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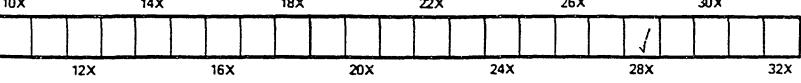
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The Canada School Journal.

AND WEEKLY REVIEW.

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The Canada School Journal and Weekly Review.

An Educational Journal devoted to the advancement of Literature, Science, and the teaching profession in Canada.

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CANADA SCHOOL JOURNAL PUB. CO. (Limited)

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The World.

? President Cleveland goes bravely on in the new path of Civil Service reform which he has laid out for himself. His last act has been to shut the door square in the faces of the great army of office seekers, by refusing, since November 1st, to see them. This step will commend itself to all good citizens who think their President has something better to do than to submit to be badgered for hours every day by selfish applicants for office, but it is a step which no one but a man of high moral courage and an iron will could have taken. The beauty of the thing is that, whatever becomes of Cleveland, no future President will dare to go back to the old system.

The Canadian transcontinental railway will be in a very few weeks or days an accomplished fact. The driving of the last spike will mark the completion of one of the greatest railway enterprises of the century, not simply in Canada, but in the world. The Canadian Pacific Railway was clearly a political necessity if British Columbia was to be retained in the Dominion. To what extent this iron band will prove a real bond of union between the Atlantic, Pacific, and intermediate provinces

is a problem whose solution is still in the future. Equally uncertain is it how far the dream of Canada becoming, by means of this great road, a thoroughfare of travel and traffic between Western Europe and Eastern Asia, may prove to be not baseless. The road has been constructed with an energy and celerity equal to the most sanguine expectations of its promoters a few years ago.

Great Britain is rapidly nearing one of the most serious political crises through which she has ever passed. Whether Tory or Radical gains the ascendancy at the coming elections, the new Parliament will be committed to a series of almost revolutionary changes. The Liberal leaders seem to be sinking their differences and closing up their ranks, and the certainty of their triumph is pretty generally conceiled. The main question is whether they will come into power with a majority large enough to overcome the combined Conservative and Parnellite vote. If not, the latter party will hold the balance of power. One of the wonderful signs of the times is the complacency with which those who have so long been the ruling classes seem to contemplate the coming changes. They would, not many years ago, have thought their rights and privileges seribusly menaced. A contemporary accounts for their apparent apathy by supposing that they have "helplessly abandoned themselves to the current," and have "allowed their resolution to be paralyzed by a vague feeling of fatalism." Is it not preferable to suppose that they are 'earning to recognize that "a man's a man for a' that," and to feel sufficient confidence in the good sense and love of justice of the masses to be willing to allow them their proper share in the work of self-government?

The School.

If, as reported in the cablegrams, the British Cabinet is sending a commissioner to the continent to study the free school systems, it would seem that the free school doctrine is taking a deep hold of the public mind in England. Meanwhile the discussion is evoking a strong opposition. The *Schoolmaster* asserts that the weight of opinion on the part of both Conservatives and Moderate Liberals is overwhelmingly against free education. But on such a question the public mind is sometimes rapidly educated, and we should probably be risking very little were we to prophesy that the establishment of a system of free Public Schools is amongst the reforms of the near future in Great Britain.

The experiment of allowing college students to have a voice in college government has been tried for some time at Amherst and Bowdoin Colleges, with notable success. Harvard is now adopting the principle with some modifications. A permanent conference committee is to be established, made up of five members of the Faculty and sixteen students chosen from the different classes according to a fixed scale. The functions of the committee are to be mainly advisory, but it will form a Faculty and students. The workings of the scheme will be studied with interest in other institutions.

In a recent speech at an Academy dinner James Russell Lowell is reported as saying that he is "heretic enough to doubt whether the common schools are the panacea we have been inclined to think them," and that in his opinion they teach more than they ought. We have not enough of the context of the speech to enable us to interpret the meaning of the sentences. The St. Paul Globe traces in them the effects of Lowell's association with the British aristocracy, and almost expects "that Mr. Lowell will next be preaching the doctrine that Massachusetts would be better off than now with a landed aristocracy and a contented peasantry." If Mr Lowell really meant that it is not good for the children of the common people to learn all that can be taught them in the sense of acquiring the best possible education, he must have been takir ¿ lessons from the worst type of British aristocrats. But if he only means, as seems more probable, that there are as yet many faults in our most vaunted school systems and that one of the worst of these faults is the attempting to crowd too many subjects within a given space, there is much truth in his remarks. There is too much teaching and too little training in most of our schools.

School teaching, like hard study and other typical forms of brain work, gets credit for doing a good deal of harm which properly does not belong to it, but results from something quite different. Physicians in New York, are calling attention to the large numbers of young women in that city who are worn out in the service at a comparatively carly age. The case of one is particularized who has recently died of nervous exhaustion, at an age which ought to be the very prime of life and the culmination of physical and intellectual vigor-thirty-eight. But then it is naively added that this lady had been teaching constantly since she was sixteen years old, and had taken actually no time for recreation, and little for rest. That explains the whole matter. Had she taken very little food and scarcely any sleep, the end might have been a little more swift but hardly more sure. But it is too bad to hold the profession of teaching responsible for results with which it has no connection.

The same mistake is made by many in regard to the effects of hard study. The fact is, we believe, demonstrable that, other things being equal, brain-workers live longer than those who use their brains very little. This is as we should expect. Nature intended all a man's faculties for use. Activity is the law of their being and the vigorous exercise of each is conducive to the health of all. But many a young man or woman, leaving the farm, or some other sphere of great physical activity, to commence a course of study at college, eschews all common sense. Needful rest, recreation and physical exercise are neglected, with the absurd notion that the hours thus stolen can be turned to account in study. Sooner or later comes the inevitable breakdown, and sympathizing friends declare the poor

fellow has killed himself with hard study, when the fact is that direct means of consultation and intercommunication between it is only indirectly that study has anything to do with the result. He has outraged Nature and violated some of her plainest laws and is paying the penalty. That is all. Such an one, unless his ignorance was very dense, deserves not the pity, much less the praise, too often bestowed.

> A new theory has been broached by a physician who has been studying the causes of insanity. He thinks that time is required for the human brain, through the operation of the laws of heredity, to adapt itself to the greater demands made upon it in modern life. He argues that over-pressure in the schools affects chiefly children whose parents were unclucated and unused to brain-work, and who therefore did not transmit a capacity for such work to their children. There may be something in the theory but the same facts would seem to admit of a much simpler explanation. The children of educated or thinking parents are naturally trained to think from their earliest years. Even apart from any conscious effort on the part of the parents, the very atmosphere of intelligence by which such a child is surrounded stimulates mental action. The consequence is that he enters school with a brain already inured to exertion and accustomed to healthful activity. The child whose whole surroundings have been unintellectual, on the other hand, has to begin with almost the simplest mental movements, and is as incapable of keeping pace with the other, as a village loafer to cope with a trained athlete.

RELIGIOUS TRAINING IN THE SCHOOLS.

This is one of the questions that "will not down." It refuses to stay settled, even upon the basis of the most diluted religious exercises, or the most astute compromises. We have before us at this writing, two articles upon the subject, in two of our ablest exchanges. The one is a Secular, the other a School Journal; the one Canadian, the other American. The writers approach the subject by divergent routes, and view it from different elevations, but reach virtually the same conclusion. The chief contributor to The Week, quotes, with approval, a recent remark of Lord Salisbury: "Believe me," said the British Premier, "the essence of true religious teaching is that the teacher should believe that which he teaches, and should be delivering, as he believes it, the whole message of truth. Unless there is that sympathetic, that magnetic feeling established between children and teachers, that the teacher is dealing honestly with them, the public will believe that the religious teaching is a sham."

" If we grant this," says The Week, "then it necessarily follows that religious instruction must be left to the parent, the pastor, and the denominational college, for no public or State educational institution can be relied on for such religious instruction as that for which Lord Salisbury conlengs. The alternative-that religious bodies st ald possess schools and colleges of their own, supported by Government funds-is the thin edge of a wedge, which if driven in to its logical extent, would necessitate Government and to every religious and, indeed, irreligious body, from the Ritualisis to the Agnostics.

Side by side with this let us put a quotation from the N. E.

Journal of Education, one of the best educational papers pub nothing of the lished in the United States, or elsewhere. The Journal is adds.

commenting on a proposition made of President Eliot of Har vard, in a recent lecture before the Saturday Afternoon Schoolmasters' Club of Boston. The learned President is said to have advocated "the European practice of bringing the clergy of different religious creeds into the public shools, at stated intervals, under pay from the State," to attend to the depart, ment of religious instruction. In order to do justice to the *Journal's* vigorous mode of dealing with the question we must make a rather lengthy quotation : —

"Seriously, this proposition seems to imply a singular lack of reflection on the two pivotal points upon which our American system of public schooling depends. A nation with a church establishment and toleration for dissenting churches, may logi cally adopt some method of ecclesiastical connection with its schools. But it has the power to decide what bodies shall be admitted, ad how many varieties of religious teachers beside-'Catholic, Protestan, and Hebrew,' shall be permitted to in struct the children. But in the name of confusion, who can se riously think of letting loose the clerical or secularrepresentatives of the score or dozens of religious and 'anti' and 'extra" religious creeds, and organizations found in every considerable community, upon the children of the schools? Each sect has its 'body' and two 'wings,' to say nothing of occasional tail feathers liable to be shed at any hour. And, beyond church limits, the numerous schools of 'liberal,' 'ethical,' 'agnostic,' even anti-religious belief, are equally persistent in their demand for recognition. What a spectacle would be a Boston school committee attempting to select those religious teachers ! What 'examinations,' 'black-looks,' intrigues, and dire contentions, would beset the unfortunate conclave of twenty-four! If a more ingenious scheme for planting a chunk of dynamite under every church, and mining the whole school system for a perfect Hell gate explosion, could be colleeved, we confess ourselves unable to compass it."

These two able writers, in common with the majority of thoughtful students of this question, are agreed on the main point, the utter impracticability, under American and Canadian conditions, of establishing by State authority any system of religious instruction in the schools without serious danger of its becoming eith r a solemn mockery or a baneful travesty of true religion. Both agree, too, that what is wanted in all our schools and colleges is masters and protessors of high moral character. The Journal points out, as we have before pointed out, that the power of selection is in the hands of the local trustces, or rather of the people who elect them. If the people in any district are really anxious to have the best possible moral influences pervade their school, let them have a care to appoint trustees who will, in their turn, attach greater importance to the moral than even to the intellectual qualifications of their teachers, not those who will sacrifice both for the sake of saving a few dollars in salaries.

We have spoken of "moral" influences and "moral" qualifications only. The *Week* thinks that "the chief difficulty to a proper understanding of the respective spheres of religious and secular education seems to be that the word 'religious' has been given a meaning which properly belongs to the word 'moral.'" The *Journal* says that the wisest teacher will find difficulty in introducing even oral instruction in morals, to say

nothing of the use of either a moral or a religious text book, and adds.

"But he can so organize, discipline, and generally work his school as to cover the ground of all the fundamentals that go to the training of character, and so interfuse his school with his own highest manhood that it shall become the most powerful instrumentality for good."

While on the practical question the arguments of our contemporaries seem impregnable, and we heartily concur with them, we are inclined to go a step further. We, and we have no doubt the majority of our readers, are firmly convinced that the only reliable basis of sound morality is the religious basis. We do not believe it possible, as the Week suggests, for the teacher to discharge his ethical functions, teach " the value of right and wrong," and point out the "true principles of conduct generally," without the aid of "doctrine or dogma." We are unable to concerve of a principle of conduct not based upon a doctrine or creed. Laws of conduct must rest upon sanctions of some kind, and in order to give these laws their proper primacy over all others, the very highest sanctions, those of religion, alone are sufficient. But this need give no great trouble. We can scarcely imagine that the most pronounced agnostic would object to have his children's conduct formed upon such a doctrine as that of The Golden Rule, or of "Thou shalt love hy neighbor as thyself," albeit such doctrines will generally be admitted to be of purely religious origin. But for many generations to come, at least, the great religious doctrines which he at the base of the loftiest laws of conduct may be safely assumed as known and accepted The main point is that the teacher should not only "interfuse his school with his own highest manhood " but that that manhood should be a manhood of the very highest type -a true, reverent, Christian manhood.

Special.

ELEMENTARY CHEMISTRY.

CHAPTER IV .- Continued.

The Relation of the Volume of Gases to Temperature.

From Experiment 19, Art 18 we learn that gases increase in equal volume when heated and decrease in equal volume when cooled. If we begin with a given volume of gas at 0°C, and measure the gas as we raise its temperature of gas at 0°C, and we find that ter each increase in the temperature of 1°C, the the gas expands \pm^{1}_{3} rd, of its volume at 0°C, for example, 273c.c. of a gas at 0°C, expands to 274c.c. when the temperature is raised 1°C, or to 280c.c. when the temperature is raised 7°C. Conversely 273c.c become 272c c, when temperature is cool ed 1°C. That is, a gas diminishes by \pm^{1}_{3} rd of its volume for every degree of temperature, travelling down the scale. If the same ratio of volume to temperature were maintained, it follows that if a given mass of gas were cooled down to the temperature of -273°C, it would be reduced to a mathematical point, that is, all the molecular motion would cease and so the THE CANADA SCHOOL JOURNAL.

6 A flask is filled with oxygen at 0°C, and 760°mm, pressure, point of no heat would be reached. Such a temperature has and the flask is then tightly corked. The flask would burst if never been reached, nevertheless it is found convenient to take exposed to an outward pressure of 1500 mm. At what tempera-273°C, below zero, as the absolute zero of temperature, and the ture would the oxygen exert this pressure, assuming the capatemperatures reckoned from this point are called absolute temperatures, On this scale all the temperatures are evidently city of the flask to remain unaltered ? Unit of Volume .- The Crith. One htre of hydrogen at positive.. 0°C. and under a prossure of 760°mm, of mercury weighs Coefficient of Expansion. The fraction $\frac{1}{2}\frac{1}{3}$, by which 089578 grams, or approximately, 0896 grams. So important gases increase their volume at 0°C for each degree of rise of is this hydrogen-left -weight that Dr, Hofman denotes it by the temperature, is called the coefficient of expansion of gases. term Crith (Gr. Krithe, a barley corn, and hence any small From what has been stated respecting the expansion of gases we have the following law :weight) so that 1 Crith = 0896 grams. LAW of CHARLES. The volume of a given mass of gas, It is of great importance to remember this number, since the under a constant pressure varies directly as the absolute weight of a litre of any other gas may be at once found by temperature. multiplying this number by half the molecular weight of the gas; Ex. 6. - A certain mass of air measures 100 e.e. at 0°C. find its volume at 10°C. thus :-1 litro of oxygen = $\frac{32}{7} \times 0.0006 = 1.433$ grams. The absolute temperatures are $10^{\circ} + 273^{\circ} = 2.3^{\circ}$, "carbon dioxido = $\frac{14}{2} \times$ " = 1.971 and $0^{\circ} + 273^{\circ} = 273^{\circ}$. 1 Volume occupied by the gases at 273 = 100 cubic continuetres Ex. 9 .- What weight of potassium chlorate will be required $1^{\circ} = \frac{1}{2}$ to fill a gas bag of a capacity of 20 litres with oxygen at 0°C, and 41 283° = "*1:10" 760° mm. pressure, the temperature of the room being 15°C., .. = 103.66and the pressure of the air at the same time being 750 mm. ? Ex. 7.-A gas occupies 500 e.e. at 10°C; find its volume (1) Find the relation between the potassium chlorate and the 10°C. at o.cygen given off. The absolute temperatures are $10^{\circ} + 273 = 283^{\circ}$, KCl 30 KClO. and $-10^{\circ} + 273^{\circ} = 263^{\circ}$. 39 1+35-5 33-1+35-5+48=122-6 13 Volume occupied at 293° = 500 cubic centimetres. (2) Reduce the given volume to the standard conditions of " 1° = 599 temperature and pressure. •• • • .. 263' = 2035300 The absolute temperatures are $15^{\circ} + 273^{\circ} = 283^{\circ}$, .. = 464.6 and 0° + 273° = 273°. Ex. 8.-A litre of air is measured at 0°C, and 760 mm. Volume at 298° and 750 mm. = 20 litres. pressure, what volume will it occupy at 740 mm. at 15.50, ? 1° " 1 " = 750×20 litres. The absolute temperatures are 0' + 273' = 273', 263 ** 760 ** $= \frac{273\times759\times20}{760\times288}$ litres. .. and 15°.5 + 273° = 288°.5. = 18 70 litres. Volume at 273' and 760 mar. = 100J cubic centimotres. (3) Find the weight of potassium chlorate necessary to jurnish ** 1." " 760 " = 1000 the above quantity. 1° " 1 " " = 760×1000 At 0°C. and 760 mm. 1 litro of oxygon = 16 criths = 16 × 0896 grams. .. 285° 5 " 740 66 28515×740×1000 44 740×270 67 = 26.808" 18.7 ⇒ 1085/34 Potassium chlorato which yields 48 grams of oxygen = 122.6 " = 193 0 ... 1 EXERCISE III. ** - #8.8V#¥122:0 **''26 '808** ... 1 A certain quantity of gas occupies 67 cubic inches when = 685 47 grams. the temperature is 10°C., and the barometer 28 mehes; how (To be continued.) many cubic inches will it occupy at 0°C., with the barometer at 30 inches ? THE STUDY AND TEACHING OF ENGLISH. 2. A certain quantity of oxygen measures 155 c.c. at 10 °C., and under a pressure of 530 mm. of mercury; what will the BY WILLIAM HOUSTON, M.A. volume become at 18".7C., and under a pressure of 590 mm. of (Continued.) mercury ? The misuse of words and wrong constructions in speech, as dis-3 A glass globe holds ten litres. It is filled with oxygen at 0°C, under a pressure of 760 mm. ; how much gas will escape tinguished from writing, we must add mispronunciations of all dewhen the temperature rises to 15°C, and the barometer falls to grees of inexcusableness. Their prevalence is largely owing to the absurd craze for uniform spelling, which has caused ability to spell absurd craze for uniform spelling, which has caused ability to spell well according to an arbitrary and highly anomalous and difficult system to be generally accepted an the final criterion of a man's 4. A room is calculated to contain 3000 cubic feet of air at 10°C, with under a pressure of 30 cubic inches of mercury; find educational attainments. In my opinion correct pronunciation and what would be the volume of the same quantity of un if it more distinct conunciation are far more important than spelling, and if a what would be the volume of the same quantity of an if it were tithe of the time now expended on the latter were devoted to them easured at 0°C. and 31 inches pressure. 5. 10 litres of oxygen are measured at 14°F, required the plume of the gas at 15°C. the results would be most beneficial. Glaring mispronume, tions in the results would be most beneficial. Glaring mispronume, tions in the results would be most beneficial. Glaring mispronume, tions in the results would be most beneficial. Glaring mispronume, tions in the results would be most beneficial. Glaring mispronume, tions in the results would be most beneficial. Glaring mispronume, tions in the results would be most beneficial. Glaring mispronume, tions in the results would be most beneficial. Glaring mispronume, tions in the results would be most beneficial. Glaring mispronume, tions in the observe of the gas at 15°C. measured at 0°C, and 31 inches pressure.

volume of the gas at 15°C.

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"sit," "raise" for "rise," and even "went" for "gone." Surely a system which has utterly failed to banish such solecisms from the speech of educated men must be held chargeable with lamentable want of officiency.

One way of improving the English of your pupils is to set them a good example. Wo learn speech, as we learn most other things, by imitation. If the teacher has any mannerisms the pupils who remain long with him are sure to be infected by them. This trath was impressed on me very strongly many years ago when I was myself a teacher. I had soveral pupils from one family with a decidedly Scottish surname, and yet they spoke English with a strong York-shire pronunciation. I was at a loss for an explanation of this peculiarity, more especially as I found that the father of the family had a pronunciation as Scottish as his name, until I heard the mother speak. She was a Yorkshiro woman, and as children in their earlier years keep the mother's company more than the father's, her example had the more powerful influence on their pronunciation. There is nothing mysterious in this, but the lesson for the teacher is obvious. The pupils at a certain age are much in his company. They hear him doing a great deal of talking. They naturally look to him as a model. What he says must be correctly said, and without an effort they adap: themselves to his manner of apeech. Many teachers are unfortunately somewhat slovenly alike in their pronunciation and in the structure of their sentences. Those who wish to make their pupils expert in the use of English must themselves be as nearly as possible perfect, and perfection must be a matter of habit, not of effort.

Another way of improving English in a school is to note carefully the prevailing local mannerisms, and occasionally comment on them in teaching the subject. The pointing out of errors should be made as much as possible the work of the pupils themselves, and the number dealt with at any one time should be small. I have noticed that each locality is apt to have its own set of provincialisms in the pronunciation as well as the syntactical use of words. The objectionable mannerisms of the pupils will, as a rule, reflect the prevailing usage in the homes and the social circles of the locali-There is little hope of inducing the older people to alter greatly tv. their mode of speech, but the pupils should be taught to notice and avoid first the more glaring solecisms, and ultimately all positive errors and even more defects. Nor can there be any doubt that if these were all bamshed from the school-room and play-ground their hold on the present generation of elders would be sensibly weak-ened. It is impossible that the six thousand educated men and women of your great fraternity should make a persistent effort to i nprove their own. English and that of their pupils, without exerti g a beneficial and very perceptible inflaence on the English of the p sople of the Province generally. Akin to the method of procedure just recommended is the selec-

tion of imperfectly written sentences for discussion in class. I have him a subject about which you are sure he knows something, and given above some illustrations from Froude of commonly recurring thet him go ahead. Bear in mind that it is not your privilege to When you choose sentences for this purpose, confine your errors. criticism at first, and in the lower classes entirely, to those contain-ing defects of somewhat obvious types. You will find Hodgson's "Errors in the Use of Words" a most useful guide in your criticism; but if you observe closely you will not have to take your examples from him. Better far, take them from your school readers, where they are not scarce, or from your local newspapers, where they are sure to be a plentiful as well as a perennial crop. It is sometimes urged as an objection to this practice that tl., pupils are as likely to be injured by bad examples as they are to 'to benefited by criticism and correction. I do not attach much importance to this objection. I have to this day a vivid recollection of the light thrown, just twenty years ago, on a point of construction by an incidental remark made in my hearing by the first Principal before the class, which you must do if you treat the blunders as of the Toronto Normal School. The defect he pointed ont was a his, have the latter discussed as impersonal, and let each member comparatively slight one-nothing more than the want of symmetry of the class make his own application in the re-writing of his com-in a sentence; but it had the effect of turning my attention to position. And, let me repeat, do not refine too much in your other unsymmetrical arrangements that are too prevalent, of put criticisms, corrections, or suggestions. Rither, take the risk of ting me on my guard against all such defects, and of enabling modelting your pupils acquire bad habits of a venial kind than of to show others how to avoid them. I can in this matter speak making them the helpless victims of an overload of unassimilated from experience, for, though I have not for many years been a crudition. As they grow older and become more expert, take up teacher of English m schools, writing English compositions, and e r- | with them more recondite defects, contining yourself chiefly, if not recting the written compositions of others, was for a dozen years entirely, to those which occur in the compositions of the pupils my employment for hours every day. And, if I may be allow d a themselves, or which they are in the habit of hearing or reading. practical suggestion based on experience, you will find that it is Many teachers prescribe as an exercise in composition a prose. better to get your pupils to make their own corrections in the light i parabhrase of a piece of poetry. After circled thought I feel con-of your criticism than to make them yourself in their exercises, istrained to condomn the practice as comparatively useless for pur-Read over the compositions without marking them in any way. poses of composition, while it is positively objectionable on other Collect from them, not all the errors, but a number of the most ob- i grounds. Only good poetry will stand paraphrasing at all, and I

vious ones. Take these up one by one and discuss them in the class. Finally, ask the pupils not to correct the defects in their essays, but to re-write the latter, and on a comparison of the new with the old reit rate your criticism and note the progress made. The ordinary nothed of correcting composition is drudgery for the teacher, and is of little benefit to the pupils. The true method is to make use of their errors, alike in writing and in speech, as starting-points of criticism, and as a means of incidentally and effectively expounding rhetorical laws in their application.

This brings me to the subject of composition itself, probably the most important in the whole school programme, for I hold strongly to the view that the capacity to write good English prose is at once the highest accomplishment of sound scholarship, and the most indispatable evidence of the possession of true culture. And the accomplishment is as rare as it is high, partly because it is rated too low by public opinion, partly because the methods of practice that have been followed in the past are not the best methods. The plan too generally adopted is to tell the pupil in school what to do and then set him at doing it, to give him the rule and ask him to apply The same course is pursued in collego. where a treatise on it. rhetoric is placed in the student's hand and he is expected to mas ter the theory for purposes of examination, while the practice is all but ignored. Need I point out the utter absurdity of such a method? Nature revolts at it, and punishes us by dooming us to general failure. In composition the practice is almost everything, the theory of very little account. I had the pleasure of conversing some weeks ago with Dr. Brown, the accomplished teacher of English in Johns Hopkins University, about his mothous with students, and on my asking him how composition should be taught his reply was in substance : "Give the student a subject to write on, make sure that he knows something about it, ask him to set down on paper what he knows, and then point out to him his errors of construction and faults of diction. He may know theoretically the contents of the best treatises on rhetoric and not write English prose any the better for the knowledge.

Making allowance for differences of age and mental power, this is the true method for school pupils as well as for university stu-dents. Moreover, it is Nature's method. We learn to do by The only way to learn to play on a musical instrument is doing. We do not tell a child how to walk, and then set him to play on it. on his feet and require him to act on our instructions ; we set him on his feet first, and then content ourselves with wisely guiding him. In teaching a boy to swim we put him in the water, only taking care that he does not drown. We do not first tell him how to keep himself afloat, how to move his limbs, how to propel himself in any given direction ; he will learn all that by practice under judicious guidance. So he will learn to write proso by writing it, and there is no other way in which he can learn how to do it. Give guide his first steps in the art of composition. He has been prac-Using that art ever since he learned to speak, putting his thoughts into words and his words into sentences. All you can do is to take hun, with his bad habits and exuberant growth, teach him by ex-ample and guidance to avoid what is in bad taste, and got him to see for himself that there are more effective ways than those he has been accustomed to of clothing his thoughts in spoken or written language. Do not let him suppose that this is some new line of work-for it is not,-and he will be all the better for the feeling that he is simply learning to do better what he did badly before. Get him to bolieve also, if you c.n., that the improvement is the re-sult of his own efforts. In other words, do not correct his mistakes sult of his own efforts. In other words, d for hum and hand him back his exercise. Without humiliating him

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own paraphrase that the poetry will for a long time, it not for over, have lost its charm for him. To produce this state of mind is to do him incalculable mischief, for the most important element which dis tinguishes poetry from prosens its beauty, and this utterly vanishes in sis be too elaborate. Let it be logical and rhetorical rather than the paraphrase even when it is made by the most skilful hand. In short, the practice is at once barbarous and useless, and I can estly hope it will be allowed to fall into disuse. This, I need hardly say, depends on the examiners If they persist in asking for paraphrases, teachers must persist in requiring their pupils to make them ; and, as the teacher does not know which passage is to be used as a test, he must require the pupil to distort and make thidcous the whole of the prescribed text. Just magne a prose para phrase of Scott's spirited account of the combat between Fitzjames and Roderick Dhu, of Gray's exquisite musings in his "Elegy," of aminations, is of little value at any stage of the student's course; Goldsmith's immitable description of the vulage pistor and the in the Public School it is a waste of time and in other ways posivillage school-master ! Take such stanzas as these :-

The boast of heraldry, the pomp of power, And all the beauty, all that wealth e er gave, Await alike the mevitable hour,

The paths of glory lead buy to the grave.

Can storied urn, or animated bast, Back to its mansion call the fleeting breath ? Can honor's voice provoke the silent dust, Or flattery south the dull, cold ear of death f

Full many a gem of purest ray serene The dark unfathomed caves of ocean bear : Full many a flower is born to blush unseen, And waste its sweetness on the desert air.

Some village Hampden, that, with dauntless breast, The little tyrant of his fields withstood ; Some mute inglorious Milton here may rest, Some Cromwoll guiltless of his country's blood.

Far from the madding crowd's ignoble strife, Their sober wishes never learned to stray ; Along the cool sequestered vale of life They kept the noiseless tenor of their way.

Or such passages as these :---

At church, with meek and unaffected grace. His looks adorned the venerable place ; Truth from his lips prevailed with double sway, And fools, who came to scoff, remained to pray.

To them his heart, his love, his griefs were given, But all his serious thoughts had rest in heaven. As some tall cliff that lifts its awful form, Swells from the vale, and midway leaves the storm, Tho' round its breast the rolling clouds are spread, Eternal sunshine settles on its head.

Or these stanzas from the High School work of this year :--

Day after day, day after day, We stuck, nor breath nor motion ; As idle as a painted ship Upon a paisted ocean.

Water, water. everywhere, And all the boards did shrink ; Water, water, everywhere, Nor any drop to drink.

The very deep did rot; O Christ! That this should over bo! And slimy things did crawl with legs Upon the slimy sea.

sense of shame and disgust at your own work, you are fit objects of compassion, and your production will be a proof that "a thing of beauty," in spite of Kcats' famous dictum, is not necessarily "a thing of joy torever.

I need hardly say, in concluding this part of my subject, that attracted notice in any court of Europe."

can hardly conceive of a pupil failing to be so disgusted with his from the very outset the process of taking apart should accompany that of putting together. In other words, the analysis of sentences, and of continued discourse should be part of the pupil's work equally with the practice of composition. But do not let the analygrammatical, and do not strain after minute syntactical parsing. The object of all analysis should be to enable the pupil to theroughly comprehend the meaning of the passage under dissection. To make him practise it for the sole object of becoming expert at it is to clavate the means into an end. It would be quite as sensible for a blacksmith, who has plenty of legitimate work at his anvil, to swing his sledge-hammer by the hour for the purpose of exercising his muscles. The excessively minute parsing so commonly practised in schools, manaly because it is so persistently used as a lest at extively mischievous. It creates in the pupil's mind the feeling that every word is capable of being parsed if he only knew how to parse it, and I have frequently seen teachers in a state of despair simply because some inquisitive boy had asked the parsing of a word that could not be paised according to any rule given by any grammarian. The writers of grammars, like tao compilers of lexicons, have much to answer for.

(To be continued.)

HIGH SCHOOL LITERATURE.

WARREN HASTINGS.

(A).

(a). "No cloud could overcast the dawn of so much genius and so much ambition."

(b). "The quick eye of Clive soon perceived that the head of the yoing volunteer would be more useful than his arm."

(c). "Then was seen what we believe to be the most frightful of all spectacles, the strength of civilization without its mercy."

(d). "A time comes when the evils of submission are obviously greater than those of resistance, when fear itself begets a sort of courage, when a convulsive burst of popular rage and despair warms tyrants not to presume too far on the patience of mankind."

(c). "A war of Bengalees against Englishman was like a war of sheep against wolves, of men against demons."

(f). "During that interval the business of a servant was simply to wring out of the natives a hundred or two hundred thousand pounds as speedily as possible, etc."

(q) "It is certain that at this time he continued poor; and it is equally certain that by cruelty and dishonesty he might easily have become rich. It is certain that he was never charged with having borne a sharo in the worst abuses that then prevailed; and it is almost equally certain that, if he had borne a share in those abuses, the able and bitter enemies who afterwards persecuted him would not have failed to discover and to proclaim his guilt."

(h). ".The keen, severe, and even malevolent scrutiny to which his whole life was subjected, a scrutiny unparalleled, as we believe, in the history of mankind, is advantageous to his reputation."

(i). "This young woman, born under the Arctic circle, was destined to play the part of a Queen under the tropic of Cancer."

(j). "Anything is welcome which may break that long monotony, a sail, a shark, an albatross, a man overboard."

(k). "It is every day in the power of a mischievous person to If any of you can attempt to parcphrase verse like this without a inflict innumerable annoyances. It is every day in the power of an amiable person to confer little services."

> (1). "Under such circumstances met Warron Hastings and the Baroness Imholf, two persons whose accomplishments would have

(m) "His love was of a most characteristic description. Like his hatred, like his ambition, like all his passions, it was strong but not impetuous. It was calm, deep, carnest, patient of delay, uncouquerable by time."

(a). "He knew that the favor of his employers depended chiefly on their dividends, and that their dividends depended chiefly on the investment."

(o). "They ruised their revenues as collectors appointed by the imperial commission; their public seal was inscribed with the imperial titles; and their mint struck only the imperial coin."

(p) "All those arts which are the natural defence of the weak are more familiar to this subtle race than to the Ionian of the time of Juvenal, or to the Jew of the dark ages."

(q). "As usurers, as money changers, as sharp legal practitioners, no class of human beings can bear a comparison with them."

(r) "The Bengalee, who would see his country overrun, his house laid in ashes, his children murdered or dishonored, without having the spirit to strike one blow, has yet been known to endure torture with the firmness of Mucius, and to mount the scaffold with the steady step and even pulse of Algernon Sidney."

(1) In the foregoing extracts where are the following characteristics of Macaulay's style displayed :- Exactness of expression, antithesis of ideas, harmonious construction, opulence of illustration, balanced arrangement, employment of climax, extravagance and exaggeration, fluent rhythm, lucidity, animation?

(2) Besides the examples of antithesis, climax, and hyperbole, select from the foregoing passages instances of the following rhetorical figures :-Simile, metaphor, metonymy, hyperbaton, anaphora, asyndeton, cumulation.

Show clearly what rhetorical purpose is served by the employment of each of these figures.

(B).

(1) Write short sentences exhibiting the proper uses of the following words :--

Adulation, insipid, magnanimity, minions, dispossession, progenitors, indomitable, obloquy, fag, dormitory, encroaching, diplomatists, commandant, intrepid, cffaced, anomalous, functionaries, casto, obviously, clemency, malevolent, lamentable, squeamish, sordid, rapacious, munificence, courtly, acceded, propitious, abject, substantial, complaisant, effected, irrevocable, executive, stremuons, ceremonial, lucrative, sedentary, suppleness, chicanery, placable, prone, pertinacity, substantiate, cupidity, dexterity, signally.

The sentences should not be definitions.

(2) Write short sentences exhibiting the proper uses of the following phrases :—

The lapse of time, the lust of dominion, pecuniary embarrassments, distressed circumstances, engaging manners, public instruments, passive fortitude, such a conjuncture, the pain of gallantry, a master stroke of policy.

(3) Write brief paragraphs on the following excerpts :-

(a) "He (Hastings) had great qualities, and he rendered great services to the State."

(b) "There were dark spots on his fame."

(c) ¹ Warren Hastings sprang from an ancient and illustrious race."

(d) "A voyage distinguished by incidents which might furnish matter for a novel."

(c) "There were two governments, the real and the ostensible."

(f) "The English council which represented the company at Calcutta was constituted on a different plan from that which has since been adopted."

(g) "Two caudidates stood out prominently from the crowd, each of them the representative of a race and of a religion."

(h) "His (the Bengalee's) mind bears a singular analogy to his body."

(i) "In Nuncomar the national character was strongly and with exaggeration personified."

(j) "The most absurd notions were entertained in England respecting the wealth of India."

Tcachers' Examinations.

EDUCATION DEPARTMENT, ONTARIO, JULY EXAMINATIONS, 1885.

FIRST-CLASS TEACHERS - ORADE C.

COMPOSITION.

Examiner-J. E. Hodgson, M.A.

1. Exemplify each of the following figures and show its value in prose composition :---antithesis, asyndeton, epigram, climax.

2. State the main points of difference between narrative style and oratorical style. Write in narrative form the following speech of Roderick Dhu :-

> • What of thy lady ?—of my clan ? My mother ?-Douglas ? - tell me all ! Have they been ruined in my fall? Ah, yes ! or wherefore art thou here ! Xet speak-speak boldly-do not fear.'-(For Allan, who his mood well knew, Was choked with grief and terror too,)-' Who fought-who fled ?-Old man, be brief ;-Some might-for they have lost their Chief. Who basely live ?--who bravely died ? ' 'O, calm thee, Chief !' the Minstrel cried, ' Ellen is safe ;'-- ' For that thank Heaven !' 'And hopes are for the Douglas given ;--The Lady Margaret, too, is well And, for thy clau-on field or fell, Has never harp of minstrel told, Of combat fought so true and bold. Thy stately Pine is yet unbent, Though many a goodly bough is rent.'

3. Write an essay on one of the following subjects :---

(a) Colonies.

(b) Hero-Worship.

(c) Snow.

(d) "Nothing Succeeds like Success."

HISTORY.

Examiner-J. J. Tilley.

Nore. --Only six questions are to be answered, but of these the nirst, fourth, and eighth must be three.

1. How did the strengle between Sovereign and Parliament, which led to the accession of William III., affect the civil and religious liberty of the English people?

2. Recount the efforts that were made to restore the Stuarts to the throne of England.

3. Sketch the career of Robert Walpole and of William Pitt, "The Great Commoner."

4. Discuss the policies of the two great political parties in the reign of Queen Anne.

5. Explain the principal constitutional changes during the reigns of George I. and George III.

6. What foreign possessions were acquired in the reign of George II.? Give a short account of the wars by which they were acquired.

7. Write short notes on Viscount Dundee, Duke of Marlborough, St. John (Bolingbroke), Clarkson, John Howard, Robert Clive.

8. Sketch the financial and the reform policy of "The Second Pitt."

9. Write short notes on the first Grand Alliance, Triennial Bill, Peace of Ryswick, Pragmatic Sanction, Treaty of Paris (1783).

CHEMISTRY.

Examiner – John Seath, B.A.

1. State the principles that govern the relation of gases to pressure and to temperature.

One volume of Hydrogen is confined in flash at 10°C under the ordinary pressure of the atmosphere, added to that of a column of Mercury 60mm high. The flask is to be heated to 300 C without any increase taking place in the volume of the gas. How high must the column of Morcury then stand, supposing the atmospheric pressure to increase to 900mm ?

2. 0.3355 of an organic compound, containing only Carbon, Hydrogen, and Oxygen, gave on combustion 0.6715 gramme of CO_2 and 0.2745 gramme of H_2O_1 and its vapor density was found to be forty four times that of Hydrogen. Find its empirical and its molecular formula; and express the latter in the graphic notation.

3. Make a list of (a) impurities of city well-water, (b) the sources of such impurities, (c) the tests by which you would dotect them. and (d) the means you would use to purify a given sample of impure water.

4. A powder is given you known to be Carbonato of Soda, Jodide of Potash, Bromide of Potash, Fluor Spar, or Sulphate of Lime. Describe a simple mode of determining which it is.

5. 20 grammes of an aqueous solution of HCl were mixed with an excess of Argentic Nitrate. The procipitato, when collected, washed, and dried, weighed 4 53 grammes. Calculate the percentage of HCl in the orginal solution (Ag = 108.)

6. Fully describe and explain the following experiments :-

(a) Some white Arsenic is boiled with diluted Nitric Acid, and the gas given off is passed into water. To a portion of this solution is added a solution of Permanganate of Potash, and to another a solution of Iodide of Potash and Starch.

(b) A test tube containing an aqueous solution of Chlorine is exposed to the strong rays of the sun.

(c) O .ygen which has been allowed to bubble through strong Sulphuro, s Acid is passed through a tube in which is heated some plaunum sponge.

(d, Some Manganic Dioxide is boiled with an excess of strong The gas evolved is led into a strong aqueous solution of ны, Potassie Iodine.

(c) Some Nitric oxide is mixed with an excess of Hydrogen and passed over moderately heated platmum sponge

(f) A test tube containing a piece of Phosphorus in an aqueous solution of fresh slaked lime is boiled for some time.

7 Explain fully what is meant by the statement that Silicon is an exception to Dalong and Petit's law.

ELEMENTARY MECHANICS.

Examiner-J. C. Glashan.

1. Define velocity, constant velocity, variable velocity and uniformly accelerated velocity. Explain how the mean velocity during a given time and the velocity at a given moment are determined and expressed.

State the law of composition of rectilinear motions and the law of composition of velocities.

A boy throws a stone at a railway train travelling at the rate of 30 miles per hour. If the stone be thrown at right angles to the railway track and if the horizontal component of its velocity relative to the ground be 66 ft. per second, what will be its horizontal component relative to the train ? (Draw a figure to illustrate your) solution, marking on it the direction of the motions).

2. How are forces generally measured in statics and how in dynamics ? Define any statical unit of force, and also any dynamicd unit of force, and compare their mignitudes.

State the law of composition of concurrent forces.

A, B, C, D, are the angular points taken in the order of a square with two-inch sides. A force of 8 lbs. acts from A towards B, one of 1 lb. from A towards D, one of 8 lbs. from C towards B, and one of 20 lbs. from C towards D. Determine the resultant of these four forces. (Draw the figure, representing the forces on a scale of 8 lbs. to the inch).

3. Define moment of a force, couple, arm of a couple, and moment of a couple.

State the principle of moments, the law of the composition of pa lel forces and the laws of the composition of couples.

2 ft. apart. Determine the point about which it will balance, and repeatedly been reproved for doing violence to the mouds and tenses of the verb "to be." She would say "I be" instead of "I am," the pressure on the point.

Had the 2 lbs., the 3 lbs., and the 5 lbs. all been upward pressures instead of weights, what would have been the resultant.

4. Distinguish between mass and weight, force and acceleration, force and working-power (rate of doing work), momentum and onergy.

A mass of 6 moving from rest under the action of a constant force acquires in 5 seconds a momentum of 150. Determine the force and the acceleration, also the velocity, the kinetic energy and the working power at the end of the 5 seconds.

5. State Newton's laws of motion.

A mass of 10 lbs, is urged along a rough horizontal plane by a force equal to the weight of 3 lbs., acting parallel to the plane, the coefficient of friction being '05. Determine the acceleration.

Practical Devariment.

GOLDEN RULES.

1. Never attempt to teach what you do not understand.

2. Never tell a child what you can make a child tell you.

3. Never give a piece of information without asking the children to repeat it.

4. Never use a hard word where an easy one will answer.

5. Never make a rule you do not rigidly enforce.

6, Never promise anything, unless you are quite certain that you can give what you say.

Do we find our youth perdsing dime novels ?-quietly slip better books into their places. Use the principle of the expulsive power of a new affection. We are to blame for their reading bad books if we do not supply them with good ones. But the children complain that this or that does not interest them. Their view is reas-nuble. They cannot be improved by the books in which they take no interest. We must begin at the point at which they are interested, and they say that they like novels. The wiselyselected novel may be a very useful book to them. It will be a stepping stone to better works in the days to come.

THE GEOGRAPHY CLASS.

The following literal translations of geographical names may be used to awaken an interest in the places named :-Amazon, " boat destroyer"; Azores, "a hawk"; Berlin, "uncultivated land"; Bosphorus, "an ox crossing"; Bucharest, "city of joy"; Cadiz, "shut in"; Calcutta, "a temple"; Canada, "a collection of huts"; Ceylon, "island of the lions"; Chautauqua, "foggy place"; Chili, "land of snow"; China, "middle nation"; Circassia, "where heads are chopped off"; Danube, "deep valley"; England, "land of the Angles"; Erie, "wild cat", Ethiopia, "where one is burned black"; Finisterre, "the end of land"; Ganges, "great river"; Havre, "a harbor, "; Ireland, "the western isle"; Isle of Man "isle of stone"; Jamaica, "a country of springs"; Jutland, "land of giants"; Lena, "a sluggard"; Lyons, "hill of the raven"; Manhattan, "the town on the island "; Niagara, "neck of water"; Nova Scotia, "new Scotland"; Orkneys, "isle of whales"; Ostend, "east end"; Palestine, "land of wanderers"; Patagonia, "big-footed"; Piedmont, "foot of the mountain"; Poland "flat land"; Quebec, "take care of the rock", "Santa Cruz, "holy cross"; Tallahassie, "old town"; Wheeling, "place of a head"; Yucatan, 'what do you say ? '-- School Journal.

HER GRAMMAR.

A uniform rod 6 ft. long and weighing 6 lbs. has weights of 2 It is a pathetic sight to watch the meanderings of the childish lbs, 3 lbs, 4 lbs, and 5 lbs suspended on it, in order, at distances mind through the intricacies of English grammar. Little Jane had

Aunt Kate made a rate not to answer an incorrect question, but to wait until it was corrected.

One day the two sat together, Aunt Kate busy with embroidery, and little Jane over her dolls. Presently doll society became tedious, and the child's attention was attracted to the embroidery frame.

"Aunt Kate," said she, "please tell me what that is going to be?'

But Aunt Kate was counting, and did not answer. Fatal word, bo! It was her old enemy, and to it alone could the child ascribe the silence that followed.

"Aunt Kate," she persisted, with an honest attempt to correct her mistake, "please tell me what that is going to am?

Still auntie sat silently counting, though her lip curled with amusement.

Jane sighed, but made another patient effort.

"Will you please tell me what that is going to are?"

Aunt Kate counted on, perhaps by this time actuated by a wicked desire to know what would come next. The little girl gathered her energies for one last and great

"Aunt Kate, what am that to are?"

DRAWING.

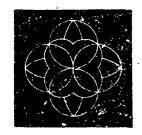
BY WILLIAM PURNS, DRAWING MASTER, HIGH SCHOOL, BRAMPTON.

(The Editor of the Department will be gial to answer questions for information addressed to him in care of the School JourNAL.)

VII.

Having taken the pupils through a course showing how to draw the simple circle and ellipse, we will now proceed to utilize these in the formation of ornamental work, such as quatrefoils, circular mouldings, interlacing curves, etc. For a first lesson in this branch of our subject, we cannot do better than use the second page of the drawings in new First Reader, Pt. II. These show admirably the use of the square, its diameters and diagonals in making a symmetrical foundation for such circular forms-the only pity is that this sheet of examples was not placed at the commencement of the Third or Fourth Book, where it would have been of some practical service to the teacher. Illustrate from the second line of this page the drawing, first of the square, then the inscribed circle, arcs in the quadrants, and semi-circles in the semi-squares, thus producing the desired figure. In drawing any of these figures, how, over,-especially such as the last two,-the teacher must be strict in requiring the circular or curved lines to be continued right through in the preliminary outline, otherwise the figure will present a very broken and irregular appearance, the parts not required may then be erased immediately before strengthening in the figure. In doing all figures containing arcs of circles, the pupils will at first experience considerable difficulty in producing neat outlines, this will only be accomplished by repetition of effort-let the children do these frequently, but not for any length of time at one sitting, as we have found nothing more disheartening to young pupils thanthe attempt to produce arcs mathematically correct.

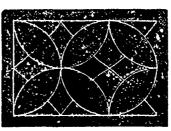
To form a quatrefoil. Construct a square and draw its diameters producing them beyond the sides of the square, considering the too many examples of these arcs and



bisecting points of the side of squares | patterns. In our own practical exthrough each corner of the square,- | upon some such figures. the remaining parts may be filled in

and for a time it seemed as if no one could prevent it. Finally Similarly on a square any other arrangements of circular arcs may be placed, and the teacher will do well to exercise the ingenuity of the pupil in forming different designs with only circular arcs.

> Circular mouldings can be drawn in the same way, --after having drawn the two bounding lines divide the space into squares by



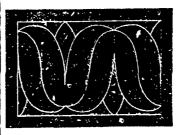
vertical ones, and then in these squares repeat any arrangement of circular arcs that may have been adopted in doing the first, the common "quatrefoil," fo example, making an excellent pattern. Having obtained these curves in single lines, next let the pupils draw curves within these and concentric with them,

then by erasing the parts that go under, we obtain a series of interlaced circular curves, in the same way as shown for straight lines in our First Paper. A moulding of lines of different curvatures

gives a very pretty and graceful effect, if the curves selected are sufficiently "wavy" in their nature; and by using the vertical lines these curves can easily be kept at regular distances. Many pretty forms can here be introduced by using a combination of the straight and curved ine; of these we have only spice



to describe one, the "dog-tooth moulding. Draw the square as before, and at the centre of each side make a curved indentation, cutting off a portion of the diameter, and graduating from - c curved



line into the strable into of the square; in doing this figure great caro must be taken to make these indentations all equal in depth, otherwise the resulting figure will be unsymmetrical; this can be done by inscribing another square parallel to former and at required depth of indentation within it. By a re-

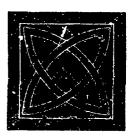
petition of this figure with a slight intervening space between each moulding a common form of ornament is represented.

All these circular arc mouldings can be converted into elliptical ones by dividing the spaces into parallelograms instead of squares, then placing elliptical arcs instead of circular ones in a similar way to those mentioned above.

We have purposely avoided giving

as centres, draw the circles from such perience we have always found it sufficient for the pupils, as well centres when these circles will obvi- as more instructive and interesting, to request them to reproduce ously pass through the corners of the patterns for themselves that they may have seen, or even to invent squares, and also produce within it the, new ones,-merely suggesting some church wir low where these are quatrefoil desired. Draw semi-circles to be found, or floor cloth, or carpet of which the pattern is based

The teacher cannot do botter than consult W. Iter Smith's Drawwith any curved lines-providing only ing Manual for further illustrations on this point - the exercise and that they form a symmetrical outline. examples of these figures constituting the best part of that work.



Educational Notes and News.

JULENAL, a few copies of No. 39, Oct. 29th, were mixed with the thirt the present staff of teachers be to engaged. As the teachers i sue of last werk and seat out. These who have suffered in con they accepted, there will be no change there at the advent end of sequence, will confer a favor by notifying this office.

Mr. C. T. Burdick is to remain in the Grovesend school next year.

Sparta for next year, at a salary of \$390.

Miss Armstrong is engaged to teach the Mount Brydges school, and Miss Anderson has been re-engaged for the same school.

has been appointed to a position in the Ingersoll school.

Mr. G. M. Robinson has been appointed headmaster of Totten-; ham school for next year at a salary of \$475.

Mr. J. Kilty, of Belfast, Huron Co., is engaged at Summerhill, in the same county, for next year. Salary \$450.

during 1886. Salary \$340.

school at Centreville for 1886.

and literary society is to be started there shortly. So says the upon in schools. The matter will be dealt with at an early day, and Dutton Enterprise.

Miss M. Smith, of Dorchester, has charge of the Dunboyne school for the remainder of the present year, rice Mr. G. B. Martin, resigned.

has been engaged to teach the Frome school next year at a salary of \$375.

to Toronto 1st Nov., to continue his studies at the Toronto Medical School.

Mr. K. McKenzie, now attending Clinton Model School, has been engaged to teach No. 3, Kinloss, county of Bruce, at a salary of \$350.

Mr. T. R. Hogg has been re-engaged to teach on the 4th of Eldershie for next year. Mr. J. 1. Wilson, the present teacher, leaves for Ottawa atter the New Year to obtain his professional.

Mr. J. C. McGillivray has been re-engaged in Vesta School for next year at an increased salary. Mr. McGillivray has proved himself a good teacher, and the people of the section are well pleased l at the decision of the trustees in keeping hun.-Paulcy Advorate.

Miss Kerr were re engaged for the juni - department.

States in want of presidents "This is one of the results of the policy of giving inferior wages for superior teaching ability," says the Corrent.

Mr. George Blackwell, of Lundsay, has been engaged as teacher of Islay Pub c School for the ensuing year. Miss Lillie Gilchrist is to be the teacher of S. S. No. 2, Mariposa, Grant's Section, next year.

will resign at the end of the year to accept a similar position in the that the latter, when placing restrictions on the teachers, had no Brownsville school. The head teacher, Mr. Amoss, who has taught other intention than "to prevent teachers from absenting them-

Harris, of Dorchester ; Miss McColl, of Aldborough, Miss Mulhol-Harris, of Dorchester ; Miss McColl, of Aldborough, Miss Mulhol- knew nothing about the Teachers Association until the resolution land, of Bismarck, and Mr. Smith, of Calton, are making "grange- had been adopted." It further states that "now that the matter ments to attend the Normal next term.

the western part of this province. Mr. J. Bracken is instructing pupils for any purpose without consulting them or even the chair-the teachers in training at the Model School, Chatham. Prof. man of the B and " In the reply, the secretary of the Education Freeland, of London, is organizing classes in several of the western Department writes : - "The Minister desires me to state that the towns and villages, and Rev. J. Thomson is giving lessons in it to explanations of the chairman of the Management Committee re-the children of Ayr Public School. We should like to receive re-specting the resolutions passed by the Board, imposing penalties ports of progress fr in teachers and others on this subject.

The close of the year is again going to be marked by a number of factory. changes among the teaching fraternity in the locality of New Ham-

burg. Mr. Graybeil, teacher east of that place, has already left for Detroit Medical College. We understand Dandee and S. S. No. 4 ¹ and No. 5, Wilmot, will make changes. At a meeting of the New Notice. Through a blunder in the mailing department of the Hamburg School Burd about a month ago, a motion was passed the ensuing year.

School teachers get small salaries, not because trustees are paraime ion, but because they themselves would rather be poor than Mr. Jesse Mills, of Urwell, has engaged in the school cast of c mfor ably off. At least this is the conclusion to which the condoct of a Guelph teacher leads. A school was to be vacant at Christmas, and a new teacher had been engaged to take charge of it. Another teacher, hearing of the coming vacancy and the ap-Mr. McDiarmid, lately head master of the Cobourg Model School, pointment, interviewed the trustees. "What salary are you pay-is been appointed to a position in the Ingersoll school. "Five hundred dollars." "I will teach your school for ng ?" "Five hundred dollars. "I will teach your series are \$175." The offer was not accepted. Schools and pastorates are not being put up at auction just now.—St. Thomas *Journal*.

High School masters and publishers of School Books would do well to make a note of the fact that the matriculation work in English for 1887, in Toronto University, has not yet been finally fixed. Mr. McKcehme, of Saugeen, is engaged to teach at Lockerby There is at present before the Senate a statute which proposes the following as the poetry for literary study :- Thomson, The Seasons Miss Hutchinson, assistant teacher at Rodney, is to teach the (Winter and Hymn), Castle of Indolence (Canto 1.), Britannia, Rule Britannia, Happiness, The Happy May, Solitude. Until this Rodney is going ahead in educational affairs. A debating school statute is disposed of the work for 1887 cannot safely be entered we shall promptly advise our readers of the result.

The Educational News says :- "The elementary teachers of England have chosen three parliamentary candidates from their body, and these three gentlemen will be supported by the money and ingned. Miss M.ry Simpson, who has the Centreville school for this year, 'terest of some twelve thousand subscribers. And Archeral-Con-as been engaged to teach the Frome school next year at a salary of the "orchers' Union, appears as an Independent Laberal-Con-servative, Dr. George Collins, editor of the *Rehardmenter*, and \$375. \$375. Mr. Marray, who has been teaching in No. 5, Kinloss, returned 'Clarkson, a National schoolmaster, is a Conservative. The weight of money behind the three candidates will probably secure their return, and even the "Independent Liberal-Conservative" is considered to be safe. At present there is only one man, Mr. Storey, in the House who has any practical acquinitancy with the minute work of elementary schools; yet complicated directions for the guidance of teachers are cheerfully framed by philosophic amateurs.

The following question was discussed in Woodstock High School Literary Society, Friday evening, Oct. 30th .- "Resolved, that mathematics should receive more attention in High Schools than clossics." Messrs. Davidson and Dixon supported the affirmative, and Messrs. Lyster and R S. Weaver the negative. The debate was interesting to the audience, but, if an opinion may be expressed One hundred and forty-two applications were received from there, the argument did not bear directly enough upon the question, teachers for positions in the Glencoe school. The board engaged Rev. W. T. McMullen kindly consented to act as judge, and, after as principal Mr. Ritchie, of Port Stan'ey. Miss McTavish and summing up the arguments, gave his decision in favor of the affirmative. At the close of the meeting the rev. gentleman addressed There are now sixteen educational institutions in the United the audience, expressing hunself as pleased with the programme of the evening, and assuring the students that the trustees were highly gratified with the progress of the school in all its departments and enterprises. The following programme was presented :- Reading by Miss Rose Revell, an excellent essay on music by Miss Eva Hill, an instrumental by Miss Emily Ball, and a vocal duet by Messra. Bartlette aud Parr, accompanied on the piano by Prof. Parker. - The Sentinel-Review.

The correspondence between the Minister of Education and the will resign at the end of the year to accept a similar position in the Peterborough Board of Education has been published. It shows selves from their duties whenever and as often as they pleased." Miss Esty, o Port Burwell; Miss Wildern, of Vienna : Miss In the secretary's letter to the Minister he states that " the Board has been forced upon them, they (the Board) fail to see the right The Tonic Sol-fa system of singing is making rapid progress in the teachers have to disorganize a school of nearly a thousand specting the resolutions passed by the Board, imposing penalties upon teachers absenting themselves from duty, etc., are quite satis-

The following text-books are prescribed by the regulations for

study by candidates at the professional examinations for first-class certificates and certificates as High School assistants, at the close of School, Toronto, for 1886. certificates and certificates as High School assistants, at the close of the institute in December .-1. The History of Education, -(a) "Introduction to the History o. Educational Theories," by O. Browning, (b) "Lectures on the History of Education, 'by Jos. Payne, or "Essays on Educational Reformers," by O. Management, 'by Joseph Landon, -(a) "Education as a Science," by Alex. Bain, LL.D.; (b) "The Action of Examinations." by H. Litham. 3. The Principles and Practice of Teaching, -(a) "School Management," by Joseph Landon; (b) "Lectures on Teaching, -(a) "School Management," by Joseph Landon; (b) "Education, 'by Herbert Spen-cer, (c, "The Culture Demanded by Modern Life," by E. L. Youmans, 4. Hygnene (see Syltabus for Normal School), 5. School Law (Public and High Schools Act, 1885, and Regulations). The Law (Public and High Schools A.t, 1885, and Regulations). The above will be required for all examinations subsequent to Decemher, 1885; but for 1885 the candidates may omit Youmans, Gill, to the High School next January ? Payne, and Quick.

The "Prize Day" in Upper Canada College was celebrated with all honor. Among those present were Lieut. Gov. R binson, Hon. G. W. Ross, Minister of Education; the Bishop of Toronto, Rev. D. J. Macdonnell, and Mr. J. Macdonald, Rev. E. A. Stafford, Capt. Geddes, A. D. C., Mr. C. W. Bunting, Rev. Dr. Scadding, Rev. Bro. Tobias, Mr. G. R. R. Cockburn, Dr. Daniel Wilson, Rev. Dr. McLaren, Rev. Dyson Hagae, and Very Rev. Dean Ged-des, Hamilton. Mr. G. R. R. Cockburn presented the Ross R-bert-son prizes to W. Cross of the upper, and C. H. Willson of the lower, schools. Rev. D. J. Macdonnell made the presentation of the Modern Languages prize to F. C. Suider. Bishop Sweatman presented the Mathematical prize to G. C. Biggar. Hon. G. W. Ross made L. B. Stephenson happy by presenting him with the Classical prize. The Lieutenant-Governor presented the Governor-General's silver medal to the head boy, G. C, Biggar. At the request of His Honor, the day atter Thanksgiving was given by Principal Dickson as a holiday.

Question Drawer.

QUESTIONS.

Nore -Several of the query papers we receive for this depart-ment are signed "Subscriber." Such a general name should be discarded and initials or some distinctive signature adopted.

SUBGRIERER (No. 1, wishes to ascertain the best method of making Monthly Reports for rural schools.

form, will kindly send us a copy for the benefit of "Subscriber' and our readers generally. Ed. C. S. J.]

candidates at Entrance Examination '

2. Should they be got from the Jaspecco or from the Department. PEDAGOGUE.

1. What English History would you recommend for 2nd class students to read /

2. Is there a book just covering the work prescribed ?

SUBSCRIBER (No. 2).

1. Give a list of the principal American authors of the present century.

2. Who were (a) Leander, (b) Cicero, (c) Dante, (d) Pased, and (c) Grethe ? Excension.

Please inform me through your columns of a work on Botany, j which will cover the course for a 2nd class certificate : also, for 1st class. G. H.

1. Will the certificates for 3rd class teachers issued last summer be valid only for the county in which the final examination was passed ?

2. Can the Public School Board act against the will of the ratepayers of the school section?

3. In case the school grant is withheld from a school, owing to the engagement of an unqualified teacher, has the school section to lose the grant, or will it fall on the School Trustees ?

4. Can the trustees refuse to re-engage a teacher at the same salary without finding a fault? J. D. B.

1. Please give an outline of carriculum of studies of Normal

their Use and Abuse," occupy in Chicago ? E. W. 1. Will pupils, who have passed the Entrance, last July, be re-

quired to write agam this December, if they wish to be admitted

2. Are Public School teachers obliged to teach such pupils?

3. Are the new Table: Lessons yet ready ? An I at what price ?

4. Are maps, globes, &c., obtainable from the Department, as heretofore, at 100% discount on sums exceeding \$5.

5. In one of the issues of the JOURNAL there is a new Arithmetic mentioned. Is there any later than Hamblin Smith's?

SUBSCRIBER (No. 3).

Parse and explain : "Verse,"-the first word of "Youth and Age" in the Literature for July, 1886. X. Y. Z.

ANSWERS.

PEDAGOGUE (1 and 2). - Certificates are granted and issued by the Board of Exan.iners.

SUBSCRIBER (No. 2.)-1. Green's Short History of the English People. 2. We think not, and should not advise you to buy it if there were.

EXCELSION.-1. A full reply to your question would occupy too much space. Bryant, Longfellow and Whittier may be taken as much space. Bryant, Longiellow and Whittler may be taken as the representative poets, though Ohver Wendell Homes, James Russell Lowell, John G. Saxe, N. P. Willis, Elgar Allan Roe, Dr. J. G. Holland, R. H. Dana, Ralph Waldo Eaterson and many others have earned destinction in special styles of verse. Amongst prose writers we might mention Bancroft, Prescott, Notley and Parkman as Historians, Emerson as a Philosopher, Hawthorne as an original Novelist, while most of the names before given and many others are distinguished in various departments of Literature and Science. 2. (a) A mythical youth of Abylos who, from lovo [Some of our friends who have succeeded in framing a desirable of Hero, the priesters of Aphrodite, in Sestos, swam every night rm, will kindly send us a copy for the bencht of "Subscriber" across the Hellespout. (b) The greatest of Roman orators, illustrious also as a statesman and a man of letters. (c) The greatest of Italian poets and one of the greatest poets of all time. His great and 1. Are certificates issued by the Department to the successful immortal work is the Dicina Commedia. (d) A French scholar and philosopher and one of the most distinguished of the 17th century. His Lettres Provinciales are famous as models of style, wit, and controversial kee. n. 25. (c) The prince of German poets and one of the most gifted and accomplished men of the 18th century. His most famous poem is Faust, but his writings in both prose and poetry were voluminous.

G. H.-Spotton's Botany, Parts I. and II., will no doubt serve

J. D. B.-1. Yes, but it may be transferred on certain condi-tions. 2 Yes, so long as they hold office. 3 On the Trustees. 4. Certainly, they have the power.

C. S. E. -Write to the Education Department for a programme.

E. W. -1. Yes, with the exception of the ancient and modern language papers. 2. We think not. Toronto University no longer gives it on exumination and so far as we are aware it alone has hitherto done so. This degree is almost always honorary.

SUBSCRIBER (No. 3.)-1. We think they could enter at any subsequent term. We can find no regulation on the matter. 2 Yes. \$2.75, mounted on heavy card board. 4. The Department Depa-itory has been abolished. 5. None authorized.

To Mr. Ireland's question in No. 38, October 22ad.

1. Let x=time till the trains are in position, and a=shortest luc. $a^{*} = (100 - 40x)^{2} + (30x^{2}) - 2^{2} \cos 30^{2} 30x(100 - 40.)$

Now the question is- for what value of .c is dexter a minimum f

Put it $= y^2$, and solve the quadratic in x we find $x = \frac{40 + 15_1/3}{25 + 12_1/3}$ and $y^2 = \frac{22500}{25 + 12_1/3}$ 150 $(25 + 12)/3)_{4}$ =22,16 miles. $\triangle = \frac{1}{2} \sin (39/(30x(100 - 40x)) = 358|4825|$ square nules 2. Let *x*=time till area is maximum. $\Delta = \frac{1}{2} \sin 30^{-30} x(100 - 40x).$ Now, for the value of x corresponding to maximum value of doxter equate $(25-10x) \times 30x$ to y_1 and x=1. ...Samson is $100 - 40 \times 1 = 50$ miles from station and Elk $50 \times 1 = 371$ miles. D. McEachnan, Parry Sound. Solution to equation given by STUDENT, in No. 37, Oct. 15. We give it as furnished and regret it has not been worked out in full. Multiply (2) by .c. Subtrict (1) from product. (2) Multiplied by 2 added to remainder. Result = $y^2 + 2x - y + 2y^2 = 11x + 15$ $y^{2}(x+2) - y = 9x + 15.$ The rest of the work is not necessary. D. M. CHISHOLM and WM. D. CAMERON, Teachers, St. Andrews. Literary Chit-Chat.

The 'Varsity comes to us in an attractive form and full of matter well arranged and interesting to all thoughtful readers as well as to the college student. It is a very creditable college paper in every respect save its outlandish name.

Ginn & Co will publish, November 20th, an "Introduction to the Language and Verse of Homer," by Professor Seymour, of Yale College.

Harvard College has commenced to publish a literary monthly, j under the direction of five editors, chosen from the senior class.

this admirable child's magazine. Its tone is excellent and its hterary and artistic workmanship first-class.

Teachers' Associations

PERTIL - The annual meeting was held in the City Hall, Stratford, Oct. 22nd and 23rd ; Mr. S. J. Kilpatrick president. About 250 teachers attended, including 78 in tratiang at the Model School. After roll call, the provident gave a very practical address, in which he said that criticians by the Inspector upon the work in the schools of the county would be beneficial Teachers should note their difficulties and have them discussed in the convention ; also, certain educational works, might be read during the time between meetings which would afford fertile themes for discussion. Mr. C. W. Chadwick, head master, Strattord Model School, read an interesting paper descriptive of the Quincy Methods, which was discussed by several of the members. Mr. Rothwell, head master of Lastowel Public School, thought these methods would not be acceptable in the Public Schools. Children of There is an idea that childfour or five years should not be in school. ren could obtain their knowledge without knowing they were getting it, but he did not believe in it. There was a lot of "tumfeolery" in the Quincy methods A committee consisting of Messrs. Alexander, I.P.S., Hamilton, Shaw, Ryan, and the Misses McGowan and Cameron was appointed to revise the limit table for the Public Schools of the county. On the motion of Mr Chadwick, the following members were appointed a committee to nominat - delegates to the Provincial Association, viz :

schold, to be sent to the fortheoning (00.5.3). Evidenticion, Edg In the atternoon Prof. Tyndall, with a primary class, showedhow he taught reading by the phonic method. He was followed by Mr. H. Gordon, a teacher in training, who further exemplified the method. Dr. McLellan gave an address on "The Training of the Language Faculty," which was much appreciated. H. I Strang, M.A., head mas ter of Goderich High School, took up "Engliss Grammar." His practical views gave his audience some new light in teaching the subject. He thought too much this was lost in routine work, memorizing rules, of the teachers. The entertainment consisted of music, singing, read-and mprising and audysis. He would practice the pupil in expansion ings, and recitations by some of the residents of the village and by of sentences, composition, changing of expression in clauses, paraphrasi isome of the teachers present. Mr. Hicksor-inpied the chair, and a very ing prose, direct and unifrect narrative, drill on the use of words that enjoyable evening was spent. The names of Mis Co-hanne and Me are apt to be mistaken for one another, and writing letters. He saw Black must be mentioned a baving contributed largely to the co-grament letters from teachers that were badly written, badly addressed, and of those present, -Paister Advocate.

badly folded, showing plainly that some teachers do not know how to write a simple letter. Paragraphing should be taught in connection with the reading lessons. Pupils should select their own themes for composition, and not be forced to write on those given by the teacher; or, the teacher should talk over the subject beforehand. Errors in grammar should be distinguished from errors in composition. Mr. Strang's excellent address called forth a discussion, which was kept up for some time by Messre, J. M. Moran, A. B. McCallum, M.A., Chad-

wick, Rothwell, and others. Next day Dr. McLellan pursued his subject of the provious day, after which Miss Easson, of Stratford, gave an exhibition, with her primary class, of kindergarten-chiefly motion songs. The exercises met with the deserved approbation of the members, and, on the motion of Mr. J. Connelly, Miss Easson received a hearty expression of the holdon of Art. J. Connelly, Miss Easson received a hearty expression of thanks. Miss Tromanhauser, of Shakespeare, read an essay on "The Teacher and the Schools," for which, on the motion of Mr. McCallum, seconded by Mr. J. M. Levan, she received the thanks of the Association. A well writ-ten essay on "Scientific Education" was read by Mr. T. H. Follick, of -St. Mary's, in which he urged "the practical in education" as better to fit the usual for the duction of Mr. McCallum, then discoursed on St. Mary's, in which he argod "the price can be detected in education as better to fit the pupil for the duties of life. Dr. McL.Chan then discoursed on "The A. t, C of Fractions." The election of officers for the ensuing year resulted as follows: --President, A. B. McCallum, M.A.; 1st vice-president, Miss Grace McKenzie; 2nd vice-president, Miss Hattie Tromanhauser; secretary-treasurer, Mr. W. Shaw. Resolutions were passed expressing approval of the appointment of Directors of Teachers Institutes and the Training Institutes for High School teachers, and re-commending the "post-graduate course" for teachers. The lecture by Dr. McLellan on "Critics (Educational) Criticized," given in the City Hall the second evening of the convention, was largely attended by an appreciative audience. The next convention is to be held in Listowel.

WEST BRUCE. - This convention held its semi-annual meeting in Wiarton on Thursday and Friday, Oct. 15th and 16th. There was a fair number of teachers present, though owing to the distance, many from the south of the riding were absent. No business was done on Thursday morning.

In the afternoon the chair was occupied by Mr. Hicks, vice-president, Harvard College has commenced to publish a literary monthly, inder the direction of five editors, chosen from the senior class. Harper's Young People for November sustains the reputation of is admirable child's magazine. Its tone is excellent and its hterary id artistic workmanship first-class. drill, also recitations, singing, etc., might be taken up instead of the ordinary work. Miss Baird then took up the subject of "Kindergarten Songs" in a practical and interesting manner, and some samples of these congs in a practical and interesting manner, and some samples of these songs were given by six of the teachers present. Reports of the dele-gates, by Mr. Munro, was then read by Mr. McCool. "The Newspaper in School" was then discussed by Messrs, Hicks, Moore, Hutson, Clen-denning, Campbell, and others. Mr. Moore gave his method of teaching "the simple rules," during which the teachers present received many useful and practical hints. "How to Secure and Retain Attention" was then how by Mr. Combanization. The teachers present received many was then shown by Mr. Clendenning. The Inspector's address abounded with practical and useful hints for the teacher.

In Friday morning Mr. Cier deming proceeded with his remarks on "How to Secure and Retain Attention," and was followed by Mr. Moore, who firished his subject, "The Simple Rules," which was discusted by Miss McClure, Rev. H. S. Halliman, Mr. Clendenning, and Mr. Cumphell.

On Friday afternoon a motion was made by Mr. Clendenning, seconded by Mr. McGillivray, that the Association aid each teacher of the dutriet taking the School, JOUNNAL, Educational Weekly, or Supplement for the year 1886 to the extent of 60 cents, and the *Educational Month* y for the extent of 30 cents, --Varried. Miss McClure then read an exec-lent paper on "Order in School," treating the subject in an able aid practical manner. Ane scellent paper on "Home" was read by M. Hicks, which contained many valuable hints for parents. Mr. Clendenning spoke on prying two-thirds of the fares of the delegates to the President, Messra McNeil, Hamilton, Mexan ler, and Chadwick. Mr. Alexander read a circular from the Minaster of Education desiring that specimens of writing, drawing, map geography, etc., be collected in the second by Mr. Freeborne, that the next meeting of this schools, to be sent to the forthcoming Cookia. Exhibition, London, English the benefits of uniform promotion examinations. He had seen the by Miss Jelly, seconded by Mr. Blick : That Messrs, Munro and Telford be appointed to arrange with West Bruce about joining in the project of uniform promotion examinations, and also to avrange about a grant from the County Council to defray expenses connected with the introduction of this system. - Carried. The meeting was then adjourned till the evening, when a public entertainment was given for the benefit of the teachers. The entertainment consisted of music, singing, read-