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# The Educational Journal

CONSOLIDATING

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## Editorial Notes.

TOUCHING the new musical course for Public and Model Schools, spoken of in another note, we may assure our readers that THE JOURNAL will not be behind in giving all the assistance in its power to teachers in carrying on the work. We have made arrangements with a leading specialist to write a series of articles dealing with the Syllabus. The first of these will appear shortly. In connection with them an opportunity will be given for subscribers to obtain fuller information on any points on which they may wish to ask questions.

As most of our readers are no doubt aware, a Syllabus in Music for Public and Model Schools has been issued by the Education Department, giving the prescribed course in both the Staff and Tonic-Sol-fa notations. In order to give teachers an opportunity to gain a practical knowledge of the subject, it is, we understand, proposed to organize a summer school of music for teachers in connection with the Toronto Normal School. The details, if completed, will no doubt be definitely announced very soon. The school will probably remain in session for three weeks. In order to give students in attendance an opportunity to combine recreation with instruction, it is likely that the classes will meet in the forenoon only, leaving the afternoons free for other uses. No charge will be made for tuition. No similar opportunity has been offered to Ontario teachers for six or seven years past. It will make a pleasant outing, as well as afford special facilities, which will be no doubt needed by many, to fit themselves for efficiently carrying out the requirements of the new programme. It is believed that large numbers will gladly avail themselves of the opportunity.

MANY good things were said, and much excellent advice given, in the papers and addresses at the late meeting of the Educational Association. Without invidious comparisons, we may be permitted to ex-

press our gratification with several excellent points made by the new principal of Upper Canada College, Dr. Parkin. Some of his utterances pleased us exceedingly, perhaps because of their general agreement with views which have been from time to time advocated in these columns. One remark we have particularly in mind is his warning against too great uniformity in courses and rigidity in methods. No school can be of the best character, or do the best work for the child and the country, so long as it tends to repress individuality in either teacher or pupil. His caution in regard to the excessive haste to "get through," which is so damaging to thoroughness and good scholarship, shows that Mr. Parkin is a keen observer, and has not been long in detecting our weak spots. In our own experience, and, we are sure, in that of very many of our readers, one of the greatest enemies to true culture and to sound scholarship is the impatience, often, we are aware, the outcome of financial conditions, which is ever urging students to attempt to do in two terms an amount of work that cannot properly be well done in less than three or four.

THE following circular, which was issued a few weeks since by J. George Hodgins, Librarian and Historiographer to the Department of Education, explains itself. No doubt there are many veterans among our readers whose experience in the early days may be of value to Dr. Hodgins in his work:

"In preparing, for the Department of Education (under the direction of the Honorable the Minister) the 'Documentary History of Education in Upper Canada,' from 1791 to 1876, it appears to me that the history would be much more complete if the old teachers of the Province would contribute the result of their experience in the schools during their early period of service in them.

"I will, therefore, thank you to send me a brief sketch of the schools in which you may have taught—the condition of the buildings, the kind of fittings in the schoolrooms, apparatus, maps, books

used, and any other details which might be of interest in this work in which I am engaged.

"I may add that, in addition to any specific information which you may be able to give me about the schools in which you may have taught, I should be glad to get copies of old newspapers, old pamphlets, old parliamentary proceedings (bills, reports, etc.), old school records, college calendars, examination papers, and any other documents which might throw light on the educational history of Upper Canada from the earliest times."

THE annual meeting of the National Educational Association of the United States is to be held this year in Buffalo, N.Y. The local organization in that city is making preparation for the entertainment of twenty thousand educators and teachers on that occasion. The programme is sure to be varied and attractive, and the enthusiasm unbounded, as it always is on such occasions among our neighbors. A visit to this great assemblage of pedagogues, by any of our readers who can manage to attend, cannot fail to be interesting and inspiring. We are told, on high authority, that those who measure themselves by themselves and compare themselves with themselves are without understanding. We advise as many of our friends as can do so to take advantage of the opportunity which this great gathering of American educators will afford, of comparing our cousins' modes of doing things with our own, and treasuring up all the useful hints available, for future use. We shall be glad if Canada is largely represented at the Buffalo convention for the still better reason that all such interchange of courtesies and intermingling for good and beneficent ends tends to promote that better acquaintanceship and good feeling between the two peoples which is so desirable in the interests of international friendship. All needed information can, no doubt, be obtained by addressing Albert E. Swift, secretary of the Executive Committee, Ellicott Square, Buffalo, N.Y.

## English.

All articles and communications intended for this department should be addressed to the ENGLISH EDITOR EDUCATIONAL JOURNAL, Room 5, 114 Richmond Street West, Toronto.

### ON THE STUDY OF ENGLISH.

BY A. A. BROCKINGTON, B.A.

A discussion of profound interest to all those engaged in teaching was that between Matthew Arnold and Professor Huxley. The latter, speaking at the Mason College, Birmingham, Eng., found himself "wholly unable to admit that either nations or individuals will really advance if their outfit draws nothing from the stores of physical science." Matthew Arnold had previously declared the proper outfit of the members of the civilized world to be "a knowledge of Greek, Roman, and Eastern antiquity, and of one another." Educationists seem to be now very strongly in favor of emphasizing the judgment of Professor Huxley. Those who, without combating his opinion, do not forget the claims of literature usually rest upon the conclusion of Matthew Arnold. Plainly speaking, though, of course, with a very wide margin for exceptions, those in favor of a scientific training are not in favor of a thoroughgoing study of Greek, Roman, and Eastern antiquity, while those who have given adequate attention to the ancients (in the accepted sense of the term) have only vague notions of the value of scientific training, and think, without a doubt, that undue prominence is apt to be given to that training.

Matthew Arnold really includes in his comprehensive outfit "the best which has been thought and said by modern nations," but the majority of debaters, and among them an eminent Canadian, dwell mainly upon Latin and Greek literature on the one side, and upon natural knowledge on the other. They either forget, or do not think it necessary, to dwell upon the study of *English* language and literature. The result of this tendency is very apparent. Men and women with a right appreciation of even the greatest masters of English are few; men and women with any knowledge of the development of our language, still fewer; while scarcely any think it worth while to cultivate the ability to read First English or Anglo-Saxon. The students of the history of the English people are, of course, more numerous, though no one will pretend to say that the study, even of history, is adequate.

Among school boys this "neglect of their own" is conspicuous. Many a boy has read three or four books of Homer and Virgil, who has not read a single act of a play of Shakespeare, and to whom Addison, Goldsmith, and even Emerson and Thackeray are but names, to say nothing of Caedmon, or the author of the *Beowulf*. Many a boy can "scan" Virgil who does not know what "blank verse" is; many who have made a careful study of the catalogue of ships in the "Iliad" know nothing of the growth of that spirit which animated Sir Richard Grenville when he kept at bay the ships of Spain.

Among adults we find the editor of a well-known magazine asking for a sonnet of not more than twenty-five or thirty lines; an American journalist stating that the death of Becket added something to the effect of Magna Charta; a public orator who speaks of the author of *Don Quixote* and John Bunyan as two English writers who wrote their masterpieces in prison. The editor had probably "composed" ("placed together") Latin elegiacs in his youth; the journalist probably knew that Julius Cæsar was not a Greek; and the public speaker had been to a great school.

It is an easy, but not a profitable, task to multiply instances to show that very often much more is known of the Greek and Roman languages, literatures, and histories than is known of the English language, literature, and history. Herbert Spencer attempts to give a reason for this: "Men dress their children's minds as they do their bodies, in the prevailing fashion. As the Orinoco Indian puts on paint before leaving his hut, not with a view to any direct benefit, but because he would be ashamed to be seen without it; so a boy's drilling in Latin and Greek is insisted on, not because of their intrinsic value, but that he may not be disgraced by being found

ignorant of them—that he may have 'the education of a gentleman'—the badge marking a certain social position, and bringing a consequent respect." This reason, no doubt, is partly true, but, I beg to think, only *partly* true. What is of value is, not so much the ultimate knowledge of Latin and Greek, as the boy's *drilling* in Latin and Greek. I do not here seek to disparage the value of that drilling, but I contend that the drilling in English is just as valuable, and the knowledge obtained of very great value also.

The very great majority of pupils or students who do not become professional men after their studies are over never again pay any attention to Latin and Greek literature, except, perhaps, in translations. Some may, perhaps, remember, very occasionally, a Latin or Greek word that enables them to see the exact meaning of an English word, but that is the limit of the application of their knowledge. Some of the students become clergymen. Among these, I think it is scarcely possible to exaggerate the need there is of a knowledge of, and sympathy with, great Englishmen and the works of great Englishmen. The nerveless sermons, the discourses on minute points of doctrine, the successions of platitudes, are scarcely uttered by men who have studied their instrument of expression with a loving and devoted study, or have made themselves conversant with the true philosophy of history, and more particularly with the great causes that have had as effect the development of our race. I speak of the clergy specially, because I feel that to them a knowledge of the English language, literature, and history is a second essential.

As boys at school and students at college cannot learn everything, the question is one of comparative desirableness. If teachers could be found enthusiastic, capable, patient, and patriotic enough to make a pupil's drilling in English as thorough as his drilling in Greek, the issue lies in the comparative value of the knowledge acquired. And here I think no one would be found to deny that, considering an average case and all the circumstances of a pupil's life after he ceases to do nothing but study, the knowledge of English would be relatively of much greater value than the knowledge of Greek. When we think that what is best in Greek may be learned through translations, our conviction is strengthened. I knew a manufacturer who was more conversant with Greek and Roman ideas and Greek and Roman manners than many, nay, I will say, the majority of, graduates in classical honors, and he could not read a Latin sentence, and was ignorant of the Greek alphabet. He was led to make this close inquiry through the study of English literature.

Is it not the prerogative of every English-speaking boy or girl to know the best that has been said and sung in English? Is there no obligation upon those who train English-speaking boys and girls to give them some knowledge of the growth and development of the language they speak? It was a good retort of the man who was asked if he had read Shakespeare, "Am I English?" but the same retort would be, unfortunately, meaningless and unconvincing if uttered by a vast number of those who learned that tongue from their mother's lips.

But a stronger inducement with many to the study of Latin and Greek is that hinted at by Herbert Spencer—the knowledge of these languages forms part of the "education of a gentleman." This is the result of a narrow view of men and women. What we want is sympathy with the thought, perennial, immortal. It is no matter that we can read with ease, or imitate the form, if we are without this sympathy. The boy or man with "original energy" will not be long in making himself familiar with the ideas of Plato and Virgil, even though their language is "dead" to him; he will be sitting in their company as an understanding equal, and the unsympathetic scholar be doing his translation outside. While the others are toiling to hammer out the meaning of a passage in the "Phædo," one will have read and re-read the whole book in its Englished form, and will be ready to read it again at a later day with a greater intellectual delight. The work will yield at last to the "hammerers," and maybe one or two of them will be able to rid themselves of the clang and bang and attend to the philosophy, but the recollection of that smithy work debars the majority from any after-attempt. They think of the reading of the

Phædo as a task they hope to be excused from having to perform again.

Of course, I am not here denying the value of the exercise as an exercise. I am thinking merely of the value of the knowledge acquired as part of the "education of a gentleman." Let us leave this cant of accomplishment, and acknowledge the decisive demarcation of the soul. "In my dealing with my child, my Latin and my Greek, my accomplishments and my money, stead me nothing; but as much soul as I have avails. If I am wilful, he sets his will against mine, one for one, and leaves me, if I please, the degradation of beating him by my superiority of strength. But if I renounce my will, and act for the soul, setting that up as umpire between us two, out of his young eyes look the same soul; he reveres and loves with me." Let me add to this a sentiment of Ruskin, "The man who likes what you like belongs to the same class with you, I think." We may well leave out of our consideration this question of Latin and Greek as the attributes of a gentleman.

I wish to be considered, then, not as a literary vandal, but as a patriotic advocate, when I say that the study of every other language should be subordinated to the study of our own.

### PRAYER.

M. A. WATT.

James Montgomery was born in Ayrshire in 1771, and died 1854. He was contemporary with Scott, Byron, Gibbon, Burns, Crabbe, Moore, Mrs. Hemans, Campbell, Heber, Shelley, Kirke White, and many other writers whose names are familiarly known.

This poem is of a kind which children easily learn parrot-fashion, but which remains perfectly unknown in its meaning. I have never been satisfied with my teaching of it, and determined to do something this time to get the idea into the minds of my pupils before they caught the swing of the rhythm and words. It is not a usual thing to dissect and paraphrase poetry in my class, but we began to do it in this instance before reading even the first stanza. Taking the first line, "Prayer is the soul's sincere desire," the question was asked as to which words they did not understand. "Sincere" and "desire" were the ones. Suggestions were made as to synonymous words by the pupils, then the derivation of "sincere" from "sine" and "cere," "without wax"; so the idea of purity and freedom from adulteration was seen in our word.

The line was then written on each slate: "Prayer is the honest longing of the soul." The second line, "Uttered or unexpressed," was examined, and synonyms given. The whole then read:

"Prayer is the honest longing of the soul, whether it is spoken or not spoken."

Illustration of idea: A child, hungry, looks at its mother, who understands its want, even though no word passes its lips.

"As the hart panteth after the water-brooks, so panteth my soul after thee, O God."

The third and fourth lines:

"The motion of a hidden fire  
That trembles in the breast"

contain no strange words, but the idea is absolutely ungrasped. The paraphrasing will give something like this:

"The movement or stirring of an unseen flame or feeling which moves in the heart of all men."

What feeling is it that all men, whether civilized or pagan, have? The feeling of needing, of wanting, of longing for comfort, for protection, for help, and also a feeling of worship. Only one tribe has ever been found that did not worship. This feeling rises in the breast towards God, like the fire rising towards the sun, like the flame on Jewish altars rising to heaven. The feeling is compared to a flame. Why?

Individual taste was exercised in the selection of synonyms and different readings were given by the proud authors.

This was one:

"Prayer is the pure wish of the heart,  
Spoken or not said;  
It is the moving of an unseen flame  
That trembles in the breast of all human beings."

Rather slow seemed our progress, but the second stanza received prompt attention, and some

very good renderings were given without help. The difficulty lay in the idea enfolded in "Prayer is the burthen of a sigh." The idea of the "sigh" being the bearer or messenger which carried the prayer was difficult to explain, but the images of the eagle flying upward bearing her young, the horse carrying his burden, were helpful. The pupils were unable to word it, however, without assistance, and this paraphrase was suggested:

"Prayer is sometimes carried up to heaven on a sigh," or, "A sigh sometimes carries a load of prayer upon it."

One paraphrase, which was considered very clever by the pupils, read thus:

"Prayer is the load carried on a sigh,

The dropping of a tear,

The skyward looking of the eye

When no one but Christ is near to see it."

The third stanza was quickly disposed of, being paraphrased with general success. The class were full of stories of babies' prayers, and the interest was keen and happy. Their simple faith and unspoiled belief were refreshing; even the *hard* boy was tender and innocent for the moment.

The Sunday-school lesson of the Prodigal Son helped us in the fourth stanza. We read the lesson for the coming Sabbath every morning, at first alternate verses with the teacher, then boys first verse and the girls second; then girls first verse, boys second, so on alternately; at the end of the week one person volunteers to read it all. We know the lesson pretty thoroughly, and it came in nicely to explain:

"Prayer is the contrite sinner's voice,

Returning from his ways;

While angels in their songs rejoice

And cry, Behold, he prays!"

Here my class have stopped; we have made two lessons of it already. When a question arose as to what we should have in an optional half-hour to-day, the request was, "Oh, can't we have reading?" by which they meant the lesson above described. But I considered that they had had as much for one day as was wholesome, and so they will have the lesson to-morrow. I noticed several small dictionaries that had not been brought before, and the words for to-morrow are being looked up in them. These will be "vital," "native," "watchword," "fellowship," "pleads," "eternal," "intercedes," "trod."

There will have to be special explanations of certain phrases, as: "Vital breath of the Christian is prayer," "His watchword at the gate of death," "Enters Heaven with prayer," "Saints appear as one," "mourners," "By whom we come to God," and perhaps some other which appears to me perfectly plain may require simplifying to suit the intellect of some small questioner. When all has been thoroughly sifted and no rocks of stumbling remain, we are going to do something very delightful—we are going to sing it to a fine tune. It will add another to our list of good hymns, and nothing pleases a weary class more than to say, "Take your Readers now, and sing such a piece right through." We are able to sing "Lucy Gray" (to a solemn hymn tune, yet they like it), "The Evening Hymn," "Lord Ulin's Daughter," "The Bugle Song," "By Cool Siloam's Shady Rill," "Rock me to Sleep, Mother," and some others, which give variety to the music exercises that they study on the staff daily.

## Special Papers.

### EFFICIENCY OF OUR RURAL SCHOOLS.\*

BY D. W. PARSONS,  
Principal of the Delhi Public School.

I have no hope of saying anything new in regard to the efficiency or non-efficiency of our rural schools, but I am content to be a repeater, knowing that it is mainly by repetition that some lessons are instilled.

The rural schools of Ontario are accomplishing important work, in so far as pupils are there taught to read, to write, and to do elementary operations in arithmetic. Certain facilities have been provided, and parents have been compelled to make use of them, with the above result, and in some cases with the additional advantage of making

some progress in grammar, history, geography, drawing, and so forth. There is reason to fear, however, that comparatively few go beyond this primitive mark sufficiently far to successfully grapple with the High School Entrance Examination.

I am aware that departmental examinations are not an absolute test of the work done, but I may be permitted to make use of them as a gauge, since they are the only statistical means the public have of judging of the efficiency of a school. In what may be considered, at the very least, an average county of Ontario, the proportion of successful Entrance candidates stands at about one to forty-five. In this county are one town and four important incorporated villages, all containing flourishing Public Schools, and four of them efficient High Schools. These centres, it will be readily understood, furnish the greater part of even this small percentage. Add to these a number of smaller villages containing schools presumably superior to the purely rural school, and it follows that the proportion of Entrance candidates from the latter is extremely small. If these results are to be taken as a fair average, then the time has fully come when we may properly consider whether we are not justified in taking a forward step, and placing the education of our rural school pupils on a higher plane than it has hitherto occupied. Our financial ability, our social status, our prominent examples of Canad a brain and energy, all assist in teaching us that nothing is too good for the Canadian boy or girl. In treating of the efficiency of our rural schools, I readily admit, and note with pleasure, that in some cases the work is as good as can be desired, when not only Entrance candidates are successfully prepared, but when fifth form work is done, and that not perfunctorily, but with such thoroughness as to enable candidates to pass creditably the Public School Leaving, our first great boon, and even in rare cases the Primary, examinations. But this desirable evidence of progress is, without doubt, exceptional. Should any of our High School friends object to the word "desirable" in this connection and claim that we are on their side of the fence, the difficulty may be easily remedied by moving the fence over. We have no right to view this matter from the standpoint of advantage or disadvantage to any class of either schools or teachers. We have but one question to consider: what do the interests of the masses of rural children of this country demand? I say with no hesitation that these masses cannot afford the expense of attending our High Schools and Collegiate Institutes, and the standard I have mentioned must therefore be obtained in their own rural school, or not at all. "Continuation classes," a long step in advance, lessen the difficulty to but a part—the great mass is still on the outside. But some of my Public School associates may complain that to impose such a burden is to place the proverbial last straw. I know that it involves a world of arduous labor, and a rare economy of force, but I know equally well that it is not in the region of the unattainable, and that were such a standard of work at all general it would lift our Public Schools and our Public Schools teachers out of the stupefying and miasmatic swamps in which many of us now exist up into a far healthier and more invigorating atmosphere. I have said this higher rural school work is exceptional. It must and will necessarily continue to be so until certain existing conditions are radically changed. The efficiency of a school is but another name for the efficiency of the teacher, and there is no gauge by which we can more accurately measure the character of the work done than by the capacity of the worker. Now, what are the facts? Hundreds upon hundreds of ambitious young men with whom I find no fault, and whose ambition I commend, have set their mark high, and in order to reach it have been forced to make use of every legitimate financial device. Here comes in the old and never-failing standby, "teaching." It is not the chosen profession of this aspiring young man, and he possibly regards it with such disgust that nothing short of the exigency of his case would compel him to swallow the nauseating dose, the only redeeming quality of which is that it is not to last. Should he happen, by a fortunate accident, to possess ability as a teacher, his attention will be drawn away toward what he intends shall be his life-work, so that in but few cases can we regard him as a valuable acquisition. These transient operators, augmented by a vast host of comparatively

uncultured, untrained tyros, who ere long, at our present rate of progress, will be a multitude that no man can number, have come sweeping down upon our rural schools, and to this crowd is to-day committed the task of educating the great mass of our rural school children. We are the rankest of optimists if we expect satisfactory progress to be the resultant of the spasmodic, desultory, and destructive efforts of these passing teachers. The right of the people to this higher Public School education is acknowledged. It forms a part of the Public School curriculum, but it is practically nullified by the enforced absence of the strong professional teacher. He would be a great public benefactor who could invent a machine, a sort of fanning mill, that would sift out the grains of natural teachers from the bushels of chaff. But in the absence of such a device, the next available thing is to induce our government to so perform its paternal functions that we may have the establishment and permanent maintenance of a class of professional teachers of such an order of merit as is demanded by the nature of the duties they have to perform, a profession built up and maintained, not for the purpose of subserving the interests of its members, but because the educational interests of the country imperatively demand its existence—a profession uninvaded by our brothers of the High School, and whose plums belong to itself so long as its members prove themselves worthy to possess them. The obstacles obstructing the entrance to this profession should be such as to deter all who have not made this their chosen calling, and should be of such a standard of difficulty as to exclude those whose abilities are not commensurate with the high character and importance of the work. No certificate should be granted to one whose non-professional education is less than the Junior Leaving standard. The Model School should disappear with the third-class teacher, and its place should be taken by the Normal training school, in which the course should not be less than one year in duration. It is here that the pruning knife should be first applied, and that rigidly and unsparingly. A novitiate of one year should follow, and here, I apprehend, will be the crucial test. The newly-fledged teacher will be thrown on his own resources, in an ungraded school, to sink or to swim. The born teacher will come to the surface, the other will as surely sink. The experienced and observant inspector will rightly average him up, and, if he fails to show that he is the possessor of the power, tact, and ability that should characterize the true teacher, his sun should go down. Government having gone thus far in the way of securing the taxpayer against imposition, and of guaranteeing him dollar for dollar, should, in the exercise of this same paternalism, still further encourage and stimulate him by classifying schools, and granting government aid very largely on the basis of this classification. Should the so-called objection be urged that the poor boy or girl would be shut out from this means of earning a living, I only reply that it is a question of brains and of energy, and not one of poverty, and, moreover, the profession is not for the individual, but for the people. Should it be objected that many of our rural schools are so backward that the engagement of such an expert as I have outlined would be superfluous, I reply that, while the well-taught, forward school creates a necessity for its own existence, the poorly taught, backward one never did, never will, create anything higher than the necessity for its existence. Should it be claimed that the responsibility of making such eliminations and classifications is too great for one poor inspector (do not understand me to mean either inefficient or poverty-stricken), I answer, let him have help if he cannot do it alone. The truth is that the great objection to these proposals is their excessive radicalism. Were it not for this, these changes, or changes analogous to them, would have little difficulty in obtaining adoption. It is difficult to realize an ideal, but a system fashioned more or less closely after the model thus roughly traced would, I believe, contain the elements of success, and go far to rescue our rural school pupils from present inertia and impending danger.

NO book in any literature can be for one moment compared with the Bible in its completeness, as a means either of ethical or spiritual culture.—*Jan Maclaren.*

\*A paper read before the Public School section of the Ontario Educational Association, April, 1896.

# The Educational Journal

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## Editorials.

### OVER-EDUCATION.

"THE times are out of joint." What can be done to set them right? Everywhere in the cities and towns we meet with men and women who are dependent on their own labor for a livelihood, out of employment, and utterly unable to obtain it, or able to obtain it only at rates of remuneration so low that their acceptance means slow starvation for themselves and those depending upon them for daily bread. This state of things is, we dare say, the outcome of many causes. Possibly the sum-total of destitution and distress is not greater in proportion to population than it has been, very frequently at least, in all periods of the history of what we call "civilization." It may be that it is only the increase of the means of knowing and making known the condition of the "submerged" which makes the world's ever-abounding poverty and incompetency seem so much more appalling. Even if this be so, neither the fact nor our knowledge of the fact makes the thing any less an evil, or the suffering and misery any the easier to be borne.

One thing is obvious and tends greatly to aggravate the situation for thoughtful minds. There is no absolute necessity for this destitution. There is no primary or natural need that anyone should be chronically hungry, or thirsty, or naked, or even ragged. The world's resources are ample for the supply of the world's need. The fault must be either in the insufficient cultivation and production, or in the unequal distribution. Grant, on the one hand, that there is not food enough produced for the supply of the world's inhabitants, is it not true, on the other, that tens of thousands of its inhabitants, who ought to be at work producing something to be added to the general stock, are actually doing nothing, producing nothing? They are drones in the great beehive of the world's industry. Some, again, waste while others want. Some greedily accumulate far beyond their needs, while others suffer in consequence of their greed. In one respect it is, we believe, demonstrable that Bellamy is right, in the bold conception which he works out in his "Looking Backward." Can any thoughtful person, after full consideration, doubt that if every able-bodied and sound-minded man and woman were by some means brought to engage in productive industry, up to the age of forty-five or fifty, and were all this labor rightly directed and its products fairly distributed, all the world's physical wants could be amply provided for, and everyone left free, after that age, to follow the bent of his own inclinations for the rest of his days? If this be so, the fault is, evidently, after all, not with the construction of the world, or the physical laws which govern it, but with the people who inhabit it, and either waste, or fail to develop and distribute, its resources.

The theories propounded to account for this wretched state of things in this most wonderful, and, in many respects, most beautiful and admirable, world are very various, and some of them very curious. One of the most remarkable is that which we have recently seen propounded in some very respectable Toronto periodicals, to the effect that the source of the trouble, or of a large portion of it, is, of all things, over-education! Just think of it! The supply for our physical wants, which is to a very large extent to be provided for by the employment of our cultivated and developed powers, is in danger of falling short because of—not the neglect to cultivate and develop and use to the full those powers, but because of their too great cultivation and development. Perhaps, in order to be strictly accurate, we should say, because these powers of thought and

intelligence are being cultivated in the wrong individuals. Instead of ascertaining by some process which is not made very clear the select few for whom the benefits of what we call education were designed by nature, and bestowing upon these the benefits of the developing process, leaving the great majority of minds in the comparatively unimproved condition for which nature—as she is pleased to make known in some occult way to her favorites, the initiated few—intended them, we, in our folly, are in these days vainly educating the many above the station for which nature designed them, or in which "Providence has placed them," and are thereby destroying the social equilibrium. The hewers of wood, and drawers of water, and tillers of the soil, are, in consequence of this "over-education," becoming discontented with that state. Leaving the hoe in the potato patch, or the plow in the furrow, or the plane on the workbench, they come to the cities to compete with those who feel that they have been set apart by some special dispensation to do the world's brain-work, and be supported and enriched by its farmers and artisans.

"But is it not true," we hear someone inquiring, "that most of those who are in our Collegiate Institutes and High Schools, preparing for college or university, are doing so mainly or merely with a view to fitting themselves for some occupation in which they hope to make a livelihood more easily, to occupy what is popularly regarded as a better social position, or to earn a larger income, than would be possible for them without such training?" We must grant the patent fact, of course. "Then is it not clear that you have but to suppose this process extended and enlarged, until the great majority of the youth of the land are seeking higher education for the like ends, and you will, at no distant day, have reached a position in which the great majority will be preparing for professional and other non-manual occupations, and far too few will be left to till the soil and do the manual drudgery which are necessary for the supply of the world's food and raiment, to say nothing of the comforts and luxuries of what is called refined society? What will become of us when all shall have become educated for clerkships and professions, and no one is left to do the manual labor required to produce the very necessities of life?"

Well, we do not know what would become of us all, under such circumstances. We should be glad, however, to run the risk, and should like amazingly to see the experiment tried. If the thing could be brought about suddenly, there would cer-

tainly be some strange transformation scenes, and, no doubt, an appalling amount of confusion and suffering, for a time, while people were adjusting themselves to the new conditions. But we can fancy some strange results, as the process of readjustment went on. We do not believe that the old law of "supply and demand" would continue to hold the supremacy which it has so long had, but no doubt it would operate pretty vigorously still for a time. Let us suppose, for instance, the scarcity of farm products to have become such that farm laborers are in demand at five or ten dollars for a day's labor (eight hours, of course), while the overplus of lawyers and doctors and engineers has become such that it is almost impossible for any but the very best of these to obtain employment at any price. Let the skilled "agriculturist" and "horticulturist," and the "artist" in wood or metal, become the man who can live in a mansion, keep his coach, etc. The farm-houses would now become the homes of refinement and luxury; the ideas of both rich and poor as to the respective merits of different positions and occupations in life would undergo radical changes, and high intelligence, refinement, and elevated enjoyments to be derived from literary pursuits would no longer be the peculiar possession of any particular class.

Is this an Utopian dream? Perhaps so. Perhaps the tillers of the soil and all those who work with heavy implements are destined always to be comparatively poor and to be tied down to long hours of labor. But, even so, who shall dare to say that sons of these, equally with the children of the wealthy, shall not have the freest access to the fountains of knowledge; that the mind-power which comes from brain-culture, and all the loftier pleasures to which such culture gives access, shall be denied to the children of those whose parents were tillers of the soil or workers in wood or metal, lest those children imbibe ideas above their "station," or become less docile as working machines for the behoof of their so-called superiors? The "station in life" to which "Providence calls" each man and woman is the place of highest usefulness and honor to which he or she is capable of rising by dint of industry and the best use of every talent which Providence has bestowed. Who can gainsay it? The practical problem will work itself out, is working itself out, day by day.

#### THE DANGER OF MISJUDGING.

TEACHERS of experience are apt to pride themselves, often not without reason, on their skill in reading the characters and penetrating the motives of their pupils. When any secret mischief or wrong has been perpetrated which they are trying to ferret out, suspicion gener-

ally attaches to some one or more who are thought most likely to be the offenders. It may be that the shrewd, experienced teacher is not often astray in these prejudgments, but they need to be acted upon with great care. No doubt it sometimes happens that when pointed questions are asked, or insinuations made, reflecting on a certain supposed culprit, there is danger of mistaking the confusion of timidity, or the coloring of surprise and indignation, for the flush of conscious guilt. Every true teacher will guard himself most strictly against the danger of doing injustice to those to whom he stands in the relation of absolute ruler and judge. The following remarks, by Principal Solomon Sias, of Schoharie Academy, bearing upon this point, are well worthy of attention. Writing under the head of "Children's Sensitiveness," he says:

"Sensitiveness and personal honor are deep and permeating principles in the child. Immature in reasoning power, he does not always correctly judge what true honor is, but it exists all the same, and largely affects his actions and his looks. Arraign a sensitive child for an offence of which he is perfectly innocent—in fact, concerning which he may be entirely ignorant—and his looks and actions will very often be mistaken for guilt. The downcast, trembling look, the flushed or pale cheek, the disconnected and contradictory answers, the evident embarrassment, all go to show he is guilty of doing, or of knowing who has done, the offence, and his denials prove him worthy of punishment, in the estimation of his examiner. And he is wrongly punished.

"There is scarcely a child who does not feel his honor is affected if he is arraigned for an offence, or is questioned as to his knowledge of an offence and its perpetrator. If innocent, he feels insulted, and lays up a grudge against the questioner which no years can eradicate from his mind; he feels that he has been needlessly and ruthlessly wronged. If he knows who has done the act, yet was not the person himself, he feels that his own honor is insulted by the suspicion of his personal guilt, and feels also that the one questioning him has a very poor idea of what honor is if he thinks he will tell on a companion. And these feelings cause him to bear those looks and to have those manners which are mistaken for personal guilt.

"The conclusion I would have my fellow teachers draw from these remarks is this: Do not be positive you understand correctly a child's looks or actions. To know a child requires years of study and

practice; in which there are more failures than successes. The older you become in the profession the less positive will you be as to your earlier conclusions about guilt and innocence."

#### TRAINING IN PATRIOTISM.

WE were sorry that one of the speakers at the recent Educational Association thought it worth while to take up considerable time in proving that the United States have been and are hostile to Canada and Canadians. It is easy, of course, to find numerous expressions and actions of public men in the United States which may be woven into a strong web of proof of such an assertion. But why a meeting of Canadian educators should be interested in, or how helped by, such a demonstration it is difficult to understand. Then, of course, it would be just as easy to cull from both past and contemporary history many examples of the opposite kind of expression and action. The fact is that, like other nations, though perhaps to a greater extent than most other nations, the people of the United States may be divided, on the basis of such a question as that of her feelings towards Great Britain and Canada, into two distinct parties. There are, in fact, so far as this question is concerned, two United States. The one is, as was shown in the paper referred to, distinctly and even bitterly hostile to us, their neighbors, and to the motherland to which we hold fast our allegiance. This dislike springs from various sources. Some, as American patriots, are angry with us that we are so blind as not to see that manifest destiny has marked us out as designed and destined to cast in our lot with the greatest nation on earth, and so to round off the great Republic and extend it to truly continental dimensions. Others despise us because of our willingness to perpetuate our colonial condition. Others, especially politicians of a low order, pander to the hereditary or traditional hatred of certain classes of immigrants from the other side of the ocean. But would it not be a far better education for young Canadians if they were taught to remember that there are many of the best and most intelligent citizens to be found in any nation, in the United States, who are heartily and sincerely our friends, and that there are in the sister country large numbers of loyal Canadians, who are loyal to both countries?

International dislike, jealousy, or distrust are not the food on which healthy national sentiment can be developed, or broad-minded, generous types of patriotism produced, in any country.

**High School Entrance and  
P. S. Leaving Department**

EDITED BY  
**ANGUS McINTOSH**

Headmaster Boys' Model School, Toronto, Ont.  
With the assistance of several  
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The High School Entrance and Public School Leaving Examinations will begin this year on Thursday, July 2nd, and will be conducted as per time tables.

**ENTRANCE—1896.**

*Thursday, July 2nd.*

- A.M. 8.45. . . . . Reading Regulations.
- 9.00-11.00. . . . English Grammar.
- 11.10-12.40. . . . Geography.
- P.M. 2.00-4.00. . . . Composition.
- 4.10-4.45. . . . Dictation.

*Friday, July 3rd.*

- A.M. 9.00-11.00. . . . Arithmetic.
- 11.10-12.20. . . . Drawing.
- P.M. 1.30-3.00. . . . History.

*Saturday, July 4th.*

- A.M. 9.00-11.00. . . . English Literature.
  - 11.10-11.40. . . . Writing.
  - P.M. 1.30-3.00. . . . Physiology and Temperance.
- Reading to be taken on the above days at such hours as may suit the convenience of the examiners.

**PUBLIC SCHOOL LEAVING—1896.**

*Thursday, July 2nd.*

- A.M. 8.45. . . . . Reading Regulations.
- 9.00-11.00. . . . English Grammar.
- 11.10-12.40. . . . Geography.
- P.M. 2.00-4.00. . . . English Composition.

*Friday, July 3rd.*

- A.M. 9.00-11.00. . . . Arithmetic and Mensuration.
- 11.10-12.20. . . . Drawing.
- P.M. 1.30-3.00. . . . History.
- 3.10-5.10. . . . Bookkeeping and Penmanship.

*Saturday, July 4th.*

- A.M. 9.00-11.00. . . . Algebra and Euclid.
  - 11.10-12.30. . . . Physiology and Temperance.
  - P.M. 2.10-4.00. . . . English Poetical Literature.
- Reading may be taken on the above days at such hours as may suit the convenience of the examiners.

**PUBLIC SCHOOL LEAVING.**

**LITERATURE.**

BY MR. R. W. MURRAY.

"THE HANGING OF THE CRANE."—LONGFELLOW.

*The Author.*—Henry Wadsworth Longfellow, one of the most popular of American poets, was born in Portland, Maine, in 1807. He was educated at Bowdoin College, in which he afterwards became professor of modern languages. In 1835 he was appointed professor in Harvard College, where he remained till 1854. Succeeded in this year by James Russel Lowell, he retired to his home at Cambridge, Mass., and was engaged in literary pursuits nearly to the time of his death, which occurred in 1882.

Longfellow showed little of the dramatic spirit in his writings. His plots were superficial. He was deficient in humor and in the objective faculty. Several of his poems, such as "Psalm of Life," "Resignation," "Excelsior," etc., are "household words." These reach the great heart of the masses, and in them we see that genuine pathos, that purity of sentiment, that make them so popular.

*The Title.*—This poem in its title brings back the days of the old-fashioned fireplace. The crane was composed of a piece of iron, set in an upright position, and attached to the side of the fireplace by sockets, in which it turned freely. Near the top of this upright piece was attached another bar of iron at right angles, from which the kettles, etc., hung over the blazing logs. The crane is so called because of the croaking noise produced when it is turned, or from its remote resemblance to the neck of the crane, the bird.

*The Story of the Poem.*—The author introduces his reader to the company of merry-makers, who have "with merriment and jests" been celebrating "The Hanging of the Crane." In this ceremony we see a new household organized, and following it there are six pictures given, each referring to an interesting period in the history of the family extending over a period of fifty years.

There is variety in these scenes:—some are full of joy and of promise, while others, in which the reader is not the less interested, touch our sympathies for the "ancient bridegroom and his bride" in their days of storm and cloud. Longfellow, who delighted to give pleasure, does not permit the curtain to fall for the last time on any scene of gloom, but on the brightest picture of the seven—"the blithe bewildering scene" of the golden wedding day.

*The Form or Structure of the Poem.*—There are seven divisions, in each of which there is a short stanza of six lines of regular metre and rhyme, and a longer one more or less irregular as to the number of lines and as to the rhyme.

The preludes or introductory stanzas are intended to be descriptive of the real, and the vision or second parts of the unreal, as it appears to the poet's mind in his musing. The actual and the visionary, so characteristic of Longfellow's poems, are not so marked in this poem as in "Keramos," where we find the same form. In the present poem the preludes are more or less visionary, and are not confined merely to a description of the actual, while the visionary scenes are frequently very real. In the first part of each division there are five iambic pentameters and one iambic tetrameter, rhyming regularly as follows: 1 with 2, 3 with 6, 4 with 5. In the second part the lines are iambic tetrameters, but quite irregular as to rhyme.

It is generally considered that Longfellow does not strengthen the picture by the figurative explanations that follow. In these the author does not give play to the reader's imagination. This may be true in Division II. "They want no guests . . . best company," and in Division VII. the last five lines do not appear to strengthen the idea in "On every side their forms and features multiplied." It will be interesting to observe how frequently in this poem the elements of form, of color, and of motion, are used to strengthen the pictures given.

An analysis:—

- Scenes I. A new home instituted.
- II. The wedded pair, alone "with the light of love."
- III. They entertain a "royal guest."
- IV. " " another "royal guest."
- V. The circle completed—a family group.
- VI. The father and mother alone again.
- VII. The golden wedding day.

I.

*The Text.*—Observe the contrast in "are out," "are gone," and "burns on," "remain."

"Like a new star . . . realms of space."—

In this Longfellow merely uses an appropriate figure to illustrate the birth and course of the new home, and it is probable he did not think of giving expression to any particular theory as to the origin of the stars.

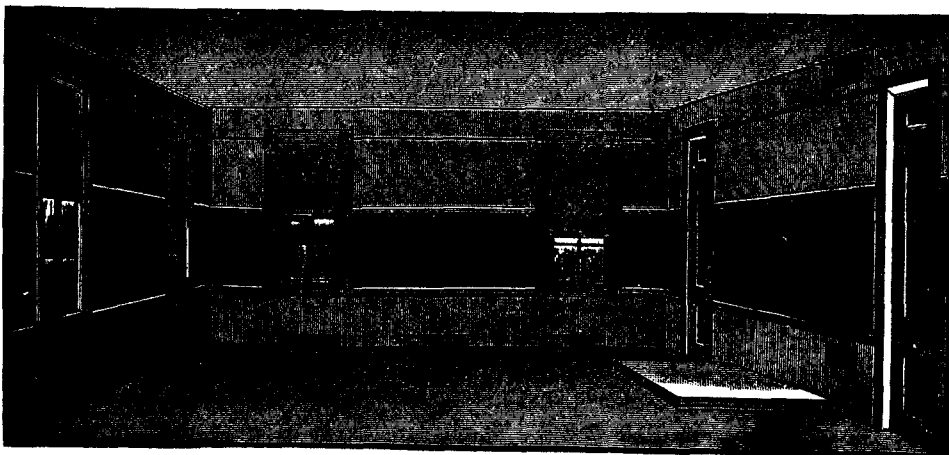
"*Harmonious way.*"—Characteristic of the author, who delighted in good will and harmony. Write a paraphrase of the second part, to show what is meant by "So said the guests in speech and song."

II.

"*Sit and muse.*"—In this prelude is shown the outlines of the pictures that the imagination is forming. The word *muse*, meaning to study, indicates beautifully the attitude of the author's mind.

"*Shapes indeterminate.*"—Forms for the scenes yet not clearly developed.

"*More divine.*"—The light of love is "more divine" than the light of "the evening lamps."



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"Of love . . . mine and thine."—Observe in these lines how beautifully the author expresses the unselfishness of conjugal love, "Not mine and thine, but ours."

"They want no guests . . . our best company."—They are perfectly happy in the enjoyment of each other's company, and do not need the tales of others, regarding the outside world, to add to their enjoyment.

III.

"Dissolving into air," etc.—Referring to the dissolving views of a magic lantern, which fade away and gradually take a new form.

"Transfigured."—With the figures changed.

"So in my fancy this."—In my fancy this picture is transfigured, as in the case of the showman's views.

"Selfsame scene."—Is the scene the same? Longfellow is usually very happy in choice of words; here seems an exception.

"Entertain a little angel unaware."—Generally, parents are fully conscious that their child, especially the firstborn, is a little angel. See Hebrews xiii. 2. "The angel with us unawares" is a common poetical expression. See Gen. xviii. 3; xix. 2.

"A royal guest," "purple chambers," "monarch absolute," "right divine," "King Canute."

The guest is entertained with that consideration that would be shown to a royal personage. "Purple" indicates royalty, and the child is a despotic monarch, whose whims are gratified. Such monarchs are found in the East; hence "of the morn."

"Celestial manners," etc.—Most of us would be inclined to consider such manners quite terrestrial, but "consider well the guest."

"Right divine of helplessness." Is it not his helplessness that gives him power?

"Conversation in his eyes."—Compare "eloquent eyes."

"Golden silence," etc.

"Speech is silvern, silence is golden,  
Speech is human, silence is divine."

This German proverb is borrowed from the Greek.

"As if he could but would not speak."—This shows very well the playful, eloquent expression of the eyes.

"Monarch absolute," etc.—Observe this striking reference to the old story of Canute by the sea. As Canute's chair was pushed back by the coming tide, so the chair of the "despotic monarch" by the nurse who "comes rustling as the sea."

IV.

"As one who sitting . . . behold the scene."—Does the second simile introduce an element of weakness? Observe this form in the prelude of the fifth division.

"The King deposed."—The younger child, by reason of her helplessness, now rules by "right divine."

"Fairy Isles," "Isle of Flowers," "Dreamland."—These expressions refer to Fairyland, and all add to the attractiveness of the "very pattern girl."

"Covered and embower'd in curls."—The "in" seems more appropriate with "embower'd" than with "covered."

"Above their bowls . . . horizon of their bowls."—Observe here the comparison drawn: Of the four blue eyes, seen above the "rims of blue," and of the planets, "soft shining through the summer night."

"Nor care they . . . that are to be."—Here the freedom from care is plainly shown.

V.

"Drifting vapors."—The drifting clouds, in the prelude of the fourth division.

"Pallid disk."—Pale circular surface, "As round a pebble. . . . ring of light." This appears to be a simile; the application is not easily seen.

"Ariadne's crown."—The author looks upon the maidens and youths, seated about the table, as a garland.

"Ariadne was a daughter of Minos. She was married first to Theseus, King of Athens, who deserted her. Then she was found by Bacchus, who, captivated by her beauty, married her, and at her death gave her a place among the gods, and suspended her wedding crown as a constellation in the sky."

"Knight-errantry of youth."—Love of adventure. Observe the contrast here, of the timidity of the maidens and the courage of the youths. This is a picture true to nature.

"Lyric muse."—There were nine Muses, daughters of Zeus and Mnemosyné (memory). Their names were Clio, Euterpé, Thalia, Melpomené, Terpsichoré, Erato, Polyhymnia, Urania, and Calliopé. The lyric muse was Melpomené.

"The phantom."—Fame. Phantoms are frequently mentioned in novels.

"O sudden thrills of fire and frost."—This is in contrast with "O sweet illusions of the brain."

VI.

This prelude gives a strong simile, easily understood. The closing years of life in old age pass more and more rapidly.

"The magician's scroll."—A parchment. The mystic writings disappeared as if the magician used them for his own benefit. The garland, or crown, is now broken, and its parts are shining as jewels in far-away lands.

"Cathay."—China. Would American youths be likely to go to these places, or are they poetical expressions merely for far-distant lands?

How touching is the picture of the anxious mother in these lines!

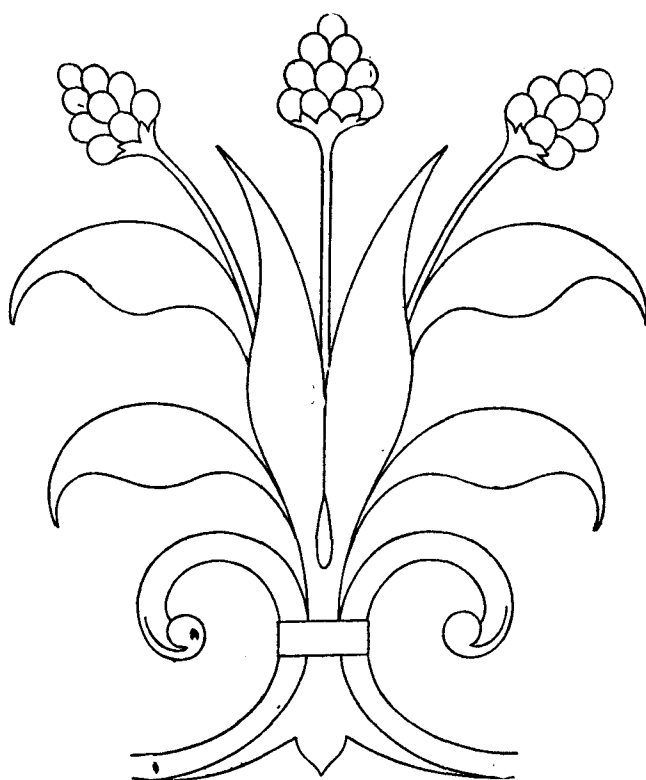
"To lift one hero into fame."—The private soldier is often forgotten while the successful commander is honored.

VII.

"After a day of cloud," etc.—In this stanza the poet is happy in his expressions, and apparently well pleased with the closing scene. What "storm of grief" is referred to? Observe the striking likeness in the language of this stanza and of the first.

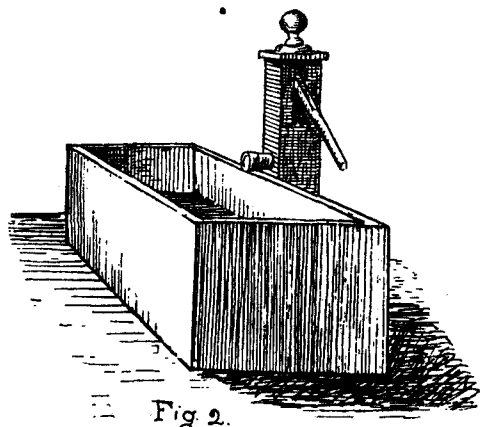
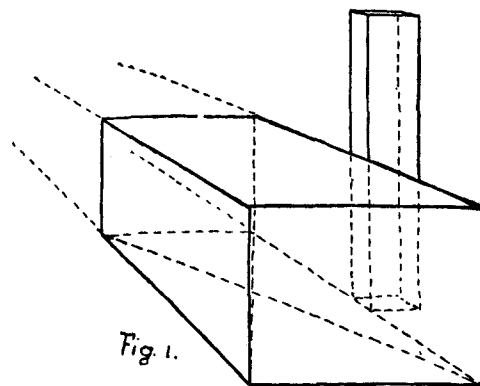
"Monarch of the moon."—As if the man in the moon had visited the earth in the form of a child.

"Ancient bridegroom and the bride."—Though old, yet bride and groom. They rejoice in the happiness of their children and grandchildren, and have special pleasure in seeing their own "forms and features" reproduced in the young.



(2) Draw freehand a rectangular solid  $1'' \times \frac{3}{4}'' \times 3''$ , as it would appear, when resting on one of its largest faces, to the right of the eye, and below it, with its long edges running in the direction you are supposed to be looking. To the right of this solid, and touching it about the middle of the right vertical face, is another rectangular solid  $1\frac{1}{2}$  inches high, and standing on its square base of  $\frac{1}{4}''$  edge.

Show by dotted lines the invisible edges and the apparent convergence of the receding edges to a vanishing point.



EDUCATIONAL DEPARTMENT, ONTARIO,  
ANNUAL EXAMINATIONS, 1895.

PUBLIC SCHOOL LEAVING.

DRAWING.

Examiners: (A. C. CASSELMAN,  
J. J. TILLEY.

(1) Copy in pencil, with a clear outline, the figure printed below, making it a little larger, but of similar proportions:

(3) Repeat the drawing in question 2, add such lines as are necessary, and modify to represent a water-trough nearly full of water and a pump with the handle turned towards you.



## HINTS ON ANSWERING A DRAWING PAPER.

BY MR. A. C. CASSELMAN.

The first thing to do on getting an examination paper is to read it over carefully. Select first the questions that you are sure you know most about. Read again the particular question you have selected, so as to be sure of its exact meaning. Work the other questions in the order you have selected.

In answering a drawing paper, care must be taken not to spend too much time on one question. When a number of objects are required to be drawn, it is advisable to draw all of them you can in outline first. Then go over them again, adding the marks of expression, and lines that suggest surface, and light and shade. By following this plan, you will show the examiner that you know the apparent form of the objects because you have drawn their outline. If you have time to add light and shade to only one or two objects, you will have shown your knowledge of that part of drawing. The examiner judges your knowledge of the subject, and observes that if you had more time all the objects could have been finished like the one or two that you have finished. Had you finished each question in order of selection one or two would have to be left undone, or done hurriedly in the last few minutes. Such hurried work, in most cases, is of little value, and consequently the examiner becomes prejudiced, and you get a mark much lower than you would be entitled to had you proceeded as first indicated.

### ANSWERS.

*Question 1.*—Before copying a figure observe the directions of its leading lines. If it is composed of a repetition of units, study the construction of the unit and then its method of repetition. In this figure we observe that it is *bilaterally symmetrical*; that is, it may be divided into two parts by a line, one part being exactly like the other, but *reversed*. In such figures draw the line about which the figure is symmetrical. The length of this line will determine the size of the drawing. Locate relatively the principal lines or points of the left side of the figure; then those on the right. In drawing leaf-like forms, always draw the mid-rib first. In the first light sketch, if, having drawn a line, you see that it is not in the proper place, *don't rub it out*. Let it remain as a guide to you to draw the correct line. The rubber should not be used till the whole figure is outlined. Then rub out all construction lines, and other lines not to remain in the drawing. Rub lightly over the correct outline. Line in the true outline with a firm *gray, not black*, line. When using the rubber move it in one direction only when on the paper. *Don't moisten the lead of the pencil when drawing.*

## YE MARINERS OF ENGLAND.

P. 193, FOURTH READER.

The first draft of this poem was made in 1799, while the author, Thomas Campbell, was living at Edinburgh. It was suggested by the music of the song, "Ye Gentlemen of England." Two years afterwards it was finished and published under the title "Alterations of the old ballad, 'Ye Gentlemen of England,' composed on the prospect of a war with Russia." Russia, Denmark, and Sweden had formed a league, which left England to contend single-handed against France.

This song is presented by the author as an address to the sailors of England.

*General Subject of the Poem.*—The glory of a war when waged in order to secure permanent peace.

*The Plan of the Poem.*—(1) The glorious record of England in overcoming the enemy, under difficulties. Developed in stanza 1. (2) The encouragement which the mariners are to receive from considering the great naval heroes of England. Developed in stanza 2. (3) Britain's great strength, the navy. Developed in stanza 3. (4) The honor to be given the English mariners, when peace has been secured through the terrible struggle on which England is about to enter. Developed in stanza 4.

*Ye.*—Ye is now used as a poetic form. It is the old nominative. The clause introduced by *that* is used in both a restrictive and descriptive sense—it restricts the application of the term *mariners* to the sailors engaged in the navy, and it also describes their duties. The clause introduced by *whose* is descriptive, and refers to *England*, and not to *mariners*. It would not be true if applied, in the sense here used, to *mariners*.

*A thousand years.*—This means a long time; a definite number is used for an indefinite number.

*Your glorious standard.*—The flag of England, made glorious by being carried to victory over the enemies of the country.

*Another foe.*—The reference is to Russia.

*Sweep through the deep.*—*Sweep* suggests rapid and victorious progress. The mariners are to meet the dangers of both storm and battle.

*The spirits of your fathers, etc.*—The spirits of the brave sailors who have lost their lives in previous conflicts are here represented as rising from the sea and taking an interest in the struggles of their successors.

*When Blake and mighty Nelson fell.*—When this poem was written Nelson was still living, and the line was then written—"When Blake, the boast of freedom, fell." At a later date, the line was changed to the form given in the poem as it appears now.

*Blake.*—Robert Blake, the great naval hero of the Commonwealth, was born at Bridgewater, in Somersetshire, England, in 1599. He lived privately for a time after completing his course at Oxford University. He was elected to represent his native borough in the "Short" Parliament of 1640. Being defeated in the election which soon followed, he entered the Parliamentary army and distinguished himself. After the execution of Charles I., he was appointed to command the fleet against the Royalists. In this he was most successful. His greatest achievements were gained over the Dutch in the war which commenced in 1652. After hard fighting in many engagements, he defeated both the Dutch Admirals, De Ruyter and Van Tromp; next he defeated the pirates of the Mediterranean, bombarded Algiers, which was their headquarters, and liberated the English captives imprisoned there. His last great victory was the destruction of the Spanish fleet in the harbor of Santa Cruz, on the northeast coast of Teneriffe, one of the Canary Islands. He died before his vessel reached England, and was buried in Westminster Abbey. At the Restoration, his body was removed to St. Margaret's churchyard.

*Nelson.*—Horatio Nelson, the great British admiral, was born at Burnham Thorpe, in Norfolk, where his father was rector, 1758. He entered the navy as a midshipman at the age of twelve, and in 1773 accompanied Commodore Phipps in an expedition towards the north pole. He received rapid promotion from one office to another, till he became admiral in 1797. He lost an eye at the siege of Calvi, in Corsica, in 1794. In his attack on the town of Santa Cruz, Teneriffe, he lost his right arm. In 1798 he completely defeated the French fleet at the battle of the Nile. For this victory he was rewarded with the title of Baron Nelson of the

Nile, and a pension of £2,000. His next service was the restoration of the King of Naples, which was accomplished with circumstances involving incidents which were the least creditable in this great admiral's career. In 1801 he succeeded in effecting the destruction of the Danish ships and batteries at the battle of Copenhagen, and broke up the league formed against Britain by Russia, Sweden, and Denmark. For this service he was made a viscount.

In 1805 he fought his last and greatest battle, off Cape Trafalgar, where he defeated the combined fleets of France and Spain. In the engagement he was wounded in the back by a musket ball, and died shortly afterwards. His body was conveyed to England, and buried in St. Paul's Cathedral.

*Glow.*—Burn with enthusiasm, or become animated by enthusiasm.

*Britannia.*—The Latin name for Britain, now used in poetry and impassioned prose. Compare the use of Erin, Cambria, Scotia, Hesperia.

*Bulwark.*—This word is here used in the sense of ramparts, or fortifications. The word is also applied to the sides of a vessel.

*Towers.*—Special fortifications for observation and defence. It is used to amplify the term *bulwark*.

*Steep.*—Steep coast—this is used to describe the general character of the coast.

*Her march . . . deep.*—The same idea is implied in the expression—*mistress of the seas*.

Note the defeat of Spain and Holland.

*Native oak.*—War-ships. At that time oak was largely employed in the construction of vessels; now iron and nickel-steel are used instead.

*Thunders.*—The reference is to shots from cannons on the vessels.

*She quells the floods below.*—This means subdues her enemies. The figure is confused. No doubt the floods represent Britain's enemies. Throughout the poem the struggle with the enemy is coupled with the struggle with stormy winds, and in this line the enemies are represented by the result of the wind—floods, flowing waters.

*The meteor flag.*—The flag of England was, under Blake and Nelson, a sign of disaster to the enemies of Britain, as a real meteor was to superstitious people. It is quite possible that the predominating red color of the flag suggested the epithet *meteor*.

*Yet terrific burn.*—Continue to strike terror into the hearts of England's enemies, as the continued burning of a meteor would increase the fear in the minds of the superstitious.

*Danger's troubled night.*—This refers to the period of warfare. The metaphor implied in *meteor* is continued in *troubled night* and in *star of peace*.

*Star of peace.*—The morning star, the herald of morning, which, in turn, represents peace. In this stanza the poet has given his purpose in encouraging war—to secure peace. The true glory of war is that it secures peace and freedom, and not, as it was among the ancients, to conquer and oppress. War, to be justifiable, must be urged in the interests of peace—to free men from oppression and tyranny.

## FIGURES OF SPEECH.

Teachers in charge of Entrance and Public School Leaving classes should give some attention to figures of speech generally, and particularly to the figures of simile and metaphor. In dealing with these two figures of comparison, it is important to notice that the things compared must be different in kind; otherwise the comparison is not

either a simile or a metaphor. The comparison of Cæsar to Hannibal is literal and not figurative language, because the subjects are the same. On the other hand, the comparison of a conqueror to a destructive fire is of the nature of a figure, since the things compared are different, although possessing similarity sufficient to render the one illustrative of the other.

ILLUSTRATIONS.

1. He was like a lion in the fight. . . . A simile.  
He was a lion in the fight. . . . A metaphor.
  2. The news was like a dagger to his heart. . . . A simile.  
The news was a dagger to his heart. . . . A metaphor.
  3. The colorless rays of truth are transformed into brightly-tinted poetry, as beams of white light are decomposed into the color of the rainbow, in passing through the crystal. . . . A simile.  
The white light of truth is transformed into irised poetry, in traversing the many-sided transparent soul of the poet. . . . A metaphor.
- Figures of comparison may (1) aid in the understanding, (2) deepen the impression on the feelings, (3) give an agreeable surprise.

EXAMPLES.—SIMILE.

- As the plow turns up the land, so the ship acts on the sea.  
His spear was like the mast of a ship.  
His words fell soft, like snow upon the ground.  
As the stars, so shall thy seed be.  
He stood like a giant.  
He stands immovable, like a dead tree, which neither north nor south winds shake.  
The soldiers stood like statues, unmoved by the cannon's roar.

EXAMPLES.—METAPHOR.

- “ In my spirit doth thy spirit shine,  
As shines the sunbeam in a drop of dew.”  
She is as short and dark as a midwinter day.  
Reason is to faith as the eye to the telescope.
- He was a fox in the council.  
Lord Burleigh was a willow, and not an oak.  
The moon threw her silver mantle over the darkness.  
The feathers that adorn the royal bird (the king) support its (his) flight. Strip him off his plumage, and you fix him to the earth.  
“ Coming events cast their shadows before.”  
He is master of the situation.  
More sail than ballast.  
“ The body is the soul's dark cottage.”  
“ Sundays are the pillars on which Heaven's palace lies arched.”  
In the shipwreck of the state, trifles float and are preserved; but everything solid and valuable sinks to the bottom and is lost for ever.

SPELLING.

Of the following list of words Nos. 1-62 have been selected from the Entrance literature lessons for 1896; Nos. 63-80 from geographical names of Canada and other British possessions; Nos. 81-90 from lessons in the Fourth Reader, other than those assigned for the Entrance Examination; 91-100 from names referring to government:

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|---------------|-----------------|------------------|
| 1. shriek.    | 35. palisade.   | 69. Falkland.    |
| 2. murmur.    | 36. Algonquins. | 70. Jamaica.     |
| 3. beauteous. | 37. Iroquois.   | 71. Cape Breton. |
| 4. radiance.  | 38. allies.     | 72. Cobequid.    |
| 5. ingenuous. | 39. Richelieu.  | 73. Miramichi.   |

- |                  |                   |                       |
|------------------|-------------------|-----------------------|
| 6. precisely.    | 40. ensconced.    | 74. Moncton.          |
| 7. diligent.     | 41. musketry.     | 75. Gaspé.            |
| 8. torpid.       | 42. vacillating.  | 76. Sudbury.          |
| 9. unsavory.     | 43. grenade.      | 77. Sault Ste. Marie. |
| 10. philosopher. | 44. vengeance.    | 78. Saskatchewan.     |
| 11. ridiculous.  | 45. sleight.      | 79. Assiniboia.       |
| 12. palsied.     | 46. deceit.       | 80. Vancouver.        |
| 13. staunch.     | 47. blithe.       | 81. snivelling.       |
| 14. echo.        | 48. melancholy.   | 82. midshipman.       |
| 15. autumn.      | 49. repairing.    | 83. plaintiff.        |
| 16. stratagem.   | 50. meteor.       | 84. invisible.        |
| 17. cavalry.     | 51. terrific.     | 85. melodious.        |
| 18. nephew.      | 52. changeling.   | 86. eternity.         |
| 19. stirrups.    | 53. transfigures. | 87. paradise.         |
| 20. weapons.     | 54. episode.      | 88. loitering.        |
| 21. pretensions. | 55. precipice.    | 89. nucleus.          |
| 22. military.    | 56. disposable.   | 90. carbonic.         |
| 23. gloaming.    | 57. conveyance.   | 91. parliament.       |
| 24. tranquil.    | 58. dolorous.     | 92. cabinet.          |
| 25. persuaded.   | 59. grisly.       | 93. ministry.         |
| 26. vigorous.    | 60. leisure.      | 94. lieutenant.       |
| 27. rustling.    | 61. goaded.       | 95. constituencies.   |
| 28. disturbed.   | 62. guerdon.      | 96. municipal.        |
| 29. returnest.   | 63. Gibraltar.    | 97. constitution.     |
| 30. destined.    | 64. Hindostan.    | 98. federal.          |
| 31. achieving.   | 65. Singapore.    | 99. Privy Council.    |
| 32. volunteers.  | 66. Natal.        | 100. magistrates.     |
| 33. audacity.    | 67. Guiana.       |                       |
| 34. sacraments.  | 68. Trinidad.     |                       |

NOTES AND ANSWERS TO QUESTIONS.

M.M.—Problem No 25, p. 111, P.S.A. (old edition).

The supply from the different pipes and combinations of pipes, mentioned in the problem, is as follows: 25 gal., 35 gal., 30 gal., 60 gal., 55 gal., 65 gal., 90 gal.

The L.C.M. of these quantities is 900,900 gal., which is the capacity of the smallest tank that can be filled in the manner described.

Since the three pipes supply 90 gal. per second, the time required by all three pipes to fill it would be  $\frac{900,900}{90}$  sec. = 166 minutes 50 seconds.

C.G.—Problem No. 29, p. 193, P.S.A. (new edition).

The weight required will be  $\frac{100}{144} \times \frac{36}{1} \times \frac{125}{2} \times \frac{275}{1000}$  lbs. = 429  $\frac{1}{8}$  lbs.

Problem No. 54, p. 195, P.S.A. (new edition).  
Let x, y, and z be the lengths of the edges of the quad.

Then (1)  $x^2 + y^2 = 9.79^2$   
 (2)  $x^2 + z^2 = 23.79^2$   
 (3)  $y^2 + z^2 = 25^2$   
 $\therefore y^2 - x^2 = 25^2 - 23.79^2$ . From (2) and (3)  
 $\therefore 2y^2 = 25^2 - 23.79^2 + 9.79^2$   
 $\therefore y = 8.8$   
 $x = 4.29$   
 $z = 23.4$

$\therefore$  the dimensions are 4.29 in., 8.8 in., 23.4 in.

Problem No. 102, p. 151, P.S.A. (old edition).

The following quantities of water were put into vessel C:

(1) 1 gal.; (2)  $\frac{1}{2}$  gal.; (3)  $\frac{1}{2}$  of  $\frac{1}{2}$  gal. +  $\frac{1}{2}$  of  $\frac{1}{2}$  gal. =  $1\frac{1}{2}$  gal.

And the following quantities of water were removed from C:  $\frac{1}{5}$  gal. +  $\frac{1}{5}$  of  $\frac{4}{5}$  +  $\frac{1}{5}$  of  $\frac{1}{2}$  =  $\frac{23}{50}$  gal.

$\therefore$  amount of water remaining in vessel C after the operations mentioned in the problem had been completed =  $1\frac{1}{2} - \frac{23}{50} = 1\frac{30}{50}$  gal.

COUNTY OF BRANT PUBLIC SCHOOLS PROMOTION EXAMINATIONS.

December, 1895.

ARITHMETIC—SENIOR 3RD TO JUNIOR 4TH.

Value 100. Questions of equal value. Only 7 to be attempted. Time 1  $\frac{1}{2}$  hours.

1. Find the number of cedar posts, placed 12 feet apart, that will be needed to go around a 10-acre field (40 rods each side), and their price at 10 cents each.
2. Make itemized receipt bill of the following: April 10th, 1895, John Smith buys of Crompton & Co. 20 yards of silk at \$2.12; 10 pair hose, 52  $\frac{1}{2}$  c.; 6 pair of gloves at \$1.25  $\frac{1}{2}$ ; 13  $\frac{1}{2}$  yards of cambric at 12c.; 1 umbrella at \$3.45. May 21st, 5 handkerchiefs at 27  $\frac{1}{2}$  c.; 2 dozen buttons at 37  $\frac{1}{2}$  c. June 4th, 15 yards of ribbon at 26c.; 13 yards silk velvet at \$3.25.
3. A man bought 34,800 pounds of hay at \$15 a ton, and sold the same at 90c. per cwt. How much did he gain?
4. Find the price of 1200 lbs. of hay at \$15 a ton.
5. When a train is moving at the rate of 24 miles per hour, how long will it take to pass 24 telegraph poles, the distance between the poles being 66 yards?
6. A farm of 400 acres was divided amongst three children, A, B, and C, so that C was to get 100 acres less than A and 40 acres more than B. Find the share of each.
7. A grocer mixes coffee at 36c. and 45c. a pound, with chicory at 30c. At what rate must he sell the mixture so as to make 3c. a pound?
8.  $\frac{3}{4}$  of 40 is  $\frac{3}{5}$  of what number?
9. A pair of horses and a carriage are worth \$700; the horses are worth  $\frac{1}{2}$  more than the carriage. Find the prices of horses and carriage.
10. A man sold  $\frac{1}{3}$  of his farm, then  $\frac{1}{3}$  the remainder, and afterwards  $\frac{1}{3}$  of what still remained and had 40 acres left. How many had he at first?

ARITHMETIC—JUNIOR 4TH TO SENIOR 4TH.

Value 100. Questions of equal value. Only 7 to be attempted, of which Nos. 9 and 10 must be two. Time 1  $\frac{1}{2}$  hours.

1. Define G.C.M., L.C.M., decimal fraction, improper fraction, complex fraction, and write examples in illustration.
2. Find the cost of excavating a cellar 20 feet square and 8 feet deep at 90c. a cubic yard.
3. What will it cost to plaster a room 32 feet long, 18 feet wide and 13 feet high, at 12 cents a square yard, allowing 200 square feet for doors and windows?
4. How many yards of carpet, 27 inches wide, will be required for a hall 11 feet 3 inches wide and 64 feet long?
5. Two farmers hired a steam thresher for 6 months at \$22 a month. They were employed during 127 days of this time, and their expenses were \$3.25 per day. They threshed 63,246 bushels of grain, for which they received 3  $\frac{1}{2}$  cents a bushel. How much did they make during the six months?
6. The difference between  $\frac{1}{3}$  and  $\frac{1}{9}$  of a number is 18. What is the number?
7. How much is received for 20 pails of berries, each containing  $\frac{2}{3}$  of a peck, at 12  $\frac{1}{2}$  cents a quart?
8. A grocer mixed 20 lbs. of coffee at 30 cents a pound, 30 lbs. at 25 cents, and 12 lbs. of chicory at 9 cents a pound. For how much per pound must he sell the mixture so as to make  $\frac{1}{5}$  on every pound?
9. A, going 12 miles an hour, gives B, who goes 8 miles an hour, a start of 40 miles. How long before B will be overtaken?
10. A farmer, dying, left instructions in his will that his farm of 500 acres should be divided amongst his 3 sons, A, B, and C, as follows: A 75 acres more than B, and C 50 acres more than A. Find the share of each.

## ONTARIO EDUCATIONAL ASSOCIATION.

Reported for THE EDUCATIONAL JOURNAL by Mr. John Spence,  
Principal Clinton street school, Toronto.

(Continued from last number.)

## EVENING SESSION.

Thursday, April 9th, 1896.

Mr. G. R. Parkin, LL.D., Principal of Upper Canada College, read an able and instructive paper on "Canadian Schools in their Relation to National Character and National Sentiment." We are, he said, at the work of nation-building in its earlier stages. After generations may do much in competing and adorning, but these processes must depend on the foundations we are laying. Our work is interesting not only to ourselves, but in every part of the empire. The motherland regards us as representing the most advanced stage of colonial growth. The other colonies feel that Canada is taking the lead in political and social organization, and are watching us closely. Our resources are great—land in abundance, mineral wealth of untold value, exhaustless fisheries, immense forests, and a climate favoring health and industry. These serve as material for working out success, but the one essential thing is the character of our people. The decisive element of its greatness is in the quality of the men and women who make up its citizens. If our schools fulfil the highest functions of which they are capable, the teachers must look upon themselves largely as the custodians of the national character. They control the mind of the country in its most plastic state, when impressions are easily received and surely retained. Character begets character. The national character of Canadians will have a marked individuality, and climate will have much to do with it. The winter will have a decisive influence in developing hardihood of body and strength of mind. We have greater facilities for elementary education than any other people, and widespread mental culture and physical strength should be the result. Mr. Parkin did not approve of a system of education that forces every child through the same intellectual process. Rigid systems may produce good average results, but they destroy individuality. Hence, while we must have organization, we must be its masters, not its slaves. Nothing can take the place of the personality of the teacher. All education is the passing of life into life. The great Public Schools of England have had a greater influence in moulding character than any other group of schools, because they have worked on more independent lines. A strong headmaster, and strong men to support him, are engaged and left free to work out their own system. Give all play possible to our own and our pupils' individuality. One great hindrance to the highest educational success is the haste which prevails to get into the actual money-making business of life. This hurries the training and results in superficiality. The student of Oxford or Cambridge spends on the average two or three years more in school and college than Canadians or Americans do, and must be so much the gainer. The German is a far more patient student. This spirit of haste is damaging. It obstructs thoroughness and lacks foresight. We should try to curb it, not encourage it, if we wish to make the most of Canadian boys and girls.

A great responsibility rests upon teachers in instilling proper motives for study. We are told we are over-educating our children, but we can't over-educate, as no one can have too much knowledge for the true purposes of life. It is a common practice to bribe children to study in order to put them in another sphere of life, whereby they may gain a living without physical labor. To encourage laudable ambition is well. To make the acquisition of knowledge subservient to ambition is desecration and is fatal to character. We should get knowledge for the love of it. To use it to give dignity and content in humble occupations is the true lesson the teacher should try to instil. Knowledge will elevate the character of the people. The appeal to duty is infinitely higher than the appeal to ambition. We need to cultivate a high sense of civic responsibility and a high ideal of civic duty.

It is of paramount importance for us to breed a high class of statesmen. The mere local politician will not do for a country of our wonderful extent, with the great store of complicated problems the future has waiting for us. Our proximity to the United States and our growing commercial inter-

course with Europe, Asia, and Australia will demand the most comprehensive grasp of political relationships and diplomacy. This country needs the services of the ablest and noblest minds and hearts we can develop. Our youth must be taught to sacrifice the idea of money-making on the altar of patriotism. Political enfranchisement has been so extended as to be almost universal, and our task now is to impart adequate political knowledge. An Act of Parliament may make a voter, but it cannot make him understand his political responsibility. The schools of Canada must build up Canadian patriotism. We must impress a common national sentiment and sympathy to obtain cohesion, to give unity to public action. Patriotism among the Greeks was intense in character, but was limited to particular cities, and for lack of national unity and loyalty the Greek states fell under the dominion of states knowing less of freedom but more of combination. Roman citizenship extended from Rome to the remotest of her states, but their patriotism was selfish to the utmost degree. The patriotism of the nineteenth century is wider. It is shown in the German Empire and the new Italy.

The provincial feeling in the colonies is disappearing and yielding to widening national thought. British patriotism is being settled on a broader basis than ever, and consequently its flag is floating over a larger surface than that of any nation at any previous period in history. The United States has adopted a method that is questionable. Spread-eagleism is not healthy food for national thought. Our children should be trained to a sober and modest estimate of our place in the world. Exaggeration gives no dignity, while modesty always commands respect. The United States text-books give an absurd preponderance to their history, geography, and political institutions, and the result is that the average American has no sense of proportion. He cannot see that other institutions may be as good as his own.

Mr. Parkin had little sympathy with the cry of "Canada for Canadians," because it seemed a narrow provincial cry. The highest positions in the British Empire are open to any of her subjects. Our boys, if they have the ability, may reach the highest positions in the army or navy, or take the scholarships of Oxford and Cambridge, or seek the suffrages of any British constituency. A score of young Canadians going to the front in imperial affairs would be a great recommendation for our country. Our outlook should be Canadian and British.

Dr. Kingsford, of Ottawa, delivered an excellent address on "Some Considerations on the Advantages We may Hope to Derive from Education." He first showed that parents had some object in view in giving an education to their children. Some make wealth the object, others the hope of seeing their children rise to a higher position in life, others to save their children from the evil consequences of ignorance, which is sure to mar anyone's career. We early learn something of the vast extent of the field of art, science, and literature, in which we can hope to obtain at the best a partial and elementary knowledge. We can only reach pre-eminence in any field by untiring pursuit. One objection urged against the study of the classics is the limited progress made by the schoolboy, which, if not continued in after years, will be of no value. But any knowledge, however limited, is valuable, and what is true of classics is true of all other subjects. The main facts only can be learned at school.

The tradition of former times held that mathematics gives the best mental training, but it is now believed that this study develops fewer faculties than any other. The superficial information we gain from books we soon forget, and what we commit to memory relates to symbols. In modern life, to succeed we need to use both eyes and every faculty. He referred here to the great number of subjects studied in school and college. We gain a superficial knowledge of many things, but no thoroughness in any. Take an eminent man in any department of study, and you will find he obtained his eminence, not by dissipating his energies on a wide range of subjects, but by concentrating his powers in one direction. He declared that the influence of the mothers and the female associates of our children had much to do with their education and development, and instanced the effect on the immortal Shakespeare of having such a mother as Mary Arden. Home influences mould the child's character in gentleness, thoughtfulness, and

sympathy, which never leave him, no matter what our after life brings. There will always be two schools, one aiming at what is called practical education, the other aiming at the moral development.

Education is limited by circumstances. Those who must early earn their bread can devote attention only to the three "R's," at the same time receiving some information in general history. For those who can afford to spend time for an extended course, he advised the study of Latin and Greek for its disciplinary value, even though, when the boy leaves the highest forms, he is not a finished scholar in classics. He dwelt upon the change that modern thought has made in the relative value of the different subjects of study, showing how the classics have been driven from their old first place to make room for others equally, if not more, important.

He summarized the advantages of education as enabling our youth to escape the penalties entailed upon ignorance, and the errors committed by the uneducated. The manners are made gentler, prejudices are softened and abandoned, self-respect and self-reliance are produced. It should teach us to love our neighbor as our self, to hurt nobody by word or deed, to be true and just in all our dealings, to bear no malice or hatred in our hearts, to keep our tongues from lying and evil speaking, to keep our bodies in temperance and chastity, to lean to labor honestly to get our own living, and to do our duty in our station in life. On resuming his seat he was heartily applauded.

## COMMERCIAL DEPARTMENT.

President Wismer, of Parkdale, opened the meeting with an interesting address, and upheld the dignity of this department. He said it was equal to any other, and was so regarded by the Education Department. He dwelt upon the educational value of the different subjects, and showed how important many of them were to the prosperity of the state. He criticized severely the text-books in drawing.

The Executive Committee submitted the following report, which was unanimously adopted, recommending:

(a) That the commercial subjects be made obligatory.

(b) That Writing, Bookkeeping, Business Transactions, and Stenography be substituted in Form II. for Euclid, Physics, and English Grammar, and that these shall constitute the Commercial Diploma course.

(c) That section 10, part 6, of the Regulations be amended by adding Bookkeeping, Commercial Transactions, and Stenography.

(d) That candidates holding a primary certificate shall be allowed to complete the Diploma course by passing in the commercial subjects only.

(e) That candidates be supplied with foolscap paper free from ruled marginal lines, and that no candidate be allowed to bring ruled paper with him into the examination room, and that credit be given for the ruling in connection with the writing.

(f) That the membership fee be reduced to 25 cents.

Mr. Johnson, C.A., Toronto, gave a valuable talk on "Shorthand as a Mental Discipline." He dwelt upon the utility of stenography and its effect upon the mental powers. He illustrated his method of teaching by a free use of the black-board.

Mr. Douglass, of Toronto, gave an address on "Writing," that proved the speaker to have made a careful and successful study of the old slant system of penmanship. He went into a detailed analysis of the principles involved in the formation of each letter, and showed how for teaching purposes they should be grouped.

Mr. Grant, of Toronto, read a practical paper on "Bookkeeping." The system he advocated was so clear and sensible that the only result of his address must have been to awaken interest and secure thoroughness on the part of the student in the very briefest time.

Mr. Fletcher, of Kingston, read a valuable paper on "Drawing," referring specially to the illustrations appearing in the press. He showed how the work was done in a very interesting and artistic way.

The department passed a resolution condemning any system of writing that involved, to any great extent, the finger movement.

## INSPECTORS' DEPARTMENT.

Mr. Craig, of Grenville, read a paper on "Improvements in our Public School System." He deplored the loss of trained and experienced teachers annually, owing to the competition of beginners. The student in professional training should bear the cost. He proposed that special grants be made to schools employing the highest grade of teachers; that the public grants be better apportioned; that third-class certificates be renewable by examination on professional work, and that teachers holding lowest grade of certificate be restricted to certain schools.

Mr. Michell, of Lanark, read a paper on "The Necessity of Increased Inspection of Model Schools by the Public School Inspector." He can examine methods taught, and become better acquainted with the students, and explain to them collectively how to manage their schools, as he now has to do individually.

Mr. Clendenning, of East Bruce, read a paper on "What Should Constitute an Inspector's Visit to a School?" Prominence was given to examination. The questions should be carefully prepared beforehand, and not left to the inspiration of the moment. He should not take the teacher's examination, and should keep a record of the work of each class.

Mr. Platt, of Prince Edward, addressed the section on "Qualifications and Equipment of a Public School Inspector." He spoke of the popular view of the end and aim of education, the moral training, and the tendency to run in grooves. The inspector should be able to stimulate the pupils to love knowledge for its own sake, to counteract the commercial tendency encouraged by the parents. His moral character and influence should be the first considerations. Uniformity was called a genius-killer, and individuality was suppressed to secure it.

Mr. Seath read a valuable paper on "How to Improve Reading in the Public Schools"; but as this paper has appeared *in extenso* in THE JOURNAL, no synopsis need be given here.

Mr. Reazin, of West Victoria, gave an address on "A Lesson from the Model School Examination." The bad spelling, bad grammar, and imperfect knowledge of the students were humorously exemplified. The difficulty of plucking these students was pointed out. Their non-professional work had been already accepted. He said every student should be compelled to pass the Public School Leaving Examination as well as the Primary.

Mr. Brown, of Dundas, read a paper on "An Inspector's Catechism," in illustration of his methods of inspection. He gave a long list of questions, and entered the answers in his notebook. These would enable him to know every desired thing about each school in his district.

## MODERN LANGUAGE DEPARTMENT.

The president, Mr. Keys, of Toronto, read an address on "Our Debt as Teachers to Matthew Arnold." He contrasted Matthew Arnold with Thomas Arnold, the latter the greatest educator of the English people, a man who had accepted the system as it came to him from his predecessors and had made the best of it, while the former had appealed from tradition and authority to reason. Matthew Arnold's criticism of life as given in his writings and his services in teaching the English people to value the training of the intelligence as the surest way to preserve the national glory were dwelt upon. Our system was shown even in points of detail to be near his ideal, as shown in his works on higher education. The value of literature and the importance of studying a foreign language even in preparatory schools was indicated. The power of Arnold's personal example was dwelt upon as encouraging teachers to cultivate an outside interest and to avoid prejudice.

M. Maurice Onenean, of Toronto, read a paper in French on "Octave Feuillet," dealing particularly with two works of this author which are read in the High Schools. Extracts were given to show his strength and realism, and to prove that he was more romanesque than romantic. He is a novelist of the elegant world, being a courtier of the third Napoleon. He is incapable of pessimism, never having been the victim of serious misfortune.

Mr. Brough read an excellent paper on "Shakespeare's Kings." Besides the various points of interest arising from the discussion of so many varied and strong personalities, he referred

to the treatment Shakespeare of the "Divine Right of Kings," and upon the influence of his plays in moulding public opinion to oppose this sentiment in the Stuart kings, working as it did to reinforce the Puritan feeling for royalty derived from the Old Testament.

Miss Charles, of Goderich; Mrs. Kerkman, of Seaforth; and Miss Addison, of Stratford, read excellent papers on "Examination Tests." They showed that an examination should test the power to understand the text and language when spoken, to pronounce correctly, to use a reasonable vocabulary and to appreciate literature. The aim should be thoroughly practical. These ladies were appointed to prepare a model examination paper for discussion next year.

Miss Gardener, of Belleville, read a paper on "The German Lyric Since Goethe." A large number of authors were referred to, and the essayist showed that they had written on every topic of human thought and sentiment.

Mr. McLay, of McMaster University, gave an interesting address on "Ibsen." He divided his work into three classes, historical, legendary, and dramatic. In "Brand" and "Peer Gynt," the author deals with the power of self-realization, the hero of the first achieving success by self-sacrifice, and he of the second failing by too much self-sufficiency.

Mr. Fraser read Mr. Davidson's paper on "Fixed Forms of French Verse." It was a careful investigation of the origin and character of French lyric poetry.

Mr. Pakenham, of Brockville, read an elaborate paper on "Keats." His divisions were the growth of thought, the growth of style, and the claim to greatness.

"English Composition" was discussed by Messrs. Libby, of Toronto; Stevenson, of Arthur; and Phillips, of Listowel. The first showed how the subject was valued and examined by the examiners. The second based his remarks, which were very amusing, on the paramount importance of having matter in sufficient quantity on any topic before being asked to write anything. The last speaker had experimented and discovered the surprising fact that ability to write corresponded exactly with the musical range of the pupil's voice.

## NATURAL SCIENCE.

The president, Mr. Turner, in his address, stated that the universities modified the course in High and Public Schools, whereas it should be the other way.

Mr. Lennox, of Woodstock, criticized the textbooks unstintedly in the departments of botany, chemistry, physics, and zoology.

Mr. Jenkins, of Owen Sound, gave a brilliant paper on "Methods in Science Teaching." The following conditions affected the methods employed: (1) Equipment of the school, (2) courses outlined, (3) text-books employed, (4) aim of study, (5) and the teacher.

Mr. Copeland gave an address on laboratory methods in chemistry and physics, and how to overcome the difficulties met with.

Mr. Jeffrey, of Toronto, illustrated his lecture on "Anatomy of Plant Stems" by stereopticon views. It was of great practical value to teachers preparing pupils for the Senior Leaving examinations, and was listened to with great attention and interest. An interesting feature of the meeting was the presentation by Mr. Jenkins of some apples that were partly greenings and partly Talman sweets. They came from a greening tree, and these peculiarly flavored apples grew on the side next to a Talman sweet tree. Formerly the tree had borne pure greenings. By way of explanation, it was suggested that cross-fertilization affects the fruit-forming simultaneously with fertilization.

## CLASSICAL DEPARTMENT.

Several very interesting papers on the year's course of study were read by Prof. McNaughton, Mr. Bonner, Mr. Smith, Mr. Wilson, and others.

Prof. McNaughton gave a vivid and exceedingly interesting sketch of the Greek theatre in the time of Pericles. He transported his hearers to Athens in the year 441 B.C., and led them to the lofty hill overlooking the city, and pictured the seating of the audience and the orchestra and the actors. He gave as the second part of his paper a grand description of the first performance of the great Greek drama "Antigone."

Mr. Glassey dealt with the similes of Homer, pointing out their naturalness, perspicuity, strength,

and truth. Mr. Smith continued the subject, and dwelt upon the graphic character of the pictures drawn by the great author.

Mr. Bonner read a very fine paper on the teaching of Latin prose. He would teach phrases rather than words. The ear should be trained rather than the eye. Style should be gained from the author. Caesar is the standard for junior pupils. All extra labor in Latin prose helps pupils in sight translation.

Mr. Wilson sent in his paper on "The Poetry of Statius." Special prominence was given in the paper to the metaphors of Statius; their beauty and originality were indicated clearly. He was a very popular poet until the beginning of the nineteenth century. Dante, Chaucer, and other poets owe a great deal to this poet of the age of Domitian.

## MATHEMATICAL DEPARTMENT.

Professor Dupuis, of Kingston, gave an address on "The Relations of Elementary Algebra to Elementary Geometry." He gave several interesting illustrations of the solution of geometric problems by algebraic solutions. The department favored his contention that these two subjects should be coupled in teaching geometry.

Mr. Glashan, of Ottawa, gave an excellent address on "Some Curiosities of Ancient Arithmetic."

President Loudon, of Toronto University, advocated the plan of using graphic methods in teaching elementary physics.

Mr. Chant gave a lecture on the "Electromagnetic Theory of Light," and presented some of the striking advances due to Faraday, Maxwell, and Hertz.

## HISTORICAL DEPARTMENT.

Mr. Robertson, of St. Catharines, read a valuable paper on the "Monroe Doctrine," in which prominence was given to the international relations of Great Britain, the United States, and the Holy Alliance. Many quotations were given to show the interpretations of the Americans themselves, the unjustifiable stand they recently took, and their hostile feeling to Britain.

Rev. Mr. Symonds, of Ashburnham, read a carefully prepared paper on "Luther," in which the political, social, and religious causes of the Reformation were admirably shown, the authorities cited being mainly Roman Catholic. The audience were greatly amused by polemics quoted from Luther and Henry VIII.

Miss Carnochan, of Niagara, gave a description of the early schools of Niagara, taking a comprehensive survey from the earliest settlements till Dr. Ryerson's incumbency. The different schools, modes of payment, and discipline were fully discussed. She wound up her address with an eloquent plea for the study of history.

Prof. Wrong, of Toronto, read a paper on the "Discovery of America." He said there was no evidence to show Cabot landed. He exposed the untruthfulness of Sebastian Cabot, on whose evidence the sites now accepted are received. England's high civilization in the reign of Henry VII. was proved by Italian historians.

## TRUSTEES.

President Jackson pointed out the important part played by the trustees in the work of education, and hoped more interest would be taken by other departments of the association in their section, and by the various bodies of trustees in the province.

They decided against continuing fifth classes where there were High Schools, and rejected a proposal to have pupils of these classes taught free in the High Schools.

They decided to ask the Minister of Education to make it compulsory on county councils to pay for the education of their pupils who may attend High Schools outside their own counties, and to supply all school boards with the consolidated school law, regulations, and any amendments thereto.

They also requested the Education Department to state the number of unsuccessful candidates, as well as the number of successful ones, at the various departmental examinations, with the names of the schools where they were prepared; to have appeals read by different examiners from the original ones. They then discussed the teaching of patriotism, and decided favorably. Mr. Ross spoke briefly, commending the manly, patriotic nature of the

school readers, and declared against Jingoism and in favor of British patriotism.

#### KINDERGARTEN DEPARTMENT.

The first topic of interest was the circular sent out dealing with truthfulness in children and discipline in the Kindergarten. The prevailing sentiment was that mothers and Kindergartners should be brought together as often as practicable, to study conjointly the character of the children.

Mr. Blake, of Springfield, Ill., spoke of the benefit to be derived by joining the International Union. It was decided to join the Union, and Mrs. Hughes, of Toronto, was elected delegate.

Miss Mackenzie, of Brantford, read a valuable paper on "Children's Rights," and Mrs. Hughes, of Toronto, spoke of the elevation of the race through the child by means of nature's work.

Addresses were delivered also by Hon. Mr. Ross, Dr. Chown, of Kingston, and Dr. McCabe, of Ottawa.

It was decided to submit the question of limiting assistants' certificates to three years before the Minister of Education.

Mrs. Temple, of Toronto, gave an interesting lecture on "Clay-modelling and the Development of the Creative Faculty by its Means."

## Science.

Edited by W. H. Jenkins, B.A., Principal Owen Sound Collegiate Institute.

### NATURE STUDY.

#### A LESSON ON AUTUMN.

*Note.*—Each pupil had been asked, a few days previous to taking up this lesson, to find at least three things observed out of doors during the fall.

Quotation marks are used only for the answers which pupils may be expected to give. The rest of the dialogue represents the teacher's part.

I hope each of you has found out at least three things as asked last day. As you give your answers I shall write them on the board, and we may have a short talk about some of them.

Carrie, you may begin.

"Leaves turn red in the fall."

Do all leaves turn red? Carrie.

"No, sir; some turn yellow, and some brown."

Do all leaves change color in the autumn? Tom.

"No, sir."

Name one which does not, Fred.

"The cedar."

Well, Carrie, what else have you to tell?

"Leaves drop off the trees in the fall."

Very good. Do the leaves of all trees fall off? Charlie.

"No, sir; the cedars and balsams keep their leaves all winter."

Now, Carrie, the third thing.

"Nuts get ripe in the fall."

That is very good. Now you may read from the board the three things you have told us.

Carrie does so.

Try to tell these things in a shorter way than you have done.

"Leaves turn red and fall off the trees, and nuts get ripe, in the fall."

Has she told us as many things as before, George?

"Yes, sir."

Herbert, you may now tell us the three things you have observed.

"The birds go away in the fall."

Where do they go?

"They go where it is warm."

In which direction would you go to find warm countries?

"I would go south."

Name a bird which does not go away in the fall, Lily?

"The sparrow does not go away."

What is the second thing, Herbert?

"It is smoky in the autumn."

What is?

"The air."

Tell me what to write down.

"The air is smoky in the fall."

That is better; now the third thing.

"The weather becomes cold in the fall."

Yes. From which direction do the cold winds come?

"They come from the north."

Lily, you may now tell yours.

"The days are shorter in the fall than in the summer."

Very good. How did you come to notice that?

"Because in summer time I always get home from school before dark, and in the fall it is often after dark before I get home."

What next?

"The apples are ripe in the fall."

Yes—and the third thing?

"The weather is often wet in the fall."

What else have we heard about fall weather, Eddie?

"It is cold in the fall."

Who can put these two things together? Well, Tena.

"The weather is cold and wet in the fall."

That is shorter, and tells as much as these two sentences, so I will rub them out and put this one in place of them.

Alice, it is your turn now.

"In the fall the sheep have a thick coat of wool."

Yes, why is that?

"It is to keep them warm in the winter."

Put these two sentences together into one, Sam.

"In the fall the sheep have a thick coat of wool, to keep them warm in the winter."

Yes, that sounds much better and looks more like a story.

What else, Alice?

"The ponds freeze up in the fall."

Why?

"Because the weather is cold."

We have had something else about the weather. Read it, Kate.

"The weather is cold and wet in the fall."

Now, I wonder who can put this and what Alice has about the ponds into one sentence. Well, Maggie?

"In the fall the weather is cold and wet, and the ponds freeze up."

Yes, that will do very well. Now for the last one, Alice.

"There is frost on the ground in the fall."

Now I am going to ask each of the others to tell us what they have noticed, and I will write them on the board, and then I will give you a nice lesson to do. Mary, you may give me yours.

"Seeds get ripe in the fall."

"There are no flowers in the fall."

"The winds are strong in autumn."

*Sarah.*—"In the autumn the squirrels lay up a store of food."

"The roads are very muddy in the fall."

"Potatoes are dug in the fall."

*Sam.*—"There are no flies in the fall."

"Nuts fall from the trees after a frost in autumn."

"There are lots of partridge in the fall."

*Edith.*—"The cows go dry in the fall."

"The sky is more cloudy in the fall than in summer."

"The frost in fall kills the small plants."

That will do for to-day. When you go to your seats, copy all these things down in your books and take them home and make them into a nice story. I will read them over, and the one who has put them all together in the best way may read his story the next day to the class.

### QUESTIONS IN PRIMARY PHYSICS.

The following questions in Physics are considered suitable for candidates for the Primary examination. They are wholly of a mathematical nature, and presuppose the discussion by the teacher of the various principles involved. These questions will be inserted from time to time, at the request of a number of teachers who are taking up this work. The editor of this department will be glad to receive and acknowledge through publication any solutions which may be sent to him:

1. A particle moving at a speed of 40 cm. per sec. continues at this speed for 10 seconds, when its speed is retarded 4 cm. per sec. In what time from the first moment of observation will it come to rest, and what will be its total displacement? Ans., 20,600 cm.

2. A body falls from rest for four seconds; find its velocity, and the distance fallen through.  $g=980$ . Ans.—3,920 cm. per sec. and 7,840 cm.

3. In what time will a body falling from rest traverse 1,080 feet? Ans., 8.21 sec.

4. How far will a particle falling vertically go in the eighth second of its flight?  $g=32$ . Ans., 240 feet.

5. A ball is shot vertically upwards with a velocity of 2,016 feet per sec. How long can it ascend, and to what height? Ans., 63 sec., 63,504 feet.

6. In what time will a body moving with an acceleration of 25 feet per second acquire a velocity of 1,000 feet per second? Ans., 40 sec.

7. What space will a body describe in 6 seconds, moving with an acceleration of 160 yards per minute? Ans., 144 feet.

8. With what velocity must a body start if its velocity be retarded 10 feet per second and it comes to rest in 12 seconds? Ans., 120 feet.

9. In how many seconds will a body describe 1,400 feet, moving from rest with acceleration of 7 feet per second? Ans., 20 seconds.

10. Through what space will a body move in 4 seconds with an acceleration of 33.2 feet per second? Ans., 257.6 feet.

11. A body moving from rest with a uniform acceleration describes 90 feet in the fifth second of its motion; find the acceleration and velocity after 10 seconds. Ans.,  $f=20$ ;  $V=200$ .

12. What is the velocity of a particle which, moving with an acceleration of 20 feet per second, has traversed 1,000 feet? Ans., 200 feet per second.

13. A body is observed to move over 45 feet and 55 feet in 2 successive seconds; find the space it would describe in the twentieth second. Ans., 195 feet.

14. With what velocity is a body moving after 4 seconds if its acceleration be 10 feet per second? Ans., 40 feet per second.

15. The velocity of a body increases every minute at the rate of 360 yards per minute. Express this acceleration, taking feet and seconds as units of space and time. Find the space described from rest in 20 seconds. Ans., 0.3 feet per second, 20 yards.

16. What velocity must a body have so that, if its velocity be retarded 10 feet per second, it may move over 45 feet? Ans., 30 feet.

17. What velocity will be gained by a particle that moves for 5 seconds with an acceleration of 12 feet per second? Ans., 60 feet.

18. A point has displacements of 9 feet, 10 feet, 11 feet, and 12 feet in 4 consecutive seconds; find its average velocity for the 4 seconds. Ans.,  $10\frac{1}{2}$  velos.

19. Find the average velocity of the point in Question 22 (1) for the first 3 seconds, (2) for the last three seconds. Ans., (1) 10 velos., (2) 11 velos.

20. A point has displacements of 20 yards, 24 yards, 28 yards, 32 yards, and 36 yards, in 5 consecutive seconds; show that the average velocities for the 5 seconds, for the three middle seconds, and for the one middle second are all equal.

### ELECTRICAL UNITS.

The five principal units of current electricity are: The volt, ampere, ohm, coulomb, and farad.

The volt is the unit of intensity. It may be compared with the steam pressure of a steam engine, or the pressure of a column of water flowing in a vertical pipe.

The ohm is the unit of resistance, and may be compared to the resistance of a pipe to the water flowing in it.

The ampere is the measure of rate of flow of current, and is that quantity which would pass through a circuit having one ohm resistance, when urged by a pressure of one volt. It does not include the idea of time or of real pressure. Thus we might have an ampere flowing through a circuit as the result of either the smallest fraction of a volt, or of 1,000,000 volts, depending upon the resistance of the circuit. The quantity flowing, however, would be exactly the same as that resulting from one volt through one ohm.

The coulomb is the measure of quantity of flow; that is, current flowing at the rate of one ampere for one second, and is also termed the ampere-second. This quantity is so small that in practical battery, electric light, and motor work, the ampere-hour is taken as the measure of quantity.

The farad is the measure of capacity. The capacity of a surface which can hold one coulomb of electricity at a voltage or pressure of one volt is a farad. It may be compared with the capacity of a container filled with gas. Under a certain

pressure it will hold a certain amount of gas. Double the pressure, and it will hold double the amount of gas, etc. Similarly, a surface which would hold one coulomb at a pressure of one volt would hold two coulombs at a pressure of two volts, etc.

The watt is the mechanical unit of work-power. The number of watts may be obtained by multiplying the number expressing the volts, or the electromotive force, by the number expressing the amperage, or the current. A force of seven hundred and forty-six watts equals one horse power.

One must not fall into the error of considering electricity a fluid because of these comparisons. The units may be very easily explained by the analogy of a current of fluid, but the ancient theory that electricity is an "imponderable fluid" is now considered untenable.—*Popular Science.*

ANSWERS TO CORRESPONDENTS.

M.H. (Ursuline Academy), Chatham.—Problems and answers given below.

M.J.A., Beeton.—Can you give me any information with regard to the Cavendish experiment? It is not in High School Physics. If you can give me an explanation of it, please publish it in the next JOURNAL.

ANS.—For answer to this question see the High School Physical Science, Part I., page 71.

STUDENT, Streetsville.—Are there any notes or answers published to problems in High School Physical Science, Part I.? If not, please solve problem 16, page 74; problem 4, page 79; and problem 2, page 197.

ANS.—As yet, no notes or answers have been published.

Problem 16, page 74. See page 71 for the law.

ANS.—At a distance from the earth's surface equal to the sum of the radii of the earth and the mass.

Problem 4, page 79.

See third law of motion, page 74, from which the momentum of the bullet equals the momentum of the rifle; but as the mass of the rifle is 1000 times the mass of the bullet, the velocity of the rifle will be one-thousandth of that of the bullet. Part (c) is a repetition of part (a).

Problem 2, page 197.

520 grams of water fell in temperature from 19.8 to 10.5 degrees centigrade=9.3 degrees, and, therefore, gave out  $520 \times 9.3$  calories of heat=4,836 calories. This was expended in melting 50 grams of ice and raising the water so formed to 10.5 degrees C. 50 grams ice melting form 50 grams of water. To raise 50 grams of water 10.5 degrees requires  $50 \times 10.5$  calories=525 calories. This leaves  $4,836 - 525 = 4,311$  calories to melt 50 grams of ice. Therefore, to melt 1 gram requires  $\frac{4,311}{50} = 86.22$  calories, which is, therefore, the latent heat of fusion of ice.

Problems sent by M.H.

1. A bottle half filled with water, other half with air, is placed mouth downward under water in a pan and set in a room. The barometer stands at 75 cm. Find the volume of gas in the bottle when the barometer is 8 cm. above normal.

2. A ball falls from rest for 3 seconds, passes through a pane of glass, and thus loses one-half its velocity, and afterwards reaches the ground in 3 seconds. How high was the glass?

3. How far will a body with a velocity of 200 cm. per second, and an acceleration of  $(-.001)$  metre per second, travel before coming to rest?

4. Find the pressure on the bottom of a glass jar 120 cm. in diameter, when filled with water, when the barometer is at 70 cm. The normal atmospheric pressure on a sq.cm. when the barometer is at 76 cm. is 1,000 grams. Depth of vessel, 70 cm.

Solutions:

(1) The normal barometer is 76 cm. 8 cm. above normal is, therefore, 84 cm.

If at a barometric pressure of 75 cm., there is half a bottle of air; at a pressure of 84 cm. there would be  $\frac{75}{84}$  of half a bottle of air. See Boyle's Law, page 126 of the High School Physical Science, Part I.

(2) Velocity at end of 3 seconds =  $3 \times 32 = 96$  feet per second. Velocity on emerging from glass is 48 feet per second. It, therefore, starts on its new path with this, i.e., 48 feet per second as initial velocity, and since it is falling 3 seconds, it falls  $(48 \times 3) + (3^2 \times \frac{32}{2}) = 288$  feet. The first quantity,  $48 \times 3$ , represents the distance it would go in 3

seconds if its velocity remained unchanged, but gravity is constantly acting upon it during the last three seconds, and  $3^2 \times \frac{32}{2}$  represents the distance gravity alone would take it in 3 seconds.  $\therefore$  pane is 288 feet from ground.

3. .001 metre per second =  $\frac{1}{10}$  cm. per second. If body loses  $\frac{1}{10}$  centimetre per second and has a velocity of 200 cm. per second, it can go for 2,000 seconds. Then distance =  $200 \times 2,000 + \frac{1}{10} \times \frac{1}{2} \times 2,000^2$  centimetres. See solution of 2 above.

4. When barometer is 76 cm. press. of atmos. = 1,000 grams per sq. cm.  $\therefore$  when barom. is 70 cm., pressure is  $\frac{70}{76} \times 1,000$  grams per sq. cm.

Area of surface exposed =  $60^2 \times \frac{22}{7}$  sq. cm.

$\therefore$  atmos. pressure =  $60^2 \times \frac{22}{7} \times \frac{70}{76} \times 1,000$  grams.

(A). But weight of water in vessel since 1 c.cm. = 1 gram. is  $60^2 \times \frac{22}{7} \times 70$  grams. (B)  $\therefore$  Total pressure equals A + B.

S.C., Winger.—Poison enters a blood vessel in the foot. Trace its course until it reaches the brain.

ANS.—If the poison is a mineral poison, it does not enter the general blood system, but its effects are local in the part receiving the poison. If, however, the poison is one of those familiarly known as blood poisons, it enters the blood vessel, and is carried by the lymphatic system to the central organ of distribution; from there it passes over the body. With this poison the blood is affected, and it in turn affects the whole system. Nervous matter appears very susceptible to blood thus poisoned.

Question Drawer.

"There was an urchin of the town,  
Who, on his way to school,  
Whene'er his comrade tumbled down,  
Would laugh in ridicule."

What kind of a phrase is "on his way to school"?

ANS.—The phrase in question is adverbial. It might, with sufficient accuracy for ordinary purposes, be called an adverbial phrase of time. But a closer analysis of the force it has in the sentence will show that it gives, in a general way, not only the time when, but the place where, and the circumstances in which, the laughing was indulged in. Hence, in grammatical strictness, it should be defined as an adverbial phrase combining these three particulars of time, place, and circumstance. Perhaps the one word "circumstance" might be used as inclusive of all three.

M.B.—Kindly analyze:

(a) "A broad, open plain was the field of fight."

(b) "This person was the man most responsible for the occurrence."

The difficulty is in placing the predicate noun and its modifier. Should the predicate noun be placed in the predicate, as the predicate adjective is?

ANS.—Yes. Evidently the thing affirmed or predicated of the subject is, in either case, that part of the whole sentence which follows the verb "was."

A.H.P.M.—Your question was too long overlooked. The word *as* has so many different uses that no general rule for parsing it can be given, save that its use and force in the sentence must be carefully studied and made our guide in the classification. It is sometimes an adverb, sometimes a conjunction, and more frequently than either a conjunctive adverb or adverbial conjunction, as combining the functions of both. To give examples of all its various shades of meaning would require more space than we have now at command. If you will send us any sentence in which you find difficulty in classifying it, we will do our best to help you.

THE HIGH SCHOOL AND UNIVERSITY MATRICULATION EXAMINATIONS.

TIME-TABLE, 1896.

Candidates must notify the Inspector, not later than 24th May, of their intention to present themselves for examination. All notices to the Department for intending candidates must be sent through the Inspector.

It is suggested that the Principals of Collegiate Institutes and High Schools assist, where necessary, the candidates of their school to fill up their forms of application, which are to be forwarded, together with the required fee, to the Public School Inspector within whose jurisdiction the candidate proposes writing.

Where the number of candidates necessitates the use of more rooms than one, those taking the same form examination are, in order to prevent confusion, to be seated in the same room.

Tuesday, July 7th.

A.M. 8.45-9.00 ..... Reading Regulations—I.  
9.00-11.30 ..... Geography—I.  
P.M. 1.30-4.00 ..... Botany—I.

Wednesday, 8th.

A.M. 9.00-11.30 ..... Writing, Bookkeeping,  
and Commercial Transactions—I.  
11.30 ..... Reading—I.  
P.M. 1.30-4.00 ..... Drawing—I.  
4.00 ..... Reading—I.

Thursday, 9th.

A.M. 8.45-9.00 ..... Reading Regulations—  
II.  
9.00-11.30 ..... English Grammar and  
Rhetoric—II.  
P.M. 1.30-4.00 ..... Physics—II.

Friday, 10th.

A.M. 9.00-11.30 ..... Arithmetic and Mensur-  
ation—II.  
P.M. 1.30-4.00 ..... History of Great Britain  
and Canada—II.

Saturday, 11th.

A.M. 8.45 9.00 ..... Reading Regulations—  
III, IV.  
A.M. 9.00-11.30 ..... Algebra—II, III, IV.  
P.M. 1.30-4.00 ..... English Literature—II,  
III, IV.

Monday 13th.

A.M. 9.00-11.30 ..... Geometry—II, III, IV.  
P.M. 1.30-4.00 ..... English Composition—  
II, III, IV.

Tuesday, 14th.

A.M. 9.00-11.30 ..... Latin—II.  
..... Latin Composition —  
III, IV.  
P.M. 1.30-4.00 ..... French—II.  
..... French Composition—  
III, IV.

Wednesday, 15th.

A.M. 9.00-11.30 ..... German—II.  
..... German Composition—  
III, IV.  
P.M. 1.30-4.00 ..... Greek—II.  
..... Greek Composition—III,  
IV.

Thursday, 16th.

A.M. 9.00-11.30 ..... History—III, IV.  
P.M. 1.30-4.00 ..... Latin Authors, Grammar  
and Sight Translation—III.  
1.30-4.30 ..... Latin Authors, Grammar  
and Sight Translation—IV.

Friday, 17th.

A.M. 9.00-11.30 ..... Chemistry—III, IV.  
P.M. 1.30-4.00 ..... French Authors, Gram-  
mar and Sight Translation—III.  
1.30-4.30 ..... French Authors, Gram-  
mar and Sight Translation—IV.

Saturday, 18th.

A.M. 9.00-11.30 ..... Physics—III, IV.  
P.M. 1.30-4.00 ..... German Authors, Gram-  
mar and Sight Translation—III.  
1.30-4.30 ..... German Authors, Gram-  
mar and Sight Translation—IV.

Monday, 20th.

A.M. 9.00-11.30 ..... Botany—III.  
9.00-12.00 ..... Biology (Botany and  
Zoology)—IV.  
P.M. 1.30-4.00 ..... Greek Authors, Grammar  
and Sight Translation—III.  
1.30-4.30 ..... Greek Authors, Gram-  
mar and Sight Translation—IV.

Tuesday, 21st.

A.M. 9.00-11.30 ..... Trigonometry—IV.  
P.M. 1.30-4.30 ..... Problems (only for candi-  
dates writing for Scholarships).

## For Friday Afternoon.

FOR THE EDUCATIONAL JOURNAL.

### THE FIRST DANDELION.

A little wee flower with a cap on its head  
Pee ped out of the ground one day,  
"It is spring, and high time to get up," it said,  
"The snow has melted away.

"The sun is beginning to shine very strong,  
The wind is whistling for glee;  
I really believe, though perhaps I am wrong,  
The wind is calling for me."

So it quickly took off its nightcap of green,  
Then smoothed down its golden hair,  
And smiling up bravely and brightly was seen  
Spring's first dandelion fair.

LIZZIE WILLS.

Toronto.

### SUGAR-MAKING TWENTY YEARS AGO.

J. H. PUTMAN, OTTAWA.

I wonder how many little folks who eat the maple sugar and maple syrup have any idea how much work it takes to prepare it. Of course you all know that the sugar is made from the sap of the maple and that this sap must be boiled and boiled until all the water goes away in steam and only the delicious sugar is left.

Twenty years ago Farmer Hall, who lived in Southern Ontario, tapped about two hundred maple trees. The work was mostly done by the farmer and his man. Holes were bored in the trees, spouts put in the holes, and the buckets put under the spouts. The sap was gathered into a large barrel placed on a sled, and this sled was drawn through the sugar-wood by a steady old horse.

A boiling place was made by hanging two great iron kettles from a stout pole. This pole was held up by two crotched sticks fixed each against a tree. Great piles of dry wood were gathered and piled near the kettles.

Close to the boiling place a house was made by fastening four poles to four trees, and covering the poles with pine boughs. The sides of the house were formed by placing upright sticks against the four poles that supported the roof, and piling pine branches against the sides. This made a warm room where the barrels of sap were kept. Places were also arranged in this shanty for sap-pails, dippers, and cloths for washing kettles. Three old kitchen chairs completed the furniture.

Here Farmer Hall could sit in unpleasant weather and watch the boiling kettles. Often a neighbor would drop in to have a talk, and perhaps take a drink of sap or of warm syrup.

No one, however, enjoyed a visit to this sugar house so much as Tom and Kate, the children of Farmer Hall. To them it was a kind of fairy palace, and the whole operation of sugar-making was an event to be remembered and talked about from one year to another. There was one serious drawback to their perfect happiness, and that was the schoolhouse. Farmer Hall was very particular that Tom and Kate should visit this same little schoolhouse twice a day and five days in the week. But just as soon they came from school they were off to the woods, and what jolly times they had on Saturdays! A whole day to wander about from tree to tree, gathering sap, piling wood on the fire, dipping the syrup from kettle to kettle, watching red-squirrels and chipmunks, and listening to the tap, tap of the woodpecker, or the "tweet," "tweet," of the chickadee!

One day in April, when the sugar season was almost over, Farmer Hall came into the house with a troubled look on his face. The sap-buckets were nearly full. The seeding had begun, and neither the farmer nor his man could possibly leave their work in the field to boil sap. The season was so busy that it would be of no use to try to get help and the sap would sour unless boiled very soon.

All at once Tom had an idea. Why couldn't he and Kate boil sap? They were certain that they were quite familiar with every part of the operation and could do it as well as their father. Finally it

was all arranged. The farmer and his man were to gather the sap that night and the next day Tom and Kate were to stay home from school and boil it down.

The children were as much excited that night as though it were Christmas eve, and the next morning were up much earlier than usual. In such a hurry were they to begin work that they ate little or no breakfast, and were soon on their way to the woods, with a very heavy lunch basket.

The kettles were soon filled and the fires started. How proud the children were of their work and its importance! How they wished that someone might come along and see what they were doing! They heard the school-bell ring at nine o'clock and wondered very much what their schoolmates would think of their absence.

About eleven o'clock Tom judged from the sun and from a peculiar feeling inside his jacket that it must be noon. The lunch basket was brought out. Sandwiches, hard-boiled eggs, doughnuts and apples! What a dinner they had and what appetites! While they were eating the kettles had to be watched, fresh wood piled on the fire, and a general watch kept up over the sugar-camp. But all this only increased their appetites and gave them opportunity to talk and eat.

As the afternoon wore away they had to give more and more attention to the large kettle that held the syrup. When the syrup begins to thicken it will have a white frothy look and rise higher and higher in the kettle until it comes to the top. Unless something were done to stop it, the syrup would now run over the sides of the kettle into the fire. Tom and Kate understood all about this. They were provided with a piece of fat meat tied to a stick, and when the syrup would rise to the top of the kettle they would let the fat into the syrup and immediately the froth would go down. The oil from the fat spreads itself over the top of the syrup and makes it behave itself.

By six o'clock the syrup was boiled down to about four gallons and Farmer Hall came to help the children carry it to the house.

It had been agreed that as this was the last "sap-run" of the season, the children should have the syrup to "sugar-off," and this "sugaring-off" was to be done at night under their mother's direction.

After supper the syrup was placed on the stove in two kettles, and when it began to boil was thoroughly cleaned with white-of-egg. The white of an egg was put into the boiling syrup, and this caused any impurities that had not been removed from the sap to rise to the surface in the form of scum. This scum was removed and nothing but pure syrup was left.

And now came the exciting part of the day's work. The thick syrup would rise to the top of the kettle, and then break in little bubbles and slowly settle in the kettle again. When the proper time came the kettles were taken from the stove and the sugar stirred, for you must know that if maple sugar is to be nicely grained it must be continually stirred while cooling. The children were allowed to help with this operation, but it made their arms ache.

When the sugar was sufficiently cooled Tom and Kate made it into cakes by putting it into cups or bowls and leaving it to harden. The cakes of sugar were for their schoolmates and for some cousins who lived in town.

All of their young friends were remembered, and one cousin, who was very fond of playing tricks on others, had special reason to remember his sugar-cake. Tom put a little soft sugar in a cup. He then put in a hard-boiled egg and filled around the egg with more soft sugar. When this hardened he had a fine-looking cake of sugar for his cousin, who found when he came to eat it that it really was an Easter sugar-cake.

SOME amusing evidence was given before the Welsh Land Commission by a gentleman seventy-four years old, residing on the estate of Colonel West, of Ruthin Castle. Witness created some laughter by stating that the spread of education would increase the difficulty of obtaining farm servants, "because it was much easier to carry a quill behind the ear than a spade in the hand." Lord Kenyon asked if he remembered when he paid part of his tithe in eggs. Witness: "Oh, yes; when I was a child. The parish clerk or servant used to come round and count the hens, and we had to give an egg for every hen and two for every cock."

## Primary Department.

### GEOGRAPHY.

BY RHODA LEE.

The question as to what is the best method of impressing geographical facts is one that has properly received much attention of late years. Almost all agree that map-drawing is the great aid in acquiring a knowledge of the structure and size of the earth. Not the simple copying of the map as found in the text-book, but a gradual "building up" that necessitates thought from the pupil, and impresses the features and facts of a country as no other plan can.

Map-drawing interests children. Work can always be made interesting. The only time we are sure of pupils losing interest is when the teacher is doing all the work. They learn vastly more by doing than by hearing, or even seeing. Let your pupils do as much as possible in geography if you would have them really learn. Associate facts with the geographical forms and they will be remembered.

The first step is to construct an outline. This is not necessarily an exact copy of the map in the text-book. We should not, at first, require attention to every little indentation, but, keeping strictly to correct proportions, get as simple a drawing as possible, details being added later on. Everyone is acquainted with the system of construction lines. Some teachers use an irregular triangle for North America, but I am inclined to think the oblong is better. The general size of slate in use will determine the dimensions, but 6x8 inches is a convenient measurement. Divide each side into four parts, and join the opposite points with vertical and horizontal lines. These are merely construction lines, and do not denote latitude or longitude. After the children can draw these lines quickly, teach one coast line. Let this be the north. The teacher may, for convenience, have her oblong scratched on the board, and should work with the children. Have the blackboard curtain where it can be readily drawn over the map. After outlining together several times, let the children watch the teacher. She then covers her work, and they draw from memory. They then compare, correct where wrong, erase, and repeat the work. When the north side can be sketched rapidly, teach the west side; then the east. When the whole outline can be fairly well drawn, we may begin the teaching of facts and features of the continent.

First in order come the boundary waters. Following this, the countries, mountains, rivers, lakes, bays, capes, islands, important seaports and cities, etc. Make the lessons interesting, and also impressive, by obtaining all the information possible regarding the points studied. Do not tell the children any more than is absolutely necessary. They will be far more interested in information they have discovered for themselves than in anything you can tell them. If the lesson be on the coun-

tries, ask the boys to find out, before a certain day, something about Alaska. The girls can take, as their subject for investigation, Mexico. Not long ago I saw a third-book boy sit down at home and, in a few minutes, outline a map of Ontario, putting in every county correctly without the least trouble. He drew construction lines first, and within these the outline seemed to be almost automatically sketched. Of course, the placing of the counties required some thought, and, as I watched, I could not but think how infinitely more educational such a plan of teaching was than the old method, consisting of long lists of names that, thus acquired, seemed to be so easily forgotten.

### STORY FOR REPRODUCTION.

ONE TWENTY-FOURTH OF MAY.

RHODA LEE.

Tommy Bates had been saving up his cents and pennies for a long time, and intended to spend them all on fireworks for the Queen's Birthday. The only house very near his was Mrs. Burden's, and, although there were no little boys of his age in the family, there was a baby of about two years who was very fond of Tommy. Tommy was thinking all the time how that baby would crow and clap his hands when he heard his big crackers go off, and how his eyes would dance when the pin-wheels whizzed. The evening of the twenty-third came, and just before supper he went down to the store and spent all his money except two cents. "Those will buy the baby a couple of sugar-sticks for his holiday," he said, and he pushed them deep down in his pocket, and turned his back on a Roman candle he wanted rather badly. After showing his mother his treasures he put them away on a shelf until morning. Just then Tommy caught sight of the doctor's gig standing at Mrs. Burden's door.

"I wonder who is sick," he said to himself. "Perhaps the doctor has just gone in to see Mr. Burden about some painting."

Bright and early next morning Tommy was up and downstairs in the back yard, his fireworks arranged on a bench beside a box of matches. Bang! went a cracker, and Tommy was just rushing off to see if it had left a light when Mrs. Burden's side window went up. Poor tired Mrs. Burden was too weary to think of the little fellow's disappointment as she asked him, somewhat impatiently, not to set off any more of those things, as baby had just gone to sleep after being awake almost all night. Tommy felt pretty sore, but he gathered up his things and went in to tell his mother, who was getting breakfast. Presently she went over to see what was wrong with little Frank. "The baby's pretty bad, Tommy," she said when she returned. "The doctor has been to see him twice, and says he must have as much sleep as possible to-day." Tommy's eyes grew rather full just then, for he could not help thinking how angry he had felt at that baby for upsetting all his day's fun. "However," his mother added, "your fireworks will keep till Saturday,

Tommy, and we will have them over to tea and set them off in the evening.

The twenty-fourth of May was rather a long day for Tommy. He did not know what to do with himself. He bought the sugar-sticks for Baby Frank, and afterwards remembered that he could not eat them until he was better.

But there was not a happier boy in town than Tommy Bates when, in the evening, Mrs. Burden came over purposely to thank him for being so quiet all day. Baby had slept and was better, she said. The fireworks on Saturday were a grand success, and as the exhibition was not a late one Baby Frank stayed awake to see it.

### BUSY WORK.

RHODA LEE.

I. Write the names of articles made of the following:

1. Wood.
2. Iron.
3. Glass.
4. Gold.
5. Wool.
6. Cotton.
7. Paper.
8. Tin.
9. Leather.
10. Stone.

II. Tell all you know about the following:

1. Feathers.
2. Tea.
3. Paper.
4. Leather.
5. Boats.
6. Fireworks.

### Book Notices.

FIVE-MINUTE OBJECT SERMONS TO CHILDREN. By Sylvanus Stall, D.D. Cloth, 12mo., 256 pp. \$1. New York, London, and Toronto: Funk & Wagnalls Company.

These forty-three brief sermons to children have more than usual merit. With some object of everyday life presented to the eye, the author, after the manner of the parables, presents the important truths of the Gospel to the easy comprehension of both old and young. The illustrations used are impressive, the truths taught are important, and the impressions made are likely to be lasting. The book is admirably suited to the use of such teachers as desire something short and impressive to read to their scholars in the devotional hour.

THE LIFE OF ST. COLUMBAN. 20 cents. Translations and reprints from the original sources of European history. Published by the Department of History of the University of Pennsylvania, Philadelphia.

No. 7 of the second volume of *Translations and Reprints of Historical Documents*, published by the University of Pennsylvania, is entirely taken up with a translation from the Latin of the Life of St. Columban by the monk Jonas. The period during which Irish missionary zeal was so active—the sixth and seventh centuries—is, in the light of the later history of Ireland, peculiarly and particularly interesting. Superior to the inhabitants of the neighboring island, and, indeed, of continental Europe, in the purity, intensity, and enlightenment of their faith, the Irish, taking pity on the benighted English, Gauls, Germans—on the rest of mankind generally—set to work to Christianize and civilize these less favored races. Only a little while, however, and the barbarous sea-kings from the north brought ruin and desolation to the green

island of the west. Then followed that long night of national sorrow and humiliation which is only now giving place to a feebly-breaking, grayish, unpromising dawn.

Except St. Patrick, there is no more popular Irish saint than St. Columban. The life from which the present translation is taken was written by Jonas, a monk at Bobbio, in Northern Italy, three years after Columban's death. The biography is taken from the stories told by the saint's companions, and must naturally reflect faithfully the feelings and modes of thought of these zealots of early days. Naturally enough, the record of the saint's life is a record of miracles galore; and the recital becomes, necessarily, somewhat tiresome from the inevitable sameness. Prisons are burst open, boats are turned out of their courses, demons innumerable are cast out of suffering mankind, kings are dethroned and enthroned at the bidding of Columban. Perhaps the most remarkable of the miracles is the one of the raven, a miracle which Grote, the historian of Greece, has declared to be "exactly in the character of the Homeric and Hesiodic age." Columban, having come to dine at a certain monastery, lays his gloves (we are told the saint used to wear gloves when working!) on a stone before the door. A raven bears off one of the gloves. When the saint comes out and discovers his loss, he at once, with keen detective instinct, guesses the thief. "There is no one who would venture," he says, "to touch anything without permission, except the bird which was sent out by Noah and did not return to the ark." To induce the culprit to restore the stolen property, he decrees that she shall not be able to feed her young until she makes restoration. Soon the raven returns, humbly returns the glove, and—*mirabile dictu!*—does not attempt to fly away again, but more humbly awaits punishment.

"Oh, wonderful power," adds the biographer, with beautiful credulity, "of the eternal Judge, who grants such power to His servants that they are glorified both by honors from men and by the obedience of birds!"

SONGS AND SONG GAMES FOR LITTLE PEOPLE. Arranged by M. E. Cotting. Boston: New England Publishing Company. Paper, 64 pp. Price, 25 cents.

Here are seventy-five songs and song-games, every one of which will be as welcome to the children as to the teacher. Children enjoy games in school and out; they enjoy singing whatever is adapted to them. The child needs play and music as much as he enjoys them. Little children cannot sit long in one position, and they ought not to study and recite long at one time. The interruptions should be such as will add to, rather than subtract from, the effect of school exercises proper. All this is provided for in these seventy-five songs and song-games of Miss Cotting.

The May number of *St. Nicholas* is full of the out-of-doors spirit appropriate to the season. Many of the artists and poets represented draw their inspiration from the month of flowers. There are four full-page pictures—"Spring," drawn by M. A. Cowles, "A May-Day Party in Central Park," by F. H. Lungren, and "The Great Bicycle Race at Grasshoppertown," by I. W. Taber. In the way of verse there is "A May-Day Shower," by M. A. Thomson; "Spring House Cleaning," by Margaret Johnson; "The Perverse Songster," by W. O. McClelland, and "The Red-Bird's Matins," by H. H. Bennett. The rest of the magazine has the usual wide diversity. John Bennett contributes a story of England in the Middle Ages, entitled "His Father's Pride," showing the pranks of a boy who had characteristic English pluck. John Burroughs, the poet and essayist, furnishes a study of "The Porcupine" based upon his own personal observation in the Catskills of the ways of this queer little animal. Lieutenant John M. Ellicott, U.S.N., takes the reader on "A Stroll in the Garden of England," past Dickens' home at Gad's Hill, and the tomb of the Indian princess Pocahontas. A story for girls is "The Green Satin Gown," by Laura E. Richards. Oliver C. Farrington describes "Shooting-Stars that Reach the Earth," and illustrations are given of some of the most remarkable meteors that have been discovered. There are several other interesting papers.



## Literary Notes.

Three striking contributions to the *May Atlantic* are the opening number of a series of letters from Dante Gabriel Rossetti to William Allingham, ably edited by George Birkbeck Hill, with a delightful autobiographical sketch of Allingham; Kendrick Charles Babcock's discussion of "The Scandinavian Contingent," being the third paper in the series on race characteristics in American life; and an anonymous paper on Mr. Olney's fitness for the presidency.

An outdoor flavor is given to this issue by Mrs. Olive Thorne Miller's "Whimsical Ways in Bird Land," another of her bird papers, which have won for her a wide reputation as an acute observer and graceful writer, and "Pandean Pastimes," an outdoor study of spring from a child's standpoint, by Mrs. Fanny Bergen.

Other features are a discriminating Japanese sketch by Lafcadio Hearn, "A Trip to Kyoto"; Mrs. Rose Hawthorne Lathrop's "Memories of Hawthorne," concluded; "The Preservation of Our Game," by Gaston Fay; and the "Teaching of Economics," by J. Laurence Laughlin.

Fiction is represented by a further instalment of Henry James' "The Old Things," and a striking one-part story of western life by Mary Hallock Foote, entitled "Pilgrim Station." Poems, book reviews, and the usual departments complete the issue. Houghton, Mifflin & Co., Boston.

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Edward Dowden, Lit.D., LL.D., Professor of English Literature, University of Dublin, Ireland: "I do not think there can be two opinions as to the character of the work. I had formed high expectations of the Standard Dictionary, and they are fulfilled. It is a vast storehouse of exact and well-ordered information."

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