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# The Canada School Journal.

Vol. VI.

TORONTO, JUNE, 1881.

No. 49.

## The Canada School Journal

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CANADA SCHOOL JOURNAL HAS RECEIVED

An Honorable Mention at Parts 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, Pritish 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.

—ONE HUNDRED AND TWENTY Teachers in Toronto subscribe to the CANADA SCHOOL JOURNAL.

—The Canada School Journal is uniformly well edited, and contains a mass of valuable contributed matter on educational subjects. We regard the Journal as a credit to the Province.—Kingston Daily News.

—It is gratifying to know that our efforts to provide such an educational journal as will be of the greatest practical value to teachers are meeting with hearty approval from the most successful teachers and inspectors in all parts of Canada. Our friends constantly send us words of commendation, of which the following from Inspector McIntosh, of North Hastings, is a specimen: "The March Journal is a capital number. The Canada School Journal is constantly improving."

Through the use of a wrapper on which was printed a notice, now obsolete, several of our subscribers have been under the impression that their term of subscription had expired. As this notice was turned inwards, our friends might have known it was not intended to apply to them, especially as we announced in the April number, page 77, that the date on the printed address label indicated the month on which the subscription would end. Subscriptions through the Education Department, Nova Scotia, terminate in december unless otherwise specified on the address label. No special notice can be sent to subscribers when their term is up, and as the Journal will be stopped strictly to time, they should observe the date if they intend to renew. When subscribers change their address they should notify this office, giving the previous

address in addition to the new one. Our Nova Scotia friends are requested to specify the county as well as the post-office. These notices should be sent not later than the 20th of the month.

#### ENGLISH RURAL SCHOOLS.

The CIRCULARS OF INFORMATION issued by the Bureau of Education connected with the Department of the Interior of Washington are, as unccessive numbers appear, of increasing value and interest. One of the latest circulars treats of English Rural Schools, and furnishes valuable information on a subject imperfectly understood even by prominent educators on this Continent. This information, as the Commissioner of Education, General Eaton, points out, in a prefatory letter addressed to the Secretary of the Interior, has been sought and obtained with special reference to the improvement of American Education in rural districts. The prominent fact established by this interesting report by Professor Hulbert, of Middlebury College, Vermont, is the great development and progress of Elementary Education in England under the Education Act of 1870. We learn that, in round numbers, about 2,500,000 children are in average attendance at those Elementary Schools of England and Wales which are inspected and receive the government grant. During the year ending August 31, 1878, the inspectors of public elementary schools visited 16,293 day schools in England and Wales to which annual grants were made. On the registers of these schools 3,495,892 children were enrolled, of whom 1,189,557 were under 7 years of age, 2,158,179 between 7 and 13, and 148,156 over 13. On the day of inspection 2,944,127 pupils were present, and the average attendance was 2,405,197.

All the public elementary schools of the country, whether in towns or rural districts, are under the same law, embodied in successive educational Acts from 1870 downwards, together with the annual codes published by the Education Department. This Department has charge of the inspection of all the schools that come under the law, of the maintenance of a sufficient number of efficient schools, of the payment of all grants earned by the schools in their examinations, of the support of training colleges for teachers, and of the interests in general of public elementary education throughout the country. A detailed report is made annually, stating in full the progress of education in town and country. "Thus all the educational interests of the nation are brought under the control of a school administration, which has its head at. Whitehall, London, and sends out its branches to even the most remote and inaccessible regions of Great Britain, carrying with it a national influence."

can be sent to subscribers when their term is up, and as the Journal will be stopped strictly to time, they should observe the date if they intend to renew. When subscribers change their address they should notify this office, giving the previous School Boards by their former authorities or patrons, and (2)

Schools controlled by a voluntary attendance Committee, in whose support voluntary contributions take the place of taxes or rates in the sustentation of Board Schools. The latter schools are sustained by funds from three different sources: (1) Fees from the scholars, which cannot exceed 9d. per week for each scholar, and which generally vary in rural districts from 1d. to 6d. per week. 66.61 per cent. of scholars in England and Wales pay less than 3d. per week, 8.07 per cent. only are free; (2) The government grant, varying with results of exa a. ination and attendance; (3) Taxes, supplying any deficiency from above sources.

As pointed out, the two classes of schools agree in two out of three sources of support. The schools in cities and large towns are chiefly Board (entirely public and non-denomination al) schools. In the rural districts, the voluntary schools—for the establishment of which, however, government aid is not given-largely preponderate. The ratio of the former to the latter is slowly increasing. Sources of voluntary aid dry up, and the schools are transferred to regular Boards. Lord Derby, at Liverpool, predicted "the final extinction of voluntary schools and the complete ascendancy of School Boards throughout the country." Such a result is obviously far off in the future, though we need not be surprised to find that the more reliable support of the system of rates enjoyed by the Board Schools, is giving them a confessed superiority as educational instruments. Altogether, the circular, a portion of whose contents we have summarized, is full of important information. Such points as school buildings, organization, modes of instruction, &c., are well elucidated. One marked distinction between English and American systems of public education is clearly pointed out, and some of its effects traced. As a rule, the English school is not patronized by those who control its management. It is for the children of other and humbler classes. The American, and, we may add, the Canadian, school represents a different type of idea, having for its motto, free Por ALL AND GOOD ENOUGH FOR ALL.

#### VICTORIA UNIVERSITY.

The Convocation which took place at the conclusion of the exercises of Victoria University was one of great brilliancy and attraction. The assembly in the Town Hall, Cobourg, where it was held, comprised over 1,000 persons, and included a representation of beauty and learning which might vie with any similar assemblage in the world. The President of the Convocation, Rev. Principal S.S. Nelles, D.D., occupied the chair, and near him on the platform were Mayor Gravely, Cobourg, Mr. J. Field, M.P.P., Professors Wilson, Burwash, Rynar, Haanel, Smoke, members of the Board and Senate; Rev. R. Jones, Rev. A. Sutherland, D.D., Mr. Wm. Kerr, M.A., Q.C., Rev. S. Rose, D.D., Messrs. W.W. Dean, M.A., J.J. McLaren, M.A., LL.B., Q.C., Montreal; W. E. Sandford, Hamilton; J. Dumble, M.A., W. Beatty, LL.B., and other members of the Senate Rev. A. Burns, D.D., D. C. McHenry, M.A., Mr. H. Hough,

Toronto; Rev. J. Wakefield, President London Conference; Rov. T. W. Jeffery, J. A. McLellan, LL.D., and J. M. Buchan, M.A., Inspectors of High Schools; J. E. Rose, LL.B., J. F. Jerman, M.A., and J. F. Gravely, of Cobourg.

The Rev. J. Wakefield having offered the opening prayer, the valedictory oration was delivered by Mr. L. V. Hill, who took for his subject "General Wolfe," and did full justice to the theme. Afterwards the prizes were delivered. The title of LL.D. was conferred on Mr. Adam Purslow, who won the degree by merit, and is the first to receive the honor in Victoria University. Dr. Aikins, President of the Toronto Schoolof Medicine, had the honorary degree of LL.D. conferred on him, and the President spoke in eulogistic terms of that gentleman's high attainments. Similar praise was accorded to the abilities of Dr. D'Orsonnens, President of Montreal School of Medicine, upon whom the honorary title of LL.D. was also conferred. Mr. S. W. Perry, B.A., of Brampton, was presented with the Prince of Wales' Gold Medal by Mr. Sandford, of Hamilton, and Mr. J. M. Buchan, H. S. I., presented the silver medal to Mr. Chas. W. Lasby, B.A., of Acton. The scholarship in mathematics was presented to Mr. L. E. Horning, of Brantford, by Dr. J. A. McLellan, H. S. I.

In the course of an eloquent address which followed these interesting proceedings, Dr. Nelles announced that five new gold medals had been donated by the members of the Senate, viz.: for Classics, by Mr. W. E. Sandford; Modern Languages, by Dr. Sanderson; Mathematics, by Rev. J. Potts, D.D., and Mr. J. J. McEwen; and Metaphysics, by Rev. Dr. Nelles: also that Mr. S. J. Janes had added five silver medals as second prizes in these subjects. The President likewise announced that Mr. and Mrs. Jackson, of Cobourg, had given a handsome sum to endow a chair of theology in the University, and a gentleman whose name he was not at liberty to disclose had promised \$25,000 to endow another chair. These statements were received with rapturous applause. After short addresses by Revs. Dr. Sutherland and Dr. Rose, Judge Dean and Mr. Wm. Kerr, M.A., one of the most brilliant and successful convocations of the University was closed with the benediction by Rev. R. Jones.

-The National Union of Elementary Teachers met recently in London, and its members received considerable attention from distinguished persons. The Archbishop of Canterbury offered the use of Lambeth Church for the meeting, and the Lord Mayor and Lady Mayoress held a special reception in their honor at the Mansion House. In the course of an address to the teachers, the Lord Mayor asked them not to regard their assembling together in the light of a public meeting. He had hoped that a number of influential gentlemen would have been able to meet the teachers; but, unfortunately, the Conference was held at a time when "everyone was out of town." Considering that the teachers occupied a position of the greatest importance in the country, he felt that he should be doing less than his duty if he did not invite them to this public reception at the Mansion House. Happily for England, the days were M.A., representatives of the Alumni in Arts; also Dr. Ogden, past when no attention was paid to education—in fact, there

could not be a greater contrast than between the present time and some thirty or forty years ago in the matter of education. He was glad to say that we had now a system of education whereby every boy and girl, no matter how humble or poor he or she might be, could obtain an education that would fit him or her to discharge the duties of a citizen and to be an honor and blessing to the country. The importance of the teacher's profession was now recognized. He was pleased that the schoolmasters could now take their position as one of the powers of this country, and he had no hesitation in saying that much of the happiness and prosperity of the country would depend upon the manner in which they discharged their duties. On the part of himself and the Lady Mayoress he heartily welcomed the elementary teachers to the Mansion House, and he hoped they would make themselves thoroughly at home. He then explained that the teachers were at liberty to roam over the Mansion House, and for their gratification instrumental and vocal music had been provided; whilst in one of the rooms they would find tea, coffee, and other light refreshments, of which he hoped they would freely avail themselves.

The following remarks from the Lancet are especially worthy of the attention of those who have charge of primary classes, and of parents who place their children at home in charge of nurses:

"When we reflect upon the position of the nurse in regard to our children, the sway which she exercises over them for many hours in the day and night, we must feel how little is ordinarily known of the competence of those we employ for so responsible a charge. It is not so much the willingness of the nurse to do right that is in question, as her knowledge of the principles upon which the early education of a child should be conducted. It is not so long since any old woman, who was too decrepit to do anything else for her living, was considered to possess to perfection the requisites for a sick nurse. The art of cooking was apparently supposed to be inborn in individuals who aspired to the culinary department of domestic service. A tradesman who had failed in his business was as certain to set up a preparatory school as a military man on quitting his profession took to the wine trade. And so, even at the present day, any woman who declares her proficiency, is supposed to be endowed with the power of directing the education of a child, the right conduct of which will probably have more influence upon its future happiness than any other circumstances, except the qualities which it possesses by inheritance. It is time that something was done to arrest the present anomalous state of things."

--We call the attention of all our readers who believe in the necessity of improvement in the art of reading and in the scientific delivery of speech, or who aspire after excellence in elocution, to the fourth Summer Session of the Toronto School of Elecution, advertised in our columns. The long experience and high reputation of Mr. Lewis as a teacher of elecution and as a writer on the art, assisted by Miss Lewis, Graduate of the Philadelphia National School of Elecution and Oratory, are undoubted guarantees of the advantages offered to all who may avail themselves of the session. Miss Lewis has had large classes in Toronto, Brampton, &c., and recently addressed the North Grey and Bruce Association, with marked success, on Elecution in our schools. She is may become members if they wish to do so.

the teacher of Elecution in Miss Nixon's Ladies' School, the leading Ladies' Academy in Toronto, and as a public reader has taken a position of undoubted eminence.

-The recent code of school regulations introduced into France makes several important changes in the government of the schools. In the first place, corporal punishment of any kind is altogether and unreservedly abolished; and this being the case, the striking of any school-child will not only be an offence against the official reglement, but will render the offending teacher amenable to prosecution pour sévices or cruelty. In the next place, the right of the father to decide whether his son is to receive religious instruction or not is distinctly recognized, and it is provided that he shall always be consulted before the boy is permitted to participate in devotional teaching. It is furthermore decreed that children shall not be sent to church to be catechised, nor, indeed, to matins, mass, or vespers, except out of school hours; and that no teacher shall be bound to conduct them to church or to watch over them there.

-The following is from the London Standard, and we have much pleasure in endorsing the remarks of Hon. Mr. Childers, as well as the comments of the Standard:

Addressing the members of the Royal Arsenal Volunteer Corps at Woolwich, last Saturday, Mr. Childers said that in his boyhood it was a common thing to teach drill in schools. The practice, however, was gradually abandoned, till about the time of the Crimean war it was scarcely known to exist. The Secretary for War thinks it was a good custom, which might with advantage be rewived; and he urges all volunteers to use what influence they possess for the purpose of introducing lessons in drill into common school training. He might have enforced his precepts by pointing to the case of Switzerland. In that country every man must serve as a soldier, only the period of his service in the ranks is excessively short. The reason why it is short is that from childhood he is taught drill in school, so that when he joins the army he is not a raw recruit, but a partially disciplined soldier. It does not take much time or trouble to make a man efficient; he is very nearly efficient when he leaves school.

-A valued correspondent writes concerning the Superannuation fund, expressing disapproval of the proposed scheme, because a man who has taught twenty-five years say, would be entitled to a full pension by paying for only five years, while he who is now beginning to teach would have to pay for the full period of thirty years. This is an error. The former would have to pay up his arrears before receiving any benefit from the fund.

-A mutual benefit association for teachers and clergymen has been founded in New England, with Hon. Mr. Bicknell, publisher of the New England Journal of Education, as president. It is conducted on the plan of death payments, each member paying a certain sum into the general fund on the death of a member. The payments vary according to age. This seems a reasonable arrangement. Teachers in Canada. culture as a qualification for the position of School Trustee is teachers and pupils of the High School as worthy of a presenbeing discussed in Scotland. We fear that legislation could not in this case effect the needed reform. What is most required in a school trustee is sufficient common sense to prevent his intermeddling with work of which he knows nothing. The worst man for the position is he who in some obscure place taught school for a year or two while he was studying for a "higher" (?) position. The only thug such a man generally retains to show that he was a teacher is insufferable conceit, because he did not remain long enough in the profession to learn by experience how little he knew about its elementary principles. It is refreshing to see such a man spread his wings, and hear him begin with "When I was a teacher," and proceed to utter opinions calculated to make Comenius, Locke, Pestalozzi and Froebel roll over in their graves.

-We have previously called attention to the fact that the question of temperance was receiving a considerable amount of recognition on the part of School Boards in England. At the last quarterly meeting of the National Union of Elementary Teachers, at Norwich, Mr. J. H. Tench read a capital paper on "Temperance," closing with the following resolution: "Having regard to the great evils of intemperance, it behaves all teachers to use their influence, not merely to promote temperance, but to encourage teetotalism among their pupils by example as well as precept." Mr. W. H. Wilson seconded, and Mr. Cox supported, the resolution, which was carried with one dissentient.

-The complaint is often made, and with too much justice that teachers are not awarded the social recognition to which they are entitled. We are glad to notice, that in at least one English town they have been handsomely entertained at the expense of the Mayor. His Worship the Mayor of Warrington gave a conversazione in honor of the elementary teachers of the town and neighborhood. The occasion was one of great interest, and the elite of the town conferred honor alike on the teachers and themselves by attending in large numbers.

-Mr. J. E. Bryant, M.A., has accepted the position of Principal of Galt Collegiate Institute. For some years he has been the Principal of Pickering College, where his high scholarly attainments and admirable management of that establishment won golden opinions and secured many valuable friends. We congratulate the people of Galt in having obtained his professional services, and we wish him success and prosperity in his new sphere.

-Mr. A. Purslow, M.A., Head Master of Port Hope High School, was the first on whom the degree of LL.D. was conferred by the faculty of Victoria University, Cobourg.

-The advisability of requiring a certain amount of literary necessary examinations, and the event was marked by the tation in the shape of an address. We heartly congratulate Dr. Purslow on the success he has so well and honorably

> -From the Ninth Annual Address to the English Philological Society, at their Anniversary Meeting, London, May 21, 1880, by the President, Dr. J. H. Murray, we make the following extract :-

> "The use of double consonants cught to be regulated, and such bad spellings as traveller, and reveller, which seem to rhyme with propeller, corrected to Shakspeare's traveler, reveler. The termination of the agent our, should be uniformly leveled to or, as already done in so many words like author, doctor, senator, orator.

> -The Senate of the University of London has decided to grant "Teachers' Diplomas" to those who successfully pass examinations in the Theory and Practice of Teaching. They are to be granted only to graduates of the University, and are to include a test of practical skill.

> -There are in England and Wales alone 36,332 elementary teachers, and 36,803 students and pupil teachers. This army of instruction is in charge of 3,122,672 pupils.

#### NATIONAL EDUCATIONAL ASSOCIATION.

The Association meets this year in Atlanta, Ga. Among the distinguished men who will take part in the programme may be mentioned:

Dr. Wm. T. Harris, of Concord; Prof. N. A. Calkins, of New York; Dr. A. W. Calhoun, of Atlanta; Hon. D. F. De Wolf, State School Commissioner of Ohio; Hon. J. W. Patterson, of New Hampshire; Wm. I. Marshall, Esq.; Hon. M. A. Newell, State Superintendent of Maryland; Prof. John B. Peaslee, of Cincinnatti; Gov. Alfred H. Colquitt, of Georgia; Hon. John Eaton, U. S. Commissioner of Education; Hon. Wm. C. P. Breckinridge, of Lexington, Ky.; Prof. James Johonnot, of Ithaca, N.Y.; Prof. J. C. Gilchrist, President Iowa State Normal School; Prof. John Kennedy, of New York; Rev. Lemuel Moss, President Indiana State University; President J. W. Andrews, Marietta, Ohio; Hon. D. P. Baldwin, of Indiana; Rev. H. H. Tucker, of Atlanta; Lewis Soldan, Principal Normal School, St. Louis; Hon. J. P. Wickersham, of Pennsylvania; and C. C. Rounds, Pres. of Maine Normal School.

Some of the subjects which have been announced are:

"A Proposed Revision of the Common School Curriculum," "The Teacher's Work in the Development of Mental Power," "The Effects of Student Life on the Eyesight," "An Even-Dr. Purslow gained his degree by meritoriously passing the ing in Wonderland," "Reflections on the Brussels Congress of Education of 1880," "Is the Same System of Common School Education Possible in all the States?" "What Constitutes a Normal School?" "Education and Building of the State," "Best Normal Training for City Teachers," "Normal Principles of Education," "Moral and Literary Training in the Public Schools," "Some Essentials in the Development of a School System."

The days fixed for the Convention are the 19th, 20th and 21st of July, a favorable time, from the observed fact that the latter part of July is cooler than either June or August.

## Contributions and Correspondence.

#### LITERATURE FOR SCHOOL YOUTH.

A PAPER READ AT CHAUTAUQUA, N.Y., BY J. B. PEASLEE, PH.D., SUPT OF INSTRUCTION IN THE PUBLIC SCHOOLS OF CINCINNATI, OHIO.

My hearty thanks are due to the Executive Committee of the Ohio State Teachers' Association for giving me this opportunity of expressing my views on the introduction of Literature into the several grades of our schools. I shall not discuss the methods by which English Literature is now taught in our high schools and colleges, as the literary work which I advocate will not interfere in the least with that which these institutions are endeavouring to accomplish, but will be additional and supplementary to their noble work.

I desire, before entering fully upon my subject, to call the attention of this Association to some of the mistakes that are made, not only in the public schools of Ohio, but of the whole country.

One of these is the disproportionate amount of time given to the subject of arithmetic. I yield to no man in my estimate of the importance of the subject, both in regard to what is usually considered as its practical bearing upon the business affairs of life, and its excellence as a means of mental discipline. Nor am I among those who would cut down the course of study in arithmetic to a few subjects-to those only that are generally considered absolutely necessary for all to know-to that only which is so-called practical. Practical! there is a higher practical than the mere use that some of us may make of it in adding up our grocers' bills, or perchance, in calculating discount and interest. The mental discipline, the strengthening of the mind, the intellectual power that the scholar obtains by the study of this subject is the real practical the higher practical. It will never do to confine our course of study in mathematics to that only which popular opinion considers practical. I object not, therefore, that there is too much ground covered in the arithmetic, or that it is too well taught, but that there is too much time given to it.

You will remember that President Andrews, of Marietta, in an article written for the Ohio Educational Monthly some four years ago, said that the statistics showed that sixty-two per cent.\* of the entire time of the schools of Ohio, outside of the cities and large towns, was given to arithmetic. Think of it; sixty-two per cent. of the time devoted to arithmetic, and only thirty-eight to reading, writing, spelling, geography and grammar; none to literature and composition! Let the teachers of these schools cut down the time given to this subject to within the bounds of reason; introduce composition, letter-writing and business forms. Let them stop working puzzles in mathematics—which are about as profitable as the famous fifteen puzzle—and turn their attention to reading, to

improving themselves in literature, to acquainting themselves with the lives and writings of great authors, and let them take the results of that work into their school-rooms, and they would revolutionize the country schools of Ohio.

In our city schools, less time, to be sure, is given in the programmes; still, taking into consideration the amount of home work required of the pupils, and the extra time taken to "bring up" the arithmetic, it is entirely too much. A half hour per day in the lower grades, and forty minutes in the upper is amply sufficient. But the teachers have been made to feel that high per cents in arithmetic is the sine-qua-non of their success; hence, driving and cramming for per cents largely take the place of judicious teaching, to the great detriment of the pupils.

Fellow-teachers, let us use all our influence against this cramming, stultifying process, this driving for per cents, and teach according to the natural, the objective, the developing method. Inspire our pupils with higher and nobler aspirations than are to be found in monthly averages, and let the measure of time devoted to each subject, and the methods employed in teaching the same be determined, not by the question, how shall we obtain the highest per cents, but by what will best benefit our pupils in after life. This done, and there will not only be better instruction in all the branches, but much more prominence will be given to language, to composition and literature, and our youth will grow up under such tuition to be more intelligent, useful and influential citizens.

Another mistake, one which has a more direct bearing on my subject, as it affects the tastes of pupils for reading, is the pernicious method of teaching history usually pursued—I refer to the stultifying process of compelling the children of our schools to commit to memory text-books on this subject. No historian, as no mineralogist or chemist, was ever made by committing text-books to memory. History cannot be taught successfully by the memoriter plan. It kills the life of the subject. It disgusts the pupils and gives them a dislike for historical reading. As the pupils take no interest in the subject it is soon forgotten, and there remains only the bitter recollection of tiresome hours devoted to what, if properly Lught, brings profit and pleasure. As one of the principal objects of this paper is to show how to interest our youth in good reading, I will briefly explain, not only how history can be made intensely interesting and exceedingly instructive to pupils, but how a love of historical research can be implanted in them that will remain with them through life, and very largely influence their subsequent reading. First, all written percented examinations in this subject should be abolished. What is, said in the text-book upon the topic under consideration, should be read by the pupil under the direction of the teacher. The teacher should see that they thoroughly understand what they read, and at each lesson question them in brief review of the previous lesson. She should read, or cause to be read, parts of other histories or reference books (encyclopædias, gazetteers, etc.), that bear upon the subject of the lesson. She should also give out questions, the answers to which the pupils are to find for themselves, and should encourage them in relating historical anecdotes and in giving sketches of noted events to their classmates.

But history should be taught principally by biography. Biography is the soul of history. The life of a great personage, as of Cromwell, Napoleon, or Washington, contains nearly everything of importance in the history of the time and country in which he lived. Nothing is more entertaining to the young than the lives of the great men and women who have borne a prominent part in the world. I am not advocating a new theory. This method has been tried for two years in Cincinnati, and in one school alone more than five hundred historical and biographical sketches were

<sup>\*</sup>President Andrews has informed me that the time is now reduced to fifty per cent.

road within the past year, and in one class sixty-four biographical sketches were given by the pupils to their classmates, and the constant allusion to other lives than those under actual discussion led to a wide field of further research. Let me sar here, that in a class in United States History, I would not confine the biographical to our own country, but would encourage the children to read and recite sketches of noted personages of other countries and of different ages. If the method briefly indicated above be pursued the class will become enthusiastic in the subject of history, and will gain a vast amount of valuable information of which they would otherwise remain in ignorance; but, above all, they will form the habit of and a taste for reading good books, which will remain with them through life.

And another mistake consists in giving too much time in the reading lesson to mere imitative reading, and not enough to logical analysis-to ascertaining the meaning of the words and sentences. Children should be impressed with the fact that the principal object of reading is to obtain the ideas and thoughts of others, and therefore they should early accustom themselves to ascertaining the meaning of what they read, thato n word, no sentence may be passed over without being . derstood. Let me say that the dictionary should be the almost constant companion of the pupil of our Grammar and High Schools, Would you neglect the elocutionary side of the subject? I am asked. By no means. No one places a higher value on elocution, on the beautiful rendering of the reading lesson, than I do; but I insist that it is the duty of the teacher to see that the passage is thoroughly understood by the pupils before she attempts to drill them in the elecution.

I will close this part of my essay by referring to the fact that the almost universal tendency in this country, of late years, has been to crowd too much into the High School course by putting in subjects which properly belong to Colleges and Universities. To attempt, as I said in one of my annual reports, to make the High School a substitute for the College and University, must result in failure. The pupils are too young. They have not the maturity of mind required to comprehend thoroughly such a course of study. In my opinion, much of the present opposition to the High School system is directly due to this cause. To remedy the defects, and make the High Schools more efficient and popular, there should be a more judicious selection of studies, and much more time should be given to English Literature and to Composition. At least one lesson per day should be devoted to these subjects throughout the entire course.

#### GETT OF LITERATURE.

Morality-if under this head may be placed honesty, patriotism, and goodwill to men-ought to come within 'he scope of school work, for morality in this sense is the dearest element of the good citizen, and the good citizen is the prime object of education. Our country has less lack of intelligence than of public honesty and private fair dealing, less lack of knowledge than of inclination toward a noble life-which facts show that something in the present order of society is either fundamentally wrong or deplorably weak, But where shall we seek a remedy? When and how born to mend? The subject of moral progress does not belong solely to the religious world. It is not altogether a matter of religion; it is a matter of that good sense, that idea of public utility which considers the welfare of the immediate present, and looks with a benevolent eye to an improved manhood in the future. For morality is almost as beautiful when viewed as a guiding element to man in this world's transactions as it in when viewed as an essential to happiness in the world to come.

in taking care of the present of the children. It is in our power liem. But on abstract or grand subjects like patriotism, there is

greatly to elevate the world in morals. We can do this by introducing into our present educational system a factor whose object shall be to give the proper direction to the child's thoughts -to implant in his mind correct conceptions of the world and his place in it—true ideas of his duty to his neighbor and his country, and of his relations to the inferior world around him, which, sinking deeper and deeper and deeper with each generation, shall eventually supplant evil, and leave a soul worthy of the inspection of gods. "As a man thinketh, so is he." Children should be led to think properly, that they may be enabled to act justly and generously. And it would be far safer both for them and the community if their acts were directed by fixed principles rather than by sudden and untrustworthy impulses. Now, as it is undeniable that to many the age of maturity does not bring with it those established ideas of right and wrong-those healthy conceptions which characterize the model citizen-I for one feel the necessity for a new feature in education, whose object shall be advancement in a moral wav. I consider it our duty to attempt what I have indicated above. We owe it to the pupils as being our fellow-creatures; to the State, as being essential to that good citizenship which is the first object of free education.

The question is as to the method. My idea, as many of you know, is to make use of the gems of literature.

The literature of the world embodies a universal moral creed. In its fulness here and there may be found the holy teachings of the Bible in language pleasing to the ear of youth, and in form adapted to his understanding. It inculcates all the substantial teachings of the Scriptures without awakening the suspicion that the private realm of devotional form is to be invaded.

A broad-minded selection of noble passages, though it may not be able to do all we could wish in a moral way, can certainly do much to raise men to a high moral, political and social plane. may not make men prayerful, but it can make them respectful and respectable. It may not give them the wisdom of statesmen, but it can make them intelligent voters and fervent patriots. not fit them for a further life, but it can co much toward making this one pleasant to themselves and for their fellow-men. It can put a light into their hearts that will illumine many of earth's darkest places.

I believe that gems of literature introduced into our schools, if properly taught, will be able to do these things, partly by their own directive influence on the young mind, but principally as being such a dralt upon the fountain of higher literature as shall result in an abiding thirst for noble reading. The right kind of reading will induce the right kind of thinking, and proper thinking will insure correct acting.

What harmony the introduction of literature into our schools sasures us! The religious world will get from it all it ever asked or expected of the Bible. The secular world will get from it nothing it could possibly object to. At the shrine of noble thoughts the devotees of all creeds may bow as brothers. Let the public schools be the instrument of forming this c amon love for the noble and beautiful, and who but will acknowledge they have performed a work of greatest utility to man, and added a thousandfold to their present value as factors in human progress. Heretofore he boy's education has been no broader than his business expectations -his happiness as a man and his worth as a citizen have not been taken into account. The principles are too narrow for an age that is looking for good men as well as for good accountants and grammarians. They are unnecessarily narrow; they leave broad fields of noble soil untilled, and this soil must be tilled to bear fruit. For example, a man cannot be a patriot, except We cannot serve the future of this world in a better way than negatively, until he has been led to understand and value patriotan unwillingness or incapacity in most minds to think. Such minds must be enlarged before patriotism can be anything to them but a barren name; but may not patriotic passages, under a wise teacher, promote the ordinary growth? For who, even among the educated, has not felt a tinge of shame at the dullness of his own patriotis, no reading Grimké's beautiful lines, beginning—

"We cannot honor our country with too deep a reverence. We cannot love her with an affection too pure and fervent. We cannot serve her with an energy of purpose or a faithfulness of zeal too steadfast and ardent;" or Scott's—

"Breathes there a man with soul so dead, Who never to himself hath said: 'This is my own, my native land!'"

What I have said of patriotism applies to all the elements of great-mindedness.

The practice, therefore, of memorizing the choice thoughts of our best writers, should be made a prominent feature of school work. Oliver Wendell Holmes says, "There is no place where an author's thoughts can nestle in so securely as the memory of a school-boy or a school-girl." It is also in accord with the advice of Arthur Helps, who says, "We should lay up in our minds a store of goodly thoughts in well-wrought words, which shall be a living treasure of knowledge always with us, and from which, at various times, and amidst all the shifting of circumstances, we might be sure of drawing some comfort, guidance and sympathy."

The idea of its introduction is not new in the history of education. In a similar manner the Germans have been long in the habit of training their children in the knowledge and admiration of the literature of their own land. The Arabs, the most civilized nation of the ancient world, taught their young to repeat the und'ing thoughts of their poets, under the beautiful name of unstrung For the greater part, the selections for the younger children should consist of entire pieces, and of such as are catoulated to develop their emotional natures—the imagination, love ... home and parents, kindness to dumb animals, etc. -- and to gare them correct rules of action. Those for the more advanced pupils should consist principally, of brief extracts containing grand and enpobling thoughts calculated to incite them to higher aspirations in life, to lead them into pure fields of English literature, and to teach them to love and reverence our great authors. selection of gems, poetry has the preference, for it inculcates a double beauty-beauty as thought, and beauty as composition. It delights the ear of the child as the colored pencil or illustrated book lelights his eye. It is more essily committed, and, as a rule, longer retained.

All the selections should be recited in concert, and individually, from the platform.

You are aware that years ago it was almost the universal custom for teachers to set apart Friday afternoon for declamation. But the exercise in declamation differed widely from memorizing gema of thought, which I advecate. Then the pupils were permitted to commit to memory whatever they thought best. The result was. that in a majority of cases the selections contained no literary or other merit. They were made more from a desire on the part of the pupil to have something "new," or to cleate a laugh, than from any other cause. The time spent in committing such pieces was, in my opinion, worse than wasted, for there was nothing in them worth remembering. Their effect was to vitiate the tastes of the pupils for good literature, rather than to give them a love of it. It was not so much what the pupil- memorized, as how they de claimed. In short, everything was a mificed to declamation. my opinion declamation, a subject almost entirely neglected in public schools of late years, is a very valuable exercise. Its tendenov is to give pupils confidence in themselves; to make them

more self-possessed; and above all, to make them better readers. These worthy objects can be better accomplished by reciting "gems," than by declaiming long pieces, as was formerly the custom, for every member, even of an entire class, can recite a short extract within the time of an ordinary recitation, and each learn, from hearing the others declaim, the same selection. But important as declamation is in itself, it is secondary to the great object I desire to accomplish, viz.: storing the mind of our youth with grand and ennobling thoughts, clothed in beautiful language—thoughts that will incite them to noble aspirations in life—thoughts that inculcate virtue, patriotism, love of God, of father, of mother, kindness to dumb animals, and that give correct rules of action.

#### HOW TO TRACH.

At least one hour per week should be given to this literary work in all the district, grammar and high schools throughout the country.

In Cincinnati a part of this time is taken from that assigned to morning exercises, and a part from Friday afternoon. However, this is left to the discretion of the teacher.

I recommend eight lines as a fair amount for each week's work. At this rate the pupils, in passing through the district and grammar schools, would commit 2,560 lines, and in passing through the district, grammar, and high schools, 3,840 lines, which is equivalent in amount to 128 pages of one of our Fifth Readers.

It is not enough that the selections be simply memorized. Each one of them should be made the subject of a lesson, to be given by the teacher. The teacher should not only see that the pupils thoroughly understand the meaning of each word and sentence; that they give the substance of each passage in their own language, and make the proper application of the same before requiring them to commit it to memory, but she should also endeavor, by appropriate talks, to impress upon the minds of her pupils the ideas intended to be conveyed, and to inspire them, if possible, with the spirit of the extract.

What an opportunity is here given for our teach as to impart moral instruction; to cultivate the emotional nature of children; to inspire them with a love of the noble, the good and the true! Such instruction must bear beautiful fruits.

After the selection has been thoroughly memorized, the attention of the teacher should be given to the elecution—to the beautiful delivery of the same. This can be well done by concert drill. The concert should be supplemented by individual recitation. If, however, for want of time, any part of the work indicated above has to be neglected, it should be the individual recitation. As I said before, declamation is secondary to the committal to memory of literary gems.

As the value of these extracts to one in after life will depend, in no small degree, upon the accuracy with which they are memorized in youth, therefore the teacher should see that they are committed to memory, word for word. In order to do this, time should be taken from the grammar or language lessons for the pupils to write the extracts from memory. This would also be an excellent practical exercise in capitalization, punctuation and spelling.

Let me say here that this literary work trains the memory; there is, perhaps, no weaker point in the school system of our country than the frequent neglect of this absolute necessity in child culture. The memory needs as much strengthening by exercise as the muscles of the arm; but it should be employed, as here, in storing the mind with what is worth remembering.

The teachers should giv sketches of the lives and writings of the best and most worthy authors, at least to all the pupils above the fifth year of school, and encourage the pupils to find out for themselves interesting acts concerning authors and their writings, and

to give sketches of the same to their classmates, as I have already recommended in connection with the lessons on history. Here I recommend that the teacher, or a pupil under the advice of the teacher, read the entire piece, when appropriate, from which the extract is taken, or some other selection from the same author, as "Birds of Killingworth," by Longfellow; "Snow Bound," by Whittier, one of "Timothy Titcomb's" letters, by J. G. Holland; a story from Hawthorne's "Wond'r Book," etc.

In connection with this literary work, .st me urge, as I did last year at Cleveland, the celebration of authors' birthdays.

These celebrations may consist of compositions on the life of the writer, of the recitation of gems by entire classes or grades, of declamation, of singing, and of appropriate talks by teachers and friends of the schools.

Authorial-birthday celebrations interest the pupils in the writer and his works as nothing else can. They educate the whole community. The celebration of the birthdays of Whittier and Longfellow at Cincinnati, and of the Cary sisters at Mt. Healthy, has caused an increased demand for their books, not only in Hamilton County, but in other and distant parts of the country, and every good book that goes into a family is an educational force. It has not only multiplied the number of their readers, but that of many other of the great authors in American and English literature.

Longfellow and Whittier, names unknown to the children of Cincinnati one year ago, are now as familiar to them as those of their own playmates. Hereafter they will be looked upon by the youth of that city not only as great and noble writers, but as dear old friends whom they fondly love. To me this attachment of the children to those great and pure men is a touching and pleasing result of the celebrations.

These celebrations, from year to year, should include not only poets and prose writers, but also great statesmen and distinguished scientists and inventors.

"The poets who in song translate
Emotions t'ey alone have read,
The patriots stern, who challenge fate,
And walk with more than mailed tread,
The sages who the truth distil—
Let these the child love if he will."
—Joseph W. Miller.

But we should celebrate those only who have led pure and noble lives, whose moral character and private worth will call forth the admiration of the children and set them examples worthy of imitation.

Fellow-teachers, having completed my suggestion on the methods of instruction and the scope of this literary work, I desire to call your attention for a few minutes while I present to you more fully the good that will be accomplished by its general introduction into our schools.

#### DIME-NOVEL READING.

One of the greatest powers for evil is the low and degrading writings our boys and girls are reading. Even educators, I fear, are not fully aroused to the terrible influence this reading is exerting upon the lives and characters of the young.

Let us look at the circumstances in which our youth are placed in regard to literature.

At the homes of a large part of them there is scarcely a book, except the text-books of the children themselves. At the homes of a majority of those remaining may be found a few books upon the parlor table, which are usually considered by the parent as too nice for the children to read. It is safe to say that very few, indeed, of our youth have access to a good home library. That child who is trained at home to a love of reading good books is the exception.

Is it any wonder, then, that our youth yield to the temptation to

read the worstkinds of story papers and novels that are everywhere thrown around them? In addition to other enticements, we find near all the large school buildings of our cities, shops which keep, besides pens, pencils, and school-books, a large assortment of trashy story papers and novels. What a comment on the public schools! The vendors of these papers place those having pictures of murders and Indian outrages, etc., in the windows.

The children, attracted by these pictures, buy the papers and read the stories. They soon become intensely interested in the stories and in the slang language in which they are written. The boys and girls buy novels of the same or of a worse tendency for from five to ten cents. These are purchased and devoured, and thus by degrees is formed the habit of reading this pernicious class of writings. The children are not to blame. There is nothing in their home surroundings to counteract these evil tendencies. The schools have been standing by saying, "Don't touch," "don't touch," but doing nothing to interest the pupils in good reading.

Knowing from experience, as I do, that it is in the power of the schools to control almost entirely the reading of the pupils and to implant in them correct literary tastes, I appeal to Boards of Education, to superintendents and teachers, to take immediate and decisive steps to make this literary training in all the grades a prominent feature of school work. The only effectual way to keep the youth of our country from reading the terrible dime novel is to interest them in the writings of good authors, and this must be done, if at all, by the schools.

## LITERATURE AS A DISTINCT BRANCH.

Under the present system the study of Literature as a distinct branch of education is not attempted till the tenth year of school, when but one in twenty is remaining in school, and? will guarantee that the present classes in the High Schools will have gathered fewer of the pearls of literature at the completion of their course than is possible with the Common School classes under the plan now in operation in Cincinnati. And it should not be forgetton that the one in twenty that takes the High School course is the one for whose welfare we need have but little apprehension. We can trust him. It is among the nineteen who fall by the wayside that we shall find subjects for our misgivings. It is here that we must exert ourselves as formers of character and developers of taste. In other words, if literature has any elevating influences, its fittest field is the Common School, for here those influences are most in demand, and here is the single opportunity of reaching a large and especially needy class of pupils.

But let us look at the matter in another light. Pupils have heretofore entered upon the study of literature in the High Schools with almost no previous knowledge of literary character or development of literary taste. The result of gem-learning, in addition to its grand object—the ennobling of the mind—will be to lay the foundation for deeper literary culture in advanced pupils,—to activate the mind in this direction, and so store it with knowledge that the commencement of this branch of education in the High Schools shall be farther advanced than its termination has been heretofore.

### THE CHILDREN INTERESTED IN GEM LEARNING.

I have never known anything in school work that interested the children more than this. The interest, too, is not confined to the upper grades, but pervades all the classes, from the first year of school through the High School.

Children love to commit to memory beautiful selections, and recite them at home and at school. They love to hear of the lives and writings of good authors, and to talk about them to their fathers and mothers.

Again, these literary exercises relieve the monotony of school.

Their tendency is to give the pupils a love of school, and therefore to secure a more regular and larger attendance.

They do much to make the school strong with the people-an object that every teacher should endeavor to accomplish.

I desire to call your attention to the remarks of Mrs. Elizabeth Gale, of Mt. Healthy, Ohio, as they present the subject of memor izing selections in another light.

Mrs. Galo is the aunt of J. G. Holland. "Dear old aunt," writes Dr. Holland, "she is the only living link that binds me to the last generation." Mrs. Gale, though ninety-two years of age on the 17th of last December- Whittier's birthday-is bright and intelligent.

It was one of the happiest moments of my life when that dear old lady, then in her ninety-third year, holding in her hand a pamphlet of selections I had sent her, said to me, "Mr. Peaslee, you don't know how much good you are doing by introducing these selections into the schoo's. You don't know how the children will appreciate them when they are old."

What a source of consolation they will be to them then. How they will love to say them over and over again. "Why," said she, "thinking over and repeating the little pieces I learned in childhood is one of the greatest comforts left me now."

She then recited a number of selections. Among them was one entitled "To my Watch," which she learned at home when a child only four years of age. I had the piece written from her dictation, and printed, with the change suggested by Dr. Holland, of a single word:

#### "TO MY WATCH."

Little monitor, by thee Let me learn what I should be I'll learn the round of life to fill, Useful and progressive still.

Thou can'st gentle hints impart How to regulate the heart; When I wind thee up at night, Mark each fault and set it right; Let me search my bosom, too, And my daily thoughts review.

I'll mark the movements of my mind, Nor be easy when I find Latent errors rise to view, Till all be regular and true.

This incident needs no comment from me. It tells stronger than any words of my own, of how wonderfully the memory retains little pieces committed to its precious care in early childhood.

Yes, these beautiful selections will be remembered and will influence our children for good when the technicalities of their grammar, the abstructies of their arithmetic, and the obscure locations of their geographies are forgotten.

## Mathematical Department.

Communications intended for this part of the Journal should be on separate sheets, written on one side only, and properly paged to prevent mistakes. They must be received on or before the 2th of the month to secure notice in the succeeding issue, and must be accompanied by the correspondents' names and addresses.

#### EXAMINATION PAPERS. EUCLID.

- 1. Define a straight line. Is there any objection to the definition? State practical tests of the straightness of a ruler. Show how rectilineal motion may be obtained from circular by linkages.
- 2. All the interior angles of a rectilineal figure, together with four right angles, are equal to twice as many right angles as the figure has sides.

Show that a polygon of n sides cannot have more than n-8re-cutraut angles.

8. A parallelogram is double of a triangle having same base and same perpendicular height.

ABCD is a parallelogram, and O a point in BD produced: OM, ON are perpendiculars on AD, CD respective; produced. Show that the rectangles AD, OM and OD, ON are equa.

- 4. State Euclid's method of forming a square of area equal to that of any given rectilineal figure, and prove one of the two propositions involved.
- 5. Given an arc of a circle, shew how to complete the circle.
- 6. On a given straight line construct a segment of a circle containing an angle equal to a given rectilineal angle.

Given the base, vertical angle and radius of inscribed circle of a triangle, construct the triangle.

7. To inscribe a circle in a given triangle.

Show that only in an equilatoral triangle can the centres of the inscribed and circumscribed circles be coincident.

8. If the vertical angle of a triangle be bisected by a line cutting the base, the segments of the base are in the same ratio as the

When the base BO is divided as in this proposition at D, and in Prop. A at E, shew that BD, BC, BE form an Harmonic Pro-

9. Show that the locus of a point, whose distance from one given point is double its distance from another, is a circle.

The following solutions of problems in the January issue had inadvertently been laid aside:

1. Solution by Mr. M. L. Nutting, Kinsale: Since each shot is 8 inches in diameter, it will require 27 cubic inches of the box. But the solid content of each shot is  $\frac{4}{3} \times 8.14159 \times (\frac{3}{4})^3 = .5286$  of 27 cub. in. Hence the part of the box filled is .5286.

Solutions were also received from W. Bickell, Mountsburg, and A. H. Finch, Walter's Falls.

2. Solution by W. Bickell.

Let x=no. of persons, y=bill of each. Then xy=bill of company.  $\therefore (z+8)(y-1)=xy=(x-2)(y+1).$  $\therefore 8y-x=8$ x - 2y = 2or x=12, y=5.

Solutions also by M. L. Nutting, G. L. Morrill, Uxbridge, and Lucille Hoffman, Port Hope.

8. Solution by L. A. Hoffman, Port Hope.

Direct Exchange, 1 lira, = 7.500 " = \$1.650.Indirect Exchange, 1 " = 13 francs.  $=\frac{1h}{26}\times 4.95$ 7,500 " = \$1,606.87 \( \delta\_2 \); and difference = \$48.62 $\frac{51}{2}$ .

Solutions also by A. H. Finch, G. R. Merrill, M. L. Nutting, ard W. Bickell.

4. Solution by W. Bickell.

3 of Investment — 1,200 = capital at end of 1st year.

2 " " -8,000 = " " 2nd "

27 " " -5,700 = " " 8rd "

11 " " -9,750 = " " 4th " = 4 times investment.  $\therefore$  Investment = \$9,176 $\frac{1}{17}$ .

Solutions also by M. L. Nutting, G. R. Merrill, A. H. Finch, and L. A. Hoffman.

5. Solution by M. L. Nutting.

Let x=no. of men, y=no. of women.

Then 4x=no. of pence each man pays,

8y=no. of pence each woman pays.

 $\therefore 4x^2+8y^2=\text{total amount paid}=292$ ;

or 
$$y^2 = 97 - x^2 + \frac{1 - x^2}{8}$$
.

Now x and y are integers;  $\therefore \frac{1-x^2}{8}$  is an integer = m say.

Hence  $1-x^2=8m$ , or  $x=\sqrt{1-8m}$ , and  $y=\sqrt{96+4m}$ , m=-8 gives integral values of x and y, viz., x=5, y=8.

8. Solution by W. Bickell.

$$(a^{2}-b^{2})x^{2}-(a+b)\frac{c}{d}x-(a-b)(2c+ad)\frac{1}{d}x+(2c+ad)\frac{c}{d^{2}}=0.$$

$$\therefore (a+b)x\left\{(a-b)x-\frac{c}{d}\right\}-\frac{2c+ad}{d}\left\{(a-b)x-\frac{c}{d}\right\}=0.$$

$$\therefore \left\{(a+b)x-\frac{2c+ad}{d}\right\}\left\{(a-b)x-\frac{c}{d}\right\}=0.$$

$$\therefore x=\frac{c}{d(a-b)}, \text{ or } =\frac{2c+ad}{d(a+b)}.$$

Solution also by M. L. Nutting.

9. Solution by M. L. Nutting.

Let C be the middle of the town; A and B the bridges; CD the sewer; and DE the additional drain. Since DH bisects the angle CDA, CH: HA = CD: DA.

Likewise AC: CB = AD: DB.

Let 
$$CD = x$$
 chains; then  $DB = x-11$ ,  $HC = \frac{2}{3}x$ ,

$$BC = \frac{x^2 - 5x - 66}{9}.$$
 Hence

$$9\left\{\frac{x^2 + 5x - 66}{9} + \frac{2x + 12}{3}\right\} - 54 = \frac{2x^2 + 12x}{3}$$

$$\therefore x^2 - 9x = 252, \text{ or } x = 21.$$

Hence AC=16 and BC=80.

#### PROBLEMS FOR SOLUTION.

1. A stake one inch in diameter is set upright on a plane, and a cord one mile long is wrapt about the stake. A man takes the end of the cord, and walks about the stake until the cord is unwound, keeping it tight. How far does the man walk, the thickness of the cord being neglected?

W. BICKELL, Mountsburg.

2. To do a work A requires twice as long as B and C working together, and B three times as long as A and C working together If \$72 were paid for the work, and the three men work together, how much ought C to receive?

T. W. POTTER, Ameliasburgh.

8. Suppose that at the north corner of a square field stands a poplar tree, in the eastern boundary line an apple tree, in the western boundary line a pear tree; the two last trees 35 chains asunder; the distance between the poplar and apple is an arithmetical mean distance between those of the apple and pear, and pear and poplar. Within the compass of these three trees mathematicians agree to hide a bone in such a position that were straight lines drawn from it to each of the trees the lines so drawn will form angles at the bone severally containing a number of degrees in exact proportion to the number of chains in the opposite sides. Due south from the poplar, at a distance from it equal to that of the poplar and apple, is a fountain, whose distance from the eastern corner of the field is equal to that of the pear and apple, and from the western corner a distance equal to the pear and poplar. Required the course and distance from the fountain to the bone.

 A, B, and C meeting once betimes, and it being noon they did agree,

The two who had the fewest dimes should have their dinners free,

And the one who had dimes the most should for their dinners pay the host.

Now, when they counted it was found, that B had twice as many dimes

As A, which made him look profound, and count them over three times,

And B, comparing his with C, found C had twice as many as he.

Then C for their dinners had to pay, which was 20 dimes for

And said he would do it every day, till all their dimes should even be.

When all theirs then put together would buy three eagles of no feather.

Now tell me all who can and try, how many eagles would all this money buy?

5. Required the three least numbers which, if divided by 20, shall leave 19 for a remainder, but if divided by 19 shall leave 18, if divided by 18 shall leave 17, and so on, always leaving one less than the divisor to a unit.

6. Required the sides of a right angled triangle which shall contain the greatest area under the shortest perimeter when the square of the area is equal to the product of the three sides.

7. Required a triangle such that all the inscribed rectangles shall have equal primeters.

BRAMPTON.

Solution of "A Celebrated Problem" which appeared in the JOURNAL a year ago, by Mr. J. J. Parker, of Truro, N. S.

Let B E, C D, the bisectors of  $\angle$  s A B C, A C B, be equal.

Then, the triangle A B C is isosceles.

#### FIRST SOLUTION.

 $\therefore$  \( \begin{aligned} B D C > D C A \) (I. 16), i. e., than \( \begin{aligned} D C B \), \( \hat{\chi} \) B C > BD (I. 19); : the bisector BE cuts DC in a point Fnearer D than C (Ex. 27, p. 118);  $\therefore FC > \frac{1}{2}DC$ , i. e. than  $\frac{1}{2} B E$ : ... line joining C and middle of B E, which >, bisector F C (Ex. 27, p. 118), also  $> \frac{1}{2} B E$ ;  $\therefore \angle A C B$  is acute (Ex. 9, p. 56). Similarly  $\angle ABC$  can be shown to be scute. Now, if D B < E C, make D G = E C, and join G, Then,  $\therefore$  D C, CB, = EB, BC, but DB < EC,  $\therefore$   $\angle$ DCB, i. e.  $\angle DCE < \angle LBC$ , i. e.  $\angle LBD(1.25)$ ; ...  $\angle B E C > \angle C D B (L 3\Sigma); \therefore B E, E C, = C D, D G,$ but  $\angle B E C > \angle C D G$ ;  $\therefore B C > C G (I.24)$ . But  $\angle$ A B C is soute;  $\therefore$   $\angle$  G B C is obtuse, and  $\therefore$   $\Rightarrow$   $\angle$  C G B (I. 17);  $\therefore G C > B C$  (I. 19)—an absurdity.  $\therefore D B$  not < F'C. Similarly it can be proved to be not greater. : DB = EC, and DB, BC, CD, EC, CB, BE, ...  $\angle$  $A B C = A C B (I. C); \therefore A B = A C (I. A). Q. E. D.$ 

SECOND SOLUTION.

If  $\angle ABC < \angle ACB$ , then  $\angle FBC < \angle FCB$ , and  $\angle FEC < \angle FDB$ . Make  $\angle EBG = \angle DCB$ , and  $\angle BEG = \angle CDB$ . Then,  $\angle EGB = \angle DBC$  (I. 32). Join C, G, and produce AC to H.

In  $\triangle : BDC$ , B E G, DC = B E, and  $\angle : BCD$ , BDC,  $\angle : GBE$ , GEB, BC = BG (I.B.);  $\angle : BCG = \angle : BGC$  (I.A);  $\therefore : \angle : BGC > BCH$ . and  $\therefore : > BCG = \angle : BGC$ 

 $\angle CBA$  (I. 16), and  $\therefore > \angle BGE$  — an absurdity. ∠ A B C not < ∠ A C B, and can be proved not greater.  $\therefore$   $\angle ABC = \angle ACB$ , and  $\therefore AB = AC(I.A)$ . Q. E. D. Exercise.—Show that D C produced must divide angle GCE.

Subscriber, L'Orignal.—The expression 16 is read "factorial 6," and means  $1\times2\times8\times4\times5\times6$ .

D. M. Chisholm has sent in a correct solution of the problem, "Three Gambles, &c.," which appeared in the JOURNAL of November last.

## Practical Department.

LAWS OF ACQUIRING AND RETAINING KNOWLEDGE.

#### BY JAMFS L. HUGHES.

- 1. The sources of acquired knowledge are books, men, and things.
- 2. The methods of acquiring knowledge are, in the reverse order of their teaching power: reading, hearing, seeing, and experiment-
- 3. General Rule. Independent of differences in brain power, the readiness with which knowledge is acquired depends on the attitude of the mind towards our sensations.
- 4. The rate of learning depends in each individual on the intensity of attention paid to the subject.
  - 5. The clearness of our conceptions depends on:
    - (a.) Attending to only one thing at a time.
    - (b.) The source from which we receive knowledge; books, men, or things.
    - (c.) The method of learning: reading, hearing, seeing, experimenting or doing.
- 6. The depth of an impression is influenced by the time we devote to a subject. Dwell. Give a thought time to be photographed.
  - 7. The permanence of conceptions depends on:
    - (a.) The condition of health of body and brain.
    - (b.) The clearness of our conceptions.
    - (c.) Intensity of attention; modified by interest, pleasure, or pain.
    - (d.) Repetition; to ourselves and others, in concert or individually.
    - (e.) Association of Ideas. —One idea suggesting another. This may be regarded as the foundation of memory. It depends on .
      - 1. Similarity in part or in whole, in appearance, shape, color, sound, etc. A single feature, or tone, or movement serves to recall a friend residing in New York, and immediately a thousand ideas connected with the friend or the city he lives in flash in succession through the mind.
      - 2. Contrast.-Youth -old age; cradle-grave; palacecottage, etc.
      - 3. Contiguity, (a.) of time; (b.) of Place. Time.—We say a thing occurred about the time of the famine, the great heat, the severe frost; when James was born, or Emma married; during Lord Elgin's time, or Lord Dufferin's, etc. Place.—Start from the home

tion! The store, the blacksmith's shop, the school house, the church, the hill, the creek, etc., follow each other in their proper order, the one being suggested by the other.

#### ELEMENTARY ARITHMETIC.

READ BEFORE THE LANARK TEACHERS' ASSOCIATION; BY I. J. BIR-CHARD, B.A., PRINCIPAL PERTH COLL. INSTITURE.

I conceive education, in the true sense of the word, to be, the development of the natural powers of the mind; whoever aids that development is an educator. I thus make a careful distinction between communicating facts and educating-between a mind possessed of knowledge and an educated mind. In the former case the pupils are mentally paupers, and the teacher a dispenser of charity; in the latter the pupils are labourers sowing the seeds of a future harvest, while the teacher watches over and directs their efforts, and takes care that wheat—not tares—is sown. The former mind is a storehouse which contains nothing except what is placed in it; the latter is fertile soil ever producing fresh harvests.

In this brief essay on teaching Elementary Arithmetic, I propose to show how to carry on this educating process simultaneously with the acquirement of knowledge. In educating a child, the teacher and nature are co-workers; nature furnishes the programme which the teacher must faithfully carry out, if he would secure a symmetrical and not a distorted result. The young mind rapidly gains both knowledge and power from observation and drawing conclusious therefrom; it is the part of a judicious teacher to direct his pupils to the making of profitable observations and to the drawing of correct conclusions. In teaching arithmetic, i. c., increasing a pupil's knowledge of number and his power to reason about number, two principles should be kept constantly in view:

- (1) A knowledge of number in the abstract must be preceded by a knowledge of number in the concrete.
- (2) Each new principle must be clearly connected with, or rather grow out of, what is already quite familiar.

A child first learns to distinguish a single object from more than one; then to distinguish a group of two, then three, &c., to ten; which requires nearer observation, and is a greater amount of knowledge than most persons imagine. With this amount of knowledge at five years of age he enters a public school, and if his knowledge of arithmetic is to be increased, whether by formal teaching or otherwise, the increment must be added to 'ten'; any attempt to build from 'eleven' will certainly be a failure.

In most cases, however, the pupil will obtain sufficient exercise in counting from play and other casual sources, leaving to the teacher the task of translating his knowledge into a new language, that of symbols. At this stage it is quite sufficient to familiarize the pupil with the forms, in figures, of the numbers with which he is already familiar. The theory of notation is as much above his comprehension as the moon is beyond his reach.

Just as the idea of number is first obtained from 'things', and then represented by symbols; so must the operations of addition, &c., be first performed on visible, tangible objects, and then the same operation performed with symbols.

Such is education in the full sense of the word; a slow process for acquiring the ability to pass examinations, perhaps, but the only way to promote brain growth, or to increase the mental powers.

I proceed now to some practical examples of the preceding theory. The multiplication table is the first grand difficulty which the of your childhood. How one object will suggest an-i young mathematician has to encounter. Its difficulties may be other as you sweep along in any direction in imagina- | greatly lessened, and valuable mathematical training may be given,

by such methods as the following:-Place several groups of the same number of objects on the table; ask the pupils to count each group, and the number of groups, then the total; also the reverse operation, i. c., take a number, twelve, and ask them to arrange them in groups of two, three, four, or six each, and at the end of each operation require the result to be expressed in words.

Such training prepares the way for reduction, which is the foundation of all the future reasoning in arithmetic. When a pupil has properly mastered the tables-of the weights, measures, &c., and has been taught the meaning of the operations of multiplication and division, as previously indicated, he will have little difficulty with the compound rules and reduction. A few of the simpler weights and measures are necessary, a carpenter's rule or a tapeline being the most useful. Measure off a few feet on the blackboard, marking the end of each foot, and ask for the number of inches. Give no rules; if the pupils cannot answer, let them really count the inches on the tape-line, carefully observing that twelve inches is repeated as many times as there are feet, and then ask for the same to be done with figures. Then reverse the operation, giving a number of inches to be changed into feet; and for a few times allow them to mark off the 'twelves,' and then count how many twelves there are. Proceed in the same way with the other tables, always using numbers and denominations with which the pupils are familiar; and require such operations to be repeated until the connection between the figures on the slate and the things signified is perfectly familiar.

#### DISCONTENTED TEACHERS.

There appears to be a general discontent among the teachers of So, at least, we infer from the tone of communications published in the educational journals. The other day we made a list of complaints contained in about a dozen of these periodicals.

It is not necessary to mention the chronic complaint of insufficient income, because that is common to the whole human race. We have met with all sorts of people in our pilgrimage through this vale of tears, but we have rarely encountered any one who had quite money enough. Passing this by, we find our teachers complaining of the following things:

- 1. Their profession, they say, has no prizes. A soldier can win promotion as well as glory, and can come at last to be one of the chief personages of the country. A man of business can acquire wealth, and surround his family with elegance and safety. author can make a "hit." and soar at once into fame and fortune. For the teacher there is no outlet, no issue, no reward. few prizes which the profession might claim, the presidentships of colleges, even these are almost always bestowed upon members of another profession.
- : 2. The teacher has no hold upon his place, and can acquire noue, no matter if he is the best teacher in the universe. He is no better off in this respect than the politician, who may at any moment, and without a moment's previous notice, receive a note in a yellow envelope, turning him out of a place he has held twenty
- 3. The teacher is compelled to obey his inferiors. The average member of our school committee, say our educational journals, is not equal in knowledge and capacity to the average teacher.

This assertion might be questioned; but probably the average school committee does not know as much about teaching as the teachers whom they elect, direct and dismiss.

4. Holding his place at the mercy of the school committee, the

to the management of the school. He must please, he must flatter them by acquiescence. He can be sincere, direct, and wise only at the risk of his position.

5. He has no standing in the community. Or, as one of our journals has it, "In a small village he is a man of some importance, but in a large city, the teacher has virtually no social standing."

These are the principal complaints, and there is some cause for them, except, perhaps, the last. If there is any circle in the city where a good teacher would not be held in honor both for his own and for his profession's sake, the discredit belongs to the circle, not the teacher.

Our great lack is a better organization of the whole teaching service, so as to keep out the incompetent, and to enable the competent to gain due promotion and reasonable emolument. this will be done, or the common school system will gradually decline in efficiency.

In an ideal state, teachers would constitute an order of nobility, and would consist of the very choicest of the inhabitants. chief business of each generation is to rear and educate the next, and civilization progresses when the best of the present generation does the greater part of the work for the next. How to bring the best minds to bear upon the mass of mind—that is the sublime problem of republican statesmanship.

Somany of our readers expect to become teachers that they may as well begin to think of these things.—Youth's Companion.

#### LANGUAGE.

The purpose of the lessons in language is to develop the power of oral and written expression, and can only be accomplished by abundant exercise in the use of language as the expression of thought. In the three lower grades, the work will mainly be done by the pupils while at their seats. The inspection and drill should be in connection with the reading exercises. The fourth grade is entitled to special time for this exercise, and the teacher should not fail to

so provide in arranging the programme.

The pupils have already learned the nature of declarative and interrogative sentences, and these terms may be given to them now. Teach the imperative and exclamatory sentence. Teach the pupils that what we talk about in a sentence is the subject, and that which we say about it is the predicate. Give a list of subjects, as fence, field, John, road, tree, Mary, carpenter, etc., and require the pupils to build sentences. The teacher should state the kind of sentence to be built, whether declarative, imperative, etc. Give a list of predicates, as run, play, sing, etc., and require certain specified kinds of sentences to be built. Give rows of promiscuous words to be arranged into certain specified kinds of sentonces. Teach the pupils to combine sentences by having them make two or more statements about an object, and then unite them in one expression. Continue the use of pictures by requiring the pupils to write stories about them. No doubt the pupils will at first, and for some time, require much assistance, which may be given chiefly by suggestive questions. As pupils advance, more particular descriptions may be brought out, and the wider play of the imaginaby suggestive questions. tion secured by judicious questioning. Read once or twice carefully to the pupils, a story or anecdote, and require them to reproduce it in their own language. A greatdeal of work of this character should be given. The reading should not be given at the time the should be given. lesson is assigned, but when the pupils commence to prepare the language lesson. Teach the pupils of this grade to write letters, and make letter-writing a frequent exercise through the entire The pupils should understand the meaning and use of the following parts of a letter heading, address, salutation, body, subscription. Teach the above parts, their position, punctuation, and the use of capital letters. Give the pupils drill in writing each part, appropriate for a business letter, a friendly letter, a letter to a brother, sister, etc. In requiring the pupils to produce entire letters, definitely specify the nature of the work. The following will serve as illustrations:-

1. Write a letter to your father, who is supposed to be away from teacher cannot speak his mind freely even on subjects relating home, stating three things that have occurred during his absence,

and saying that he (the father) is expected home on a certain day, and that the buggy (or sleigh) will be at the depôt of a certain place to meet him.

2. Write a letter to a schoolmate, describing a present received, asking the loan of a book, and stating that you will visit him on a

certain day.

3. Write a letter to your parents, describing your studies in school.

4. Write a letter to your cousin, inviting him, or her, to visit

you.

There is room for the teacher to exercise a great deal of ingenuity in designating the character of letters to be written. The pupils should be required to produce short compositions occasionally. assigning this work, definitely specify its character. Some attention may be given to technical grammar in the course of the year; but it should be remembered that the main object is to teach pupils the practical use of language. In considering the parts of speech and their properties, develop the ideas of pupils in reference to a new point, by conversation with them, and by written work on the black board. Lead the pupils to make their own definitions, as far as possible. The pupils' work outside of the recitation, should always be the preparation of some written matter to be brought to the next recitation for inspection and criticism.-W. A. Hosmer in Indiana School Journal.

## THE PRIMARY CLASS.

#### NUMBERS.

Counting .- First let the pupils be taught to count as far as ten, by using the numeral frame, pencils, their fingers, marks on the

blackboard and other objects.

Figures.—Teach the pupils to count out groups of objects to represent each number, and teach the figure that represents the group. Let the pupils count one ball, one finger, one mark, then learn figure 1. Then count in groups two balls, two fingers, two percils, two marks, etc., and learn figure 2. Now lead the pupils to see that two is equal to one and one, or two ones; that three is equal to one and one and one, or three ones, or two and one; that four is equal to four ones, or three and one, two and two, or two twos. Proceed in a similar manner to teach each number and figure as far as

To give the pupils additional exercises for learning how many objects each figure represents, let them count as many balls or other objects, or hold up as many fingers as the given figure represents. They may be allowed, also, to clap their hands three times for figure 3, four times for figure 4, and so on, as another mode of

showing that they understand the value of the numbers.

Figures in Groups.—Figures should be taught as symbols of numbers counted, and in groups corresponding to the forms by which the numbers are represented. The first group should contain the figures from 0 to 9; the second group from 10 to 19; the third group, 20 to 29, and so on to 100. Counting objects should precede each group, and extend beyond the highest number of the group. No succeeding group should be commenced until the pre-

ceding one has been thoroughly learned.

Adding.—The pupils may be taught to add balls on the numeral frame by ones; then to add figure is in a column on the blackboard; then to add a column of 1s on their slates. Subsequently teach them to add balls by twos; then to add a column of 2s on the blackboard: then on their slates. Proceed in the same manner with threes. Afterwards the pupils may be taught to add 1s and 2s in the same column; then is, 2s and 3s in the same column. A variety of exercises should be introduced by which the pupils will be required to add one to each number from one to twenty. As far as practicable, objects should be used by the pupils during the first steps of these lessons.

Subtracting.—By means of the numeral frame teach the pupils to count backward from ten, thus: 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0. Let them also learn, by the use of the numeral frame and of other objects, to take one from each number from one to ten, and to tell how many remain.

Reading and Writing Figures. - Care should be taken in the reading of Arabic figures from the blackboard, as far as 100, and the writing them on slates, as far as 20, that the instruction be given

well learned before a new one is presented. Mere rote exercises should not be allowed, either with or without the numeral frame. –N. Y. City Manual.

## HOW TO GET AN EDUCATION.

: 1. Resolve to have an education.

- "Where there is a will there is a way." Says Burke: "The lovers of wisdom will be wise." Matthews says: "If a person does not obtain an education, it is a proof that he did not intend to have one."
  - 2. Go to school if you can.

A person can learn better at school than he can at home. school, study is business. In study, method is everything. best teachers can show the best methods.

- 3. Use the spare moments of time, when not at school, in gaining information.
- "Elihu Burrit acquired a knowledge of eighteen languages by improving fragments of his time while working as a blacksmith."
- "Franklin became one of the wisest men of his age, by studying during the fragments of time, while engaged as a printer.

4. Give undivided attention when you study.

- "Genius," says Helvetius, "is nothing but continued attention." Dickens says: "The one serviceable, safe, remunerative, attainable quality in every study, is the quality of attention. My own invention, or imagination, would never have served me as it has but for the habit of patient, daily, toiling, drudging attention."
  - 5. Be thorough.

Sir Edward Sugden being asked the cause of his rapid rise in his profession, replied that "when he learned a thing once, he learned it forever.

Let no day pass without learning one new truth.

The largest fortune is made up of cents; the highest mountain is composed of grains; the widest ocean is formed of drops; the greatest store of learning consists in individual truths.

Do not get discouraged.

"A solid character is not the growth of a day. The mental faculties are not developed without long and laborious culture."

"No one knows how much he can do till he has tried."

It is not talent that men lack, but purpose.

8. The three steps in gaining an education are intention, attention, retention.

You must intend to get it; you must attend while getting it; you must retain as you get it

Dr. Arnold declared that "the difference in boys consists not so

much in talent as in energy."

Sir Thomas Fowell Buxton says: "The great difference between men, between the great and the insignificant, is energy, invincible determination, an honest purpose once fixed, and then death or victory."

J. A. Cooper, Principal State Normal School, Pa.

ORNAMENTING THE SCHOOL-ROOM.—A few cultured women employed as teachers in our country had, previous to the last year, introduced pictures into their school-rooms. So pleasing was the effect produced upon all parties interested, that I resolved last autumn to devise a plan of placing pictures in all the school houses of the county. As the plan succeeded so well and cost so little, I give it for the benefit of others who may feel an interest in I sent to the city for one hundred neat chromes, 10:12 inches, which cost only a trifle at wholesale prices, and I carried several of these with me wherever I went in my work of visiting schools. I proposed to present one of these pictures upon condition that the teacher and pupils would promise at least one more for their school-room. The proposal accepted, a committee of pupils, ladies and gentlemen appointed by the teacher, would make choice of a picture, which I then presented to the school. The interest in the picture flew in all directions, and in many places they in appropriate steps, that the numbers be arranged in such groups anticipated the Superintendent's coming by performing their part as will aid the pupils in learning them; also that each group be of the contract in advance. The method adopted to accomplish

this was as follows: The teacher furnished one picture, and gave permission to each family, sometimes to each pupil, to furnish one. In rural districts where pictures were not plenty, some pupils clipped them from magazines and almanacs. I was pleased to see, even in these cases, the ingenuity and taste in framing them, using as they did for this purpose wood, leather, paper, corn-stalks, shells, autumn leaves and ferns. In other communities cultivated mothers, yielding to the earnest appeals of their children, selected from the parlors their finest pictures and their purest mottoes for the school-room. These beautiful pictures and mottoes paid their cost in a single session. They strengthened in the pupils a love of he beautiful, a love of cleanliness, a love of order, and a love for their own school. The walls and windows of the school-room were kept clean and clear of cobwebs, and scrapers and mats were placed at the door. Cleanliness of person and neatness of attire is a marked characteristic of most of the teachers and pupils of our schools. The inspiration produced by asthetic culture has been caught by many of the less fortunate pupils, and is shedding sunshine into their humble homes.—Supt. Wade.

#### NEEDED REFORMS.

We should stop telling the boys that they are to become clerks, lawyers, doctors, preachers, judges, governors, congressmen, presidents, etc. Let them understand that these places are overcrowded now, and that the great majority of them, whether rich or poor, willing or unwilling, must earn their bread with their hands guided

In teaching spelling we may save time by teaching only such words as the pupils can and will use intelligently. Reading should be taught for its practical use in enabling the pupils to interpret the thought symbolized on the printed page rather than for elocutionary display. Penmanship should be taught by means of free movements, so that the pupil may be a rapid business writer before leaving school, and not required to spend the writing hour in mere imitation of copies with a slow finger movement. In arithmetic we may make it practical, and yet save much time, by leaving out in an elementary course such things as "casting out the nines," "arbitration of exchange," "circulates, or repretends," "finding the true remainder," etc.

Instead of so much technical grammar, let us teach composition and the practical use of language. In teaching geography, take less time for teaching unimportant details, and more time in teaching the sources and qualities of the raw materials used in manufactures. In testing a pupil's knowledge of an art, we should require him to do something, rather than ask him to tell how it should be done. In geometry, we can require pupils to solve problems with the ruler and compass, as well as to demonstrate. We can also show the application of this science to the making of working drawings. If these suggestions are heeded, we shall find some time for the natural sciences and drawing. These bring the student into contact with matter in form and substance. It is with the form and qualities of matter that we are all obliged to wage an unremitting warfare, and thus demonstrate our fitness to survive or to be crushed to dust. The preparation of food, raiment, and other necessaries and luxuries, requires the change of matter or qualities, or both. Hence, the sciences above named have pre-eminently a technical tendency.—S. S. Thompson, in the Educational News-

PROMOTION EXAMINATION PAPERS IN SOUTH ESSEX, MARCH 80th and 81st, 1881.

D. A. MAXWELL, INSPECTOR.

#### EUCLID.

FIFTH CLASS-TIME, TWO HOURS.

## Values.

Gleaner.

- 10 1. Enumerate the propositions employed in the 16th
- prop. Bk. I.

  2. ABC is an equilateral triangle; from D, the middle point of BC, DE is drawn perpendicular to AB; shew that BE is \(\frac{1}{2}\) of AB. 15
- 15 8. If the equilateral triangle described on one side of a triangle be equal to the equilateral triangles des-

cribed on the other two sides of it, the angle contained by these two sides is a right angle.

- 4. Prove either first or second part of Prop. 26, Bk. I.
- 5. If the right lines drawn from the extremities of the base of the triangle to meet the opposite sides, and 15 making equal angles with the sides, are equal, the triangle is isoscelos.
  6. Prove Prop. 6, Bk. I.

15

- 7. If one angle C of a triangle be equal to the sum of the other two, prove that the side AB is equal to twice the line joining C with the middle point of AB.
- 8. ABCD is a parallelogram, and EF the middle points of AD and BC respectively; show that BE and DF will trisect the diagonal AC.

#### ALGEBRA.

FIFTH CLASS—TIME, TWO HOURS

Values.

15

1. Represent the sum of

$$\frac{1}{x(x-y)(x-z)}, \frac{1}{y(y-z)(y-x)}, \frac{1}{z(z-x)(z-y)}$$

2. Simplify the expression 12

$$\frac{a-\sqrt{b}}{c+\sqrt{d}}, + \frac{a+\sqrt{b}}{c-\sqrt{d}}.$$

- $\frac{a-\sqrt{b}}{c+\sqrt{d}}, + \frac{a+\sqrt{b}}{c-\sqrt{d}}.$ 8. Investigate a rule for finding L. C. M. of two algebraic expressions.
- 4. If  $\frac{1}{b} + \frac{1}{c} = \frac{4}{a}$ , show that 13

 $(a+b-c)^3+2(b+c-a)^3+(c+a-b)^3=2(b+c)^3$ .

- 5. Prove the equation  $a^m \times a^n = a^{m+n}$  is true when m 12 and n are integral and positive.
  - 6. Factor  $a^{2m} 3a^mc^n + 2c^n$ .
- 7. Solve 12

$$\frac{4x+7}{4x+5} + \frac{4x+9}{4x+7} = \frac{4x+6}{4x+4} + \frac{4x+10}{4x+8}.$$

12 8. The sum of the digits of a number is 9; if the digits be inverted the difference between the two numbers is 9, find the number, the right hand digit being the greater.

#### WRITTEN ARITHMETIC.

FIRST CLASS-TIME, TWO HOURS.

#### Values.

14

1. Write in words, 206, 294, 180, 844.

- 2. Begin with 245, and write the next 6 numbers obtained 9
- by counting by 9. Find the sum of the 7 numbers. 8. A person bought 848 sheep from 8 farmers; he bought 122 from the first, 97 from the second; how many did he buy from the third?
  - 4. If two persons start from London and travel in the same direction, the first going 8040 miles, and the second going 1054 miles, how far is the one shead of the other?
- 5. Find the sum of \$28.10, \$96.25, \$71.89, \$32.56, and 15 \$67.48.
- 6. Paid \$6,428 for a farm, \$2596 less for a house, and 25 \$596 less than the price of the house for the furniture; what did all cost?
- 7. What numbers do IX., VI., XIX., XX., XVII. stand Б
- 8. Write figures for one hundred and ten, nine hundred 12 and ninety-nine, sixty-three, four hundred and two.

SECOND CLASS-TIME, TWO HOURS.

- 1. Write in words, 17017, 6048, 80090, 10010, 1100001.
- 10 2. A man bought a farm for \$7500; he gave in payment 26 horses at \$90 each, 30 cows at \$48 each, the balance to be paid in three equal payments. How many dollars will be in the last payment?
- 8. A person fed 45 cows by giving each one 12 lbs. of hay. 10 How many could he have fed by giving each one only 9 lbs. ?

- 10 4. If a person divide 4684 apples among 222 sheep, how many will each get?
- 5. If 24 men can do a piece of work in 25 days, in what time could they do it with the aid of 16 more men? 15
- 15 6. Bought 186 animals for \$8,508, and sold 98 of them at \$75 each and the balance at cost. How much did I gain?
- 15 7. Among how many families can 9,502 loaves of bread be divided so that each family will get 46 loaves, except one family which is to get 72 loaves?
- 20 8. Two travellers, A and B, meeting on a journey, found that the whole distance both had travelled was 8840 miles, and that A had gone 600 miles farther than B; each had travelled 27 days. How far had B gone per day?

THIRD CLASS-TIME, TWO HOURS.

- Fence boards being 12, 14, 16 feet long, what is the shortest fence that can be built exactly by each 10 kind of boards?
- 15 2. A and B are travelling in the same direction; they are 2 miles 18 perches apart. B gains on A 8 perches in 24 perches that A travels. How far must B travel before he overtakes A?
- 15 8. A person having 2496 bushels of potatoes, and desires to put them in pits holding respectively 12, 16 and 24 bushels, and having an equal number of each
- sized pits. How many pits altogether will there be?
  4. Define Multiple, Measure, Fraction, Denominator.
  5. A, B, C and D dine at a hotel; A and B each pay } 15 less than C, D pays 1 more than C; the bill is \$2.20. Find how much each must pay
- 6. Write avoirdupois weight and reduce 8,000 lbs. troy 11
- weight into owt., grs., etc., avoir.
  7. A block of land is 4 miles long and 8 miles wide. 10 What is it worth at \$25 an acre?
- 20 8. How many houses, each with a frontage of 22 ft. 4 in., can be built on a terrace having a frontage of 280 ft. 8 in., allowing for a roadway at each end of 12 ft. 8 in., and a space of 8 feet between every two houses?

FOURTH CLASS-TIME, TWO HOURS.

- 15 1. An army having lost 1 of its numbers in killed and wounded and 4,000 prisoners was reinforced by 8,000 men; it then lost 1 of its number and had 18,000 men left. Find original number
- 12 2. State the difference between pure and mixed circulat-What fractions are convertible into lecimals? Find the difference ing decimals. terminating decimals? between # and .9.
- 8. Three lines of paling run side by side for a distance of 15 150 yards. The upright posts are respectively 21, 31, 41 feet apart. How often can a person walking outside and looking across this line of paling see three posts in a line?
- 4. Define solar year. How does it differ from the common year? How is the confusion which would 15 arise from this difference obviated?
- 5. Find the cost of carpeting a room 18 ft. 6 in. long and 9 feet wide with carpet-27 in. wide, worth \$1.25 10 per yard.
- 6. If 4% of tea cost 28%c., what will 8% lbs. cost?
- 18 7. A can do as much work in 8 days as B can in 4 days, and B as much in 6 days as C in 5 days: in what time can C do as much work as A can do in 12 days?
- 10 8. Three times a certain number plus 10 equals four times the number minus 15. Find the number.

FIFTH CLASS-TIME, TWO HOURS.

- 1. Show that a number which will divide each of two others will divide their difference or their sum.
- 15 2. A buyer expended equal sums of money in buying oats, rye, and corn; he cleared 4 per cent. on the oats, 7 per cent. on the rye, and lost 8 per cent. on the corn; the whole amount received was \$8,000. How much did he invest in each kind of grain?
  - Daine Foreign Exchange, Intrinsic Par of Exchange, and Course of Exchange. Exprain what is meant 8 by the balance of trade being against a country.

- 4, Debentures are issued at 8 per cent. for 10 years for raising \$6,000, how much must be collected in tax each year to form a sinking fund to redeem the debentures, principal and interest at maturity?
- 5. What sum of money must be saved annually by a young man of 21 that when he is 50 he may have \$25,000, the money being invested at 6 per cent. 15 compound interest
- 6. A merchant made a mixture of wine at 28s. per gallon with brandy at 42s. a gallon: he found that by 20 selling the mixture at 35s. a gallon he gained 15 per cent. on the price of the wine and 20 per cent. on the price of the brandy. In what ratio were the wine and brandy mixed together?
- 9 7. Investigate a method for finding the cube root of a
- 8. The remainder in dividing any number by 9 is the same as in dividing the sum of its figures by 9. Prove this.

#### MENTAL ARITHMETIC.

FIRST CLASS-TIME, TWENTY MINUTES.

- 1. A farmer sold 20 bushels of peas, 80 bushels of turnips, and 40 bushels of barley; how many bushels did he sell?
- In one class there are 12 boys and 4 girls, in another 8 boys and 8 girls, how many pupils in the two classes?
- . 8. A boy had 90 cents; he paid 14 cents for candy, 25 cents for apples, and 80 cents for a book; how many cents had he left?
  4. Bought a sleigh for \$20, paid \$10 for a new box for it, and \$6
- for painting it. How much will be gained by selling it for \$86?
- 5. In one field there are 20 cows; in another field 5 less than in the first field; how many in both fields?
- 6. A boy bought 15 marbles; then one boy gave him 12, another and another enough to make up his number to 45; how many did the last boy give him?
- 7. Bought some eggs for 55 cents; how much will I gain if I sell part of them for 82c and the rest for 40c?
- 8. Suppose John is 26 years older than James, and William 4 years younger than John, which is the older, James or William, and by how much?

#### SECOND CLASS-TIME, TWENTY MINUTES.

- 1. It is 44 years since the rebellion in Canada, and 14 years since Confederation, how many years between the rebellion and Confederation?
- 2. If A earns 12 cents a day, B 15 cents a day, and C 20 cents a day, how many cents will the three boys earn in 5 days?
- 8. Bought a horse for \$80; gave in payment 6 tons of hay at \$9 a ton, and the balance in cash; how much cash was given?
- 4. A drover bought 28 sheep at \$3 each, and 5 cows at \$26 each, what did the whole cost?
- 5. Multiply 18 by 8, subtract 50, add 12, divide by 8, multiply
- by 7; what is the result?
  6. If 5 boys get 7 apples each out of 50 apples, and the rest be
- divided equally among 5 girls, how many will each girl get?
  7. If 20 sheep be bought for \$90, at how much each must they be sold that the buyer may double his money?
- 8. A man bought an equal number of pigs and calves for \$84. Each pig cost \$8 and each calf \$4; how many of each did he buy? THIRD CLASS-TIME, TWENTY MINUTES.
- 1. If a bin of oats will last 20 horses 10 days, how many horses must be taken away that it may last the remainder 20 days.
- 2. Divide 8 bushels of wheat into parcels containing 8 lbs., 4 lbs. and 5 lbs. respectively, so that there will be an equal number of parcels of each kind. How many parcels will there be altogether?
- 8. 4 sheep cost as much as 12 calves; one calf cost \$6. What will one sheep cost?
- 4. A horse was sold for \$90, which was n of his cost price. How much was lost?
- 5. How many dollars will 8 cwt. of flour cost if 25 lbs. cost 50c.? Find the cost of 81 lbs. cloverseed at \$5.40 per bush.
- 7. John has 45c, James 50c, and William 75c; what is the highest number of oranges each one can buy at the highest price that will allow each one to invest all his money?
- 8. Walter has \$1. Jane and Mary have each \$12. How much less has Walter than the two girls?

#### FOURTH CLASS-TIME, TWENTY MINUTES.

1. A fence paling is 8 inches broad and 4 feet long; if the palings

15

9

12

are 8 inches apart, how many boards 12 feet long and 9 inches wide will be required to make 60 feet of fence?

2. f of a class failed in grammar, f of the remainder failed in arithmetic, and the remainder 15 passed; how many in the class?

8. How many yards of carpet 24 inches wide are required to carpet a floor 18 ft. 9 in. long and 14 ft. wide?

4. What number increased by 1 of itself, and then by 3 of 1 of itself, gives 120 ?

5. Reduce 3 of 2 of a mile to the fraction of 4 of 8 of 8 miles.

6. A farmer exchanged 48 loads of wood, each containing 3 cord at \$4.50 per cord, for an equal number of bushels of potatoes at 55c a bushel, and of oats at 26c a bushel; how many bushels of each did he receive?

7. A drover paid \$5 a head for \ his flock, \$4 a head for \ \ the remainder, and \$6 a head for the rest; the flock cost \$810; how many sheep in the flock?

8. A person paid \$67 for sheep, giving \$5 a head for good ones and \$8 a head for poor ones; how many of each did he buy?

#### FIFTH CLASS-TIME, TWENTY MINUTES.

1. What is the time if 3 of the time past midnight plus  $1\frac{1}{15} = \frac{2}{3}$ of time to midnight?

2. The interest on a sum of money for a certain time is \$80, the discount for the same time is \$60; find the sum of money.

8. If a person walks at 4 miles an hour, and rides back at 6 miles an hour, how far may he walk that by riding back he may be gone 21 hours?

4. Sold ½ my goods at a gain of 80 per cent., ¼ at 28 per cent. gain, the balance at 16 per cent. loss; what per cent. on the cost was made by the whole transaction?

5. Two numbers are to each other as 9:16, and \ of their difference is 1/2 a third number; the sum of the three numbers is 185; find them.

6. The discount on a sum of money for a given time at a given rate is to the interest on the same sum for the same time and rate as 10 is to 11; find the rate.

7. If \$5 be the interest on \$30 for a given time and rate, what should be the discount off \$80 for twice the time?

8. The cubical contents of a box are 71½ ft., the depth is ½ the length, and the width ¼ as much again as the depth; find the dimensions.

#### GRAMMAR.

THIRD CLASS-TIME, ONE HOUR AND A HALF.

#### Values.

- 1. How do you know the word "spectators" has three syllables?
- 2. Define common and abstract nouns. Give examples. 3. What affixes are used to denote "feminine gender"?
  State the gender of lady, goose, ox, farmer, infant, 18

brother-in-law, witches. 4. Define preposition, pronoun.

5. Analyse, giving Gram. Sub. Comp. Gram. Pred. Comp. Extension. The sailor wrapped her in his cloak. What's that? Delighted with his present the child 25 ceased crying. By his keenness of scent he discovered the game. Once there were five peas growing in one pod.

6. Tell the parts of speech in the first sentence on page 17 157 III reader. (Write the words in one column, then opposite each word in another column write the part of speech.)

7. Write the future perfect indicative active of "Strike."

20 8. Write the correct form of each of the following sentences:

Neither John or James were there. Exercise is good for both you and I. Who did he tell the story to? He is the most happiest boy I ever saw.

FOURTH CLASS—TIME, ONE HOUR AND A HALF.

- 8 1. When are w and y consonants? When are they ?alawov
- 8 Define substantive pronoun, comparative degree, participle.
- 3. Give plurals of knife, dwarf, die, volcano, appendix.
- 4. What is the origin of the possessive case in 's? How is 5+2 the possessive formed when the word ends in s?

- 5. Analyse "The Jews would not tread upon the smallest piece of paper in their way, but took it up, for possibly, say they, the name of God may he on it."

  6 Parse the following: "And who is he that will harm
- 17 + 2you if ye be followers of that which is good?"
  Peter III 18.
  - 7. Write four rules of syntax and one sentence illustrating 16 each rule.
    - 8. Correct or justify the following giving reasons therefor: Any word that will conjugate is a verb. The two logs bound with a chain fell into the river. But she fell alaughing like one out of her mind. I had several men died in my ship of yellow fever. It could not have been her.

FIFTH CLASS-TIME, ONE HOUR AND A HALF.

1. How many parts of speech are there in English? Ex-6 plain the names they bear, and show how these names express their real character.

2. Mention nouns (1) that have no singular; (2) that have two meanings in the singular and one in the plural; (8) that have two meanings in the plural and one in the singular.

8. What is the difference in do in the following sentence:
"This will do," "I will do the work."
Criticise the following: "It is unfortunate that this

paper did not end, as it might have done, with the former period."

12 4. State the sequence of tenses.

Criticise:

"Some who the depths of eloquence have found, In that unnavigable stream were drowned."

5. Explain the die of the Present Indefinite Tense and of 10 the Past Indefinite Tense. 15

6. Criticise the following sentences, giving reasons either for justifying the construction or for correcting it: Whom do men say that I am?

I must use the freedom I was born with.—Massinger. Thou, Nature, partial Nature, I arraign.—Burns.
The province of Gaul seems and indeed only seems an

exception to this universal toleration. - Gibbon. "The ten first chapters of the book were interesting

very; the remaining was dull.

7. Analyse page 475, Bk. V. And there in mire \* \* \* unhorsed the Duke of Chaemont."—Shakespeare.

8. Parse "this," "space," "that," l. 2, "being," 1 4, "plays," l. 8, "as," l. 9, "thus," l. 10, "at," l. 11. 16

#### ETYMOLOGY.

FOURTH CLASS-TIME, ONE HOUR AND A HALF.

Values.

20

- 1. To the following words add prefixes denoting rest or motion before or after a place or point of time. Also give the primary and secondary meaning of the words arm, tell, past, chamber, physics, meridian, script, date.
- 2. State and illustrate by examples the changes the following prefixes undergo for the sake of euphony: 20 ad, ob, in, pre-

8. Distinguish between the uses of the affixes ary, ory, cr, 14 er, or; able, ible.

4. Give meaning of the following roots: give two deriva-20 tive from each with their meanings; the words given are not to be modifications of one another: ango,

facio, caput, dico, cor. 5. Analyse domicile, divination, increment, nonentity, 20 hostler.

FIFTH CLASS-TIME, ONE HOUR AND A HALF.

15

 Analyse eulogy, catarrh, energy, parallel, epitaph.
 Distinguish by their etymology, dissimulation from dissimilation, sanitary from sanatory. 16

8. State the origin of maudlin, meander, pander, sardonic, 20 sandwich.

4. State at least four ways in which words are introduced 20 into our language.

5. Form at least two words from each of the following 20 roots, giving the primary and secondary signification: stichon, ostern, horreo, jocus, tonor.

5th

6. Write a list of Anglo-Saxon affixes denoting the person who is or who acts. Write a list of classic affixes who is or who acts. denoting state, condition, quality.

#### LITERATURE.

TRIED CLASS-TIME, ONE HOUR.

Third Reader, Page 35, Pupils to have Books.

#### Values.

- 10 1. Give two meanings for order and shroud respectively. 10
- What is meant by "reduce sail?"
- 16 8. Write other words having the same sound as sail and heart, and give their meanings.
- 8)
- Point out errors in the second sentence.
   Why are the words "Fred Borders" written with capital letters?
- 10 6. When are such marks as are used before and after
- "man overboard" used?
  7. Write two verses of any piece of poetry you have 20 learned in the Third Reader.

#### FOURTH CLASS-TIME, ONE HOUR.

- 1. Tell what you know of the founding of "the North American Colonies." 28
  - Bk. IV, page 148—"As soon as the sundiscoveries.
- 15 2. Explain the meaning in which the following words are used in this passage: -colors, spectacle, expressed, naked sword, crucifix, voyage, issue, solemn, observe, crown.
- 8. "Whom the novelty of the scene had drawn together." What scene is referred to?
- 4. Write and give the meaning of all words pronounced like "martial."
- 5. In what year did Columbus discover America? Why 5
- was his name not given to the continent?

  6. Bk. IV, page 90—"Lines on the Death of Wolfe." 24 Render this selection into prose.
- 27 7. What is the difference in meaning between
  - peer the noun, and peer the verb,
  - rail rail " "
  - row row blow blow
  - 44 11 " bow bow 46 low low
  - chairman and charman,
  - palletless and paletteless, castor and caster.

#### FIFTH CLASS-TIME, ONE HOUR AND A HALF.

- 10 1. Distinguish between a Lyric poem and an Epic poem. Name a poem of each class.
- 2. Distinguish between a romance and a novel. Name a 15
- work of each and by whom written.

  8. Book V, page 422, 8, 4. To what kind of composition does this extract belong? 5
- 4. What figure of speech characterizes the extract?
  - Point out and expand any metaphors in the selection.
- 6. State chief political events in the time of Pope and Dryden. Scott's "Lady of the Lake" may be sub-30 stituted for the above.
- 1. Give a sketch of Scott's life. 15

10

- 2. Name some of his literary contemporaries and works
- written by them. 5+5 8. In what meter did he write "the Lady of the Lake!" Quote examples of epiphora, anaphora, exymoron, trope, canto V Stanzas 15 and 16
- 4+4 Point out personal metaphor, idoles, metonymy, epizeuxis.
- 10+25. Trace the following words to their origin:-invulnerable, tough, recrean, recreant, reclived, desperate, sheath, relaxing, heath, droadful, grasp.
  - 10 6. Quote examples from these stanzas to show how new words are formed.
  - -But-hate; state the effect of the dash and conjunction.

#### MOITIROUMOD.

#### SECOND CLASS-TIME, ONE HOUR.

- 1. Where should capital letters be used?
- 50 2. Write a short description of the "horse:"
  - 1st. State in what countries the animal is found.
  - 2nd. Describe its appearance. 3rd. Tell its principal uses.
- 80 3. From the following words write a sentence :dog, tail, legs, eats, bread, has, four, and, meat, the.

#### THIRD CLASS-TIME, ONE HOUR.

- 85 1. Write a short description of "Bread:"
  - (1) State its uses.
  - " varieties.
  - " preparation. "
- 2. Combine the following elements into one sentence: 80 The moon shone through the opening at the mouth of the creek.
  - I had entered the forest by this creek.
  - I darted towards it like an arrow.
  - I considered this the best means of escape.
- Correct where necessary: 15
  - Beter than grandure, beter than goald, than ranck or titls a hunderdfold, is a Helthful boddy, a mind at esc.
  - and simple plesurs that always pleas.
- 18 4. Write two declarative, two interrogative, and two imperative sentences.
  - Where should periods be used.

#### FOURTH CLASS-TIME, ONE HOUR.

- 1. Write a description of "gold": 25
  - State (1) its species, (2) its distribution, (8) its properties, (4) its uses.
- 2. Book IV, page 46—The officers 25 Rewrite this passage, substituting for the following words their meaning: concurred, opinion, authority, private, tumultuously, expostulated, tack, perceived, recourse, rekindle, zeal, expedition,
- extinguished, generous, sentiment.

  8. Write two complex declarative, two complex interrog-18 ative, and two complex imperative sentences.
- 12 4. State when the semicolon and the comma should be Write a sentence requiring a comma, a used. semicolon, and a mark of interrogation.
- 5. Write a letter of at least ten lines to a friend giving an 20 account of how you spent last Xmas. (Form, spelling, simplicity, conciseness, neatness, and
- punctuation to be taken into account.)

## FIFTH CLASS-TIME, ONE HOUR AND A HALF.

- 1. State the kinds or classes of prose and poetic compo-12 sition respectively.
- State the qualities of good prose composition.
   Define unity and clearness of style in a sentence, and 24 state at least three rules for preserving each.
- 4. Criticise Fifth Reader, page 255 (whole extract). I. What sentence marks transition from admiration
  - to sarcasm?
    - II. What figures are employed in the first two sentences? Are they consistent or congruous?

      III. What figure of construction in sentence three?
    - IV. What expression in sentence nine is inconsistent
  - with the lofty sentiment of the passage? V. What expression in sentence ten is epigrammatic?

    5. Write on the subject "Truthfulness," stating (1) A
- 20 definition of it, (2) its aspect, (3) its applications, (4) its effects.

#### WRITING.

- 1st class, Book I., part II., page 56 "Wicked.....homes."
  2nd "II. "127 "When he awoke...succeed." " " III., " 74 "Upon the banks...West." 8rd " 108 "In the year.......46,000."
  " 82 "In the suburbs ...people." " " IV., 4th
- Pupils are to have their Readers for this exercise, but the passage is to be written only once. Shading need not be marked for. Slope. uniformity in size and in proportion of letters to be considered principally.

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#### READING.

1st C	lass,	I.	Reader,	Part II.,	pp.	58, 59.
2nd	"	II.		_	^ñ	158-157.
8rd	44	III	. 44		**	89-98.
4th	66	IV.	. "		**	176-179.
5th	"	$\nabla$ .	<4		**	447-450.

#### SPELLING.

#### FIRST OLASS.

Harm, twirl, sport, blaze, whelm, bruise, scratch, snooze, speak, snug, back, deign, bounds, chase, truant, sleighs, spring, thumb, snatch, lessons, brothers, rogues, seize, growls, pretty-

Part II., page 6, from "It is God.....to.....path of sin."

SECOND CLASS.

Pretty, looking, hungry, although, scrabble, hiccough, wrong, grasp, injure, curious, providing, cantering, sentences, spectacles, kettle, sickness, pleasant, pursued, challenge, answered, beauteous, ceiling, ingenious, courtesyed, carraway.
2nd Reader, page 66, "A crow.....her bill."

#### THIRD CLASS.

Scoff, gnaw, razor, balance, gauge, corselet, wharfage, lozenge, pigeon, knuckle, puncheon, enfeoff, heifer, cautioning, pleasure, lawyer, resolved, experience, draughts, anxiety, assign, discouraged, rogue, manouvre, procedure.

3rd Reader, page 108, "Jacko's.....pest."

#### FOURTH CLASS.

Bicipital, bureau, parochial, quadrille, paralytic, illiterate, anchovy, posthumous, corrigible, chronicle, impugn, purlieu, escutcheou, foible, moiety, indefeasible, periphrasis, risible, icicle, ecstasy, etiquotte, subpoena, prescience, guitar, bazaar, catarrh.
Fourth Reader, page 25. "In one instance......curiosity. Fourth Reader, page 25.

#### FIFTH CLASS.

Diacresis, circinal, mnemonics, suppurate, accoutre, caoutchouc, phthysic, lexicographer, mysteriarch, alchymy, shrievalty, assafætida periphery, panegyrist, hyssop, indelible, vignette, mattress, plagiarism, battalion, embarrass, quinsy, tacitly, coddling, quean. "It was indeed......humanity." Fifth Reader, page 151.

Spelling and dictation are to be taken as one paper and valued at 100. Deduct 4 marks for each error. Throughout the whole work deduct one mark for each error in spelling.

#### LITERATURE.

#### FIRST CLASS-TIME, ONE HOUR.

First Book, part II., page 40: Pupils to have Readers.

- What is meant by "skim over the smooth ice?" 20
- 15 What are skates?
- 20 8. What is meant by "graze her shin?"
- 20 4. How was the poor man hurt?
- 80 5. Write a sentence having the words snow and house in

#### SECOND CLASS-TIME ONE HOUR.

#### Second Book, page 30, Pupils to have Readers.

- 10 What is a shipyard?
- What is meant by "hewing a piece of timber?" 15
- 20 3. What is the difference between piece and peace? 10
- 4. What is a wormy piece of timber? 5. Give the meaning of "She went to sea," and "she sprang a leak" 25
- 10 What caused the loss of this vessel?
- 18 7. Will any wrong act or sin be kept secret always?"

#### GEOGRAPHY.

#### SECOND CLASS-TIME, ONE HOUR AND A HALF.

- 12 1. What is a peninsula? Name the peninsulas of North America.
- 12 2. What is a cape? Name and give exact position of three capes in North America.
- 12 8. What is a strait? Give exact position of Belleisle, Behring, Florida.
- 4. In what county do you live? What lakes near it?
- 5. Name and locate the cities in Ontario. 18
- 8 Give the boundaries of Asia.

- 7. Draw an outline map of North America.
  - 8. Give the boundaries of the Atlantic Ocean.

THIRD CLASS-TIME, ONE HOUR AND A HALF.

- Name and locate three isthmuses in North America. --8 2. What river and hay separate New Brunswick from Quebec?
- 8. What rivers flow into Georgian Bay? 18
  - 4. Name the states of the U.S. bordering on the Atlantic Ocean.
  - 5. For what is Brazil noted?
  - 6. State chief products of Ontario and Nov. Scotia.
- 7. Draw a map of Ontario, marking the exact position of London, Hamilton, Toronto, Kingston, and Ottawa. 80
- 10 8. How are the West Indies divided?

#### FOURTH CLASS-TIME, TWO HOURS.

- 1. Name three most important ports in Peru. 6

  - Name the principal Bahama Islands.
     Name and locate chief mountain ranges in Asia.
- 12 4. State the boundaries of Turkey in Europe and name its chief cities.
- 12 5. State for what Rome, London, Constantinople, Greenock, Merca, and Havana are respectively noted. (To merely state they are the cities or capitals will be of no value.)
- 10 6. State the comparative sizes in square miles of Europe, America, and Asia.
  - 7. Name and locate chief volcanos in the world.
- 8. Draw a map of Europe west of a line drawn north from Cape Spartivento, marking chief cities, chief rivers, chief bays, and mountain ranges.

#### FIFTH CLASS-TIME, TWO HOURS.

- 12 1. Name and locate three canals in Europe and three canals in North America.
- 2. Describe the physical features of Australia.
- 3. Give a particular description of the British possessions 15 in Africa.
- 8 4. How far south does the Arctic ice drift in the Atlantic Ocean? State the cause of limitation in distance.
- 5. Classify islands according to their formation and give 9 examples of each class.
- 6. State the theory of earthquakes. Classify earthquakes.
- 24 7. Locate the following cities and state for what they are noted (To merely state any city to be a capital or chief city will be of no value) Madras, Toulon, Xeres, Merthyr Tydvil, San Salvador, Portland, Mocha, Koningsberg, Utrecht, Nijni Novgorod, Cairo.
- 15 8. Describe the climate and productions of France, Jamaica, California, Austria, Syria, and Palestine.

#### HISTORY.

#### THIRD CLASS-TIME, ONE HOUR AND A HALF.

## Values.

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- 1. Give an account of the discovery of America.
- 2. Name three French governors of Canada, and chief 15 events during their terms of office.
- 20 8. Give an account of the conflict between the French and the Iroquois.
- 4. State the constitutional changes effected in 1668, 1791, 24 1841, 1867.
- Give a short account of the rebellion in 1887. 12
  - 6. Give an account of the following battles: Thames, Queenston Heights, Lundy's Lane, La Cotto Mill.
- 7. Who were the United Empire Loyalists?
- 8. Who is the present Governor General of Canada, and 4 who the Lieutenant Governor of Ontario?

#### FOURTH CLASS-TIME, ONE HOUR AND A HALF.

- 9 1. What are Benevolences? In whose reign and why were they levied?
- 2. Name two great Charters of liberty to the British sub-12 ject, and state when they were signed and assented
- 5 8. Give the cause of the Spanish War in the reign of James I.

- 4. State the results of the great Revolution in England.
  5. What important results were secured in England.
  - through the desire of William III is conduct with France?
- 6. What causes led to Queen Anne's war? State results of that war.
- What were the two leading features of the Reform Bill of 1882?
  - 8. State at least six important events in the reign of Victoria.

FIFTH CLASS--TIME, ONE HOUR AND A MALF.

- Sketch the rise of the British Parliament to its present position of power and influence.
- State the origin of trial by jury as arranged in the reign of Henry II.
- 6 8. Define Scutage, Bill of Attainder, Bloody Statute, Solemn League and Covenant, Armada, Bill of Rights.
- 12 4. Name and give dates for the great alliances—offensive
- and defensive—made by Britain.

  5. State the cause of ill-feeling between William III. and his Parliament.
- 16 6. Sketch the rise of party government in England.
- State dates when the Welsh, Scotch, and Irish Parliaments were united to the English Parliament.
- 20 8. Sketch the rise of British power in India.

## General Information.

#### · TO BE GIVEN TO PUPILS BY THEIR TEACHERS.

#### TEACH THE BOYS ABOUT IT.

-Envelopes were first used in 1839.

1

- -The first air-pump was made in 1850.
- -The first steel pen was made in 1830.
- —Anæsthesia was first discovered in 1844.
- The first balloon ascent was made in 1783.
- The first lucifer match was made in 1829.
- -The entire Hebrew Bible was printed in 1488.
- The first iron steamship was built in 1830.
  Coaches were first used in England in 1569.
- -The first horse railroad was built in 1826-7.
- —Gold was first discovered in California in 1848.
- -The first steamboat plied the Hudson in 1807.
- -The first watches were made at Nuremburg in 1477.
- Omnibuses were introduced in New York in 1830.
   The first newspaper advertisement appeared in 1652.
- -The first copper cent was coined in New Haven in 1687.
  -Korosena was first used for lighting purposes in 1826.
- Kerosene was first used for lighting purposes in 1826.
  The first telescope was probably used in England in 1608.
- -The arst saw-maker's anvil was brought to America in 1819.

  The first use of a locomotive in this country was in 1829.
- —The first almanac was printed by Geo. von Purbach in 1460.

At home and at school the boys should be taught the natural effect of alcohol upon the processes of human First, they should be taught that it can add nothing whatever to the vital forces or the vital tissues—that it never enters into elements of structure; second, they should be taught that it disturbs the operation of the brain, and that the mind can get no help from it which is to be relied upon; third, they should be taught that alcohol inflames the baser passions, and debases the feelings; fourth, they should be taught that an appetite for drink is certainly formed in those who use it, which destroys the health, injures the character, and, in millions of instances, becomes ruinous to fortunes, and to all the high interests of the soul; fifth, they should be taught that crime and pauperism are directly caused by alcohol. So long as \$2,000,000 are daily spent for drink in England, and \$2,000,000 per day in the United States, leaving little else to show for its cost but diseased stomachs, degraded homes, destroyed in-

dustry, increased properism and aggravated crime, the boys should understand the facts about alcohol, and be able to act upon them in their earliest responsible conduct.—Parish Magazine.

CHILDREN POISONED WITH TOBACCO.—In one of the schools of Brooklyn a boy thirteen years old, naturally very quick and bright, was found to be growing dull and fitful. His face was pale, and he had nervous twitchings. He was obliged to quit school. Inquiry showed that he had become a confirmed smoker of cigarettes. When asked why he did not give it up, he shed tears and said that he had often tried, but could not. The growth of this habit is insidious. and its effects ruinous. The eyes, the brain, the nervous system, the memory, the power of application, are all impaired by it. "It's nothing but a cigarette" is, really, "it is nothing but poison." German and French physicians have protested against it, and a convention of Sunday and secular teachers was recently held in England to check it. It was presided over by an eminent surgeon of a Royal Eye Infirmary, who stated that many diseases of the eye were directly caused by it. Teachers, save the children from this vice if possible! Do not allow them to be deceived. years they will rise up and bless you for it.—Christian Advocate.

The "Challenger," on its voyage, studied the sea bottom. It appears that on the surface, and at every successive depth below, there is life; as the creatures die, their remains fall to the bottom; where they are the appointed food of other creatures. At a depth of several miles, the "Challenger" found and brought up a creature seven feet high.

Many of the creatures at these depths are more or less phosphorescent. Water is the chief ingredient of life. It is the food, the blood, and the strength of these poor creatures—far more than the constituents of our own physical frames. It is water alone, inside, that can withstand the pressure of two and a half tons to the square inch, a pressure that will crush beams of pine wood as if they were passed through rollers; but that has no effect on sponges, mollusks, and even lighter creatures, that almost disappear in the air and sunshine.

WHAT IS A COLD ?-To enjoy life, one must be in good health; and to remain free from disease is the desire of all. Yet there are some ailments which do not interfere very much with the pleasures of life, and therefore are not dreaded in consequence—nay, more they are frequently treated with neglect, although in many instances they are the precursors of more serious disorders which may, in not a few cases, have a fatal termination! How often, to the usual greetings which one friend exchanges with another, is the reply given, "Very well, thank you, except a little cold." A little cold, and yet how significant this may be! In how many cases do we find a "little cold" resembles a httle seed, which may sooner or later develop into a mighty tree! A little cold neglested may, and frequently does, prove istelf to be a thing not to be trifled with. Let me, then, pray my readers to remember that small beginnings, in not a few instances, have big endings, and this especially where disease exists. Let us, then, consider what is a common cold.

In the first place, we must be paradoxical, and affirm that it is not a cold at all. It is rather a heat, if I may so express myself,—that is, it is a form of fever, but, of course, of a very mild type when it is uncomplicated by any other disease. It is certainly, in the majority of instances, due to the effects of cold playing upon some portion of the body, and reacting upon the mucous mem-

brane through some intervention of the nervous apparatus. What orbit that the results of modern politeness render it next to absolute is called a cold, then, is, in reality, a fever; and though in the majority of instances it is of such a trivial nature as to necessitate few precautions being taken during its attack, yet in some cases it runs a most acute course, and may be followed by great prostration. Even when the premouitory symptoms of a cold are developing themselves-when, for example, what a medical man calls a rigor, or, as it is popularly designated, a shivering is felt-when we would naturally suppose that the animal temperature is below par, it is at that very momer higher than the normal, thus showing the onset of fever .- F om Popular Science Monthly for April.

OUTDOOR AIR AND EXPROSE. -- But the surest of all natural prophylactics is active exercise in the open air. Air is a part of our daily food, and by far the most important part. A man can live on seven meals a week, and survive the warmest summer day with seven draughts of fresh water, but his supply of gaseous nourishment has to be renewed at least fourteen thousand times in the twenty-four hours. Every breath we draw is a draught of fresh oxygen, every emission of breath is an evacuation of gaseous excrements. The purity of our blood depends chiefly on the purity of the air we breathe, for in the laboratory of the lungs the atmospheric air is brought into contact at each respiration with the fluids of the venous and arterial systems, which absorb it and circulate it through the whole body: in other words, if a man breathes the vitiated atmosphere of a factory all day, and of a close bedroom all night, his life blood is tainted twenty-four thousand times in the course of the twenty-four hours with foul vapors, dust, and noxious exhalations. We need not wonder, then, that ill-ventilated dwellings aggravate the evils of so many diseases, nor that pure air should be almost a panacea.

Outdoor life is both a remedy and a preventive of all known disorders of the respiratory organs; consumption, in all but the battle ground from the sick-room to the wilderness of the next Asthma, catarrh, and tubercular phthisis aro mountain range. unknown among the nomads of the intertropical deserts, as well as among the homeless hunters of our northwestern territories. Hunters and herders, who breathe the pure air of the South American pampas, subsist for years on a diet that would endanger the life of a city dweller in a single month. It has been repeatedly observed that individuals who attained to an extreme old age were generally poor peasants whose avocations required daily labor in the open air, though their habits differed in almost every other respect; also that the average duration of life in the various countries of the Old World depends not so much on climatic peculiarities or their respective degrees of culture as on the chief occupation of the inhabitants, the starved Hindoo outlives the well-fed Parsee merchant, the unkept Bulgarian enjoys an average longevity of forty-two years to the West Austrian citizen's thirty-five. - From " Physical Education," by Dr. Felix L. Oswald, in Popular Science Monthly for April.

How the Ancients Measured a Day.—The first and most obvious division of time is a day—the time required for a revolution of the earth upon its axis-which could not have been a very difficult matter to ascertain with sufficient correctness. But to mark and fix the time of the sun's apparent revolution through the heavens among the stars was a matter of so great difficulty that it was

ly certain the? the time of orbital revolution has never been varied even the fraction of a second. In the infarrey of astronomy, many ingenious expedients were adopted to ascertain this and other matters connected with the times and motions of the planets and other heavenly bodies, one of which may be mentioned even at the risk of tediousness To ascertain the exact time of the revolution of the concave of the heavens, two vessels were placed over each other, the upper filled with water, the lower empty. At the moment of the appearing of a certain star the water was permitted to flow from the upper into the lower vessel, and the flow was continued until the same star appeared the next night, when the flow was stopped. The whole concave of the heavens had then made one revolution. The water which had flowed out during this time was then divided into twelve equal parts, and on the following evening they repeated the operation, filling successively six of these vessels, and noting carefully what stars rose above the horizon during the time required to fill each of them. Each group of stars which rose during the time of filling one small vessel was called a station or house of the They then postponed operations upon the other half of the heavens for six months, when they repeated it, and thus divided the path of the sun through the whole heavens into twelve divisions, to most of which they gave the names of certain animals; hence the term zoduce, the propriety of which could have been seen only by the fertile fancies of the childhood of the race. anciert method of dividing and naming the constellations is to us utterly absurd, and is really a hindrance to a knowledge of the stars. -From the "History of Chronology," by Professor E. S. Burns, in Popular Science Monthly for April.

## Notes and News

#### ONTARIO.

The Oshawa High School was visited by Dr. J. A. McLellan, H. last stages of the deliquium, can be conquered by transferring the S.I., who spoke very highly of it. He expressed much satisfaction at the tone and discipline of the school, and complimented the pupils on the excellent examination they had passed in all the subjects he had examined in. This must be extremely gratifying to the he had examined in. Head Master, Mr. Tamblyn, and his assistants, as it reflects much credit on their assiduity and ability.

We are continually hearing most favorable reports of the condi-

tion and efficiency of the Separate Schools in Lindsay, under the superintendence of Father Stafford. His learned, energetic and vigilant influence is exerted constantly in their behalf, and in con-

sequence they are second to none in the Province.

We learn that Mr. J. Frith Jeffers, M.A., one of the most popular and successful Collegiate Institute Principals, has been appointed to an office on the Midland Railway, and we understand that the position is financially much better than the principalship he resigned It is evident that a Board of railway directors is at Peterboro'. better able to discern ability, and more inclined to pay for it, than some of the school boards we have lately heard of.

Mr. A. B. McCallum, M.A., Head Master of the Listowel High School, has been made the recipient of a congratulatory address by his pupils on the occasion of his having the M.A. degree conferred on him at the Queen's University, Kingston.

Mr. O'Connor, H.M. Owen Sound High School, at a recent meeting of the School Board, tela the Trustees that about 100 scholars of that town and neighborhood desired to try for Intermediate and Entrance examinations.

We hear that changes are about to be made in the management of the Upper Canada College. Three of the masters have already resigned, and it is rumored that the Principal's salary will be greatly reduced.

A complete change is about to be made in the staff of Galt Collegiate Institute, for what reason we are not fully aware. The masters, Dr. Tassie, Mr. Murray, and Mr. Chase have the reputavens among the stars was a matter of so great dimentity that it was not exactly ascertained even at the time of the reformation of the Mr. J. E. Bryant, M. A., late of Pickering College, has been apcalendar in 1582; yet so uniform is the motion of the earth in its pointed to succeed Dr. Tassie as Principal.

#### NOVA SCOTIA.

The second annual meeting of the Annapolis County Teachers' Association was held at Bridgetown on the 28th and 29th of April. The Association was prosided over by L. S. Morse, Esq., A.M., Inspector of schools for District No. 4, with E. J. Lay, Esq., as vice-president, and J. M. Longley, Esq., A.B., as secretary-treasurer. Mesars. A. D. Brown, S. C. Shafner, H. Munro and J. H. Crosseup, constitute the executive committee. Papers were read by Mr. Lay on "The Time Table," Mr. A. D. Brown on "Reading," Mr. H. Munro on "The Teaching of Elementary Grammar," Mr. W. H. Fairn on "Arithmetic," Mr. S. C. Shafner on "School Government," Mr. J. H. Crosseup on "The Rewards of the Teacher," and Mr. M. L. Fields on "Method." The above subjects were all presented in a highly able and practical manner, and nothing could exceed the interest with which they were discussed by the seventy teachers present. The public educational meeting on the evening of the 28th was addressed by E. J. Lay, Esq., who delivered a very interesting and elequent lecture on "Wonders outside of Wonderland." Short speeches were also given by the president, Mr. Morse, and by the Rev. Mr. Warren. Before adjourning, the Association voted to change its title to "The Teachers' Association of District No. 4."

The second annual meeting of the Teachers' Association for Cumberland County was held at Amherst on the same days as the above. Nearly fifty enrolled members were in attendance and the proceedings throughout were enthusiastic and encouraging. Inspector McKenzie presided with tact and efficiency. Mr. C. F. Hall of Amherst Academy acted as vice-president and Miss Logan as secretary. Papers on reading, arithmetic and spelling, or rather on the proper methods of teaching these subjects were read by Mr. Ward, Miss Archibald, and Mr. Wyllie respectively, on "Irregular Attendance" by Mr. Rockwell, and on "Compulsory Education" by Miss Logan. The question box, as well as the papers referred to elicited much earnest and profitable discussion. Among the teachers who participated actively in this may be mentioned Messrs. Smith (of Antigonish Co), Slade, Wyllie, Hutchison, Ward and Hall. Professors Hall and Eaton, of the Normal School, were present at Friday's session and contributed in a marked manner to their interest and profit. The Superintendent of Education, Dr. Allison, arrived on Thursday p.m. and remained till the close. A very largely attended public meeting was held in the Music Hall on Thursday evening. Er. Allison's address was listened to with attention, and short speeches were made by Rev. Mr. Steele, Hon. Hiram Black, and Mr. W. F Cutler. Though the Academy is at present in a very efficient condition, the proceedings of the Association were well calculated to give a fresh impetus to the cause of education in the vicinity. Its effects will indeed be felt throughout the county.

The Easter examination at St. Francois Xavier College. Antigonish, took place from the 2nd to the 12th of April. Mr. Augus Chisholm and Mr. John McDougall, having completed the course in arts and undergone with marked success the necessary examinations, were duly graduated as Bachelors of Arts. Mr. Chisholm secured a provincial academic license at the annual examination in July last. The pass and prize lists indicate a very successful year's work.

The annual convocation of Dalhousie College was held in the Legislative Assembly room on the 27th of April. There was a large attendance. Very Rev. Principal Ross presided. Professor Mc-Bonald, secretary of the Faculty, read the list of graduates, general and special prize-men, pass-men, &c We furnish the names of graduates and prize-men:—

names of graduates and prize-men:—

Graduates, B. A.—H. G. Creelman, Stewiacke; Alf. Costly, Halifax; W. M. Macdonald, Halifax; J. A. Sedgewick, Musquodoboit; W. H. Spencer, Londonderry. B. A. honours of the second rank in mathematics and physics: Hugh Graham Creelman. Prize list.—Classics: 4th year, J. A. Sedgewick; 3rd year, J. S. Trueman; 2nd year, J. A. Bell; 1st year, (1) J. P. McLeod; (2) H. S. Adams. Mathematics: 2nd year, A. G. Reid; 1st year, (1) J. P. McLeod; (2) H. Elliott. Optics and Astronomy: H. G. Creelman. Physics: G. S. Carson. Ethics: T. Stewart. Metaphysics: (1) W. M. Fraser, B. Sc.; (2) Geo. M. Campboll. Logic: J. W. McLonnan. Chemistry, organic: A. G. Reid; inorganic: H. Dickie. Geology: A. G. Cameron. Zoology: J. A. Moran. French: 4th year, T. Stewart; 3rd year, H. Mellish. Rhetoric: J. P. McLeod. German: A. G. Reid. Special prizes.—The St. Andrews' Prize: J. A. Macdonald. The Elocution prizes: (1) J. E. Forsyth; (2) E. M. Dill. The Waverly Bursary: J. A. Bell. The Governor-

General's Gold Medal: H. G. Creelman. The valedictory oration was pronounced by Mr. H. G. Creelman, B. A., after which the Hon. Mr. Holmes delivered an eloquent address, when the convocation was dismissed.

We have to record the death on the 21st of April, of Mr. Alex. McKinnon, Esq., ex-inspector of schools for District No. 7. The deceased gentleman, who retired from office last autumn, under the pressure of severe illness, secured and retained the esteem of a large circle of friends in Eastern Nova Scotia and Cape Breton. He was a native of Pictou county. In 1862 he entered St. Francois Kavier College, Antigonish, where he studied till 1867, when he removed to the Seminary of St. Sulpice, Montreal, with which he was connected as a student for two years. In 1873 he was appointed inspector of schools for the county of Cape Breton, and in 1880 was placed in charge of the enlarged district comprising Cape Broton and Richmond counties. The Sidney Express refers to the respect paid to his memory by the large concourse representing all classes and all creeds attendant upon his funeral ceremonies.

A shadow was cast over the Provincial Normal School by the death of Miss Janio Fraser of Pictou, a few days prior to the close of the winter session. Miss Fraser was a very successful student, cherishing intellectual ambitions perhaps too large and high for her physical strength.

The following is the report of the High School Department of Lunenburg Academy, for the winter term, 1880-81, for attendance: Prizes, Ada Morash, Mary Acker, Bessie Dares, Ida Sılver, Bertha Smith, Bella Beck, Susie Hebb, Maggie Emino. (These eight pupils were present every session of the term. Ada Morash received a copy of Longfellow's Poems as a special prize for having been present every session of the past three terms. The others received copies of Owen's Chronographical Chart of General History. These prizes were awarded at the close of the Public Examination, April 20th.) The percentage of the thirty enrolled pupils daily present on an average for the whole term was 869, the highest the department has ever had. The total number of "tardy" marks was 41. The percentage of the twenty-six pupils present at the Public Examination was, for the full term, 946. The percentage of their department was over 98! E. H. Owen, Esq., is Principal.

#### MANITOBA.

Our local legislature now in session have had under consideration the School Bill: the second reading is now in progress. In the course of the debate, the Premier and other members spoke in high terms of the excellence of the work done by the Board of Education. The hon. Senator Girard, Provincial Secretary, said, amongst other things, that the superintendents of both sections, but especially the one for the Protestant section, as he had a larger field, had distinguished themselves by their zeal in the cause of education. The latter had been continually travelling through the province explaining the school law, &c., and had done good work, and the completeness of the educational work of the province was, in great part, due to his efforts.

As soon as our provincial income had been settled to correspond with our increased responsibilities, we hope, amongst other things, to make provision for the training of our teachers; to supply the link between the present public schools and the university, which the different colleges have provided in a most admirable manner up to the present time without any State aid; and to secure a legislative grant for the University of Manitoba out of which to provide scholarships, similar to those that are offered by Toronto

The attendance in the Winnipeg schools has greatly increased during the present term, and the two departments at Portage la Prairie are so crowded that it is in contemplation to open another school forthwith.

## Beadings and Becitations.

#### SIXTEEN AND SIXTY.

Old grandma sits in her oaken chair, And in flies Bessie with tangled hair. "I'm going to be married, oh, grandmamma! I'm going to be married. Ha, ha! ha, ha!"

Old grandma smooths out her apron string: "Do you know, my dear, 'tis a solemn thing?"

"'Tis more solemn not to, grandmamma. I'm going to be married. Ha, ha! ha, ha!"

Then grandma looks through her sixty years, And sums up a woman's hopes and fears: Six of them living and two of them dead; Grandpa helpless and tied to his bed.

Nowhere to live when the house burned down: Years of fighting with old Mother Brown; Stockings to darn and bread to bake, Dishes to wash and dre ses to make.

But then the music of pattering feet, Grandpa's kisses so food and sweet, Song and prattle the livelong day, Joy and kisses and love alway.

Old grandma smooths out her apron string, And gazes down at her wedning ring. And still she smiles as she drops a tear: "Tis more solemn not to. Yes, my dear."

-Harper's Weekly.

#### THE TEACHER.

I saw a teacher building slow,
Day after day as passed the years,
And saw a spirit temple grow
With fear, and hope, and often tears;
A mystic palace of the soul,
Where reigned a monarch half-divine,
And love and light illumed the whole,
And made its hall with radiance shine.

I saw a teacher take a child,
Friendless, and weak, and all alone,
With tender years, but passions wild,
And work as on a priceless stone.
Out of the rude and shapeless thing
With love, and toil, and patient care.
I saw her blest ideal spring—
An image pure and passing fair.

Upon a canvas ne'er to fade
I saw her paint with matchless art.
Pictures that angels might have made
Upon a young and tender heart;
And growing deeper for the years,
And flowing brighter for the day;
They ripened for the radiant spheres.
Where beauty ne'er shall pass away.

Teacher! Farewell! For all thy care,
We long shall love thy cherished name;
For all thy toil we give a prayer,
For all thy love we give the same.
Farewell! Be thine the happy years,
And thine the Hope, and Faith, and Trust.
That when the dawn of Heaven appears,
Thy crown may shine with all the just.

-By Wm. Oland Bourne.

#### LIZZIE DEANE'S BABY.

BY M. E. H. EVERETT.

A cry of horror went up one day.
When the ground with snow was white,
For Lizzie Deane's baby had frozen and starved
On its mother's breast at night
And not in the dreary Western wilds,
And not on the bleak East shore.
But here in our proudest city's street,
And close to the rich man's door.

Poor Lizzie Deanc's baby was clasped all night To its mother's empty breast. And folded close in her faded rags By her thin cold arms was pressed. All night, in her bitter grief, she saw
The red lamps glare through the gray,
But the pitying stars she could not see,
For the clouds shut heaven away.

And long, when the happy children play
By the cozy fire at night,
And the mother rocks her own little babe,
All robed in its dainty white,
By many a hearth shall the tale be told,
With a long and dreary sigh,
How Lizzie Deane's husband, crazed with drink,
Turned his babe in the street to die.

## 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.

Frontenac.—The Association met at the Court House, Kingston, on the 28th and 29th April. The chair was taken by the President, Prof. Dupais, of Queen's. After rontine business on Thursday, the Rev. D. Mitchell, of Belloville, gave an address on "The Duties and Responsibilities of the Teacher" He was followed by Prof. Fowler, of Queen's, who took for his subject, "Plant Life as a means of Culture." After passing votes of thanks to Rev. Mr. Mitchell and Prof. Fowler, the Association resoived itself into a committee of the whole for the purpose of discussing the proposed changes in the Superannuation Fund. About one-half of the circular had been discussed when the time for a tjournment arrived. In the evening, the Rev. Dr. Bell, of Walkerton, gave an address to the teachers and their friends. On the Association resuming on Friday, Mr. S. Lyon gave a valuable paper on Topographical Map-drawing, showing some fine work done by pupils in illustration of his method. He was followed by Prof. Watson, of Queen's, one of the new members of the central committee, who urged on all teachers the propriety of always having some subject of study on hand; he then gave an introductory tesson on Logic. Prof. Watson received a hearty vote of thanks. The Question Drawer was then opened, and answers were given by the members of the committee. In the afternoon, the discussion on the Superannuation Fund was finished. The following alterations were proposed in the circular issued by the Legislative Committee of the Provincial Association: Male teachers to be sllowed to retire a fifty, or after 30 years' service, females at forty-five, or after 25 years' service; one-fiftieth of the average salary to be the rate of pension instead of one-sixtieth; and, on the death of a teacher, all money pad by him into the fund to be returned to his widow, or next of kin, with interest at five per cent. per annum. The following officers were elected for the ensuing year:—President, Prof. Dupuis, Vice do., Dr. Agnew, I. P. S.; Secretary-Treasurer, Mr. He

J. W. HENSTRIDGE, Secretary.

ELGIN.—The most interesting and profitable session ever held by this Association took place on May 12th and 13th, at the Collegiate Institute, St. Thomas. A report from the committee appointed to arrange with the manager of the Canada School Journal was read by Principal Millar, showing that every member of the Association was furnished with a copy of the Canada School Journal, paid by the funds of the Association. The following resolution was carried: "That in the opinion of this Association, the proposed changes in the law relating to Superannuation are in the main desirable, but this Association is moreover emphatically of the opinion that it should be optional with all to contribute to the fund or not, as they please, and that no teacher should be forced to make any contribution thereto. Principal Millar and R. C Inglesby were read by Norman McDonald, Misses Sinclair and Hickcox on the following subjects respectively, "English Literature," "Advantages to Girls in having Teachers of their own Sex," and "The Duty of Teachers to the Profession." The Association requested the essays should be published. As usual, many valuable hints and suggestions were given by Messrs. Millar, Butler, Inglesby and others during the discussions on the various subjects taken up. But "the life and light" of the meeting was G. W. Ross, M.P.P. Either to enlarge on the ability of Mr. Ross or give even an outline of the work done there by him would not do him justice, as he is a "whole host" in himself. Suffice it to say that his lectures on "Mistakes in Reading," "Intellectual Forces," and "The Ten Commandments" were pregnant with ideas, and had a very beneficial influence on all who heard him, as he has a wonderful store of genuine magnetism in him, and never fails to arouse and carry his audience in pleasant paths of interest and instruction.

East Vioronia.—The seventh semi-annual meeting of this Association was held in the High School, Omemee, on the 13th and 14th ult. The attendance on the first day was large. Mr. J. Shaw, M.A., president, opened the proceedings with an address bearing upon the teacher's practical work and his fitness for the profession, dwelling particularly on the benefits to be derived from studies in language, literature, and science. Mr. W. E. Tilley, M.A., H. M. Lindsay High School, moved a vote of thanks to the president for his excellent address, and requested him to allow it to be published in a local newspaper. Mr. J. H. Knight, I.P.S., seconded the motion, which was passed with applause. In the afternoon Mr Seymour, of Lindsay High School, took up "Geography," and treated the subject in a manner that won the approbation of the members. He showed in an interneting manner than the start is the subject to the subject of the su showed in an interesting manner how it may be taught to very young scholars, beginning with local places and extending till it comprised a full knowledge of the subject as the pupils became more advanced in class. Mr. M. Harrington illustrated his plan of teaching per centage to a class; some of the members present acting the part of pupils. These two subjects were then discussed in order by Messrs. Armour, Hickson, Knigh, I.P.S., Balfour, Ingram, Sherwood, McMarchy, R. Junkin, Tilley, M. A. Carethese, I. Junkin, Tilley, The physical of Mr. M.A., Carruthers, J. Junkin, and the president. In the absence of Mr. I. Reazin, I.P.S., West Victoria, who could not attend, Mr. J. H. Knight, I.P.S., led the discussion on the Superannused Teachers' Fund, as submitted in the circular of the Legislative Council (published in April number of Canada School Journal). In taking up the clauses seriatim, Mr. Tilley proposed, and Mr. Armour seconded, that the fund be retained, the name being immaterial. Mr. McMurchy moved, and Mr. Ingram seconded an amendment to the effect that it be discontinued. On being put to the meeting the amendment was carried and further discussion stopped. The president remarked that the proceeding was unworthy of the association, as their opinion would not abolish the fund, but their action would make them ridiculous in the eyes of other associations.

The following were appointed a committee of nomination:—Messrs.

Knight, Junkin, Sherwood, Head, and Irwin In the evening a meeting was held in the Bradburn Hall, presided over by Dr. Norris, Reeve of the county. An address on the "Duties of Trustees" was given by Mr. J. H. Knight, I.P.S. He handled his subject with much ability, showing some of the difficulties and responsibilities of the office He advised the policy of re-engaging a good teacher at his present salary rather than run the of re-engaging a good teacher at his present salary rather than run the risk of getting an indifferent one for a few dollars a year less; and he strongly deprecated a growing spirit of false economy, which must have a baneful effect on future education. In the course of his address he gave some excellent practical hints, which showed his thorough knowledge of school work. Mr. J. Shaw, M.A., president of the Association, read an admirable essay on "Prosody." He was followed by Mr. J. L. Robertson, of the Canada School Journal, who gave a short address on "Teaching in Ireland, Past and Present;" after which, on the motion of Mr. Knight, seconded by Mr. Graham, a cordial vote of thanks was given to the chairman. On the proposition of Dr. Norris, seconded by Mr. Graham, a hearty vote of thanks was passed to the speakers, and the meeting was closed. After assembling on the second day at 9 a.m., the "Question Drawer" was answered by Messrs Knight, Armour, McMurchy, Seymour, J. L. Robertson, and Lee. The nomination committee gave in their report, which, after some slight alteration, was adopted as follows:—President, Mr. Armour; First Vice, Mr. W. E. Tilley; 2nd, Mr. Harrington; Secretary, Mr. J. H. Knight; Treasurer, Mr. Irwin; Librarian, Mr. McMurchy; Committee of Management, Miss Holtorf, Messrs. J. Junkin, J. Shaw, and G. A. Sherwood. Some dissatisfaction having been expressed, and G. A. Sherwood. pressed at the shutting down of the Superannuation Fund discussion the previous day, Mr. McMurchy rioved that it be reconsidered, seconded by Mr. Irwin, and carried. 'The following resolutions were then passed:—" Whereas the Teachers' Association for East Victoria had expressed the opinion that the Teachers' Superannuation Fund should be discontinued, at the same time we are of opinion, if the said fund should be retained, that-1st. The payments should be optional on all teachers and inspectors. 2nd. That the sum to be paid should be in all cases 44 each per annum. 8rd. If public school teachers are compelled to contribute to the fund, the same obligation should rest on the teachers of High and Separate schools, also on High and Public school inspectors. 4th. It should be optional with teachers to retire at the age of 55, or after 21 years' service." Mr. G. A. Sherwood then read a very interesting and instructive essay on the "Literary Requirements of the Present Age," and after transacting some routine business the Convention adjourned.

Lincoln.—This Association met at the Central School, St. Catharines, on Friday and Saturday May 20 and 21. Mr. J. M. Buchan, M.A., H.S. Inspector, conducted a Teacher's Institute on the subjects of English Grammar, English Literature and History. On Friday evening Mr. Buchan delivered his lecture on "Poetry and Politics." Mr. Eckert, of London East, took up the subject of Writing. Mr. Geo. W. Ross, M.P.P., happening to be present, delivered a humorous but instructive address on the teacher's Ten Commandments, and also a short one on School Management. J. B. Somerset, Esq., P.S. Inspector for Lincoln, read a paper on Practical Aids to Teachers' Work. The proposed changes in the

Superannuation Fund were taken up, but after considerable discussion it was found impossible to arrive at any definite conclusion, and the matter was dropped.

Special Meeting.—A special meeting of the Waterloo County Teachers' Association was held in the Central School, Berlin, on Saturday, May 21st, to discuss the circular respecting the Superannuated Teachers' Fund, sent out by the Legislative Comm ttee of Provincial Teachers' Association. The meeting was called to ader at 10 a.m. by the President, Mr. S. S. Herner, and opened by Mr. Alexander leading in prayer. Moved by Mr. Alexander, seconded by Mr. Suddaby, that the circular be taken up clause by clause. Carried Moved by Mr. Alexander, seconded by Mr. Linton, that the first clause be passed. Moved in amendment by Mr. Groh, with Mr. B. Hal. Brown as seconder, that in the opinion of this association, the Superannuation Fund, as at present existing, should be abolished on equitable conditions, and that no Teachers' Retiring Fund be instituted. After a lengthy and animated discussion, in which Messrs. Linton, Crookshank, Groh, Alexander, Steuernagle, Brown, Suddaby, Chapman, and Mucller took part, the amendment was carried by a vote of nearly two to one. Moved by Mr. Alexander, seconded by Mr. Suddaby, that we adjourn, to meet at our next regular session in September.-Carried.

S. S. Hennen, Pres.

[CHAS. A WINTER, Sec.-Treas.

#### TE ACHERS' ASSOCIATIONS, 1891.

#### SUMMARY.

COUNTY.	Place of Moeting.	DATE.
South Hastings	Seaforth Vankleek Hill Kingsville Kincardine	2nd and 3rd June. 9th and 10th Juno. 9th and 10th Juno. 9th and 10th June.

singing. S. A. GARDNER, Secretary.

J. JOHNSTON, President

HENRY GRAY, Secretary,

NORTH YORK.—The next meeting of this Association will be held in the Model School, Prospect Street, Newmarket, on Friday and Saturday, 3rd and 4th June, commencing at 10 a.m. Programme for session as follows: Reading, open to friendly criticism, D. Hull: Solection, Fifth Book, page 55, and Spelling, Third Book, Miss Thompson: Object Lessons. Mr. Fotheringham; Sub-Mood, Mr. H. Irwin, Literature, 1881; XVII. Sec., VI Canto:—"At once there rose"—"We'll drive them back as tame," Mr. J. E. Dickson, B.A.; Reading Assoc. Selection, Fifth Book 463, also 510, S. Holland, leader; Reading by Class in Second Book, Miss McMurchy. Mr. J. Hughes, P.S.I., Toronfo, has kindly consented to be present, to deliver a lecture on Friday evening—subject, "School Room Humor"—and methods of teaching subjects in P. S. work, on Saturday. By order of Ex. Committee.

S. E. Jewitt, Sec.-Treasurer.

D. Fotheringham, President.

Parscott.—There will be a meeting of this Association at Vankleek Hill on the 9th and 10th of June next. Programme for Thursday, let Sossion, 9 to 12 a.m.—1. President's Address; 2 Election of officers; 3 Arithmetic, 4th class problems—J. W. McCutcheon, How to teach Reduction, W. S. Johnston. 2nd Session 1 30 to 4.39 p.m.—4. Geography, F. Bisset; 5. The Noun, John Heyes; 6. French Addresses, Mesars, Belanger and Kylo; 7. Practical Chemistry, T. Otway Page, B.A. Public Lecture, 7.30 p.m.—8. Poetry and Politics, J. M. Buchan, M.A., LH.S. Programme for Friday, 1st Session, 9 to 12 a.m.—1. A discussion on proposed Amendments to the School Law; 2. English Grammar, J. M.Buchan, M.A. 2nd Session, 1.30 to 4 p.m.—3. Public School Programme, W. J. Summerby, I.P.S.; 4. Algebra, W. F. Morphy; 5. Spelling, H. Gray. The School Law positively states that all Teachers shall be present.

Wrlington.—The semi-annual meeting of the First Division of the Teachers' Association of the County of Wellington and City of Guelph will be held at the Central School on the Srd and 4th June. Papers will be read as follows: Friday.—I. Punishment, Mr. Hyatt; 2. Arithmetic, Mr. Patterson; 3. Factoring, Mr. Davidson; 4. Junior Reading, Mr. Clark; 5. Moral Influence of the School Room, Rev. R. Torrance; 6. Third Class Grammar, Mr. Young, 7. Composition in Public Echools. Mr. Roberts. Saturday.—I Hints to Touchers, Mr. McLaren; 2. Penmanship, Mr. Collins; 8. Senior Reading, Miss Mills; 4. Experiences of an Inspector, Mr. Crais; 5. Public School Programme, Mr. Petris. Critics have been appointed for each subject. Should time permit, the Association will discuss the following subjects: "Superannuation," "Model Schools," and others which may be suggested. On the evening of Friday, 3rd

June, there will be a public meeting in St. George's Hall when Dr Workman. study. Theological schools favor their young men by courses of late Superintendent of the Asylum for the Insano, Toronto, will deliver a lecture on "Overwork of the Brain". There will also be readings, recitations, private study, and they work themselves up through them to their vocal and matrumental music.

Bunce—The annual meeting of the West Bruce Teachers' Association for 1881 will be held in the Central School, Kucardine, ou Thursday and Friday, June 3th and 10 h. Programme—Opening Address by the President Readings by Misses H. Leade tea and Icabella Smath, and Messrs Ewen Mckenzie and D. Phomeon: Essaws by Misses A. Jamstone and E. Ross, and Messrs. C. Kemp D. Christie, T. Mathers, and J. McKinnon. Case by Mr. Middleton. Infantive and Participles by Mr. H. B. Mckay; Analytical Arithmetic by Mr. F. C. Powell. Algebra Equations by Dr. J. S. McLellau, H. S. I.; Elecution by Dr. J. S. McLellau, H. S. I. A. discussion on Corporal Panishmen, in Public Schools, to be lead on Mr. J. McKinn m. Best metadol of recording the work of the day, by Mr. F. C. Powell. D. McLellau will "cliver one of his excellent addresses in the Town H. Il on Thursday evening, It is to be hoped that all the Teachers of West Bruce will avail themselves of the opportunity of hearing the Dactor, who has again bindly consented teassist at our Associations, and who, at his last visit. delighted the teachers and public with his admirable octures on Algebra and Arithmetic, and his eloquent address on "This Canada of Ours," in the Town Hall.

A. CAMPBELL, PresideLt.

A. R. SMITH, Secretary.

A. CAMPBELL, President.

A. H. SMITH, Secretary.

#### REVIEWS.

THE MUSICAL TIMES for May keeps up its interest. The continuation of sketches of "Berlioz," by Joseph Bennett, and "Mr. Pepys, the Musician" by Francis Huester, forms an attractive feature-many of the anecdotes, especially of the former, being irresistibly droll. of Anton Dvorak occupies a concluding chapter, and its quaintness is The two pieces selected are sacred; the first, "The Son of God goes forth to War," being arranged to the old, familiar St. Ann's tune by Arthur Sullivan, and is peculiar in its style; the other, "God so loved the World," is a short and simple arrangement by Sir John Goss. The notes and topics are, as usual, very readable.

THE HISTORY AND GRAMMAR OF THE ENGLISH LANGUAGE, adapted to the use of Pupil Teachers and Normal Schools. By the Right Rev. C. H. Bromby, D.D., Lord Bishop of Tasmania. Revised and partly re-written by J. L. Reynolds. Second revised edition. London: Moffatt & Paege, Price 2s. 6d. Dr. Bromby, the author of the text-book on which this work is based, was formerly principal of the Trimty Colleges at Cheltenham. As the reviser, Mr. Reynolds, is a successful teacher of many years' standing, we have in this text-book the benefit of the accumulated experience of two tried and able men. Whether we consider the sound scholarship manifested in it, its practical character, or the way in which it is printed, it is inferior to no other grammar of its size in the market.

The June number of the Atlantic Monthly contains: "Over on the tother Mounting," by Chas Egbert Craddock, "The In-door Panner, a Study," by Octave Thanet "A Spring Opening "by Edith Thomas, "Bergen Days," by H.H.; "Felicissima," by Eliza Calvert Hall, "Who lost Waterloo?" by John C. Roper; "The Portroit of a Lady," chapters 29 to 34, by Henry James, jr : "Chance"; "French Tragedy," by Richard Grant White; "Friends, a Duet," chapters 14 and 15, by Elizabeth Stuart Phelps; "A Taste of Maine Birch," by John Burroughs; "Wnittier's King's Missive, and other Recent Poetry"; "Five American Novols;" "Carlylo's Rominiscences;" "The Renaissance in France;" "Tue Contributors' Club," "Books of the Month"; and "Auf Wiederschen." We commend it to our renders as an interesting number. The last article, "Auf Wiederschen " is a beautiful short poem in memory of James Thomas Fields. who has recently died. Mr. Fields was one of the early publishers of The Atlantic, and its editor from 1862 to 1871. He had many friends among men of letters, in both his own country and England, and published, a few years ago, a very readable volume of reminiscences, entitled "Yesterday with Authora"

-There is a scheme of professional training which I believe is adapted to the great unstable element, and which should be worked out and rendered practical in its details, and at no distant day put into operation. I refer to the official arrangement of courses of reading and private study. It has seemed to me that the State Normal Schools might increase their power for good by post-graduate work. If these schools could say to their graduating classes, whose course is necessarily so limited, "there is something for you to do the coming year; at its end come back and pass our examinations and we will add it to your honors," I am sure many of them would fcontinue their studies. A

degrees. Such courses would do that for an ambitious girl which she most needs to have done for her, which is to mark out a path. She does not know what it is best to undertake, and having nothing to determine her, she resolves upon this and that and ends in doing But such a course of reading might be made especially valuable to young teachers who have had few opportunities for study, have no settled plans for life and no clue to its mysteries upon every hand. They must do something to live, teaching is not as laborious as some occupations, is more respectable, and pays better. - Miss Lathrop.

-The following is a copy, verbatim et literatim, of a census schedule collected by an enumerator at Brightside, near Sheffield :-"gorge John —, head of the house, farm laurber, age last birthday, 302 years. Wife Margret, —, age last birthday, 206 years. gorge John -Minney and —, age last birthday 2 years. brother Wil-, age last birthday laubor to steel works 208 years. gorge daught Minney ana -- born in the parish of ould buckingham Norfick Ingland. margret —, born in the Parish of aughtboe quicens county ireland. William —, born in the Parth of aughtboe quicens county ireland unmarred."

## Nublishers' Department.

#### ANOTHER COUNTY HEARD FROM! WELL DONE. LANARK!!

At the late meeting of the Teachers' Association, Lanark County, it was decided to give the JOURNAL for one year to each member in full standing.

At the convention of the South Grey Teachers' Association, held at Flesherton last month, a by-law of the constitution was altered to enable the lady members, who previously were not required to pay into the funds, to become subscribers on same footing as male teachers, and a resolution was unanimously passed to give every paying member, out of the funds of the Association, a copy of the Canada School Journal, or Gage's School Examiner and Monthly Review. The result was that where only a few had The result was that where only a few had hitherto been paying the annual fee, now nearly every one subscribes. and the Association has thereby gained considerably in vigor and strength. The ladies entered warmly into the arrangement. The plan of giving the teachers some substantial benefit in return for their annual fee has produced the best results in every association where the bonus takes the shape of the CANADA SCHOOL JOURNAL.

-Teachers out of health are invited to read the advertisement in this issue of the Electro-Medical Institute, Toronto. Resting here for a time, and using the varied therapeutic means at the command of the medical staff, lost health may be recovered and renewed energy received for the work of the school room. We understand that special terms are given to teachers.

-At the Australian World's Fair, just closed at Melbourne, Carter, Dinsmore & Co., manufacturers of Carter's inks and mucilage, received four awards-three of the first order of merit, for copying, black and colored inks, and one of third order of merit for mucilage. The last, although of third order, was the highest and only award made for mucilage.

-In consequence of pressure on our space, we are compelled to hold over till next issue some communicated articles, teachers' good Normal School would give its graduates an impetus to such convention reports, and other matters of interest.