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# The Canada School Journal.

Vol. VI.

TORONTO, APRIL, 1881.

No. 47.

## The Canada School Journal

IS PUBLISHED THE FIRST OF EACH MONTH AT

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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 name of John Greenleaf Whittier stands deservedly in the foremost place among the Poets of America and of the world. In a letter addressed by him to the Rev. C. P. Mulvany, on the staff of this journal, and of whose poems, "Lyrics of History and Life," he speaks in high terms of approval, Mr. Whittier adds:—

I have also rec<sup>d</sup> a no. of the "Canada School Journal," which seem to me the brightest & most readable of educational magazines I am very truly, &c.  
yours

John G. Whittier

We are pleased to inform our readers that our efforts to give them a first-class journal are appreciated abroad as well as at home. We clip the following from the *Central School Journal* as another specimen of the kindly things said about us:

"No one of the monthlies is more welcome than the *Canada School Journal*. We recognize at a glance that it is non-American, but this is no barrier to its hearty endorsement. It is unsurpassed in its clearness and brevity of pedagogic definitions and rules, and many of its articles, such as those from the pen of Hon. James Hughes, have become a standard to the educational profession."

—Subscribers will please notice that the date of expiration of subscription is shown on the address, thus. "John Smith, Hamilton, April, 81," indicates that the subscription expires with April No. As we discontinue the mailing of the JOURNAL on the expiration of subscription, our friends will please renew promptly.

### THE JOURNAL AND ASSOCIATIONS.

We are glad to acknowledge during the past month the receipt of a letter from the Secretary of the Stormont Teachers' Association, reporting the adoption of the JOURNAL by the Association. The Association in Mr. Switzer's district also decided that each member of the Association shall have a copy of the JOURNAL. From all parts of the Province we are in receipt of reports which go to show that the most practical way of providing a good library for teachers is to present each member with the CANADA SCHOOL JOURNAL on payment of a small fee. Inspector McKinnon, of Peel, informs us that the plan has produced good results in his county, by causing teachers to take an increased interest in the Association. Inspector McIntosh, of North Hastings, says: "The CANADA SCHOOL JOURNAL is making constant advancement."

As a means of increasing the interest in Teachers' Associations, and rendering the work done at them more useful to all who attend them, we hold that nothing can accomplish so much good as placing a well-conducted professional journal in the hands of every teacher. The subjects introduced at the semi-annual meetings should then be based on some of the articles which have appeared in the JOURNAL, and in this way every teacher will be able to understand and intelligently take part in the discussions. We will be glad to receive suggestions from our friends in the numerous counties in which the JOURNAL is sent to every member of the Association, as to subjects which they would like treated in its columns, with a view of making it of the greatest amount of practical use.

### THE EDUCATION DEPOSITORY.

For many years past the Government have maintained in the Departmental buildings, in the Normal School square, a

Depository with two distinct branches, one for books and the other for maps and apparatus. Public opinion has been found so strongly arrayed against this institution, that the Minister of Education has wisely resolved to abolish it, and a few weeks ago he publicly announced this intention on the floor of Parliament. It is necessary, however, for the Government to bear in mind that popular dissatisfaction with the Depository has not been solely due to the fact that its existence was an undue interference with private business enterprise. The chief cause of the notorious want of public confidence in the institution has been a suspicion that those in charge of it have been systematically making money out of their position over and above their legitimate salaries. In fact, it is not a matter of suspicion at all, for the Public Accounts for many years past show that large annual payments have been made to Dr. May, who has charge of the Depository, for map-making, map-coloring, etc., while it is well known that there has not been in existence any check upon his receipts in the shape of competition by tender. From evidence given last session, before the Public Accounts Committee, by Dr. May and Mr. Carter, who has for years had a monopoly of map-mounting, without competition, for the Depository, it is quite clear that a state of affairs has been in existence which calls for a searching investigation before the Depository is wound up. In the course of his testimony, Dr. May admitted that he was the chief capitalist in the "Canadian School Apparatus Co.," of which his son was manager; that Mr. Carter was at his instance taken in as a member of that Company without capital; that the Company manufactured chemical cabinets, blackboard-brushes, models, etc., which found their way into the Depository through the medium of Elliott & Co., and others, who acted as agents, and that some months ago the stock of the Company was sold out by Dr. May to Mr. Carter at twenty-five cents on the dollar, on the understanding that Mr. Carter was to sell it to the Depository and repay Dr. May out of the proceeds. Either Mr. Carter must have been a very nominal member of the "Canadian School Apparatus Co." or that Company must have been a myth, for he stated in his evidence that he was not a member of it at all—flatly contradicting Dr. May on a point of considerable importance.

It is very much to be regretted that no more evidence was taken by the Public Accounts Committee, for this was the only valuable glimpse the public have ever obtained of the way in which things have been managed in the Government establishment. It is quite clear that Dr. May should not be permitted to proceed with the winding up of the Depository, unless he can satisfactorily explain away some of the admissions he himself has made—admissions which go a long way towards confirming the worst suspicions the public ever entertained in connection with the Depository. Since the Legislature has been prorogued, it has been currently stated in the daily press that the Minister of Education has wisely determined to issue a commission to investigate the "management of the Depository," and that the investigation would be undertaken at once. If this statement is correct, the public will be glad to have it confirmed by the immediate appointment of a thoroughly competent commissioner authorized to take evidence on oath.

Nothing short of this will now satisfy the public, and nothing less should satisfy Dr. May or the Government themselves.

### MINOR MORALS AT SCHOOL.

The spirit of the age, on this continent at least, is before all things zealous for equality. There is an impatience of authority which expresses itself in WALT WHITMAN'S denunciation of all political systems which make the ruler of more account than the citizen. But equality, if developed beyond its simplest condition, in a state of savage life, must require a limitation of itself in every respect, which, as Bentham expressed it, trenches on the rights of others. Especially is this the case in the maintenance of that social recognition of the rights of others which we call politeness. If liberal institutions are the programme of our national happiness in the future, it must be by a process of "levelling up," not of "levelling down." All labor will be honorable when no laborer is a boor. In order to conduce to this, the school should be a training place for what are called "the minor morals," but which have far more than a minor relation to individual and national happiness. By a scrupulous attention to this, much friction will be avoided, and the position of the teacher strengthened.

### CHANGE OF BASE.

We are pleased to find that the condemnation expressed by us, and our numerous correspondents, concerning the unprofessional conduct of the Principal of the Hamilton Collegiate Institute, in issuing a magazine with the view of puffing his school, has led to a change, nominally at least, in the management of the paper referred to. It appears with the name of a new publisher, and a different business manager. We are glad to note the change, and are only sorry that we cannot assure the High School Masters of the Province that the change will free them from the ungenerous treatment they have received in the past. We regret to see indications in the magazine which clearly point to the conclusion that its management and aim are in no sense really altered. The hero of "repudiated scholarship" fame is now recognizable by his fellow-teachers even when his name does not appear.

—As we go to press we are in receipt of a communication from Mr. Inspector Marling, relating to the article in the March number of the JOURNAL respecting his report to the Education Department for 1880. It will appear in our next issue.

—A just condemnation of an attempt by penny-wise and pound-foolish economists at Swansea, to cut down the teachers,

salaries, is thus condensed by the *School Guardian* (England):—“An attempt has been made at Swansea to reduce the salaries of teachers. We cannot too much press upon managers that this is the last resource to which, in their struggle for economy, they should betake themselves. They who know anything of the efforts of those who worked for education, say thirty years ago, are aware that the great exertion of the time was to raise the status of the teacher, and to make it worth the while of a better class of men and women to engage in the work of Education. This, too, was the object of the historical Minutes of August and November, 1846. From that time the aims of all our Committees, and Commissions, and Training Colleges, has been to raise the teacher. It is a necessary accompaniment of such a change for the better, that he should be better paid. We must have good teachers, and, if we are to have good teachers, we must pay fair salaries. In this, as in other things, the laborer is worthy of his hire.”

—A Mr. James Bullock, Head-Master of the St. James-the-Less School, Westminster, adopted the following strange method of teaching the gospel:—

At the Westminster Police Court, on Wednesday last, Thomas Bullock, head-master of the St. James-the-Less (Westminster National Schools, appeared before Mr. Partridge on a summons charging him with assaulting a boy named Frederick Teasdale, eight years of age. The complainant deposed that he was one of the scholars at the school, and on the 27th ult. the defendant violently boxed his ears, blackened his eye by the force of the blows, and bruised his face, because he was unable to answer some questions in his Scripture lesson. In cross-examination by Mr. Dutton the boy denied that he was playing or looking about before his ears were boxed. He was quite sure that he did not cause the injuries by knocking his face against a slate. The punishment of the school was caning on the hand and boxing of the ears. Two of the complainant's schoolfellows corroborated this evidence, one of the boys stating that the defendant gave complainant as many as ten knocks on the head and ears. Mr. Teasdale, the father of the complainant, stated that, finding that his son had been knocked about by the schoolmaster, he at once took the lad to Dr. Pearce, the divisional surgeon of the B division of police. Dr. Pearce gave the following certificate:—“October 27. This is to certify that, having examined Frederick Teasdale, aged eight years, I find that the whole of the left ear and side of the face is very much bruised and discolored, and the boy is very unwell in consequence.” A postscript was added to the certificate, dated November 1: “The marks of contusion are still visible, and the boy has not properly recovered.—G. PEARCE, M.D.”

We are glad to be able to state that this man, who violated so grossly the rules of the Scriptures he was teaching, was fined 40s. and costs.

—The following opinion of Dr. Boulton, in the *Medical Record* (London), will have interest for those who study the conditions of school hygiene:

In a communication on the Physical Development of Children, Dr. Boulton, in the *London Medical Record*, states his conclusions from observations, not on single individuals, but from repeated ones on the same, extending over ten years, that different healthy children grow at different rates, and that in average English children, brought up under favourable circumstances, the rate is two to three inches per year—a growth of more or less than this should excite apprehension. The healthy child, that grows regularly two inches per year, becomes a short-statured adult, whilst the rate of three inches per year indicates a tall adult. Whatever the rate of growth, he affirms that weight for height should be in each case

identically the same; and all healthy children should grow broad in proportion to their height. Between 3 and 4 feet, the increase in weight should be 2 lb. per inch; and between 4 and 5 feet, 2½ lb. per inch. And further, the average weight at 3 ft. is 2 st. 8 lb.; at 4 ft., 4 st. 4 lb.; and at 5 ft., 6 st. 6 lb. These weights may be exceeded slightly within healthy limits, but the author gives 7 lb. below these averages as the margin of safety; below that limit the children are ill-developed, and readily succumb to constitutional diseases.

—The *London Free Press* of March 3rd, has an able article criticising the attack on Mr. Crooks in the Ontario Legislature. The *Free Press* considers that Mr. Crooks was weak in his defence of the University appointments, but strong in vindicating his management of the Public and High Schools of the Province. This was of course by far the most important point at issue, the University appointments question being what Carlyle calls “an extinct Satan.” We quote, with approval, our contemporary's remarks:—

“In fact, Mr. Lauder and those gentlemen who join with him here, laid themselves open to the charge flung in their face by Ministerial supporters, that they are ignorant of the questions which they undertake to discuss. They will find no man who understands the subject thoroughly, who will agree with them, that most of the changes introduced are not improvements. The true facts are just the reverse. If there has been progress made since 1871, and we believe there are few intelligent men who will care to question it, then to the better system of inspection that now prevails must much, yea most, of this improvement be ascribed.”

—The *Chatham Tribune* has a leader on State Support to all but primary Education, which, again, it would restrict to the three R's. It avows that “the project of disendowing Upper Canada College is only part of the larger project of disendowing all schools and colleges, except the primary schools.” Precisely so; and this movement is only a Canadian wave of the tidal wave against public Education which has lately swept over the States, a movement which was essentially supported by the rich Philistines who grudged paying for the education of the poor. It is directed against secondary education and the High Schools and Colleges, but its next object of attack will be the public schools of the country. This is a “poor man's question.” Our contemporary lauds the Bobcaygeon *Independent* as “an outspoken journal, which cares not who it hits.” And whom does it hit when it attacks High Schools? The poor man and his children.

—*Tom Sawyer* was no work of creative genius, but it was amusing and fresh. It was calculated to remind us all, especially those engaged in teaching, of the large part of boy-life that lies outside School and even Home, and of the genuine “good” in the midst of “things evil,” such as idle habits, slang, or irreverence. But the “bad boy” has been sadly overworked: his diary, his doings, his scrapes and his dialect are all the very worst reading that could be put before the youth of a generation not too remarkable for reverence, courtesy, sacred things and reputable ways. Besides, the “Bad Boy” is not only “bad” but stupid; let us have no more records of the habits and toilet mysteries of tramps, in glorification of the juvenile dunce and rough.

—We commend to the friends of Education throughout Canada the example of Mr. Alderman Hallam, of Toronto, in offering two medals for the best answering in Canadian History and Geography. Pericles, in the one speech preserved to history, has said that every good citizen should form an intelligent opinion on every great question which concerned his country. The best preparation for this is surely the fostering of a patriotic spirit in our schools, and the way to insure this is not to indoctrinate our youth with Canadian spread-eagleism, but to give a clear idea of the past history and present condition of the land of their inheritance. A few lessons in the elements of political economy and the philosophy of law might be added, if not in a text-book, at least as chapters in our Public School readers.

—The moral hygiene of our schools needs a protest against two evils which affect the health and mental vigour of so many, not only among the scholars but the teachers, of both sexes: we allude to precocious tobacco-smoking, and late hours kept by girls at dancing parties, before the constitution is sufficiently matured to stand the effort at turning day into night. Smoking may be an open question with adults; when used by younger persons it acts as a dangerous narcotic poison, arresting growth, and causing paralysis and other terrible nervous diseases. Not less injurious is the indulgence in dissipation, which is so often the cause of the "sickness" which hinders young ladies from attending to their studies or their duties.

—The Duke of Argyll, in the *March Contemporary*, argues that the condition of certain savage tribes, far from being the lowest step in that evolution of human nature which constitutes progress, are really an evolution in a wrong direction, and lead to conditions lower than those of the brutes. In certain evil tendencies, the brute nature has certain limitations, those of instinct, which retain the beast of prey within their control. But man's will is free, *i. e.*, free from those limitations. Ferocity in savage races may develop itself into a destroying force, such as that which destroyed the maize-growing civilization of prehistoric America, and within the last four centuries the agricultural civilization which Cartier found in Indian Hochelaga.

—A Conference, held at Manchester, England, has called attention to the increasing practice of smoking among boys. It was urged, in the comments made by the *Educational Times* on the subject, that there is no force in the objection that it is useless for teachers who smoked to put down smoking with boys. The difference of age makes all the difference. A crusade against the use of tobacco by teachers would be Quixotic. And common sense will show that nature itself allows the indulgence of pleasures to the mature organism which are highly unfavorable to the health of the immature. Under the head of Practical Ethics for Schools, there is need of clear teaching as to the evils from use of tobacco by boys, arrest of growth, nervous disease and paralysis. With men smoking is a social

habit; with boys it is illicit, a vice, and one likely to be combined with drinking.

—One of the great advantages of Mathematics as a means of education is the fact that in the study of that subject it is absolutely necessary for the pupil to do the work in most part by his own effort. A feeling of the importance of History and of Literature is growing amongst educationists. But in order to make them as invigorating as mathematical studies, it is surely necessary that they should be so taught as to make the student think and work for himself. Mere manuals of literature cannot begin to do this, neither can worn-out methods of teaching History, which, as Carlyle lamented in his own school days, merely fill the mind "with dates and dead vocables."

—The *Globe* of March 1st does well in praising the father of an insubordinate boy at St. Mary's, who, on investigating a complaint urged against a teacher, found it without foundation, and punished his son for the deceit. Parents should consider, when they hear a complaint of a teacher from their child, how very difficult it is, even when no deceit is intended, for a child to take a just or accurate view of the relation between himself and the administrator of school discipline, how much that difficulty is increased by the comments and sympathies of other children, and how fatally it is sure to be perverted into falsehood if the parent shows a disposition to side against the teacher.

—The following letter, addressed to the *London Times*, is a significant comment on the policy which refused educational facilities to the "Nonconformists" to the State Church of England:—

On the subject of "Nonconformists and the Senior Wranglership," Mr. J. Carvell Williams writes to the *Times* as follows:—"After the passing of the University Tests Abolition Act, a well-known member of the University of Oxford said to me: 'The best thing you can now do is to get Nonconformists to send up their most promising young men to the Universities; and, if I may judge from the results, Nonconformists appear to have been of the same opinion. For this year, as last year, the Senior Wrangler at Cambridge is a Nonconformist. The second in the Mathematical Tripos list is also, I am told, of Nonconformist origin, and the third is the son of a Nonconformist minister. Another Nonconformist stands tenth on the list. This, sir, is the fourteenth time in twenty-one years that the Senior Wrangler has been a Nonconformist—a surprising fact, considering that a large majority of the undergraduates at Cambridge are members of the Church of England. It shows what Nonconformists lost by the ecclesiastical restrictions of past times, and, inferentially, what the nation probably lost also.'"

—Some of our English Educational exchanges are much exercised at the possible consequences of the high positions young lady students are taking at the Cambridge examinations. What will happen should the unspeakably awful event come to pass that a woman "shall beat the Senior Wrangler or Senior Classic, shall any such dignity survive"? Well! even for this, as for other developments of progress, Nature and the condition of things will no doubt provide, the fittest, as usual, surviving.

—We quote the following from an address given by Mr. J. Taylor Kay, the Librarian of Owen's College, Manchester, England:—"For many years a remarkable fact has been before my notice, and continually confirmed by a long experience in the Manchester Free Libraries, that school boys or students who took to novel reading to any great extent, never made much progress in after-life. They neglected real practical life for a sensually imaginative one."

—The fallacy that the increase of Crime goes on *pari passu* with the advance of Education, has been well replied to in Dr. ALLISON'S late articles in the SCHOOL JOURNAL. This fallacy is being revived in those newspapers which are not ashamed, at this time of day, to abet the cry of selfish Wealth against Education. We are sorry to say that the *Chatham Tribune*, in an article of the most reactionary kind against State aid to Education, resurrects this false doctrine. It says Lord Brougham's prophecy has failed as to Education lessening Crime.

—We are glad to see that the important practical question of Superannuation has been well and thoroughly discussed at the last Middlesex Teachers' Association. We differ from some of the speakers in considering that in this, as in all schemes of Insurance for the industrial classes to which Government aid is given, the payment of an annual sum should be obligatory on all.

—Lord Dunraven's proposal for throwing open public museums and galleries on Sundays does not seem to be approved of by the English school journals. It would no doubt lead to a considerable amount of Sunday work, besides the interference with the religious interests and feelings of the people. There are other opportunities for artistic culture without trenching on the Day of Rest.

—The London School Board has at last closed the vexed question of "keeping in," by expressing disapproval of the practice as a rule, while leaving exceptional cases to the discretion of the teachers. This is probably as far as legislation can provide for the application of a fixed rule to widely differing circumstances.

—At Stubersheim, near Ulm, in Germany, a school has been established for girls of the peasant class to learn farm work, cooking and washing, also sewing, mending and knitting. The village doctor gives some instruction in hygiene and natural history. These classes are only held in winter.

—Mrs. Garrett Anderson, M.D., praises the methods of training at the far-famed Girton College, because students are not admitted there till the age of eighteen. She objects to "haste, excitement, and over stimulation" in the education of girls.

## TEACHERS' SUPERANNUATION OR PROVIDENT FUND.

No subject has been discussed so largely during the past two years by the teachers of Ontario as the superannuation question. The time for action by the Legislature is near at hand, and we hope that every Association in the Province will consider at an early day the points submitted in the following circular from the Legislative Committee of the Provincial Association. We have already given a large amount of attention to this subject; but we propose during the next few months to publish all the information we can obtain concerning the working of Teachers' Provident Funds, or Pension Acts in other countries:

### CIRCULAR TO PUBLIC SCHOOL INSPECTORS.

DEAR SIR,—The Legislative Committee of the Ontario Teachers' Association respectfully request you to bring this circular under the notice of your local Teachers' Association. As the result of several interviews we have had with the Minister of Education on the subject of amendments to the present law respecting superannuation allowances to teachers, he has expressed his willingness to consider and submit for the sanction of the Legislature at its next session such amendments as would fairly represent the views of the great majority of the teachers on the subject, and which the Legislature could reasonably be expected to approve of. If your Association has already held its first semi-annual convention for the present year, please bring the subject before the teachers in your inspectoral division by means of a special meeting, or in any other way which you think best. It is very desirable, in order that the answers to this circular may be carefully considered by the Legislative Committee before the next meeting of the Provincial Association, that the opinions of your Association be sent to the Secretary of this Committee on or before the first day of July next.

The Minister thinks the following propositions are necessarily involved in the consideration of the basis of any new system, and that it is desirable that the opinions of the Teachers' Associations should be given specifically on each of such propositions:

1. In lieu of the present provisions of the law respecting the Superannuated Teachers' Fund, the "Teachers' Retiring Provident Fund," in this Act termed "the Fund," is hereby established, and such fund shall consist of all sums that may from time to time be appropriated by the Legislature out of the consolidated revenue of the Province, and of all sums hereinafter provided to be paid by all persons entitled to a retiring allowance as hereinafter also provided.

2. The following are entitled to a retiring allowance, namely: every male teacher of a public or separate school holding a first, second or third-class certificate of qualification under the regulations of the Education Department, or a valid county board certificate of the old standard; also every female teacher of a public or separate school holding any like certificate: also every legally qualified master or assistant master of a high school or collegiate institute, and every public or high school inspector.

3. The conditions on which such person shall be entitled to the retiring allowance are as follows: each person must have contributed annually to this fund a sum equal to two per cent. of his salary—limited to one thousand dollars as the highest—payable to him during each year of the period of his service.

4. Every male teacher of a public school is required to make such payments annually into the fund during the period or periods in which he is engaged in teaching:

5. It shall be optional with any female teacher, separate school teacher, high school master or assistant master, or public or high school inspector, to make such annual payments into the fund; but no such person shall be entitled to any of the benefits of the fund unless such annual payments are made by such person in each year during his period of service, within such periods as may be provided by the regulations of the Education Department.

6. Every teacher, master or inspector with whom it is optional to contribute to the fund shall, during each year of his or her service, and not otherwise contributing to the fund, pay the sum of two dollars for the purposes thereof, and such payments shall be considered and taken as payments made *pro tanto* to the fund, in case such teacher, master or inspector should at any time during his or her period of service become a contributor to the fund under the option aforesaid.

7. The said sum at the rate of two per cent. upon the salary of each person, and the said sum of two dollars also to be annually paid by non-contributors, as hereinbefore provided, shall be made by way of abatement from the annual apportionment of the Legislative Public School Grant, and the Minister of Education shall in his certificate to the Provincial Treasurer of such apportionment also state the amount to be deducted from the salary of each person as his or her annual payment to the said retiring fund, and all sums so deducted shall be paid into and form part of the "Teachers' Retiring and Provident Fund."

8. All monies from time to time payable to the said fund shall be carried by the Provincial Treasurer to a separate account for this fund distinct from the consolidated revenue fund and also any interest accruing thereon.

9. Every person who complies with the foregoing conditions as to contributions to the fund may retire from the teaching service in his discretion after thirty years of actual teaching, and having reached the age of sixty in the case of male teachers; and after twenty-five years, having reached the age of fifty-five, in the case of female teachers, and shall thereupon be entitled to receive a retiring allowance equal to one-sixtieth of his average salary in respect of each year of his teaching, and if the service had not been continuous, then in respect of the number of years of actual service.

(2) The interest of any person in the fund, or in any retiring allowance when granted, shall not be assignable by such person, or be subject to any execution, attachment or process of any court of law or equity, or judge's order under judgment in the division court.

10. No retiring allowance shall be made for any period of service of less than ten years; and no teacher who retires before he serves the full period of thirty years in the case of males, and of twenty-five years in the case of females, will be entitled to a retiring allowance, unless it has been established by evidence satisfactory to the Education Department that such teacher has become incapacitated by bodily or mental infirmity from performing his duties as a teacher, master or inspector, as the case may be, or unless such male teacher has reached the full age of sixty years, and such female teacher that of fifty years; but any such retiring allowance is liable to be withdrawn in any year, unless the incapacity continues; and the recipient is annually to present himself to the public school inspector, in order that he may report thereon to the Education Department, and any teacher whose disability may cease, and who resumes the service of teaching, will become entitled to the benefits of this fund.

(2) Any male teacher upon reaching the full age of sixty years, and any female teacher that of fifty-five years, shall be entitled to his or her retiring allowance, notwithstanding the periods hereinbefore provided have not been fully served by such teachers.

11. No person shall be entitled to receive back any sum contributed to the fund; but in the case of the decease of any person without having been placed on this fund, his or her wife or husband, as the case may be, or other legal representative, shall be entitled to receive back all sums paid by him into the fund in any year other than during the first ten years of his service, with interest at the rate of five per cent. per annum.

12. The period or periods during which any teacher, before the passing of this Act, has been engaged in teaching, shall be allowed for as if served under its provisions, and any payments made by him on account of the former "Superannuated Teachers' Fund" shall be considered and taken as payments made *pro tanto* to the fund hereby established, and any sum which is required to be paid to equal the amount annually payable to the fund under this Act may be made up by payments in five equal annual instalments after the passing of this Act, or as otherwise provided by the regulations of the Education Department.

13. The allowance to teachers who are now on the list of those superannuated, under the provisions of the former law, will continue to be paid to them under and subject to the conditions thereof.

By order of the Legislative Committee,

ROBERT W. DOAN,  
Secretary.

JAMES L. HUGHES,  
Chairman.

#### THE QUEBEC TEACHERS' PENSION ACT.

As the Act lately passed by the Quebec Government, entitled "An Act to establish a pension and benevolent fund in favour of officers of primary instruction" (Act 43, 44, Vict. cap. XXII), which received assent on July 24th, 1880, was the subject of a paper by Dr. Miles of Quebec, and was much discussed in the

Provincial Convention of Protestant teachers held at Montreal in October—the following digest has been prepared.

(1) *Officers of primary instruction.*—This term includes "school inspectors, professors of normal schools, holding diplomas, and male and female certificated teachers, teaching in an institution under the control of school commissioners or trustees, or subsidized by them or by the Government, but does not include members of the clergy or religious communities." (c. 1.)

(2) *The pension fund.*—To provide for pensions.

1st. A reduction or stoppage of two per cent. per annum to be made from all salaries. This to be taken half-yearly by the Superintendent of Public Instruction out of the grant. (c. 16.)

2nd. A stoppage of one per cent. to be made annually from the "Common School" and from part of the "Superior Education" funds.

3rd. An annual grant of one thousand dollars per annum to be made by the Government of the Province.

The amount thus raised to be converted into Provincial or Dominion bonds, and held in trust by the treasurer of the Province, strictly for the purposes of the Act. If the interest be not sufficient to pay pensions, the stoppages from salaries of officers to be increased. (c. 12.)

*Note.*—Salaries to be estimated by the School Inspectors of Divisions, and to be held to include lodging, board and fuel, when given as such. (c. 17, 18.)

(3) *Nature of pension.*

1st. The pension to be annual, "based upon the average amount paid to officer during the years he has passed in teaching, and for which he has paid the stoppages." (c. 2.)

2nd. Such pension not to exceed the following rates, viz. :

A. For full service of ten years, one-fourth of average salary.

B. One-fortieth of average salary to be added for every additional year.

C. For forty years' service, full average salary to be paid: no additional grant for service over forty years. (c. 2.)

3rd. Pensions shall not be assignable or subject to seizure, (c. 14.)

(4) *Officers entitled to pension.*

1st. No person entitled to pension for years for which stoppage has not been paid.

2nd. Claim to name being placed on the pension list to be based on five years' previous service. (c. 4.)

3rd. All who have been employed as officers for a term of ten years or upwards, and who have reached the age of fifty-eight years, are entitled to retiring pension. (c. 2.)

4th. Also such as have been employed during thirty years, whatever may be their age. (c. 3.)

5th. Also after ten year's service, such as are unable to remain in the service, owing to serious injury or enfeebled health—incurred through no fault of their own. (c. 5.)

6th. From the age of eighteen, all years passed in teaching or as a normal school pupil, shall be included in the years of service at the time of establishing the amount of pension. (c. 9.)

7th. Former service counted before the Act, provided the stoppages be paid for such period within five years after its sanction. (c. 10.)

8th. Payments under pension fund of 1856 counted as payments under this Act. (c. 11.)

9th. Right to claim pension as well as to amounts paid to the pension fund to be forfeited by dismissal or resignation, except for approved reasons, such as in the case of one temporarily accepting a position in an independent school and regularly paying the stoppage. (c. 15, 24.)

(5) *Widows and Children of pensioners.*

1st. The widow of an officer in receipt of, or entitled to claim, a pension, to be entitled to one-half his pension, (1) if married to him six years before his retirement or death in the service; (2) if still unmarried (c. 6, 7.)

2nd. Where no widow's pension is paid, children of officers are entitled to pension till the age of eighteen to the amount of widow's pension. The sum to be divided equally among all below the specified age—the share of those dying or attaining age to devolve upon the others. (c. 8.)

(6) *Details of working.*

1st. Pensions to be forfeited if unclaimed for three years and replacement on the pension list does not entitle pensioners to arrears. (c. 19.) ;

2nd. Full certificates required of officers, widows or children claiming pensions or reversions of pensions. (c. 20, 21, 22, 23.)

3rd. This Act does not apply to teachers already superannuated. (c. 25.)

4th. No pension to be paid for five years after the sanction of the Act, and teachers dying within such period lose their right to pension, though their heirs may recover the amounts paid to pension fund. (c. 26, 27.)

5th. Orders or regulations to enforce the Act to be drawn up by the superintendent of public instruction. (c. 28.)

## Contributions and Correspondence.

### ALGEBRAIC FACTORING.

To the Editor of the Canada School Journal:

DEAR SIR,—Agreeably to the wishes of many teachers, I have ventured to forward to you for publication in the CANADA SCHOOL JOURNAL the following, so far as I know, ORIGINAL synopsis of the "Laws of Algebraic Factoring:"

I. An algebraic expression can be factored if it have some letter or letters, figure or figures, common to all or to some of its terms.

This, the method of "factoring by parts," or "taking out the common factor," is treated at length in McLellan's Algebra, pp. 79-82, and in Hamblin Smith's Algebra, pp. 43-44.

II. An expression can be factored provided it be, or can be, transformed into a trinomial—

1. Whose first term is a perfect square.

2. Whose third term contains factors, which

3. When added algebraically appear in the second term as the coefficient of the square root of the first term.

The type of this trinomial is  $x^2 + x(a+h) + ab$ .

Examples of this, and of its extensions, may be found in McLellan's Algebra, pp. 67-78, and in H. Smith's Algebra, pp. 44-47.

III. Provided an algebraic expression be, or can be, transformed into a complete  $n^{\text{th}}$  power of a polynomial (including bi and tri-nomials) it can be at once factored.

This includes all squares, cubes, fourth powers, &c.

IV. Provided an expression be, or can be, made the difference between any two  $n^{\text{th}}$  powers, it can be at once factored; or if it be, or can be, made the sum of any two odd powers.

This includes not merely  $a^2 - b^2$ ,  $a^3 - b^3$ ,  $a^6 + b^6$ , &c.; but also the illusory forms  $a^4 + 4m^4$ ;  $x^{16} + 8y^{16}$ ;  $x^4 + x^2y^2 + y^4$ . Or examples may be found in McLellan's Algebra, p. 66 and pp. 74-75, and in H. Smith's Algebra, pp. 49-51.

V. If an expression be not reduced or reducible to either of the above, it may be factored—

1. By the application of the "Theory of Divisors," vide McLellan's Algebra, pp. 88-90.

2. By the method of Trial Divisors, McLellan's Algebra, pp. 99-100.

It may be added that many expressions are met with requiring the use of more than one of these laws.

$$\text{e.g., } x^4 + 6x^3 + 27x^2 + 162x + 729$$

$$\text{which} = (x^4 + 54x^2 + 729) + 6x(x^2 + 27) - 27x^2$$

$$= (x^2 + 27)^2 + 6x(x^2 + 27) - 27x^2$$

$$= \{(x^2 + 27) - 9x\} \{(x^2 + 27) + 3x\}$$

$$= (x^2 - 9x + 27)(x^2 + 3x + 27).$$

Again, also, such as

$$x^4 + 12x^3 + 50x^2 + 84x + 83,$$

$$\text{which} = (x^4 + 12x^3 + 36x^2) + 14(x^2 + 6x) + 83$$

$$= (x^2 + 6x)^2 + 14(x^2 + 6x) + 83$$

$$= (x^2 + 6x + 11)(x^2 + 6x + 8).$$

Thanking you for your kindness in publishing this note in your columns, I remain, yours sincerely,

D. F. H. WILKINS, B.A., Bac. App. Sci.,  
Mathematical Master C. H. S.

### LOVELL'S GEOGRAPHY.

To the Editor of the Canada School Journal:

DEAR SIR,—Noticing the criticism of the maps in Lovell's geography by "Head Master" (p. 39), I took a look over the maps of South America in "Lovell's Advanced Geography," which one would expect to be a little in advance of some others. One

would naturally expect, at least, to find named upon the map all the places mentioned in the text, but I failed to find the names of 1 ocean, 3 straits, 3 bays or gulfs, 4 peninsulas, 7 capes or points, 8 falls and rapids, 12 lakes and lagoons, 17 towns or cities, 18 states, districts or provinces, 18 islands, island groups or archipelagos, 25 table lands, plains, plateaux, llanos, and pampas, 26 mountain peaks, 33 mountain groups, cordilleras, sierras or ranges, and the amazing number of 53 rivers not named; in all 203 places named in the text but not named in the map. Notwithstanding these facts, the map contains the names of 1 cape, 1 lake, 1 fall, 4 rivers, 4 islands and 69 towns not deemed worth mentioning in the text at all. Then I looked at the map of New York State in vain for the names of Mt. Marcy, Staten Island, West Point and Saratoga, the last three of which places are perhaps as well known to the travelling world as almost any three in any other State of the Union, and are mentioned in the current literature of the day quite as often. Do you think that the books authorized are critically examined by those supposed to do so? Comment is unnecessary—the defect is too plainly seen. Hoping this may be of interest,

I am yours truly,

W. S. HOWELL,

Principal of Milford Public School.

## Practical Department.

### LANGUAGE LESSONS.

BY MISS BERTHA SIMS.

We teach language lessons; we learn language lessons. Why? In order that our citizens, when called upon, may be able "to define accurately" the terms—noun, pronoun, verb, adjective, etc.? Rattle off long lists of declensions, inflections, rules, and exceptions to rules? Conjugate verbs (regular or irregular) in all their moods and tenses; or analyse extracts from standard authors, "parsing syntactically the words in italics? No.

This is all very well in its place, but let us be quite sure we know what is its place. I am convinced that many of the inaccurate grammatical constructions, most of the forms of expression which we call bad English," (as if anything English were ever bad)—are owing to "a mistaken idea of our teachers as to the object of the science of grammar in forming a part of our public school course of study." In fact, "contributing, as it does, to the higher and reflective branches of the work, grammar, as generally studied in our schools, could very profitably be deferred until the child acquires through language lessons a correct use of his mother tongue; since it is now conceded by our best philologists, that language is seldom improved by the study of an ordinary text-book on grammar. Language first—grammar afterwards. Grammar through language; not language through grammar. Yes; what we must teach, and aim to teach better, day by day, is not the statistics, but the use of words. "Mere grammar is dry husk, but words, swift, terse, burning words, let the children learn to store and use." We must teach speech, not the science of it merely.

Teach speech; free, lucid, exact. Let us have no more of the time-honored (?) expression, "I know, but I can't make you understand." We ought to tell; to be able, at least, to tell, for we have not, even in these days of freedom, reached that point of which Chas. Kingsley speaks when he says an honorable member of parliament roundly declared—"That, in a free country, no one was bound either to understand himself or let others understand him."

Teach speech. Let the thought behind be given clearly, logically, accurately. It may be a poor thought; it will be no poorer, no more meagre for beautiful surroundings. A grand enduring thought it may be, stamped with the impress of Nature's own nobility. 'Twill be no less grand, no less enduring, enriched by the graceful ministry of art.

Teach speech—polished, ready, true, till in all the land, from



cottage to lordly hall, the laborer at his work, the monarch on his throne; whether it come as the soft cadence of the home life—the busy, stirring hum of market or exchange, the passionate outpourings of the heart, or the stern, resistless torrent of the forum,—our dear old Saxon tongue,—the sweetest, sublimest language under heaven, shall rise, in one grand refrain—noble, musical, right. "So shall the lips of the nation be filled with power."

*How shall this be accomplished?* What methods must be used, and who must use them? A answer, to both questions, many. Many methods, many persons to employ them. We cannot be responsible for all methods, we cannot control all persons, in the use of even one of them; but we can be responsible for our own, and we can see to it that we use them wisely and with definite aim. And first, "Thou must be true thyself, if thou the truth would teach," for "We grow like what we contemplate." Then must the teacher himself, at all times and on all occasions, use correct language. Parents and the public should, we must! I trust, however, that I shall not be misunderstood in my use of the words "correct language." Mistakes have occurred. I had the privilege, while teaching for six months in a western town, of the acquaintance of a lady who spoke what she called "correct language," "good English." You shall judge. She never "breathed," that is vulgar; besides, any one can do it; she "inhaled oxygen." Her friends "began," she "commenced." I "lived" with my cousin, she "resided" with her mother, where she never "went to bed," but mysteriously "retired." While the rest of us "said grace" and modestly "ate" our lunch, she "invoked the Divine blessing," and magnificently "partook of refreshment." Some day she will, no doubt, end her days by "deceasing" with due pomp and solemnity. 'Tis a pity that all such "good English" could not be buried—I mean "interred" with her.

We will have many methods, but our method of methods shall be to have each and every one adapted to the especial wants of the child; and to the stage of development of his intellectual faculties. How frequently energy is wasted here, and a child whose mind is but waking up to life and thought, only unfolding leaf by leaf towards fruition, is required and expected to evince in composition the fragrance and beauty of finished growth. Else he is "stupid," or "destitute of all imagination." So, to a great extent, he ought to be. In youth, it is not the diffusing, but the "assimilating and laying up processes that are still in excess." Let them lay up then and assimilate material, good, wholesome, sufficient material for present necessities, and after life. 'Tis not the office of the bud to fill the mission of the flower. Its all of life, is growth—growth, which a modern writer has defined to be "gradual increase by natural processes." Natural processes! What are they?

Setting aside the consideration of minor details, the three great faculties of the mind, with the periods of the developments of which we, as teachers, come most in contact, are the Observant, Conceptive, Imaginative and Reflective. Speaking broadly and generally, we may divide the ten grades of our city schools into three corresponding groups, viz.:—The first comprising the three junior classes, the second the next four, and the third the remaining three. Of course I do not intend by this arrangement to imply that the children in the first group will be found to be prematurely observant, or in the third marvellously imaginative and calmly reflective. By no means. The boy of fifteen, who, being required to evolve from his inner consciousness sundry remarks on the sheep, stated that—"A sheep is an animal with four legs, one in each corner"—certainly was not either. It must have been the same boy, by-the-by, who, discoursing the other day on the sublime subject of pies, touchingly remarked: "Pies is of three kinds, covered, crossbarred, and open; I guess I like the cross-barred ones the best." But I must pass on rapidly, for there comes to my mind the effort of an-

other boy who, having wasted the hour allotted to composition in constructing a series of "art studies" of the master, when time was called seized his pen, and enriched posterity with the following couplet:—

"Time flying fast with rapid wings,  
Leaves one no time to do one's things."

By the observant, conceptive and imaginative groups I simply mean that in the order named, and as a rule during the period of time that a child *should* pass through the grades of each, do his mental faculties begin to awaken and claim attention. Then (and I would emphasize this strongly, not only for the teaching of language lessons, but of all other subjects) shall we do wisely, we whose duty it is to train the mind, the end of whose labor, "the attainment by each individual of all the perfection of which he is capable;" we shall do wisely, I say, if we approach our work through the avenue Nature herself indicates to us. Portal after portal, gateway after gateway, to the vast treasure-house of the heart and brain, does this oldest of all teachers roll back before our gaze. Wisely (I can find no better word) shall we work, and moreover in certain hope of success, if availing ourselves of each opportunity as it presents itself we bend it to our need, and cultivate through perception, memory, conception, imagination, reflection and generalization, the whole round man.

A gentleman said to me a few weeks ago, "How delightful it is to go out with children. Everything seems so fresh to them." I think he mistook a little. It is not a question of *seeming* but of *being*. Everything is fresh—everything. The child stands on the threshold of life filled with wonder and delight. Finite, yet with infinitude to apprehend. Nothing too small, nothing too great to be examined and accounted for. His punctuation marks are all exclamation and interrogation points, interspersed with periods—of sleep. "How pretty!" "What is it for?" "Why?" Poor Mrs. Gargery evidently felt this keenly when she testily remarked of Pip, "Drat that boy! What a questioner he is. Answer him one question, and he'll ask you a dozen directly. Hulks are prison ships, and people are put in the hulks because they murder, and rob, and forge, and do all sorts of bad things. And they always begin by asking questions. Now you get along to bed."

It behoves us to "ask a question" just here. How shall we primary teachers best begin at the beginning, and through this earliest of all mental development, cultivate language in the mind of the child? The answer comes in true logical sequence. "By extending his knowledge of objects. By carefully directing his attention to all that is within his power to grasp, and is worthy of consideration. By means of object lessons (not lectures) on form, color, size, number, qualities. By talks (not all on one side) about leaves and animals and birds." Nay more. Let us teach the little ones "never to lose an opportunity of seeing anything that is beautiful," for that "Beauty is God's own handwriting—a wayside sacrament." Teach them then, as citizens of the great commonwealth of nature, to look for this Divine impulse in subtle harmonies of wind and wave and wood. The "sunshine of the meadow," "the shadows of the forest," the rain shower, the snow storm, "winds wild with gambols."

Ask them sometimes to tell you of the pretty things they have seen on their way to or from school. At first you will find most of the objects come from store windows and kindred places. All products of art, man's nature, yet surely they will urge towards the realm of nature, "God's Art." Tell them stories, and make them re-tell you, graphic in description, simple, wholesome, wonderful. I heard a Presbyterian minister once discoursing (that's what he called it) on the subject of children, in the course of which discourse he observed:—"It is deeply to be regretted, that even in these enlightened days so much of the valuable time of early

childhood is frittered away, by mothers and others, in nonsensical nursery rhymes and foolish fairy tales, such as 'Cinderella,' 'Jack and the Bean Stalk,' and the rest, all of which are useless, and utterly frivolous, not to say positively sinful." He thanked God his young days had never been wasted "in the like." He looked like it. I "specs" he never had a mother, but "grewed" like Topsy, only he wasn't half so jolly, nor—poor man—"so wicked." I told my class "a positively sinful one" the next day, for fear that any of them should grow like him. Miss Martineau says that "children are clever in proportion to their state of happiness." The remark is worthy of earnest and deep consideration.

May I suggest here two exercises in "composition for primary classes?" They will be found applicable to either the first or second book classes, and will add variety to the work. We select some object in the schoolroom, say the stove; I write in large letters, ~~the stove~~, on the board. Then I get from the class short, detached sentences describing it, placing each as it is formed; somewhat as follows:—"It has four legs. It has a door. It is black. It is made of iron. It burns wood. It is oblong. It has a pot-hole." Now let some one draw the chalk through all the things that it has. Then what it *does* or is; arrange each division in sentences by itself, thus:—"The stove has four legs, a door and a pot-hole. It is made of iron and is black. Its shape is oblong. It burns wood." This can then be copied down on slates. A picture may be made use of in a similar manner; it having been placed before the class, they may be required to write or print the names of all the objects to be seen therein—an excellent test for spelling. Another day, this might be done from memory, or we may use it as we used the stove, analytically naming the different objects, then synthetically arranging in concise form in sentences. Again, let the teacher draw some object on the board, perhaps a house, and set the children to weave for it imaginary surroundings; its size, what it is built of, who live in it, what they do. Forming one of the best exercises for the development of language, this last plan will be found, at the same time, to add piquancy and variety to the fertile fancy, the well-known "make believe" power of childhood and it is by the care and fostering of its tender shoots that we pave the way for a vigorous and full maturity in after life.

Try these, or better methods if you have them, but in all—by any and every means in our power let us encourage the children to talk. Thus only can we discover the errors of style, punctuation, or construction that need correction. And this correction should be prompt, kind, unflinching; e.g., a child says "and he seen him do it." No need to branch off into the higher mathematics of the art of speech, just say quietly, with slight emphasis, "Yes he *saw* him do it well," and make him repeat the correct form.

If we can succeed in this manner in eradicating the more glaring grammatical errors in common use, and which certainly do not number more than twenty at the most, we shall have done much to render our future work in language easy and pleasant. The child in the primary class having been taught to exercise his power of perception in every possible direction; having largely extended his vocabulary, by hosts of words which are *really* as our textbooks have it, "signs of ideas," has yet spent his time (and rightly spent it too) chiefly amid things real and tangible; and he has seen so much that is wonderful, so much that is incomprehensible even in these tangible realities, that, with growing years, passing from the known to the unknown, there dawns on his mind the conviction that there may be, that in fact there *are*—peoples—realms of wonder, in short, "many things in heaven and earth not dreamed of in his philosophy." And so conception, the second of the intellectual faculties, awakens and turns towards the light.

We have now to deal with our II. group, and with the children, filling I should judge from the senior second to the junior fourth

inclusive. Still keeping up the culture of the observation on the lines already indicated, we may extend our work with the extending power of our pupils. These can now easily be taught the principal parts of a sentence; can learn to form sentences in whole or in part, by supplying omitted subjects, objects or predicates. They can acquire *by practice*, simple rules for capitals and punctuation marks. Having been told short anecdotes of a miscellaneous character, they can reproduce them in writing. Give them the substance of an imaginary newspaper paragraph, and see who will arrange it in the best style. And you can have enjoyable exercises in letter writing. Imagine you are anything or anybody, and conduct your correspondence accordingly. Having selected a subject, for some time after letter writing has been commenced, the teacher should just write the letters on the board herself, under the direction of the class. The proper construction of a letter, i.e. the date, address, forms of opening and closing, can be given *incidentally*. I saw a short time ago a rather startling suggestion in an American school journal, to the effect that children might be required to write letters to animals. There can be no harm in trying the experiment. Another good idea was to let them keep a written list of all the ungrammatical expressions made use of by themselves, or common among the public generally.

All these exercises can be varied to almost any extent either with regard to matter or method; and it is hardly necessary for me to say, are best conducted in school, under the eye and sympathy of the teacher. Before passing to the III. group, let us pause to consider for a moment what our work thus far has been.

We have sought—none know better than I, with what intention of purpose, remitting energy, often hurried and imperfect execution—still we have sought and *will* seek to develop power to observe and express; to conceive and express. We have used and guarded and strengthened the early dawning, the playful infancy of that mightiest of all the powers of the mind—the imagination—"the faculty which alone invents and creates," whether in the child world, the domain of thought, art, or human industry.

We may now stand aside and leave to the higher classes of our schools, our colleges and universities, to our masters and professors, the mature work of the maturing mind.

It would be presumption for me, a junior class teacher, to offer to the high dignitaries I have named any suggestions of my own for the proper fulfilment of their task; yet, in tribute to the memory of one of the best teachers it has been my privilege to know, I should like if they will permit me to describe the method pursued by our English master at school. I am sure he *taught* us well. How we *learned* I know not, only we liked the process. We had four lessons a week, each of an hour in length, and though he "made haste slowly," he found time to accomplish much. He taught us analysis and the rules of what is generally known as grammar, etymology, delighting us the while with Archbishop Trench's "Queen's English" and "Study of Words." We committed to memory poems, extracts, verse, simile, metaphor, from the writings of our standard authors,—transposed poetry into prose and prose into verse. With him we made acquaintance of much of the pure and good and noble in the English world of letters. He told us of Chaucer, "Great Father of English Poetry"—sketched the plan of the Canterbury Tales, giving to us, as I have never forgotten it, the story of "Patient Griselda."

We heard of Shakespeare and Macbeth, Dante and his Inferno, Addison, Milton, Wordsworth. We had passages from Dickens, Goethe, Ruskin, Thomas Carlyle; pathos, humor, satire; what not? Filled with it himself, he tuned our ears to catch "the lordly music flowing from the illimitable years;" while together we wandered o'er the classic fields of ancient days, and dreamed again the dreams of the heroes and the gods. Homer—the Iliad—Troy,

Orpheus and Eurydice, Ulysses and Polyphemus, he told us all, with a rapt, dreamy, vivid description, that made the whole life-like and real—and whatever he told, whether it was life of author or his work, he required us to reproduce it in our own words and style, giving us plenty of time for reflection and work. He taught much more besides—geography, history, arithmetic—and always bore with all our shortcomings and perverseness with such a tender, manly gentleness, that come what might, we gave him that which I think is worth more than all else between pupil and teacher—our respect.

And now I have done, and you ask me "What will result from all this—this cultivation through every faculty of the whole round man?" You know what Longfellow says:—"Feeling is deep and still, and the word that floats on the surface is as the tossing buoy that shows where the anchor is hidden."

These "tossing buoys"—paint them with every conceivable form of art, gild them with all the showy blazo of elocution and rhetoric. Then what? For themselves nothing. A gleam, a flash in the sunlight—anchor indicators, that is all. These changing "anchors" hidden—where? We trust, where we have labored and toiled and prayed that they might be hidden, firm and fast 'mid all that is pure and good and lovely; in a strong unshaken faith in God and nature and the one brotherhood of humanity; in freshness and simplicity of heart; hidden, firm and fast, in that affection which hopes and endures and is patient; in manhood and womanhood; in strength and tenderness and that sublime pity which makes the world soft to the weak and noble to the strong, the eloquent pathos of the here and hereafter; in prayer and courage and patient toil. So from these brown-handed children shall grow mighty rulers of state.

The pen of the author and statesman,  
The noble and wise of the land,  
The sword and the chisel and palette,  
Shall be held by the little brown hand.

## OCCUPATION FOR YOUNG CHILDREN IN SCHOOL.

BY A PRIMARY TEACHER.

How shall we keep the little ones happy, busy, and orderly? Happy, because childhood should be the embodiment of happiness; busy, because little fingers were made to be busy; orderly, because order is essential to all progress.

It is the part of wisdom to direct, not to suppress the forces of nature. Children, if well and strong, are full of animal life. How shall we use this activity to advance education? When left to themselves, they are continually seeking occupation; their vivid imaginations give life to everything.

People have come to acknowledge that the method nature adopts must be the best. A Being of infinite wisdom and love certainly cannot err in His plans! In teaching language, what is termed the natural or conversational method is being adopted with marked success. The kindergarten acknowledges this principle, and very beautifully provides for it. But it is an elaborate system, requires special training, is expensive, and demands an increased force of teachers; and is, therefore, impracticable in ungraded schools or in large classes, which is the case in most of our schools. But cannot an approximation to the kindergarten be attained in said schools?

Sticks, blocks, beans, papers, wires, etc., are inexpensive and are readily obtained; may we not put them to good use in our schools by using them in a systematic, instructive and orderly way? As an aid to teachers in this direction the following lessons are presented hoping they may prove of some slight assistance:

### I.—STICK EXERCISE.

Provide each child with ten short sticks (about the size of matches). These may be kept either in a small box for each child or in a large box, from which they may be distributed. It is well to have a familiar conversation concerning the different objects used by the

children in school, so they may understand of what they are made, the uses of the materials, and how and where obtained. Begin with a talk about wood. Ask of what the sticks are made, where they came from, what kind of substance.

Develop the idea of natural by comparing with things that man makes, as paper, cloth, glass, etc. Let them find in the room all the natural substances or things that God made; then the things that man made. Refer to articles of food and whatever other things may suggest themselves, until the children thoroughly comprehend the term natural. If the children are old enough, the term manufactured may be given; if not, use the simple definitions. The idea and not the term must be the prominent point.

Let the children name the various things made of wood; first, those in the room, and then any they may think of. The easy words may be written on the board as a spelling lesson. In school work every possible thing should be utilized; reading, spelling, writing and arithmetic may be brought in indefinitely.

Have two glasses of water; in one place a stick or a large piece of wood, in the other a marble, a small piece of lead, iron or stone. Let the children observe the result, and tell why. The terms float and sink may be given, also light and heavy. Little or much may be given in one lesson, as the time or ability of the pupils admit, always stopping before the interest flags. The teacher may now take a stick and hold it in a vertical position, ask the children to each take a stick and do the same. Ask some one to draw a line which looks like the stick as he is holding it. Let them find something in the room in the same position. Tell them we call this position vertical. Ask some one to stand in a vertical position, hold slate or book in same position. Have the class repeat—I hold my stick in a vertical position—I hold my slate, etc. When this is learned, the teacher may hold the stick in a horizontal position, asking the children to do the same; then slanting and parallel, proceeding in the same manner as with vertical. One or more positions may be given in a lesson, as the teacher sees the children comprehend them. Each lesson should be preceded by a thorough review of the old.

In giving the lesson on parallel lines, lead the children to see that the lines will never meet. After each oral lesson have the children arrange the sticks by themselves, and copy the positions on their slates.—*New York School Journal.*

## PENMANSHIP.

BY PROFESSOR SHUTTUCK.

When I go into a school room the teacher shows me the best copy books; I then ask for the poorest one. The teacher is to be judged by the poorest work he does. All teaching should aim at the lowest, should come within reach of the poorest.

When in Pittsburg, I visited a school in company with one of its officers. He said: "If it's in a boy to write, he will. If it's not, he won't." He pointed to a boy and said, "Teach that boy, and I'll believe any one can be taught."

This boy was writing in a book having two rulings. His letters slanted every way, and touched neither top or bottom line; he said he could do it no better. I told him I wanted him to do me a favor by writing a single word and have the letters touch the top and bottom ruling. Instead of one word I had found he had written four lines. I said: "I told you to write but one." "Yes," said he, "I did, but I didn't like it, and wanted to make it better." I told him to write one more and then bring it to the teacher. He did. She asked in astonishment, "Did you write that?" He was proud of it. I merely pointed out a little thing for him to do, and he did it. Put your instruction within reach of the lowest.

A teacher needs to impress on every pupil that the eye of the teacher is on him, the same as if he was alone. He cannot actually see every child, but he can see their work, and mark his estimate of it, and correct his errors. To accomplish this let us take up the practical work of the class-room. A common fault of beginners is to bear down hard on the pen. When in passing along I see this, I put on the top of the page a light mark |, meaning "write lighter." If they do not touch the top or bottom line, I put two parallel lines. If the slope of the letters is not correct, I put a slanting mark thus /. If the letters are too near together, or too far apart, or if they are irregularly grouped, I put a cross X. I take their books at the end of a recital and note the characteristics. On the next day I ask of all who had a certain mark (those slanting

wrong, for example) to stand up and look at their books. I ask them for their opinion as to whether the mark is right or not, as I admit my liability to err. They are sensitive to this criticism. But mind, it won't do to be too critical or find too much fault. I seek an opportunity to praise. When I see improvement in the copy I make a mark at the bottom. The same mark at the bottom as at the top means improved in that respect. They are qualified to find such marks.

The first thing is to hold the pen right. Tracing books are made for this. Their proper use is not to teach the formation of letters, but how to hold the pen and hand, in going over the tracing. If you tell them how to do this, and then tell them to write, they at once knuckle down to it with cramped fingers and hands, trying to make a good letter. But first let them use a dry pen until they can hold it easily, and bring his book into a position to suit the slant he wants to give. That is, train to hold the pen before writing with ink.

## ECONOMIC METHODS OF TEACHING.

A PAPER READ BEFORE THE COLLEGE OF PRECEPTORS, LONDON,  
BY MR. D. NASMITH, LL.B.

When addressing an audience mainly composed of members of this College, and, consequently, of persons who have made the subjects of Education and Instruction a study, it is probable, and but reasonable, that I should be expected to state at the outset the real object of my paper. It is this:—I venture to think, that the vast increase in the number of the subjects of study, the most striking and characteristic feature of this age, necessarily involves one of two consequences. The schoolmaster who wishes to get and keep his pupils up to the modern standard, must become a mere teacher, if not a pure coach, or new systems of imparting information must be found, which, while enabling master and pupil to satisfy present conditions, do not involve the sacrifice of the benefits that naturally attached to the system of what we may now call the Old School—a system which was essentially educational, as distinguished from instructional.

Defective and objectionable as was that system, in that it not merely confined scholastic advantages to the few, but denied to that favoured few knowledge of anything beyond the classics and mathematics, it is by no means clear that the system by which the old has been replaced is an unqualified blessing either to the state or to the individual pupil. The present system might, with no small propriety, be styled the system of wholesale instruction.

Happily, most enlightened persons now admit that a proper education and proper instruction are the birthrights of every subject, and that a state that does not secure and enforce these rights, neglects, if it may be so expressed, a primary duty to itself and to each of its subjects.

The question, however, still remains—What is proper education? What is proper instruction?

It cannot be doubted that the answers to these questions are most discordant; that, in fact, but few outside the profession of schoolmaster, and not a few within it, regard the two words as practically synonymous, and that the great mass, by the term "proper education" or "proper instruction," intend adequate instruction in the subjects commonly taught in the schools of the class and period to which they refer. The term, consequently, has no positive, but a mere relative signification.

When used by one class respecting themselves or their children, it means something widely different from that which they intend when used by them respecting persons in another class; hence the lament, not now unrequent, that the children of the poor are receiving, at the cost of the state, an education equal to that enjoyed by the more wealthy, at their parents' charge.

I venture to think that it is in the interest of the state, and therefore of the ratepayer, that the children of the poor should receive as good an education as the children of the most wealthy; but that it is unreasonable, if not absurd, to give them the same instruction. The better the education, the better must they be fitted for the battle of life, and the better able to do justice to themselves and others, in whatever sphere of life they may happen to be. If by good, better, best, when applied to instruction, is meant much, more, most, it is possible, it is even highly probable, that the comparative and superlative instruction will prove not merely superlative but

pernicious. If, however, by good, better, best, when applied to instruction, is meant degrees of quality and not of quantity, then I venture to say of instruction, as of education, the better it is, the better it must be alike for all.

It is the duty of the educator to develop native forces. It is the duty of the instructor to instil foreign elements. It is the duty of the schoolmaster to do both scientifically. To educate his pupil, the schoolmaster must throw the burden of the labor upon the pupil. To instruct his pupil he should take, as far as possible, the burden of the labor upon himself. When the primary object of instruction is mental education, the burden of the labor should be adjusted according to the nature of the particular subject dealt with as a means of educating.

Permit me to illustrate. It is desired to educate the pupil physically and muscularly. The machines employed are the parallel bars. The educator stands by, directs and watches. His knowledge enables him to dictate what the pupil should and what he should not do; what will develop the muscles and what will strain them; what amount of labor can be endured with benefit, and the point at which the exercise, to be profitable, should cease. It is true that, by going through the exercise himself, the educator might show what he could not otherwise explain, but it is clear that no amount of physical labor on his part could develop a single muscle of the pupil.

Again, it is desired to instruct for the purpose pure and simple of instruction, i.e., to impart to the pupil information on a given subject,—e.g., the leading incidents in the life of Nelson. In this instance, the pupil becomes the practically passive recipient, the labor is taken upon himself by the instructor. By skilful arrangement of his matter, and by a happy manner of handling his subject, he lays stress upon the more important features of his narrative, and passes lightly over the less important though necessary links; and by just modulation of voice, and occasional change of position, he keeps the pupil's mind from wandering, absorbs his attention, and leaves upon his memory a lasting impression of the great hero.

It is true that he might have given the pupil a life of Nelson, and told him to read it, but it is clear that that would not have been instruction. Is it not equally clear that the same amount of information and depth of impression could not have been acquired and made in the same time by any other process?

If these illustrations are apt, it is obvious that, for the purpose of educating, the labor must be thrown upon the pupil; for the purpose of instructing it should be taken upon himself by the tutor. That being so, it becomes necessary to determine the true province of education, and to distinguish it, as accurately as possible, from that of instruction. In other words, it is necessary to determine where the schoolmaster should be active, where essentially passive.

I assume it to be admitted that no system of training can be good which ignores or discards the doctrine of equilibrium—that is to say, which overlooks the fact that each pupil has a physical, a mental, and a moral nature (I use the word moral for the want of a better term); or which attempts to improve or develop either of the three at the expense of, or to the neglect of, another or others.

Further, I take it to be admitted that the notion of teaching drawing, because the pupil happens to have a good eye, or music, because there happens to be a good ear, is a thing of the past,—a dull and stupid confusion of the province of the school, which is to develop those senses and faculties that are defective, and the question of the selection of the proper profession or business to which the child should be assigned, which, if intelligently done, must necessarily be determined by regard to the natural abilities and tendencies of the youth.

The drilling master, the music master, the drawing master, the language master, the mathematical master, the orderly, may each be perfect of his kind; but neither of these, nor all combined, constitute the schoolmaster. It is his duty to use each and all of these as instruments, each in its proper sphere, and good only as each serves to work out the schoolmaster's peculiar problem, the equal development of each pupil.

As the harper tunes his harp before he begins to play, or as the tuner tunes the piano before he leaves it to be played upon, and as each gauges the strength and quality of the instrument, and tightens or loosens, as need may be, in order that equilibrium may exist consistent with the capacity of the particular instrument; so, I take it, is the aim and high art of the schoolmaster, whose duty it is, not to stuff a given amount of information into his pupil, but as far as possible to bring into equilibrium, not merely the physical, the mental, and the moral elements, but the various senses of each pupil.

For the purpose of my argument, I will assume that due regard is paid to the physical, to the mental, to the moral training of each pupil, and to the due development of each of his senses. I therefore necessarily assume that out of each working school day two adequate portions of time are allotted respectively to the physical and moral training, and that the working hours remaining for the mental work are proportionately curtailed.

The details of physical and moral development I pass over as foreign to the immediate objects of this paper,—with, however, two observations, viz.—1. So far as I know, nothing approaching a rational, much less a scientific, system of moral training exists in our schools. Morality and religious creed or dogma are commonly confounded. Religious instruction is considered sufficient to satisfy the requirements both of religion and morality. 2. Mental work appears to be fast driving the physical out of school hours, even in schools where its importance as a branch of school work was formerly recognized,—a fact sufficient in itself to render it at least doubtful whether the present tendency is wise.

If when, some twenty years ago, an admirable idea was started,—I refer to the creation of volunteer cadet corps,—an Act of Parliament had been passed making it compulsory to devote a certain number of hours per week out of the ordinary school hours of every boy, school to military drill, superintended by a competent drill sergeant, schoolmasters would have been pleased, the boys would have been delighted and greatly benefited, and the state would at this moment have had a large army of at least half-made soldiers, in addition to the regular forces, the volunteers, and militia. The mistake then made, as I then ventured to point out, was fatal to the success of the scheme. It was to take the drill time outside of the ordinary drill hours. Boys are boys, and should be boys; they want their play, and ought to have it. Nothing could be worse for the future interests of this country than to make them effeminate, or more intellectual machines.

If we admit, as we necessarily must—first, that no man can know everything, and, secondly, that there are many subjects, no one of which can ever be thoroughly mastered by any one, be his life ever so long, his energy ever so great—it appears to me that we cannot avoid certain consequences. They are these:—If perfect knowledge of one subject cannot be acquired when the whole time and energy is devoted to it, in proportion as the number of subjects is increased, the possible knowledge of each must decrease, and the consequent value of the knowledge acquired must correspondingly decrease till ultimately it becomes practically worthless as a matter of knowledge, though the universal smattering may have been the result of long and laborious labor. "Jack of all trades and master of none" is an old saying worthy of modern consideration. It was believed in, in the days when Englishmen preferred quality to quantity—in the days, now gone, when the British brand always fetched the long price abroad.

What more objectionable individual can be met with than the would-be omniscient—the man of reviews, short essays, newspaper cuttings, who, thus crammed, feels himself master of the Land question, or the Eastern question, or more than able to settle the Irish or any other difficulty? Is it not well to take heed lest we breed and multiply this hateful brood?

If we admit that the primary object of the educational establishment, be it school or college, is not to complete education and instruction, but to begin it, not to exhaust powers, but to develop and strengthen them; not to satisfy wants, but to create those of a wholesome character;—we necessarily admit that the education given, and the instruction imparted, are given and imparted as means to two distinct ends: the first being the fitting of the pupil to commence life; the second, and far more important, being the fitting of him to do justice to himself in life.

To fit him to commence life—that is, to pass out of the educational establishment into the world in the particular sphere of life then open to him—it is obvious that he must be made, if I may so express it, fashionable according to the fashion of that sphere; for he cannot be at his ease in that sphere, nor can he benefit by the advantages peculiar to it, unless, at the start, he is more or less like others in it.

If, therefore, it is the fashion of his class to know a little Greek and Latin, he should be taught a little Greek and Latin. If it is the fashion of his class to know a little French and German, he should be taught a little French and German. If it is the fashion of his class to content themselves with the three R's, he should at least be taught the three R's. There is, of course, no objection to his being fashionable among the fashionable, provided always that in this, as in other respects, excess of fashion does not render him

ridiculous. We all know how little we know. We all know how to excuse ourselves and others, when the expected standard is not reached; but we despise those who, aping greater things, show like shortcomings.

Upon the principle, and upon that alone that it is the fashion to do so, can the fact of teaching seven, eight or more different subjects concurrently be justified. At least, such is my opinion. It is now the fashion to pass examinations. I venture to say that is a good fashion. It is the fashion at present to include in those examinations a vast number of subjects. I venture to think that is a bad fashion. Be that, however, as it may, so long as the examinations and the subjects of examinations are in fashion, they must be passed, or the pupil and schoolmaster must lose caste.

Am I, or am I not, justified in saying, that to fit the pupil to do justice to himself in life, he should be taught, while at school and at college, and while preparing to pass his examinations, that the information he acquires, or can possibly acquire, at either, is a thing of but little value—a matter of minor importance; and that the great object of his training is, not that he may acquire knowledge of a particular subject or subjects, not that he may pass this, that or the other examination, but that he may learn how to learn and how to work that he may become able to learn or to work intelligently at any subject?

If this suggestion is sound, the course to be pursued with him, so far as practicable, regard being had to the satisfying of the first demand in point of time, appears obvious. It is to develop observation, memory, reason, industry, moderation, and, above all, thoroughness. These are the latent forces which, if developed, give strength and the consciousness of power sufficient to induce and warrant effort in any direction. But how can thoroughness be made possible when a number of different subjects is demanded? The problem is this:—How can we educate and instruct so as, at one and the same time, to satisfy the demands of the immediate and of the more distant future?

It appears to me that the first thing to be done is to examine, and if possible classify, all the subjects of study. They appear to be capable of division into three classes, viz.—

1. Subjects that are essentially educational; e.g., reading, writing, arithmetic, including the higher branches of mathematics, drawing, and the like.

2. Subjects essentially instructional; e.g., history, geography, philosophy, literature, and general information.

3. Subjects that may fairly be styled semi-educational and semi-instructional; e.g., languages, chemistry, music.

It is impossible to look at the first class without at once seeing that the burden of the labor in that division must be undertaken by the pupil. Reading, writing, and arithmetic cannot be done for him, though his tutor may materially lighten his labor by suggestion, example, and especially by marshalling his work, and placing it before him in the order in which it should be undertaken.

It is equally clear that, in the case of the subjects of the second class, the burden of the labor can, and I suggest should, be taken upon himself by the tutor. My proposition is, that all subjects properly belonging to this class should be taught orally, and, where possible, illustrated by maps, charts, models, and diagrams. My Chronometrical Chart of the History of England will be my illustration of my view as to the proper method of teaching subjects of this class. Where they are not taught orally, they might be made the subjects of reading lessons. To stuff their leading facts and propositions into small books, and compel the pupil to learn them, is to fill him with husks, not pleasing to the taste, that are difficult of digestion, and profitless in assimilation. Such books contain the dry bones without the comely flesh or vital spark of history. What is true of books of this kind upon history is no less true of books of like kind upon the other subjects. I must not, however, be understood to suggest that books of this kind are bad; on the contrary, they are, in my opinion, most useful. It is not their use, but their abuse, against which my observation is directed. That abuse is the treating them, or allowing them to be treated, as *the source, the beginning, and the end* of historical or scientific instruction, instead of regarding them as mere indices.

In the case of subjects of the third class, it appears to me that the labor can and should be divided, and that by such a division the respective duties of educating and instructing may be discharged with equal pleasure and profit both to teacher and pupil.

With your permission, I will illustrate my meaning by stating, in distinct and separate propositions, the bases of my practical Linguist series. Where it appears necessary, I will comment upon

the proposition; otherwise, it will be allowed to speak for itself. They are these:—

I. The vocabulary of every language contains a vast number of words that are practically useless

- (a) To any particular individual.
- (b) To the community in general.

A single catalogue of a library, a museum, or even of a florist, will not fail to satisfy the most incredulous that there are many words which are of no practical utility to him. Half-an-hour spent in turning over the pages of a good dictionary will suffice to remove doubt, if any exists, as to the fact that many words are practically useless to the community in general.

II. The vocabulary of every language is divisible into two distinct classes of words; viz.:—

- (a) Words without which it is impossible to speak or write upon any subject whatever.
- (b) Words which are only used upon given occasions, or under particular circumstances.

The former may be termed the *permanent vocabulary*, the latter the *auxiliary vocabulary*; or, to be more precise, the latter are the auxiliary vocabularies, for words of this class are divisible into a series of distinct vocabularies.

The auxiliary vocabularies are all composed mainly, though not entirely, of substantives. The permanent vocabulary embraces all words other than those that belong to the auxiliary vocabularies.

This proposition indicates the superior importance of the words of the permanent over those of the auxiliary vocabularies, or either of them.

III. All words have a numerical value. The numerical value of the words of the permanent vocabulary is individual, that of the words of the auxiliary vocabulary is generic.

For example, the words "and," "the," "some," "I," "shall," "will," "you," "she," "has," are words belonging to the permanent vocabulary, and are obviously of higher numerical value,—i.e., are used more frequently, whether in speech or writing, than "come," "call," "stop," "wait," "therefore," "afterwards," "long," "find," "agree," which in their turn are obviously of higher numerical value than "offensive," "defend," "entail," "connect," "avert," "attract," "cultivate," "subordinate," "appreciate," also words of the permanent vocabulary. It is also obvious that the numerical value of each of these words is individual; that is to say, if the value of the word "and" is represented by the number 40, that of "come" may be represented by 20, that of "offensive" by 1; or, in other words, for every use of the word "offensive," the word "come" is used 20 times, the word "and" 40 times. These figures are, of course, given solely by way of illustration.

In the case of the words of the auxiliary vocabularies, the numerical value, on the other hand, is not individual, but generic; e.g., "bread," "meat," "coffee," "tea," "plate," "knife," are words of the auxiliary vocabulary of the meal table; and "rhubarb," "castor oil," "pills," "plasters," "leeches," "blisters," are words of the auxiliary vocabulary of the chemist and druggist.

One word peculiar to the meal table is practically used as frequently as another, and may be said to be of equal numerical value. The same may be said of the words peculiar to the chemist and druggist. But any one, the druggist himself excepted, must be an unhappy mortal who uses the one vocabulary as frequently as he does the other.

IV. The numerical value of words may be ascertained, if not exactly, at least approximately.

Thus, we may take a book, and, beginning at the beginning, write down each word upon its first appearance, and for every subsequent appearance place a tick against it. It is clear that the word with the greatest number of ticks is the word of highest numerical value in that book, and the words without a tick the words of lowest numerical value. A second, a third, or any number of books may be treated in the same manner. If they are dissimilar in character, the relative value will necessarily differ to some extent; but, by adding the total numerical value of any given word common to all, and dividing it by the number of the books used, the numerical value of that word in those books, taken collectively as well as individually, may be ascertained.

V. The learning of the individual words of any language, whether to speak, read, or write them, is a pure effort of the memory, sometimes, though comparatively rarely, aided by comparison.

This proposition needs no present comment beyond this, that it must be in the interest of the learner to learn the words he has to learn in the order of their value to him.

VI. Every language has a method of combining words peculiar to itself, though more or less common to other languages of the same stock. Its peculiar method of combination may be styled its mould.

The next proposition, and the examples given under it, will illustrate this.

VII. The mould of any foreign language may be learned, without knowledge of the words or grammar of that language, and is learned most rapidly, by comparison with that of the native or some other foreign language. The peculiarities of the native language cannot be learned, without comparison of its mould with that of a foreign language.

Thus the Englishman says, "We are thirsty;" the German says, "We are thirsty;" the Frenchman says, "We have thirst." The Englishman says, "I do not know;" the German says, "I know it not;" the Frenchman says, "I not know." The Englishman says, "How is your father? He is not very well;" the German says, "How finds himself, your Sir Father? He finds himself not very well;" the Frenchman says, "How himself carries Mister your father? He not himself carries not very well."

VIII. A thorough practical knowledge of a language does not necessarily involve any theoretical grammatical knowledge of it.

We learn to speak, read, and write, as we learn to walk, run, or jump; and as by practice we may walk, run, or jump well, without knowing why, when we jump and thus leave *terra firma*, we do not go straight to heaven, so may we speak without being able to explain the grammatical structure of a single sentence.

I will not say it positively, but I have a notion, that if all the best speakers and writers that we have, unless they happened to be somewhat young, were examined in English grammar by a sharp Board School boy, most of them would be plucked. How could it well be otherwise, when in the school-days of persons now of middle age, English grammar was left to the vulgar, by those who considered Latin grammar the proper thing for gentlemen, and French for ladies.

IX. The accidence of a language can be tabulated. Each form has a numerical value.

To chop the accidence up into small pieces, and to distribute those pieces throughout the numerous pages of a book, is to treat accidence as geography is treated by the makers of dissected maps, with this difference. The grammarian has all the disadvantages of dissection, without any of its advantages. He takes his little block, looks at it, examines it, even learns all that is upon it. What then? It is part of a great whole, but he knows not, he sees not that whole. The geographer is better treated; he has his picture of the whole country. He sees where each little piece fits in. Ought not the accidence of each language to be tabulated, printed in bold and distinguishing type, and suspended on the wall, that the whole may be visible at a glance? I think it should.

X. The syntax of a language cannot be tabulated. It must be stated in rules, with their exceptions. These rules, however, are capable of contrast or comparison with the corresponding rules of the syntax of any other language.

From these ten propositions I make the following deductions:—

First—If the numerical value of individual words can be ascertained, it is obvious that words should be learnt in the order of their numerical value; it is also obvious that they should be combined, or formed into phrases and sentences, in the order of their numerical value; it is further obvious that, if so combined, the mould of the highest numerical value must first come to the surface, and others follow in its wake in the order of their respective numerical value, and that the particular form of the accidence of the language and the particular rules of its syntax must be developed and presented in the same order.

Secondly—If words, moulds, accidence, and syntax are respectively, whether separately or collectively, learned and explained in the order of their numerical value, the language must be learned more rapidly than is possible by any other mode of procedure. If words, moulds, accidence, and syntax are dealt with in their actual utility, no labor is spent in vain, and time and strength are saved for other work.

It need hardly be said that the pupil cannot do this work of marshalling and classifying for himself, or that each individual teacher cannot do it for him. It must therefore, if at all, be done

for both by some third person. In my "Practical Linguist" series, I have endeavored to work both for pupil and teacher, and by taking labor upon myself, have endeavored to reduce the labor of each to the minimum. To secure this end the following method has been adopted, viz. —

I. The words of the permanent vocabulary have been arranged in the order of their numerical value, as ascertained by actual counting.

II. The various forms or moulds of expression have been evolved in the same order.

III. The various forms of the accidents and rules of syntax have also been brought forward and dealt with in the same order.

IV. By accident more perfectly than is usual in grammars, and by recourse to various types, the wall map of which I have spoken has been approximated as closely as was possible.

V. By contrasting each rule of syntax with the corresponding rule of English syntax, it has been sought to render each rule easy of appreciation and retention.

My aim, in the case of languages, has been to draw a broad line between instruction and education, by making the instruction as simple as possible, and at the same time placing in the hands of pupil and teacher an efficient educational instrument.

By this system the eye is educated by close observation of individual words, and by contrast and comparison of accidents and rules. The memory has its fixed and assorted work; the essence of the system is that constant repetition which secures the making fast of each step as it is taken. Reason is appealed to in the contrasted rules. The ear should be educated by close observation of the teacher's pronunciation, which, I venture to say, should never be attempted by any one other than an educated native of the country the language of which is in question. It is ridiculous to attempt to teach pronunciation through the eye. It is next to impossible to meet with any one who can speak a foreign language with the accent of a native.

In conclusion, as to languages, permit me to say that I rejoice to hear that it is proposed to introduce the study of French and German into our Board Schools. Independently of the social and commercial value of these languages, which is daily and rapidly increasing—which alone appears to me a sufficient reason for the teaching of one at least in every Board School, as a means of enabling the poorer classes to take situations in our commercial offices, now but too frequently filled by Germans—the study of foreign languages can undoubtedly be made an important instrument, if not the most perfect instrument of education.

As instruments of education, and as satisfying the fashion of certain sections of the community—Latin and Greek are doubtless of value. Speaking, however, for myself, I will say that I wish it had been the fashion in my school-days to make French and German the instruments of my education, and to have given me instruction in subjects that must necessarily have proved useful throughout life.

As we cannot learn all things, it seems but common sense to learn subjects as well as words in the order of their actual utility. Being able to speak, read, write, and count, or while becoming able to do so, and having some notion of the size of the world and our whereabouts upon it, one would suppose that, as our bodies are to be always with us in this flesh, and we hope our purses also, that our instructors would teach us something about animal physiology, hygiene, disease, and political economy. Being governed by and subject to the laws of the land, it would not be unreasonable to give us, when young, some notions of rights, duties, and obligations, of crimes, and breaches of obligations. But it is not so considered. In the wisdom of our rulers and masters, they say—For those things enquire of the doctor and lawyer; to us you may come for classics, English language and literature, French, German, Italian, Spanish, Hebrew, and Oriental languages; history, whether scriptural, ancient, or English; geography, mathematics, and natural philosophy; statics, dynamics, hydrostatics, astronomy, and optics; physics, chemistry, natural history, book-keeping, moral and political philosophy, drawing and music. What more do you want?

#### VERY PERTINENT QUESTIONS.

The *Electric Teacher* asks. 'Who are the crammers, the "routine" teachers, the "fossils," the "parrot trainers," the "humbugs," the "shams," the "cheats," the "frauds?" They always re-

ceive their reward at educational gatherings; they are frequently mentioned in educational journals, yet we have never met one, male or female, who was willing to admit that he was meant when one of the above-named classes was mentioned. It is always understood that they are the teachers of some neighboring county, city or state—"they are none of us." Why do not some of those speakers and writers say, 'They are "routine" teachers in Boston,' 'they are a set of "fossils" in Chicago,' 'they are "shams" in Louisville,' then we should send our reporter into their quarters for investigation. Quit croaking, or locate the disease.'

The editor of the *Teacher* is answered in his own journal by his correspondent D. H., who says "that over sixty per cent. of the public school teachers of the whole country are mere recitation hearers, and one-half this number are failures even in that effort. What do they do? They simply hear (?) the spelling, reading, arithmetic and geography classes recite. What do the children recite? In spelling they spell orally or otherwise—it makes no difference—words, words, words, a large percentage of which they cannot define and never will have occasion to use. In reading they pronounce the words at sight (or after making a few blunders), being wholly unable to understand what they have read, to say nothing of the manner of delivery. In arithmetic they commit definitions to memory without being able to make any application of the terms defined; solve (?)—work the examples by rule, having no power to make even a remote practical application; get the table by heart, and, in addition, devote no little part of the time to the solving of wonderful puzzles presented by the 'master.' In geography they can tell you where Mts. Hecla and Vesuvius are, but cannot tell you whether they are land or water, a city or country; they can name and locate rivers and lakes without number, but can tell you nothing of their value to man. And on Friday afternoon, possibly daily, can march to a designated place on the floor, fold their arms and toe the mark, and at the same time present muddy clothes, dirty faces and unkempt hair, and 'the half has never been told.'

If what D. H. says is true, it is not difficult to locate the disease affecting our public school teachers. Are there no "crammers" in Louisville? Blessed city! very near the educational heaven if there are none. That they are found in Boston, the very hub around which all "culture" and progress revolves, we know. They are numerous in New York City and Brooklyn, and it is said that they abound in Philadelphia. We could, on a pinch, find one or two good specimens in the State Normal Schools of New York. We could pick up some beautiful old fossils, well preserved, in the carboniferous formation of Pennsylvania, and from the broad prairies of the Central States we could collect quite a respectable cabinet. It is one peculiarity of a "fossil," a "cram," a "parrot," and a "cheat," that he never believes he is one. His personal identity is lost, and he insists he is somebody else. Locate him, and he isn't there. Pin him, and presto, you don't see him. You couldn't expect a thief to confess he is one. When placed on the witness stand, he will swear on a hundred Bibles he never stole a pin or anything else, although he was caught in the very act. Catch an old "crammer," an old "alphabet teacher," an old "grammatical grind," in the very act of uttering his counterfeit coin, and he will swear by all the stars that he always taught in accordance with Col. Parker's most approved Quincy methods. This educational disease is very curious, very. Our Association declaimers will fairly rave over the prevalence of "cramming," and then go home and cram, cram, cram, from September until July, as hard as they can, and then go to the Summer meetings and declare upon their word and honor that they are educational saints. From all educational hypocrisy, deliver us!—*Barnes' Educational Monthly*.

#### HOW TO SAY IT.

Say "I would rather walk," and not "I had rather walk."  
 Say "I doubt not but I shall," and not "I don't doubt but I shall."  
 Say "for you and me," and not "for you and I."  
 Say "whether I be present or not," and not "present or no."  
 Say "not that I know," and not "that I know of."  
 Say "return it to me," and not "return it back to me."  
 Say "I seldom see him," and not "that I seldom or ever see him."

Say "fewer friends," and not "less friends."  
 Say "if I mistake not," and not "if I am not mistaken."  
 Say "game is plentiful," and not "game is plenty."  
 Say "I am weak in comparison with you," and not "to you."  
 Say "it rains very fast," and not "very hard."  
 Say "It is primitive sense," and not "primary sense."  
 Say "he was noted for his violence," and not that "he was a man notorious for violence."  
 Say "thus much is true," and not "this much is true."  
 Say "I lifted it," and not "I lifted it up."

### HOW HE'D DO IT.

Several men were gathered at the door of a blacksmith shop on Cass Avenue, Detroit, the other morning, when a school boy not over nine years of age came along with tears in his eyes, and one of the men asked—"What's the matter, boy—fall down?"

"N-no, but I've got a hard 'rithmetic lesson, and I expect to get l-licked!" was the answer.

"Let me see; I used to be a king-bee on fractions."

The man took the book, and turned to the page and read:

"**RULE 1.**—Find the least common multiple of the denominators of the fractions for the least common denominator. Divide this least common denominator by each denominator, and multiply both terms of the fractions by the quotient obtained by each denominator."

He read the rule aloud and asked if any one could understand it. All shook their heads, and he then continued:

"Well now, I think I should go to work to discover the least uncommon agitator. I would then evolve a parallel according to the intrinsic deviator and punctuate the thermometer."

"So would I!" answered every man in chorus, and one of them added: "I've worked 'em out that way a thousand times."

Not one of the men, all of whom were in business and had made money, could even understand the working of the rule, much less work examples by it, and yet it is expected that a nine-year-old boy should go to the blackboard and do every sum off-hand.—*Detroit Free Press.*

### CALCULATING BOYS.

When Bidder was ten years old he answered in two minutes the following question: What is the interest of £4,444 for 4,444 days at  $\frac{1}{4}$  per cent. per annum? The answer is £2,434 16s. 5 $\frac{1}{2}$ d. A few months later, when he was not yet eleven years old, he was asked, How long would a cistern one mile cube be filling if receiving from a river 120 gallons per minute without intermission? In two minutes he gave the correct answer—14,300 years, 285 days, 12 hours, and 46 minutes. A year later he divided correctly in less than a minute, 468,592,413,564 by 9,076. I have tried how long this takes me with pen and paper, and after an incorrect result in one and a quarter minute, went through the sum again, with correct result (51,629,838 and 5,875 over), in about the same time. At twelve years of age he answered in less than a minute the question, If a distance of 9 $\frac{3}{4}$  inches is passed over in a second of time, how many inches will be passed over in 364 days, 5 hours, 48 minutes, 55 seconds? Much more surprising, however, was his success, when thirteen years old, in dealing with the question, What is the cube root of 897,339,283,974,002,153? He obtained the answer in 2 $\frac{1}{2}$  minutes, viz., 964,537. I do not believe one arithmetician in a thousand would get out this answer correctly in less than a quarter of an hour. But I confess I have not tried the experiment, feeling, indeed perfectly satisfied that I should not get the answer correctly in half a dozen trials. No date is given to the following case:—"The question was put, by Sir William Herschel, at Slough, near Windsor, to Master Bidder, and answered in one minute. Light travels from the sun to the earth in eight minutes, and the sun being 98,000,000 miles off (of course, this is quite wrong, but 60 years ago it was near enough to the accepted value), if light would take six years and four months travelling at the same rate from the nearest fixed star, how far is that star from the earth, reckoning 365 days and six hours to each year, and 28 days to each month?" The correct answer was quickly given to this pleasing question, viz., 40,633,740,000,000 miles. On one occasion, we learn, the proposer of a question, was not satisfied with

Bidder's answer. The boy said the answer was correct, and requested the proposer to work his sum over again. During the operation Bidder said he felt certain he was right, for he had worked the question in another way, and before the proposer found that he was wrong and Bidder right, the boy told the company that he had calculated the question by a third method.—*Belgravia.*

### RULES FOR TEACHING THE USE OF LANGUAGE.

Primary language lessons, if taught in the true spirit, will develop thought, the power of correct expression and observation, and prepare the way for a very successful and profitable study of the analysis and grammatical forms of our language.

The following rules should be carefully followed:—

I. Proceed slowly. A little well taught is far better than much half understood.

II. After each lesson, require pupils to express their thoughts in their own language.

III. Be certain that the meaning of each word used is understood and its spelling learned.

IV. Read frequently an interesting story. Require it to be repeated in the pupil's own words, and then written. This exercise will call out the power of expression, impart self-confidence, discipline the memory, and give the teacher an excellent opportunity to make corrections.

V. Punctuation and the use of capital letters may be easily taught by example, aided by a few simple rules. Children learn that many things *are right* before they can tell *why*.

VI. The correct meaning of words is best taught by leading children to properly use those they understand. Many more can be added from time to time to the stock as they need to use them.

If these rules are followed, teachers cannot fail to be successful in teaching the use of language.

### THINGS TO REMEMBER.

Remember, 1st, that in teaching, as well as in any other business, you must have a good deal of capital invested to obtain large proceeds.

2nd. Remember that your capital is your health, your education, your library, your determination to brighten and improve yourself, and your power to teach others.

3d. Remember that every good business man seeks to enlarge his business each year, by constantly investing more capital.

4th. Remember that good business men watch the market; they mark what others are doing, note how they do it, and take papers and journals that give specific information. You will be very short-sighted if you do not imitate their example.

5th. Business men often meet and consult—they have exchanges, boards of trade, hold fairs, etc. Teachers who do not pursue a similar line of conduct have themselves to blame when they fail.

6th. Remember that your work is a business in many respects, and must be conducted on business principles; that it does not consist in keeping your pupils still, and getting replies to questions, many of which you could not answer yourself.

7th. Remember that your work, if done aright, will make you a competent man or woman; it will, like any business, give you a better judgment, more information, and a wider range of thought.

8th. Remember that you ought to be more deeply interested in it every day, as every business man is in his business.—*Ex.*

### THE LORD'S PRAYER.

When the elder Booth was residing in Baltimore, a pious, urbane old gentleman of that city, hearing of his wonderful power of elocution, one day invited him to dinner, although always deprecating the stage and all theatrical performances. A large company sat down at the table, and, on returning to the drawing-room, one of them asked Booth, as a special favor to them all, to repeat the Lord's Prayer. He signified his willingness to gratify them, and all eyes were fixed upon him. He slowly and reverently arose from his chair, trembling with the burden of two great conceptions. He had to realize the character, attributes, and presence of the



Almighty Being he was to address. He was to transform himself into a poor, sinning, stumbling, benighted, needy supplicant, offering homage, asking bread, pardon, light, and guidance. Says one of the company who was present, "It was wonderful to watch the play of emotions that convulsed his countenance. He became deathly pale, and his eyes turned trembling upward, were wet with tears. As yet he had not spoken. The silence could be felt; it had become absolutely painful, until at last the spell was broken as if by an electric shock, as his rich-toned voice syllabled forth, 'Our Father which art in Heaven,' &c., with a pathos and fervid solemnity which thrilled all hearts. He finished; the silence continued; not a voice was heard, nor a muscle moved in this rapt audience, until, from a remote corner of the room, a subdued sob was heard, and the old gentleman (the host) stepped forward with streaming eyes and tottering frame, and seized Booth by the hand. 'Sir,' said he, in broken accents, 'you have afforded me a pleasure for which my whole future life will feel grateful. I am an old man, and every day, from boyhood to the present time, I have repeated the Lord's Prayer; but I never heard it before, never!' 'You are right,' replied Booth; 'to read that prayer as it should be read, caused me the severest study and labor for thirty years, and I am far from satisfied with my rendering of that wonderful production. Hardly one person in ten thousand comprehends how much beauty, tenderness, and grandeur can be condensed in a space so simple. That prayer sufficiently illustrates the truth of the Bible, and stamps upon it the seal of divinity.'"

### THE DISTRICT SCHOOLMASTER.

Josh Billings speaks of this much-abused personage as follows: There iz one man in the world to whome I always take off mi hat, and remane uncovered until he gits safely by, and that iz the distrikt schoolmaster. When I meet him I look on him as a marter just returned from the stake or on his way to be cooked. He leads a more lonesum and single life than an old bachelor. He iz remembered just about as long affecshmateli as a guide-board iz by a travelin pack pedlar. Iff he undertakes to make his scholarz luv him the chances are he will neglect their lurnin, and iff he dont lick 'em now and then pretly often, they will soon lick him. The distrikt schoolmaster ain't got a friend on the flat side or the globe. The boys snowball him durin' recess, the gir's pu' water in his hair-die, and the school cummitty makes him work for haf the money a bartender gets, and board him round the naborhood, where they give him rye coffy sweetened with molasses tew drink, and codfish-bolls three times a day for vittles. Talk tew me about the pashunce of the ancient Job; Job had pretly plenty uv biles all over him; no doubt they were all uv one breed. Every young one in a distrikt skule is a bile uv a different breed, and each young one needs a different kind of poultis so get a good head on him. Every man who has kept distrikt school for ten years, and has bordered around the naborhood ought to be majer general, and have a penshun for the rest uv hiz natural days, a hoss and wagon tu du his goin round in.

### SOME POINTS FOR YOUNG TEACHERS.

1. Speak to the pupil seven times, *privately*, before you punish him.
2. Punish him *privately* seven times before you make a public culprit of him.
3. By this time your patience and fairness will be established, and the sympathy of the pupils will be strongly with you.
4. Reprimand publicly seven times before you punish publicly.
5. Punish publicly seven times before you suspend a pupil.
6. Between these times consult with parents and familiarize yourself with the home conditions.
7. This may modify your judgment and awaken your sympathies.
8. Suspend a pupil seven times before you expel him.
9. Admit him always on his promise to you to do better.
10. When you do expel, make it an impressive matter by having the school trustees present, and by giving a full account of your continued efforts in his behalf, his persistent incorrigibility, your hesitation and sadness at being compelled to deprive him of the most precious privilege he enjoys, the school; finally, pronounce

judgment in serious, subdued tones, commanding the boy to take his books, leave the room and not return during this term, giving him to understand that all is done with the knowledge and sanction of the trustees.

11. Such a scene should not occur *more than once in one term*. It should not occur *once*.—*Normal Teacher*.

### QUESTIONS IN LOCAL GEOGRAPHY.

1. What manufactories have you visited?
2. What is most extensively manufactured?
3. Where are the things made sold?
4. What is a grist mill?
5. What is made out of wheat?
6. What is wheat worth now?
7. How many bushels make a barrel?
8. What is a barrel of good flour worth?
9. What kinds of fish have you caught?
10. Beef, mutton, pork, ham, veal—from what animal does each come?
11. What wood is most used here?
12. Where does it come from?
13. What substance is most used in building houses here?
14. How does your father earn a living?
15. What officers that you know are elected?
16. When are they elected?
17. What kinds of fruit do you buy?
18. Where are they raised?
19. How could you earn any money?

DOES IT PAY TO HIRE CHEAP SCHOOL TEACHERS?—A man tries to be a farmer and fails; tries to be a lawyer, fails; tries to be a minister and is not even good enough for that; but one thing he can do—he can be a schoolmaster. And as you will find throughout the country schoolmasters are selected because they are cheap. You can get him for \$10 a month found. Shame on the parsimony that would take a cent from the pay of the men or women employed as teachers. If there is any profession which should be made absolutely independent of all care as to the means of living it is that. I do not undervalue my own, but I think that the schoolmaster stands nearer God than a minister can. For myself, I hated the school, I hated it in my mind, I hated it in my body, I hated it in my affections. I had no religious nature, so I could not hate it in that. I hated school, and yet there came a summer in old Litchfield when in spite of tears and protestations I was sent out of the house and to school, and I found a school ma'am comely though with a very pale face, and young—not over eighteen—who met me at the door and patted me on the head and played with my curly hair, and she sat me down at her feet and made me happy. She was taken sick and died, but while she taught was the only pleasant time I ever had in school. There is no economy so penurious, no wrong so intolerable as that which cuts down the pay of the teacher, and simply because they with whom they have to do are only children. Only children! Whose children? Your children, my children, God's children, the sweetest blossoms in the garden of the world, for whom angels may be proud to do service. If they are neglected you are to blame, for if you cared enough about it, it would never happen.—*Henry Ward Beecher*.

—The following is a Teacher's Lesson on Participles and Infinitives, taken from the *Wisconsin Journal of Education*:

1. The bell having rung, we started.
2. To go prepared, is well.
3. It is to be deplored.
4. I grieve to hear you say so.
5. It is good enough to tell.
6. He learns to read.
7. He knows better than to venture.
8. He knows when to purchase.
9. He reads to learn.
10. By carefully reading a book, we gain its thought.
11. It is freezing cold.

12. This is surprising.
13. The ship is about to sail.
14. For you to deceive me so is unwise.
15. Writing Greek is hard.
16. I wish to come to stay.
17. His being an enemy makes no difference.
18. He left the horse tied to a tree.
19. His name, unsullied by any stain, is honored.
20. Business promptly attended to here.
21. When to assault, and how to defend, must be learned by every leader.
22. It is too hard to learn.
23. It is difficult to make a cat take to swimming.
24. The sun is so warm as to dissolve the snow.
25. To be, or not to be, that is the question.
26. The boy came running home.

COUNTY OF LINCOLN PROMOTION EXAMINATIONS.

MARCH 24TH AND 25TH, 1881.

ARITHMETIC.

FROM 2ND TO 3RD CLASS.

1. Add four hundred and one, sixty-seven, three thousand and nineteen, sixty-four thousand six hundred and eight, seven hundred, six thousand and eleven.
  2. A man owing 1500 dollars, paid at one time 829 dollars, and at another 798 dollars: how much does he still owe?
  3. If a man pays 6540 dollars for building 1 mile of railroad, how much should he pay for building 307 miles?
  4. A farmer sold 89 cows at 45 dollars each, and receives in payment 1179 dollars: how much is yet to be paid him?
  5. From 605706 take 19077, and multiply the remainder by 400.
  6. I bought a house for 10249 dollars, and sold it for 12150 dollars: how much did I gain?
- Values—10 each, and 10 additional for a neat paper; full work required.

JUNIOR 3RD TO SENIOR 3RD CLASS.

- Values.
- 10 1. A man bought 95 cows at \$87.25 each, and sold them at \$40 each; how much did he gain?
  - 10 2. A person earns \$8.25 a day, and pays 75 cents for board; in how many days will he save \$912.50?
  - 10 3. If I buy 17 lbs. of sugar at 10 cents a pound, how much change will I receive back out of a \$5 bill, and how many oranges at 8 cents each might I receive for my change?
  - 15 4. A merchant sold 27 yards calico at 18 cents a yard, 45 yards muslin at 18 cents, 16 yards linen at 45 cents; he took in exchange 12 bushels potatoes at 65 cts.; 8 barrels of apples at \$2.25, and the balance in cash; how much cash did he receive?
  - 10 5. A man has \$10,000; he buys a house worth \$4,829.86, and with the remainder buys 4 lots; how much does he pay for each lot?
  - 5 6. Divide the product of 810 and 705 by 81.
- Ten marks additional for neatness.

FROM 3RD TO 4TH CLASS.

- Values.
- 10 1. If from 2 lbs. of silver enough is taken to make a dozen spoons, weighing 1 oz. 10 dwt. 2 gr. each, how much will be left?
  - 10 2. If 1 acre will produce 28 bush., 8 pks., 8 qts. of wheat, what will a field of 24 acres produce?
  - 10 3. If 3 qrs. 24 lbs. cost £4 16s. 8d., how much is that per pound?
  - 15 4. How much land will be left out of a field of 12 ac. 8 rds. 26 sq. rds., if a lot is fenced off it measuring 2 ac. 37 sq. rds. 27 sq. yds.?
  - 15 5. If a man travel 14 miles, 8 fur. 22 rds. 8 yds. 2 ft. in one day, how far will he travel in 7 days?

- 15 6. How many bushels of grain in 1,800 lbs. of wheat, 680 lbs. of oats, 960 lbs. of barley, 600 lbs. of peas, and 1,120 lbs. of corn?  
Ten marks additional for neatness.

FROM 4TH TO 5TH CLASS.

- Values.
- 10 1. Simplify  $\frac{1 \cdot 6}{1 \cdot 6} \div \frac{2 \cdot 75}{2 \cdot 75} = 3 \cdot 8$
  - 10 2. A tree 140 feet in length was broken in two pieces by falling, and  $\frac{7}{8}$  of the longer piece was equal to  $\frac{1}{4}$  of the shorter; find the length of each piece.
  - 10 3. Reduce  $\frac{3}{4}$  of  $7\frac{1}{2}$  of  $\frac{36}{100}$  of  $1\frac{1}{4}$  of 8 miles, 1 fur., 5 per., to inches.
  - 10 4. If six articles cost \$14.80, how much will 18 cost at the same rate?
  - 10 5. A man buys 25 sheep at \$144, and 80 more for \$184; what will he gain or lose by selling them at \$6.10 a piece?
  - 10 6. Find the expense of papering a room 30ft. 6 in. long, 24 ft. 8 in. broad, and 11 ft. high, the paper being 2 ft. 8 in. wide, at 31 cents a square yard?
  - 10 7. There are 4 village lots; the first contains  $\frac{1}{2}$  of  $\frac{2}{3}$  of an acre, the second  $40\frac{1}{2}$  rods, the third  $\frac{1}{4}$  of an acre, and the fourth  $\frac{1}{2}$  of  $\frac{1}{4}$  of an acre; find how much land in the four lots. Express the answer in acres, rods, etc.
- Ten marks additional for neatness.

GRAMMAR.

JUNIOR 3RD TO SENIOR 3RD CLASS.

- Values.
- 40 1. Give lists of the nouns and adjectives on page 82 of the reading book, from the beginning of the lesson to the bottom of the page.  
N.B.—The adjectives *a* and *the* not to be counted.
  - 8 2. Divide the following sentences into subject and predicate:  
The dazzling splendor of the sun was reflected from the water.  
The whole country was covered with snow.  
You can show me the place.  
In a distant country he died.
  - 8 3. Supply predicates for the following subjects:  
*The boy.*  
Our lesson for to-day.  
The wild animals of America.  
The Atlantic Ocean.
  - 8 4. Supply subjects for the following predicates:  
— jumped over the fence.  
— is very cold.  
— sailed around the world.  
— died.

FROM 3RD TO 4TH CLASS.

- Values.
- 8 1. Compare the following adjectives, making a separate list of those that cannot be compared: Beautiful, great, awful, perfect, little, universal, bad, angry.
  - 12 2. Analyze the following sentences:  
Poverty, wealth, and squalid misery flourished together.  
I saw him no more until the next day.  
The clouds around the setting sun assumed a new appearance soon after the rain.
  - 8 3. Give a list of the adverbs in the above sentences, and the words they modify.
  - 6 Give the prepositions also, and state what words they join.
  - 26 4. Classify the parts of speech in the first two verses on page 192 of the third reader, leaving out the adjectives *a* and *the*.

FROM 4TH TO 5TH CLASS.

Page 222 of the Fourth Reader, from "As the baggage horses" to "Movement in the centre."

Values.

- 20 1. Write out each proposition in the above extract separately, stating its kind and relation; and analyze fully the first and last propositions.
- 85 2. Parse—"Released from this unsociable companion, he soon arrived at a French post, where the sentinel requested his permission to ask for his passport."
- 15 3. Correct the following, where necessary, giving your reason:
  - (a) We do not want no strangers here.
  - (b) Was you at the lecture last night?
  - (c) I never seen such a crowd as there was collected.
  - (d) Ask leave for you and I to go home at noon.
  - (e) I do not know how it was done or who done it.
- 10 4. Describe the different kinds of nominative case, and give an example of each.

ENGLISH HISTORY.

FROM 4TH TO 5TH CLASS.

- 1. What were the changes in the manners and customs of the Britons made by the Romans?
- 2. In whose reign did these eminent men live, and for what is each of them distinguished? Cardinal Wolsey, Sir Francis Drake, John Hampden, Duke of Wellington.
- 3. What was the cause of the civil war in the reign of Charles I.? What was the result of it?
- 4. Name the sovereigns of England from William the Conqueror to Henry VII.

SPELLING.

FROM 2ND TO 3RD CLASS.

(Not to be seen by pupils.)

- 1. Robin Redbreast and Jenny Wren.
  - 2. Three jars of steaming soup.
  - 3. The shrill, piercing tones of Tiny's voice.
  - 4. Moses was the leader of the children of Israel in their wanderings.
  - 5. Your uncles and cousins and aunts.
  - 6. Clothed in complete armor.
  - 7. Presence of mind and courage.
  - 8. Finished painting a portion of the ceiling.
  - 9. In a crack near the cupboard with dainties provided.
  - 10. He could scarcely swallow them.
  - 11. After wringing the water from his hair he resumed his coat.
  - 12. The guardsman foraged in his pocket.
  - 13. First, second, third, fourth.
  - 14. She was pleasantly surprised.
  - 15. I don't know, said Robert, hesitating for an excuse.
  - 16. Suppose the glistening dew-drop.
  - 17. A little mischief-making elfin.
  - 18. Gaining knowledge by asking questions.
  - 19. He perceived his master swimming toward him.
  - 20. He lived in a far-off country.
  - 21. His friend perceived his danger.
  - 22. Dick made a liberal and proper use of his wealth.
  - 23. A rustling in the leaves and a crashing of branches.
  - 24. Kicked up his hind legs and galloped away.
  - 25. Little enemies are sometimes very troublesome.
- Value of paper, 50—two marks off for each mistake.  
Reading—value, 40. Writing—value, 30.

JUNIOR 3RD TO SENIOR 3RD CLASS.

(Not to be seen by pupils.)

- 1. Notwithstanding his vigorous efforts.
- 2. For I can weather the roughest gale.
- 3. Her rattling shrouds all sheathed in ice.
- 4. I passed the day in meditation and prayer.
- 5. A strange assertion, said the merchant, but where are the jewels?
- 6. Her grandmother looked calmly and smilingly on her.
- 7. How little they appreciate their privileges.
- 8. John Adams, the second President of the United States.

- 9. Tom continued his description in a hoarse whisper.
  - 10. She went in a heavy sea to rescue the distressed passengers.
  - 11. Saved many little creatures from being tortured to death.
  - 12. The ingenious boy trained some partridges.
  - 13. Engaged in gathering a species of mushrooms.
  - 14. Many persons pursued with eagerness.
  - 15. The intelligence of their four-footed friend.
  - 16. Exhibiting his wrath.
  - 17. Displayed their long triangular teeth.
  - 18. And a most Christian vengeance it was.
  - 19. He volunteered the answer immediately afterwards.
  - 20. The excitement became intense.
  - 21. He quietly sneaked into the house.
  - 22. Enterprising individuals have tried the experiment.
- Value, 50—two marks off for each mistake.  
Reading—40. Spelling—40.

FROM 3RD TO 4TH CLASS.

(Not to be seen by pupils.)

- 1. Assiduous attention.
  - 2. The original lumberman and the first hydraulic engineers.
  - 3. Efficiently and economically.
  - 4. No slackening of the pace occurred.
  - 5. The smoke encircled his head like a wreath.
  - 6. They are dreadfully superstitious.
  - 7. A tablet commemorates his heroism.
  - 8. They were providentially despatched in search of me.
  - 9. The war-whoop of his fierce enemies.
  - 10. A big, coarse-looking, disagreeable man.
  - 11. Some hauled, might and main, at the boats.
  - 12. An extraordinary state of excitement.
  - 13. Pemican is found extensively throughout Rupert's Land.
  - 14. Desperate encounters with grizzly bears.
  - 15. Efforts to remedy this deficiency.
  - 16. He became the executioner of his comrades.
  - 17. The slow operations of the siege.
  - 18. Skilfully fortified and defended by a sufficient garrison.
  - 19. They throw themselves over the precipice.
  - 20. A triumphant yet dignified expression.
  - 21. Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday.
  - 22. January, February, April, September, October, December.
- Value, 50—two marks off for each mistake.  
Reading—40. Writing—40.

FROM 4TH TO 5TH CLASS.

DICTATION.

Page 280 of the Fourth Reader, from "after the banquet" to "mingled confusedly together."

Value 50—four marks off for each mistake.

COMPOSITION.

Page 150 of the Fourth Reader. After having the lesson read to them once, let the pupils relate the incident in their own words.

Value—50 marks.

Reading—50. Writing—50.

GEOGRAPHY.

Values. JUNIOR 3RD TO SENIOR 3RD CLASS.

- 20 1—Name ten islands near the continent of Europe and name the water surrounding each one; also ten islands near America, with their surrounding waters.
- 10 2—Give the direction the following rivers flow, and the waters they flow into: Niagara, St. Lawrence, Mississippi, Amazon, Parana, Volga, Indus, Euphrates, Ganges, Nile.
- 20 3—Name ten channels or straits in Europe and the different waters they connect; three in America; two in Asia.
- 10 4—Name two isthmuses, stating what bodies of land they join and what waters they separate.  
Ten marks additional for a neat paper.

Values. FROM 3RD TO 4TH CLASS.

- 10 1—Name the cities in Ontario and the United States standing on the shores of the great lakes.

- 8 2—Name the large cities on the Atlantic and Pacific coasts of North America.
- 15 8—Name the tributaries of the St. Lawrence, Mississippi and Amazon rivers.
- 8 4—Name the waters a ship must pass through in sailing from the Black Sea to New York.
- 10 5—Name the islands and island groups off the east coast of Asia.
- 9 6—How can a ship pass from the Indian Ocean into the Mediterranean Sea?  
Ten marks additional for neatness.

VALUES. FROM 4TH TO 5TH CLASS.

- 20 1—Name the counties and principal towns through which the Great Western Railway passes from Suspension Bridge to Toronto; and those traversed by the Grand Trunk Railway from Toronto to Montreal.
- 10 2—Name ten of the largest cities in Europe and give their exact situation.
- 10 3—Name all the British settlements in Africa and describe the positions of the Transvaal.
- 12 4—What is the population of China, of Hindostan; and what are the religious beliefs of the people, their color, and their staple article of food?
- 8 5—What is the boundary line between Manitoba and the United States?
- 20 6—What and where are Oporto, Glasgow, Havre, New Orleans, Sacramento, Naples, Sumatra, Tasmania, Cormorin and Malta?  
Ten marks additional for neatness.

PUPIL TEACHERS' EXAMINATION PAPERS,  
JANUARY, 1891.

CANDIDATES.

THREE-AND-A-HALF hours allowed.

ARITHMETIC.

MALES.

- 1. Find the value of 694 cwt. 1 qr. 14½ lbs. at £8 19s. 4d. per cwt.
- 2. If the tax on £385 7s. 6d. amounts to £58 16s. 9½d., what is that in the pound?
- 3. A besieged town containing 22,400 inhabitants has provisions to last for three weeks; how many must be sent away in order that the city may hold out for seven weeks?
- 4. A ceremony attended by a number of persons from a distance extends over 2 days. The first day the railway conveys 285 first-class and 8,085 third-class passengers, charging 2s. 8d. for each of the former, and 1s. 7½d. for each of the latter. The second day, in hopes of larger receipts, the railway issues tickets at the uniform price of 1s., and conveys 6,009 passengers. Find the difference in the sums taken on the first and on the second day.

FEMALES.

- 1. Find by practice the value of eighty dozen pair of boots at 19s. 7½d. per pair.
- 2. Find the value of 1,527 cwt. 2 qrs. 16 lbs. of sugar at 8½ guineas a cwt.
- 3. Make out a bill for the following:—  
62½ tons of hay at £3 15s. per ton.  
41½ qrs. of beans at £2 2s. per qr.  
58½ qrs. of oats at £1 6s. per qr.  
25 sacks of flour at £1 7s. 6d. per sack.  
87½ tons of potatoes at £4 2s. 6d. per ton.
- 4. Find the rent for 61 months 1 week 4 days at £3 0s. 6d. per month of 4 weeks.

GRAMMAR.

- 1. Parse all the verbs and adjectives in the following:—  
"It is sad to see an infant fade  
Beneath our very gaze,  
As a lily in some poisonous shade,  
Droops, withers, and decays;  
It is sad to see the eye's pure light  
Grow fainter day by day."

2. Plurals are sometimes formed from the singular by a change in the body of the word. Give examples of this.

3. Adjectives of number are sometimes used as adjectives, sometimes as nouns. Give examples of each.

GEOGRAPHY.

1. Mention the different names given to openings in the land and to narrow passages of water on the coasts of Great Britain and Ireland; and give examples of the use of each term, describing exactly where each of them is.

2. Trace minutely the line of *water-parting* which separates the basins of the Thames and Severn from those of rivers flowing into the English Channel, and mention these rivers in order.

3. Say what you know about the Orkneys and Shetlands, the Hebrides, the Isle of Man, Anglesea, the Isle of Wight, and the Channel Islands.

Draw a map; if you can, in illustration of any one of your answers.

COMPOSITION.

Write, from dictation, the passage given out by the Inspector:—  
The eagles were at rest | on their rocky ledge | a thousand feet | above the waters. | The herons had left | the several promontories, and the flapping of their wings overhead | was no more heard. | The raven was gone home; | the cattle were all | far away on the mountain pasture; | the goats hidden in the woods | which yielded the tender shoots | on which they subsisted. | The round eyes of a white owl | stared out upon him | here and there, | from under the eaves | of a farm-house, | and these seemed to be | the only eyes besides his own | that were open. | The inhabitants were all asleep, | even with sunshine | lying across their very faces.

PENMANSHIP.

Write, in large hand, as a specimen of copy-setting, the word *Versatility*.

Write, in small hand, as a specimen of copy-setting, "*Stirred up by Dorset, Buckingham, and Martons, he comes.*"

PUPIL TEACHERS AT END OF FIRST YEAR.

THREE-AND-A-HALF hours allowed.

ARITHMETIC.

MALES.

- 1. Reduce 18 furlongs 8 poles 8½ yards to the decimal of one mile; and 4 ft. 6 in. to the decimal of 3 yds. 2 ft.
- 2. If 1,191 tons 10 cwt. 1 qr. 14 lbs. cost £595 15s. 2½d., what is the cost of half a million tons? Work this by fractions.
- 3. A farmer has 295 more sheep than cows, and this difference is ¼ of the number of sheep he possesses; how many cows has he?
- 4. In exchange for 1 cwt. of coffee at 1s. 6d. per lb., how much money would you expect to receive along with 18 lbs. of tea at 428571 of a guinea per lb.?
- 5. Find the greatest common measure of 805 and 1,811; and the least common multiple of 16,863 and 21,489.

FEMALES.

- 1. How many yards of lace can I buy for £685 17s. 9d., at the rate of five guineas for 12½ yards?
- 2. If, after paying income tax at 1s. 2d. in the pound, a gentleman has £701 10s. 10d. remaining, what is his annual custom?
- 3. If £69 0s. 11½d. pays the carriage of 47 tons 8 cwt. 83 lbs. of goods for 764 miles, what weight would be carried 573 miles for the same sum?
- 4. If 72 oxen require 18 acres of turnips to supply them for 80 weeks, how many acres would supply 18 score of sheep for 45 weeks, on the supposition that 9 oxen eat as much as 80 sheep?

GRAMMAR.

- 1. What are the two kinds of participles? Describe them, and give examples of each.
- 2. Parse the pronouns in the following:—  
"Which pillage they with merry march bring home  
To the tent royal of their Emperor."
- 3. The words *each* and *other* are used both as adjectives and as pronouns; give examples of them in both uses.
- 4. Give notes of a simple lesson on *Adverbs*, suited to Standard IV.

GEOGRAPHY.

Answer either Q. 1 or Q. 3, not both.

1. Trace minutely the line of *water-parting* which separates the basins of the Thames and Severn from those of rivers flowing into the English Channel, and describe those rivers in order.

2. Draw a full map of the coast from Cape Spartivento to Capo Mutapan.

3. Describe, as fully as you can, the physical features, chief divisions, towns, and manufactures of the Austrian empire. What title does the Sovereign bear at Vienna, and what at Buda-Pesth? Why are they different?

**HISTORY.**

1. Give the dates of Henry I., Richard II., Richard III., and Elizabeth, and name their immediate successors.

2. Write out a list of our Sovereigns from Charles I. to Anne, with dates.

3. Why is this called the nineteenth century? When did it begin and when will it end?

**PENMANSHIP.**

Same exercise as that set for candidates.

**COMPOSITION.**

Write from memory the substance of the passage read to you by the Inspector.

In general, a word from the keeper is sufficient to encourage that intelligent creature, the elephant, to perform the task assigned to it. In India, where elephants were once employed in launching ships, one of them was directed to force a large vessel into the water, which task proving superior to his strength, the master, in an angry tone, cried out: "Take away that lazy beast, and bring another in its place!" The poor animal instantly redoubled its efforts, fractured its skull, and died upon the spot.

**PUPIL TEACHERS AT END OF SECOND YEAR (if apprenticed on, or after, 1st May, 1878), AND PUPIL TEACHERS AT END OF THIRD YEAR (if apprenticed before that date).**

THREE-AND-A-HALF hours allowed.

**ARITHMETIC.**

**MALES.**

1. I sell 185 bushels of wheat for £53 3s. 9d., thus gaining 15 per cent. At what price per bushel did I buy the wheat?

2. Having £825, I lend it at  $3\frac{1}{2}$  per cent. simple interest. In how many years will it amount to £1,000, and what amount shall I have to receive at the end of thirty years, nothing having been paid in the meantime?

3. £91 6 amounts in 3.5 years to £105 302083, what is the rate per cent. per annum simple interest?

4. How must nutmegs which cost 18.75s. a lb. be sold so as to gain 16 per cent.?

5. A plumber sold 96 cwt. of lead for £109 2s. 6d., and gained at the rate of  $12\frac{1}{2}$  per cent. What did the lead cost him per cwt.?

**FEMALES.**

1. Find the least common denominator of

$$\frac{5}{27}, \frac{11}{24}, \frac{5}{6}, \frac{4}{15}, \text{ and } \frac{8}{5}.$$

2. What number added to  $\frac{7}{8} + \frac{1}{2}$  will give  $2\frac{3}{4}$ .

3. Simplify—

$$\left(2\frac{1}{2} + \frac{1}{2} \text{ of } \frac{7}{3\frac{1}{2}} - \frac{1\frac{1}{2}}{2\frac{1}{2}}\right) 1\frac{1}{2}.$$

4. If a person travelling  $13\frac{1}{2}$  hours a day perform a journey in  $27\frac{1}{2}$  days, in what time will he perform the same if he travel  $10\frac{1}{2}$  hours a day?

**GRAMMAR.**

1. And oh! when passion rules—how rare  
The hours that fall to virtue's share!

Analyse the above, supplying what is needed in the principal sentence, and taking care in your analysis to point out the character of each sentence.

2. Give examples of conjunctions of time, and frame passages with such conjunctions introduced, to show their use.

3. Parse each word in the following—  
"The evil that men do lives after them."

4. Give notes of a lesson on transitive and intransitive verbs suited to Standard IV. or V.

**GEOGRAPHY.**

Answer two questions only.

1. Describe, as fully as you can, the physical features, chief divisions, towns, and manufactures of the Austrian empire. What title does the Sovereign bear at Vienna, and what at Buda-Pesth? Why are they different?

2. Draw a full map of the Basin of the Ganges, marking its tributaries and chief towns, and noting the point at which the course of the Jumna is nearest that of the Sutlej.

3. Give notes of a lesson on this sentence:—"All Europeans who live in Calcutta or Madras escape to the hills, if they can, for the hot season."

Arrange your notes under these heads:—

(a) Who are meant "by Europeans"? And why are they in India?

(b) Where are Calcutta and Madras? Why are they unhealthy in the hot season?

(c) What is "the hot season"? And what are the causes of it?

(d) What hills can they go to? Mention any places in the hills.

ONE hour allowed for females.

TWO-AND-A-HALF hours allowed for males.

**HISTORY.**

1. What was the extent in time and territory of the Roman occupation of Britain? Compare the condition of the Romans and the Britons nineteen centuries ago.

2. Mention circumstances in the internal condition of England which facilitated the Norman Conquest.

3. Describe the end of Richard II., and tell how the Crown was settled after that event.

**PENMANSHIP.**

Same exercise as that set for Candidates.

**COMPOSITION.**

Write full notes of a lesson on *A desert*.

**EUCLID.**

[All generally understood abbreviations for words may be used, but not symbols of operations, such as -, +, ×.]

In solving a rider, only the proposition to which it is appended, and preceding propositions, may be referred to.

1. If two triangles have two sides of the one equal to two sides of the other, each to each, and have likewise the angles contained by those sides equal to each other; they shall likewise have their bases or third sides equal, and the two triangles shall be equal, and their other angles shall be equal, each to each, viz., those to which the equal sides are opposite.

ABDE, BFGC are squares on two sides of the triangle ABC, and AF, CD are joined. Show that AF, CD are equal.

2. The greater side of every triangle is opposite the greater angle. Point out where the demonstration begins.

**PUPIL TEACHERS AT END OF THIRD YEAR (if apprenticed on, or after, May 1st, 1878), AND PUPIL TEACHERS AT END OF FOURTH YEAR (if apprenticed before that date).**

THREE-AND-A-HALF hours allowed.

**ARITHMETIC.**

**MALES.**

1. A. gives B. £68 17s. 6d. as payment of a loan and interest, at the rate of  $\frac{1}{3}$  per cent. The money was lent  $8\frac{1}{2}$  years before. What was the amount of the loan?

2. A person has  $\frac{1}{3}$  of a ship worth £6,600, and insured for 91.25 per cent. of its real value. What amount of damage would he sustain in case of the ship being lost?

3. £825 for 825 of a year at 8.25 per cent. Find simple interest and amount.

4. At what price per yard must cloth be sold to gain 17 per cent. if by selling 109 yards of it for £46 6s. 6d., 8 per cent. be gained?

5. Divide £10,000 among A., B., C. so that A. may have half as much again as B., and B. a third as much again as C.

**FEMALES.**

1. Find the sum, difference, product, and quotient—the greater being divided by the less—of 1.015 and .01015.

2. Find the difference between  $6\frac{1}{2}$  half guineas and £8,525; and reduce the result to the decimal of a crown.

3. Add  $5\frac{1}{2}$  cwt. to 8.125 qrs.; and reduce the sum to the decimal of a ton.

**GRAMMAR.**

1. Words or phrases attached to the nouns of a sentence are called *enlargements*, attached to the verbs they are called *extensions*. Give two examples of each.

2. "Dost thou so hunger for my empty chair  
That thou wilt needs invest thee with my honours?  
Stay but a little; for my cloud of dignity  
Is held from falling with so weak a wind  
That it will quickly drop."—SHAKESPEARE—Henry IV.

- (a) Analyse the last three lines.
  - (b) Parse the words in italics.
  - (c) Give the meaning of the above passage in your own words, explaining so far as you can the figures and metaphors.
3. What are the Latin prepositions that mean *out of, from, under*? Give examples of words in which they occur, pointing out the force of the proposition in each case.

GEOGRAPHY.

- Answer two questions only; but Nos. 1 and 2 if you can.
1. Give notes of a lesson on this sentence:—"All Europeans who live in Calcutta or Madras escape to the hills, if they can, for the hot season."
  - Arrange your notes under these heads:—  
(a) Who are meant by "Europeans," and why are they in India?  
(b) Where are Calcutta and Madras? Describe exactly the situation of each.  
(c) What is the hot season, and what are the causes of it?  
(d) What hills can they go to? Name any places in the hills.
  2. Draw a map, showing the course of the Senegal and the Quorra or Niger, and the coast line between their mouths.
  3. Describe the East Coast of Africa, and the islands opposite to it.

ONE hour allowed for females.

TWO-AND-A-HALF hours allowed for males.

HISTORY.

1. Explain the relations of Mary Stuart to the thrones of Scotland, England, and France.
2. How did Charles I. regard Parliament? What were the consequences?
3. Show the descent of Queen Victoria from James I.; and compare the extent of dominion of the two monarchs.

PENMANSHIP.

Same exercise as that set for Candidates.

COMPOSITION.

Write from memory the substance of the passage read to you by the Inspector:—

After Romulus had reigned over Rome nearly forty years, he one day called his people together in the field of Mars, near the Goat's Pool, when, all on a sudden, there arose a dreadful storm, with darkness, and thunder, and lightning, so that all the people fled in terror from the field and ran to their several homes. At last the storm was over, and they came back to the field of Mars; but Romulus was nowhere to be found, for Mars, his father, had carried him up to heaven in his chariot. The people knew not at first what was become of him; but when it was night, as a certain man was coming from the country to the city, Romulus appeared to him in more than mortal beauty, and grown to more than mortal stature, and said to him: "Go and tell my people that they weep not for me any more; but bid them to be brave and warlike, and so shall they make my city the greatest in the earth."

EUCLID.

[All generally understood abbreviations for words may be used, but not symbols of operations, such as -, +, ×.]

1. If a side of a triangle be produced, the exterior angle is equal to the two interior and opposite angles; and the three interior angles of every triangle are together equal to two right angles. The difference of the angles at the base of any triangle is double the angle contained by two lines drawn from the vertex, one bisecting the vertical angle, the other perpendicular to the base.
2. Equal triangles upon the same base and upon the same side of it are between the same parallels.

Point out where the demonstration begins.

ALGEBRA.

1. Simplify  $a - (b - c) - \{b - (a - c)\} - [a - \{2b - (a - c)\}]$ ; and shew that

$$\frac{a+b}{(a-b)(x-a)} - \frac{b+c}{(a-b)(x-b)} = \frac{x+c}{(x-a)(x-b)}$$

2. Find the G.C.M. of  $a^3(b^4 - b^2c^2)$  and  $b^3(ab + ac)^2$ .
3. Solve the equations:—

$$(1) \frac{7 \cdot 1 - 8x}{5} - 8x = 5 \cdot 44.$$

$$(2) \frac{12}{x} + \frac{1}{12x} = \frac{29}{24}.$$

PUPIL TEACHERS AT END OF FOURTH YEAR (if apprenticed on, or after, 1st May, 1878) AND PUPIL TEACHERS AT END OF FIFTH YEAR (if apprenticed before that date).

THREE-AND-A-HALF hours allowed.

ARITHMETIC.

MALES.

1. Three persons rent a piece of land for £60 10s., the first puts in 5 sheep for 4½ months, the second 8 sheep for 5 months, the third 9 sheep for 6½ months; what share should each pay of the rent?
2. Compare the incomes to be derived from investing £8,500 in the 8½ per cents at 98, and £8,995 in the same stock at 90½.
3. If teas at 2s. 9d., 8s. 8d., 2s. 4d. respectively be mixed in equal quantities, and the mixture be sold at 16 guineas per cwt., what will be the gain or loss per cent.?
4. What per-centage on  $\frac{1}{2}$  of 1,000,000,000 is  $\sqrt{112} \times \sqrt{175}$ ?
5. Find two decimal fractions together equal to  $\frac{1}{12}$ , and such that one shall be  $\frac{1}{12}$  of the other.

FEMALES.

1. What sum of money will amount to £256 10s. in four years at 8½ per cent. simple interest?
2. If a man travel 198 miles by railway for £2 9s. 6d., how far at the same rate of charge ought he to be carried for £8 0s. 10d.?
3. The price of a work which comes out in parts is £2 16s. 8d.; but if the price of each part was 18d. more than it is, the price of the work would be £3 7s. 7d. How many parts are there?
4. Divide £11,000 among four persons—A., B., C., D.—in the proportions of  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ , and  $\frac{1}{6}$ .

GRAMMAR.

1. "And to a pleasant grove I gan to pass  
Long ere the bright sun uprisen was;  
In which were oakès great, straight as a line,  
Under the which the grass, so fresh of hue,  
Was newly sprung; and an eight foot or nine  
Every tree well from his fellow grew,  
With branches broad, laden with leavès new,  
That sprangen out against the sunnè sheen;  
Some very red; and some a glad light green;  
Which, as me thought, was a right pleasant sight."  
CHAUCER, "The Flower and the Leaf."

- (a) Notice any points in which the English of the above passage differs from modern English.
  - (b) How many sentences are there in it, and by what means are they connected?
  - (c) Name the particular kind of sentence to which each belongs.
  - (d) Parse the words in italics.
2. Give the origin (old English derivation) of the following words: *ought, must, durst, and of better, worst, least, cunning.*

GEOGRAPHY.

1. Give notes of a lesson on "Central America," and illustrate it by a map.
2. Describe fully the Indian Ocean, with the seas, gulfs, and bays connected with it, its chief currents and periodical winds.

ONE hour allowed for females.

TWO-AND-A-HALF hours allowed for males.

HISTORY.

1. What families have occupied the throne of England since 1066, and from what countries did they severally spring?
2. Mention the chief foreign possessions of the British Crown, and tell when they were severally acquired.
3. Give some account of the chief manufactures of England. Tell in what parts of the kingdom they are now carried on, and point out any changes which have taken place in this respect.

PENMANSHIP.

Same exercise as that set for Candidates.

COMPOSITION.

Write an essay on *The difference between Trades and Professions.*

EUCLID.

[The only abbreviation allowed for "the square on AB" is "sq. on AB," and for "the rectangle contained by AB and CD" "rect. AB, CD."]

1. Upon the same base, and on the same side of it, there cannot be two triangles that have their sides which are terminated in one extremity of the base, equal to one another, and likewise those which are terminated in the other extremity.

2. If a straight line be divided into two equal parts, and also into two unequal parts, the rectangle contained by the unequal parts, together with the square on the line between the points of section, is equal to the square on half the line.

3. If from the right angle of a right-angled triangle lines be drawn to the opposite angles of the square described on the hypotenuse, the difference of the squares on these lines is equal to the difference of the squares on the two sides of the triangle.

[Use II. 12.]

#### ALGEBRA.

1. Reduce to lowest terms  $\frac{9x^3 + 6x^2 - 2x - 4}{12x^3 - 6x^2 - 4x - 4}$ .

2. An express train leaves London for Manchester (188 miles) at 9 a.m., travelling 40 miles per hour; a slow train leaves Manchester for London at 11 a.m., travelling 20 miles an hour. When will they meet?

3. Solve the equations:—

$$(1) \begin{cases} 7x - 16y = 32 \\ 5x + 17y = 30 \end{cases}$$

$$(2) \frac{1}{1-x^2} - \frac{7}{8} = \frac{1}{1-x} - \frac{1}{1+x}$$

#### MENSURATION.

1. Find the length of a circular arc whose radius is 20 ft. 9 in., and which contains an angle of  $15^\circ$ .

2. The sides of a triangle are 13 ft., 15 ft., 18 ft. Find the two parts into which the greatest side is divided by the perpendicular from the opposite angle.

### Notes and News.

#### ONTARIO.

The High School Boards of Chatham and Lindsay are applying to the Education Department to be recognised as High Schools.

Owen Sound High School has an average attendance of 205.

The second lecture in the Ontario Ladies' College was delivered on Friday evening, March 25th, by Prof. Macoun, of Albert University; subject, "The North-West."

Brigden S. S., Lambton, is in need of a new school building.

The St. Thomas Collegiate Institute has an average attendance of 206 for February.

CHANGE OF BASE.—Mr. Andrew Hay, formerly principal of the Stratford public school, but latterly of Kingston, has been appointed mathematical master of the High School at Ingersoll. As the change is presumably for the better, we congratulate Mr. Hay on having made it.—*Stratford Beacon*.

The Bowmanville Statesman of March 11th contains the following: "The Minister of Education has promised to make Lindsay High School a Collegiate Institute."

Dr. Nelles lectured at the Ontario Ladies' College at Whitby on March 11th; subject, "Mistakes in Teaching."

At a meeting of the St. Thomas Board of Education on Monday evening, it was decided to proceed immediately with the erection of two Ward school-houses, and the Building Committee was instructed to purchase the necessary ground for the purpose. The Third Ward building will be located upon the south side of Spring street, while the Fifth Ward structure will adorn the east side of Ross street, between Myrtle and Forest avenue.—*London Free Press*.

Mr. Whitney, H. M. of Iroquois High School, in a lecture on Walter Scott, before the Dundas Teachers' Association lately, expressed the opinion that the English "Literature" of the High School programme was the most useful as well as the most entertaining subject therein.

We learn from the *Queen's College Journal* that undergraduates, as well as graduates, will in future be allowed to vote at the election of a Chancellor of that Institution.

The *Guelp Mercury*, March 3rd, contains a leader criticising the New School Bill. Exception is taken to the additions made to the compulsory part of the School Bill, while that already in the statute book is practically a dead letter, and to the withdrawal from the teacher of all choice in the matter of text-books.

We are glad to notice from the remarks made by Mr. Crooks in the House on Thursday, that all books in the Depository at Toronto that would be useful to the library of the Agricultural College would be sorted out and sent there.—*Guelp Mercury*.

The *Journal de l'Instruction Publique*, of Montreal, contains a well-chosen collection of news and editorial comment with regard to educational matters among our Catholic friends of the lower provinces. Of especial interest is an account in the February number of the Congress of Catholic Teachers at Montreal.

The proprietors of this JOURNAL have received with pleasure a letter from W. Mackintosh, Public School Inspector, of Madoc, which concludes thus: "The March JOURNAL is a capital number. The CANADA SCHOOL JOURNAL is making constant advancement."

#### NOVA SCOTIA.

The following is the text of a bill, relating to higher education, introduced into the Legislature by the Hon. Provincial Secretary on the 16th inst:

A BILL ENTITLED "AN ACT IN RELATION TO COLLEGIATE INSTITUTIONS."

Be it enacted, &c.

1. Chapters 27 and 28 of the Acts of this Legislature passed in the year 1876 are hereby repealed, but this repeal shall not affect the validity or continuance of any degrees which have been conferred by the Halifax University under the provisions of said cap. 28.

2. The undermentioned sums shall hereafter be annually paid in aid of the Colleges hereinafter enumerated in lieu of all other grants and allowances, that is to say, to Dalhousie College, \$1,400; to Saint Mary's College, Halifax, \$1,400; to King's College, Windsor, \$1,400; to Acadia College, Wolfville, \$1,400; to Mount Allison Wesleyan College, Sackville, \$1,400; Saint Francis Xavier College, Antigonish, \$1,400.

3. The Superintendent of Education shall at least once in every quarter visit each of the said Colleges, and examine into the mode in which higher education is therein imparted, and make such enquiries as will enable him fully to report, and he shall quarterly report to the Council of Public Instruction upon the efficiency of each of the said Colleges, giving details of the equipment and progress of each, and giving such other information and details as may be required of him by any regulations of the Council of Public Instruction made from time to time.

4. The Council of Public Instruction may order to be withheld the grant to any of the Colleges hereinbefore mentioned in which the right of visitation as provided in the last preceding section may be denied, or in which the information referred to in said section is denied or erroneously given, and may withhold or suspend the grant from any College which they may pronounce inefficient, and the grant shall thereupon be withheld until the further order of the Council of Public Instruction.

Our next month's notes will contain a reference to the discussion and fate of this bill. It is thought that Section 3 will be modified in Committee as to the number of inspectoral visitations of the Superintendent of Education. The introduction of the bill in advance of parliamentary discussion has induced a lively newspaper controversy. The principle on which the grants are apportioned, and the repeal of the Halifax University Act are vigorously challenged by the *Morning Chronicle* and warmly defended by the *Morning Herald*.

The report of the Superintendent of Education was presented a few days after the opening of the Legislature. The number of pupils at school during the year ended 31st October, 1880, was 93,700—a diminution of 5,394 in comparison with the previous year's attendance. In reference to this decrease the Superintendent observes:

"A careful examination of the returns proves the fact, to which I have alluded in another connection, that the decrease in attendance is chiefly due to the closing of a certain number of schools, presumably from special and temporary causes. It will be remembered that the winter season of 1879-80 was felt in many parts of the Province to be one of peculiar hardship and depression. Now, notwithstanding the general good sense of the people, and the operative character of the legal provisions for sustaining schools, we should not be surprised to find that in the casting about for measures of economic relief, education has been sometimes selected as a fitting subject of retrenchment.

"In some counties, notably in Cumberland and Hants, where the reduction in the number of schools has been relatively large, the terrible ravages of diphtheria discouraged many Trustees from attempting to maintain what, under the circumstances, could have been little more than the shadows of schools. I may also observe that the determined efforts of the Council of Public Instruction to improve the character of the schools, to do justice to those who hold its own license to teach, and to elevate the profession of teaching generally, by limiting to cases of absolute educational necessity the issue of local permissive licenses, has operated to a slight extent with the foregoing causes. It will be inferred that I regard the figures under consideration as indicating but a temporary and special arrest of growth.

"In submitting for candid consideration the facts embodied in this report, I desire to record my conviction that no light peril now threatens our system of Public Instruction from the prevalence of false notions of economy. I would refer my intelligent and patriotic fellow-countrymen, when they complain of the burdens of public education, to the table (III.) which supplies details respecting the salaries of teachers. These figures are obtained at first hand, are in harmony with other financial returns, and are in the main entirely reliable. They disclose a state of things which I make bold to say cannot continue long without serious detriment to the best interests of the province. My hope that the previous year had seen the pendulum at its lowest point has not been fulfilled. Throughout almost the entire range of the service there has been further, and in most cases, quite a marked, falling off in the average salaries paid to the men and women who are training the youth of Nova Scotia for the duties and responsibilities of the future. I am happy to believe that many teachers are not laboring for bread alone, and, inspired by a high sense of duty, are prepared to render service without regard to rate of remuneration. But surely I need not point out the folly of trying to discount the evil results sure to accrue from present tendencies by such a consideration. Value for value is the inexorable principle which regulates exchanges of all kinds. If the people, in their respective localities throughout the Province, expect to have honest, valuable work done in their schools, they must be prepared to pay for it; they must be prepared to respond to the action of our legislators, through whose patriotic preference of education to more material interests that part of the teachers' salaries depending on the Provincial Treasury has suffered no abatement."

The proportion of the population attending school during the year was 1 in 41. The highest general average made by counties was made by Annapolis and Digby.

The total Government expenditure for the year was \$196,217.80, a reduction from the previous year of \$9,356.82.

During the year there received licenses, one candidate for academic class (grade A), 47 for first class (grade B), 125 for second class (grade C), and 217 for third class (grade D).

#### MANITOBA.

The regular meeting of the Council of the University of Manitoba was held on the 3rd of March.

The appointment of Registrar, which should have occupied the attention of the meeting, did not take place. The Council decided that a special meeting should be called for the purpose, and appointed the Rev. W. C. Pinkham, B.D., Superintendent of Education, to act in the meantime.

It was moved by the Venerable Archdeacon Cowley, seconded by the Rev. George Dugart and unanimously resolved, that this Council cannot allow the resignation of Mr. E. W. Jarvis to be accepted without expressing to him their hearty thanks for the very able and efficient manner in which he has discharged the duties of the office, and also their regret that he cannot longer give his excellent services in that behalf.

The statute relating to the Registrar provides that he shall be conversant with both the English and French languages.

The Rev. W. C. Pinkham, seconded by Hon. S. C. Biggs, in Professor Hart's absence, moved the resolution, of which he had given notice at the last meeting, viz.: "To appoint a special committee to consider the question of the higher education of women, with a view to bringing it within the scope and aim of our University work," and named the following: committee His Grace the Archbishop of St. Boniface, convener; Rev. Canon Grisdale, B.D., Rector of St. John's College Ladies' School; Rev. J. Robertson, Rev. Professor Forget-Despatis, Rev. S. P. Matheson, B.D.; Rev. Professor Hart, M.A., B.D., and the mover, and the resolution was carried.

There is a greater activity than ever displayed in the organization of school districts and the establishment of public schools. The St. James' School District has just decided to erect a very fine brick veneer school-house, and steps are being taken to enlarge the city schools to treble their present seating capacity. New schools are to be erected immediately at Sturgeon Creek, Pilot Mound, Ostrander, Louise, Perry, Calf Mountain, Prairie, Ferndale, and in several other districts.

At a recent meeting of the Board of Education it was decided that, "with a view to the encouragement of Teachers' Associations throughout the Province, the Protestant section of the Board of Education hereby authorizes the employment of the second Friday in March and the second Friday in October for this purpose, but these two days shall not be taken from the authorized number of teaching days (at present 200) in the school year."

During the past week a committee has been canvassing the city for subscriptions in aid of the site and new buildings for Manitoba College. Upwards of \$6,000 have been subscribed already.

## Readings and Recitations.

### THE TEACHER.

Brother, does thy patience waver?  
Is thy heart oppress'd with care?  
Falter not! thou art a graver,  
Graving on a tablet fair!  
Weary not! thou art a writer,  
Writing on a deathless scroll!  
Painter, too! in colors brighter,  
Sketching truth, as seasons roll.

Murmur not! thy great vocation  
Calls for love, and zeal, and prayer;  
Worthy knowledge, to a nation,  
Pillar is, both firm and fair.  
Firmly seek to do thy duty,  
Open daily wisdom's plan;  
Strive to train in moral beauty  
Minds, the noblest gift to man!

Grave upon each youthful spirit,  
Only truth can make it free!  
Teach that man can not inherit  
Greater good than liberty!  
Write in bold and living letters,  
Knowledge is a priceless gem!  
Plainly show the galling fetters  
Ignorance will bind on them.

Plant the seeds of every virtue  
Both in heart and mental soil!  
Plant with care, with patience nurture;  
Conscience will reward thy toil.  
Watch with joy, thou mental florist,  
Buds unfolding day by day,  
For the God, whom thou adorest,  
Blesses deeds of faith alway!

Think not thou to see thy teaching  
Bring its fruit before life's close;  
Deed like thine, far, far out-reaching  
Life or time, in action goes!  
Labor, then, to give tuition,  
True and noble, high and vast;  
And thou shalt have full fruition,  
When the days of time are past.

—G. W. Miner.

### QUARRELLING.

Two little kittens, one stormy night,  
Began to quarrel, and then to fight;  
One had a mouse, the other had none,  
That was the way the fight was begun.

"I'll have that mouse," said the bigger cat.  
"You'll have that mouse! We'll see about that."  
"I will have that mouse," said the elder son.  
"You won't have that mouse!" said the little one.

I told you before 'twas a stormy night,  
When these two little kittens began to fight;  
The old woman seized her sweeping broom,  
And swopt the two kittens right out of the room.

The ground was covered with frost and snow,  
And the two little kittens had nowhere to go;  
So they laid them down on the mat at the door,  
While the angry old woman was sweeping the floor.

And then they crept in as quiet as mice,  
All wet with snow and as cold as ice;  
For they found it was better, that stormy night,  
To lie down and sleep than to quarrel and fight.

—From the Independent Second Reader.

The city and guilds of London "Institute of Technical Education" have issued a poster to the science centres of England, with programme of an examination in technological subjects.



## 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.

MUSKOKA.—P. A. Switzer, Esq., finished his official tour of inspection in this district on Thursday and Friday last, by presiding at the meeting of the Teachers' Institute. This has proved a very interesting and instructive session, from the number of teachers present, the subjects discussed and the proportions of members who took part in the discussions and deliberations. Mr. McFarlane took up the subjects of Grammar and Music, which he treated in a practical and common-sense way. Mr. Crasweller dealt with the subject of "Elementary Arithmetic"; Miss Coulter, "Reading"; Mr. Fleming, "Senior Arithmetic"; and Mr. Dickey, "Geography." This took up the whole of Thursday. Friday was occupied by Messrs. Switzer, Symington, Nicholson, Fleming and Matthewson, who took up the subjects of "Geography," "Numeral Frame," "Analysis," "Tablets," "Object Lessons" and "Composition." All these were treated in a thoroughly business-like way, keeping always in view the requirements of the district and the end and aim of teaching. Mr. McFarlane and Miss Kirkman were appointed auditors of the Treasurer's accounts. A membership fee of 25 cents a year was imposed, and it was agreed that a copy of the CANADA SCHOOL JOURNAL be supplied to every member from the funds of the Institute. The next meeting of the Institute will be held at the village of Parry Sound, on Thursday and Friday, 18th and 19th August.

EAST MIDDLESEX.—The first regular meeting of the Association for 1881 was held in the County Council Chamber, Mr. John Dearness, I.P.S., in the chair. Mr. Dearness read an interesting paper on the work done by the Association, in which he traced its progress during the last ten years. Mr. Girardot, Inspector of Essex Co., being present, delivered an address. Mr. Mill took up the subject of "Notation and Numeration." Mr. Ranton, Chairman of the Committee appointed to report on Superannuation, presented the report. Rev. Mr. Hunter then gave an address, in the course of which he said that there was no class of people whose work was so important to the nation, and so poorly paid as teachers.

MITCHELL.—The teachers of the South Riding of Perth met at Mitchell on Feb. 25th. Messrs. D. G. McNeil and A. S. MacGregor were elected representatives to the Provincial Association. Mr. Cornell, of Mitchell, addressed the meeting on his "Method of Teaching Algebra," and Mr. Moran, Inspector, spoke on "Hasty and Superficial Methods of Teaching." Mr. Buchan, High School Inspector, gave a valuable address on "Grammar and Composition."

WEST LAMBTON.—A meeting of the West Lambton Teachers' Association was held at the Model School, Sarnia, on Feb. 24th and 25th, J. Brebner, Esq., in the chair. An address on "Parsing" was read by Mr. J. C. Beveridge, by Mr. Jas. Turg on the "Methods of Teaching Interest and Discount." Miss Janet Patterson exemplified her system of teaching "Reading" to a third class. With regard to the important question of Superannuation, resolutions were passed advocating compulsory payment, and fees from candidates for certificates.

## REVIEWS.

THE SPIRIT OF EDUCATION. C. W. Bardeen, Syracuse. This is translated from the French of M. l'Abbe Beesan. This work discusses in a thoughtful and practical manner the great question of how to educate the whole being, not merely the intellect. Infancy, early years, youth, the intellect, the heart, the will, manners, conversation, the art of speaking well, exterior graces, character, and work form the titles of the chapters into which it is divided, and through it all runs a rich vein of common sense and piety. Mothers as well as teachers would be greatly benefited by the work.

MOFFATT'S READINGS IN GEOGRAPHY. London, Moffatt & Paige. The aim of the author has been to present to the minds of children the leading facts and principles of Geography in plain and simple language, so as to form a suitable Reader to place in the hands of young children. The practice of giving instruction as a means of using Readers in some of the other school studies is becoming popular in England. The book would help teachers of junior classes to prepare their lessons.

SOUTH KENSINGTON DRAWING CARDS. By Moffatt & Paige. Leaves and Vases. This is one of the best series of cards we have seen for freehand drawing; the vases are especially excellent.

A MANUAL OF SUGGESTIONS FOR TEACHING FRACTIONS. By W. W. Davis, Syracuse, N. Y., C. W. Bardeen, Publisher. Price 25 cents.

This manual was originally written to accompany a fractional apparatus

designed by the author, consisting of large wooden balls divided into halves, thirds, fourths, sixths, eighths, ninths and twelfths—the special idea being that while a child looks upon each of the halves of a broken stick as itself a stick, and hence a unit, he readily sees that a half or a third of a ball bears a fractional relation to the entire ball.

But the book has a value entirely apart from the apparatus it was designed to accompany. The whole subject of fractions is divided into sixty lessons, so as to occupy just a term, and the successive points are developed with a skill that can come only from careful study and long experience. It is a book which young teachers may rely upon, and older ones may look to for suggestions which cannot fail to be of service.

## MAGAZINES.

SCRIBNER'S MONTHLY for April. We strongly advise the purchase of the February, March and April numbers of this beautiful magazine, which the publishers offer for \$1.00. Mrs. Burnett's story, "A Fair Barbarian," is alone worth the money—and in addition there is a collection of literature and art which must prove a source of delight and culture in any household. A feature of the April number is the article containing the prize engravings made by the successful competitors for the Scribner prizes for non-professional engravers. "Father Hyacinthe," with a splendid portrait; "Elementary Instruction in the Mechanic Arts"; "The Greatest Active Volcano," and "Marine Forms as Applicable to Decoration," are the most interesting articles for teachers. The Editorial Department is of course good.

THE POPULAR SCIENCE MONTHLY for April. There are fifteen articles in the April Popular Science Monthly, all of them readable and instructive, and several of them of great practical value. Herbert Spencer opens the number with his sixth paper on "The Developments of Political Institutions," in which he discusses the subject of "Political Heads," or the causes and conditions that determine the concentration of authority, and power of chiefs, kings, etc. "The Black Races of Oceania," by Dr. R. Verneau, is an illustrated article devoted to a study of the cranial and facial characteristics of the principal negro races of the Pacific Islands. Dr. Felix L. Oswald continues his common-sense treatment of the subject of "Physical Education" in an article on "Out-door Life." He claims, and with reason, that as a natural preventive of disease, nothing equals active exercise in the open air; and for respiratory ailments especially, it is superior to anything else as a curative agent. For the healthful development of children it is indispensable, and with its associated opportunities may be profitably substituted much of the drill of the schoolroom. The notes are unusually full.

The contents of APPLETON'S JOURNAL for April are as follows: "A Question: a Greek Idyl," by Professor George Ebers, author of "Urada"; "An Egyptian Princess," etc., in two parts (part first); "Mysteries and Miracle-plays," by Lucy H. Hooper; Oliphant's "Land of Gilead"; "On Some of Shakespeare's Female Characters" (II). Portia, by Helen Faucit Martin; "Greek Dinners," by F. A. Paley; "Why does the Crab go Sideways?" by Robt. B. Roosevelt; "A Culture Ghost: or Winthrop's Adventure," by Vernon Lee; "The Caliph Haroun Alraschid"; "The Earl of Besoumfield as a Novelist"; "Euakiniana" (Ruakin Arrows of the Chase); "Concerning the Cheerfulness of the Old," by A. K. H. B. (the Country Parson). EDITOR'S TAXI: Camille as a Thinker—The English Estimate of Carlyle—Tact not a Special Feminine Quality.—NOTES FOR READERS.

A Technical Library has been opened by the Government of Brussels, with foreign periodicals, and every important modern work of science, legislation and the fine arts.

The Schoolmaster (England, Feb. 1881), advocates the abolition of the system of Senior Wrangler lists at Cambridge, on the ground that the exclusive application to mathematics of young men till the age of twenty-two causes neglect of other branches of education.

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