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# The Canada School Journal. AND WEEKLY PEVIEW. 

Vol. X.
TORONTO, DEC. 17, 1885.
No. 46.

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The awful catastrophe has come at last. The earth has actually collided with a fiery comet. So say the men of science. The result was not universal wreck and ruin, but merely a shower of meteors, visible to the inhabitants of more than a quarter of the globe. Asia was the chief theatre of the grand display of celestial fireworks. The comet itself is said to have gone on its way, not, however, as the compacted mass of luminosity it originally was, but as a cluster, or train of disjointed fragments of impalpable brightness.

Canon Farrar has completed his American tour, and returned to England, loaded with the well-wishes of the educated people of the United States. He had the gond feeling to comport himself everywhere with the simplicity and cordiality of true Christian manliness. His impressions of America are on the whole alnust as invorable as America's impression of him. He rightly believes that her religions faith is the foundation of he: national prospuerity, that education is free, though training les; thorough, than in England, and tiat in temperance legislation
the latter is far behind. He thinks co-education as the $w$ nessed it in Oberlin, Ann Arbor and Syracuse, is succeding admirably.

The Message of the President of the United States has been looked for with interest, even in Canada. Anxiety was naturally felt to see what he would say, or propose, with reference to the fisheries. As was hoped and expected he proposes a commission to settle the vexed question. Almost beyond expectation he is willing and desirous that that commission shall deal with the commercial problem as well. There is, therefore, some ground for hope that a better state of trade relations may be established between our neighbors and us. as well as that a cause of irritation and danger may be removed. The President also refers to the extradition question in terms which lead to the hope that the respective countries shall not continue to be retuges for each other's defaulters and cmbezzlers.

The result of the British elections is such as to leave the future in darkness. The Liberals have a considerable majority over the Conservatives, but are in a small minority against Conservatives and Parnellites united. Whether Gladstone will accept office under the circumstances remains to be seen. Probably he would be perfectly safe in doing so. Parnell commanded his followers to support the Conservatives not that he loved them more, but that his strength lies in securing if possible the balance of power. He holds this balance only on the supposition that the Conservatives would vote solid with the Parnellites, on any test question affectung the interests of either. Both these assumptions are in the last degree unlikely. The Liberals are pledryed by all their past to grant to Ireland the largest measure of self.government consistent with the integrity of the empire. Beyond this many Conservatives could not, for consistency's sake, go. On the other hand Parnell and his followars could never be relied on to support the Conservatives against the Liberals on a question of policy, unless at a price to which they could never agree. Gladstone may probably resume the reins with safety, though in any case the probabilities are in favor of another general election at an early day.

## The sikool.

Our issue of Christmas week will be particularly attractive and interesting, and we shall endeavor to mail it to subscribers two or three days in advance. We desire to bring the School Journal under the notice of as many tèachers, tustees, and friends of education as possible, and shall feel indebted to subscribers who will send us the names of friends of theirs to whom we might mail free copies of the Special Holday Number.

The Rev. Dr. McCurdy, who for seven years was Professor of Oriental Languages in Princeton College, New Jersey, and
who has since spent two years at the Universitics of Gottingen, and Leipzic has been appointed to a tutorship in Oriental Languages in Toronto University. Dr. McCurdy will, it is understood, give special attention to the hitherto somewhat neglected subject of Comparative Philology. He is recommended by Professor Green, a high authority, as having made "unusual attainments in philology," and especially as having a "wide acquaintance with the Semitic Languages." He is the author of one or two works of merit in the department of Linguistic Archroology, and has now in press a translation from the Sanscrit of the "Hilopadeca" with Notes. Er. McCurdy is said to be a native Canadian. There seems no rason to doubt he will prove a valuable addition to the teaching staff of the University.

It cannot be too constantly borne in mind that the true measure of mental development is not what is learned but what is understood. The old days have, it may be honad, gone for ever, when children were required to memorize great quantities of dry rules, definitions, and formulas, which conveyed no distinct ideas to their understanding and which they were not even expected to comprehend till some future day, when as their powers approached maturity the hidden meaning might dawn upon them. The writer has very vivid recollections of school work of this kind. There can be no doubt that such methods have been responsible for the life-long dislike to hooks and studs of many a pupil who might, under a more intelligent master, have become a well-educated and useful member of society. Training, not cramming, and thinking, not memorizing, are the proper functions of master and pupil, respectively.
" Every pursuit has its monotonous routine and its vexatious and depressing incidents. The true philosuphy of life consists in so adjusting one's spirit to one's work as to make labor itself a pleasure. It will be found that the men who have gained marked success in any department have usually possessed bright and buoyant dispositions. Eipecially is this trait necessary in a profession like teaching, in which personal ralations are so largely involved. Children always enjoy a laugh. If well timed and properly controlled it helps them in their school work. The teacher who can say a bright, witty thing once in a while has a great advantage." These words, which we clip for their practical wisdom and sound philosophy from an excellent article in Education for November, by John E. Bradley, Ph.D., we commend to the study of all teachers, and especially to the long-faced, sour-visaged, sharp-voiced members of the fraternity, if unhappily there are such amongst our readers. To all such we would say, store up in your memory a few funny anecdotes or witty rencont.es of the right kind for school children, and next blue day, just when the clouds begin to lower, call a halt and tell it. You will find there is more virtue in a good laugh than you ever imagined.

The Minister of Education, in the course of a speech at the banquet of the undergraduates of the Cniversity of Turonto, the other evening, obscrved that there were 14 x graduates of

Toronto Unversity and 48 graduates of Victoria University, engaged in High School work in the province. The figures are suggestive, not only of the advantage the province is reaping from its own University but also of what is being done for it by the voluntary institutions. Had he added to Victoria's 48 the number of građuates of Queen's and other institutions supported on the voluntary pranciple, who are serving the province in the same way, it might have probably appeared that voluntary effort is doing nearly or quite as much for the higher education of the country as the State-endowed college. This remark is made in no spirit of hostility to Toronto University, which we wish to see constantly growing in educational pawes and efficiency, but simply in the interests of truth and sound logic. Full credit is not always accorded to the denominational colleges for the valuable service they are rendering in the work of higher education. There is no incompatilility between the special objects they have in view and the general educational interests of the province. On the contrary, the better they serve the denominations the more useful are they to society at large.

It has hitherto been matter for congratulation that the barbarous practice o. vivisection has gained no foothold in Canada. We are sorry however, to observe, that a Canadian Scientist, Professor T. Wesley Mills, of McGill College, has given the sanction of his name to the cruel business by practising it at Johns Hopkins University, and elsewhere in the United States. We would that the mighty moral and Christian sentiment of the whole Dominion could be aroused to frown down every attempt to introduce into Canada the torture of animals in the name of Science. We doubt if even the largest returns in the shape of beneficial physiological discoveries could make the practice morally justifiable or counterbalance the inevitable degradation of some of the finest and noblest qualities of the human soul which it involves. But as a matter of fact, there is probably no line of scientific research which has hitherto been so barren of profitable and certain resuuts. The muci-vaunted attempts of M. Pasteur, to find a specific against hydrophobia are a case in point. In order co make a "vaccine" of sufficient intensity for his purpose, M. Pasteur had to make a series of at least 60 rabbits mad, and in order to keep up his supply, the poor creatures would have to be kept mad in erdless series. And yet when the boasted utility of the inocuiation in preventing hydrophobia in human beings is investigated it appears that the "subjects" operated on had no symptom of the madness, that it is not even proved that the dogs by whom they were bitten were mad, and that if it were so proved, it by no means follows that their bite would in every instance produce the disease, as many persons so bitten never have hydrophobia, and in many cases the disease is not developed for years.

Our Government has, according to the Mail, evoked a new educational theory and is now applying it to those Indian tribes which were lately in rebellion around Batleford. These are to be taught loyalty and industry by a process of slow starvation. Partly as a punishment for the misbehaviour of a
few of their braves, and partly as a means of compelling them henceforth to love the Canadian people as brethren, or rather as tender parents, the whole tribes have been put upon halfrations. In order, further, to teach them to be industrious and provident, these halfrations are being served out to them but twice a week. It is so easy for a famished savage, or a famished Christian, either, to love the family which adopts him as a ward against his will, strips him of his ancestral property, shuts him up in a narrow enclosure, and gives him just enough food of the roughest kind to keep body and soul together. It is so natural, too, for a half-starved savage to deny himself when the tood is at last placed in his hands, and, payiug no heed to the gnawing hunger, to put by a part of it for to-morrow and the next day and the next. And then with what hearty good-will the starving wretches will be sure to go to work on their empty stomachs, and with full knowledge that their hard work will not help to fill them. How deep, too, will be their admiration of the justice, the humanity, the Christian charity, of those who punish the innocent for the sins of the guilty, and involve old men, inoffensive women, helpless children, and the sick and suffering, in the common starvation. Seriously, we blush for our country, when such a policy is announced. If carried out through the terrible Northwest winter, it will sweep the poor wretches by hundreds into their graves. It will be an everlasting disgrace to us as a people. Every humane, every Christian, man and woman, every church and benevolent society in the land ought to arise and protest against such horrible barbarity.

## PEDAGOGICAL MANNERISM.

"I can tell a schoolmaster, or schoolmarn, as far as I can see them." Who has not often heard this declaration from persons engaged in other, and in their own estimation, evidently, more desirable occupations, or possibly in no particular occupation at all. The remark is the ungrammatical expression of a tous common fact. It may be , it is trie, the mere meaning. less repetition of a saying which has became almost proverbial. It may be, and doubtless often is, the spaaker's method of giving you-an inkling of the keenness of his own powers of observation. But on the principle that there is always some truth in what everybody says, there mast be some ground for this almost universal consensus of opinion. From so ne cause it must be that the public school teacher bears about to a greater degree than most others the stamp of his profession.

Admit it and what follows? Surely the profession is not one to be ashamed of. It is worthy to take rank beside the very highest. What then if it creates an indescribable something in speech, gait, or manner, which advertises to all cluje observers that one's business in life is to teach the young? Is any harm done?

Yes, there is harm done. The profession is discredited and the teacher's influence lessened. This eflect, in fact always follows any marked singularity in dress, voice, or manner, which proclaims the individual's business. In our social intercourse we don't care to have the accidents or peculiartues ot one's position or mode of life, thrust constantly before our
faces. We want to know our friends as friends, as men and women, like ourselves, not as merchants, or milliners, lawyers, doctors, or school teachers. The person who tall:; "shop" on ail occasions is universally pronounced a bore. The one who at:s "diun," who indicate; it in face or gesture, or tone of voice, is scarcely less out of place in the social circle. We meet there on cummon ground, and all our words and acts should be suggestive of, or in harmony wth, such thoughts, feelings, and interests as may be supposed to be shared in common by those around us.

But granting that the teacher ordinarily, or at least often, wears the symbol of his profession on his sleeve, so to speak, why is it? To discover the cause of an undesirable mannerism is to advance half way towards its cure. The result is in this case due, probably, to a combination of caujes, but one or two of the chief ones may be indicited. First, no duubt, is the tone and manner of command unconsciously used. The average teacher is accustomed to autocracy. His word is haw in the school-room. He brooks not contradiction, and too often is intolerant even of difference of opinion. In the effort to be firm he becomes imperious. The language of reproof is so often on his lips that the tone becomes habitual. In many cases the nervous tension is so great and constant that a state of irritability and wrong becomes almost chronic, and writes its language in every lineament and motion. These belong, of course, to the worst class of causes. There are many others of a much less disagreeable character which operate no less powerfully and leave marks no less clear and characteristic.

But the cure? If the cau es are unavoidable how are the effects to be escaped? We answer, the causes are not unavoidable. The cure can come only by avoiding them. There is, for instance, no necessity for imperious tones or even, ordinarily, imperious words in the school-room. The teacher who permits himself to fall into the habit of using either makes a mistake from every point of view. They are indications of weakness. Conscious strength finds no use for them. The words and tones of cheerful, kindly request or direction, from the lips of the teacher who has true influence and weight of character, will be obeyed with equal certainty and tenfold alacrity. Like begets like, nervousness or irritability in teachers reacts upon the pupil. There 25 an instinct of self-respect in every child which revoits from the obedience of slavish fear. The teacher who has the happy faculty of clothing every mandate in the language of request, and speaking it in the tone which takes ready obedience for granted, will very seldom be disappointed especially if the commands are invariably reasonable and right.

But we must not multiply ilustrations. The above will probably make our meaning clear. The way to avoid carrying the disagreeable habits of the school-room into social intercourse is to bring the cheery tone, the kundly manners, and all the pleasant amenities of sucial intercourse into the schootroom. This can be done. It is being dune wich the happiest effect by many-we hope by many readers of this Journal. We congratulate those who know how to do it. They are sure to be both useful and happy in their work. But the knitted eyebrows, the scowling faces, the martyr-fike tones and sighs, are also still too common. They mark the feeble, the irritable, the unhappy teacher. We pity those who carry those marks, from the bottom of our heart, but ue pity the poor victims, their pupils, still more.

## Special.

## ELEMENTARY CHEMISTRY.

## CHAPTER III.-Continted.

## Calcium Bicarbonate.

Exp. 6.-Cominue to pass sarbon dioxide through the liquid in the test-tube; the turbidity disuppars. The calcium carbonate combines with a molecule of carbonic acid, forming . calcium bicabbonate, which is soluble in water; thus:-

$$
\underset{\text { Calchun carbomate. }}{\mathrm{CaCO}_{3}}+\underset{\text { Crrbonic ald. }}{\mathrm{H}_{2} \mathrm{CO}_{3}}=\underset{\text { Calciunu bicarbonate, }}{\mathrm{H}_{2} \mathrm{Ca}\left(\mathrm{CO}_{i}\right)_{2}}
$$

Calciton Incarbonate, like Carbonic Acid, hat nerer yet been isoluted.

Exp. 7.- Boil the clear liquid in the test-tube, and turbidity again makes ita appearance, The calcium bicarbonate is decomposed into the insoluble carbomate, carbon dioxide and water being formed; thus:-

$$
\underset{\text { Calcium bicarbonate. }}{\mathrm{H}_{2} \mathrm{Ca}\left(\mathrm{CO}_{3}\right)_{2}}=\underset{\text { Calcium earbomatc. }}{\mathrm{CaCO}_{3}}+\underset{\text { Water. }}{\mathrm{H}_{2} \mathrm{O}}+\underset{\text { Carbon dioxide. }}{\mathrm{CO}_{2}}
$$

This oxperiment explains the origin of the incrustation which is deposited inside kettles and stean-boilers. The calcium bicarbonate is decomposed as above, leaving the insoluble carbonate on the botom and sides of the vessel. It may be removed from kettles by pouring in a little dilute hydrochloric acid, and may be prevented from forming in boilers by adding ammonium chloride:-

$$
\mathrm{CaCo}_{3}+2 \mathrm{NH}_{4} 1=\mathrm{CaCl}_{2}+\left(\mathrm{EN}_{4}\right)_{2} \mathrm{CO}_{3}
$$ Calcium carbonate. Ammonium chloride. Calcium chioride. Ammoniuminarbonate

The ammonium carbonate volatilizes with the steam, and the very soluble calcium chloride remains in the boiler.

Supports Combustion of Substances that have a strong affinity for Oxygen.
Exp. 8.-Attach a piece of magnesium ribbon to the cap of the deflagrating spoon, so that its extremity way reach nearly to the bottom of a large bottle of carbon dioxide. Hold the ribbon in the flame of the spirit-lamp till it begins to burn, and then plunge it slowly into the gas; it wil continuc to burn brilliantly, forming white flakes of magnesium oxide, interspersed with black particles which consist of earbon. The magnesium combines wit 1 the oxygen to form magnesium oxide, setting the carbon free:-

$$
\underset{\text { Carbon dioxldc. }}{\mathrm{CO}}+\underset{\text { Magnetium. }}{2 \mathrm{Mg}}=\underset{\text { Magnesium oxide. }}{2 \mathrm{Mg}}+\underset{\text { Carbon. }}{\mathrm{C}}
$$

Pour a little water into the bottle, and add a small quantity of hydrochloric acid, pour into a test-tube and heat. The mag. nesium oxide will disappear, while black flakes of anton will remain flonting undissolved in the clear liquid. These may be collected on a filter and shown to be carbon. Thix experiment prutes that cartuon dioxide semtains carbon.

Decomposition of Carbon Dioxide by Plants in Sun-light.

Exp. 9.-Fill a large tumbler with water, saturnted with carbon dioxide. Fill a glass funnel with fresh green leaves (mint is beat). Place the funnel inverted in the tumbler, care*
fully displacing all the air adhering to the leaves by agitation, and close tha neck of the fumel by a cork well saturated with parafine. Pour off a portion of the water from the tumbler, and place it in direct sunlight. Soon minute ? Jabbles will gather in the leaves aud rise into the neck of the funnel. T'wo or three days in spring or stumer, and four or five days in winter will be required. When at sufficient quantity of gas has accumulated, bring the water outside the neek to a level with thai inside, remove the cork and insert a glowing splint into the gas; the splint will be rekindled, showing the gas to be oxysen. The probable reaction is -

$$
\underset{\text { Carbon dioxide. }}{12 \mathrm{CO}_{2}}+\underset{\text { Water. }}{11 \mathrm{H}_{2} \mathrm{O}}=\underset{\text { Sugar. }}{\mathrm{C}_{2}, \mathrm{H}_{22} \mathrm{O}_{11}}+\underset{\text { oxygen. }}{12 \mathrm{O}_{2}}
$$

This experiment is of great importance as it explains the natural production of oxygen fron carbon dioxide and water. The plant leaf is the laboratory in which is constructed the material of which the plant consists, such as woody fibre, sugar, starch, gums, etc. All these consist essentially of carbon and water, and they differ from each other only by a certain number of molecules of water; thas:-

Observe also that the volume of oxygen liberated is equal to the volume of carbon dioxide decomposed, so that the volume of the atmosphere remains constant.

## other methons op obtaining carbon dioxide

By boiling or heating a solution of Sodium Bicarbonate.
Exp. 10.-Dissolve a teaspoonful of sodium bicarbounte in water in a test-tube, fitted with a cork and delivery-tuhe, and buil ; carbon dioxido will be given off. The reaction is -
$\underset{\text { Sollum becarbonate, }}{2 \mathrm{NaHCO}_{3}}=\underset{\text { Sodium carbnato. }}{\mathrm{Na}_{2} \mathrm{CO}_{3}}+\underset{\text { Wator. }}{\mathrm{H}_{2} \mathrm{O}}+\underset{\text { Carbon dloxide }}{\mathrm{CO}_{2}}$

## 9. By the action of Hydrochloric Acid on Sodium Bicarbonate.

Exp. 11.-Pour dilute hydrochloric acid on a tea-spoonful of sodium bicarbonate in a test tube; carbon dioxide will be rapidly given off; thus:-
$\mathrm{NaHCO}_{3}+\mathrm{HCl}=\mathrm{NaCl}+\mathrm{H}_{2} \mathrm{O}+\mathrm{CO}_{2}$ Sodium bicarbonate, Ifydrochloric acki. $\begin{aligned} & \text { sodium chlorido water. Carbon doxide. } \\ & \text { or common zalt. }\end{aligned}$

This reaction has been employed as a means of raising dough in the process of bread making. The escaping carbon dioxide pulfs up the dough, common salt remaining in the bread. Hydrochloric acid is seldom found sufficiently pure for culinary purposes. Tartaric acid and cream of tartar, however, will auswer the same purpose. Indeed, all the baking powders, and yeast powders, and the so-called self-raising flour, depend for their action on the mixture of sodium bicarbonate wich some organic acid or other substance that will liberate carbon dioxide from the sodium bicarbonate.

## By Combustion.

Exp. 12.-Hold a wide-nouthed bottle over the flame of a spirit-lamp for a fow moments. Invert the bottle, add a little
limp-water, and shake it up ; the milky deposit of calcium carbonate will indicate the presence of carbon dioxide. All our ordinary combustibles produce carbondioxide in this way. The combustion of $a$ bushel of charcoal produces 2500 gallons of the gas.

## By Respiration.

Exp: 13.-Put a small quantity of lime-water in a test-tube and breathe through it by meams of a glass tube. The limewater vill become milky, showing the presence of carbon dioxide: In the same way blne litmins solution may be turned a wine-red color, which becomes blue again oin boiling. A man emits by respiration about 1260 culic inches, or 20.6 litres of carbon dioxide per hour. Tiwo candles in burning will produce the same quantity.

> (To be continued:):

## ENTRANCE LITERATURE ties cloud. <br> Gage's Foirth Reader, Page 66 .

Percy Bysshe Shelley, the eldest son of Sir Timothy Shelley, was born at Field Place, Sussex, August, 4th, 1792. Naturally shy and difident, his early years were passed almost entirely with his sisters. At thirteen he was sont to Eton, where he suffered -much from the oppression of his masters and the potty amoyances of. the boys. The treatment which he received at this time seems to have induenced his later life, producing that hatred of all law, humau and divine, which is so noticeable in his poetry and his character. In 1810, he entered the University College, and studied diligently, but at the end of the second year was expelled on account of a pamphlet which he published anonymously entitled "A Defence of Atheism." His "Queen Mab" was printed in 1812. His unfortunate marriage with Miss Westbrooke, darghter: of a retired innkeeper, offended his father beyond forgiveness for the time, but in 1810 his father so far overlooked the past as to make him an allowance of $£ 800$ a year, on which he retired. He first met Lord Byron in Switzerland, where he went after his second marriage. On his return to England, he settled in Marlow, where he wrote the "Revolt of Islam." On account of bad health he again-went abroad and wroto. "Prometheus Unbound," in Italy. His last years were given to hard study and literary labor. He was accidentally drowned, near Leghorn in 1822, and his ashes, which were all that his fanily could obtain frou the authorities, were deposited in the Protestant cemetery at Rome, near the remains of Keats.
Ho is said to have bsun gentle and affectionate in domestic life, and to have been capable of deëp lore and affection, although his first marriage resulted so unhappily. His favorite pastime was bosting ; on the shore of every lake, or stream, or sea nour which he dwelt, he had a boat moved. He was.

> "Lured by the love of the genii that move
> In the depchs of the purplesea ".
ultimately to an untimely deuth.
His writiugs, thiough marked with a certain kind of recklensiness, sre in many respects unsurpassed in baity and poettic dire by any modern poet, not eacepting Byron.
Bring fresh showers.-Meaning of fresli heré 1. Any other mean: ings? Are all shivwers brought irom sead or atreanis?

Noonday dreains. - What is meant?

From my wings are shaken.--Howi When!
Every one-Distributive, in appusition with "buds."
Mother's breast. -The earth.
Dances.-Does the earth dance around the sun 7
Green plains.-Hail storms are common even ins the summer.
I vield the flail, \&c.-A beautiful, poetic conbination of word, which when properly read is more expressive than when caretully analyzed. This is true of much of Shelley's poetry.
Dissolve it. - Dissolve what ?
Laugh as $I$ pass in thurder.-Beautifully expressed, but not easily explained. In thunder, adverbial to "laugh."
Mountains beloo. - Bolow, what?
'Tis my pillow. - What is?
Sullime and on the tuvers.-Each adverbial to "sits." .
My pilot.-In apposition with. "lightning." In what sense, is lightning a pilot? Is a lamp at the front of a carriage a pilot?
In a cavera-thunder.-Thunder ofton sounds. as though below the clouds and rolling along the ground.
Lared by the love of the genii.-A classical allusion to the belief that each lake, river, rill, $\& c$. , had its own genius or nymph.
The spirit he loves.-Spirit, lightning or electricity; he, the genius.
$I$ all the while, \&c.-Above the cloud it is fine, below is the shower.
The sanguine sumrise.-Sunrise on a misty or cloudy morning, when the sun gives the clouds a red tinge.
Rack.-The drift of the sky; thin; broken clouds. Give other meaning. What is the difference in meaning between rack and reck ?
Morning star shines deal.-What planet is called the morning star ?" Why? Why is it said to "shine dead"?
In the light of its golden wings.- Whose wings? Why golden?
Peep behind her and peer.-Her, what is meant? Distinguish between peep and peer.
"Golden bees"- "Wiul-built tent."- "Strips of the shy" ". Moon and these." Write notes on each of these phrares.
Burring zo:e-girdle of pearl:-Explain.
The.fourth stanza is a beautiful description of a clear night with only a few fleece-like clouds through which the moon can be clear: ${ }_{1} y$ seen. The fifth is a grand description of a storm.
Sunbeam-proof.-So dense that the sun's rayo cannot penetrate it.

## Its columns.-Why use its?

Triumphal arch.-The rainbow which is commonly seen immedi. ately after a storm.
Povers of the air are chained. -When a Roman Genaral returnedfrom conquest he passed under the triumphal arch with his captives chained to his war-coach or sar. The oloud is here representerisis carrŷing captive ull the powers of the air under the great arch ohat spans, the heavens.

## Million-colored.:-Is this correct?

Laughing below. -The cloud is said to laugh in thunder. How does the eurth laugh ?
Daughter of carth and water. -In what sense?
Cannot die. - Force of die. Gan it be said to be cloud when passing through the pores of the eurth.?
Pavilion of heaven. - Explain.
Build.-Thè subjeget of build?
Uphuild.-Explain the cause of the furmation of a cloüd.
This is a beautiful poem. but rather difficult for a fourth-book class. It will; not be lost time, however, to read the poem onire. fully aid with as much expremion an posible. No poot io moio
happy in the choice of words nor in the manner of combining theun than is Shelley. Tine pupila might write notes on such oxpressions as, "thirsting flowers." "sweet buts," " skyey bowers," "lared by the love," "heaven's blue smile," "metenr eyes," " morning star," "ardors of rest and love," "swarm of golden bees," " splere-fire," "cenotaph," "caverns of rim."
Short lectures must be given by the teacher on such topics as evaporative, olectricity, causo of lightniny, catuse of thunder, the appearance of the sky in fine weather, in a storm, the colors of the rainbow, etc., etc.

## TILE PRACTICAL.*

A remark made in my hearing the other day sug3ested the sub ject of this short paper. It was that not enough of the practical was discussed at the meetings of the Convention. I did not agree with the remark. I. for one have looked forward every year to the meetings of the Convention with pleasurable anticipation. I have gone back to my work in school foeling that the meetings have done me good, that every year some thing has been said that was a real help to me in my work, and $I$ am sure that there are many teachers who feel as I do. There are a great many people who believe that children should be tatught nothing in school but what will help them to get on in the world. They want to see direct results. They would like, if possible, to see a money return fu: the time their children spend in school. How of ten one hears it said, " of what use will this or that study bo to my child? In a few years he will have to earn his living, and I want him taught what will enable him to do that." They regard the education of their children as a means to obtain the great ead of advancement in their worldly business. It nevor arems to occur to them that there is anything elso in tho world worth striving after but the making of a comfortable living. They forget, or rather they never thinl, that a good education, no matter what your station or occu. pation in life is, is your own great rewarc. 'Teachers, too, in this practical age are apt to be infected with the same spirit. They sometimes, in spite of their own betier judgment, kerp grinding a way continually at what they think will count up best at their day of reckoning-examination day. There aro many by-pathe diverging from the hard beaten highway of school work that they know would be both pleasant and protitable to explore; but they are restrained from doing so by tho practical consideration-1 ill it pay. On the one hasa we see the mischievous tendency of this ultra practical doctrine by the suspicious eyo that people cast on all that theyothink is not of direct and immediate utility, and on the other it is calculated to be equally hurtful in the school-room by the narrowing influence it has upon the teacher. What after all-of all the things we have learned in school, particularly in our early school days, has been of the most practical use to us? In looking back a few things stand out distinctly in my memory. I havo for. gotten entirely how I learned my letters, or how I acquired tho difficult rules of addition, subtraction, and multiplication ; but I $r_{\text {n member with feelingo of pleasure to this day, a beluved teacher }}$ telling a class, of which I was a member, the thrilling story of "Little Red Riding Hood," and singing to us the very unpractical song of "Froggic Would a Wooing Gu." And once at a later stage I remember a vencrable old gentleman cumiag into our school and oxamining a class of bare-foot boys and girls in arthmetic. What the exercises wero I forget ; whother thoy wero hard or easy I forget ; but, wh, I distinctly "emombor that old man's smile, his kindly touch, and his gentle, oncoarafing words. Such things may be very impracticable, lut I did not chink so then, and I can't say that I have changed my mind smec.

- A pay er read by Mase bliza Lawnon, at ihe Convention of the Prince Edward islatad leachers' Association, inat Oct her.

Every tencher must have noticed that it is ensier to tench bome children than others. Not so much from a difference in their natural ability, as that somo do not seem to know how to think. The difference lies in the elucation the children get out of school, there are many people who look upon home as merely a plate to get thoir meals and sleep. I am not now referring to those pooplo who, in the hard strugglo for existence, must of necessity leavo their children pretty much to themselves; but to the ultra practical people who look upon cheorful conversation, amusing books and games, as hindrames to the grand object of their life-monoy making. Of course children from such homes as these will bo dull and unimagimative. The teacher has to exercise all his ingenuity to rouso their sleeping intelligences. On the other hand, those people who cultivate the graceful, the beautiful, and all such practical things in their homes, will send to tho schools children who can be approached on many sides. The books, the cheerful, intelligent conversation which tha children havo access to and tako part in, are educating the children in the best and most pratical way fur the business of life, in which they will soon have to engage. I think that the sciools should make up to those who do not enjoy those advantages, what they miss at home. In the more advanced classes $I$ am sure it would be much more profitable for the students, instead of learning in their English Literaturo class at what period such an author lired, and a list of what books he wrote, and perhaps some reviews of thoso books, for them to spend the time in reading one or more of the works of that author. As things are now, such a course might not count quite as well at an examination, but the difference to the student would moro than compensate. Those people who learn and remember a collection of words about books put ono in mind of the botanist who can give you the Latin name for every flower and plant-who can classify them allbut who never wandered about in the fresh. green woods, and who never experienced the delight in culling a boquet of flowers. I would give more for the person's knowledge of English literature who lnughed over the adventures of Mr. Piekwick and cried over the sorrows of little Nell, than I would for one who could give you day and date for all the authors who ever lived. What can be more enjoyable and more sociable than conversation; but how few people there are, even among those who call thenselves well educated, who can talk well on any subject. Wo need very much to havo our hearts enlarged and our sympathies broadened. Anything that helps to do this is practical in the best sense. Can we not begin the work in the school-room? 1 am really anxions to know. I an: Yery sure that many people are carrying this question of the practical, as they understand it, too far. I hope that some of the teachers here will talk a little on the subject, and give us the benelit of their ideas.

## MIADAGASCAR.

Madagascar consists of a central platean or highland rising from 4,000 fect to 5,000 feet aoove the lowlands of the coast, and from this plateau rise occasomal volcanic cones, the highest, Ankaratra, being 8,950 feet abovo the sea. These volcanoes extend from the northern extremity of the island to the 20th parallel of south latitude. South of this appear grarite rocks, at least as far as $22^{\circ}$ south latitude. At higher latitudes than thas the rocks of tho interior are practically unknown to Europeans. According to a recent paper by Mr. F. W. Rudler, F.G.S., sovi ral crater lakes and mineral springs abound; and to the north of the volcanic district of Ankaratra there is a tract of country containing silver, lead, zinc, and copper ores. As regards building stones, besides the grante wheh is so yencral, thereare vast beds of sandstone and date between the district of Anharatra and the fossiis, according to M. Grandidier, the recent French traveller in the interior, are preferable to the Jurassic system, and comprise remains of hippopotami, gigantic tortoises, and an extinct bird of the ostrich species. The coasts of the countiy are rich in timber, and it would also appear that the interior is a good mineral fiold.

## 引latical antethoos.

INOTD.-We hava opened this department for the discussion of bost mothods of toaching subjeots that present difflculty in teaching, especially by young teachers. We desire to obtain the experlence of teachers who may have found successful plans and are willing to impart them to others.-ED. (C: S. Juvrini.)

## How to teale outlines of evglish history to prepare for entrance examination.

Before assigning a lesson, I talk it over in an interesting conversational manner to my chass, frequently omphasizing and repenting the most prominent parts. I then give them notes, previously propared, on what I havo been relating, and require them to copy these notes neatly and prepare them for next lesson.

At the next lesson, I question them on these notes carefully, selecting those to answer whom I suspect to bo a little dilatory. I then talk over another lesson and proceed in same way.

If my time is limited and I am not able to write the notes on the black board mysolf, I request a pupil to do so, and requiro the rest to copy them. I give the pupil, who writes for me, special time to copy for himself.
Occasionally, iustend of questioning my class, I put them in different parts of the room, write two or three of the leading questions on the board, and require pupils to write the answers, which I correct at my leisure and show them their mistakes.

In reciting answers, I take particular pains that my pupils give their answers in a complete sentence with good language.

I supploment this method with frequent written oxaminations, and take care that the pupils keep a record of all questions they miss, or fail to answer fully. When a review is at hand, or an entrance examination, I require them to look at their list in particular, and learn their weak points.

My experienno has been that it is objectionable to assign a lesson in the text-book before talking it over, for its language is beyond the age $r^{2}$ most Fourth Book pupils, and they will try to commit the lesson to memory, thus acquiring a collection of words without realizing the facts
An interesting conversation makes my pupils feel I have their interest at heart, and thoy will do their bost to please mo. Besideq, they will retain much of tho lesson $I$ have taught, and can learn the rest with much ease and satisfaction.

Felix.
Cherrywood, Dec. 4th, 1885.
My method of preparing English History in Outline with the Entrance Class is as follows :-I have skeletonized the leading events in the history from commencement, and use these notes as a frame-work on which to build. I notice that certain causes produced certain effects, and from any one particular cause I trace out how influences proceeded, and that some of these may have created other causes and other influences. I connect these facts with the monarchs who ruled at the time, and then bring in the leading statesmen, discoverers, literary men and others whose names are prominent in connection with that reign, and thus clathe the dry bones with attractive cóvering. I give frequent composition exercises with these causes as a subject and require the pupils to trace out the several effects resulting from thom. With thes view I desire the scholars to read a certain portion of the History at homo, to givo them habits of study, and then, in class, we talk it over, on the plan mentioned, outlining on the black-board the principal features. This may be called the topical plan, but whatever tho name may be, I fond it far moro pleasant and aasily kept in memory than a cateohetical examination on the text of the book.

Sylfa.

I treathistory outlines in the same manner as 1 would build a fonce, namely, (1) Dig out holes at certain distances, that is, prepare by laying out the ground-work of the subject. (2) Put in thin posts, as these nre required to nail the boards on, or the facts on which the details depentl. (3) Ornament the boards and paint them, which means adding any attractive narrative that would tend to make the mattor plessing to the scholar.
T. M.

My plan is to tako the first two letters of the word, and thus make "History," "Story." My history lesson is looked for with pleasure and I have no difliculty in fixing the several facts in tho minds of any pupils.

Jennie McL.
I would make my history lesson something more than mero facts and details. From the study of leading characters, as topics, I would gather around each a scene, as on the stago, and in that way picture the principal avents in the pupils' minds. The influences of these personages on society, laws, manners, and customs ; in literature, art, and science, morality and religion is, to my mind, the best and most practical history that $a$ child could learn,-such as would be of service to him in his subsequent lifo.

Practical Teacher.
For January 7th next wo will take up the subject about which our friend from Whitevale writes in the following letter. He gives his plan but he, and we also, would like to hear from others. We thank those who have kindly sent rephes to our last question. Remember, "The best plan for marking writing lessons," for Journal of January 7th, 1896.
Editor of School Journal:
Dear Sir,-As you have invited your ronders to present their difficulties in teaching, I desire to learn through jour columns, the various ways, adopted by experienced teachers, of marking writing lessons. I have a plan of my own, but desire to iniprove it.

I have tried several ways, but of late have been using the following which has given veryguod results :-Supposing the pupil writes ten lines. In each line, I count the errors of spacing, height, imitation of copy, and tidiness. At the end of the lesson at the lefthand margin, I mark in fractional form the denominator indicating the number of lines written, and the numerator the number of errors-thus, 100 would mean, twelve errors, and ten lines written. I transfer these fractions to $n$ class book. In the monthly report the sum of the Nr's and Dr's will be a true statement of the amount of work done, and the care taken in doing it. A percentage can be struck from these totals.
The reason 1 adopted this method is that I find among business men the desire is for penmanship regular, plain, and free from flourishes, and neat. However difficult it may be for a pupil to acquire an artistic style, it is within his power to learn to write regular and neatly. Using this meth:od as a lever to stir up my pupil's pride, and ambition to excel, I find little difficulty in removing the most objectionable features.

It may be a little cumbersome.
I hope some of the experienced teachers will give us their methods.
Thanking you for the space, I am, yours very respectfully,
Whitevale, Dec. 10, 1885.


No terrestrial quadruped inhabits the land within the Antarctic Circle, and whales and seals are the only mammals that enter its area. Summer in the Arctic regions, with its abundant life on the earth and in the air and sea, presents an animated and cheerful scene, compared with the uttor desolation that reigns suprome in Antarctic waters.

## Examimation Bracts.

EDUCATION DEPARTMENT, ONTARIO.-JULY ENAMINATIONS, 1885.

THIRD CLASS.
ALGEBRA.
Examiner-J. C. Glashan.

1. Simplify

$$
\begin{gathered}
a^{2}+b^{2}+c^{2}-(a-b+c)(a+b-c)-(b-c+a)(b+c-a) \\
-(c-a+b)(c+a-b) . \\
\left(a^{4}+b^{4}+c^{4}-2 b^{2} c^{2}-2 a^{2} c^{2}-2 a^{3} b^{2} b v a^{2}+b^{2}-s^{2}+2 a b\right.
\end{gathered}
$$

2. Divide $a^{4}+b^{4}+c^{4}-2 b^{2} c^{2}-2 a^{2} c^{2}-2 a^{3} b^{2}$ by $a^{2}+b^{2}-i^{2}+2 a b$.
3. Multiply

$$
x^{n}-8-x^{n}-6+x^{3}-1 \text { by } x^{3}+1
$$

4. Find the factors of

$$
a^{2}-b^{2}+c^{2}-d^{2}+2 a c-2 b d
$$

5. Find the factors of

$$
(a+b)^{2}-(b-c)^{2}+(c+a)^{2}
$$

6. Simplify

$$
\frac{\frac{1}{x}-\frac{2}{x+c}+\frac{1}{x+2 c}}{\frac{1}{x}-\frac{3}{x+c}+\frac{3}{x+2 c}-\frac{1}{x+3 c}}, x+\frac{2}{3 c}
$$

7. Find the value of $x$ that will satisfy the equation $m(x-m)+n(x-n)=2 m n$.
8. Determine $x$ given

$$
\left.4\{(x-a)(x-b)-(x-c)(x-d)\}=(d-c)^{2}-(b-3)^{2}\right)
$$

9. Solve the simultaneous equations

$$
\begin{aligned}
& \frac{1}{x}+\frac{2}{y}=8 \\
& x+2 y=x y
\end{aligned}
$$

10. A drover bought 12 oxen and 20 sheep for $\$ 1340$; he afterwards bought 10 oxen and 26 sheep for an equal sum, paying 88 each inure for theoxen and $\$ 3$ each more for the sheep. What was the price per ox and what the price per sheep of the first lot?

## GEOGRAPHY.

Examiner-Jas. F. White.

1. Fully explain these terms-tropic, meridian, solstice, monsoons, mean time, insular climate, longitude, inclination of the earth's axis.
2. Draw a map of South America, marking thereon the six princinal cities, the three chief mountain chains, and the course of the four most important rivers.
3. Name the railroads entering Toronto and Ottawa respectively ; tell about each the direction in which it rums, the important places in Ontario that it passes through, and its termini.
4. Desuribe a vuyago from Muntreal to New Urleans calling at six important places on the way.
5. Where are the following places and for what is each noted :Odessa, Bermuda, Bordeaux, Archangel, Mauritius, Oporto, Honduras?
6. Describe one of these cuuntries, France, China, Brazal, Arabia, under the following heads:-
(a) Buundaries and physical features,
(b) Animals and plants
(c) Manufactures and commercial centres,
(d) Civilization and government.

## ENGLISH GRAMMIAR.

Examine.-John Seath, B.A.

1. Describe, in your own words, the function of the adjective, explaining clearly the meaning of the terms "describing," "qualifying" and "limiting", and applying your description to the adjectives in the following :-the man, five boys, good men, His kind father is dead.
2. Explain in your own words the torms "Government" and "Agreement" and illustrate by reference to all the governing and agreeing words in the following :-
If need be, thou shalt see thy master's efforts to win these laurels.
3. Rewrite the following statements, making such corroctions as you cunsider necessary, and assigning your reasons therefor:-'
(a) When a superlative is used, the class between which the comparison is made and which is introduced by of should always includo tho thing compared: as, "Bismarck is tho greatest of German statesman," or "Bismaruk is the greatest Gorman statesman."
(b) The sign to should not bo usod for a full infinitive unless the verb in the same form can bo supplied from the proceding part of the sentencu: at, "you nover westo mo: you ought to " is wrong, sinco it is incorroct tosia "you ought to wrote."
(c) The perfect infinitive is used whon the act spoken of is regarded as completed before the time expressed by the governing verb: as, "I hopo I to have gone before the meeting.'
4. Distinguish the meanings of :
(a) If he go, I shall go and If he goes, $I$ go.
(b) $I$ think so, $I$ do think so, $I$ am thinking so and $I$ shoutd think so.
(c) He shall go, Me will go, and $H e$ is about to go.
(d) I knew that he speaks the truth and I knew that he spoke the truth.
(e) Who did it? and Which did it?
5. Classify and give the syntax of the italicised words in the following:
(a) He is a fool to sit alone.
(b) Much to my surprise he forgavo them their fault.
(c) He is too old to play the jool.
(d) My dream last night came trice.
(e) The daughter of a hundred earls, You are not one to be desired.
6. Classify the propositions in the following, giving their rela tion:-

Because half a dozen grasshoppers under a fern make the fieldring with their importunate chuk. whilo thousands of great cattle reposing beneath the shadow of the British oak, chew the cud and are silent, pray do not amagine that those who make the noise are the only inhabitants of the field-that, of course, they are many in number-or that, after all, they are other than the little, shrivelled, meagre, hopping-though loud and truublesome-insects of the hour.
7. (a) Translate into a phrise each of the following :-shecp-dog, uood-uuork, railuay, steamboat.
(b) Translate into a compround each of the following :-as dark ux cunl, that can keep un water, surrounded by the sea, tearing astuder the heart.
8. Correct any errors in tho following, giving your reason in each case :
(a) These pronouns are indeclinable and used in the singuler only.
(b) He looks like his mother does, but ho talks like his father.
(c) He was afraid he would be burned.
(d) The references will be found useful to the junior student and enable him to obtain an insight into the subject.
(e) A second division of lands followed and the poet was not only deprived of his estate; but barely escaped with his life when fleeing from the onset of his enemies.
( $f$ ) Trusting that you will remember us, and write as often ns you can spare time, and with best love (in which we all heartily join) remember me as ever, \&c.
(g) There are many boys whose fathers and mothers died when they were infants.
(h) Shall you be able to sell them boots?
(i) Of all my rash adventures past, Thas frantic feat must prove the last.
(j) Nor frequent does the bright oar break

The darkening mirror of the lake,
Until the rocky isle they reach,
And moor their shallop on the beach.
The highest plateau in the world, some 13,000 feet above the sea level, is that of Northern Thibst. Its lakes are frozen over until nearly June, though they are six hundred miles noarer the equator than we are.

## Inactical.

## DRAWING.

by william buhns, drawing master, higi soifool, brampton.
(The Eilitor of this Depritment will the what to answer questions tor information adileresed to hitm lu care of the Schoon Juminal.)

$$
X
$$

1. Draw a square of 3 inches sides, divido this into 16 equal squares by lines parallel to sides. Form this into picture of a window by doubling the outer square and the two inner diameters.
Let the pupil make the squaro by first drawing two lines at right angles and of 3 inches in length, bisecting each other, then through extremities of these draw the sides of the square required.
2. Draw an equilateral trianglo of 1 in . side. On upper side of the base erect a hexagon, and on the lower side an octagon.
3. Draw a parallelogram 4 in . by 6 in. Divide it into three equal parts by parallel lines. In the imer section place "starcrosses" covering the space, and in the outer hexagons also covering the spices.
4. i. Describe a circle of $1 \frac{1}{2} \mathrm{in}$. diameter.
ii. Describe an ellipse whose axes are $2 \frac{1}{2}$ in. and $1 \frac{1}{2} \mathrm{in}$. respectively.
iii. Form an oval from these two figures.
5. Draw a square of 3 in side. Bisect each side, and on each of the half sides describe semicircles, alternately within and without the square. Join the corners of the square by the diagonals, then within it draw a concentric square of $\frac{3}{4} \mathrm{in}$. side, and within this another joining centre points of the sides.
6. Draw a vase 4 in . in height. Make the top 1 in . in height, and the base $\frac{1}{2}$ inch. Take extreme width $2 \frac{1}{2}$ inches. Join top and baso by appropriate curves.
7. (i.) Deaw a cubical block of 2 in . side so as to show the top and left side of the block.
(ii.) Represent same block above the level of the spectatur's eye.
(iii.) Draw a cubical box (without a lid) showing the thickness of the material. About half the inside to be visible, and bux situated to left of the spectator.
To draw these objects properly the pupil should have them explained first from the sulid object placed before the class.
8. Give pictures of a cylinder whose height is 3 im . and diameter 2 in.
(i.) The top visible-object standing on one end.
(ii.) The cylisder lying in a horizuntal pusition, the right ond bsing visible.
9. Draw a cone of 2 in . diameter at base and height 2 inches.
(i). When below the level of the eye.
(ii.) When above the lovel of the eye.
10. Draw a sphere-stating why its position will make no alteration in the outline of the picture.
The same remark will apply to these figures, they can only be drawn intelligently by pupils who have observed the outline of the real objects; after having shown them to the class, and mentioned their peculiaxities of outline, there will be no difficulty found in the drawing.

## XI.

1. Explain the following terms:-Diagonal, diameter, right ublique diagonal-as applied to a square-; ellipse, axes of an ellipse, oval, pentagon, octagon, prism, pyramid, cone, cylinder.
Illustrate each definition by a drawing.
Be sure that these definitions are not mere verbal ones, then take several other common definitions as an additional exerciso such as those relating to the-circle.
2. Make $n$ hexagon of 2 inches side, and within it place $\mathfrak{n}$ sixpointed star.
This is best done by first drawing the hexagon by means of ant equilatoral triangle then joining evely alternate angular point of the hexugon, when the intersections of these polnts will give the inner points of the star required. Strengthen the lines, which join the points found, with angular points of tho hexngon, and a star is produced. Strengthen also outlino of hexagon itsolf.
3. Give working drawings of a box, without lid, $3 \mathrm{ft} . \times 2 \mathrm{ft} . \times 1 \frac{1}{2}$ ft . thickness of wood $1 \frac{1}{2}$ iuches. Scale $\mathrm{I}_{2}$.
Explain! fully, meaning of a working drawing. Draw first the plan, then the front elevation, using same length and thickness as in plan, next give the end clevation, showing how measurements are obtained from the other two already found.
4. Cover a space 5 in . by 3 in . with triangles, alternately filled and empty.
Draw an equilateral taiangle of 3 in . perpendicular height, bisect its sides, and through points thus found draw lines parallel to sides of first triangle. The ornament within may be of any symmotrical form.
5. Draw a squaro of 1 inch side. On each side of this square draw another square. Fill the four outer squares with interlacing curves.
Take care in this that the perpendicular heights of the curves are equal, otherwise the figure will be very unsymmotrical. Seo Paper VII.
6. Draw two concentric equil. triangles whose sides are 2 inches, and width of sides $\frac{1}{8}$ of an inch. Let them be drawn so that the vertex of one is $\frac{1}{2}$ inch above the base of the other. Interlace theso triangles, and form them into a rosette by placing a circulax strip of equal width around them.
7. Draw an ellipse whose axes are respectively 4 inches and $2 \frac{1}{2}$ inches.
(a) by means of foci, pins, and string.
(b) by means of surrounding parallelogram.

These two plans have been fully explained in our paper No. VI.
8. Draw pattern moulding ; width of moulding 2 inches, length 5 inches, width of $T$ lines $\frac{1}{8}$ inch and lofigth of upright of $T 1 \frac{1}{4}$ inch.
Let these be drawn altornately so as to slightly uverlap one an other.
9. Draw from memory a box with lid half-opened, dimenstons $1 \frac{1}{2}$ $\mathrm{ft} ., 1 \mathrm{ft} ., 1 \mathrm{ft}$. Scale $\frac{1}{8} \mathrm{th}$.

Be careful that the pupil represents the open space between the box itself and the hinge when in this position, and also only the lines visible in the thickness of the lid, \&c. It will be best to show the class a practizal illustration before drawing this objectr
10. Draw cylinder lying on its side, given length 4 m. , diamete of ond 21 in., position to right of spectator. Place it on a solid block $5 \mathrm{~m} . \times 3 \mathrm{in} . \times 2$ inches.
Note that only visible portions are shown in this answer.
11. Draw outline of common egg-cup. Take special care of tho drawing of lines showing union of stem and base as mentioned in our paper No. VIII.
12. Dras outline of conventionalized ivy-leaf. Height 4 inches, oxtreme width $2 \frac{1}{2}$ inches.

## DICTATION EXERCISES.

Dictation exercises may be made very profitable, but many teachers have no work of this kind in their schools. The writer has used them to cultivate memury and attention; to improve the spelling ; and as an exercise in capitalization, punctuation, etc. He has omployed the oral and the writton method with different
onds in view. Noticing that his grown pupils could not grasp and retain a dactated sentence, long onouglz to write it upon their slates; and that pupils who were copying from the blackboard, copicd one word and then looked up for tbe next, mstead of reading a clause and holdeng it in the mond until all the words of the clause or sentence, were written, he adopted thes plan as a means of overcomng the difficulty.

Arranging tho class ns for oral spelling, a very short sentence, or clause was read or dictated, in nateral but distinct tones. The pupil standons at the head of the class then repeated the words exactly as read. If he lailed, the pupil next in order attempted to pronounce the sentence, and if successful 11 doing 80 , he went above the one who missed, jest as in spelhng for the head. Each sentence was dictisted but once. Sentence after sentence was given to the class, and every pupl tested. The exercise was made a dauly one, and contmued durmg the term. Befure the end of the term, the dullest pupils could remember and repeat long sentences with astonishing accuracy I found it a wonderful help in cupying work from the buard, and in taking nutes of lessons, lectures, otc. Every pupil learned to put his mad on his work and to hold it there. To vary the exercise, the entire class have written sentence after sentence as dictated; then each pupil was called on in turn, to read from his slate, or paper, to spell, indicate punctuation marks and capitals as written. If he failed in any partucular, some one below him had a chance to correct and go up. By varying the mode of conducting the exercise, the interest will bo kept up. C., in School Education.

It is a fact that many teachers thak of nothing educational out side therr text-books. If the catalogue of teachers who take no respectable educational paper should be published, it would astonish the world. -N. Y. School Journal.

The teacher is, indeed, a bird of passage. To ascertaln something of the extent of his mugrations, statistics from twenty counties of the state were examined. These counties were selected at randon, ijut subsequent investigations demonstrated tho fact that the average number of the changes in them was much leas than in the other counties of the state.

In these counties there aro one hundred and seventy-seven 9 .aded schools, and, consequently, one hundred and seventy-ses en principals employed. Of these, eighty-six, or about fitty per cent., changed cnorr locations this year.

Without making detailed examination, the conclusion is that the average for the ono hundred and two counties is not far from suty per cent. Tauro is no evidence that thus change is exceptional.
There is no eseaping the fact that tho teacher who remains in one place for more than three years, is a "star" man. It should bo burne in mind that these pusitions are farly remunerative, and that they are occupied, generally, by men or women of more than average ability as teachers.
The showing is not encouraging. It is quite otherwise. Whaterer gain weare making in educational metnods, is largely neutralazed by thas constant change from place to place. To put a system of schools into fair shape, takes more than a single jear. The pro cess of education is a slow one. A principal whese plans have nol w. der ateep chan a brief exht months, cannot hare a comprehenswe vien of his position.

We do not believe that the average principal is so short-sighted got so soon as he is farrly started in the development of any wo thy projects, he hears the mevitable cummand to "" muve on," and he drops the half perfected mork, to bo succecaed by another with
no understanding of his purposes, nor will to executo thom if bo had.

What a foolish, extravagant, absurd policy! It comes from tho ignorance of the public respecting the true character of school work. Aud teachors are in part responsible. The community is in sore need of education. Every proper agency should bo used to instruct school officersanu patrons in such matters. It is the dream of the schoolmaster tant the time is coming when he shall lose his migratory character, and have an abiding place among the sons of men. The millennium may usher in the realization of his dream, but to predict an carlier date, from present indications, wonld be to hazard ono's reputation as a prophet.-Illinuis Nehool Journul.

Prof. H. E. Holt, teacher of music in the Boston schools, says
that it has been abundantly shown that from ten to fifteen minutes judiciously devoted to music each day whl onable our pupla to acquire durug school life the abilty to read music at sight as intelligently as they read an English authror. It has also been shown that unusic has a disciplanary value equal to that of any branch taught in our common schools. It remains then for teachers to say whether their pupils shall have the mestimable advantuges of a musical education.

## Educational Aotes and Acms.

## Miss Merva Green, of Chatham, has resigned.

Mr. Janes McKay, of Lakestdo Schools is re-engaged.
Mr. C. Hugill is re-engaged in Folden's School, Oxiord.
Miss Kate McDuggall is engaged in tho Amhurstburg Schools.
The Kindergarten system is introduced into the Dundas Schools. Mr. W. H. Harlton, of the Renfrew Mrodei School, is engaged at scīu.
Mr. C. B. Zdawards has been re-engaged in No. 7, Iondon Township, for $1,86 \dot{6}$, at a salary of $\$ 525$.
Miss Jamiesun and Miss Jennie Hume succeeded Misses Brogden and Lavin in the Galt Public Schools.
Mr. McF irlane of Kirkland, has been engaged to teach in Lornevile Puble Sichool for the eusung year.
Mr. Solomon Jeftrey has been re-engaged to teach Einsale School another year at an advance of salary.
The Stratford Model School students publish a paper undor the ouphonious name of Model Sichool Tattler:
Mr. Thos. Scott, head mastor of Lucan school, has sent in his resignation, the reason assigned being ill-health.
The trustees have engaged Miss Beatrice Broad as teacher for the junior department of the Little Britan public school for the ensuing year.
The Lindsay Board of Education has issued a circular approving of an annual cunvention of High and Public School trustees for tho Province of Ontario.
Mr. W. T. Evans, late assistant teacher in the Waterdown High School, has secured the position of nathematical mastor of the Sarnia High School, at a aslary of $\$ 900$.

Miss Magge Thomson, of the Telfer school, London township, has been appornted to an important situation in the Ottarra Prosincial MLodel Sulavel, at a salary of Sisio por annum. - Free P'ress. Tho town pupels attending the Sh Mary's Cullegiato Instituto will after the lat of January next, bo charged a fee ol $\$ 5$ per year, while those outside of the town will be taxed \&2. - St. Thomas Times.
Nir. Fessenden asked the Napaneo Sehool Board, for a grant of money fur the purchaso of a roieronce Iibrary and ladoratory for the High Scherl, and on motion of Mr. MeCay, sec nndea by Mr Curlette, the Board granted $\$ 100$. On muthon of Mr Hall, atws resolved to make an cffurt, to raiso by sabscraption an additional \$100.-Napanec Standurd.

The staff of teachers for the Leamington Public School for 1886 is now complete. Mr. Smith, Miss McMullen, and Miss Juhnson have been re-engaged. Mies McCallmin and Miss Buwes have resigned, and to fill their places Miss Mary Windsor and Miss Bertha Chumberlain, both of the village, have been engaged.

In Norway, a lady has a seat on the Royal Commission to inquire into the condition of schools. This is the first time a lady has served on this Conmission. And at the fifth Norwcgian school meeting, which was held last August, ladies were admitted as equal co workers with the men.

The now sruth ward school building, Fenclon Falls, is completed. It is a two-story stone building and the handsomest schoolhouse in the cuunty. A regular stanipeue takes place at Christmas annong the school teachers. All are leaving but Miss MeDiarmid. The headmaster is going into mercantile business, some into other schools, and some, they say, into matrimony. - Victoriat Warder.
School matters are louking up in AIuskeka district. Bracebridge has the finest public schuol building in the county; an excellent model school. The public school has five departments. Macaulay hes a township board and seven schcols. Huntsville has an excellent school with tro departments. Baysville has a large school, a poor building, and but one tencher where they should have two.
W. E. Nortun, principal of the Florence School, has been reengaged for 1886. Both of the assistants have resigned and the Board has advertised for applications for the positions of second and thirc' teachers. Owing to the changes in the school yard, the school house and the emplegment of a third teacher, the school taxes are higher than they have been for some years past-Sarnia Olserect.
Under section 96 of the Public Schools Act of 1885, it is provided that, in incorporated villages not divided into Wards, three of the Public School Trustees shall retire from office at the time appointed for the ne at annual schuol election, and the other three shall continue in ofice one year longer and then retire. Cuder the Act, as formerly in force, only two of those now in uffice in villages would have retired.

A recent Canadian teachers' association discussed the Quincy Miethrds. One headmaster thought these methods would not be acceptable in public schools. Ho did not believe in the idea that children can abtain their knomledge without knowing they are getting it. "There is a lot of tomfoolery in the Quincy MIethods." Not improbable, and yet much that is good.-Ohio Educational Monthly.

We were shown a letter irom Judge Jay H. Boulton, President of the State Board of Education, Colorado, in which he atates that "the Tonic Sol-fa is sure to win in Pablic School mork. It 18 growing in this State, and if not now, there is sure to be a call for more teachers." He goes on to say that they have been trying the Staff Notation for years without satisfactory results, and are determined to have the Tonic Sol-fa now.
The salaries of the whole staff of teachers in the County Model Schoul, Parkdale, have been increased for 1886 . They are as follows :-Mr. J. A. Wismer, principal, $\$ 1,000$; Mr. R. W. Hıcks, second master, $\$ 150^{5} 0$; Miss H. K. Currey, $\leqslant 450 ;$ Miss E. R. E.ıdie, $\$ 425$; Miss MI. Littlefield, $\$ 400$; MIr. F Rolston, $\$ 37 \overline{5}$; Miss S. Nable, $£ 350$; Miss I. Currie, § 330 ; Miss L. Cook, $\$ 330$; Miss M. Warren, $\$ 325$; and Miss A. Duff, $\$ 325$.
At the close of the Model Session, a grand concert was given, in the large concert-room of the Public School building, and the teachers in training presented Mr. J. A. Wismer, principal, with a sold-headed cane as a token of respect and esteem.

The Farnnersville Bigh School Annual Circular is to had. Wm. Johnston, M.A., is liead master; G. W. Bruce, B.A., gold medalist in MIoderns, is classical master, and Mr. Alex. Wherry, teacher of Euglish and Alathematics. At the last examinntions this school passed one birst class C , ono secend class $A$, four $B$, and fire third class. Tho tuition is frec. Tho Public Scheol is held in tho building formerly occupied by the High School. AIr. T. ML. Porter 15 principal, and Nisses M. Russ, and K. Kincaid are the sssistanta,

Mr. J. R. Brown, head master Forest IItdel School, wishes us to correct an error that appcared in our recent note on appointments in that school. He did not claim that a pupil froin his school obtained the highest H. S., Entrance marks gisen in the Provinee, but ligher than that ebtanced by nny other cendidato in Lambtor, Middlesex, and other surrounding counties. The reenrd is an honorable cne cren still, and we are pleased to know that MIr.

Brown has been retained in his position, as the matter was settled by a majority vote of his School Board, on 15 th ult.

Another proof that the Tonic Sol-fn process is a growth is the fact that, citer the training by that method is completed, the mysteries and ditticulties of tho staff are found to be interpreted and made plain. Tonic Sol-fa is, therefore, not only a complete system in itself, but it is a royul-that is to say, a natural-road to an understanding of the staff. Teachers who have tried it thoroughly, agree in saying, as one of them has expressed it: "It takes less time and labor to learn both Tonic Sul-fa and the staff, than to learn the staff alone.-TV. F. Nevard. in N. Y. School Jonnul.
The following teachers have been engaged for the onsuing year:Mr. D. McMillan, the popular teacher of Palestine public school, has been promoted to the principalship of Cambray public school, at a salary of $\$ 42 \overline{0}$. This speaks volumes for Mr. Mimillan as an instructor, as lie has prored himself to be an efficient teacher. The trustees of S. S. No. 9, Maple Hill have secured the services of Miss Alice Birmingham, of Palestiue, as their teacher for the coming year, at a salary of $\$ 200$. Mr. John Spence, of Glenarm, has been re-engaged at an advanced sulary of $\$ 310$, as teacher of Uniou school section No. 2, Eldon. We are also pleased to hear that our friend Mr. Silas Sinith has been re-engaged as teacher of S. S. No. 3, Eldon. We predict for him a bright future career.Fictoria Warder.
At the meeting of the Sanitary Azsnciation, held last week in Toronto, Mr. J. L. Hughes, Public School Inspector, mado some remarks on health in the school-house, which were listened to with interest. Great attention was paid in the Toronto Schools, he said, to these matters affecting the health of the pupils. The teachers endeavored to prevent, os far as pussible, any pupil from leaning over his desk while studying, to prevent pupils from sitting in school with wet clothing, and gave great attention to the lighting and rentilation of the school-houses. He thought no one should be required to apply himseif steadily to the same work sixty minutes cvery hour. In their schools they endearored to give the pupils five minutes' recreation or a change of work, recess, or calisthenic excrcise, every hour. This, they found, recreated ability and desire to work. The object of the School Board in this city was to attend to the health of pupils. An interesting discussion followed Mr. Hughes' remarks. Dr. Oldright pointed out the advantage of having desks and seats in schools that might be raised or lowered, the samess are used in schools in France. He thought the air space in Toronte schools was miserably small. The air space should be such as rould obviate the necessity of ever keeping the windows of schools open. Mr. W. B. Hamilton said the ventilation in the Madel School was very bad and in the Collegiate Institute it was very littlo botter.-Glube.
Mr. Chamberlain, in a speech at Evesham, England, said :-I want education to be as free 23 air. Now I think this question- is of greater importauce in the country than it is in the town. I will tell you why. The wages of the laborers in the country are less, and this tax is in greater proportion to their scanty incomo than it is in the case of the town artisans. It is a greater burden upon them ; they feel it moro severoly; it involves a greater sacrifice of what are really the necessaries of life. If they want remission of this tax they hare to seek it under circumstances involving greater humiliation and greater annoyance than others in the towns. There are very fow School Boards in the country, and I haro heard of cases in which laborers or their wives had to tramp eight or ten miles to a board of guardians in order to ask for the remission of their fees. Our opponents say that free education would involve a charge upon the rates. They know perfectly well that we who have proposed free education make it a condition that no extraordinary charge shall bo lovied on the rates, and that the whole of the money which is reguired shall come, ns it ought to come, from national rescurces. They say free education will destroy the roluntary schools. I bolieve that free education may be created to-morrow and neither the existence nor the position of the voluntary schocls be affected in the slightest degree. Then they hare said that free educatien involves the exclusion of religious teaching from voluntary schcols. It has nothing whaterer to do with religious education in the schocls, and so faras I knor-and I ought to know something about the sukject, haring been connected with it from the first-thero is no politician in a position of any eminence Whaterer who has ever proposed that religicua edacation should be excluded from the national schools. I hope in the next Parliament this measuro will be arrried.-seheot Guardian (Eng.)

## Titerarn © Thit-THat.

"Daisy Chains" is the title of a now work by the author of "The Wide, Wide World."
Lippincott's Magazine is henceforth to be issued under a new plan, which includes more popalar attractions and a reduction in price.
The Globe suggests that a prime cause of the failure of all attempts hitherto to establish a Canadiau magazine has been that the ventures were not sufficiently Camadian in character, beng rather feeble imitations of Enelish periodicals than true home produchons. It predicts success for a truly native magazme when it comes. Why not?
Rev. E. l. Roe's sister, who is said to have discarded literary abilities, is writing a novel.
"Dame Wigesins of Lee and Her Wonderful Cats" is the title of a volume of ancient nursery rhymes, which Miss Greenaway has illustrated, and to which Ruskin has added a number of original pieces.
MI. Victor Drury, author of a well-known historg of Rome, is now at work upon a similar history of Greece.
"The Ghost of a Dog" is the novel title of a Claristmas story by a Canadian writer, J. A. Phillips, of Ottawa.
Kosmos. the organ of the Science Association of Victoria University, which has hitherto been published as a monthly is to be transformed into a guarterly.

Lieutenant Greeloy's book, "Three Years of Arctic Service," is to be published by the Scribners in January.
The second and concluding volume of Grant's memoirs is to be ready lor the public not later than March 1st. The manuscript is now in the hands of the publishers.

## Correspondarc.

## Tu the Editor of The Canada School, Journal.

I wish to c:ll attention to the frequently improper use of the word same. For example, in the Educational liecord of the Province of Quebec, July-Aug. number, 1885, in the last line of paye 182, it "ccurs in this sentence; " and Rev Mr. Knight, a distinguished clergyman from Pennsylvania, who had been present on the same occasion last year." Now the "same" occasion last year was the Cowocation of Bishop's College. I contend that the use of the word same in this sentence is incorrect; the Convocation of 1884 could not be the same as that of 1885 . "Similar" would have been correct and in accordance with the facts. Another improper use of it may be found in "Egypt and Syria," by Sir J. W. Dawson, F. R. S., in a sentence commencing in last line of page 185, as follows:-"I may add that a gentlemen whom I met at Jerusalem, and who has travelled much alone and unattended through the villages of the Fellaheen in Syria, bears the same testimuny in favor of them." The "testimony "above referred to, is that of Sir J. W. Dawson, with regard to the general good conduct of the donkey boys and water-girls of Egypt. Now "a gentleman," again, could not, or certainly did not, bear the same testimony with regard to the conduct of the people of one country, that Sir J. W. D.usson does to that of amother. I am aware that I am attacking high authoity in buth these cases ; but if I do so successfully I need not look after more ordin:try writers, whose mame is legoon, in the matter of the improper use of the word "same." Two persons, two silver doulars, or two sets of events may be very much alike, but they cannot, in any c.sse, be the same.
S. M.

Cote St. Paul, Quebec, Dec. $\overline{\text { sth }}$, 1885.
Remember that a little present punishment, when occasion arises, is much more effectual that the threatening of a greater punishment should the fault be renewed.

## Titerary

Theoni and Phactice of Teachino, by D́avid P. Page, A.M. Now edition, adited and onlarged by W. hi. Payne, Professor of the Scienco aud Art of l'eaching in the Unversity of Anchigan.-A. S. Barnes anl Company, New York.
Whe author of this book was First Principal of the State Normal School, Albany, N Y, and he wrote it nearly forty years ago, when the Science of Teaching was crude, compared with what it is today. Tet the ideas of this groat master-mind are so suggestive to educaticnal thought that teachers of not only the present but ol future generations will derive pras tical benefit from the study of them. "Theory" is a suspicious word, and the teacher who hears it is of opinion that it is a waste of tume to devoto attention to theoretical study, but in this case the author explains the use of the word in the title. He says:-"I have not been dealing in the speculative dreams of the closet, but in convictions derived from the school. room during some twenty years of active service as a teacher. Theory may justly mean the science distinguished from the art of teaching, -but as in practice these should never be divorced, so in the following chapters I have endeavored coustanuly to illustrate the one by the other."

The book is so well known that to dilate on its merits would be a "work of supererogation." In the hands of Prof. Payne it has become a universal cducational work, as he has deleted all the local matter and made it a book that no teacher shonld be without if ho desires to make his carcer a success. Tho binding and type are all that could be desired.

The International Magazine, Education, for November and December, published by the New England Publashing Company, 3 Somerset St., Boston, und devoted to the Science, Art, Philosophy, and Literature of Education is at hand, and contins an unusual amount of valuable reading for thoughtful readers on education. Dr. Harris, of Concord, coutributes an article on the nethods and Limits of Psychologisal Inquiry; Dr. Milliken, of Ohio, disensies Education as Related to Physiological Laws. The Essentials of Linguistic Training are presented in an ablo paper by Dr. Greene of New Jersey. The General Outlines of Education in Japan aro described by S. Terima, the Japan Commissioner of Eduention at London. Miss M. K. Smith gives an account of the recent Educational Congress at Irave, with Reports on Education at the New Urleans Exposition prosented by Hon. John Hancock, Prof. J. M. Ordway, Hon. M. A. Newell, Hon. Wirren E:tston, and others. Other articles, both home and foreign, are valuable contributions to the literature which the New England Publishing Company have done so nueli toward elerating and exteuding.

As Excellent Papeit-It seemss almost unneceseary for us to call attentivn to a-poper so well and favorably known as the Youth's Companion, of Bostm. It has been for fifty-eight years a weekly visitor, and each year has shown more clearly its wonderful usefulness th the class of readers $\mathrm{fo}_{r}$ whom it is prepared.
It would be interesting to trace its influence in the caso of two familios, one of which began, we will suppose, twenty years ano, to provido it for their children ta read, white the other furnished the moro sensational publications. The contrast would no doubt be a striking one.
Parents can give their children few things of more value and importance in their growsh of mind and of character than a wide-awake, intelligent, wholesome paper into whose mangemeat tho pablishers put conscienco and moral purpose as well as muney and ability.

## A Painur Mistom of tue United Sentes. A. S Barnes \& Compa:zy

 Ncw York.The mijerity of historios of the present day contain all tho events as they happened in days gone by; but they lack the vivid description, that clear, easy style, that atiractiveness nbout them whela entices the reader to look further into the condition of man th th the preseut. Those qualities so requisite are fully supplied in this "history." The narrative is of a clear, easy style. It contains a full record of the changes, contests, cte, by which the United Ststes stands eminent ninotig the great nation of today, placed in a very pleasing vay. The maps form an excellent feature of the book, being mmerous and very distinct; and the prominence given to

 prured with il.

