand, and walk erect. A perfectly upright carriage of the body is conducive to the beauty and symmetry of its parts. Children at school should sit erect during their various exercises; this should be especially remembered when writing or drawing. Improper positions at school induce round or stooped shoulders and often curvature of the spine. Extension motions or calisthenic exercises should form part of every school programme. Walking or horse-back riding are important aids to health. Every healthy young person ought to know how to ride a horse, and should be able to walk five or six miles without feeling any inconvenience.

Everybody should know how to swim. First get yourself accustomed to the water in shallow places by repeated bold dashes; if you go under a few times all the better. When you have thoroughly overcome the shrinking and nervousness occasioned by the contact of water with the less exposed portions of the body, you have taken the first important step in learning to swim. The confidence thus gained is half the battle. Then practise paddling with the hands and feet with the body thrown either backward or forward. Learning to swim on the back, as the boys say, is the easiest method if you have sufficient confidence. Never mind your ears, all you require is to have the nose above the surface, keep the hands and feet in motion under water, and you will not go down. Notice the movements of the legs made by that splendid swimmer,

the frog, and practise them yourself. These are the leg motions, then throw the body forward and, always being careful to keep both hands and feet under water and in motion, practice will then enable you to master the art of swimming without difficulty. One writer says (and there is considerable truth in it) that if suddenly submerged, keep cool and perform the motions with the hands and feet of a person climbing up stairs on all-fours, and you will not sink even if unacquainted with the swimming art. This is worth remembering by those who cannot swim. In view of the disastrous accident to the steamer *Queen Victoria* at London and the enormous loss of life on that occasion, it would be wise for those who take holiday excursions by boat to provide themselves with a tight fitting cork jacket coming high up the neck. Persons should not bathe or swim while the stomach is engaged in the act of digestion, or, in other words, not for a couple of hours after meals. Boys after racing to the water on a hot day should wait until cooled off before plunging into rather cold water. There is not only danger of cramp, but the sudden lowering of the temperature of the body may induce serious disease of the internal organs if inclined to be weak. Race around as much as you like after a swim but not before it. The body should be briskly rubbed with a coarse towel after a bath. Before diving it would be well to plug the ears with cotton batting, as the water is not only uncomfortable to the middle ear, but also injurious. Opening the eyes under water is, to many, a somewhat difficult thing to do. It would be well to practise it however in clear water, as it may enable you to save a human life.

For the method of resuscitating a person apparently drowned, see the September number of the CANADA SCHOOL JOURNAL for 1881.

HINTS TO TEACHERS OF PRIMARY CLASSES.

BY S. P. ROBINS ESQ. INSPECTOR OF PUBLIC SCHOOLS, MONTREAL.

1. Remember that, inasmuch as you are left very much to the guidance of your own judgment in the management of your class it is especially necessary to use all your observant and inventive faculties for securing the best possible result of your labour.
2. That best possible result is the thorough preparation of each of your pupils to prosecute his studies and perform all other duties well hereafter. The first aim is not a high standard of attainment, but a good discipline of mind and manner, so far as it can be attained with each little pupil.
3. Because the habits of thought and action that are earliest formed are the most persistent and influential throughout life, and because the imitative faculties of a little child are especially active and his nature peculiarly impressible, yours is the most important work done in school. It is difficult work but, if well done, you deserve corresponding consideration and honour. If you do not get them now, yet, your heart and life being right in other respects, you will secure them hereafter.
4. As you are conducting, in common with other painstaking and successful teachers, a great experiment in the management of half-day classes with very little children, carefully observe whatever in your manner, or in the ingenious devices to which you will be led, makes for your success, practise it diligently, and tell of it to others.

DISCIPLINE.

There is no need of reference here to the mode in which the successful teacher acquires ascendancy over each of her pupils by strength and consistency of character, by a loving heart, a kind manner, and a clear and vigorous understanding. All these things are presupposed in the successful teacher. When, as in my presence less than twelve months ago, a teacher says to a class "I will look at the slate of no child out of place," and then in less than a

minute does so, it is not surprising that her class despise her authority, and make little or no progress. One who can promise so lightly, and forget so readily is fit for no important trust; certainly, not for that of the teacher. But there are many things, little in themselves though important in their results on discipline, which are sometimes overlooked even by those who have all the essential elements of excellent teachers.

1. Consider well the disposition of a little child. He is active but undisciplined. He longs to know, takes great delight in learning,—he loves to do, takes great delight in putting his knowledge into practice. But then he has but little persistency and steadiness.

2. You must, therefore, when he is not at play, teach him constantly or keep him doing constantly, and this with rapid alterations from the employment of his mind to the employment of his body.

3. So you must never be without a definite plan of action that shall engage the attention of every child. A half minute's embarrassment of the teacher in the presence of the class will work ruin in its discipline for the time being, and a child with nothing definite to do at any time during the school session becomes forthwith a centre of disturbance.

4. You must not put too prolonged a strain on the feeble power of attention in pupils of the preparatory grade. Let your work be varied and your lessons short and lively. Let the teachers who will follow you in the school course have most of the trouble involved in securing long continued and concentrated attention.

5. Frequent change of rooms will much facilitate your work. In some schools visited there is not nearly enough of this. Your class should occupy two rooms during parts of every hour. This may compel you to change in the middle of a lesson, but you can so choose the lessons that the interruption will not be harmful.

6. Much aid to discipline is afforded by the drill of changing rooms by simple calisthenic exercises and by exercise songs. But this aid is secured only by the enforcement of prompt and exact obedience.

7. Hence the lightest tap of the bell should be followed by immediate and intense silence, not, however, permitted to continue long.

8. Hence also the first word of each command must be so chosen and given as to suggest invariably what is to follow, the next and finishing word of the command must be the signal for the prompt, universal, and therefore simultaneous execution of the command.

9. Hence also no second command should be given until the first has been universally and precisely obeyed.

10. Finally, the effect of each command must be minutely considered beforehand. For example, in a series of commands, those first given should be those that can be executed noiselessly, the whole series being terminated by that one which necessarily involves disturbance.

TEACHING.

1. You must yourself be accurate. The distinction between the well educated and the imperfectly educated is just here, that the one is, the other is not, automatically and minutely correct in recollection, in mode of thought, in manner of expression. I saw a teacher, printing on the black-board for the imitation of her class, make a small w thus, W. Do not teach anything that must be subsequently unlearned.

2. With little children, especially at the outset, much attention must be given to them individually. This, however, in many instances can be done so as to interest others not directly addressed, who may be appealed to to give the information that their companion requires.

3. The effect of every collective lesson is greatly increased when every child attends to the whole lesson. But this attention can

be secured only by making each child feel that in all you say you have reference to him.

4. Hence recitations and other exercises must not be wholly, nor even principally, simultaneous. No more convincing evidence of idleness or of inexperience on the part of a teacher is needed than the general inability of a class to repeat individually, what in concert, or rather following the lead of one or two, they can in sing-song style deliver simultaneously.

5. In questioning a class you should not give it to be understood whether you intend to have the answer from the whole class or from any particular pupil until after your question has been asked and a momentary pause for reflection and recollection has been allowed. After the pause you may say "John Brown" or "any one" and then expect an instant answer. Thus you prevent one or two bright pupils suggesting the answer to all the rest of the class, and you secure the attention of each to the work in hand.

6. Take care that each child gets a fair share of questioning. Sometimes the teacher has a few names that somehow spring first to the tongue, and their owners get the lion's share of attention. When the teacher is conscious of this let her make sure of each child occasionally by some such device as the following. Let the whole class stand, and, as questions are answered by individuals, let them sit. Thus proceed until every child is seated.

7. Holding up the hand to indicate the wish to reply to a question is open to great abuse. Forward children answer everything. Timid or indifferent children answer nothing. It is a good rule that the hand shall not be held up except when another pupil has made a mistake or when the teacher, in asking a question that she thinks a little too hard for the class generally, gives special permission to raise it.

8. Rising from the seat, running after the teacher, thrusting the hand into the teacher's face, snapping the fingers are highly improper acts, instances of each of which I have seen as importunate efforts to attract the teacher's attention. At times the teacher by standing so that she cannot see the whole class, is the direct cause of such rudeness.

9. It is impossible to carry on work with the active co-operation of the teacher in two classes at once. Having given one class an exercise on the slates, or one of some other kind, that has been properly explained, that is within their power, and the result of which can be subsequently examined by yourself, bend your undivided attention on the other class.

10. In the examination of slate work it is, as a rule, better that the children bring it to the teacher, than that the teacher go to examine it. Hence in every room pupils should be taught how, without marking time or marching noisily, to move in single file before the teacher showing work as they pass slowly, and then to return in order to their places, having completed the circuit of the room.

11. Home-work is not needed in preparatory classes. It will much conduce to good order, therefore, if books, slates, and pencils be always left in school under the care of the teacher.

12. The preparatory limit-table should be interpreted rather as a maximum than a minimum.

READING.

1. Use cards frequently for individual, as well as for simultaneous reading.

2. Do not confine yourself to the set order of words. Pick out words here and there; read backward as well as forward.

3. I had supposed the teaching of reading by spelling thus, omm eo me, o double gee egg, to be obsolete; really, I find it only obsolescent. If a word be analyzed at all, for purposes of reading, it should be by the powers and not by the names of the letters.

ARITHMETIC.

1. If you have not an abacus that stands on feet, ask for one.
2. Use the abacus yourself, but let the children also use it constantly.
3. Do not aim at going beyond the limit, 20.
4. Let every kind of relation among numbers be taken with each successive number; i. e., do not teach addition first, and then subtraction, multiplication and division in succession, but teach all three operations, as mentally performed, simultaneously. Thus, that three and three are six, that three taken from six leaves three, that twice three are six, that three is the half of six, and that three is contained in six twice, are but different ways of regarding the same fact.

COMMON THINGS - OBJECT LESSONS - STORIES - SINGING.

1. See that you have, use yourself, and set the children to use scales and weights, a two-foot rule, a clock card, and a compass.
2. Object lessons must be very simple, but they ought to be more or less, on that account, carefully prepared. It is a painful thing to see a teacher standing before a class puzzled to know what to do or to say next.
3. Similarly a story should be prepared beforehand. Great interest will be added if the teacher simply illustrate her story by drawing on the black-board as it proceeds.
4. In questioning children on all subjects the aim should be to get connected answers of some length, but this can only be very slowly accomplished.
5. Teach children to sing distinctly but not too noisily. The musical effect of a perpetual bawl is even worse than that of a perpetual whisper. It is no harm to have an occasional *f.f.f.* passage, but let us also occasionally have *p.p.p.*

MISCELLANEOUS.

1. Stand so that you can see all the children of the class, and so that each one of them can see, when necessary, what you do and how you do it. Sometimes it is well to overlook children from behind.
2. Be not noisy. Speak distinctly and quietly, so that children will listen to hear you, do not shout so that they must hear you whether they will or no. Even if a busy hum of work (pleasant to hear) fill the room, do not raise your voice too much; call attention by a light stroke of the bell before you speak, then speak in the midst of a profound silence. Pointers and rulers were not made for banging desks with. Teachers' feet have other purposes than stamping on the floor.
3. Be not fussy. Self-possession, that quietly takes note of all surroundings and that adjusts itself unruffled and without effort to them all, is the secret of easy government, as it is also the last refinement of the perfect gentleman.
4. Look out for short-sighted children, and for children who are hard of hearing. These physical imperfections are often unknown to the children themselves, and long escape the notice of parents and teachers. Unfortunately not only do they give an appearance of stupidity to children that are really bright, but they must seriously retard progress unless compensated by the considerate arrangements of the teacher. Let as many exercises as possible cause children to lift the eyes up from books to maps, pictures, objects at a distance and work done on the blackboard, so that the tendency to shortsightedness may be, so far as possible, checked.
5. Embrace eagerly any opportunity that may be afforded you of visiting the classes of other preparatory teachers. I have seen some excellent work done in some of them, and in almost all the work is good. There is not a single class in which I have not seen at least one thing done so well that I could wish all other teachers of the same grade had an opportunity to see it.

SCHOOL LUNCHES.

BY FLORENCE B. HALLOWELL, WASHINGTON, D. C.

This subject, though seldom if ever touched upon by the general press, is certainly of sufficient importance to be discussed in THE JOURNAL; bearing, as it does, directly upon the ability of children to grasp intelligently the ideas presented by the teacher.

Not long since I chanced to be present at the noon hour of one of our large public schools. I was taken from room to room by one of the teachers, who was interested in explaining to me the source of study in the different grades. We arrived at last at the basement, where,--it being a stormy day,--the girls had assembled to eat their lunches. In the adjoining basement the boys of the male

department had been let loose, and could be heard shouting at the top of their voices as they engaged in various games.

Being an earnest advocate of plain, wholesome living, the contents of the many lunch-baskets open before me shocked and surprised me. How can parents be so indifferent to the welfare of their children as to provide for them a daily diet of pickles, rich cake, pie, and preserves? How can children be expected to be healthy and to have clear, vigorous intellects, on such a diet? Not a basket was without a pie, and mince-pie,--the worst of all,--seemed to be the favorite. Every basket had a goodly share of cake, too; and some held cracked nuts. Big, green cucumber pickles and limes were devoured with avidity; and some of the girls had in little tin baking-powder cans chow-chow, loaded with mustard. Instead of sandwiches of cold meat or ham, the bread was spread with sugar, preserves, honey, or molasses. Few baskets contained the healthiest of all food--fruit. I suppose these girls, ignorant of the first laws of health,-- would sincerely pity any companion whose lunch-basket contained only a ham-sandwich and an apple. They appeared to vie with each other in producing the richest food from their store, and several who had brought candy were looked upon with curious eyes. One basket contained only a rich cream-puff and a pickle. Think of it!

It is universally conceded, I believe, that rich food makes the brain sluggish. That, in order to make a brilliant record as a writer or a philosopher, a man or woman must forbear to tickle the palate with dainties. How can parents expect good school reports, or teachers look for intelligent and rapid progress in studies, when the young minds are nourished to such an alarming degree on indigestible food?

During the afternoon two of the girls in the room of my friend were excused from school on account of headache. No wonder they had headache! They may expect to have it all the rest of their lives unless they learn to enjoy simple, nutritious food. Many of the girls bore testimony to the pickles, pie, and rice cake they ate, in their pale cheeks and heavy eyes.

As I left the school-house I saw an old man with only one arm, standing near the fence with an umbrella over him. A large tray was suspended from his shoulder by a strap. On the tray was a motley collection of lard-soaked doughnuts, partially decayed apples, fruit-cake, and cracked nuts. Stepping up to him, I asked him if he found much custom for his wares. "Lor, yes'm," he answered. "I genly sell out every noon-time, and has to go back home for a fresh lot before school lets out." "Do the children buy of you after school, as well as at noon?" I asked. "They buys a deal," he answered. "They gets hungry a-going home, an' wants suthin' to chaw on." "And have poor appetites for their dinners in consequence," was my mental conclusion, as I walked away.

Just below the school-house was a small store kept by an old woman. The stock consisted of candy and cake, pop-corn balls, and nuts. Her trade, I understand, was entirely confined to the children of the public school.

There is, evidently, too little attention given in the home to this matter of lunches. What Mary or John likes, and not what is best for them to eat, goes into the basket. They are fond of pie and cake, as are most children,--and pie and cake go into the basket without any regard whatever to a probable headache or a possible attack of indigestion. And yet it is an easy matter to get up a healthy and appetizing lunch without recourse to injurious dainties. We have now-a-days the most delicious potted meats, turkey, chicken, ham, and tongue, which can be bought at a very reasonable price when we consider the fact that they are so condensed that a little of them goes a long way. A couple of sandwiches, spread with any one of these meats, an apple, or any other fruit in season, is sufficient to satisfy any child whose taste has not been perverted beyond repair.

I was once at the house of a friend who considered herself a great economist. She allowed nothing to be wasted. The odds and ends were looked after with unflinching vigilance, and everything turned to account in one way or another. But one day she failed in the baking of a fruit-cake. It came from the oven heavy as lead, and would in most households have gone directly into the swill-pail. Not so here. "This is too bad!" I heard her say to her eldest daughter. "It's a shame to have such good materials ruined. But never mind; it shan't be wasted. I'll give it to the children for lunch. They'll never know the difference." And into the lunch-basket it went, daisy, I suppose, until the last crumb was disposed of, dealing headache and indigestion right and left. In my opinion it had far better have been "washed"--*New England Journal of Education*.

ORAL LANGUAGE LESSONS.

BY JAMES L. HUGHES.

I. Kind.

1. *Incidental.* These should form a part of every lesson in which the pupils have an opportunity to speak. Their chief function is to correct errors of all kinds.

2. *Special.* These should take the place of what are commonly called grammar lessons until the pupils are about ready to enter the Fourth Book.

II. Objects

Oral language lessons should include constant and careful attention to the following:—

1. *The position of the pupil.*

- (a) He should stand on both feet.
- (b) He should stand in the aisle.
- (c) His head should be held up, and his shoulders back.
- (d) His hands should be at his sides, without touching the desks.
- (e) His eyes should be directed to the person addressed.

2. The pupils should speak in complete sentences. In elliptical questioning, or when the answer is merely a name or a date, this rule need not be followed. Indeed whenever the pupil's answer consists merely of a repetition of the chief part of the teacher's question with a name or a fact inserted to complete it, the development of the language power of the pupil is extremely small.

3. Grammatical accuracy.

4. Pronunciation, including clear articulation, especially of words that must necessarily be used very frequently, and are almost universally mispronounced, such as, was, and, do, you, just, can, because, such, have, the ending ing, &c.

5. Pitch and volume of voice.

6. Rate of utterance, including pausing.

7. Habits of inflection, emphasis, &c.

8. Spelling of difficult words, as a preparation for written lessons.

III. General Suggestions.

1. The teacher should be a correct model.

2. Language lessons should consist of PRACTICE not rules.

If pupils can be led to talk freely in expressing their opinions or in repeating what they remember in their own language the chief difficulty will be overcome. Nothing will remain but the correction of errors. The erroneous liabilities of the individual pupils can only be found out by free conversation on the part of the pupils themselves.

3. Pupils should be trained to notice incorrect expressions and errors in pronunciation. This is the most essential step in teaching them to avoid them.

4. The pupils should make the corrections themselves, in both incidental and regular lessons. They will be delighted with the privilege of making corrections or improvements in expressions used and what one omits will be suggested by another.

Directly, this exercise acquaints the pupil with the common errors of speech, refines his style and improves his vocabulary; indirectly, it promotes readiness in speaking and facility in expression.

5. In giving formal lessons on language the teacher should direct the attention of his class to the use of one class of words, or to one construction at a time. Each class should have its own specific

work to do. It will not do to allow hap-hazard work in a regular language lesson. The teacher in his lesson plan must have a definite aim, for example, the correct use of the pronouns, and he must also arrange his plan of teaching this lesson so as to secure the use of the pronouns in every conceivable way. This must not be left to chance, but should be the necessary outcome of a series of pre-arranged illustrations and skillful questions.

In leading the pupils to use pronouns in their conversations, some plan similar to the following may be used. Each teacher will of course use as many plans as possible, but each plan should make it essential to use a pronoun in some part of the sentence. The other parts of speech may be dealt with in a similar way.

"Mary and Jane, you will each take a pencil in your hand."

"Mary, tell me what you have."

"I have a pencil."

"Jane tell me what you and Mary have."

"We have pencils."

"Tell me another way Mary."

"Jane and I have each a pencil."

"Tell the same fact to Mary herself, Jane."

"You and I have each a pencil."

"What has Jane, Mary?"

"She has a pencil."

"Tell me what Mary and Jane have, John."

"They have pencils."

"Whose pencil have you, Mary?"

"This is my pencil."

"Say the same thing in another way."

"This pencil is mine."

"Tell Mary whose pencil she has in her hand, Jane."

"That is your pencil, Mary."

"Another way."

"That pencil is yours, Mary."

"Speak to Jane about both pencils, Mary, and tell her who owns them."

"These pencils are ours."

"Another way."

"These are our pencils."

"James, tell me whose pencils those are."

"Those are their pencils."

"Another way."

"Those pencils are theirs."

"Samuel, tell Mary and Jane whose pencils they have."

"Those are your pencils."

"What are you doing with the pencil, Mary?"

"I hold it in my hand."

"Take both, Jane, and tell me."

"I hold them in my hand."

&c., &c., &c.

Formerly it was regarded as sufficient to compel the pupils to recite by rote:—

<i>Singular.</i>	<i>Plural.</i>
<i>Nom.</i> I	<i>Nom.</i> we
<i>Poss.</i> my or mine	<i>Poss.</i> our or ours.
<i>Obj.</i> me.	<i>Obj.</i> us.

With the corresponding tables for the second and third persons. What a developing exercise this *was* and *I fear is*! What is needed is PRACTICE instead of rules and lists.

Of course in the average class, the replies would not be at all accurate at first. "Jane and me," "a and you," would occur frequently. Practice by the pupil who blundered, is the only way of correcting such mistakes.

Fragments.

The complaint is often made that teachers are treated disrespectfully by society and by governments. There is often too much truth in the charge. It is not very creditable to those who have left the profession of teaching for some more lucrative (not higher) position, that they are frequently most outspoken in their expressions of contempt for the position which they used as a temporary means for obtaining a livelihood. Regarding the school as a mere source of income it need not be a matter of surprise that they should have a contempt for the teaching they did themselves. Probably the public may have shared their feelings. President Arthur was a teacher in early life and when the State and City Superintendents of Schools called on him recently during their annual convention in Washington, they expected a courteous if not a sympathetic reception. They were grievously disappointed, however, according to the description given by the editor of the *School Bulletin*, who was present. The President was stiff and formal, and did not seem to remember that he had ever taught in a district school. After delivering a brief response to their address, he turned to his clerk and proceeded with his business before his guests had left the room. One of the Superintendents in response to the general remark: "He seems to care little for the schools," said "He can not think less of me than I do of him."

"The schools have ruined my child." So say many thoughtless parents, led by equally thoughtless medical men. So said a sorrowing father recently. "My daughter is completely paralyzed," said he; "she cannot speak plainly; she cannot raise her hand, and I blame the school for it. So does the doctor." Knowing that she had been entirely excused from home work for about two years, that she was 14 years of age and yet only in the junior third book. I knew that her school work could not possibly have injured any healthy child of her years. Enquiry showed clearly that she was born with a nervous system prone to disease, that she had been subject to St. Vitus' dance, that in fact she should never have been sent to a public school at all. Notwithstanding these facts the intelligent medical man instead of prescribing open air exercise and proper food, allowed the child to be sent to school, raised no objections when the piano was bought and the poor girl set "to practise," looked helplessly on and drew his fees as family physician while the weak system gradually became enfeebled, and when it finally gave way owing to his neglect or ignorance, he with questionable honesty tried to blame the school. There are children who should not be allowed to go to school. She was undoubtedly one of them. It was a great wrong to allow her to go, and the family physician was responsible for the wrong. He was also guilty of deception and injustice when he tried to shoulder his own responsibility on the school.

A very good plan is adopted in some places to secure the reading of useful books by pupils. A blank book is kept in each class in which a page is allotted to each pupil, and a record is entered by the pupils themselves monthly of the books they have read during the month, with the names of the authors. This leads to systematic reading by the pupils, and gives the teacher an opportunity to direct them in forming their reading tastes. Teachers have no other way in which they can more effectively influence the characters of their pupils in a right direction. Try the experiment.

Question Drawer.

W. H. H.—(1.) The "Privy Council" in Canada is made up of the Ministers or Heads of Departments who are chosen to advise the Governor-General with respect to public affairs. These Ministers, taken collectively, are usually designated the "Cabinet," and the terms "Cabinet" and "Privy Council" are therefore in Canada popularly regarded as synonymous. In England they are not so, for there the Cabinet is virtually a committee of the Privy Council, made up of such members of the latter body as are in accord with each other on affairs of state. It is a question of constitutional law about which there may be differences of opinion, whether in Canada, as in England, all Cabinet Ministers are really members of the Privy Council or not, as the British North America Act says nothing on the point. In both countries members of the Cabinet are collectively responsible to Parliament for all the executive acts of the Government, the Queen in the one country and the Governor-General in the other being entirely without responsibility to the people. (2.) The Australian colonies are not united together in one confederation as the Provinces of Canada are. Each has its own government and its own capital city. New Zealand comprises more than one island but it is all under one Government and one Legislature. (3.) Opinions vary as to whether the correct mode of expression is "three times five is fifteen" or "three times five are fifteen." The sticklers for formal grammar and minute parsing will probably prefer the latter because the former is not parseable according to their ideas. Our preference is for the first form and assuming it to be good English, the subject "three-times-five" should be parsed as one word. [Your fourth question is one of a numerous class to which we do not feel justified in giving up our space. The object of this department being to aid the teacher in his work by giving him information which he requires and which many teachers can procure with great difficulty, if at all, owing to the want of good books of reference.]

E. W.—(1) The correct pronunciation of the word "Manitoba" must, like that of other names of places, be finally determined by local usage. There can be no doubt that as pronounced by the Indians and early English speaking settlers of the Red River Valley the stress was divided between the second and fourth syllables, thus. Ma-nit-o-ba, and it is to be regretted that this pronunciation was not more strictly adhered to. The general tendency now, however, is to pronounce it Ma-ni-to-ba, and unless the advocates of the more euphonious and otherwise desirable Indian pronunciation take steps to check the process their favourite form will speedily die out. (2) The proper spelling of the name of the territory adjacent to Ontario, according to the Act creating it, is "Keewatin." In the session of 1878 the Hon. David Mills, then Minister of the Interior, introduced into a bill relating to that region the more correct spelling, "Keewaydin," but the bill was never passed and the old spelling remains as a matter of statutory enactment. The correct sound of "a" in Keewatin is ascertainable from the fact that the form "Keewaydin" gives a much better idea of the Indian pronunciation of the word than "Keewatin" does. The meaning and origin of the name "Keewaydin" are indicated in the concluding lines of Longfellow's "Hiawatha," which are as follows:—

Thus departed Hiawatha,
Hiawatha the Beloved,
In the glory of the sunset,
In the purple mists of evening,
To the regions of the home-land,
Of the northwest wind, Keewaydin,
To the Islands of the Blessed,
To the kingdom of Pontémah,
To the land of the Hereafter!

Notes and News.

.ONTARIO.

The first annual convocation in connection with the Toronto Baptist College was held on the 2nd of May. This being the first session of the institution there were only three graduates all of whom delivered thoughtful addresses on the occasion. Their names are Duncan D. McArthur, of Dominionville, James McEwan, of Brantford, and William T. Tapscott, of Toronto. The attendance of students has during the session been fair for a commencement year. The Rev. Dr. Castle, President of the College, presided and

delivered an appropriate address. The college building is known as McMaster Hall, the building fund having been entirely donated by the Hon. Wm. McMaster of Toronto. The college course is entirely theological.

A teacher in the County of Lennox, writes to explain how it is that teachers get such low salaries. He says:—"The reason is that teachers underbid each other on account of some advantage, real or supposed, possessed by one school over another. If teachers will underbid each other, of course no advance in salaries can reasonably be expected, and the result is that the best teachers do not always get the best schools, because good teachers will not reduce their salaries. If teachers would form a union similar to the Trades Union, they might control in a greater degree their own salaries."

The following subjects were for discussion at the teachers' convention at Port Hope, June 2nd and 3rd.—How may the tendency to vicious literature be best checked? Would teachers' unions be beneficial to the profession? What part of the school exercise should tend to the cultivation of memory? What is the best plan to prevent tardiness? To what extent is the teacher responsible for the moral training of his pupils? Would you prevent whispering in the school room; and if so, how? What are proper incentives to study? How would you check truancy? Should fractions be taught before reduction and the compound rules? Are school exhibitions beneficial? Should spelling be taught orally? How can we make indolent pupils study? By what means can we induce parents to take greater interest in school work? How often should written examinations be held? How would you assist pupils in preparing their reading lessons in the different classes? To what extent would you ask pupils to correct each others' mistakes? When and how would you begin the teaching of problems in arithmetic to young pupils? How can you prevent children counting on their fingers?

It is said that Mr. Miller, a Huron County inspector of schools and a candidate for the inspectorship of prisons, is to be the new bursar of the asylum at Orillia. The pay and the emoluments of the latter office are said to be superior to that of the inspectorship.—*Collingwood Messenger*.

There is to be a convention of the Business Educators of America held at Cincinnati, Ohio, on the 6th of June, and Mr. J. W. Johnson of Ontario Business College, Belleville, is on the programme as one of the speakers.—*Belleville Ontario*.

The following address was presented to H. J. Galton B.A., Head Master Brampton High School, with a handsome clock and two beautiful accompanying ornaments, on the occasion of his departure from Brampton last Easter:—"To J. H. Galton, Esq., B.A., Head Master Brampton High School, Dear Sir, We the teachers and pupils of the Brampton High School cannot permit you to sever your connection with us, without expressing the high respect and esteem in which you are held by us, and our sincere regret at your departure. We desire also to make known our high appreciation of your patience and kindness in dealing with our faults, your untiring exertions for our advancement, and the ability you have displayed not only in directing our studies preparatory to examinations, but also in giving us such instruction as will more materially fit us for the active duties of life. We feel confident that the high position our school now occupies amongst those of the Province, is due in no small degree to your constant zeal and energy in furthering its interests. As a slight token of our affectionate regard, please accept the accompanying clock, which we trust, may serve to call up pleasant recollections. With our present, receive, dear Sir, our warmest wishes for the health and prosperity of yourself and Mrs. Galton, and permit us to express an earnest hope that, in your new sphere of labor, you may meet with that success which your merits so well deserve. Assuring you that you will long be held in pleasant remembrance we beg to subscribe ourselves yours most affectionately." Mr Galton made a touching and appropriate reply.

By special arrangement with the Education Department, the Entrance and Intermediate Examinations are to be held in Pickering College. This will be a great convenience to its students.

Mr. G. Kimmerly, assistant teacher in the high school, Napance, has resigned his position and gone to Toronto, having received a situation in the office of Mr. Kerr, manager of the Northern and Northwestern Railway. Mr. Kimmerly was an excellent teacher, and the remark of the head master, that he was "heartily sorry to lose his services" says a great deal. The vacancy caused by his resignation has been temporarily filled by Mr. Fulford Ruttan.

The Toronto University Local Examinations for Women will again be held in Pickering College. This year the number of candidates is eleven.

Mr. M. J. Glass, who is about resigning his position as head master of the London West public school to accept the head mastership of the Waterloo North school in the city, was recently presented by the pupils of his school with a very handsome album and music box combined. The presentation was made by Miss May Lackey, Master William Wattam reading a kindly-worded address, signed by Georgina Calver, Vesta Ross, Mary Sims and Nellie Hagary. The album was purchased from Jas. I. Anderson & Co.

Mr. Robert Graham, of the Arva public school was presented by his pupils with a very handsome \$25 gold ring. Mr. Graham will take the head mastership of the London West public schools shortly. During his stay at Arva he has made himself immensely popular. Miss K. M. Marshall was also presented by the scholars in her room with a neat little autograph album.

The May number of the CANADA SCHOOL JOURNAL is excellent in the tone and variety of its articles. The professional department is very full, and cannot fail to be edifying to all those for whom such problems and hints are specially designed.—*Bowmanville Observer*.

Mr. C. F. McGillivray, B.A., late assistant master in the Whitby Collegiate Institute, has entered on the duties of Head Master of Fergus High School, salary \$800. Mr. J. McCollum, B. A. is his successor.

Another primary department under the charge of Miss Mitchell, has been opened in the Model School, Whitby. There are now ten teachers employed in the Public Schools of the town. The average attendance during April was very low, owing to the prevalence of various diseases in a mild form.

The school trustees of Belleville have decided to abolish the Model School in connection with the Central School. It is probable that a Model School for the county may be re-established in Trenton.

William Oliver, B.A., Bowmanville, has been appointed to the Principalship of the Brantford Collegiate Institute. There were thirteen applications for the position, embracing qualifications of a very high order. It would have been difficult for the Board to make a better selection. Mr. Oliver received his preliminary education at the Woodstock High School. At a meeting of the Board of Education, Bowmanville, it was resolved that the chairman (Mr. Couch), Col. Cubitt and Mr. Higginbotham, be a committee to get up a suitable document or testimonial to present to Mr. Oliver, in reference to the efficient and faithful discharge of his official and public duties in connection with the school.

Mr. D. W. B. McKay, Head Master of St. George's School, London, is about to remove to Winnipeg. His late pupils presented him with a piece of silverware.

The East Middlesex and some other teachers have engaged a local teacher to give them a course of lessons, with the view of enabling them to teach music by the Tonic Sol-fa method. The preliminary lesson was given last Saturday. It is time the teachers were awakening to the importance of singing in their schools, and the fact that it ought to be one of the regularly taught branches, and taught by the regular teachers. Trustees who realize the advantages of vocal music in their schools could secure it by advertising for teachers competent to teach singing. It is said on good authority that if all the teachers understood music as presented by the Tonic Sol-fa notation, there would be only a very small percentage of them who could not teach singing in their schools.

The Stirling School Board and the Inspector have fallen out over the retention on the part of the former of a teacher without the proper qualifications. One of the members of the Board became so angry at what he chose to regard as undue officiousness that he moved a resolution asking the County Council to remove the offending official. The resolution had no seconder.—*Toronto Mail*.

The London (West) School Board, in accepting the resignation of their Head Master with regret, a member said it would be a lesson to the board in future, however, to give such remuneration to a first-class teacher as would induce him to remain with them. It would be well if school boards generally would lay such a lesson to heart.

A movement is on foot in Brantford, led by Dr. Harris, an indefatigable progressive worker on the School Board, to give the teachers of the Public Schools the benefit of a course of lessons in reading and elocution. This is a step in the right direction.

The Bowmanville Board of Education have appointed a committee to procure a bust of the late Dr. Ryerson for the High School.

Mr. A. Carruthers has resigned his position as Classical Master, Lindsay High School, as he intends giving up the profession of teaching.

The Hamilton Times, while reviewing the state of education in the Collegiate Institute of that city, says:—It has come to our knowledge that students of Hamilton Collegiate Institute, who could matriculate at the University, or pass the intermediate examination, could not write a legible page, could not narrate a simple incident without mistakes in spelling and syntax.

At the recent meeting of the London Teachers' Association Miss Victoria Drury read an essay on "Regularity and Punctuality of Attendance," holding forth the idea that the marks system failed from the fact that those who needed them least as a stimulus were the very ones who generally obtained the most. Again, the note system did not meet the case, from the fact that many, very many, forged notes to suit themselves, and thus freed themselves from the censure of the teacher.

Mr. R. M. Graham has been appointed head master of London (West) public school, in place of Mr. M. J. Glass who has resigned.

Inspector Girardot, of Essex County, intends to present again this year two silver medals to the candidates, one French and one English, of the north riding who will obtain the highest numbers of marks at the next examination. The candidates must not be over twenty-four years of age, and the medals will be given at the convention of teachers to be held next October.

In Orangeville high school the attendance is rapidly increasing, and good general progress is reported. There are over 100 pupils now attending.

The Corporation of Trinity College, Toronto, at a recent meeting resolved to modify the regulations respecting divinity degrees with a view to enabling graduates in arts to take the degree of B.D. on two special examinations, the latter of which may be confined to one optional group of subjects out of five. The subjects are similarly arranged for the D.D. degree which may be taken by a B.D. of five years' standing. It is hoped in this way to train up a number of clergy who in addition to having a sound general knowledge will be thoroughly proficient in some one branch of theological study.

NOVA SCOTIA.

The meeting of the Teachers' Association for Inspectoral District No. 4, (Counties of Annapolis and Digby), held at Annapolis Royal on the 27th and 28th of April, was a very interesting one. The Association was organized with the following staff of officers: President, Inspector Macrae; Vice-President, S. C. Shafner, A. M.; Sec.-Treas., J. M. Langley, A. M.; Executive Committee, Messrs. A. D. Brown, N. E. Butler, R. W. Ford, Misses Langley and Bonyman. The following programme of subjects was provided by the Executive Committee: "Needed Reforms in our Public Schools," Mr. J. A. Balcom; "Best Methods of Teaching Geography," Mr. James P. Mowlan; "The Successful Teacher," Mr. A. E. Read; "Improved Methods of Teaching since 1848," Mr. P. Whitman; "The Teacher's Opportunities," Mr. N. E. Butler; "Oral Lessons in Analysis," Mr. A. D. Brown; "Process of Subtraction," Miss S. Bonyman. The subjects above indicated were treated in a broad and thorough manner, and most of them gave rise to animated discussions. Prof. J. B. Hall, Ph. D. of the Provincial Normal School was present during the exercises of the first day and materially contributed to their interest. The public meeting held under the auspices of the Association though not largely attended was a spirited one. Addresses were delivered by the Superintendent of Education, Rev. Mr. Ritchie, Rector of the parish, Dr. Hall, and others.

MANITOBA.

At a meeting of the Board of Protestant school trustees for the city of Winnipeg held recently, the following rules relating to salaries of teachers in the employment of the board were introduced by Mr. W. F. Luxton, chairman of the school management and unanimously adopted, viz:—

MALE TEACHERS.—Teachers of Standards IX. and X.—First year of service, \$1,000; second year, \$1,100; annual salary after second year, \$1,200. Teachers of Standard VIII.—First year of service, \$800; second year, \$900; annual salary after second year, \$1,000. Teachers of Standards V., VI. and VII.—First year of service \$700; second year, \$750; annual salary after second year, \$800. Teachers of Standards III. and IV.—First year of service, \$650; second year, \$700; annual salary after second year, \$750.

FEMALE TEACHERS.—Teachers of Standards IX. and X.—First year of service, \$650; second year, \$700; annual salary after second year, \$750. Teachers of Standard III.—First year of service, \$600; second year, \$650; annual salary after second year, \$700. Teachers of Standards V., VI. and VII.—First year of service, \$550; second year, \$600; annual salary after second year, \$650. Teachers of Standard IV.—First year of service, \$450; second year, \$500; annual salary after second year, \$550. Teachers of Standards I., II. and III.—First year of service, \$400; second year, \$450; annual salary after second year, \$500. The number of years' service, in cases of promotion, shall be determined by the time each teacher has been in the employment of the board. The teachers at present in the employment of the board shall receive the maximum salaries above indicated from the beginning of the present year and hereafter.

CERTIFICATES.—No teacher shall be hereafter considered eligible for appointment to a position in the schools whose attainments are not equal to those indicated by a second-class provincial certificate. No male teacher shall be considered eligible for appointment or promotion to the charge of any class from Standard V. upward, who does not hold a first-class provincial certificate.

PROMOTION.—Promotion shall hereafter be made on the following conditions: 1. That the candidate's past efficiency and present fitness for the position be favorably reported upon by the inspector; 2. that the conditions regarding certificates be fulfilled; and 3. that seniority of service shall be considered a prior claim, the other two conditions being fulfilled.

The Local Legislature now in session has before it a Bill to give effect to the resolutions of the Protestant section of the Board of Education relating to the establishment of a Normal School Department in connection with the city schools.

The University Examiners are engaged in the preparation of questions for the examinations which commence on the last Monday in May. There are a number of candidates.

The Board of school trustees, Portage la Prairie, have called for tenders for the erection of their new central school, which promises to be one of the best buildings of the kind in the Province.

DALHOUSIE COLLEGE, HALIFAX.—CLOSING EXERCISES.

The closing exercises of the annual session of Dalhousie College were held in the Legislative Assembly Room, Halifax, on the 27th of April. The spacious hall was crowded with a brilliant audience. The very Rev. Principal Ross, D.D., presided. The Principal delivered an introductory address in which he recounted the history of the session, which had been an exceedingly satisfactory one. He alluded in terms of grateful appreciation to the benefactions of Mr. Munro, which, handsome as they have been, were not yet, he believed, at an end. The following is the list of University prizes.

Classics—Fourth year—Trueman, J. S. Third year—Bell. Second year—McLeod, J. P. First year (1) Gammel, (2) Aiton and J. M. McLeod.

Mathematics—Second year—Murray. First year—Lillio Calkin.

Astronomy and Optics—Campbell, G. M.

Physics—MacGregor.

Mathematical Physics—Reid.

Ethics—Carson.

Metaphysics—Taylor, W. P.

Logic—McLeod, J. P.

Rhetoric—McLeod, J. M.

Chemistry—(Inorganic) McLeod, J. P.; Organic (second year), Smith.

History—Crowe.

French—Fourth year—Mellish. Third year—Smith.

Geology—Cameron.

Botany—Smith.

Hebrew—Carson.

The following degrees were conferred:—

Bachelor of Arts with Honors.—George Murray Campbell, Truro; James Starr Trueman, Carleton, N.B.

Ordinary Degree of Bachelor of Arts.—George Stephen Carson, Sussex, N.B.; Thuson Fulton Davidson, Halifax; William Ritchie Fraser, Mt. Thom, Pictou; James Harris Knowles, Milton; Robt. Landells, Halifax, James Walter McKenzie, Strathalyn.

P. E. I.—Humphrey Mellish, Halifax; George Gaddie Patterson, New Glasgow; Edgar James Thorey, Guysborough; Thomas Stewart, Whycocomagh.

Ordinary Degree of Bachelor of Science.—Alex. Cameron, Newton, Guysborough.

The valedictory oration was pronounced by Mr. H. Mellish of the graduating class. Addresses in response to the call of the

Principal were delivered by His Honor, Lieut.-Governor Archibald, Mr. W. J. Stairs, and Dr. Allison, Superintendent of Education. The *Herald* gives the following abstract of the remarks of the last named gentleman:—

After a humorous introduction he discussed the proposition that "knowledge is power," in relation to collegiate education, holding that much of the literary lumber stored away in the garret of the memory was powerless as anything well could be. He claimed that it alone was true knowledge by whose acquisition power generated—power to do what otherwise could not be done. To this test all our school of learning and colleges must submit. Do your graduates exhibit executive capacity of intellect, power to use their mental faculties with a readiness and vigor which testify to the training which they have received? He used the term power in no narrow physical or mechanical sense. Thought is really the highest kind of action. The age, however, was past which was satisfied to conceive of knowledge as simply a treasure stored away, to be drawn forth from its receptacle for enjoyment merely from time to time as a cow chews her cud, or a clergyman with quiet conscience smokes his pipe. Our age sets value chiefly on that knowledge which is in relation to the activities of man's nature, inspiring, directing, and controlling them. He vindicated the universities of the Middle Ages from charges sometimes brought against them. The best of them in their brightest days were not mere schools of philosophy and theology, but great seats of learning, in thorough sympathy with their age, and teaching ambitious young men whatever they required to learn to fit them for conspicuous stations. He considered at some length the Arts of our colleges, deeming that they furnish an admirable scheme of studies for generic mental culture when naturally and logically pursued. He deplored the fact that so many young men entered college in an unprepared state and therefore failed to derive real benefit from the studies pursued. He was glad that the question of higher education was being discussed among us. It was not for him to predict the issue. On so important a question it was desirable that public opinion should be well developed before educational reform should be practically attempted. Dissenting from the criticism of Mr. Blake, he thought Mr. Gladstone was quite right in considering it important to know whether a given question was or was not "within the range of practical politics." The period of discussion and formative opinion naturally precedes that of act on. In conclusion, Dr. Allison exhorted the young men graduating to remember that they now belonged to the republic of letters and to take *Ne quid republica detrimenti caperet* as their motto. Let them look at the future with hope, faith, and courage.

THE NEW ROYAL ACADEMY.

The Marquis of Lorne signalized the earlier part of his *régime* here by establishing a Canadian Academy of Arts and he has just made an attempt to signalize the latter part of it by establishing a Royal Academy of Literature and Science. It remains to be seen yet whether the Academy of Art will take root in Canadian soil, fashioned, as it is, on the lines of an ancient institution in England; but it is safe to predict that the new Royal Academy will be a conspicuous failure. Such organizations cannot be called successfully into being by the fiat of any one. There must be a field and a felt want for them or they will die of inanition. We have in this country several learned associations of a voluntary character but they have each a *raison d'être* and the new Academy has none.

The first meeting took place at Ottawa a few days ago when the various sections met separately for organization, reading papers, discussions, &c. The sections are four in number as follows:—(1) French literature; (2) English literature; (3) Mathematical, Physical, and Chemical Science; and (4) Biological Science. The proceedings of the general meeting commenced with an address from His Excellency which was followed by papers from Sheriff Chauveau of Montreal and Dr. Dawson of McGill College. The following gentlemen were elected officers of the Society for the current year:—

President, J. W. Dawson, C.M.G., LL.D., F.R.S.; Vice-President, Hon. P. J. O. Chauveau, LL.D.; Hon. Secretary, J. G. Bourinot, F.R.S.; Hon. Treasurer, Dr. Grant of Ottawa.

The next meeting of the Royal Society will be held in May 1883.

In the Biological section the following officers have been elected: President, Dr. Selwyn; Vice-President, Dr. Lawson; Secretary, J. F. Whiteaves.

In the Physical Science section:—President, Dr. Storry Hunt; Vice-President, Mr. Carpmael of Toronto Observatory; Secretary, Prof. Cherriman.

In the French section:—President J. M. Lemoine; Vice-President, Mr. Faucher de St Maurice; Secretary, Benjamin Sulte.

In the English section:—President, Dr. Wilson of Toronto; Vice-President, Goldwin Smith, M.A.; Secretary, Geo. Stewart Jr.

UNIVERSITY OF MCGILL COLLEGE.

Since the last issue of the *SCHOOL JOURNAL* the proceedings in connection with the close of the recent session of this institution have taken place. Hon. Mr. Justice McKay of Montreal, presided on the occasion and there was a large attendance of the *alumni*. Principal Dawson, LL.D., C.M.G., in his report of the session, referred to the number of degrees in the course granted at the close of this session, 75 in all, and to the attendance of students, which had been 374, independently of students of affiliated colleges. The learned principal referred to the approaching completion of the Peter Redpath museum, to be opened on the occasion of the visit of the American Association for the Advancement of Science, in August. This would give the University for the first time satisfactory accommodation and means of study for its classes in natural science. It would also give the University the means of aiding the higher education of women more effectually. A less agreeable matter was the financial depression from which the University had been suffering owing to the diminution in the income from investments. This had been met by retrenchments. A public appeal for assistance had so far resulted in an addition to Mr. W. C. McDonald's munificent gift for scholarships, in a sum of about \$20,000 added to the endowment fund, and annual subscriptions to the amount of about \$5,000. The University, however, could not under present circumstances take its proper position without an addition of at least \$150,000 to its endowments. He asked that this should be given within this, the fiftieth year of the University, so that it might commence its second half century with renewed life and vigor. He closed with a few words of congratulation and advice to the new graduates and students.

ONTARIO SOCIETY OF ARTISTS.

The annual exhibition of the Ontario Society of Artists, held during the month of May, was this year fully up to the average in all the departments. This Society has, since its inauguration some sixteen or seventeen years ago, done an excellent work in this country. In reality it embraces in its membership eminent artists all over the Dominion and ought to have been a Dominion society. Had it assumed to occupy the whole field in name as well as in reality the Canadian Academy of Arts would probably never have been organized; and, on the other hand, had the Ontario Society not paved the way the other would not have been as yet a possibility.

All teachers who happen to be in a position to visit Toronto during the exhibition period would do well to call each year and see it. It is difficult to estimate the amount of art education which might in this way be diffused, for a growing acquaintance with works of art is in itself an important means of educating the observer. The School of Design, which has hitherto been carried on under the auspices of the Society is to be transferred to the Department of Education. This institution has not yet been long enough in existence to produce any marked results, but good work has been done in it for some years past, and the training thus imparted cannot fail to have a decided effect on future exhibitions as well as on the application of decorative art to manufactures.

VICTORIA UNIVERSITY—COMMENCEMENT WEEK.

During the third week of May the annual commencement exercises of the University of Victoria College came off with even more than the usual *éclat* at Cobourg. These exercises are always of a varied character, Commencement being at Victoria much more of a "red-letter" season than it is in any other college in the Dominion. The inauguration of the proceedings took place on the evening of Sunday the 14th of May, when the Rev. Dr. Stevenson of Montreal preached an eloquent *baccalaureate* sermon on "The Ideal in Life," and President Nelles gave the farewell address and counsel to the graduating class. It is needless to say that both efforts were of a high order of merit both intellectually and morally. On Monday afternoon Dr. Stevenson delivered a public lecture on "John Milton" to a crowded audience in "Alumni Hall" and in the evening the Literary Society gave in the same place a varied intellectual and musical entertainment. On Tuesday afternoon there was also a meeting of the "Theological Union" at which an able paper on "The Certainties of Religion" was read by the Rev. J. A. Williams, D.D. On Wednesday afternoon the annual meeting of the Science

Association took place in Faraday Hall under the chairmanship of A. M. Phillips, B.D. The annual lecture under the auspices of the Association was delivered by Dr. Mackenzie of Aurora who took as his subject "The Functions of the Brain." In the evening the annual business meeting of the Alumni Association was held in their hall. Amongst other transactions it was resolved to petition the General Conference to permit the graduates of the University to elect six representatives to the Board in addition to those who now compose that body. In the course of the evening it was announced that Mr. Dennis Moore of Hamilton had subscribed \$25,000 towards the endowment of a chair in "Chemistry and Physics" and that with subscriptions already received for the "Ryerson Chair" this made a total of \$40,000. The officers of the Alumni Association for the current year are as follows: James Mills, M.A., President, James Allen, B.A., 1st Vice-President, A. M. Phillips, B.D., 2nd Vice-President; H. Hough, Secretary-Treasurer. In the evening the annual dinner of the Association came off in Victoria Hall and was a complete success.

CONVOCATION.

On Thursday took place the event of the week, Commencement proceedings proper. The large hall was densely packed. The arrival of the graduates and members of the Senate was greeted with loud cheers. The following gentlemen occupied seats on the dais, wearing their various academic costumes: President, Dr. Nelles; Professors Wilson, Burwash, Reynar, Bain, Hamel, and Bell; Rev. Drs Dewart, Sutherland, Wm Kerr M.A., B. M. Pritton, M.A., Judge Dean, Dr. Ogden, Rev. D. G. Sutherland, L. L. B., B. D., Rev. J. Philp, M.A., Rev. T. W. Jeffery, Rev. W. Hansford Lazier, L. L. B., J. Mills, M.A., H. Hough, M.A., D. C. McHenry, M.A., Dr. Purshaw, H. McLive, M.A., J. C. Field, M.P.P., J. Vance Graveley, Mayor, Mr. Dennis Moore, Rev. Dr. Stevenson. After prayer had been offered by Rev. T. W. Jeffery, Mr. John Shilton delivered the valedictory address choosing as his subject "Thomas Carlyle" and scoring with it a complete success. The ceremony of conferring degrees was then proceeded with and this was followed by the distribution of well merited honors and rewards amongst the successful students. After a brief address from Dr. Ogden to the retiring graduates Dr. Nelles referred in eulogistic terms to the late Dr. Brouse one of the earliest graduates of the University and to the late Rev. Dr. Ryerson who was its first President. Dr. Nelles thus concluded his admirable address: "He congratulated the sister universities of Canada on their growing strength and efficiency and heartily re-echoed the sentiment expressed the other day by Dr. Young of Toronto University, that the country is the better for a variety of colleges, and the similar expression of the Minister of Education for Ontario as contained in his last report, in which he speaks of the denominational colleges as testifying to the penetrating influence of religion in our educational system, and to that freedom of action which will preserve to our different institutions an individuality unknown in the uniformity prevalent in France and not absent in Germany. The example of Britain and the United States was against the system of consolidation, and it would be as unreasonable to work toward such an idea in Canada, as it would be to attempt the amalgamation of Oxford and Cambridge in England, or of Harvard, Yale, and Princeton, in the United States. But while he congratulated Canadian universities on their growing efficiency, he was also obliged to condescend with them on their common complaint of inadequate resources - a complaint that comes even from our Provincial University, with her income of over \$50,000 a year, and may therefore be still more reasonably expected from the less richly endowed denominational colleges. But this financial distress will ere long pass away, as it has in the colleges of New England. The Wesleyan University of Middletown, which is only some 50 years old, and has had a history very similar to that of Victoria, has property to-day of the value of \$1,400,000 and an income of \$900,000. These facts should encourage the friends of Victoria, more especially when we remember that these augmented resources have come from the private liberality of friends and the efforts of Christian churches, and not from the State. There would be some further years of hard struggling before she would be able to boast of an adequate endowment, but we should not be discouraged on that account. Her hope lay in the soundness of the principles on which the University is founded, in the increasing number and wealth of our graduates, and in the strength and liberality of the great Methodist Church of this Dominion - a Church that numbers more than half a million adherents, increasing, too, at the rate of some thirty per cent. in ten years, and raising \$150,000 a year for missions. Such a Church is abundantly able, and would ere long be

found willing to sustain her universities and schools, and he would venture to say that this educational work is the one enterprise which just now most urgently demands the attention and energetic support of the Methodist Church of Canada. (Loud cheers.)" Addresses were also delivered by Drs. Cochrane, Sutherland, and Dewart, by Principal Mills of the Agricultural College, and by Judge Dean. The proceedings of the week were closed by a brilliant conversation in the evening.

THE WILBERFORCE EDUCATIONAL INSTITUTE.

One of the peculiar educational institutions of Ontario is the school which is known by the above title in the town of Chatham. It is, in its present form, the resultant of the amalgamation of the "British and American Institute" and the "Nazrey Institute," the former of which was founded in 1841 through the instrumentality of Thomas Butler, Rev. Josiah Henson, J. C. Brown and others, while the latter originated in 1860 through the exertions of the Right Rev. Willis Nazrey, the Rev. R. R. Dinsey, the Rev. Walter Hawkins and others. In 1872 the "British and American Institute" was incorporated under its present name and in 1873 the "Nazrey Institute" was incorporated with it, Acts being passed for that purpose by the Legislature of Ontario. The property is at present vested in a board of trustees who have the power to appoint new members whenever vacancies occur. The endowment is sufficient to enable them to pay a fair salary to the Principal; the present head of the school A. M. Lafferty M.A., receives \$1300. The programme of the school, which serves the purpose of a "high school" for coloured pupils, is the one used in the Provincial high schools. A considerable proportion of the pupils are in the preparatory department which is to be regretted as the energies of the staff might be more usefully expended on high school work proper. The building is somewhat antiquated but the tuition is perfectly free. Mr. Lafferty's incumbency is expected to terminate in a few months and it is to be hoped that he will be succeeded by some one who is at least equal to him in scholarship experience. It would be well worth while to make a special effort to put the Institute in a thorough and equipped condition. To found such a school would at the present time be no easy task and it would be a serious loss to the locality should it be allowed to fall into a state of inefficiency.

Teachers' Associations.

The publishers of the JOURNAL will be obliged to Inspectors and Secretaries of Teachers' Associations if they will send for publication programmes of meetings to be held, and brief accounts of meetings held.

CHATHAM DISTRICT, COUNTY OF KENT. - The half-yearly convention of the Chatham District Teachers' Association, which has for its constituency West Kent and the town of Chatham, was held at the latter place on Thursday and Friday the fourth and fifth of May. The various sittings took place in the Central School except the Thursday evening popular lecture which was delivered in the Temperance Hall. The lecturer on this occasion was Thomas Kirkland, M.A., Science Master in the Toronto Normal School. He took for his subject "The Succession of Life upon the Earth" and by the aid of the stereopticon and the oxy-hydrogen light made it highly interesting as well as instructive. To the regret of the teachers the audience was not by any means as large as the reputation of the lecturer and the nature of the occasion justified them in expecting. The proceedings of the convention proper commenced on Thursday morning with the usual routine business after which Mr. C. P. Kellogg gave an admirable illustration of his method of teaching reading as an elocutionary exercise. Mr. Kellogg took for his lesson several passages in the second reader containing dialogue and made the pupils read them with correct emphasis and inflection, omitting the whole of the narrative words. He did not burden their memories or confuse their understandings with rules of any sort but gave them good models to imitate and succeeded wonderfully in getting them well imitated and in keeping both pupils and spectators fully interested. The next division was devoted to "Canadian Series of Readers" and in the absence of W. M. Nichols B.A., whose name was coupled with the subject on the programme, it was briefly discussed by W. Houston M.A. representing the firm of W. J. Gago & Co., and Mr. David Boyle of the Canada Publishing Co. No action was taken by the Association except to declare a new series of readers a necessity. In the afternoon a number of questions were collected on slips of paper to be answered by a committee afterwards through the press. Mr. Thomas C. Hagan, principal of the Chatham Roman Catholic Separate School then read a suggest-

ivo paper on "The use of Words" in the course of which he impressed some useful and practical lessons. The rest of the session was devoted to an able paper on "Domestic Health" by G. T. McKeough M.D., whose remarks were calculated not merely to supply his hearers with a number of significant facts but also to show them the general direction in which their further prosecution of the subject should be. On Friday morning Mr. J. Donovan criticised the high school entrance examination, objecting to history and literature as unsuited to the capacities of rural schools from which the high schools draw their pupils. Mr. Kirkland gave during the day three valuable lectures, one on mensuration to show how much can be accomplished in that branch of mathematics without the assistance of Euclid; one on geometrical deductions; and one on "combustion," illustrated by chemical experiments. Mr. G. R. Cruickshank discussed the topic "Physical Geography" protesting against the present methods of teaching and examining in connection with that science, and dwelling on the necessity of paying more attention to what is of permanent and universal value and less to mere topography. D. S. Paterson B.A. delivered a brief but practical address on "Development of character in the School Room" and the discussion of the points he raised was continued by several of the members. The division allotted to G. W. Ross M. P. was, in his absence, taken up by W. Houston who illustrated in a practical way the use which might be made of the "newspaper" as a means of education both at home and in the school room. After the election of officers for the ensuing half year the Association adjourned to meet again at the call of the executive committee.

NORTHUMBERLAND.—A very successful meeting of the Northumberland Teachers' Association was held in Proctors' Hall, Brighton, on Thursday and Friday 4th and 5th of May. During the short forenoon session general topics were discussed and the following gentlemen were appointed a committee on resolutions:—Messrs. Sykes, Black, Dixon, Boyd and Inspector Scarlett. At 2 p.m., the subject of "Geography" was introduced in an able essay by Mr. S. E. Dixon, followed by Mr. E. Hayward. R. K. Orr, B.A., next discussed the "Railways of Ontario." He referred to the significance of recent amalgamation and discussed somewhat minutely the location and projected routes of several new lines of railway, in addition to tracing the older lines. Messrs. R. K. Orr, G. Dowler, E. Scarlett, I.P.S. and D. C. McHenry, M.A., were appointed a committee on text books, and instructed to draft a resolution on the subject. The subject of "Discipline" was next presented in a most instructive address by the President, Mr. Geo. Dowler. He was ably supported by Geo. Kirk, H. M. Model School, Cobourg, who dwelt mainly on the effect of suspensions and expulsions at the Provincial Model Schools as compared with other modes of punishment adopted throughout the province. The Rev. T. Cullen, of Brighton, next offered an excellent address on the "Life and work of Egerton Ryerson D.D., LL. D." He was tendered the thanks of the association and requested to allow his address to be published. The following resolution of condolence, moved by Inspector Scarlett, seconded by Rev. T. Cullen, was passed by the association: "In view of the deep and wide spread gloom cast over this land by the demise of the Veteran Educator—Rev. Doctor Ryerson, who for nearly half a century stood at the helm of educational affairs of this province, be it resolved, that with earnest and affectionate sympathy we tenderly condole with those who were bound by the nearest and dearest ties to the deceased father of our Educational System, and sincerely commend them to the keeping of Him, who looks with a pitying eye upon a household deprived of its earthly head." Resolved: "that in our sorrow for the loss of him of happy and of honored memory, we find consolation in the belief that it is well with him we mourn." Resolved "that as a token of respect and veneration for the Christian character of a great and good man gone to his rest, a copy of this heartfelt testimonial of our sympathy and sorrow be forwarded to the widow and family of our departed chieftain." "Home Work" was presented in an admirable address by D. C. McHenry M.A., who was tendered a vote of thanks and requested to furnish a copy of his address for publication. Mr. E. Cochrane, Deputy-Roeve of Cramahe referred to the multiplicity of authorized text books, encouraged more of sympathy between parents and teachers, and spoke in praise of the present method of teaching as compared with the old method. Mr. W. J. Gage next addressed the teachers and submitted his excellent series of readers for the approval of the association. A public lecture was delivered in Proctor's Hall at 8 p.m., by Rev. R. H. Harris of Brighton: Subject—"Relation of P. S. Teachers to the State." He claimed that the future of this country depends largely on the character of its teachers, and advocated a more general and more thorough education of the people on the broad basis of christianity as the best means of building up and strengthening the state. *Second Day's Proceedings:*—On motion of Mr. E. Hayward seconded by Mr. D. I. Johnston a resolution was passed requesting the Inspector to take such steps as the law will allow and may seem to himself advisable, to compel the attendance of teachers of this county at the association meetings. The committee on text books reported as follows:—"In our opinion, our authorized geographies should be revised in order, not only that much which they do not contain, (our Canadian

Railways, for example,) may be inserted; but also in order to afford an opportunity for the correction of numerous errors to be found in the map and letter-press. We are also of opinion that our present readers should be superseded by a new-series at as early a date as possible. Having carefully examined those published by Messrs. Gage & Co., we would heartily recommend their authorization, and their general introduction into the schools of our county—believing that this excellent series fully meets our requirements. This report was adopted. "Practical Arithmetic" was introduced in an excellent paper by Mr. D. I. Johnston. The "Question Drawer" was opened by W. S. Ellis, B.A., B. Sc. He discouraged the practice of handing in questions of little general interest, involving lengthy mathematical solutions. Mr. Geo. Kirk disposed of the questions on grammar. Dr. McLellan was requested to continue the subject of Arithmetic. He spoke for a short time on the importance of arithmetic as a means of intellectual development. Mr. J. W. Black gave notice of a motion to deny the privilege of membership in this association to any person convicted of supplanting another teacher or aiding, abetting, or in any way countenancing the same. At this stage in the proceedings a delegation from the Brighton Board of Education was received who presented the association with an "Address of Welcome." This act of courtesy on the part of the Brighton Board, on behalf of the Brighton people, was highly appreciated and duly recognized by the association. Dr. McLellan again took up arithmetic and advocated greater thoroughness in the elementary teaching of the subject. Teachers were laboring at a great disadvantage in the lack of school apparatus. The speaker deplored the miserable penuriousness of the people of this country in the matter of providing suitable objects etc., for the benefit of the children. He also illustrated a system of teaching elementary arithmetic which has recently been adopted in many parts of the United States. This system cannot fail to meet the approval of the practical teacher. He strongly advocated the unitary method. A cordial vote of thanks was tendered the Doctor for his elegant address. "Business Papers" was presented by Mr. J. W. Johnson, President of Ontario Commercial College Belleville. Mr. Johnson displayed a genuine teacher's tact in presenting his subject. This free discussion of Business Papers was one of the interesting features of the association. The speaker was tendered a cordial vote of thanks for his excellent address. Dr. McLellan next addressed a mixed audience of teachers and citizens on National Education. It was a characteristic address of thrilling power and eloquence demanding, as the greatest boon to the country, the higher education of the people. He was tendered a hearty vote of thanks. The next meeting of the association will take place in October next.

PRINCE EDWARD.—The semi-annual convention of the Prince Edward Teacher's Association was held, on Friday and Saturday, 12th and 13th May. The chair was occupied by the President, S. B. Nethery, who opened the proceedings with prayer. Under the head of routine business, the names of G. D. Platt and R. Dobson were added to the executive committee. R. B. Mastin was elected secretary of the association in the place of T. F. Spafford, who was absent. The subject of Promotion Examinations was next considered and a number of suggestions made for their improvement. The attention of the convention was also called to the small number of school libraries in the county, and a resolution was adopted urging teachers to use their influence with trustees to have new ones established. J. Kinney next explained his system of marking the attendance, recitations and conduct of pupils, and was succeeded by Mrs. R. W. Murray, who read an interesting description of the Institute for the Blind, at Brantford, and the system of instruction adopted therein. Specimens of some of the appliances used in teaching, were also exhibited. A cordial vote of thanks was given Mrs. Murray by the convention. R. Dobson, B.A., then discussed Moods in Grammar, at considerable length, after which Miss Fanny Gillespie read in a fine style a poem by Will Carleton, and the convention adjourned. In the evening G. W. Ross, M.P., delivered his lecture on Intellectual Forces, to a fair audience notwithstanding the very unfavorable weather. The lecture was one of great value to teachers and was highly appreciated by those who were privileged to hear it. A hearty vote of thanks to the lecturer was moved by R. Dobson, B.A., seconded by Rev. J. F. German, M. A., and unanimously adopted. On Saturday How to teach History was first explained by W. R. Brown after which Mr. Ross discussed at considerable length, and in a telling and popular manner the subject of School Management. The election of a delegate to the Provincial Convention was next proceeded with, when the president, Mr. S. B. Nethery, was unanimously elected. Reading was next discussed by G. W. Ross, M.P., at some length, when some useful and practical hints were thrown out which should be profitable to the teachers present. The following resolutions were then read and unanimously adopted by the convention:—moved by W. R. Brown seconded by J. H. Forshca, and:—Resolved that in the opinion of this convention Gage's series of school readers are very much superior to our present series, and that the teachers of this county would approve of the introduction of them in their various schools. On motion the convention then adjourned.—President, S. B. NETHERY Secretary, R. B. MASTIN.

WENTWORTH.—The regular half-yearly meeting of the Wentworth Teachers' Association took place in the Court House, Hamilton, on the 12th and 13th of May. Owing to the severity of the storm which raged on the first of these days over the whole of the district the attendance was at no time very large and on the first day it was very slim indeed. In consequence of this untoward incident the proceedings were not as interesting as they usually are with this association. On the evening of Friday, the 12th, Prof. Meeke of Chicago gave a varied and quite successful literary entertainment at the Court House which was fairly attended by the public. Friday morning was devoted to routine business, the subject of "Corporal Punishment" being dropped from the programme on account of the absence of the person who was expected to take it up. The election of officers was the chief business of the afternoon, Mr. Maclean of Dundas taking the place of W. H. Ballard, M. A., as president for the ensuing year. On Saturday morning Mr. J. H. Smith, inspector for the county, explained his method of teaching primary arithmetic with the aid of the numerical frame. C. Robertson, M. A., gave a brief address on "Parsing" in which he criticised the indictment brought by Richard Grant White against formal grammar. Mr. Robertson himself advocated the relegation of formal grammar to a late period in the pupil's course but would not deprive it altogether of a place in school. Geo. A. Chase, M. A., then read a very interesting and practical paper on "English Literature in the Public School." He advocated a complete revolution in the present methods of teaching English and the use, for this purpose, of complete literary productions instead of mere fragments. Mr. Chase received a hearty vote of thanks for his valuable paper but did not feel disposed to comply with the request of the association to allow it to be published. In the course of the brief discussion which followed W. Houston, M. A., expressed his cordial concurrence in the views of Messrs. Robertson and Chase about the expediency of having less of formal grammar taught in schools, and more of English literature.

DUFFERIN.—The meeting of the Dufferin Teachers' Association which took place in Shelburne on Thursday and Friday May 25th and 26th, was the most successful one ever held in the county. All the teachers with a few exceptions were present. A number of trustees from various parts of the county and many friends of education, conspicuous among whom were two ministers and several members of the County Council including the warden, Mr. Colwell Graham, honored the meeting with their presence. In the absence of the president, A. S. Steele, B. A., the Vice-President, Mr. R. L. Mortimer occupied the chair. The following is the programme:—Agriculture in Schools, by D. Stewart; Grammar in Schools, by Thomas Allan; a class in Geography taught by Wm. Gray; Music by R. H. McMaster; Phonic Lesson on Meiklejohn wordbuilder to a first class, by Geo. Suttie; Uniform Promotion Examinations, by Inspector Gordon; Object Lessons, by S. S. McCormack; a Third Class Reading lesson, "The Miser Punished," by W. Lyon Mackenzie; Writing, by W. A. McLim; Education in General, by Jas. Ferrie. All these subjects elicited lively but friendly discussions. On Thursday afternoon Mr. David Boyle and Mr. W. J. Gage, gave half-hour addresses, the former advocating the Royal Canadian Series of Readers now in course of preparation and the latter advocating the Meiklejohn Readers. A committee was named to consider a change in our series of Readers and the following is their report which was voted on by the convention and carried, about four to one:—"We consider the Meiklejohn Readers the best series of reading books yet published in Canada and would recommend them to the Minister of Education with a view to their authorization in order that they may be used in our schools as we consider them much superior to the reading books now in use." Committee: N. Gordon, P. S. I., D. Stewart, A. L. McIntyre, Wm. A. McLim. On Thursday evening Miss Lewis, of the Toronto School of Elocution, gave an entertainment of readings in the M. E. Church, the readings being interspersed by music under the able management of Mr. Sleightholm. Miss Lewis also addressed the convention on the subject of Elocution and in the course of her remarks paid a high tribute of praise to the Meiklejohn Readers as being the best adapted for teaching she had ever seen. The convention passed a unanimous resolution giving the subject of Uniform Promotion Examinations, a six months' holiday. On the last day of the convention, the Town Council of Shelburne gave a free dinner to the teachers at the Mansion House, after which speeches were delivered by Messrs. Wm. Jelly, M. P. P., N. Gordon, P. S. I., F. G. Dunbar, J. P., D. Stewart, J. P. and A. L. McIntyre.

REVIEWS.

THE PUBLIC SCHOOL.—*New England Publishing Co., Boston, Mass.* It might have been thought that with such publications as "Education" "The Journal of Education," and "The Primary Teacher," issued by this enterprising company, that there was scarcely room for another bearing upon the same topics. However we find from the paper before us, which is the first number of a monthly journal devoted to the elucidation of the principles and methods of the "New Education," that there was still much scope not embraced by the other periodicals, and a fresh development that may be secured and utilized for the teacher's

benefit. The articles, which are well written, are from practical educationists, and the odor which pervades them savors more of the school-room or institute than of the editor's sanctum. Teachers discuss with teachers the live matters that come before them in their work, and in this way much more practical, genuine good may be done than by the theorizing that too often fills up the teacher's magazine. The paper is edited by the Hon. T. W. Bicknell, whose world-wide reputation as a scholar is in itself sufficient to guarantee its excellence. The dollar per annum for which the journal is sold could not be spent to better advantage by a teacher, especially a young teacher, as the beneficial effects resulting from its study would be of incalculable service to him in his daily work.

THE ORIGINAL CHATTERBOX.—*Estes and Lauriat, Boston, Mass.* We have at various times urged the advisability of supplying children who are learning to read with supplementary reading books. The young mind, as the beauties of language are unfolded to it, seems to grasp at everything that comes in its way to satisfy the newly acquired appetite, and the temptation to become morally and intellectually poisoned by vicious, trashy stories is often very strong. We therefore commend very highly such publications as Chatterbox, as from the nature of the reading matter and illustrations, instruction in the most pleasing form is conveyed and a desire for healthy literature formed. The magazine is issued monthly, price \$1.00 a year.

THE CENTURY.—*Scribner's Monthly.*—June.—To those few teachers who have not seen and read *The Century*, we cordially say: "Before the holidays subscribe for at least six months. The 24th volume began with May, and you will thus have three numbers in July to read as you are resting. Rest gives benefit in proportion to the joyousness of our spirits while we free from work. Go to some healthful quiet place for your rest, and take *The Century* to make you joyous, and the end of the vacation will find you strong and happy." The June number contains five illustrated articles: "Around Cape Horn," "Opera in New York" (No. iv.), "The Bee Pastures of California," "The Century Prizes for Wood Engraving," and "Marble Mining in Carrara." The portrait of Cardinal Newman forms the frontispiece, and is one of the finest engravings ever issued. None of the numerous articles are of special interest, but they are all interesting. The editorial departments are full of information and practical suggestions. In "Home and Society" there is a very valuable article on "House Construction." It is probably the most useful article in the Magazine. "Bric-a-Brac," is better than usual.

NEW BOOKS.

An Etymological Dictionary of the English Language. By Rev. Walter W. Skeat. *New York, MacMillan & Co.; Toronto, Willing & Williamson.*

The sources of English Words and Phases classified and arranged so as to facilitate the expression of ideas and assist in literary composition. By Peter Mark Roget, M.D., F.R.S. *New York and Chicago, John R. Anderson & Co.; Toronto, Willing & Williamson.*

A Compendious Dictionary of the French Language; adapted from the Dictionary of Alfred Elwall. By Gustave Masson. *New York, MacMillan & Co.; Toronto, Willing & Williamson.*

These volumes, each admirable of its kind, have been handed us as yet to press. A fuller notice of all of them, and especially of Skeat's Etymological Dictionary, which is one of the most valuable works on the English language, will appear next month.

MAGAZINES.

THE NORTH AMERICAN REVIEW.—The No. of this ably conducted monthly for May contains six articles, vigorously written by contributors most of whom are well known in the world of letters on interesting and important subjects. "Party Schisms and Future Problems" by Carl Schurz, opens with describing the faction quarrels which exist within the two great political parties of the United States and which are said to be fiercer than the contests between them, and proceeds to give an analytical representation of the present situation, not a foreshadowing of the future, nor a platform for it. "Days with Longfellow" by Samuel Ward, will be read with an absorbing interest by thousands in America and over all the world where the name of the great poet, one of the greatest of modern days, is known and whose "Psalm of Life," and that little gem "The Arrow and the Song" are, of themselves, sufficient to render his name immortal. "What does Revelation Reveal?" by Elizabeth Stuart Phelps, shows an active and inquiring mind, but one that has not rested upon the Bible with simple and hearty faith. "The Navy" by Lieut-Commander Henry H. Gorringe undertakes to prove that an efficient naval force is essential to the welfare of the United States, that the vessels now on the navy list are useless for the operations of modern warfare, that the blame of this rests, not on Congress, but the system of naval administration and that the creation of an efficient naval force would be greatly to the advantage of the carrying trade of the States, and could be effected at a comparatively small outlay. W. H. Mallock furnishes Part I of "Conversations with a Solitary." And Gail Hamilton writes clearly and forcibly on "the spent bullet," showing that neither surgical science, theology nor law has gathered any laurels from the assassination of President Garfield, and that the only one who did so was the victim himself—the President, the politician and the statesman.

The June number of *The Atlantic Monthly* contains a fine steel portrait of the late Henry Wadsworth Longfellow, a poem, "Decoration Day," by him, a poem in memory of him by that wonderful septuagenarian, Oliver Wendell Holmes, and an account of his life by O. B. Frothingham. Mr. Hardy contributes five additional chapters of "Two on a Tower." Elizabeth Stuart Phelps, two of "Doctor Zay." William Henry Bishop, three of "The House of a Merchant Prince," and M. H. Catherwood, a complete short story, called "Serena." The fourth of the very interesting series of "Studies in the South" makes its appearance. The remaining contents are "Mrs. Centivire," "The Poet's Birds," "The New Eastern Question," "The Night-moth's Comment," "The Rapid Progress of Communism," "Charles Darwin," "Alphonse Daudet," "The Contributors' Club," and "Books of the Month."