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## THE ONTARIO TRACHER:

## A MONTHLY EDUCATIONAL JOURNAL.

## THE EDUCATION ACT.

Systems of education, like other human institutions, are subject to various changes. Scientists tell us that there is no such thing in the universe as absolute inertia. If this is true even in regard to the inorganic world of matter, how much more applicable to the unceasingly active world of mind ? The men whose names adorn history's page, and whose record will be embalmed in the memory of a grateful posterity, are those who have sought to accomplish changes not for the mere sake of change, but because they were improvements; whose lives breathed the spirit not of restless empiricism, but of true philanthropy ; and who, burning with the ardor of conviction, and stimulatel with the consciousness of duty, sought to remove existing evils by inaugurating needed reforms.

During the past thirty years there have been many changes in the cducational system of this Province, and it would be folly to deny tinat the majority of these have been improvements. Among the most noted of these may be mentioned
the establishment of the system of Free Schools, the elevation of the standard of the teaching profession, the new system of school inspection, the facilities afforded for the estublishment of free public libraries, and the purchase of maps and apparatus, and the revised programme for the classification and studies of the pupls in our High and Public Schools. It is also worthy of note, that as statistics show, the Province has from year to ycar made great and gratifying progress, under the influence of these changes. Wrile a higher standard has been required from teachers, their salaries and privileges have rapidly increased; and while the la:v has been made more and more stringent in regard to school accommodation, trustees generally have shown praiseworthy liberality, and spent immense sums in repairing old, anderecting new and commodious school-houses. The last change, embodied in what is known as Mr. Crooks' Education Act, has received the royal assent, and is now law. The Act is a very short one,
but nevertheless very important. The office of Chief Superintendent of Education is virtually abolished; the Council of Public Instruction is defunct, and all the powers enjoyed, and duties devolving on the Chief and Council will henceforth be transferred to a responsible Minister of the Crown. We have already expressed our opinion as adverse to the change now accomplished, and we see no reason to make any retraction. Briefly we may say that our own objection to the new departure is that a Cabinet Minister will find it exceedingly difficult to give his attention to the numerous matters hitherto managed by the Chief and the Council. So many are the details requiring mature judgment, experience, and sagacity for their administration, that no one man, still less the political head of a Department, can successfully grapple with them. It may urged that the late Council have already done so much that very little remains to be done. When it is remembered that the same Council have from year to year been kept busy, their labors, indeed, increasing, instead of diminishing, and that the demand for changes and improvements and the numerous matters connected with the efficient working of our school system, will still continue to demand attention, the argument loses all its force. It has been proposed to transfer to an Advisory Council, consisting of the Central Committee of Examiners, with the addition of two or three other members, a portion of the, labors devolving on the late Council. Whether such a step is now in contemplation we cannot say; we only
know that the Act is entirely silent in regard to it. Such a division of duty and responsibility would be, to say the least, exceedingly awkward. Such a Council would have only advisory, but not executive power, and the Government having all the responsibility might feel compelled $b$ - the exigencies of any particular case, or conscientious conviction, to differ from its advice. Under such circumstances circumstances, indeed, not unlikely to arise -the Council would be practically a nonentity, and would occupy a position neither pleasant to its members, nor useful to the country.

Another stiong objection to the change is that it deprives the Teachers and Inspectors : of the Province of the privilege of exercising their franchise to select representatives in the Council of Public Instruction -a privilege which was obtained only after a hard struggle, and which they prized very highly. We have also expressed our fears that the change would lead to the introduction of politics into our educational system. But it is useless now to enlarge. The change has been accomplished, and whether we like it or not, it is the duty of all interested in the educational progress of the country, to aid in making it a success. We regard it as a doubtful experimentone which has been already tried with the result of failure in the Province of Quebec. but nevertheless we shall rejoice if our fears should prove to be groundless, and the anticipations of its advocates be more than realized.
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## PROFESSOR SMITH'S VALEDICTORY.

Professor Goldwin Smith has issued his farewell address to the Public School Teachers of Ontario. Not a Sarewell address, on the eve of his leaving the country, but a farewell dictated by an Act of the Legislature which summarily deprived himself and his colleagues of their powers and responsibilities. The valedictory is somewhat lengthy, and is largely taken up with the quarrel between Mr. Smith and Dr. Ryerson. It is not our purpose at present to express any opiniou in regard to that quar-rel-a quarrel indeed, which seems to be very bitter and personal.

The Professor begins by stating that he was anxious that Dr. Ryerson's charges of official misconduct against himself might be tried before an authoritative tribunal. But the last meeting of Council was only proforma, as four vacancies had not been filled, and the Council was about to be abolished. He subsequently wrote to the AttorneyGeneral asking him to call on Dr. Ryerson to make his charges if he had any to make, but on doing so Mr. Mowat found there was nothing to submit to investigation. Mr. Smith next goes back to the spirit and feelings with which he entered the Council, and the manner in which he was treated by Dr. Ryerson. He maintains that he always treated that gentleman with due respect and deference, and denies pointedly that there was any conspiracy between him and Dr Wilson. In regard to the appointment of teachers for the Ottawa Normal School, Mr. Smith says :-
"I must, however, specially beg the Principal and Master of the new Normal School at Ottawa not to allow their diffeculties to be aggravated. by any misgiving that their election was the result of intrigue and cabal. They were elected, so far as I was concerned, upon the evidence of their
merits. What I have said as to the baselessness of the Chief Superinte:Ident's charges of conspiracy generally, I say with emphasis in this case. I literally never exchanged a word with any one upon the subject of those elections except in open Council. I had no idea what line Dr. Wilson or any one else intended to take. My own mind was entirely free from bias for to examine the testimonials with my colleagues. By questions as to the religious opinions of the candidates I had determined that I would not be, nor was $I$, influenced in the slightest degree. We deliberated many hours. I voted in the majority, which included, if I mistake not, personal friends of Dr. Ryerson ; and I fail to apprehend why my motives are aupposed to have been worse than those of the rest. Dr. Ryerson, as he plainly lets us see, instead of taking counsel with his colleagues, made up his mind, apart with two advisers of his own choosing. He then tried to force his nominations on us. Had I or any member of the Council yielded to him it would have been a betrayal of our duty. The appointments were not his patronage but our trust.

The election having been legally concluded late at night, and some of the electors. having left town, on the understanding that our business was at an end the Chief Superintendent next morning .ttempted without notice to rescind our decision, but was foiled in the attempt. On this occasion he describes the unseemly conduct and the discomfiture of the "opposition," evidently pointing to Dr. Wilson and myself. It happens that I was one of the members who had left town."

He refers as follows to the proposed investigation into the Book Depository :
" With regard to the Book Depository, F am charged by Dr. Ryerson with assailing. that institution in the interest of private traders; in another quarter I am charged. with conspiring to screen its corruption. The facts are these :-My experience as an Education Commissioner in England had convinced me, in common I believe with all
whose attention has been called to the sub). ject, that these establishments in whic' Government assuumes the functions of a trader are apt to ontlive their usefulness. I found some dissatisfaction at the operation of the institution among my constituents, and a grood deal among the trade. Nom was the complaint among the trate. in met by calling the establishment the "P'oople's lepository." The people has: res more interest in a government establiship. than they have in a respectable trades wheh is their regalar channel of supply; the question, it day, is b-tween the intercot of the regular trader and that of the salaried officiais. Suspicions of actual abuse were rife, and thoug't I had myselt no ground for sharing them, I could not but feel that their prevalence was natural in the absence of iavestigation. I, howewer, doubted very much whether the Council possessed legal powers sufficient for an effective inquiry, and I thought it better that the duty should be undertaken by the Covernment, which alone had athonty to touk into the financial management or the office. Still there was nothing in the inquiry unlawful or inappropriate, and there was reason to believe that the (rovermment wished to receive a report from the Council on which legislation might be based. I therefore consented to serve on the Committee. But the result was what I feared it would be. With thie general purport of the report I agreod ; but its last paragraph, in effect, admitted that its framers had not been able to command sufficient information, and suggested that the inquiry should be undertaken by the Government. I was glad to obtain the unanimous consent of all to a resolution embodying that suggestion, aud remitting the incuiry to the fovernment. The statute accordingly authonized the Govennment, if it thousht proper, to make use of the Council as its instrument of inquiry, and to give us full powers for the purpose.

If the Chief Superintendent thought fit to act as a member of the Committee of Inquiry, he ought to have entered into the investigation on the same footing with the rest of us. He had no right to identify himself with the Depository, and to treat criticism on the policy of it as a personal attack upon himself. Had he attended the Committee when summoned to consider .the.report, and stated his own views, due
attention would have been paid to his remarks. Had he preferred to draw up a separate report, I was prepared to move thatt it be appended to that of the Committee. But he chose to stay away and sldutess the Chairman letters and communicuinis couched in such language that we widl not have received them without subjectin:; ourselves and the Council to the prossest insult."
The next paragraph refers to the question of excluding reporters from the sttiings of the Council, and, if corr ct, it lessens our regret that the Council has been completely extinguished. It seems to have been a veritable bear-garden, and one of Mr. Smith's reasons for excluding reporters was that the unseemly brawls of its members might not be known to the public. This reason is wholly incorclusive, and we believe now, as we always did, that Mr. Smith was entirely wrong in the stand he took on this question. But we will let him speak for himself :-
" With regard to the question of admitting the reporters to our debates, Dr. Ryerson sals that he thrice proposed that course. I should have said that he proposed it more than three times. It was one of his modes of showing his feelings, to threaten to bring in reporters and make a public defence of his administration. He resorted to this at our very first meeling. To advocate publicity as a matter of principle would hardly have been consistent in him, considering how many years he and the old Council had been content to go on without it. I hope you will believe me when I assure you that I had no personal motive for concealing my words or actions. But I feared that if we took to debating in public, with the Chief Superintendent in the frame of mind in which he was, and with party critics to set us by the ears in addition to such a source of dissension among ourselves, the Elective Council, and your rcpresentative as a part of it, would soon terminate their existence in some scandalous scene. I therefor 'cordially concurred in the resolution to remain content for the present with the measure of pablicity prescribed by the statute, and outside -the: Council I endeavored to allay the agitation
with such arguments as were available; the most cogent of all, the danger of public altercations, I was of course not at liberty to use. By keeping our differences to ourselves we have managed to get through a large amount of needful work, especially in relation to the text-books, and the catastrophe has been delayed as long as possible. J could not fail to see which was the popular side of this question ; but I- hold that I was sent to the Council not to seek popularity for myself, but to do my duty to my constituents."

In the next paragraph he gives his views in regard to the change of system, as tollows :
"For two reasons I lament the necessity of a change of system. My first reason is that the Council, with all its defects and difficulties, was beyond the range of political influence. Its measures were dictated by the interests of education alone. The churches including the Roman Catholic, and the other interests were.fairly represented, but they could never have brought politic al pressure to bear upon the Council. My second reason is that I am convinced the teachers have suffered, as a profession, from the bureaucratic government under which they had been held, and from which representation set them free; while the nev Council showed from the first a tendency to invite their opinions and to associate them with its deliberations. Nor does the special antipathy shown by the Chief Superintendent to the elective element at all weaken this conviction. It was necessary, however, that the Government should adopt one of two courses ; that it should either require the Chief Superinten dent to act in a different manuer towards his colleagues, or make up its mind, as it has done, to an entire change."
Mr. Smith concludes his valedictory as follows :
"As far as my own feelings are concerned, I must own that it is a relief to me to be spared even the short remainder of my term. Hard work, difficult questions, strong differences of opinion and strenuous discussions among colleagues, are not new to me. Brawling, foul language, gross imputation of corrupt motives, disregard of the rules and decerries of official life by men in high offi
cial positions, are new to me ; and I find it difficult to understand how any one who has no personal object in view can be willing toserve the public under such conditions.
"Against these drawbacks, however, I have to set the pleasure and advantage of intercourse with my constituents, and the kindness with which they welcomed me when I visited their associations for the purpose of making myself known to them and informing myself of their sentiments. I trust those relations between us are not at an end.
"That as your representative I have always done what was best, I am very far from presuming to say. But I will say that I have always tried to do what was best, and that I have never been actuated by any motive but a desire to merit the approbation of the constituency and to promote, in conjunction with my colleagues, the interests of public education."

Dr. Ryerson has always been ready to strike back vigorously when assailed by foes from any direction, and in this case he was not long in replying. His reply, however, was unusually moderate, and displayed but a small portion of his well-known puguacity. The following is its main portion, the corrections referred to in the lust paragraph being in regard to the proceedings of the Council and the Interim Committee :
"I do not intend any general reply to Mr. Goldwin Smith's extraordinary production for four reasons:-
r. All the proceedings of the Council of Public 'Instruction and its Committees relative to text books, library, prize books, and apparatus for the Public Schools have been laid before the House of Assembly and ordered to be printed, so that any member of the Government and of the Legislature, and the conductors of the public press, and all others who are interested in the subjects, will soon have an opportunity to read both sides and judge for themselves.
2. Copies of the official correspondence between Mr. Goldwin Smith, the AttorneyGeneral, and myself, to which he specially refers, are hereto appended (marked Nos. 1, 2, and 3,) and contain all that need besaid in regard to the suspension of themeetings of the Council and his applications
to the Government to compel me to prefer charges against him.
3. All that need be said in regard to Mr. Goldwin Smith's reierences to the appointment of masters to the Ottawa Normal School, appeared in an explanatory paper of mine on the subject shortly after those appointments were mado; not one statement in which paper has ever been called in question.
I. It accords most with my own feelings, and I believe those of many others, that I should retire from my long official life without controversy with anybody, and on terms of friendship and good will, as I do, with all parties. I shall, therefore, confine myself to a correction of two of Mr . Goldwin Smith's statements, not iucluded in the correspundence and papers referred to.

## NOTES FROM A TEACHER'S JOURNAL.

BX WILL WRIT.

## $I V$.

October 18th.
A well-read man once said to me, that to make reading profitable we must think a proportionate amount to our reading. I fear many of us do not realize that truth enough. Reading without thinking, is like cating without digesting.

In the Second Reader'p. r54* Query : If the hair was seven years old, how old was the boy?

October 19th.
A teacher can give an impetus towards intelligence, by exciting in the minds of his pupils an interest in current events. The other day $I$ showed mine some pictures in Harpers Weekly, of the British Arctic Expedition. The floods of questions and eager listening to my explanations, told the interest they felt. The same class intend to trace the progress of the Prince of Wales through India, and every Monday morning each one is full of the last week's news, which he eagerly retails to his fellows, if mayhap he has some little morsel which they have not found.

On the occasion of the summer and winter solstices, and of the autumnal and vernal equinoxes, $I$ always make it a point to give a lesson on the subject.

The same when an eclipse occurs, or on
noted days, as Christmas, Easter, Twelfthaight, \&c. There are plenty of children who do not know what these festivals commemorate. How many average children can tell the connection between Christmas, Good Friday, Easter, and Ascension day, or can tell when Michaelmas comes? How many Canadian school-children know that on May-day in Englacd, children dance around May-poles and crown their Mayqueen with flowers, and are merry all the day long. Unimportant matters these, some may say, but I answer, they are things e.very one should know, and in view of the frequent reference made to them by writers and speakers, are not unimportant.

October 25th.
I have been far more successful in my own studies since I pay less attention to committing to memory, and more to the understanding of the subject. Comprehend thoroughly, and let the remembering take care of itself.

October 26th.
It is very easy to heip too much. Never do for a child what he can do for himself. I once took a school at the beginning of winter, where I was very anxious to make a good inpression at the spring examination. I worked hard and did an immense deal of explaining-much indeed which the pupils
could just as well have thought out for themselves. Spring came and with it the examination. It was a signal failure. That night I went home a sadder and a wiser man, and wiote the following entry in my journal: "I find I have done too much thinking for my pupils ; or rather, I have done thinking that they ought to have done themselves."
I have just found a good thing in Harper's. It is as follows:-
"When you are out of patience with a child for want of adroitness, just try to write with your left hand, and then semember that a child is all left hand."

November 2nd.
What a difference whether you say to a boy peremptorily: "John, go and get some wood," or say : "John, will you get some wood?" What a difference in the alacrity with which he obeys. What a difference in the example set him, which will have its influence in determining whether he will grow up to be surly bear or a true gentle-
man. As a rule it is preferable to use a request rather than a command.

December 7 th.
If you have the gift of wit, use it ; but don't abuse it. Never bringin an old threadbare joke. Neither should you introduce a joke for its own sake, but to illustrate something.

December 8th.
There must be something, wrong somewhere in our educational system, for young people are apt to get the idea that when their school-days are over, they have "finiched their education" as they say. They seem to have no idea that then should begin their real acquaintance with that noble list of English authors whose writings never cease to educate. How can we teachers correct this fault? Can we not do something in the way of making the reading lessons a means of awakening a taste for good literature?
(To be continued.)

## EDUCATIONAL NOSTRUMS AND REMEDIES.

## BY X. $\mathbf{~ Y . ~ Z . ~}$

The late High School Entrance Examination papers seem to have elicited various comments from different writers, but the opinion is generally and correctly formed, that some, at least, of the papers were a severer test than pupils. desirous of entering High Schools should be subjected to.

In order to discuss the matter intelligently a brief retrospection will be necessary. Starting from the establishment of the Normal School at Toronto, and continuing the investigation to 1870 , let any one compare the rise of the Common Schools; with the decline of the Grammar Schools, and he will unhesitatingly come to the con-
clusion, that the fall of the latter was simply owing to the fact, that through the excellency of the trained teachers, who had gradually assumed charge of the chief Common Schools in our cities, towns and villages, it was ascertained that a superior English education could be acquired at these schools than at the Grammar Schools.

To save the latter from utter annihilation, resort was had by the trustees to unions with Common Schools, according to the then Amended School Act, and these illassorted alliances were pretty generally consummated. But the Common Schools found their brides rather expensive incum-
brances, inasmuch as they brought no funds to the common stock, the power of taxation for grammar schosl purposes not being possessed by the trustees.

To cure this plethora of poverty, nostrum No. 1, was prescribed, to be taken semiannually, in the shape of $\$ 16$ per annum, to all pupils entering the grammar Schools and studying Latin. 'This bonus had the desired effect, and accordingly "Boys and girls were driven like sheep into the fold " with a new-born zeal for "Arnold's First Book," and the Treasury of the Boards began to display larger assets. The rush of pupils however, was greater than the doctors' stomachs could bear, and after a scientific diagnosis, remedy No. 1 , and nostrum, No. 2, were prescribed. The former gave the High School Trustees the power of taxing to support their institutions, and hence obviating any necessity for unions opened up the path to an easy divorce, of which sonse have availed themselves, and more are "before the courts." Nostrum No. 2 designed as an antidote to nostrum No. 1, was in the shape of printed questions; sufficiently hard to curtail the supply of pupils, and cxacting $33^{1 / 3}$ per cent. on any subject, in addition to 50 per cent. on the aggregate.

The High Schools notwithstanding, seem as sickly as ever, and the last panacea, or nostrum No. 3, dignified by the name of " Payment by Results," is about to tried, and will prove as efficacious as thie former nostrums. The "intermediate examinations" for passing from the. "Lower High School," to the "Upper High School." (what euphonious expressions !) will be held every half-year, and according to the "Hamilton Quarterly," "The school that has the greatest capacity for cramning will succeed best at the "Intermediates." The very existence too of some of the smaller schools may depend upon forcing a certain number of pupils through this examination. What is to become of sound education
under such a process, we are at a loss to imagine." Exactly! But "nil desperandum," nostrum No. 3, will receive the benefit, and possibly average $\$ 25$ per head annually from the public purse, while the large majority of the High School's receipts will probably be reduced to $\$$ ro per pupil.

The remedy that should be applied in lieu of nostrums 2 , and 3 , would simply have been to cut off the exorbitant cash supply per scholar, to the High Schools, and to largely increase the rate per head to the Public Schools. The effect would have been, that the genuine High Schools would have monopolized the legitimate High School pupils, thereby securing a larger revenue, besides that derived from the fees, while the bogus and free High Schools, merely doing Public Schoal work, would have been snuffed out, which is precisely the object of nostrums 2 and 3. Any experienced teacher is aware, that if a boy is destined to enter a University his education should be adapted to the end in view, hence the study of Latin and French, after the pupil is 8 or 9 years old, should go hand in hand with his English, as at Upper Canada Coilege, Galt Collegiate Institute and other kindred schools. But nostrum No. 2, prevents lads from entering the High Schools, till they are from 12 to 14 years of age, as they cannot be prepared to pass the requisite entrance examination before that aq, e, except in rare instances, and some will be for ever prevented, it being well known, that occasionally intelligent pupilsare found who cannot master some particular branchThus Chief Justice Draper, who, it is said, never could understand Anthmetic, and Dr. Rolph, who never could spell correctly, would both have been " barred out," had nostrum, No. 2, been in use in their day. And how many young Drapers and Rolphs may now be in this position, and be obliged, in order to obtain that classical education, which a wise paternal government denies them, to enter those better classical estab-
lishments, such as Upper Canada College, and Helmuth College, which are untram. melled by departmental supervision.

Boys sent to genuine High Schools, and paying fees, should be admitted on an easy standard of examination; they go to learn, why should impediments be thrown in their way? It is but a few years since, that the entrance examination of the Toronto Nor. mal School only required simple reading and spelling, fair penmanship, and a knowledge of arithmetic as far as the compound rules. Under this standard many poor young men of humble origin, were enabled to gain admittance, who subsequently distinguished themselves; why then "harass" boys with hard words in spelling, and "embarrass" them with Arithmetical and Grammatical Analysis, subjecting them to all examination but little inferior to that required for 3 rd Class Certificates, coupled with a more rigid exaction, (from which texchers are exempt), viz: $33^{1 / 3}$ per cent. on any one subject, in addition to 50 per cent. on the aggregate.

Une newspapers correspondent suggests publishing the results of the last High School entrance examinations, and furnished as a sample what was done at his school. From this it appears that 12 were passed (provisionally) out of 26 candidates, or a trifle over 46 per cent., but as there were other union establishments that passed from 70 to $S 0$ per cent., we fail to see anything astonishing in the result. As for the analytical statement of the intellectual feats performed by the 12 prodigies, who passed, and the 14 who failed, it nust be borne in mind, that before any just comparisons can be instituted, the papers of all the High

Schools would have to be cxamined by one Central Board, the same tests being rigidly applied to ensure uniformity. The High School Inspectors published some time ago a similar comparative statement, purporting to be the results of the examination of the arithmetic papers of all the High Schools, but the statistics were valueless, inasmuch as they were chicfly compiled from the reports of the various Local Boards, whose decisions and valuations of the answers to the questions were as multifarious as possible. We have seen candidates provisionally admitted and finally approved by the Central Board, whose papers if tested would have shown less than 50 per cent. on the aggregate, and iess than $33^{1 / 3}$ per cent. on even two subjects. But we attach no blame to the Central Committee, as the few members constituting it could not possibly spare the time necessary to overhaul the papers from 106 High Schools ; hence the supposed scrutiny is purcly nominal, with trifling exceptions, though it may be questioned whether it is advisable to make a pretence of doing that which is never done.

The Central Board must be largely increased before it can ever hope to moderately check the returns, and especially if the School Act is amendedato transfer to it the sole power of examinining for Second Class Provincial Certificates. We are glad to learn that this augmentation is likely to take place, and " that in all probability the additional members necessary will be chosen from the Public School Inspectors," and trust that these will be judiciously selected and, on account of their known attainment and experience, and not olherwise.

## SELECTIONS.

## A DOMINIE'S TALK WITH HIS PUPILS.

## MATERIALS OF THE UNIVERSE.

"My young friends," said the dominie on coming together at this term, "we have learned some wonderful things about the far-off stars and other bodies in connection. We have seen that their distances from us and from each other are enormous; that they are all in motion, that, notwitstanding they seem to be stationary; they are actually moving with great velocity in various directions-some towad us, some from us, some across our path ; but that on account of their immense distances from us they must keep on :aoving thus for many years before they, ill seem to have stirred a hair's bread!h; that our own sun is almost a star like these others, and that like them he is also rushing through space at the rate of millions of miles per day, as if aiming at some point in the constellation Hercules, and as if owning for the centre of his and our orbit that beautiful cluster known as the Pleiades, or seven stars, around which we can not accomplish a revolution in less than millions of years.
"I say we have lcarncil these things; and by the word learn' I mean more than conjecture or surmise; I mean that they are as certain as figures in arithmetic.
"At this talk I have promised to inform you, so far as we have been able to ascertain, concerning the material of which this vast universe is compo.ied, and also to describe the process by which we learn anything definite concerning them.
"When any one first begins inquiring on this subject he is apt to think that in worlds so far removed as the sun and stars the substances oomposing them must differ totally, or at least very greatly, from those which compose the earth. But do they differ, and if so, to what extent and in what respect?
"Of one thing we become assured almost at the outset: that, like our earth, they are all matcrial; for we see that they
obey the samu laws of gravitation, in attracting and being in turn attracted; they obey the same laws of motion, in yielding to impulses from without and in a disposition to move in right lines; and they sustain nearly the same relations to light in giving, receising, and intercepting it. Well, this is gaining a very important point, the assurance that those distant bodies are not mere phantasms or illusive masses of light, but collections of a substance with which we are daily familiar-that is, mattor.
"But is the matter found in them the same as our matter? We answer, the same certainly in cssence, for it cannot be otherwise. But as to form and combination it may be very different; for chemistry informs us that lie same ntoms of matter may combine in endless civ rsities of appearance.
"If our questior be the broad one, what are the forms and combinations of matter known on eart!? we shall ind the answer difficult, simply for the reason that as no two leaves of the forest or blades of grass are exactly alike, so neither are any two lumps or aggregations of matter.
"If, however, we ask, what are the matcorial cicments of which our carth is composed? we shall find the inquiry brought incasurably within reach; for by elements we mean the simple ingredients of which any body is cumposed, so simple that they cannot be further subdivided; and we have reason to belicre that, although the combinations of matter may be endless: the clements of these combirations are few and simple.
"These elements were once supposed to be only four in number-carth, air, fire, and water. But when intelisient incuirers began to test them with pruper shill they discovered these so-canled elements to be no clements at all ; they are all compounds. In pushing their tests they discovered that. all
nature is a tangled web, made up of simples, it is true, and of simples easily recognized when once revealed, but requiring much time, labor, and ingenuity to separate them from the general mass.
"The work of disentangling, however, went on with spirit ; and although to this day the number of elements has been gradually increased, especially during the last huridred years, by discovering that substances once supposed to be simple are resolvable into component parts not before suspected, the elements of which the whole mass of the earth is composed are not more than seventy in number, of which the greater part are metals or metalloids-i. e. substances resembling metals. These elements are now so well known, and so easily separable by suitable agents, that you may give to any good chemist the most complicated and uncommon-looking piece, of matter and he will winnow and sift its parts, and tell you the name and proportion of each, just as a farmer-boy wiil separate and tell you the quantity of grain in a bushel measure filled with a confused mass of corn, wheat, rye, oats, barley, rice, peas, beans, and other seeds.
"Well, now, having carefully studied and learned to know the elementary substances composing the carth, we look out toward the far-off bodies of the universe and ask, what are the elements composing them? Fortunately for our knowledge, some of these bodies, once as far off as the sum, moon, and planets, do not always keep afar off, Some of them occasionally come so near that that they are caugit and handled and subjected to chemical tests. I allude, of course, to meteoric stones.
"For a long time thesemysterious and dan-gerous-looking missiles were a puzzle to all the philosophers on carth. Some supposed that there were stones thrown out from carthly volcanoes with such violence as to fall hundreds or thousands of miles away from their craters: others supposed that they were waifs of a similar kind from volcanoes in the moon; and others fancied cther origins. But it has now been satisfactorily determined that they are independent bodies, moving with immense velocity, either cingly or in sems', through space, and obeying the sun as their centre just as plauets, comets, and other large bodics do, and that as orbits of some of them cross the earth's
path they are occasionally caught by the earth's attraction and drawn down to us. It is almost certain that they exist in vast numbers all through the solar system, and that they probably crowd the inimensity of space beyond ; and there is no reason to doubt that they afiord us fair specimens of some of the materials of which the far-off worlds are composed.
"Now when the chemist takes them in hand, and separates them into their elements, he finds that, although we have no stones on earth exactly like them, the same elements as are to be found here, and not one that is not familar to us. For example, he finds iron, tise same exactly ds our own, except that it comes to us sometimes in its 'virgin state,' unmixed with other substances and ready for the blacksmith's hammer, as iron is never found in earthly mones. Then again there is mikel, the same as shines in our five-cent pieces; tin, the same as glistens in every civilized kitchen and pantry ; copper, sulphur, carbon, and many others. Indeed of the less than seventy elements or substances known on earth chemi.its extract about twenty from these interplanetary visitors, and not a new one among them all. Well, this goes a long way, as you will admit, to telling us what substances probably compose the rest of the universe.
"We pass on now a step or two farther. We take our tclescopes and try to learn more by sight ; but mere sight is usually a poor test for the elements of matter; still it is better than none, and sometimes it is quite satisfactory. For example, if when Jupiter and his moons appruach the edge of our moon in the act of passing behind it we should see that the shape of the planet is at all distorted, we should have reason to believe that the distortion results from the light of Jupiter being refracted as it passes throu. olh the moon's atmosphere; but if thue be no distortion whatever of either the planet or its satelites, we have reason to believe that there is no atmosphere around the moon. Now when this uccultation actually tahes place which is not seldom, the best telescopes reveal no distortion, whatever else the moon may or may not have, she has tuo atmosphere, and of course no clouds: no rain, no vegetable life, no animal life, and none of many other things connected with these. The only
objects there which the telescope reveais with satisfactory distinctness are vast mountain-ranges, table-lands, and plains, svery where marked with cup-shaped cavities, which look like the craters of volcanoes that are so.urtimes full and somen:mes: empty. Our s.ght therefore reyeals to us little or nothing certain of the material erements of the moon. We can only conjecture that the surface is composed of lava, and that fearful fires lurk deep beneath.
"We direct our attention next to Mars,we discoover that not only is his surface divided into permanent portions that look like seas añd continents, but these portions are :requently obscured by broad patches of what look like clouds, that continue for a $\mathrm{f} \in \mathrm{w}$ hours and then pass away. We also discover at each pole, in its turn, a broad plain of intense white, which increases in size so long as that pole is curned away from the sun in its half year of winter, and whinich decreases as the pole is turned toward the sun in its half year of, summer. We therefore conjecture, in fact we have no doubt (although we do not say it is a certainty) that in Mars there are water and an atmosphers. If water, then certainly there are two elements, oxyyen and hydrogen, that ©ompose our atmosphere on earth.
"We thus learn, with greater or less degrees of certanty, that outside of our own world there are to be found some twenty or more of the elements with which we are familiar ; namely, the twenty detected in mieteorites, and the two, three, or more conjectured to exist in Mars. Beyond this the telescope tells us little on the subject.
"Still we are by no means at the efid of our examination. Within the last fifteen or twenty years astronomers have been enriched with the spectroscope, an instrunent whose revelations have already been scarcely less important than those of the telescope, with which it co-operates Now the spectroscope does not propose to make any revelations of the shape, size, or color of the heavenly bodies as does the telescope; buit, by a process described to you in a former talk, it does give an amazingly exaci account of the elements composing the luminous body from which the light proceeds, or composing the medium through which the light is transmitted. To repeat barely chougti of the process to refresh your memories with the general plan, I will say that
when light is properly refracted by being passed through a number of prisms, so as to make a long narrow ribbon with the red at one end and the volet at the other, there are to be seen an immense number of jet: black or else of highly-rolored lines crossing this ribbon. About the year 1859 the important discovery was made that each one of these lines belonged to some one of the elements of matter, and to no other, and they were always produced in exactly the place in the spectrum when the element to which they belong was made properly luninous. Some elements claimed only one. line, some two, and some more; bus the line which it claimed was never counterfeited or supplanted by any other element. Each line or system of lines was the legal trade-murth of 1 nc elements, and each claimant of these tidde-ma:kr was and honest member of the sciety of elements. No matier whence the light came, whether from an qbject on earth or an object.in the heavens, if ever the spectroscopist saw the signature of ron or tin or sodium written plainly in his spectrum, he $k_{1}$ ' $w$ that true and honest iron or sodium was in some shape or form to be found at the other. end of the line of light, and he could also.knoz from his instrument whether the body frcan which the light proceeded was solid or gaseous, and also whether a radiant or a medium.
"Now with this instrument directed to the sun, in connection with tine telescope, astronomers, or rather astronomo-chemists; have read the undoubted autographs, of sodium; the basis of our common salts.; of calcium, the basis of lime and chalk and marble ; of hydrogen, the chief ingredient of water ; of iron; copper, :inc, and most of the ordinary metals except silver and gold. The fact that these substances enter into the composition of the sun makes us. fell that he is not a perfect stranger to us, notwithstanding his brilliaut coat of light and his burning furnace of heat.
"In the fixed stars the revelations, so far as made, show that they are very much liki our sun. In Betelgeux, one of the brilliants: in the constellation of Orion:(or tha Eil and Yard) are plainly read the signatures of fron, sodium, calcium, bismuth, and magnesiun; but the lines denoting hydrogen, so abundant in our suis, are wanting. As a rule the white stars are rich in hydrogen, while
the red and yellow stars"abound in indica. tions of metal.
"On the I2th of May, 1866, a star of small size in the conviellation of the Northern Crown suddenly blazed cut' with a great light which continued for about six weeks, when it subsiutd and the star disappered to the naked eye. On Augusı 2oth succeeding it blazed again for several weeks, and then sunk out of sight to this day except to the telescope. Astronomers spoke of it as a world on fire, and the spectroscopists; who gave itall attention, tell us the ftames were those of burning hydrogen combined with another gas which they coiuld not satisfactorily spell out. This is certainly a very interesting fact, and reminds us strongly of what the Apostle: Peter informs us is to be the fate of our own whorld.
"Comets also have been closely examined, but their substance is so thin-being supposed capable; in case of some even large comets, of being squeezed, tail and all, into a space not larger than an ordinary hogshead-that we learn very little of their constitution. In fact the only satisfactory revelation is that some of them seem to be composed of carbon (i.c., charcoal) vapor in a state of combustion.

- The nebula too, these immense patcines of 'star-dust', as they have been called, that occupy so large a part of our heavens,
make'very few revelations. We learn that they are gaseous, and that the gases are recognized in some cases as bydrogen and nitrogen, and that in some "ases theie is an element not recoggoized in our terrestrial chemistry; but that is all.
"We thus see that far into the universe as we may pry, the elementary substances of which all these other worlds are formed, except nerhaps some of the nebulæ or worids in a state of formation; are iuentical with those found on earth. How clear a proof is this that all visible nature is the work of one forming Iands An Arab chieftain once said, 'I know that one God aione created all- things, by the same rule that I know one man alone has this day crossed the desert-I see.but one track.'
"In our next talk, which will prokably be the last of this season, unless some of young folks express a wish for information on some special points, I expect to answer several questions already addressed to me.

First, concerning celestial degrees, minutes, and seconds-how large a portion of the heavens must we imagine as a measure for each? Secomt; about the sun fies fast or slow, as noted in our almoracshow comes it to pass that the sum and a $g$ od clock do not always keep exactly the same time.-F. $\kappa$ Goulding, in Home and School.

## SCHOOL DISCTPLINE.

The strength, or it may be the weakness, : of a superintendent or of a principal, is nowhere so clearly show as in the general discipline of the school. Individual. teachers, in cases of extreme difficulty which will occur at intervals, must of neceses sity rely upon. gheir superior for the enforcement of obedience. At any rate, the head of a school must take some stand in this maiier, since pupils or their parents will certaizly appeal to him, on occasion, for a sedress uf wrongs real or imagined.

Teachers will secure tar $t$ degree of discipline which they areshonained in erforcing or: which the are required to enforce ; -and any weakness, indecision, or vacillation
in the superintendent will immediately show its effects in the school.

Forthe maintenance of healthy discipline, it is not necessary that there should be great severity in the punishment of offences. The absolute certainty that the teacher's authority will be upheld, and that, in case of need, the supreme authority in the school twill be invoked is, in most cases, sufficient in itself to hold the evil propensities of pupils in check. On the contrary; a want of tirmness will encourage the spirit of revolt, and make necejsaty a frequent resoit to puinishments of one-kind or another:

The sense of justice is strong even in the
case of vicious chiidren. They knuw that disobedience and wrong doing in general deserve punishmet ; and, provided the good intent of the disciplinarian is manifest, and the degree of punishment does not exceed its just bounds, no feeling of resentment will be cherished towards him who inflicts the penalty. While children soon learn to feel a contempt for a superior who does not insist on respectful obedience, they instinctively admire that manly energy of charac
ter which metes out to offenders their deserved punishment. If, however, pupils are punished in anger or beyond measure, it is probable that evil and not good will be done.

Every effort şhould be made to convince pupils that they will encounter the consequence of their own wrong-doing; that if trouble must come, they, and not their superiors, vill be responsible for it, To this end it is often best to defer a punishment, giving the offender chance to mend his ways. In this case there is danger, of course, that the pupil may presume on such forbearance, and feel encouraged to persevere in his evil ways ; but the remedy for this is the well-known firmness of the authority which can afford to wait, but which is neither forgetful nor neglectful.

In what has preceded it is tacitly assumed that there are occasions in which corporal punishment is necessary, and therefore justifiable. While I am conscious that m.ny judicious educators discard this manner of discipline, I am free to express my conviction that it is sometimes the teachers only available resource to secure to the sshool aud to the offender their respective $r$;hts. A school must be preserved from c:surder and from the contagion of bad ex:umples; and there is no more sacred duty binding on parents and teachers than to requ.re of children prompt and respectful obucience. Children should be exhorted and cancouraged in every proper manner to do right, because the doing of right is in itself a comely and .virtuous thing ; but when exhortation, expostulation, and admonition have no effect, what is to be done? Manifestly, that degree of force sholld be employed which will conquer obedience. All will allow that a cheerful, voluntary obedience is the truly desirable thing; but is not an enforced obedience to be preferred to disobedience?

Government is positive, not negative ; it does not consist in advising them what to do, leaving the matter, in the end, to their own discretion. It assumes that some will choose to do what ought not to be done, and so places before them a penalty sufficient to secure an enlorced obedience. In the absence of internal motives in the form of a penalty ittached to violations of prescribed laws.

As a last resort, therefore, force is justifiable. Now force, when actually brought to bear on an offender, resolves itself into some bodily affection. There is either some restrant put upon the usual bodily activities, or, proceeding to extremities, there is an infliction of bodily pain. This last constitutes corporal punishment as generally understood. If, then, it is allowed that obedience is necessary, it will take place under some one of the following cases :
(I.) Spontaneously-without any traceable suggestion-by the unconscious prompting of one's moral nature.
(2) By suggestion, advice, admonition, or warning.
(3) By some restraint on personal liberties.
(4) By the infliction of bodily pain.

Up to this point it is scarcely conceivable that there is real ground for difference of opinion ; but when the subject is considered with special reference to public school policy, two theories are maintained :
(a) An observance of the rules and regulations shall be a condition of school membership; and when obedience is not rendered as under case ( $x$ ) and (2), the offender is to be suspended fiom school.
(b) One of the objects of public school training is to inculcate the habit of obedience and a respect for authoricy ; and to this end, in cases where obedience is not rendered as above, teachers may restrain the liberties of pupils; or, if this does not suffice, they may resort to the extreme measure of inficting pain.

There is no doubt that all teachers would prefer to work under the first plan; it would make the task of governing infinitely easy. In fact, there would be ro such thing as school government, in the proper sense of the term; for whenever pupils did

not yield a voluntary obedience, they would cease to requre any positive direction by the teacher. But it is quite as certain that most paren's wish to place upon the teachers of their children the task of securing obedience, even at the expense of inflicting needed corporal punishment. In general, there is nothing against which parents more heartily protest than the trouble and vexation of correcting children for offenses committed in school. "Have tiney not enough to do to attend to the correction of their children for home faulis? Should not teachers be competent to govern their pupils? What fitness have they for their office, if they can not enforce obedience when occasion requires ?"

This is the current theory held by parents; and until there is a decided change in public semtiment, I do not see how the schools can renounce the duty of securing obedience even at the expense of corporal punishment. Teachers would gladly be relieved from such a disagreeable task. I.t is not from any fondness for the punishing of pupils that they persist in it, but because they believe it to be a duty imposed on them by the public whose servants they are. But they may rightly demand at least a partial release from this most ungrateful duty. In cases where pupils persist in wrong-doing, uninfluenced by mild measures, parents should be asked to choose between correcting their children themselves and submitting them to such discipline as the teacher may judge necessary. Two good results would come from this course: responsibility for the bad conduct of children would 've placed where it in great part belongs, and school authorities would be shielded from an imputation of needlessly resorting to corporal punishment.

Is it not possible that those who are so radically opposed to corporal punishment make the mistake of looking on human nature as it ought to be, and not as it actually is ? Most children are not in that moral condition in which good conduct is determined by the unconscious impulses of a noble nature; and but very few teachers have reached that degree of perfection whereby they can govern pupils by " moral suasion" alone. It is true that the best teachers have least occasion to employ force; perhaps it is true that teachers have good success just in proportion as they can
govern by tact, sympathy, or affection ; but it does not follow from this that the more imperfect model of discipline should be abandoned. If teachers are required to secure obedience, they should do it by the mildest means at their command ; but they must do it at all hazards. Here, as elsewhere, human imperfection must be recog. nized as a fact ; and while we are required to do a certain work, we must be allowed to use our own tools, even though they are imperfect. In other words, it is better that a school should be governed by harsh methods thau not be governed at all.

As a general rule, children who are well governed at home occasion no trouble in school; while most of the " incorrigibles" who vex teacher's souls are the product of parental management. There is but little hope, therefore, that any reform will be worked in such cases by remanding offenders to home discipline. By reason of the strong and almost inexplicable influence which is exercised by numbers, it sometimes happens that children who are models of propriety at home are tempted into bad conduct in school. Such cases in general, can be cured by co-operating with the home authorities; and if all cases of discipline were of this class, the rod might be banished from the school-room.

As the teacher is required to maintain good order in the school-room, so the superintendent or principal must secure the orderly movements of the pupils throughout the building and on the grounds; and the general appearance of a school while pupils are entering or leaving a house is a very fair indication of the managing ability of the responsible head. If the stairs are broad and strait, there need be no serious difficulty in maintaining order; but if, as is too often the case, they are narrow and crooked, the difficulties are greatly increased. Halls and stairways may be so constructed that pupils can be seen by their teachers during almost the entire march up and down ; but it is often the case that they are out of sight after the first few steps; and under such circumstances, means must be taken to secure a strict oversight of the halls by the teachers in general.

An obseryation of the following rules will contribute very largely to the manntenance of good order in passing to and from the rooms:
(r) Definite times of admission should be arranged, so that the several schools may not interfere with one another while going out. Thus, the schools on the first floor should be dismissed first, and their relative times of dismission should be so arranged that a!! interference may be avoided.
(z) If there are stairways both in front and in rear, certain schools should invariably have their exit by the first and the others as invariably by the sccond.
(3) If the stairways are wide, boys should invariably pass down by one railing and girls by the other; but if they are narrow, the boy should pass down first and then the girl'..
(4) Preparatory to passsing down, pupils
should be arranged in the halls in single file, and at a given signal the column should move.
(5) Pupils should invariably walk while moving up and down or through the halls, and all talking and whispering should be avoided.
(6) When pupils enter the building, they should follow the same route as in going clown, and should proceed directly to their rooms.
(7) When pupils pass from the building, they should leave the premises at once; they should not be allowed to wait on the steps or at the gates.-Chapters on Schoo' Supcrvision by W. H. Paync, in Michigan Teacher.

## CONDUCTING RECITATIONS.

This subject is one of great importance, and should receive careful attention. The work of the school may be said to be concentrated chiefly in the recitation. Its manifold advantages commingle here in their greatest intensity. It is, so to speak, the focal point of the teacher's labors. He should, therefore, study to comprehend its objecis and strive earnestly so to prepare himself as to be able fully to realize those objects. A failuro here is a failure altogether.

Is the teacher " apt to teach ?" Is he a ready, accurate, and thorough scholar? Has he a large heart, broad sympathies, noble impulses, and a loving disposition? Or is he ignorant of his duties, ill-informed in his studies, cold-hearted and unfeeling, or passionate and severe? Then here, if anywhere, and more than elsewhere, will his true character be reveäled to observing eyes and carried home to susceptible hearts.

On the other hand, a cull and ready mind will always challenge the respect: a generous and kindly heart will inspire the love of pupils for their teacher. And again, ignorance, incapacity, an unfeeling disposition, and a bad temper, can never fail to dishearten and disgust the child, and make
a most unfavorable impression upon his character, which the fight of years will be scarcely able to cbliterate.

The spirit of the school, as a whole, will ever be largely determined by the spirit that is infused into its pupils in the sharp encounter in the class-room. The ability of the teacher io do and to bear, as well as forbear, is here brought to the decisive test, and his power to shape the character of his precious charge will be made so manifest that each shall see and feel it eather to his lasting benefit or irreparable injury. That the recitation has thus its moral as well as intellectual uses, is a truth which every teacher should lay well to heart. That it is not to be regarded and treated as a mere mechanical routine, a repetition of words without import, memorized from a textbook, but that it has definite and rational aims to be carefully sought and earnestly pursued, is a proposition too evident to require demonstration. In presenting a brief outline of the subject, therefore, it may be assumed that the highest success at the recitation must presuppose on the part of the instructor a knowledge of its true theory, with the intelligence, skill, and industry to realize it in practice.
Syllabus.-The objects of recitation are
dependent upon the objects of education, which are : 1 , the development of the faculties; 2, the acquisition of knowledge; 3, its wise application to the uses of life. The recitations must embrace these objects. Hence the ends of the recitation may be summarily stated to be :
(a) To develop the power of quick and accurate perception, of close observation, - Id generally of clear and exact thought. This object would lead to the consideration of the following topics having a direct bearing upon it : Formative state of the mind in early childhood; crudeness of its perceptions ; necessity of guiding its activities; must be taught how to use its powers; musu be led to form right habits of thought, study, and expresssion ; early ihstruction should be mainly oral-why? The nature and order of studies for children; the transition to text-books; how made, and under what guidance ; mechanical habits to be carefulJy avoided ; the power of association to be carefully cultivated; the teacher a fashioner of habits of thought, feeling, and to a certain extent of action; the recitation the place to direct and correct errors in modes of activity.
(b) Another object of the recitation is to cultivate the power of concise and ready expression. The power of expression the decisive test of knowing; no subject properly mastered that cannot be well expressed or communicated ; clear language the best test of clear thought ; accurate expression should go hand in hand with acquisition, from the primary stages onward; the power of expressing thought the best standard of mental admeasurement ; it teaches the pupil to know when he knows, and to know when he is ignorant ; it generates a modest self-reliance and intellectual independence.
(c) A third object of the recitation is to determine the extent and accuracy of the learner's attainments. Each recitation should afford some proof of new attainments, clearer conceptions; in the absence of this, the recitation is a failure ; all true progress necessarily slow; neither royal road nor railroad to the temple of learning ; but definite results should be aimed at in each recitation.
(d) Another object of the recitation is to increase the attainments of the class, to add to the knowledge that its members have
acquired in their study hours. The teacher whose knowledge is limited to the textbooks he uses will fail at the recitation. A good teacher knows more than he is expected to teach-why? Inspiration imparted by a scholarly teacher is more valuable to the pupils than the studying they do-why? The teacher's high attainments the pupil's greatest incentive; thorough pr, aration, both general and special, the first duty.
(e) An object of the recitation to determine the pupil's habits and methods of study and to correct whatever is faulty either in manner or matter. Man is a "bundle of habits" ; education the formation of habits and the development of character: the pupil to be taught how to study, how to think and act ; to correct errors in methods of using the faculties the best way to prevent errors in mental acquisition; to secure precision and accuracy in exercise and acquisition is of prime importance.
( $f$ ) The moral objects of the recitation are to cultivate sentiments of justice, kindness, forbearance, and courtesy. The sharp rivalries andkeen competitions that arise call for the exercise of the highest moral virtues. Let generosity, charity, and love be the ruling spirit ; the example of a teacher here almost supreme; his manners should be winning, his temper even, his judgment cool, and his decisions prompt and just ; his influence thus controlling, and the recitation a moral as well as intellectual power.

The preparations necessary for the reci tation by the teacher are of two kinds, gen eral and special. General preparation implies a thorough knowledge of subject matter. The lawyer must know the law; the physician the science upon which his profession is based ; both must superadd general intelligence to their attainments. So the preacher and the teacher ; the teacher should be more learned than other professional men-why ?

In the lawyer, the careful study of each case in the light of the legal principles involved; in the physican, a thorough diagnosis of the disease of each patient as the basis of successful treatment; in the teacher, a knowledge of his classes and of eack individual, and the principles and methods of teaching most applicable to each case, constitutes special preparaton.

A knowledge of education as a science and of its methods as an art, essential. A
knowledge of human nature, and especially of the child's nature, indispensable. Principles the foundation of all true methods; methods changeable, principles eternal ; a thorough knowledge of principles will suggest methods best adapted to circumstances of time and place, etc.

A general and special preparation for each recitation necessary to the highest success; a fresh examination of subjectmatter and a well-digested plan for each recitation; tearher should strive to put himself in the place of his pupils; should anticipate their difficulties; should be prepared to guide them through; this cluty too generally neglected; fallure its legitimate result. Carcful speciai preparation by each teacher would revolutionize and vitalize the schools of the country.
2. Preparation of the Pupil.-The pupil an important factor in the work of the school; he must be taught how to use his faculties, how to stury; oral training the first step in the process; use of perceptuve and observing powers the fourdation ; the " expressive faculties," association, understanding, memory; imagination, reason, ete. The right use and abuse of text-books; the mastery of ideas rather than words; as a guide to the pupil, the teacher should occupy a portion of the recitation period, when necessary, in a general survey of the succeeding lesson ; anticipating its difficulties, he should indicate to the pupils how they may surmount them; teacher not to remove difficulties, so much as to teach and encourage the pupils to help, themselves; no excellence without labor; no great excellence without severe labor; the teacher's help to be indirect; self-reliance and perseverance to be inculcated at ever, step ; the lessons of to day to be associated with those previously given; evils of fragmentary teaching; association and attention the basis of good memory; discourage mere verbal memorizing; the habit almost universal ; its remedy with the teacher to be effected mainly by a proper supervision of the preparatory work of each pupil, and by a rational plan of conducting
the exercises of the class-room ; in going over a new lesson in advance, the teacher should question his classes, draw out the leading ideas, and thus assist their private study by an intelligent preliminary survey. Pupils trained to appear at the recitation in a docile spirit; egotism and forwardness to be discouraged-if need oe, rebuked ; modesty the crowning excellency of the true scholar.

Management of:the Recitation.-Movement of classes ; signals; the arrangement of classes; when to be seated; arrangement and methods of management must vary somewhat with ages and grades of pupils; length of recitation ; variations as above noted; exercises of younger pupils to be short, the children to stand; in advanced grades the recitations to be longer, the pupils to sit, but stand while speaking; attention and order indispensable; preliminary preparations ; brief review of preceding lesson ; critucal examination of regular lesson ; give each pupil a chance; individualize the teaching; ride no hobbies; avoid wandering ; do not talk too much; speak on medium key ; let your pupils do the work; beware of leading and direct questions; be cheerful, prompt, active ; be critical, and encourage your 1 -upils to be so ; keep the objects of the lesson before you; encourage your pupils; thoroughly master jour subject; avoid leaning on the text-book; cultivate in your pupils the right use of language ; permit no inaccurate expression to pass uncorrected ; beware of indistinct and inaccurate pronounciation ; encouraye natural expression; no unnatural tones; topical reviews; written abstracts and summaries; practical applıcations ; apt illustrations ; use apparatus and other material aids; the blackboard. Assignment of new lessons ; good judgment necessary here ; weigh well the capacities ot your pupils; provide for adequate preparation of the succeeding lesson. Prompt closing of recitations; dismiss classes in perfect order-The Teacher's Hand-Buok, by W. T. Phelps, in Mishigan Íacher:

READING AS AN INTELLECTUAL PROGRESS,

There is a thing that education can invariably secure, and that is a ready consciousness that we do or do not obtain a clear, coherent idea from what we read. It would be unreasonable to demand that education should give us the power to understand all that we read ; but it is perfectly reasonable to demand that it should give us the power to discriminate quickly between what we understand and what we do not understand; that it should develop that kind ot attention which notifies us at once when we fail to get or comprehend clearly an author's thoughts. The failure here is one of the saddest features connected with the subject of reading, and indeed with the whole matter of cummon-school education. From the lowest grade to the higiest our children read, learn, and recite passages without comprehending them, and, what is far worse, without realizing their want of comprehension. Any close observer and questioner can satisfy himself of this by a short visit to the school of his own district. This is an unpardonable weakness in the piathods of instruction. It is a shame, and there can be no defense for it. From everything that $h$ t reads or learns, the child can and should get, not necessarily a correct idea, but an idea. intelligible and coherent according to his powers; or clse he s'rould be perfectly conscious that he gets nu such idea.
It has become chronic with college presidents, professors, and examine ; generally, to complain of the inability of our youth to speak and write the language. If these wise men were as wise as they ought to be, thay would discover that they had not yet reached the fundamental evil. They must probe deeper if they would reach the bottom. The foundation of the trouble lies in the want of ability, or rather in the want of the habit of understanding language fully.
In spite of all our systematic education, there is a fearful lack of accurate comprehension of good English; and this ever underlies the defect of expression. Of all the young men of whom the complaint is justly madi, I do not believe there is one to be found who has the faculties well developed which are necessary to a good reader. The primary fault is not to be
found in the instruction in composition, but in the instruction in reading, and this last includes every subject in which the pupil has a book to use. Show me a person who is a strong reader in the real sense of the term-one who has a strong power of attention, quick perception, active association, and other requisites to a far mental reader, and I will show you a person who will not come far short of reasonable demands in his composition. This statement will be fully supported by any class after six months of faithful study of the English classics.

Of this want of comprehension there are several sources that are unwittingly fostered:

1. While children, we are compelled to study and read over and over again the same lessons. The mastery of words is made the end, and the only end, in the view of both teacher and pupil, instead of remaining to each as a means only, a subordinate matter. Curiosity, at that age the natural governor of altention, is destroyed; and nine-tenths of our task-reading is performed with an indifference and a weakness of thought that do not deserve the name of reading. This will continue so until the reading matter put into our schonls is greatly increased in variety amount. Rarely, and only at long intervals, should a lesson be read more than once. The habit of seeming to read, of prforming the physical part, while the mental faculties lie as dead, is casily formed. But it should be resisted. The problem before the primary teacher is this : To keep firmly fixed in the child's mind that the chuef thing is the idea, wiile at the same time he is duly impressed with furms and words. Not only must the tongue utter, but the spirit must see what we read.
2. Also, in childhood we are allowed or required to read what we donot understand. A common illustration of one form of evil occurred recently in the closing exercises of a first-class normal school. The pupilteacher was to exhibit her power by means of a lesson in writing to a large class of bright boys about seven years of age. She had placed upon the blackboard; as her copy, those four familiar lines,
" Work while you: work,
Play while you play, etc."

The writing was certamly most admirable; but the inquiries of the lady-principal revealed the fact that the children had not the least conception of the first two lines. Most, indeed, seemed not to have thought anything about the meaning. This is a sample-taken, however, from normal train-ing-ot the vast number of ways in which as children we are permitted or required to handle words without associating any meaning with them. The same may be seen in thoughtless singing of our Sabbath Schools. 'Thus words become the only things that we think of; and we lose the teelings which - accompany clear comprehension or the want of comprehension. Accustomed to a dull tool, we lose the consciousness that it is dull. But let us rarely have a dull one in our hands, and how intoleralle it seems to work with it! Blunt our keen perception upon things that we do not or can not penetrate, and we become insensible to the fact that our instrument is dull and fails to perform its proper work. It is better, by all means, that the child should attach wrong ideas to all he reads, than he should "form the habit of reading without attaching - any ideas. Let any friend of education : look upon the solidity of the average product of our schools, which comes from this mechanical, absolutely thoughtless reading, and he can not but feel that we are producing a large amount of artitical stupidity. I do not say that pupils should never be required to read or learn what they do not - comprehend; but I do say that such should never be the requisition so long as they are in danger of falling into the habit of reading with the distinct realization that they do comprehend or that they do not.
3. I have said that the power of expression is possible only after a proper development of the capacity to receive impressions. The power and the habit of conveying thought will follow as a consequence oi and in proportion to the power and the habit of receiving thought. This plainly indicates the plan which should be adopted by any rational system of primary instruction in reading. As a matter of fact, however, the universal practice of teachers is in direct opposition to thisprinciple. It is assumed on all hands that the practice of reading can have no other object than to impart elocutionary skill-to cultivate the power of oral expressision. The great question which governs
the method in this branch is not, do we understand others? but how to make others understand us. It is taken for granted that distinctness of articulation, correctness of inflection, etc., surely indicate the presence of chought within. Pupils are drilled almost daily in reading from the time they are six until they are sixteen, and yet they cannot read. They pass over that which to them is intelligible and that which is not intelligible alike, without the least discrimination. Words, words merely, are their only currency. Protessors of elocution and teachers of reading do not impart the power we need. They teach us an accomplishment, but neglect our necessity. They make oral reading a high and important end, while it is simply a means, and should be so used. Our children are taught as though a large portion of their existence were to be spent in reading aloud; whereas probably not ove-fiftieth of all the reading done by people in ordinary cirumstannees is of this kind. For most of us, it is our intellectual business in life to understand, to receive, to unload, as it were, that which others have put aboard. At least ability in this line is what we need infinitely more than the mere art of conveying thought. The number is comparatively small of those who are called upon to create, to body forth the soul either as orators or writers. The truth is, within the proper and legitimate sphere of schoolreading, the cultivation of the organs of speech should be strictly subordinate to the great end of acquiring and retaining thoughts. The voice and ear have just that kind of work to do, and no other, which is performed by the guage upon the steam boilers, viz., to afford a means of judging of the condition within-the one of the pressure of steam, the other of the clearness and coherence of ideas. The paramouut object in learning to read is to acquire the power of obtaining from the printed page, and by means of the eye only, ideas clearly and quickly. This should be the foremost thing with every teacher. Tone, emphasis, inflection, and general expression are, ot should be, only the test-marks to indicate to the teacher whether or not the thought as presented by the printed words is fairly iodged in the mind of the learner. This perfectly subsidiary character of oral reading and the actual comprehension of thought are almost entirely lost sight of. The subject is taught as a fine art, an art of expres
sion only, the same as music, instead of the art of soul perception, the art of seeing and
feeling ideas and sentiments.-EE. O. Waile, in Popular Science Monthly.

## BAD BREATH IN THE SCHOOL ROOM.

Among all the evil things in some of our school-rooms, there is one which is hardly mentioned, and it is the breath of the pupils, and sometimes of the teachers. Take a school of fifty cbildren, and by count about ten of them will be tound to have a breath that is move or less objectionable, and there will be very few who have an absolutely pure breath. A pure breath comes only from pure physiological conditions. A foul breath comes from some accumulation of filth in the system, which finds its way out through the expired air. The following are some of the causes of bad breath :
r. Bad teeth.
2. Catarrh in the nasal passages.
3. Imperfect action of the skin, leaving some of the excretory matter which should find its way out through that channel to pass away with the breath.
4. Imperfect ex́cietion through the bowels, leaving the material of this excretion to ne excreted from the lungs.
5. Medicines taken internally which affect the breath.
6. The use of intoxicating dxinks which always affect the breath.
7. The use of tobacco which fouls every mouth and consequently every breath.
8. Fooc's that affect the breath by evaporating through the lungs.

The remedies for a bad breath are few, and easily applied.
r. Where the teeth are decayed, get the dentist to fill them, and then keep the mouth clean by the use of some good tooth soap once a day.
2. If Catarrh is the cause, consult a good physician.
3. For the skin, the daily bath and friction on the skin are necessary.

A person who bathes daily, as he ought to, and uses much friction, will be more
likely to have a clean breath than one who does not. There are some odors which arise from the skin, which are dispelled by a daily bath and clean under-clothing.
4. The bowels should be kept open by a daily allowance of fruit food. They will then carry off those matters the breath otherwise takes on.
5. Those medicines which affect the breath are few and need not be mentionedhere.
6. No teacher should ever use intoxicating drinks-and generally they do not-if one does, the School Board should eject him, and hire a temperance man.
7. The same may be said of a teacher who uses tobacco.
8. If the food is not of the right sort, this may be easily changed. Certainly a teacher will try and avoid onions and the like. If the pupils use them the teacher can quietly give a little speech on the breath and bring. in the matter incidentally so as to give no offence. So too ine can tell his pupils how to take care of the health so the breath. shall be pure.

There are two other points to be mentioned.
First keeping the air of the school-room pure.

The following are some of the ways house air is spoiled:

1. An adult person consumes 34 grammes of oxygen per hour, a gramme beirg equal to I8 grains.
2. A siearine candle consumes about onehalf as much.
3. An adult gives off 40 grarnmes per hour of carbonic acid. A child of 50 pounds weight gives off as much as an adult of roo pounds weight.
4. A school-room filled with childrenwill, if not well ventilated at the beginning-
of the hour, contain 25 parts in 1,000 of carbonic acil, at the end of the first hour 4 I , and end of second hour 81.
5. The air is also spoiled by the perspiration of the body, and by the volatile vils given out through the skin. An adult gives off through the skin in 24 hours from 500 to 800 grammes of weter mixed with various excrements poisonous if breathed.
6. A stearine candle gives off per hour 0.4 cubic feet of carbonic acid and 0.03 pounds of water.
7. Carbonic oxide is a much more dangerous gas than carbonic acid, and this obtains entrance to our rooms in many ways, through the cracks in stoves, and defective stove-pipes, or when the carbonic acid of the air comes in contact with a very hot stove and is converted into carbonic oxide. The dust of the air may on a hot stove be burned to produce it ; or it may flow out from our gas-pipes when the gas is not perfectly consumed.
8. Another form of air injury is the dust of a fungus growth which fills the air in damp and warm places. We call it miasm from a want of a true knowledge of its character.
9. Accidental vapors are the crowning source of air pcisoning. These are tobacco smoke, kitchen vapors, wash-room vapors, and the like.
ro. When we heat our school-houses and close them from outside air, the heat turns the mixture into a vile mess unfit for breathing. The only remedy is ventilation.

Query: How large should a schoolroom be for thirty pupils.

Ans. - 30 feet square and 12 feet high. The entire air of such a room should be warmed and changed five times an hour to keep the carbonic acid down to the proper amount; nothing short of this will keep, the air sufficiently sweet. At the end of every hour the room sheuld be flushed from every direction to still further purify it.

An adult requires 2,000 cubic feet of air per hour. Think of the amount necessary for a room full of children- Keep the air of a school-room pure and comfortable and foul breaths will in most cases disappear.

If a teacher has a bad breath it is a sign he has poor health and he should at once take to out of door life, and let some healthy person take his place ; or he should, if this is not desirable, go out of doors more to take exercise, and attend to personal hygiene.

If a pupil has a bad breath he should be turned out of doors more frequently and be encouraged to take gymnastic exercises and sports, and in this way improve his breath. Good health is the cure for bad breath.

Every person should consider it a duty to keep the body pure and healthy as weli as the mind, and a bad breath should no more be tolerated in a school-room than bad grammar.

If these hints prove useful I shall be glad.
P. S. An orange before break ast is a good belp to a pure breath for the day.Berald of FTealth.

## EDUCATIONAI IN'LELLIGENCE.

## CANADA.

-The aggregate attendance at the Brussels Public School in January was 297, with an average of 253 .
-The Amlierstburg Public School Board have resolved to suspend all non-resident pupils who do not at once pay their fees.
-The Public School Inspector for East Bruce calls the attention of the Jaisley

School Buard to the crowded state of the Public School in that village.
-The average attendance at the Goderich Public Schools in January was 742. The Inspector's report for 1875 shows an income from all sources of $\$ 7,354$, and an expenditure of $\$ 7,239$.
--Hon. Adam Crooks has organized the Educational Department, with Mr. J.

George Hodgins as Deputy Minister of Edycation, and Mr. A. Marling, Secretary to the Department. A chair has been placed at the disposal of Dr. Ryerson in the Council Room notwithstanding his superannua-
tion.
The The Nova Scotians are grappling with the question of University reform. According to the Dalhousie College Gazette "Six Fuildings, six Boards of Governors, six Faculties of Professors, and six janitors are Tequired to do a work which one University could do much more effectually." The Halifax Reporter admits that there are too many colleges, but thinks they are too deeply rooted to be amalgamated. It favors the establishment of a University Which will be simply a degree conferring body. The people of Manitoba are already moving in that direction, and it would be Well if the same economical arravgement ${ }^{c}$ ould be effected in Ontario.
-At the monthly teachers' meeting, held under Section 6 of the regulations of the Council of Public Instruction, as to "additional duties of Masters and Teachers," at Lindsay, on Saturday, Feb. 5th, the first of a course of lectures on School Law and Regulations, was delivered by Mr. J. H. ${ }^{\text {K Dight, Public School Inspector. }}$ Mr. Schson, Head Master of the Lindsay High $\mathrm{S}_{\text {chaol, }}$, lectured on Analysis of English Grammar, in illustration of a selection from On Fifth Leader. A discussion followed On teaching writing and the best method of meffing prizes, so as to secure improvenext in the penmanship of pupils. The $W_{\text {next }}$ mceting will be held at the South 4th, School House, on Saturday, March "4th, at 2 p.m. Mr. Knight will discuss the "Duties of Teachers," and Mr. Dobson ject focture on "Gray's Elegy." The subsot for discussion will be "marking lesas school Candidates for certificates as well tion At the meeting of the Teachers' Associabetwin the High School Napanee recently, between thirty and forty teachers were State of whieh, considering the unsettled state of the weather and the unfavorable and of the roads, was a very large number, teachers proves beyond a doubt that the together value the privilege of meeting taining to the discussing the subjects perany of the their calling. Before taking up
the day, the following officers were elected for the ensuing year :-F. Burrows, Inspector Public Schools, Presidennt ; J. Bowerman, rist Vice-President ; Miss McLeod, 2nd do ; William Tilley, Secretary ; J. J. Magee, B. $\Lambda$. Treasurer; Messrs. R. Lennox, W.Weese, H. A. Asse Istine, and Misses P. Scouten, Bella Srnith, Executive Committee. The President then gave a brief address, in which he reminded the teachers present of the very great advantage to be derived from attending the meetings of associations such as the present, and the importance of each by his presence and active co-operation to contribute to the exercises of each meeting. Mr. Magee next gave a masterly exposition of the principles of analysis as applicable to the solution of problems in proportion. Mr. Tilley then illustrated by experiments the nature and properties of the elements of water. There was no time to take up any more of the subjects on the programme, so much having been spent in business details at the outset, but there was evidently a very considerable interest manifested, and fourteen of those present subscribed for the Untario Teacher, an excellent monthly periodical, which, as its name implies, is devoted exclusively to the interests of education. The next meeting will be held on the 8th April next, when an interesting programme may be expected. Meanwhile it is desirable that it should be known by the teachers that it was resolved to have a Question Drawer as part of the exercises of each meeting, in which teachers may place questions upon subjects in any department of their profession, and cfforts will be made to have at erch meeting satisfactory answers to the questions presented at the meeting preceding.
-The Journal of Education for February, says :--The great and fundamental change in the Executive Administration of the Education Department, which has long been impending, will take place this month, under the Act authorizing it (which we insert), and which received the assent of His Honor the Lieutenant-Governor, on behalf of Her Mjaesty, on the roth instant.

The writer cannot trust himself to give expression to the deep and heartfelt regret which he feels that the advancing age and other causes have led the venerated Chief Superintendent to recommend a change
which involves the severance of his long official ties with those in his Department (most of whom have laboured with him for many years), who have ever regarded him with loving reverence and affectionate esteem.

That the reverend gentleman has won for himself an honourable and imperishable name in the esteem and gratitude of his countrymen, even those who were wont to differ from bim now cheerfully and heartily acknowled; ; ;-that he has reared for himself a proud monument of enduring material, and in its crection has displayed some of the highest qualities of the statesman and administrator, is, we believe, the heartfelt expression of the enlightened p:blicopinion of the country, as was echoed witn great cordiality from both sides of the House in the Legislative Assembly.

Few of the present generation canrealize, not only the low status, but the positively inert condition of the Province in educational matters when the Rev. Dr. Ryerson took charge of the Department, thirty-two years since-in IS44. Men who were fit for no other occupation were considered just the men to teach school ; and houses which farmers of the present day would not erect as out-buildings on their farms, were considered as the ideal country schoolhouse.

After much discussion and cducational agitation, all that state of things has happily passed away; and it is a highly gratifying fin:t liat during the five jears which have elapsed since the passing of the School Act of 1871 , not less than the nobie sum of over $\$ 2,000,000$ has been spent in the various municipalities in the purchase of sites and the crection and repair of Schoolhouses alone.

- The teachers' Association of South Essex met in the school house at Kingsvilie in accordance with the cali of the President, Feburary 25 th, 1876 .

In the absence of the Sccretary, it was moved and seconded that (G. E. Wightmar: act as Secretary. Carried.

The Convention then went into a committec of the whole, to make arrangements for the entertainment in the hall at night. After arranging the proyamme, it was decided that $1: 0$ admission fee be charged, but that a collection be taken up; also that

200 copies of the programme be printed and circulated.
Moved and seconded that we adjourn. Carried.
The Convention met again at I p.m.,and proceeded to draft a constitution and bylaws.
At 2.15 the subject of "Analysis" was taken up, and conducted by Mr. Richardson ; the teachers forming themselves into a class and analyzing sections from the Fifth Book.
At 3.30 the constitution and by-laws was taken up clause by clause and carried.

The officers were then elected for the present year as follows: President, Mr. Richardson; Vice-President, Mr. Bright, Second Vice-President, Mr. Foster ; Secretary, Mr. Wijghtman ; Treasurer, Miss McSween.
Finance Committee-Messrs. Bright, McSween and Iler.

Moved and seconded that we adjourn. Carried.
The Convention resumed work on the 26th, at 10 a.m.

The subject of "Geography" was taken up by Mr. Richardson, who showed his method by giving a lesson on the cittes of Asia.

The subject of "Arithmetic" was introduced by Mr. Wightman in a few brief remarks on the introduction of the simple rules.
Mr Bright followed, showing his method oi teaching Interest and Per Cent. His method of teaching interest was certainly very convenient.

The teachers then engaged in an animated discussion on arithmetic.
Notice was given hy Mr. Kerr, that at the next meeting a motion would be brought in to amend by-haw No. 2, changing three months to four months ; aiso to change byhw No. 3 from Fel), Mav, Aug. and Nov., to Jan., May and Scptember.
Notice was given by Mr. Russell, that at next meeting a motion would be brought in to change by-law No. a from every three months to every six months. and also that the Association meet permanently in Kings. ville.
Moved and scconded that we adjourn.
Covention met parsuant to adjournment.
The subject "Grammar" was introduced by Mr. Foster, who gave his mechod of be:
ginning and continuing the subject. A dir ... $n$ fullowed on Gender and some other points.

School Government and Discipline was then discussed. Mr. Sadd opening, many of the Teachers took part and some good ideas were advanced.

Moved and seconded that a vote of thanks be given to the Trustees of Kingsville School for the use of their school house, and their cordial manner of receiving the teachers. Carried.

Moved and seconded that the thanks of the Association be tendered to the members of the Kingsville Cornet Band, and also to all who assisted at the meeting in the town hall on Fnday night. Carried.

The Convention closed by singing " God Save the Queen," to meet again at Leamington in the month of May.

A very interesting meeting was held in the Town Hall on Friday night. The entertainment consisting of Music, Instrumental and Oral, Speeches, Readings, Recitations, \&c.
_The East Middlesex Teachers' Association met at r.i5 p.m., Friday, Feb. 15. An hour was devoted to the subject of timetables, which were elucidated by Mr . Sutherland.

Messrs. Dearness, Hoyt, Eckert and McQueene also spoke on the subject, pointing out hints in the formation of a time-table.

Miss Wilsen read a lesson on discipline and opening and closing class movements.

Mrs. J. H. White also read an elaborate paper on the same, advocating that all things should be done by word ot order. Classes should be brought up and dismissed by means of signals and words of command. She described briefly her method of opening and closing school, and also her manner of taking slates.

A hearty vote of thanks was tendered these two ladies for their able papers.
Mi. Ucarness then discussed grammar, comparing it to an Anglo-Saxton stump which had afililiated and assimblated other languages. Children should try to speak properly to themselves and to their teachers, and the way to arrive at that is by imprinting on their memnries the value of grammar.

The report of the Library Committee was then submitted by Mir. Sutherland and adopeed.

The Association then adjourned.
The Association met Saturday morning; and the minutes of previous session having been read and confirmed,

Miss Kate A. Buoth and Mr. J. S. Carsor were elected members of the Association.

Mr. McQueen then took up the subject of credit marks; and explained at length his theory, illustrating the same by able examples.

Mr. Woodbourne also cxplained his method to the delight of the teachers present.

The discusion was on motion adjourned to receive

Prof. McLellan, who said he was well pleased with the Association, and considered it was one of the best in the country. He liked to sec such meetings well attended, as it manifested that the educational interests of the country were in the hands of those who desired to see the country flourish and prosper. A teacher thoroughly in earnest is sure to achieve success. The profession of teaching is rather more scientific than many others and all should be proud of it, as upon them the destinies of the nation depended. He denounced cramming abstract ideas into the youth. We should get at the concrete first and by giving the scholars numerous questions, allow them to see the method or rule for themselves. Going from oac rule to another is like travelling to an unexplored region. The grand fundamental principles are necessary is a basis, and then the science will be thoroughly worked out and understood. Ile gave a clever, interesting and humorous address, and resumed his seat amidst applause.

The meeting then adjourned until 1.15 p-m.

The meeting iesumed at $1: 15$ p.m.
Messrs. Hiands and J. M. Bell were clected members of the Association.

Mr. Fieeland, Secretary, Y.M.C.A., and Mr. T. Allen addressed the Association on the Tonic Sol-fa system.

Mrs. J. H. White also gave a few good ideas on the same subject, and moved the thanks of the Association to the abovenamed gentlemen for their kindness.

Professor McLellan then illustrated his method of teaching reading. He believed in first making a class comprehend the meaning of the lesson, which should be
studied and some good authority consulted as regards orthoepy. The endings of different words were next alluded to, and several instances given of the affixes being im, properly pronounced. Words should be pronounced clear and clean, much the same as coin just from the mint. The speaker also treated of inflection, which he held should be considered after meaning. Rapid reading was a common mistake. Pupils should be instuucted to pay particular attention to the consonants and give the vowels a full open sound in order to obviate this difficuly. The Professor resumed his seat amidst applanse.

Mr. Eckert then moved, seconded by Mr. A. McQueen, in acknowledging the benefit and pleasure we have received from the very able and practical illustrations of Dr. McLellan on how to teach, and believing we all have been likewise benefited, beg to coniess our indebtedness to him for the same, and hereby tender him a hearty vote of thanks. Carried unanimously.

The subject of a Western Normal School was then brought forward, and on motion the matter was referred to the Petitioning Committe.

Mr. Carson, late Secretary of the West Middlesex Teacher's Association was introduced, but owing to the lateness of the hour, did not make any lengthened remarks.

The Association then adjourned.
-The regular quarterly meeting of the County of Lanark 'Teachers' Association was held in the village of Alı 1onte, on Friday and Saturday, February . Sthrand 19th. It was attended with its usual amount of interest and success.

The President, H. L. Slack, Esq., M.A., Inspector of Public Schools, took the chair at 2 p.in. on Friday, and opened the meeting by an able and instructive address, there being about sixty teachers present. Mr . S. alluded particularly to the "Inspector's Detailed Report, which was compiled twice a yerr in connection with his visit to the schools, and cited some of those questions to which incomplete and unsatisfactory answers were often given. He urged upon teachers the importance of reading works which would auvance them in their profession, pointed out the necessity for preparing their school work out of hours, a matter which was tos little attended to, drew
 pelled them to examine carefully and propr: erly to classify every pupil on admission, to, their schools, advocated strongly the system, of testing and recording the attainments of their pupils, recommended the "Merit Card System" and "M.onthly Examinations." Mr. S. emcouraged teachers to make the public "Quarterly Examinations" more re-g lar and more attractive, to endeavor to awaken more interest among the public in their respective sections, assuring them that energy, application, and interest, on their part would produce the corresponding good qualities anting the children and adults with whom they were immediately connected. From his own experience he had observed that children were not sufficiently taught "how to learn," therefore he eacouraged teachers to give preliminary instruction to their pupils in the subjects which were to come up in class. Time tables were advocated, which though difficult to follow implicitly in rural schools on account of the irregularity of attendance and the shifting condition of the schools, were nevertheless of great value as aids to proper organization and discipline. The President brought his opening remarks to a close by urging teachers to cultivate habits of order, cleanliness and taste in their school rooms and grounds. There was need of great reform in this matter.
The Rew. Mr. McMoine, of Almonte, having kindly consented to address the teachers, was called upon by the chairman, and made some very earnest and appropriate remarks.
The Rey Mr. Bennet, of Almonte, who had also, in response to invitation, consented to say a few words, was next called upon by the chairman.

The regular programme of "Papers" and discission arising therefrom being proceeded with, the charrman called upon Mr. John McArter, head master of the Almonte Public School, for his "paper" on "School Organization and Discipline." The subject was dea!t with by the ejsay is in the shape of a letter addressed to a Board of School Trustees, purporting to explain his views with reference to the method of organizing. a school and administering discipline.
A short discussion followed this "Paper," in which Messrs. McGregor, McNab, Beer, and Ellis took part.

The cularly: of teac introdr head r School. On Preside work 0 by Mr.
Some in whicl Berling! and whi tive imp -the c taught, 1 of the fc Next ton, reas on Phon ling was consider: United D. C. of the $A$ upon by some ren of Arithn amples on Some great imp system of were stro The sul duced by monte His A conn pose of $\varepsilon$ next meeti Place, prol tas made sociation w ers billeted The me 1.30 p.m.
-A Fre mastered t: ends the bsence fro nyself than

The subject of English Grammar, particularly with referencerto the best method of teaching it to young,beginners, was next introduced by the Rev, F:F. McNab, 3.A., head master of the Carlton Place Hivh School.

On Saturday morning, at 9 o'clock, the President again took the clair, and the work opened with a "Paper" on Geography, by Mr. Gep. Berlinguette.
Some discussion followed this paper in which Messrs. McGregor, Beer, McNab, Berlinguette and the President took part, and which referred chiefly to the comparative importance of Grammar and Gengraphy -tho conclusions being that, if properly taught, the weight of argument was in favor of the former.

Next in order, D. M. Stewart, of Appleton, read a "Paper" written in short hand, on Phonetic Spelling. The system of spelling was, he said, leing adopted to a considerable extent in England and the United States.
D. C. McGregor, Esq., B.A., head master of the Almonte High School, being called upon by the chairman, proceeded to offer some remarks on the teaching of the subject of Arithmetic, accompanying them with examples on the blackboard.
Some discussion followed in which the great importance of class-work, a regular system of marking, and mental arithmetic were strongly advocated.
The subject of Reading was next introduced by Mr. Ellis, assistant in the Almonte High School.
A commitice was appointed for the purpose of getting up a programme for the next meeting, which will be held in Carlton Place, probably about Easter. A suggestion pras made by an outsider attending the Association with reference to naving the teach-名伿 billeted at the next meeting.

The meeting adjourned on Saturday at 1.30 p.m.

A public entertainment was given in the Music Hall, on Firiday evening. Owing to the masquerade on the rink thore was but a small attendance. The Rev. Mr. iv anning delivered an interesting address, and the President gave some siatistics of progressThe Association meetings were altogether very successful.

## UNITED STATES.

-It is said that about one thousand four nundred young men from the Unitcd States are now pursuing their studies at the colleges and universities of Germany.
-The commissioners of education of the city of New York, at the regular meeting, February and last decided, by a vote of thirteen to five, to abolish the study of German in public schools.

- The Board of Education of New York and Brooklyn are considering the propriety of establishing uniformity of text-books in all the city schools. Heretofore each school has been permitted to make its own selection.
-The negro Cardozo, superintendent of public instruction in Mississipp1, is in trouble with the legislature of his state. The committee of investigation into his official conduct reports that he is guilty of perjury, embezzlement of public moneys, bribery, forgery, and extortion. For these high crimes and misdemeanors Cardozo will doubtless be impeached.
- Messrs. H. Presnell, superintendent of public schools in Washington County, Tenu., and Edward Wise, school superintendent in Daviess: Ind., intend to open a training-school for teachers in jonestboro, Tennesse, about ine first of next July The skill and experence. $f$ these gentlemen guarantee a successful business for themselves and a useful school to these who wish to adopt teaching us a profession.


## CHOICE M MSCELLANY.

-A Frenchman who has not entirely mastered the intricacies of English syntax, sends the following excuse for his boy's Gbsence from schnol: "Mees, I testimony myself than my boy could go up to the
school, yes now, because he bad, has bad cut on his knees, and he is not cure yet."
-Professor Dana, of Yale College, with a party of twenty-five, went on a short excursion the other day for the purpose of
observing some glacial scratches. One of the students secretly made some scratches of his own upon a rock, and calling on the professor to account for them, received the reply, "They look like the work of an Irishman."
-Elihu Burritt can drive a strange dog out of his yard in thirty-three languages." - New England Fournal of Educatiou. Which speakes well for Elihu, but how did the strange dog acquire a knowledge of all these tongues ? Please to state also if the strange dog always waits till Elihu finishes his thirty-third objurgation.
-The following is the reccipt, according to the patent of Formhals (which has expired), for a coating for blackboards: Alcohol, 95 per cent., 65 parts, or alcohol, so per cent., 67 parts; bleached shellac, 8 parts; Paris-black, 8 parts; levigated pum-ice-stone, 4 parts ; Paris-blue, half a part; burnt umber, 4 parts ; dryer, 8 parts. The pigments and punice-stone are carefully mixed with alcohol, the shellac in solution being added last.

- An incenious toy, apparently of Japanese origin, has recently been introduced into London. It consists of a small picture, on paper, of an individual pointing a firearm at an object-bird, target, or second person. By the application oi the hot end of a match, just blown out, to the end of the paper it commences to smoulder toward the object aimed at, and in no other directio... When it is reached a report is heard from the explosion of a small quantity of fulminating material.- Nrature.
-The warlike habits of the Papuans and their implements of warfare are described in a private letter recently addressed to Dr. Hookef. The writer says that no man leaves his dwelling for his bit of cultivation even withont his powerful bamboo bow and a few deadly poisoned arrows. These poisoned arrows are only a few aniong a great number not poisoned, the former being distinguished by elaborate carving and painting, probably to prevent accident among themselves. They are each pointed and barbed with human bone brought to almost needle-like sharpness, most carefully and neatly finished; they are poisoned by plunging in a human corpse for several days. Poor Commodore Goodenough and his men suffered from arrows so poisoned.

It is a sort of blood-poisoning that, like other kinds of inoculation, does not develop itself for several days, the slightest scratch being sufficient to render almost inevitable a horrible death. The symptoms are accompanied by violent spasms like tetanus, with consciousness to the last.

- A good story is told of Dr. Cadwell, formerly of the University of North Carolina. The doctor was a small man, and lean, but hard and angular as the most irregular of pine-knots. He looked as though he might be tough, but did not seem strong. Nevertheless, he was, among the knowing ones, as agile as a cat, and in addition was by no means deficient in a knowledge of "the manly art." Well, in the freshman class of a certain year was a burley mountaineer of eighteen or nineteen. This genius conceived a great contempt for old Bolus's physical dimensions, and his soul was horrified that one so deficient in muscle should be so potential in his rule. But Jones had no idea of moral force. At any rate, he was not inclined to knock under and be controlled despotically by a man he imagined he could tie and whip. At length he determined to give the old gentleman a genteel private thras'ing, some night, in the college campus, pretending to mistake him for some fellow-student. Short ly after, on a dark and rainy night, Jones met the doctor crossing the campus. Walkins up to him, he said abruptly, "Hello, Smith! you rascal !" And then he struck the old gentleman a blow on one side of the face that nearly felled him. Old Bolus said nothing, but squared himself, and at it they went. Jones' youth, weight, and musc'e rade him au usly customer, but after a round or two the doctor's science began to tell, and in a short time he had knocked his intagonist cown, and was astradle of his chest. with one hand on his throat, and the other dealing vigorous cufis on the side of the head. "Ah! stop! I beg pardon, Doctor Cadwell-a mistakefor Heaven's sake, doctor "' he groaned. "I really thought it was Smith!" The doctor replied, with a word and a blow alternately, "It makes no difference; for a!l present purposes consider me Smith." And it is said that old Bolus gave Jones such a thrashing, that he never made another mistake as to personal identity.
-Wons Chin Foo, the Chinese lecturer,
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was present at the teachers' institute of Adams County, Pa., last December, and delivered an interesting address on the subject of education in China. He said that the first lessons inculcated in Chinese schools are obedience and reverence for parents and respect for teachers. He claimed that in no country in the world is education so general as in China, and that in no country are intelligence and moral worth so promptly and so liberally rewarded by the government. Ine also alluded to the Great Vall of China, the immensz number and size of its walled cities, its palaces and works of art, its canals and other public improvements, its wars and its civilizations, its geugraphy and history, and its systems of religion. He closed with a demonstration of the Chinese method of computation, which was truly wonderful for its rapidity and accuracy. By means of an ordinary abacus he performed the most difficult operations in addition and substraction with the utmost dispatch and correctness, throwing the so-called lightning calculators completely in the shade. The lecturer also described the manners and customs of his people, using good English and speaking with but a slight accent. We quote his language : "The capitals of the different divisions of the empire are all walled cities. There are seventy-five thousand of these walled cities in China. The material in these walls is sufficient, in the aggregate, to construct a wall thirty feet high and twenty feet thick entirely round the world, and leave brick and stone enough to build all the houses in the United States besides. This may seem wouderful, but it is true. In China everything is done in a different way from what it is done in this country. The manners and customs of the people are different. In this country when a gentleman enters a parlor or drawingroom, or goes into society, he is expected to remove his hat ; in ours, he is expected to keep it on. In China it is considered very rude and uncivil to go into society with the head uncovered. In your country, when friends and acquaintances meet, they seize and shake each other by the hand; with us, when friends meet, each clasps his own hands and shakes them to their satisfaction, at the same time giving expression to his feelings in a suitable manner. You read and wite from left to right: we, from
right to left. This is altogether a matter of habit and education, and one method is just as good as another, provided one understands it. With you, black is the prevailing color of mourning; with us, white serves the same purpose. Your young people, previous to marriage, usually spend much cultivating each other, and trying to ascertain their mutual adaptability and congeniality; we leave this matter entirely in the hands of ou- parents, who manage our matrimonial affairs in a way at once satisfactory to themselves and to us. And I am free to say you will find as much conjugal happiness among a given number of families in Chins as you will find in any other country in the world."

Schools Should Induce Thought:We have established schools to acomplish two purposes; to impart a knowledge of certain facts, that is to arm the pupil with the tools of knowledge ; and next to perfect him in the art, skill, or practice of thinking. The processes of our schools, as ordinarily managed, or the management of ordinary teachers result in a thorongh memorizing of everything committed to the pupil as a lesson. The school is a gymnasium in which certain processes are followed, and the scholar comes out, as we say " well drilled;" but is there the broad culture which comes from breathing pure educatronal air, performing moderate and steady educational labor?

After a foundation of facts is laid, the true processes to be followed are those that relate to right thinking. It is easy to have children commit to memory, it is difficult to have them think. But the highest office to perform, in dealins with an immortal being, is to deal with its highest. Therefore the teacher should set the child to thinking. The object of the " object lessons" is to induce thought, not, as many suppose, to impart a knowledge of things. Unless one has been an observing teacher he will hardly be prepared to believe that his pupils commit so many errors in thinking on the subjects of the daily lessons; or, rather, he will be surprised to find that they don't think at all. Not long since, the following question was proposed to a class that had learned a good many things about fractions: "Which is the smallest, four-fifths or four-twentierhs ?" After some consideration it was decided by several pupils that four-twentieths was the
least. The teacher then asked "Why?" and requested each one one to write out a reason. The replies were various, it was very common to see one pupil copy from the next an absurdity, no matter how great, so long as there were zeords. Thefollowing, perhaps, was found more times than any other " because there are more pieees, and less of them." Others wrote "Because there are the same number, but more of them."

Now the easiest plan would have been to have given the reason, and "drilled it in." But such was not our teacher. By visible objects the case was made plain; it was "seen into" by the scholars; then each one was required to express its knowledge in the clearest monner possible. Again, each explanation was carefully examined and criticized by the class until the language was perfectly transparent and cract.

Fuch teaching is slow, and that is its only defest. In reality, there is no other way of educating the processes of thought. Shere are other things that the teacher may set before him in his work; he may say he has no time to devote to such thought-educating labors; he may go through a round of lessons that may leave some residuum in the memory, iut to make a thinker is the noblest work of the teacher.

He may say, that it is not expected of him ; that he will busy himself in those excreises that need examination, penetration, and discrimination; in fact, that he would give dissatisfaction if he should turn out of the beaten track at all. This last is true. But if he would do the best thing possible for his pupils, he must employ their higher faculties; how, otherwise can they grow? He must in virtue of his responsibility, proclaim the existence of a " higher law."

Thousands have gone through theschools and come out as unscathed as the rhinoceros under a shower of bullets; they have gone into business, and later in life bave found out that there is a connection between thoughts as exact and certain as between letting go of a body and of its falling to the carth. And undoubtedly, except, in a few favored localities, the treadmill being still in operation; the same material going in at the hopper, there will come forth this year; the usual number who havenever used
the divine power of thought.-Neze York School Fournal.

The Taivs of Questioning.-x. To teach is to arrest and arouse a mind and set it at its legitimate work.
2. The legitimate work of the mind is to think-to think with a wise purpose.
3. It is the business of the teacher to set the mind of the pupils to thinking.
r. Thinking - to feel its nped of truth.
2. Thinking-to explore old truth.
3. Thinking-to get new truth.
4. Thinking--to grow by truth.
5. Thinking-to make a wise use of all truth.
4. To do this work well the teacher must of course,

1. Know the measure of his pupils' knowledge.
2. Know the measure of his pupils' power.
3. Gause his pupils to know the limits of their own knowledge.
4. Cause his pupils to know the limits of their own power:
5. Quicken his pupils to covet knowledge and power of the rught kind.
6. Quicken his pupils to acquire knowledge and power in the right way.
7. To prove his own and lis pupils' work.
8. 'This sevenfold work of the teacher requires the process known in the science and art of teaching as Interrogation or Questioning. In no other way can this work be accomplished.
9. A definition.

Interrogation or questioning is the act or process of incomplete statement (of a fact or proposition) by which the mind is incited and directed to the examination os a subject in order to complete the statement of the fact or proposition suggested.
9. The design of interrogation in teaching is,
r. To measure the pupils' knowledge and power.
I. For the teacher's information
2. For the pupils' information
2. To stimulate the pupil's desire for knowledge and their purpose to secure it.
3. To assist the pupils in such purpose and effort.
I. By questions put to them.
2. By questions elicited from them.
4. To prove the teacher's work.
8. Let us lay down a few practical rules concerning questioning.
I. Acquire a full and clearly defined knowledge of the subject.
2. Ascertain the condition and needs of your scholars.
3. Analyze the subject, and prepare a comprehensive and natural outline.
4. Achere to this general plan while you make the questioning between yourself and pupils as much as possible like $a$ free and informal conversation.
5. Tell but little in your questions that there may be room for more telling in the answers.
6. Talk but little between your questions, that there may be more time for questions by your pupils.
7. Tax the memory, judgment, invention, and conscience of the pupils in your questions.
8. Take pains to hold the attention of all the pupils to every question proposed.
9. Avoid frivolous, useless, and una:1swerable questions.
ro. A void obscurity in the language and style of your questions.
II. Avoid monotony in voice and manner.
12. Avoid ridicule, snrcasm, and all uncomfortable criticisms in your questions,
9. Let us lay down a few practical rules concerning answers.
r. The answershould come from some member of the class.
2. The answer should be direct and definite, and the whole class should understand what it is.
3. The answer should, whenever possible, be given in the pupil's own language.
4. The answer should contain as few unnecessary words as possible.
5. The answer should restate so much of the question as to make the answer a com plete statement of a fact or proposition.
6. Allow no guessing at answers.
7. Allow pupils time to think before giving answers.
8. Allow the timid and dull pupils special time and favor.
9. Correct defective answers by a series of helpful questions.
10. Commend correct answers occasionally, but not invariably.
ir. Don't repeat the answers given by your pupils.
—Dr. Vincent.

## TFACHERS' DESK.

## J. C. GLASHAN, ESQ., EDITOR.

Contributors to the "Desk" will oblige by observing the foliowing rules:

1. To send questions for insertion on separate sheets from those containing answers to questions already proposed.

2 To write on one side of the paper.
3. To write their names on every sheet.

## answers to correspondents.

War. Beattie, Norham. There is no other text-book on Geography, authorized.
O. M. O'Reilly, Munster. Sec Problem 223: page 268 of Sangster's Algebra.

## ANSWERS.

(110.) Rider to Prolem 8, Paper xvr., page 284, Advanced Arithmetic.

Mr. McMurchy solution is in effect,-Tifne $=$
$\left\{£_{34} 14^{\text {s. }} 33-7\right.$ th $\left.d . \div\left(.04 \frac{1}{2} \times £_{5} 67 \div 1.04^{1 / 2}\right)\right\}$
$y=$ ars. Is it correct ?
E. Rowland, Stmthroy.

The problem is simply, - The maker of a note for £567 received therefor $\$ 5322^{-7}$ th, and he found he was thus paying simple interest for the time the note had to run at $4 \frac{1}{3}$ per cent. per annum; how long had the note to run?
He paid $£_{34} 5-7$ this for the use of $£_{532} 2.7$ ths. But he would have had to pay . 045 of $£_{53} 22$-7ths or £29 $\frac{197}{700}$ for the use of $£_{532} \frac{2 \cdot 7 \text { ths }}{197}$ for one year, hence, time $=\left(£_{34} \quad 5 \%\right.$ ths $\left.-29 \frac{197}{700}\right)$ years $=1$ year 164 days.

QUESTIONS FOR SOLUTION.
121. 'A' person held a hoop up in the same plate
with his eye at such a distance from him that he could just see one-third of the circumference ; how far from his cye was the hoop, supposing it to be two feet in diameter !

## 1. Hicks, Rose Hall.

122. What is the greatest possible number of hills of corn that can be planted on a square acre of land, a hill to occupy a mathematical point, and the hills to be at least $31 / 2 \mathrm{ft}$. apart ?

> M. A. James, Baltimore, Ont.
123. Through what distance will a point in the circumference of a carriage whecl move while the carriage is travelling one mile ?

## T. H,

124. If $h_{1}, i_{2}, h_{3}$, be the heights of the sights of a rutle when adapted fur houting at the distance of 100,200 , and 400 yards iespectively, prove that $4 h,\left(h_{2}^{2}-h_{3}^{2}\right)+2 h_{2}\left(h_{3}^{2}-h^{2}\right)+h_{3}\left(h_{1}^{2}-h_{2}^{2}\right)=0$. Chas. Barnes, Ottawa.
125. Parse the words in italics in
" More is thy due than more than all can pay."
-Macbeth, I., iv., 2I.
" Your face my thave is as a book."
-do., I., v., 60.
Dirto.
126. "Natuml Philosophy teachos us that 'action is equal to reaction,' i.e., that the force of the bullet is equal to the kick of the gun." From Reflex Action of School Teaching by J. D. Steele, in the National Teachers' Monthly. Point out the double error in the latter assertion of the above quotation.

## Editor.

127. The visible enersy of a moving hammer can be converted into the invisible energy of heat. How would you prove this, and what metal would theory recommend as the heat-collector.

Editor.

## EDITOR'S DRAWER.

## TO SUBS RIBERS.

Sulscribers ate respectiully requested to remember and observe the following rules:
I. When you want your Post Office changed, or the "Teacher" discontinued, always let us know at what Post Office you have been receiving it, and save us a great deal of unnecessary trouble.
2. As we have adopted the system of payment in advance, the "Teacher" is discontinued when the time paid for expires. Subscribers are specially requested to send in renewals promptly. The No. on the label will show how far the time paid for extends.
3. Always register letters containing money. They will then be at our risk.
4. When any number of the "Teacher" fails to reach a subscriber, we always re-mail a cops, if notified promptly.
To Correspondents.-"A Teacher's" questions in regard to the Superannuation Fund, will receive attention in our next issue.

Home Scientist. - We have received a copy of this new monthly, published by John A. Clark, Wadsworth, Ohio, U.S. The following extract from the prospectus explains its object. "We hope to meet a public want, which so far as we know has
not been met ; to occupy a field as yet unoccupied; to bring before the the people in cheap form, and as far as may be in language unincumbered with technical terms, or words or phrases understood only. by schulars, such scientific facts and useful knowledge as shall be attractive, instructive, and elevating; that the farmer, the mechanic, the workmen in our numerous manufactories, journeymen, apprentices, and day-laborers, in their hours of relaxation, may at a trifing cost have at hand something from which they may derive such useful and permanent information as shall invigorate the mind and strengthen moral principle. To meet such a want is our object, and such a periodical we think is: called for."

Corrections.-We regret that some misprints crept into Mr. T. J. Godfrey's article on Phonetic Spelling, in the January number of the "Teacher." We note the following corrections :
Page 7." The sound should have more than one sign," should read, "No sound, \&c."
Page 8, second column. For " not viser in othet respects" read, "not worse."
Page 9. For "words which profess," read " words which poseess," \&c.
Rage 9, near bottom for "design to retain," read" " desire."

