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REV. WILLIAM CAVEN, D.D.

The name of the Rev. Principal Caven is no unworthy nssociate Wthose of the other eminent men who have from time to time filled the office of President of the Ontario Teachera' Association. Like most, if not ail, of them, he is in the best sense of the word a self made man, having reached his present high position by dint of long-continued and severe mental application. A school teacher himself in bis early years, and the son of a school teacher, it was in accord with the fitness of things that after twelve years of professorial work, in which he has greatly distinguished himself, he should be chosen tc fill a chair which has been occupied by such eminent teachers as Professor Wilson, Professor Young, and Professor Goldwin Smith. Principal Caven was born in Wigtonshire, Scotland, in 1880, his father boing a member of one of the sects which were afterwards consolidated to form the United Presbyterian Church. On his mother's side he is connected with the Covenanters, now more commonly known as the Reformed Presbyterian Charch of Scotland. His early education, a tolerably thornugh one, was received in his father's school prior to the emigration of the family to Canada in 1847. Almost immediately afterwards, Mr. Caven commenced to study with 3 view to entering the ministry of his own church, while his father continued his active connection With the work of education both as a teacher and a superintendent of schools. The best collegiste institutions were then in a very rudimentary condition, sud the denomination to which he belonged laboured under the dissdrantage of being withont any. By dint of hard labonr, and with such aid as he could secure from ordinary ministers of the church appointed for that parpose, he succeeded in completing his theological conrse, and was licensed in 1852 as a regalar Minister of the Gospel under the anspices of the United Presbyterian Charch, after having spent some time in the work of common scbool teaching.

At the early age of twenty-one he was inducted into the pastorate of the congregation at St. Mary's, near which placs his family had settled, and where they still reside. For the comparatively long period of thirteen years he continued in this charge, and his success in the prstoral work during that time was an earnest of the still more striking success which awaited him in his present sphere

of labour. The work of self-culture was never laid aside on account of the demands made on his time, as is two frequently the case with professional men, andi in 1865 his scholastic attainments were recognized by the Canada Presbyterian Church, which invited him to fill the chair of Exegetical Theology and Biblical criticism in Knox College, then recently vacated by Professor Young. That position he has held ever since with great ability, his teaching being characterized as much by fearless candour as by evangehcal orthodoxy. The department of thoology eutrusted to his charge is one for which he is peculiarly adapted. It is the one in and around which the battle of controversy rages with most fierceness and acrimony, and never was the war carried on with more vigour on Woth side, than at the present time. The destructive criticism of the schools, appealing as it does to 'uman reason and tho facts of history, has to be fairly encountered by every teacher of Biblical criticism whose gim is to enable his studants to give a reason for the faith that is in them. The Canon of Scripture has to be defended against assaults from a variety of quarters, while every page of ecclesiastical history has to be studied with a view to finding out what the lines of attack against Evangelical Christianitr have been in the past, and fow they must be met in the fisture. By occupation as well as taste, therefore, Prof. Caven has been impelled to continue his work of self-culture until ho has reached his present honourable position as a scholar and divine. During the past seven or eight years Dr. Caven has discharged the duties of Principal of the College as well as Professor of Exegetics, his management of the institution being as successful as his professorial work. Although for the parposes of this sketch we have most to do with him in his capacity of teacher, it will not be out of place to refer to Principal Caven's earnest sympathy with every movement calculated to reform society and elevate the masses. He has ever taken a deep interest in the educational system of this Province, and it may safely be predicted that that interest will be increased rather than diminished as the result of his election to the Presidency of the Provincial Teachers' Association. It is one of the peculiar excellencies of that society, that by electing prominent persons to the hononrable position of President, it tends to bring them into closer and more active connection with the work of practical eancation, and for this reason it seems desirable that the practice of selecting such mena practice seldom bitherto departed from-should be maintained.

Abour Converthoss.-They will come from the east and from the west; long atheles will be read, long speectes will be made, othicers will be elected and much glory will be got. Ahrady m anticipation mueh midnght kerosenoop has been spent. Those who are expecting to be tlected president, cte., are conning ov or the speeches to express how surprised thoy are! a good many will speak at the concentions who should remain silent. For to repeat over and over the same story about the importance of graminar, or geography, or even the importance of education itself is useless as well as dasagreeable. Those who spoak should certainly have something $t$ say. A gowl mans things will be left unsad and undiscussed that need candid and carnest treatment. Generally the best things that are said are by those outside the profession. Those who are inside nute the cap and platter, but not therr contents. No one can visit a combention and not bo struck at the close by the unsatisfactory state of mind into which most of the members have fallen; a good two-thirds resolve never to come again. The discussions of the convention should turn at once on practical lhangs. It must be apparent to a candad ubserver that while the teachers are doing the teaching, the growing body or form of education is beymit their reach. And yet they are the ones to say with distinct emphasis what are the evact ueeds of our educational system to-day.-New York Sichool Jownal.

Eximinations. - Examinations should, it is true, be conducted to some extent, upon the same plan pursued in recitation. But this plan, havagits foundation in mature, will necessarly suggest itself to every mind qualified ether to examine or to teach. . It is the order of nature, to advanco from particulars to generals; to hegiu with cxamples, and end with rules; and the mind of the pupil, both when receiving mstruction, and when under examination, should be directed in the road of uatural discovery. This being attended to, the greater the diversity between the modes of recitation, and the methol pursued by the examiner, the better.
This diversity will present an wh subject in a new light. It will induce the pupil to believe, that he hnows more of the subject than he had supposed. It suggests to him that neither his author, oor his teacher, nor he hinuself, had exhansted the subject. The difference of manner between the teacher and the examiner, may and will puzale the mere memoriter schohar-and this is one of its uses-to detect this very vicious habit of relying on memory alone. But it will give to the scholar whose mind has been disciplived. an opportunity of dicplaying that mental dexterity which the habit of thinking has given him. Examimations should be extended over the whole ground occupied by the studies of the term, and each pupil shonld be led to expect, that he, as an individual, will be examined on every important principle, in the whole course of instruction, given since the last examination; and when his elucation is finished, that a review examination would test the accuracy of his knowledge, on all that he professes to have learned.-W. H. M. in Educational Monthly.
The Teacher's Temper.-The teacher gains nothing by fretting; he only wastes his strength by it. The profession is one that develops worrying habits; it is an occupation that ruffles the temper terribly unless one is determined not to be ruffled. The tendency of a ruffled temper is that it brings to the surface the worst quaities a person has. Let the teacher smile often and much, and let these smiles be upon his pupils and not solely on his visitors. To hejp the teacher to gain this balauced, pleased state of mind, we urge that the work be well planned, skillfully plannel. Think over the whole thing, the difficulties yon may meet, the obstructions that may be in the way and how they may be removed. Put then your whole heart in the work; go about with earuestness and enthusiasm; feel interested that it prove successful, and finally look to Providence and rely on his aid. There is no one who cannot better his temper by stendily adhering to the above directions.
-The National Teacher's Monthly says: "Good teachers should be encouraged to continue in their work, for the same gualities which make them valuable in the school-ruom will win success in other and more lucrative callings. Cinless capable persons can understand that their work will be appreciated and paid for, and unless they can be assured of some degrec of permaneucy, in one place, they will not continue in the business. Only those will remain who can do nothing else. This nigardly policy of doling out half a liviurs to faithful instructors has already degraded the profession, and, if continued, will do so still more. What scholarly and energetic young man would think of deroting himself to teaching in New

York City, when there is not one chance in 300 of over earning $\$ 3,000$ a year, and in order to got oven that he must first serve twentv years on a much amaller salary. If the people permit this work to continue it will inevitably result in the ruin of our schools." These romarks are just as applicable to Camada as to the United States.

- There are causes for the low wages that can be remused by the teachers themselves. In fact, we think that when the teachers arouse they can increase the rate of pay very sensibly. For there is a class of persons in the community constantly on the increase, who see the value of the teacher and would have him properly paid -it is the educated class. The teachers can do six thinge thint will bear puwerfully on the leaver that will raise the salaries:-Reconnize by word and act that teaching is a profession. 2. Uphold normal schools and teachers' institutes. 3. Meot with follow: laborers for mutual improvement and discussion. 4. Honor the occupation, dignify if, believe in other teachers and schools. 5. Diffuse among your pupils and the public all you can learn about education and its progress. 6. Sustain with liberality those indispeusalile exponents and helpers to educational progress-Educational Journals.-New York School Journal.
-It is perfectly obvious that the cause of oducation in this country needs n new baptism. It is perfectly obvious that a new gospel should be proached to every creature, even to the averago member of the American Congress. It is perfectly obvions that American educators need to press the claims of the great interest they represent, persisently to the front. It is perfectly obvious that the true principles of statesmanship as applied to the development of a free society based upon the diffusion of intelligenes and virtue among the people, demand a new. revelation, and a more vigorous proclamation. It is perfectly obvious that politicians and partisans should be taught thet they do not own the prople, but that they serve their party best who serve their country best, and they serve their country best who labor the most intelligently, faithfully and successfully for the intellectual. moral, and social developments of its citizens.-Elucationl Weckly.
-One of the most prolific causes of truancy, as it originates in home training, is the disposition of parents to keep the boy from school on every trivial occasion. The child is generally a shrewd reasoner. If his parents are not willing to sacrifice their convenience in order to send him to school, why shonld he sacrifice his pleasure by attending? I have known cases of truancy broken up from the day parents became convinced of this truth. In what I hare written I do not wish to be nnderstood as discarding punishment. I only erge the point, that we are too ready to commence by severity, punishment which should be the last resort, and end by stadying the home life of the child, and by consulting his parents, which we ought always to do as soon as he manifests a disposition to play tranat.-H. S. in Educational Weekly.
-The following resolutions were recently passed by the New York Medico-Legal Society:-1. That the minimum age of admission to the pablic schools be made six years. 2. That the maximnm attendance at school for children under eight years of age be made threo hours per day, with snitable intermissions. 3. That provision be made by latw for màdical inspection end supervision to secure the adoption and enforcement of sanitary rules and laws of health. 4. That larger play grounds should as far as possible be frrmished for the children; and in improving present school-houses and uniformity in building new ones, they should he surrounded on all sides with an adequate open space, the better to secure light, ventilation, and play-grounds.
-What a good thing it wonld be if the rising generation could bo instructed in hyfiene! A few minutes daily devoted to this branch wonld be worth more than the hours given to arithmetic and grammar. The time may uever come when we can dispsnse with the services of specialists in medicino and surgery, but we look for a time when men will know betier than to go to sleep in a small room as tight as the "black hole of Calcutta." A thoueand reforms in dress and diet are needed. If the study of physiology cannot be thorough and extensive in common schools, it will at least be suggestive.-David Kirk.
-It is a teacher's high duty to send his pupils forth into the community well stored with such information and discipline as they will need to enable then wisely and snccossfally to discharge the dutios and ofligations which await all good citizens.- Charles Northe:td, in Nat. Teachers' Monthly.

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## CONTRIBUTORS.

REV. E. RYERSON, D.D., LL.D., late Chiel Sup't of Education. J. G. HODGINS, LL.D., Deputy Minister of Edacation.
daniel wilson, LL.D., Professor of History and English Literature, University College, Toronto.
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TORONTO, AUGUST, 1877.

## EDUCATION AND THE CIVIL SERVICE.

The Dominion Parliament has had under consideration for some time the best means of improving the Civil Serrice. In so far, as his is a question of public policy, we do not care to offer any decided opinion on the matter; but even, with reference to this view of the question, we must confess our inability to comprehend why the test of education should not be resorted to as the most likely, on the whole, to secure competent public servants in the various departments of State. Were the experiment still untried everywhere else we could feel no surprise in seeing our legislators, most of them educated men themselves, ready to make it here; but it is no new idea, and this method of recruiting the ranks of the Civil Service may now be said to have stood a rigid and thoroughly satisfactory test. It is, however, with another aspect of the proposed reform that we intend to deal just now. The Civil Serrices of the Dominion, and of the various Provinces, embrace a very large number of employees. At present the mode of appninting these may fairly be spoken of as nondescript. Education,
at all ovents, has little or nothing to do with it. What wo would like to see is a premium placed on educstion in connection with these appointments, and of oll the methods of applying the educational test the most satisfactory is, probably, the one adopted now in Eugland- $\Omega$ competitive examination. This has been for some time in use in connection with the entrance to the Military College, at Kingston, with, so far as we know, beneficial results. There does not seem to be any obstacle, except political ones, in the way of either the Dominion Govermment or any of the local Governments laying down a programmo upon which all candidates for positions in the Civil Service would have to be examined. The list of those who succeeded in passing could then be arranged in the order of merit, the chance of receiving an appointment being determined exactly by the candidate's position on the list.
-It is easy to see what an impetus such a system would impart to our middle class educational institutions, including our high schools in Ontario and the acalemies and schools corresponding to them in the other provinces. As the number of appointments made annually must always be very considerable thiey would soon come to be considered as of no small value, and the competition for the highest places would be extremely keen. Both pupils and teachers would take an interest in the examination and lend all their energies to the work of preparation, the great advantage being that, in all cases, the pupils not intending to compete would be induced or compelled to work with greater diligence in order to keep abreast of those who were preparing for examination. We have already called attention to the good that might be done if our leading bankers and merchants were to recognise in some way a liberal education as an additional qualification in those seeking to enter their service. If they could be induced to move in the matter and the Dominion and Provincial Governments could, at the same time, be induced to put the whole Civil Service on a compretitive basis, it is safe to sa that a revolution in middle class or secondary education woud be speedily effected. Such a consideration is not beneath the dignity of those who have to decide the matter for the public; and for more reasons than one we should like to have their attention pointedly called to an aspect of the question which is too apt to be overlooked. If a mmpetitive examination is the best means of obtaining satisfactory employees for the State, it would surely be no drawback, in the way of adopting it, that it was likely to prove, at the same time, a means of advancing the cause of education.

There are few countries so favourably situated for introducing such a reform as the Provinceof Ontario. We have already instituted an examination for which we have, as yet, found far too little practical use-the Intermediate High School examination. Apart from the fact that it plays an important part in the distribution of the High Schonl grant, it is now regarded as worthy of a certain amount of recognition in connection with the examination of teachers, and at least one university has accepted it pro tanto in lieu of its matriculation. Other uses of the same kind will yet be found for it, but not all of them together would have as much effect in popularizing it as would its recugnition by the Legislature as the basis of appointments to the Civil Service. If it were once understood that no ap-
pointments of ay hind could he secumed without pmsing the Intermediate, and that he who passed most ereditably had the best chance of heing mominated for a vacancy, there would no longer be much room to complain of lack of interest in an examination, with respect to which the ery of cui bonol is still frequently heard.

Another aspect of this question is well worthy of consideration. Although the Duminion Padiament las nothing to do directly with education, it is highly desimble that whenever it can legitimately do so, it should cadeavour to create a common standard to whinh all the provinces might approxin:ate. Such a stemdard would he, to some extent, created by a judiciously a manged compretive Civil Service eximination. Candidates from the different provinces would be brought directly into computition with each other, as they now are, to some extent, by the Gilchisist scholarship and the entrance examination for the Nilitary College. The result, apart from its influener on the efficiency of the Civil Service, would certainly be an educational remaisectece all over the Dominion, which would do no harm any h here, and would prove of incalculable benefit to more than one province. It happens that the Member for West Elgin, who brought the question of civil seavice reform prominently before the public, is himself an honour graduate of the University of Toronto. We have the more confidence, therefore, in calling his attontion to the above aspect of his own case, which is a strong one even without any such adjunct. The Minister of Education in this Province heing a member of the Govermment, the introduction of the competitive examination system in Ontario should be a matter of comparative ease.
-It has been a matter of surprise to many that the "New Education," in the shape of Kinter Garten Schools, has not been introduced into Toronto ere this. No Province, State or City un this Continent was so ready to carry out the principles of Olject "eaching hid down by Pestalozai as the Province of Untario. No other city of America can boast of such a complete collection of Object teaching apparatus as is to be found in connection with the Education Department of Toronto. It was natural to suppose, therefore, that this Province and City would be among the first to introduce the method of Frocbel. We are glad to learn that a reliable Kinter Garten will be opened in Toronto in September, in charge of Miss Marean, a graduate of the training School of Madame Kraus Boelte, of New Yurk, who is well known as the lest exponent of the principles of Frocbel in America. Madame Kraus Boelte was for a long time a co-worker with the wife of Froebel.
-The question of female education is attracting to itself an increasing amount of interest in Canada and especially in this Province. The appearance, for the first time, of young ladies amongst the candidates for matriculation in the University of Toronto, and their success in securing creditable positions on the class list, are events of no trilling significance. Equally important is the fact that the Senate of the University has at
length framed a scheme for the admission of ladies to standing and honous without compelling them to take up all the work required of the sterner sex. We hope to be able to furnish our readers next month with the scheme in detail, at the same timo expressing our opinion that, in justice to intending candidates and their teachers, the Senate ought to have been a little more prompt in publishing it.

## Yructical exunation.

Queries in relation to mothods of thehtiog, discipline, school managomont de., nill bo answored in this clopartmont.
J. HUGHES, EDITOR.

HOW 'TO TEACII DRAWING IN PUBLIC SCHOOLS.

## By James Hughes.

III.

Dictation Diawing.
After pupils have been taught how to draw geomotric forms, there is no drawing exercise that combines in itsolf so many points of excellence as Dictation Drawing. In giving a lesson the tachor selects some simple subject-involving regular forms-an artificial subject is better than a natural one for this purpose-and dictates to the class its various parts without any hand illustration whatever. The following are some of the merits of this method of giving a lesson:-

1. The teacher is compelled to us 3 concise and accurate language in describing the parts. This is a lesson much needed by most teachers.
2. The pupils also are trained to uso definite language. This is necomplished to a certain extent by listening to the use of such language by the teacher, but may be further developed by requiring hem to describe orally or in writing their drawing after it is finished. If this is done orally one may be asked for the first step in the description, another for the second, and so on. .
3. The papils must listen carofully to the teacher. Jnless they catch his cxact words in their proper connection they cannot draw what he describes. In an ordinary spelling lesson from dictation, every teacher obtains attention. This is one of the most important points in connection with teaching, and one of the most difficult for most teachers to secure. In a drawing lesson given from dictation the attention of the class must be better than it is even in a spelling lesson from dictation.
4. It proves that drawing is not merely the work of the hand and eye, but that these are the servants of the brain, to aid in giving expression to its idees. So far as relates to form, drawing is simply hand language, and this mothod of teaching drawing shows oral and hand language to be capable of interpreting each other.
5. It is an excellent reviow lesson, and reviews are essential in drawing as in other subjects.
Hints 1. With very young children the teachor will find it better to draw each line on the black board after the class has drawn it from his dictation.
6. With more advancer classes the drawing should be done in full on the board in the teacher when the dictation lesson is com. pleted.
7. Ask your pupils to devise simple dictation lessons themselves at home and to bring them to you. This is an excellent home exercise, developing originality and uiding largely in teaching the use of clear and definite use of language. Eucourage the pupils by giving some of the best of these exercises as dictation lessons to the class.
8. Occasionally draw on the board simple lessons dictated by the class.
9. If you havo to ropeat tho description of any part of a drawing in giving a dictation lesson, use exactly the samo language as tho first time, unless you were wrong.

The following lesson taken from Waltor Smith's Primary Manual will servo as a spocimen dictation lesson:
"Draw two straight lines of any given length, ono horizontal, nne vertical, and bisecting eaoh other. Divnlo each half of each line into two equal parts. Through tine points of division, draw lines forming a square, having its sides parnllel with the first lines drawn. Connect the same points of division by obliquo lines, forming a second square within the first. Divide the sides of the first square into three equal parts. On the central parts draw isoscles triangies with their apexes at the ond sof the first two lines "rawn."

The above is a simple exerciso, but with practice claborate sub iocts may be drawn from dictation.

## Memory Drawing.

It is a good plan to have the pupils draw from memory some of the subjects which they have been tanght. If it lid not take too much time it would be advisable to have thom draw overy exurcise in this manner a few days after it had first beon taught. A lesson of this kind mav be given profitably in school about once in two weeks. The teacher should not let the pupils know what subject is to be repeated until the time for the memory lesson has arrived.

The benefits to be derived from drawing from memory are:

1. The teacher is enabled to find the result of his teaching, as this exercise shows how much of his lessons have been remembered by the pupils. Memory lessons in drawing correspond with reviews in other subjects.
2. The pupil is certain to attend more carefully to the instructions given by the teacher when he knows that he may be called upon to repeat from memory tho lesson he is receiving. In order to compel attention the memory lesson should be marked more highly than an ordinary drawing lesson.
3. The memory of the pupil will be developed.

In addition to the lessons given in school as recommended above, it is well to give occasional drawing exercises to be done at home from memory, These should not be done in the regular drawing books, but in a special book or on separate sheets of paper. The regular books should, of course, be left at school, otherwise the drawing would not be done from memory.

## PENMÁNSHIP IN PUBLIC SGHOOLS.

By W. B. Robinson, Tracesr of Penmanshif, Ontario Bustness College, Belleville.
I.

One of the important ends of the vast means of our freo educational system should be to teach every ohild an the land the art of writing. The success or failure of this undertaking is of vital consequence to the interests of society. It therefore becomes neces. sury, in view of this fact, to inquire not only into the agencies employed, but the method of instruction relied upon for the accomplisbment of so vasi a work, with a view of obtaining the greatest benefits with the least possible outlay of tima, labor, and expense.
It was thought until within the past fow years, that instruc. tion could do little beyond dirocting imitation, and wiere this faculty was found deficient, little if any success attended the offorts of either teachor or pupil. General failure in suoch cases gave ziso to the popular notion that all cannot be taught to write, and this the universal acquisition of writing by imitation alone has proved, and must continue to prove, a failure in about
vine oases out of ton. The problem to be solv dis how to impart a practical kuowledge of this art to everyindividuel in the land in the most effective and expelitions muncer. ' liant it oun bo done is no longer doubted by practical, intelligent, aud oxperienced teachors of the subject; but some more reiiable mothod than mere "imita. tion," it is ovidont, must be resurted to in ordcr to secure the rosult.
A goow handwritiug is looked upon as equivalont to a good trade and, combined with nther desirable qualities, introduces its possessor at onco to an howorable and lucrative position. But anys one, "some people seem to be born good writers, while it is not natural for others to learn." Men are not born good writers any moro than they are born good carponters, expert shoomakers or good mechanics of any kind. It is only by the aid of propor instruction and continued practice that a man bocomes a good ponman, painter, watchmaker, a good artist, or an expert in any branch of mechanism. Thero are no competont natural writers any more than there are compotent natural mechanics. It is very true that ono porson may excel auother without instruotion; but there can bo no approach to perfection by any person without understanding and applying the principles of an art, and the best so called "netural woriter" will be improved as much as the poorest by a thorough training. Many are falsely captivatod by tho bold easy dash of a mastor who overlook the means by which that ease and freedom has been acquired. It is the result of careful study and labour, and to imitate the end, wo should not shrink from the beginning.

While our sei. ool system is unsurpassed, in many respects, wo are far behind our American cousins in this particular subject.

While on a tour through the United States last summer, I visited a number of publio schools, and was struck with the uniformity and legibility of the penmanship of all grades of pupils. The same system is there adopted in almost every school and practiced in almost every business house. An examination of the miscellaneous autographs on hotel regiscers and other business writing that came under my observation, convinced me that the Americans are, as a nation, far better writers than the Canadians. The cause of this difference in the penmanship of two intelligent nations, living side by side, can easily be accounted for. The Americans have for the past thirty years adhored to a uniform standard system in their schools and colleges, while in this country no special attention has been given to the subject, and no particular system adopted in our schools. A number of different systems are presented, and each teacher adopts that which happens to suit his own fanoy. Thus, with continual change of teachers, each, of course, preferring his own style, the system is continually changod and pupils asked from time to time to abandon what they have partially learned and commence in the new. The consequence is that, to-day, among the great mass of divines, doctors, lawyers and graduatos of literary institutions, we find a large majority bad, illegible writers. At a competitive examination of the schools of one of the leading cities of Onterio, no less than thirteen different kinds oí copy-books were presented, and among them nine different styles from tho same school.

That a change is necessary, and that a national standard systom should be adopted in Canada is obvious to every persongiving thought to the subject.

## HOW TO INSTRUCT PRMARY CLASSES.

While I am decidedly in favor of teroling the more advanced pupils by clements, principles, de., I do not beliove in introducing thom at the outset. The formation of letters should be taught on slates before the pon and ink are introduced. The first lescons
should be marie as simple as posisible; should be mere exercises to imitate while learning position, penholding and movement.

The time devobed to each exercise should be about twenty minutes; this is probably as long as the interest can be kept up without wearying young pupils. The pencils should be of sufficient length to be held like pens, and the manner of holding them should be very carefully taught.

On account of the liability of the pencils in common use to break it is a matter of economy and convenience to use those covered with wood, as they are both cheap and durable. The new patent pencil-holderlately introduced into our schools is admirably adapted to young pupils learning to write.


POSITION AT DESK.
The three positions chiefly used by writers are the "Rightside," "Front" and "Le ft-side" positions. The "Right" position is most convenient aud decidedly preferable in the school room with modern desks.
In accordance with cut, sit with the right side near to the desk, but not in contact with it, the body slightly inclined for ward; place the left foot half the length forward of the right, and both firmly on the floor. Place the right arm parallel to the edge of the desk resting on the muscles front of the elbow, and rest the hand on the nails of the third and fourth fingers, not per-- mitting the wrist to touch the paper. Let the left hand be at right angles to the right and rest on the book, keeping the book parallel to the edge of the desk.

## eflatbematical , merartment.

Communications intended for this part of the Journal should be on separate sheets, written on only one side, and properly paged to prevent mistakes AL'RED BAKER, B.A., Editor.

The Examination questions, of which the following are solutions, will be found in another part of this Journal.

## I.

entrance.

1. Five millions divided by 7019 gives rem. 2472 ; then 7019 $-2472=4547$.
2. The expression in brackets $={ }_{12}^{473} \times \frac{2}{3} \times \frac{3}{43} \times \frac{4}{4} \times \frac{7}{7} \times \frac{37}{5}$ $=\mathrm{T}_{\mathrm{D}}^{2} \therefore \frac{20}{2} \mathrm{I}-\mathrm{I}_{05}=\frac{14}{13}$.
3. The expression $=£ 4.48 \times \frac{30}{209} \times \frac{253}{24} \times \frac{480}{28} \frac{8}{9}$, where it will be observed that 37 is a divisor of 259 and 603 , and 19 a divisor of 209, \&c. : result $£ 41_{14}^{1}$.
4. 20 cwt. for $\$ 15=1$ cwt. for $\$ \frac{1}{2} \frac{5}{0}=75 \mathrm{c} . \therefore 85-75=10$ gain on 1 cwt. $\therefore 2225 \div 10=222 \frac{1}{2} \mathrm{cwts} .=11 \frac{1}{8}$ tons.
5. 1 yd . costa $12 \frac{1}{2} \div 3 \frac{1}{8}$, and $23 \frac{7}{76}$ yds. cost $\frac{25}{2} \times \frac{8}{23} \times \frac{375}{16}=$ $\$ 93.75$.
6. $\$ 1400-\$ 625.50=\$ 774.50=$ twice his savings $\therefore$ savings $=$ $\$ 387.50$, and expenditure $=\$ 1400-\$ 387.50=\$ 1012.50$, which, divided by $365=\$ 2.77 \frac{2}{7} \frac{9}{3}$ daily expenditure.
7. $\frac{3}{10}$ spent in flannel, $\frac{3}{5}$ of $\frac{7}{10}=\frac{21}{50}$ in calico: then $1-$ $\left(\frac{3}{60}+\frac{21}{50}\right)=-75$ left, which buys $10 \frac{1}{2}$ yds. $\therefore$ the whole sum would buy $10 \frac{1}{2} \times{ }^{25}=37 \frac{1}{2}$ yds.
8. Area $=6 \times 5=30$ yds.; a yard longer and a yard wider would give area $7 \times 6=42$ yds. $\therefore$ cost of latter $=\frac{42}{30}=\frac{7}{5}$ of former $=7$ of $25=\$ 35$.
9. The av. $=18^{\frac{35}{25}} \therefore$ sum of the four numbers $=4$ times the number $=72 \frac{14}{297}$; and the sum of three of the numbers $=26 \frac{41}{198}$
$+3 \frac{1}{2} \frac{6}{7}+38_{15}^{1}=67 \frac{2}{2} \frac{5}{9} \frac{7}{7}-\therefore 72 \frac{1}{2} \frac{4}{9} \frac{0}{7}-67 \frac{25}{29} \frac{7}{7} \frac{3}{0}=4 \frac{17}{29} 970$, the fourth number.
10. $\$ 1039.84$ is discharged with $\$ 357.44 \frac{1}{2}$,


## II.

THIRD Class.

1. $\frac{9}{10} \times 41 \mathrm{oz}$. fine $=69$ thalers $\therefore 1 \mathrm{oz} .=\frac{69 \times 10}{9 \times 41}$ th.

$$
\begin{aligned}
\text { And } \frac{37}{40} \text { oz. fine } & =5 \frac{5}{5} s . \\
\therefore 1 \text { thaler } & =\frac{205 \times 9 \times 41}{37 \times 69 \times 10} s .=2 s .11 \frac{946}{6702} d .
\end{aligned}
$$

2. The 1st frac. reduces to $6 \times 2=12$, the second to $4 . \therefore 12-4$ $=8$ is time for $A$ and $C ; \therefore \frac{1}{2}-\frac{1}{8}=\frac{3}{8}, B$ 's. work per day; $\therefore B$ in 20 days.
3. $2 \frac{6}{7} \%=\frac{1}{35}$ wasted; $\therefore \frac{34}{35}$ of original quantity $=170 \mathrm{lbs}$., and original $\mathrm{q}^{2}=175 . \quad \therefore \quad \frac{33}{12}$ of 175 , $\frac{55}{112}$ of 175 , and $1_{1}^{24}$ of $175=$ $51 \frac{9}{16}, 85 \frac{1}{1} \frac{6}{6}$, and $37 \frac{1}{2}$
4. $£ 9-40 \times 1.09 \frac{3}{4} ; \quad \therefore 1=40 \times 1.09 \frac{3}{4} \div 10$, and $184=$ $\frac{40 \times 1.09 \frac{3}{4}}{10} \times 18_{5}^{1}=\$ 89_{\frac{7}{36} 0^{\circ}}$.
5. To insure $96 \frac{2}{3}$ costs $3 \frac{1}{3} ; \therefore 1$ costs $3 \frac{1}{3} \div 96 \frac{2}{3}\left(=\frac{1}{29}\right)$, and this multiplied by $48628 \frac{1}{6}$ gives $\$ 1676 \frac{5}{6}$.
6. The num. $=$ denom. $+\frac{1}{5}$ of denom. ; $\therefore 2 \frac{1}{s}$ denom. $=352$ and denom. = 160, num. 192 .
7. No. sq. yds. paper required $=178 \frac{2}{7} \times \frac{21}{36}=104$. Let the width be unit, then $4 \frac{1}{3} \times 4=17 \frac{1}{3}$ width $=104 . \quad \therefore$ width $=6$ yds., length $=7 . \quad \therefore 7 \times 6 \times \frac{4}{3} \times \frac{7}{4}=\$ 98$, cost of carpet.
8. If $a$ and $b$ be two Nos., $i$ their L. C. M., and $g$ their G. C. M. then $l=\frac{a}{g} \times b ; \therefore a=\frac{l}{b} \times g:$ hence $634938944494 \div 85044059$, and multiplied by $9187=68590142$.
9. Int. on 100 for time and rate $=14, \therefore \frac{14}{100}=\frac{7}{30}$ is fraction of principal wh. $=$ int., and disct. $=\frac{7}{57} ; \therefore\left(\frac{7}{80}-\frac{7}{67}\right)$ of principal $=\$ 9.80$ or $\frac{4}{28} \frac{9}{50}=\$ 980 \therefore$ principal $=\$ 570$.
10. Square of breadth $=6 \times 4840+600=9980$ gds. $\sqrt{\mathbf{9 9} 8} \overline{\mathrm{~J}}$ $=9,8,89+$ length $299.69+$

## III.

## SECOND CLASS AND TNTEREREDIATE.

1. The first expression $=\frac{299}{1800} \times \frac{901}{248} ; 2.66260 i=\frac{655}{246}$.
$\therefore$ fraction $=\frac{209 \times 901 \times 246}{1800 \times 246 \times 655}$.
2. L. C. M. of $483,472 \frac{1}{2}, 258 \frac{3}{4}=$ L. C. M. of numerators divided by G. C. M. of denominators $=21375$ bushels.
3. $\$ 480 \div 32 c=1500 \mathrm{yds}$. He gaing $\frac{220}{1500}=\frac{1}{7} \frac{1}{6}$ of selling price, $\therefore \frac{64}{7}$ of selling price $=$ buying price $=32 \mathrm{c}$., and selling price $=$ $37 \frac{1}{2} \mathrm{c} ; \therefore 5 \frac{1}{2}$ gained on $32=17 \frac{8}{16} \%$.
4. The 1st gaining $10^{\prime}$ and 2 nd losing $10^{\prime}$ in $12 \mathrm{hrs}. \therefore$ the three will be first together when one has gained and the other lost $60^{\prime}:$ 1st gains and 2 nd $\operatorname{loses} 10^{\prime}$ in 12 hrs. $\therefore 60^{\prime}$ in 72 hours.
5. 12 oz . silver $=\$ 66, \quad \therefore 112 \mathrm{oz} .=616 \mathrm{~s}$. Also $1869 \times 20(\mathrm{~s}$. gold $=40 \times 12 \mathrm{oz}$, and 1s. $=\frac{40 \times 12}{1869 \times 20}$ oz.; $\therefore 616 s .=\frac{40 \times 12 \times 616}{1869 \times 20}$ $=7 \frac{8}{8} \frac{1}{3} \mathrm{oz}$.
6. Int. $=$ disct. + int. on disct., i.e., disct. $+\frac{1}{n}$ disct. $=\frac{1}{n}$

$$
\begin{aligned}
\therefore \text { disct. }= & \frac{1}{n} \div\left(1+\frac{1}{n}\right)=\frac{1}{n+1} \cdot \text { Or amt. }=1+\frac{1}{n}=\frac{n+1}{n} \\
& \therefore \frac{n+1}{n} \text { gives disct. } \frac{1}{n}, \text { and } \\
& \therefore \quad 1 \quad \text {, } \quad \frac{1}{n} \div \frac{n+1}{n}=\frac{1}{n+1}
\end{aligned}
$$

7. At $5 \%$ for 1 yr int. $=\frac{1}{20}$ of principal, and disct. $=\frac{1}{2}$ (last ques.) $\therefore$ principal $=20 \times 44.52=\$ 890.40$, and this divided by $21 \quad \$ 42.40$ disct. $\therefore \$ 890.40-\$ 42.40=\$ 848$.
8. Inc. from B. C. investment $=\frac{1}{30} ; \therefore \frac{1}{2} \frac{3}{0}$ invested in D. B. giving $\frac{1}{2} \frac{3}{0} \times \frac{10}{13} \times \frac{9}{20} 0=\frac{9}{40}$ income. $\quad \therefore$ new income $=\frac{7}{20} \times \frac{1}{30}+$ $\frac{9}{400}=\mathrm{T}^{\frac{4}{2}} \frac{1}{00} . \quad \therefore \frac{4}{12} \frac{1}{0}-\frac{1}{30}=\mathrm{T}_{\frac{1}{2} 00}^{2}=\$ 5 . \quad \therefore$ value of investment $=\$ 6000$, or $\$ 5000$ stock.
9. In London 1 guil. $=£_{\frac{4}{4}}$. In Montreal $£ 1=\$ \frac{40}{9} \times \frac{1097}{100} \times$ $\frac{100}{100}$. $\quad \therefore 6000$ guil. $=\$ 2557.65+$. By direct exchange 6000 guilders $=\$ 2490 ; \therefore$ by remitting through London gain $=$ $\$ 2557.65-2490=\$ 67.65+$.
10. Solidity of vessel $=\frac{189}{88}$ cub. ft .; sol. of column of water $=$ $\frac{28}{2} \frac{73}{7} \frac{3}{9}$ cub. ft. $\therefore \frac{189}{88}-\frac{28}{28} \frac{83}{7} \frac{3}{8}=\frac{12}{6} \frac{73}{6} \frac{7}{2}$ cub. ft. iron. $\therefore$ wt. water $=\frac{2}{28} \frac{73}{7} \times 62 \frac{1}{2}=86.369+;$ wt. of iron $=\frac{12}{1} \frac{273}{63} \frac{7}{2} \times 62 \frac{1}{2} \times 7 \frac{1}{8}=340.361$ + , and total wt. $=426 \cdot 73+$ lbs.

## IV.

first class.

1. For proof of rules see Canadian edition of Hamblin Smith's Arithmetic. By Sol. 4 preceding paper min. hands are together in 72 hrs., at which time the hr. hand of first clock has gained $\frac{1}{12}$ of round and that of second has lost $\frac{1}{12}$ do. Hence all will be together in $72 \times 12=864 \mathrm{hrs}$.
2. $23 \frac{1}{2} \frac{7}{1} \%=\frac{5}{21} . \quad$ Fraudulent gain $=\frac{\frac{3}{4}}{15 \frac{1}{4}}+\frac{5}{21} \times \frac{\frac{3}{4}}{15 \frac{1}{4}}=\frac{26}{427}=$ $\$ 31.20: \therefore$ amt. $=\$ 512.40$, which divided by $40 \mathrm{c} .=1281 \mathrm{lbs}$.
3. $\frac{a}{b}=\mathrm{rt} . \div(1+\mathrm{rt}$.$) , or (b-a) \mathrm{rt} .=a \therefore \mathrm{rt} .=\frac{a}{b-a}=$ int. Or, int. $-\frac{a}{b}$ of int. $=$ disct. $=\frac{a}{b} \therefore$ int. $=\frac{a}{b} \div\left(1-\frac{a}{b}\right)=\frac{a}{b-a}$
(1) $\frac{201}{180}=\frac{29}{20}=\frac{a}{b-a} \div \frac{a}{b}$ whence $b=3 \frac{2}{9} a \therefore \frac{9}{20}$ of principal $=261$, or $p=580$, whence rate $=7 \frac{1}{2} \%$.
(2) $\frac{180}{150}=\frac{5}{6}=\frac{n+1}{n}$ (see No. 6, second class) $n=5$, and $5 \times 180$ $=\$ 900$.
4. $\$ 1118$ cy $=1050$ gold ; $1050 \div \cdot 06=\$ 17500=\mathrm{cy}$. to pu-r chase stock (par). $\frac{3}{8} \%$ of this $=65 \frac{8}{8} \therefore$ amt. $=\$ 17565$ s.
5. After deduction there is $\frac{96}{100}=\frac{24}{25}, p$. w. of wh. $=\frac{12}{13} \mathrm{re}$. ceived for tea; and $\frac{1}{1} \frac{2}{3} \times \frac{1181^{2}}{100}=1_{1}^{2}=$ selling price : but selling prioe $=$ p. w. of $\$ 510.51=\$ 500.50=\frac{1}{12}$ of price first charged, which $\therefore \frac{11}{12} \times \$ 500.50=\$ 458.79 \frac{1}{8}$.
6. See "Exama. Papers," page 13, q. 10, which gives
$\frac{7.000 \times 19 \times 21 \times 89 \times 92}{5760 \times 94 \times 2 \times 11}=619.4602318 \mathrm{lbs}$. copper $=1$ gold.
7. Amt. $=4000(1 \cdot 1)^{3}=4000(1 \cdot 1)^{8} \times \sqrt{1 \cdot 1}=5583 \cdot 81 . \quad \therefore$ Int. $=\$ 1583.81+$.
8. 1 invested in B. C., $\frac{36}{25}$ in D. B., $\frac{76}{125}$ in C. Bank; $\frac{17}{500}, \frac{1}{30}$, $\frac{13}{380}$ are rates (per unit) paid by respective banks $\therefore$ Income from B. C. $={ }_{5} \frac{17}{0}$, from D. B. ${ }_{1} \frac{6}{25}$, from C. B. $\frac{13}{625}$. Hence $\frac{17}{506}+\frac{13}{623}$ $-\frac{6}{12 \delta}=\frac{17}{2600}=\$ 12.75$. $\quad \therefore$ Amount in B. C. $=\$ 1875$, in D. + B. $\$ 2760$, in C. B. $\$ 1140$.
9. $A, B$ and $C$ do $\frac{3}{8}$ in 1 day, and since $B$ takes 2 予 as long as $A$ and $C, \therefore$ these do $2{ }^{2}$ as much as $B . \quad \therefore B^{\prime} \mathrm{s}+22_{3}^{2} B^{\prime} \mathrm{s}=\frac{3}{B}, B^{\prime}$ s $=\frac{9}{88}$ in one day. So $C^{\circ} \mathrm{s}+4 \frac{1}{2} C^{\prime} \mathrm{s}=\frac{3}{8}, \therefore C$ does $\frac{6}{88} ; A \frac{18}{8} \frac{8}{8} . \quad \therefore$ money is to be divided in proportion of $18,9,6$, or $6,3,2$. $A$ is $\times 120, B_{\text {II }}^{9} \times 120, C_{\text {IT }}^{2} \times 120$.
10. (1) Presents no difficulty. Ans. is $8 \sqrt{ } 8$.
(2) Find radius of circumscribed circle $=\frac{20 \times 25 \times 30}{4 \times 0 \text { area }}=20 \times 30$ $\times 25 \div 4 \sqrt{\frac{75}{2} \times \frac{25}{2} \times \frac{35}{2} \times \frac{15}{9}}=40 \div \sqrt{7}=15 \cdot 12+$
It will be seen that quantity under the radix sign $=5^{8} \times 3^{2} \times 7$ $\div 2^{4}$.

## Cozamination Questions.

Under this head will be published from month to month the papers set at the examination for entrance into the High Schools of Ontario, the Intermediate High School Examination, the examination of candidates for Public School teaohers' certificates, and the Junior and Senior Matriculation examinations of the Universify of Toronto. The Mathematical papers will in all cases be accompanied by analytical solutions of the more dificult problems and hints on the best methods of solving the others.

## PAPERS FOR JULY, 1877.

## ARITHMETIC

Examiner: J. A. McLellan, LL.D.
admission to high schools.

1. What is the least number that must be added to five millions to make the sum exactly divisible by seven thousand and nineteen?
2. Simplify $\frac{20}{21}-\left(\frac{48 \frac{1}{2}+7 \frac{2}{3}-16 \frac{3}{4}}{16 \frac{1}{2} \times 14 \frac{1}{3} \times 121} \div \frac{5 \frac{2}{7}}{7 \frac{2}{2}}\right)$
3. Simplify $\frac{£ 14.12 s .11 d}{10^{4}-3^{5}} \times \underset{10.10 s .10 d .}{ }$
4. A man bought a quantity of hay nt $\$ 15$ for 20 ewts. He sold it 85 cents per cwt., gaining $\$ 22.25$. How many cwt. did he buy? 5. $3 \frac{1}{8}$ yards of cloth cost $\$ 12.50$; what will $23{ }_{1}^{7}{ }^{7}$ yards cost ?
5. A person having an annual income of $\$ 1400$ spends a sum equal to $\$ 625.50$ more than he saves. Find his daily expenditure $($ year $=365$ days $)$.
6. A lady had in her purse just money enough to buy a certain quantity of silk; but she spent ${ }^{3}{ }^{3}$ of the money in flannel, $\frac{3}{5}$ of the remainder in calico, and had then only enough money left to buy $10 \frac{1}{2}$ yards of silk; How many yards of silk could she have bought at first?
7. A room 15 feet wide and 18 feet long is covered with matting at a cost of $\$ 25$; what would be the expense of covering, with the same quality of matting, a room a yard longer and a yard wider?
8. The average of four quantities is $18_{\frac{2}{25}}^{35}$; the first is $26 \cdot 20 \dot{7}$, the second $3 \cdot \dot{5} 9 \dot{2}$, and the third is $38 \cdot 06$. Find the fourth.
9. A bankrupt owes to $A \$ 1039.84$, and to $B \$ 612.80$ : if $A$ receives $\$ 357.44 \frac{1}{2}$, what will $B$ receive?

Note. - 10 marks to each question.
II.

THIRD Class teachers.

1. If 69 German Thalers, of which 9 parts in 10 are fine silver, weigh 41 ounces, what is the value of a Thaler in English money when standard silver, of which 37 parts in 40 are fine, is worth 5s. $1 \frac{1}{2} d$. per ounce ?
2. $A, B$, and $C$ can do a piece of work in 2 days, $A$ and $C$ in

$$
6\binom{\frac{7}{9} \text { of } 12 \frac{2}{3}}{\frac{28}{8} \text { of } 15 \frac{8}{8}}-3\left(\frac{2 \frac{1}{7} \text { of } 4 \frac{1}{3}}{2 \frac{1}{4} \text { of } 2 \frac{1}{2}}\right) \text { days; }
$$

in what time can $B$ do it alone?
3. A certain kind of brass is made by fusing together old brass, refined copper, and zinc, in the proportion of 33,55 , and 24 ; how much of each must be taken to produce 170 lbs . of brass, after allowing 20 per annl for waete?
4. March 21st, 1877 ; sterling exchange is quoted at 93 for de mand bills what must be paid for a demand bill for $\mathfrak{£ 1 8} 5 \mathrm{~s}$. ?
5. What will be the cost of insuring a ship worth $\$ 48628 \frac{1}{6}$, at $3 \frac{1}{3}$ per cent., so that in case of loss the owner may recover the value of the ship, and the amount paid for insurance?
6. The numerator of a certain fraction is a fifth as much again as its denominator, and the sum of the numerator and denomina. tor is 352. Find the fraction.
7. A room whose height is 12 feet, and length 11 times its width, takes $178 \frac{2}{7}$ yards of paper 1 ft .9 in . wide to cover its walls; what will it cost to cover the floor with carpet 27 in . wide and costing $\$ 1.75$ a yard?
8. The L. C. M. of two numbers is 634938944494 , and their G. C. M. is 9187 : one of the numbers is 85044059 ; find the other.
9. The difference between the interest and the discount of a sum of money for 1 year and 9 months, at 8 per cont., is $\$ 9-80$ : find the sum.
10. A rectangular field whose length is three times its breadth, contains 6 acres 900 yards : find its length and breadth.

Note. -20 marks to be allowed for each question.

## III.

second class teachers and intermediate.

1. Prove the rule for reducing a mixed circulating decimal to an equivalent vulgar fraction.

Find accurately what fraction $\frac{5}{8}$ of (7 -.512) of $3.6{ }_{12}^{7}{ }^{7}{ }^{7}$ ac., is of $2.6 \dot{6} 260 \dot{1}$ acres.
2. Show how to find the L. C. M. of two or more numbers.

Find the L. C. M. of 483 bushels, 472 bushels, 2 pecks; 258 bushels, 3 pecks.
3. A merchant buys flannel at 32 cents per yard; at what profit per cent. must he sell it in order that the money he receives for 220 yards may be equal to his gain on $\$ 480$ of outlay?
4. Three watches hang side by side, and all show 12 o'clock at the time of observation; the first is known to gain 10 minutes, and the second to lose 10 minutes in 12 hours, while the third keeps
aceurate fime. When whll all the mimete hamds be mext at 12


 (if) lhlloles wrishinir llt troy:
 the sumple moterest on a smm of money for a given time and rate is : of the sum atself, shmm that the true discome is $\begin{gathered}1 \\ n+1\end{gathered}$ of that smm?
7. Reckoning commercial discount at is a person wonld receive Sh. 5 : lese than the nominal value of a note which has a year to rim: what shond he reoove for the note, if true discount only were deducted:
8. What mast $n$ person have invested in bank of Commerce stomis at 120 , and paymor 4 : half yearly dividends, if a transfer of (i.) of his capital to Dummon lhan's Stock nt $1: 30$, and paying ' $^{\prime}$ half-duarly dividents, makes a difference of 5 E in his semiammal income?
a. A merchant in Montreal drew on Mamburg for goot gnidders, at $S+45$ : how much more would ho have received if ho had ordered remitiance throush London to Montreal, evchange at Ilamburg on Condon bein! $11 \mid$ guidders for $£ 1$, and at London on Montreal $9 \% \%$, brokerage being $1!/$ for remitting from London?
10. The length of an iron cylindriend vessel with closed ends is if fert, and its outade circmmference is 36 mehes, the metal being an inch in thickness. Find its weirent when filled with water, iron being 7! times heavier than water, and water 62! lbs. per cubic foot.

## IV.

FIRST CLASS TEACHERS.

1. Define and investigate methods of finding the G. C. M. and the L. C. N. of two on more fractional numbers.

Three watches hang side by side and all show 12 o'clock at the time of observation; the first is known to gain 10 mimutes, and the second to lose 10 minutes in 12 hours, while the third keeps accurate time. In what time will all the hands first be at 10 together?

2 . A grocer bought a puantity of tea at 40 cents per lb ., and fixed a price on it, to gain $233_{i}^{\prime} ;$, but in sellimg it he inadvertently used a pound weight wheh was $\frac{3}{1}$ on. too light, thus gaining $S 31.20$ more than he would have gained if the weight had been true. How much did he buy?
3. Show that if the true discount for a sum of money for a given time and rate be $\frac{\pi}{6} 0$. "hat sum, then the interest will be ( $\frac{a}{2 \cdot 4}$ )
(1.) The interest on a certain sum for 6 years is 8261 , and the disconnt for the same time is $\$ 180$. Find the sum and the rate per cent.
(2) The interest on a certain sum is $\$ 180$, and the discount for the same time and rate is $\$ 1 \overline{0} 0$. Find the sum.
4. How much U.S. currency will be required to purchase U. S. $6 \%$ bonds, interest payable in gold, to give an income of $\$ 1,113$ in currency, gold bemer at 106 , and the broker's commission $3 \%$ on th par value of the bonds?
5. I lionght a quantity of tea from Thwaite, Eby \& Co., Turonto, who allowed mee a dincument of 1 per cent. on the price charged for the tea and accopted for the reduced amount my note payable in 6 mouths; I sobl the tea at once fur a mote of \$.jlo.si payable in 3 muntlis, aud allowme money to be worth 8 , per Rnmum, I found I had made a profit of $18_{1}^{2}$ y per cent. Find the Grst price charged for the tea.
6. Prom 2 lbs. of standard gold are coined 89 gnineas, and from 1 it. standard silver 66 shillings, $81 \%$ of standard gold being alloy, and $76 \%$ of standard silver. If 24 penmes are coined from 1 ith. avoirlupuis, calculate the ratio of the values of gold and copper.
7. Find the compund interest of $\$ 4000$ at $10 \%$ for $3 \frac{1}{2}$ years (payable yearly).
8. A man invested a certain smm in Bank of Commerce Stock at 12.5 and paying $4 \frac{1}{6}$ half-yearly duvidends; $44 \%$ more than that sum in Domiuion Bank Stock at 135 aud paying $4 \frac{1}{2} \%$ halfyearly dividends; and $39 ? \%$ less than that sum in Consolidated BankStock at 95 , and paying 3$\} \%$ half-yearly dividends; his halfwoarly incume from the second investment was $\$ 12.75$ less than from the ather two together. Find the amonat investel in each kind of stock.
9. To do a certan piece of work, for which $\$ 120$ is quint, 13 Wonld take $2 \cdot$ times as long as $A$ and $f$ together, $(!$ d! times as loman as . 1 and If together, and all thee working together actually do the work in $\because$ thays. Divido fairly among them the money path for the work.
10. (1) The base of an cquilateral trianglo falls on the diameter of a momiciscular are, and its vertex is in the middlo point of tho are: the length of $a$ side of the triangle being 8 feet: find the dimmeter of the circle.
(2) 'The town A is 30 miles from $13, B 25$ miles from $C$, and $C 20$ miles from $A$; fiml where a house must bo erocted to be equally distant from $A, B$, and $C$.

## FN゙GLISII GRAMMAR AND ETYMOLOGY.

I.

ADMISsion To Hfill school.s.
Ereminer: S. A. Mabling, MC. A

Values.

## 1. Parse:

Not secing his way very clearly out of these difficulties, Charles was fortunato enough to discover an agent equally skalled in battling his adversaries' shomes and in concenling his own.
2. Analyse:
"Tho yeomen looked on each other confusedly and with lesitation. the npprehension of so strange a danger provailing with those who fenred no other."
3. Write sentences showing the soveral ways in which " who" and " that" aro used.
4. Give the plural of 'hero,' 'crocus,' 'gonus,' 'genius,' 'valley,' 'lily,' 'handit,' 'Swiss,' 'appendix,' 'slıeep,' 't,' 's,' 'cargo;' and the possessive singular and plural of 'bean,' 'mouse,' 'omnibus,' 'German,' 'Mary,' 'ox,' 'lieutenant-governor,' 'court-martial.'
5. What is the meaning of Word, Inflection, Parsing, Weak Conjugation?
6. Write the present participle, the past participle, and tho second person singular of the present and past tenses of sit, do, go, catch, eat, tear, set, rely, lose.
7. Correct any mistakes you detect in tho annexed sentencer giving jour reasons:
(a) If he was me, ho would have done very different.
(b) Ho made a few memorandas to assist his clerk's memory.
(c) Jane got on quicker in her stadies than he.
(d) Each of you must attend to your own desk.
(e) I hardly know whom to make my complaint to.
II.

THIRD CLASS TEACFERS.
Examiner: S. Arther Marling, M. A.
"But what would appear incredible to son, were the fact less public and notorious, is that 8 gang of hardened villains whu had been confined, nnd got out of prisus whon the wall fell, at the first shock, voere busily umployid in setting fire to those buildings which stood somo char ce of escaping the general destruction."-(Davy).

1. Divide this passage into propositions, stating thoir kind and their rolation to ono unother, and fully analyzo them.
2. Parse the words printed in italics.
3. Give the meaning of the Latin prefixes and aftixes in the above extract.
4. Why are certain verbs called irregular? By what other names aro they also known, and why? Write the present tense third person singular, also the presont farticiple, the past tense second person singular, and the past participle of shear, slay, chide, eat, win, sit, lie, lose, die, spit.
5. Give examples to show the indefinite and also the definite use of the pronouns he, it, one, who.
6. Write the plaral of simile, spoonful, seraph, courtmartial, portfolio, James, crisis, $x, 5$; distinguish farther and further, older and elder, latest and last; and say what kinds of adjectives cannot bo compared,

15 7. What is the difference in meaning betwoen "ho is gone," and " ho has gove:" " you care fer him more than I," nad "you carn for him more than me:" tho poseessive with of, and the possessive with s?
8. Explain what is moant by Gopler, Caso, Mood, Word, Étymology, Construction of Sentences.
9. Correct any of tho following that appoar to yon to bo wrong, giving your reason in each case:-
(a) Who did I give Burns' pooms to " 'Twas me.
(b) A person cannot always be sure of not missing then way.
(c) His wifo as woll as his children were lost in the vessel.
(d) A slight misunderstanding has arose between the threo partnors.
18
10. Correct, whore nocessary, tho spelling of (asappoint, soized, dissapatos, nocommodate, motalic, shriek, listruction, dolapidato, your's, loveling, dovelop; and accentuate irroparable, peirverse, scjourn, Nowfoundland, machinist, indisputable.

## III.

gecond-class teachers and intemmedate.

## E:caminer: J. M. Buchan, M.A.

1. Maslet.-Hareld, I am thy friend, one life with thee, And ovjn an I should bloss thee saving mone, I thank thee uow for having saved thysolf.
Hanold.-For having lost myself to save myself,
Shad 'ny' when I meant 'no,' lied like a lad
That dreads the pendent scourge, baid ' $n y$ ' for ' no'!
Ay ! No !-he nath not bound me by an oath-
Is 'ay' an oach ? is 'ay' strong as an oath ?
Or is it the wnme tin to break my word
As break mine oath? He enlled my word my bond!
He is a liar who knows I am a liar.
And makes bolievo that he believes my word-
The carse be on his head-not bounden-no.
Tennyson.-Harold, Act ii., Sc. 2
(i.) Divide Harold's speeoh into propositions, state their kind and nonnection, and fully gnalyse the first three and the last three.
(ii.) Parse " life," "even," "saving," and "mine," in Malet's speoch; and "word," "bond," "believe," and "bo," in the last four lines of Harold's speech.
(iii.) Scan the first line of the extract, nawing the metre.
(iv.) Explain the derivation of "save," "mean," "pondant," and "crime."
2. Parse the italicized words in the following lines :

## "I had liefer that the fish had stoallowed me <br> Like Jonah than have known that there were such devils."

Trmayson.-Fiarold, Act ii., Sc 1.

## "That knowledge made him all the carefaller:"

Tennyson.-Harold, Aet iii., Sc. 1.

## 3. Distinguish between-

The European and African races.
The Enropean and the African races.
aud
He mado a better soldier than poet.
He made a better soldior than a poet.
and
The remembrance of friends dend and alive.
The remembrance of dead and alive friends.

## 4. Point ont the ambiguity in

The red white and blue flags.
Me-write the following sentence:so as to make the meaning clear:-
"Mon look with an evil eye upon the good that is in others; and thinis that their repatation obscures them, and that their commendable qualities do stand in their light; anc thorefore they do what they can to cast a cloud over them, that the bright shining of their virtues may not obscure them."-Tillotson.
5. "In 'The first king of Rome,' 'first' and 'of Rome' are not co-ordinate adjuncts."

Explain what is meant.

## 6. Critioise

"Tho Megárean sect weas founded by Euclid, not the mathematioian, and were the happy invontors of logical byllogism, or the art of quib-bling."-Tytier.
"There ne a sort of men whobe visages
Do crenu and mantlelitio a standing pome."--Shuhereporre.
"A lackad in lovo and a dnotard in war.
Was to wed the fair Ellen of bravo Lochumar."- Scote.
" Johnson's Lavos an being reprinted."
"The captain with his men were taken prinomers."
"Pompry as well as Casar were great men."
"Sand and salt and a mass of iron are easior to bear than a man with. ont understanding."
7. Givo reles for the placing of advorbs and adverbial adjtuets. Illustrate the importance of placing words properly by the example of "only."
8. Punctuato tho following sentences, and arrange tho worls in iambic pontameters, putting capitals in the proper places:it is indeed a most derired ovont if when a parent from $a$ parents heart lifts from this earth to the great father of all prayer both when he lays him down to sleep and whon he rises up from dreaming it one supplication one dosire ono hope that ho wonld grant a wish for his two sons even all that he domands int their regand and sthdenly beyond his dearest hope it is accomplished he should then rejoice and call his frieuds and kinsmon to a feast and task their love to grace his merriment then honour me thas far for i :am he

Sireleey.-The Cenci, Acti., Se 3.
a. State briefly the primeipal difference between English and its purent Anglo-Saxou.

## IV.

first.clabs teachers.
Examiner: S. Arthur Mahying, M. A.
Hail, holy light! offspring of Heaven first-born,
Or of the Eterual co-eternal beam
May I express thoe unbalmed ? Since God is light.
And never but in anapproached light
5 Dwelt from eternits, divelt then in theo,
Bright efluence of bright essenco increate. Or hear'st thou rather pure etheral stream, Whose fountain whe shall tell? Before the sun, Boforo the heavens thou wert, and at tho voico

The ising world of waters dark and deep,
Wou from the void and formless infinite.
Theo I revisit now with bolder wing,
Escaped the Stygian pool, though loug detained
15 In that obscure sojourn, while in my flight,
Through ntter and throagh middle darkness borne
With other notes than to the Orphean lyre
I sung of Chaos and eternal Night.
MiLion, Par. Lost, B. III.

1. (a) Parse the words in italics.
(b) Analyse the subordinate propositions.
(c) Explain the references in 'rising world,' 'Stygian pool,' ' Orphean lyre,' ' utter and middle darkness.'
(d) Re-write in pross lines 2-8, bringing out the meaning fully.
(e) Give the derivation of ' hail,' ' blame,' 'essence,' ' rather,' 'heaver.,' ' 'tter,' ' since, ' and,' 'void,' 'Chans.'
( $f$ ) Point out an ${ }^{3}$ erplain the figures of speech emplcyed in the above passage.
2. Write a short acconnt of the origin and use of the anxiliaries 'shall' and 'can,' and explain such forms as 'I have writtio a ' leter.' ' methinks.'
3. Scan the Gth line of the passage; also the following, giving the name of the metre;
(a) Arethusa arose from her"couch of snows In the Acroacramian inountains.

Suelly.
(b) Hail to thee, blithe spirit!

Id.
(c) Faultily faultless, icily regular, splendidly null.

Tennyson.
(d) He died in dungeon cold and dim, by Alphouso's liaso decrec. Lockiant.
4. Parse the italicised words in the following sentences from. Sakespeare:
Would ye have me
(a) Pat my sick caase into his hands that hates me?
(b) long
To have this young one maice a Christian.
(c) The fower men the greater share of honor
(c) The fower men the greater share of honor,
(1) Thumgh all that I can do is nothong worth.
(e) Since naturht so stockish, hard, and full of rage liut mante far the tane doth change his nature.
5. What infereat vaws are entortaned by grammarians with
 (o) you to dotine that otfice.
(i. R-W-write thefollowarg passare, substituting words of Siaxon for those of classo orman:-" Many pecular canses an thosatuation and eharacter of Henry the Seventh augmented the anthority of the crown Must of thon" catuses concurred in sunceeding
 of the suprematey, a most ampurtant article of prerogative.

Hume.
7. Fuplain the dormation of these words: Candidate, mascreant. w. pharit. :mbinon, Ciloucester. tribulaton, Whitby. What

A. Liamine the syatax of the fallowing. giving corrections where nucessary. -
(1) - Ve will mot come untu ane that ve might have life.
( $\because$ ) - I'he greatent number of stadents came up to that esaminathon of any former year.
(3) Wanted, a nurse and hunemaid who must both have no. $\begin{gathered}\text { references. }\end{gathered}$

## AL(:EBRAIC SMMBOLS IN (iEUMETRY.

To. the Eidator ui the Mathematical Incpartment of the ('aneula Sikool Jumrmell.
Sin There appears to be doubts in some minds as tu the exact meaning of the sentence "Algebraic symbols must wot be used," which appeared at the head of the papers in Euclad, set at the late eximmations for toachers' certificates. Will you kindly allow me through your columas to endeavuur, sofar as 1 can, to dispel these. The "siements of lienmetry" by Hamblia Smuth has been authorazed
 twe the symbu!s cmployed in that work. liespecting any other symbols or any abbrevistins. 1 would call attention to the excellent articlo "in ". The 'ise of Symbols in Exclid" in the July number of your Jursxal. In it ire clearly set forth the principles rhich should guale us in determming whether ar not any symbol may be used: there is also givin a list of symbols and abreviations admitted at the Cambridge sinate House examinations rand at the Uxford and Cnmbridge examinations. These are rather more than five times the number of distinct symbols allowed at the London University examintions.

Yours respectfully,
J. C. (ilasmas.

## Hotes and hitus.

## ONTARIO.

An cight hundred dullar classical master is to be added to the Guelph High School staff.

Mr. Dawson has been re-rppuinted Head Master of the Belleville High School at a salary of 81000 .
'Tho Nurfolk Refurmer cundemns the practice of compelling children to study long hours out of School.
Mr. I. Shaw, who has been Head Miaster of the Omemee High Schoul for fiurteen years, wis presented, recently, with a fine field glass by his pupils.

Mr. D. Fotheringhan, P. S. Iuspector of North York was presented with a complimentary address by the second-class candidates at the close of the recent examination in this city.

The Londun Prec Preas is not satisfied with Morris' Grammar Primer and blanes tho Central Cummittee for rocommendusg it. The book wrs adupted by the old Counchl of Public Instruction, and the present regime cannot be held responsible for it.

Mr. J. Crozier, Head Mister of the Listorell High School was recently presented with a gold watch and chain by the class he was preparing for the teachers' examination.

In the County of Wiaterlou the arcrage attondance in 1875 was 46 per cent. of the registered attendanco; in 1876 it rose to 49 per cont. During the asne interval the unmber of changes foll from 75 to 59.

Some of the towns selected by the Government se the best adspted for the institution of County Model Schools seem chary of accepting the honour conferred upon them. Should thoy refuse
they will probably acknowledge heroafter that they have committed a mistake.
'The County of Norfolk 'feachers' Institute was hold in Simeoo about the madlle of J'ine. Dr. MeLellan gave a serses of lectures an the best methods of teichng arithmetic, algebras, and reading. The attendance was largo am! the Ductor's prelections wore thoroughly apprectated. During the evennmg of one of the Institute day's hedelivered his lecture on the "ffutures of Cimada" to a pubhe andience in the Methudist ('lurch. Mr. Carlyle, P. S. Inspector for ${ }^{\text {oxford, addressed the teachers on Schos manage- }}$ ment. Dr. Kelly of l3rant, and L. (i. Murgan, Head Master of the Vemma School were unavoldably absent.

At the recent matricalation in Arts, in Poronto University, the first classical scholarship wont to ()ttian, and the second to Brantford, while the first mathematical went to drondon and the second to 1 ammlton. Owng to as new regulation, preventing those obtaining spechal scholarships from competing for general proficioncy, it wis not determined how the profictency schoharships would have been distributed on the old plan. Of the two female candidates, one stoud first in second-class in clissics, and obtained first-class honours in French and second in English; the other was first in second-class in English, and ubtained first-class in German and second-class in History.
The regular meeting of the Teachers' Association of the County of Haldimand was held in the Contral School Building, in the town of Dunmville, on Friday, Junc 29th and 30th. About 70 teachers, from varivus parts of the country, were present. T. Kirkland, 11. A., Science Master of the Poronto Nermal School, discussed the subjects of algebra, natural philosophy, geonetry. and mensuration, and gave a great deal of raluable iuformation. On Friday evening is large and appreciative audience assembled in the Boswell Hall to listen to a lecture from Mr. Kirkland on the "Stury of our Earth." The lecturer was inserned to throughout with wiapt attention, and sat down amidst the applause of all presont. A cordial vote of thanks was tendered hin and acknowledred in appropriate and eloquent terms. (Os the second day the exercises were resumed, at 10 o'clock, to discuss the remaining subjects of the programme, after which the election of .".ars fur the current year took place, resulting as fullows: President, C. Moses, I. P. S. ; 1st Vice-President, C. W. Harrisun, 13. A.; 2nd Vice-President, Miss Martin ; Treasurer, E. T. Hewsrh; Secretary, A. J. Hewson ; Executire Committee, Wm. Hird, Thus. Muore, Wesley McCarter, Thos. Eammond and W.S. Wood.

The regular meeting of the East Middlesex 'Teachers' Associstion was held at tho Morrill Temple, London, on Friday and Saturday, 8thand 9 th of Junc. There was a rery large attendance of teachers and friends of education. After the receipt of the reports of various committoes, and the adoption of rules for the conduct and management of tho Christmas competitive examination, Mr. McQueen and Mrs. White took up school examinations and exhibitions, but the complete discussion of the subject wes pustponod to leave more time at the disposal of the lecturer of the convention, T. Kirkland, ML. A., Science Master Toronto Normal School. The last part of the Friday afternoon session was talen up by Ars. White in illustrating, fith a class of 500 children, her method of teaching singing, sonsfexercises, and simultancous recitation, -an exhibition that thoss who had the good fortune to see and hear will not readily forget. The last part of the Saturday afternoon session was taken up with the discussion of the smended school law and new nigulations. All the rest of the timo was very profitably occupied by Mr. Kirkland in giving most oxcollent, clear, isnd instructive lectures on algebra, ouclid, and natural philosophy. ()n Friday evening, Dir. Kirkland delirered a lecture on tho subject, "The Story of the Earth," to a largo and appreciative audienco. The lecture was graphically illustrated by means of stercopticon riews, geological and astronomical, and chomical experiments.

At a time when one memorandum by the Minister of Edacation in School Discipline is causing some unfarourable comment, it may do no harm to refer to another which is much more likels to prore acceptable to the teachors. A lady teacher in the Petersville Public School hasing taken ono of the school girls by the shoulders and pushed her out of the door on account of premeditated insubordination on the part of the pupil, the mother of the latter complained to the trusteos, and the tercher was summoned to ansper for herself. This she failed to do on account of an attsck of illness, but she sent to the Board a Fritten statoment of the facts, and of the testimony of several of the other girls. After sororal
weeks illness she rosumed teaching and thought no more of the matter, until she was summoned to appear before a local magistrate to defend herself against a charge of assault. Both the magistrate ahd one of the trustees, who testities on his behailf, adenit that if the teacher had appeared before the Buard, the crminal prosecation would never have taken phace. As it was she escaped without a fine, but was mulcted in costs. The evadenco in the case having been submited to the Minister, he passed on the magistrate a censure which is certainly severe, but not more so than the circumstances called for. In his momorandum on the caso he says : "This is no case of undueseverity on the part of the teacher in maintaining her unguestionable authority. I must express my regret that any magistrate aloould have thought fit to have interfered in a matter of this nature, and which had been previously investigated by the Board of Irustees, who were guite competent to deal with it. The interference of any magistrate in matters pertaining merely to the discipline of our public schools is to be deprecated, and it is only in a case where undue severity has been exercised by the teacher that any magistrate should consider it a case to be dualt with according to lap. The teacher's task is quite oncrous enough without unnecossary and injudicious interference on the part of parents, who, under fancied grievances, complain to a magistrate. Unless the children receive some substantial injury his duty should be to refuse to interfere, and leave the question to be dealt with by thuse best conversant with it, namely, the Trustows of the scluols themselves. In this case Miss Mathicson deserved support, and not censure, from the magistrate." And again: "I regret that in the exenciso of an official duty my views should reflect on others who are also assumung to discharge official duties ; but I think I am bound to declare as explicitly as possible, in the interests of education, that the discipline in the school, which the teacher can alone exercise heneficially, should not be impaired by the interference of School Trustees or Justices of the Peace, except in a case of undue severity or cruclty."
Repurt of tae Minister of Education eur 18ig.-Fmm extracts published in advance from the annual report of the Minister of Education, for 1876 , we learn that tho total amoint of money raised from all sources for the use of the Public Schools was $\{3,393,655$, a net increaso of $\$ 28,201$ over the previous year. Of this suma $\$ 1,553,574$ was raised by school tares levied by trustees, $\$ 793,161$ by municipal school assessment, $\$ 270$, 576 by legislative grant, and the balance from various other sources. The amount expended for Public School purposes during the year was $\$ 3,006,456$, a net increase of $\$ 13,375$ over 1875 . Of this eum, $\$ 1,838,322$ was spent in paying teachers' salaries, the increase due to this system being $\$ 80,221$. There was a decrease of 84,718 in the amount expeaded on maps, prizes, $\mathbb{\delta c}$. ; an increase of $\$ 2,290$ in rents, repairs, \&c.; a decrease of $\$ 72,064$ in the amount spent on buildings and sites; and a total increase of $\$ 7,646$ in other expenses. The large decrease in the expenditure for sites and buildings is satisfactory rather than the reverse, as will be seen from the remarks of the Minister quoted below; it is due not to any ialling off in the liberality of the people, but to the fact that the great majority of the schuol sections of the Provinco are now supplied with good schoolhouses, and that the number of new buildinge required is becoming annuaily smaller. The total school population of the Provinco (i. e., betreen 5 and 16) was 002,200 , an increase of $1,16^{h}$, while the number attending school was 450 , 537 , an increase of 16,296 . It is evident that the compulsory clauses of the School Act bave produced some effect, and that by a little judicious management on the part of tnachers, trustees, and inspectors most of tho remaining 12,000 may soon be gathered in. It would be satisfactory to be able to report that all these pupils were in regular attendance on the schnols in which they are enrolled. Only 20,921 attended over 200 days; 94,953 betweon 150 and $200 ; 108,122$ betreen 100 and $150 ; 128.455$ between 50 and $100 ; 91.012$ betreen 20 and 50 ; and the lnsge number of 46,474 less than 20 days. The child who attends school only four weeks in each year derives little beneft from his attendance, not to speak of non-compliances with the law. In addition to nearly 12,000 reportod as not attending any school, this oxhibit shows that there must bavo beegn at least from 180,000 to 190,000 rogistered pupils who did not recaive the four months' echooling which the law prorides as a minimum. The only satinfactory featuro about this part of the report is the fact that while there is an aggregate decrease of 3,451 in the number attending less than 50 days, there is
 in agsregatiod. The aremge daily attendanco for the year was

212,483 , considerably less than 50 per cent. of the registered atrendanco, but showing an increase of 13,900 . The average time for which the schools were kept open was eloven months and fourteen days. The number of teachers employed duriug the year was 6,185 , an increase of 167 . The number of schools was $\mathbf{5 , 0 4 2}$, an increase of 208 . The highest salary paid a male teacher was 81,000, and the average 593:, the latter being an increaso of $\mathrm{s}=$, whle the averite saliary of female teachers wits $\$ 268$, an increase of $\$ 8$. Of the 6,185 certificates held by teachers 241 :were firmtclass Provincial, 1,201 second-class Provincial; 352 ohd first-class Comenty Board, 139 old County Baard seconds, 01 old County Board thirds, 3,688 new Cumty Board thirds, and 493 interim certificates. The increase in the number of first-class Provincial certificates was $\%$; of second-class Provincial, 113 ; of old County Hoard thids, 22; and ef new County Buard thirds, 136. Thero was an ageresato decrease of 63 in old County Board certificates of the first and second classes. The number of Roman Cathohe schools was 167, an increase of 11. The amonnt of money raised from all sources was $\$ 106,483$, an increase of $\$ 15,850$. The number of purils in attondance at these schools was 25,294, an increase of $2,62 \mathrm{j}$, and the average attendance 12,799 , an increase of $1,005$. The following remarks accompany the extracts from which the above information is derived :-"The increase of receipts and expenditure, although less than usual, is nevertheless, considering the existing monetary and commereal depression of the year 1876 , satisfactory. 'Teachers' salaries, which, at the time of the passing of the School Act of 18T1, were, for males, \$449; fur females, $\$ 224$; are now $\$ 533$ and $\$ 268-$ an increase in the former case of \$84, and in the latter of $\$ 44$ per teacher. The amount paid for teachers' salaries in 1871 was $81,191,476$; and in 1876, $\$ 1,838,322$ -being an increase of $\$ 646,846$. The sum expended on scheolhouses, although it has decreased 572,064 in 1876, has greatly increased during the past six years. For instance, in 18718261,833 were expended on schoolhouses; in $1876, \$ 630,265$-being an increase of $\$ 368,432$-while in quality the comparison is equally gratifying. There were, in 1871, 898 brick school-houses, 425 stone, 1,028 frame, $1,425 \mathrm{log}$; in $1876,1,417$ brick, 514 stone, 2,253 frame, 742 log ; increase, 519 brick, 89 stone, 325 frame, While the number of log houses has been diminished by no less than 683. Daily and averaje attendance in 1876 exhibit a very fair progress, as also the number of pupils in the different branches of education. Of certificates, Old County Board and lnterim have decreased; the higher class certificates have increased. The averace time of keeping the schools open has also increased three days."-Globe.

## NOVA SCOTIA.

A correspondent of the Halifax Chronicle pleads for the introduction ot the Continental in preference to the English method of pronouncing Latin.
The examination of the Normal School, situated at Traro, was attended by a large number of educational notabilities. The work done by this establishment is producing good results.
The examinations of the University of Ealifar; for frgt L.I.B., were held on the 17 th, 18 th and 19th July. The legal fraternity in Nova Scotia take great interest in the new University.
Mount Allison Wegleyan College, Sackrille, N. B., has adopted the curriculum of the University of Hahfax en bloc. This example Fiil probably be followed by the other colleges.

King's College, Windsor, had a very successful caccoaia this year. The number of students is steadily increasing under the management of President Dart. The degrce of D.C.L., was conferred on Rer. G. W. Hill, Chancellor of the University of Halifar.

The Education Office Scandal is not yet over. It is said, however, that the charges against the Superintendent have fallen to the ground; this would sarprise few people, for he has always enjoyed a high reputation for integrity.

Archbishop Hannan, at the cloging exercises of St. Mary's College, declared his intention of doing his utmost to place the College in the front rank of snch institutions. Ho rill appeal to the Catholics of the Diacese to aid him. The Archbishop is one of the most distinguished educationists in tho Maritime Provinces.

The annual examinations of the Public Schools of Halifax occupied the first fortnight of July. Progress was manifest in nearly all the schools. The press aske that the girl's department in Morris Street School-the principal ore at the sonth end-should be taught by more efficient teschers than hitherto.

A ner High School is to be upened, and the pupils, boys only, will pay an annual fee of $\$ 20$. This is strongly objected to by
many. The head master, whe will teach classus, is Ruy Canut (inpme, D.D., Archidetum. He was head wasiter of the Gratumar schuol and is an able schular and an exeellent teacher. A teatha of mathematecy, with a salary of \$140, and a teacher of Enghash, with a salary of $\$ 1 \geq 00$, are advertised tor thy the leard of secheol Commissoners. The jost of teacher of Molern Langnages is also yacant.

## Manitobs.

The Governor- (ieneral's silver medal was awaded to Mr. Patrick Haverty for mathematics. and the oronze medal dmated by his Eacellency "as anarded Mr. N. Beturnay fur French emmposition
The Rev. J. Rubertson, of Wimmper, has been clected by the 1poard of Education as its represcatation on the finate of the Provincial University.
The contractor of the Wimaigeg Coatral Schan apects to have the buidng ready for occupation th the lat of simamber. It is tol be orick veneer, and will hate a fine commamhay appearance. When sompleted it will be the chicf architectural wnament of the city.
St. Juhn's and Manitoba colleses have cloced for the summer buation. Also the twir pincipal Ladies' chorls in the Province, Miss Bannatyne's and Mliss Lane's. The summer varations in the Public Schools are, in rural districts, from 1st Angust to 1st September, and in Wimmipeg fromi 15th July to lst September.
 to all publac schools in the Prosince, touk , place July 11 th, and the Protestant School Buards Eaimination of Teachers commenced on the 10th July at Wimnipeg and Portage la Prairie.
By the middle of November the St. Joh's College Ladies' school is to be furnished. It is in be a large and commodions building, costing abuut $\leqslant 20,000$, with Miss Hart Davies of the Wiakield Academy as Principal. It is to hase a Buard of Governors, the Bashup of Rupert's Land as l'resident, and Rev. Canon Grisdale, Secretary. An Enelish clergyman. connected with the Church Missionary Soricty, has become the bounder of the institutuon by a handsome dunation exceeding $\$ 7,000$.
The Unitary method of teaching arithmetic is fullowed in the Wimnipeg Schools, and there seems to be a disposition to adopt the Canadian edition of Hamblin Smith's as the text book. In this edition the cditurs, besides adopting it to Canadian currency, have corrected numerous errors which have inadvertently crept into the Eughsin edition. Many hu" prubluas have beca aiduland uther improvements made.
For some months past the educationists of Manitoba have been discussing with much keemness the question of non-sectarian schools. The digcussion took its origin with a bill which the Protestant section of the Board of Education intended to submit to the Lngislature at its last session. Befure the bull was drafted, the praciples which it was to embody leaked out and were puhlished in the Glole, though to no one in Manitoba were they known save the nembers of the Board. This excited a good deal of comment, which, tugether with a macriloss flagellation which the Board recerved from the stamuril on accumbt oi a new programme fur the cxamination of teachers, and other regulations, so demuralized them that, though they drafted thair hill and had it priated, they did not lay it before the Legislature at all, su horpeless was the prospect. At thas ture Archbshop Tache, somenhat alarmed for the safety of his "Denommatoon or Free Christian Schools," published, in successive numbers of the Nitamard, a long letter. subseguently issued in pamphlet farm, m whach His Girace mantanned that the proposed system oi national schools was contrary to the provisions of the British Liorth America and Manitoba Acts, as well as subversive of all religinus principles and sc ruinous to society as to foster cuery vice and to stifle every virtue. To this a vagorous reply was mamediately gisen by a member of the Prutestant Board, generally supposed to be Rev. Mr. Robertson. Not long after this, there appeared a letter froun Ialicrlas, which attracted general notice for the ability with which it was written and the clearness with which it set forth the legal aspect of the question in favor of the $n o n$ sectarian system. Whether the points mado in this letter are correct or not. which cannot probably be settled until the matter comes before some of the highest tribunals in the realm, it is generally admitted to be the most masterly production which has yet apreared on the suhject. For some time after its appearsoce it ras th. . 1 ght that no persorn ci less legal acumen than Chief Justice Wood or some of the leading lawyers could have written it, though now it is popularly, and no doubt correctly credited to the pen of Rev. Prof. Moyce, of Manitoba
(illege. Tho Archbishop meanwhile continued his letter, presentWr his uljections from a sucial and religious point of viow ; the Aftudiuditself towk strong ground against his (irace's position, .d.ocathog the abolition of the dual system, favoring, howevor, such coulprumises as the permissive use of French, and options in text-bouks in history. Since then, with the exceptions of one or two anonymous lettere, there has been a lull in the controversy. Thus far none have taken part m it except educationists immediately interested. The general public are too busy with the activities of life in a new country to give the matter close attention, thungh the probability is that at no distant day it will form an imp,rtaut phak in the pulitical platfurm. The Standarl nowspaper, "Which has given considerable attention to educational topica, has had a chanjo in its management of late, and rumur hath it that henceforth 1ts position, with regard to these matters, will bo similar te hat of ats contemperary the Free Prexr, which, while avowang non-sectaran praciples, calnbits no anxioty to agitato at present such a thorny question.

- The Theachers of Boston have organized an Associntion for the purpuse of catemding aid to sick and nuperannuated teachers." It is instituled under the City Schoul Puard, on a plan sonewhat smmar to that of the Superamuated Teachers' fund if the Provance of Outario.
--The neat mecting of the Education Society of Eastern Untatuo hats been post poned mantil the 2 bth, 27 th and 28 th of December.
--A bouk agent, writmg to his publishers concerning a valuable educatoonal work, says that he is much discouraged, because seventy per cent. of the teachers are young girls, who do not hesitate to spend ten dollars for a fashionable bonnet, but can not be indured to spend two dullars for a work essential to success in ther calling. While we believe the young man exaggerated, still his statencent contains an element of truth. We have too many in the school-ruom, who seldom, if ever, read saything pertaining to their prufession, or make aby effort to improve their qualifications as teachers. It would be an interesting fact, if wo could know the number of teachers who take an educational journal, or own so standard a wurk as "Page's Theory, and Practice of Teaching." Teaching should be an intellectual calling; it often is not, add y ears gass away in dull routine, with no gennine study into the art and science of that grandest of all callings, training the mind.--Educational Weckly.


## 연partnental 急杖ices.

hevised regllations as to Schoot accomimodation.
Afrnoted by the Lieutexant-Gorennon in Coencil, Mar 8, 1877.

## 1.-mpral schools.

The law as now amended (wee sec. 17 (2) of Act 1877) requires 1 rustees of haral Schowl Sectivis to provide adequata school accommodaton 212 their sections, $\cdot$ so as to accommodato at least two thirds of the ciaidren who baro the right to attend the school of the section, secordang to the census taken ly the Trustees for the next preceding year." This inclades all children resident in the School Section, betreen the ages of five and twenty-ono years, and also children from adjacent school sections, whom the Trustees are required to admit upon certain conditions.
Tho School accommodntion required by the Act for Schoolhouses hereafter to be erected, is hereby defiued as follows, and theso requisites are to be construcd to apply to existing Schoolhouses, so far as the circamstauces of each Section may euablo them to be complied with, without pressing undaly upon the resoarces of the Section. Inspectors will see to the carryiug ont of the Regnlations. Special cases of omission or difficalty to be reported to the Department for decision or adrice.

## 1.-Kural School Site, House and Appendages.

1. Fifiy Children aml under-Sitc. When the nomber of children resident in a Scction is fifty or under, the site for the schoolbonso shall not be less than half nu scre in extout.
2. Oner 1 Hifty Chitldren-Site. When the number oxceeds fifts, the site shall not be less thon an acre in oxtent.
3. Find of Ilouse. On such rite there shall be a substantial school. house of wood, brick, stone, otc- (the kind to bo dotermined at the pleasare of the Trustoes). set back at loast ton yards from tho road or street. The walls of the house shall not be less than ton feet high in the clear.

It shall not contain less than twelvo square fect in the fluon fur ench child whe has the right to attond (to the extent of two-thirids of the tutal number, as aforeanid), su as to allow an area in each roum, or gallery, for at least ono hundrod and twenty cubio feet of air for each child, including space for Tencher, platfurm and passages batween the scats.* It shifll also be sufficiently warmed and ventilated, und tho premises properly drained, to the antisfaction of the Inspector.
4. Scjarate Entrances.-In Schoolhouses for more than fifty pupils, thore shall be separate eutrances for boys and girls, with necessary cap and cloak-rooms attached.
5. Fences.-Tho School premises shall be strongly fenced, the play yards in the rear of the schoulhouse being invariably separated by a high and tight board fence, or wall; tho frout ground beng planted with shadin treps
© Well.-A well, or uther muans of procurns water fur the sehoul, satisfactory to the Inspector.
7. Offices.- Proper and separate offices for both sexes shall le provided at somo little distanco from the Schuolhuase, amd suitably enclosed or otherwise masked.

## 2.-Schoolhouse Accommodation and Teachers.

3. 50 Resident Children.-For a School Section having fifty resideut children or under, there shall bo a house with schoolroum, and comfort able sittings for the children, and the Trustees may alno pruvile a gal lory ur class-room. There shall be one Teacher aud, at the option of the Trustees, a Monitor to aid the Teacher.
4. 100 Resident Children.-For a Section having one huudred children, there shall be a house with two class-rooms with comfurtable sittings (one for an elemeutary and oue for an advanced division), and the Trustees are recommended to provide a gallefy. There shall be a Teacher and Assistant, and at tho option of the Trustees a Monitor.
j. 150 Resi'cnt Children.-For $a$ Section having one hundred and fifty resident children a house haring one gallery and two good classrooms with comfortable sittiugs, and ono Teacher, an Assistant and Monitor; or a house having a gallery and two apartments, one for an elementary, and one for an advanced department, with a feacher and two Assistants in each. A Monitor may be appointed to prepare tho younger children for tho Iaster, the duty of the Assistant being confined to the proparation of the more advanced pupils.
5. Orer 150 Resident Children.-For a Section haring over ono hundred to one huadred and fifty resident children, the regulation for accommodation for Village Schools shall apply.

> II.-CITIES, TOWNS AND TILLAGES.

It is the duty of the Pablic School Board under the amended law of 1877, to determine the number and kinds of schools to be established and maintained in the Mrameipality, and in order that the duty may bo definitely regalated, the following are to be observed by the respective Pablic School Boards, that is to say :

## 1.-Schoolhouse Accommodation and Teachers.

1. 150 to 200 Resident Children.-For a Village or Town School, haring from one handred and fifty to tro hundred resident children, a brick, stone or irame house shall be provided by the Board, having in it one or tro gaileries and three apartments (one for an elomentary, one for an intermediate division, and one for the highest division), and by means of a sliding door, one good class-room at least, common to the tro latter; also three Teachers and an $\Lambda$ ssistant, and at the option of the Trustees, a Monitor. The area of each room or gallery shall baguch as to secure a space of at least one handred cnbic feot of air to each child, to be accommodated therein. If necessary, Schools may bo prorided at the pleasare of the Trustees for the different departments in different parts of the village, town or division.
2. 200 Resident Children and upicards.-For any village or town having two hundred resident children and upwards, a house or houses with sufticient accommodation for the different clemontary and adranced divisions shall bo provided as abose prescribed.

## ili. -as to all pebiac schools.

The Offices shall be constructed so as to possess these essential partictlars, viz. :

1. Tho Priry bailding, or Closet, should be masked from rier, and its approach equalls 50.
2. Thore should be littlo or no exposure to mad or wet wonther in reaching it.
3. There should be no unpleasant sight or odour perceptible.
4. The apartment should be woll finished.
5. It should be kept entirely free from cuttings, pencilings, or markings, and scrapulously clean.
6. Thon should bo, at least, two privios attached to eagh mixed

[^0]schoul, and thoy bhouhd bo so nepasated that nethor mapponeling bor oceapying them, can there bo enther night or sumbl abserved in passing. or frob ono to the other. This caninut be effected by a mere partition; nuthing can secaro the obje et but eamsalerable dastanco, or extra heavy brick or stune walla resting on the grumal. It is a seriulus error ever to omit this precaution.
2 Furniture ınd Apparatus. - Desks, sonts, hackboards, maps, library. presses, books, and other furniture, necessary for the effeient conduct of the school, shall be furnished.

## Suagestions as to Scruor, Buildinas.

Trustees and Scluva! Buards are recommonded to pay due attention to the fulluwing parliculars in the orection of sehooihonseg, viz. :

1. The Schoolhouse sinould be but one story high, in rural sections.
2. A reparate roum shadid be pruvided fur osery fifty pupits onrolled in the School. By means of sliding doors these separnte rooms could be thrown into one on special occasions
3. Provision should be made for one or mure galleries or ciass-roums in every School, according to its sizo, as herctofore prescribed.
4. Separate entrances with: onter porches to the Schoolhouse or room, for boys and girls, should invariably bo provided where the number of pupils is over fifty.
5. The entrauce porches should be external to the Schoolhonse.
6. The external dours of the Schoolhonse should open outwards.
7. The Schoolrooms must be well ventilated.
8. The light Ehould be admitted to the School and Class-room behind or at the left of the children, and either from the Enst or North, but in nu case should the children face it.
9. The rindow sashes should te made to move up and down on pulleys, and the sills should be about four fect above the floor.
10. Fach schoolhouse should be provided with a bell.
11. If the house be brick, care should be taken to make the walls hollow, but air tight, otherwise the air will be damp inside.
Note.-Each Inspector is furnished by the bepartment, with Dr. Hodgins' book on School Architecture, which supplies useful plans and snggestions for the guidanco of Trustees; and the Inspector nill assist the Trustees in giving effect to the above recommendations.

ADAM CROOKS,
Minister.
Educhtion Departyent, Ontamo, May 10, 1877.

## CIRCOLAR IN REGARD TO COEXTY MODEL SCHOOLS.

To Buards of Fublic Schoul Trusters, Inspectors and Head Masters. Toronso, July 20th, 1877.
In addition to my recont circular in regard to County 3 odel Schools, the Honouruble the Minister of Education desires me farther to remart that:-
I. Organization of Connty Lodel Schools.-Tho daty of patting into operation the provisional Conuty Model Schools, shall be performed by the Head Masters of the Schools, with the advice and under the suporrision of the Connty Inspectors; by whom all the arra:gements made shall bo approred, subject to tho final decision of the Afinister. By Connty Inspectors, in the previons sentence, is to be understood the Connty Inspector 1 is whose division the Model School is geographically included.
2. The Cunnts Inspecturs abuve designated, are directed to ascertan withont delay, and to infusin the Department, whether the Trustees of the Schools that have been selected to perform temporarily the work of the County Model Schuols, are whling to accopt the nomination of thour schools for this purpose.
3. In the event of tho Trustees of the sehools dosignated being propared to accept the nomination of their school to serve temporarily as a County Model School, the Trustoes and the Head Master are requested to observe that tho school mill open, for training parposes, on the 27th day of Angast noxt.
4. The fers days betreen the opeaing of the County Model Schools, on the 27 th August, for training parposes, and the openng of tho Public Schools for their ordinary rork, where this ocours at 8 later dato than the 27th Angust. shuuld bo emploged by the Head Nasters in recenving and curolling the tenchers-in-training, in explaining to thom the general character of the work with which thoy are to be occupied, sud in delivering such proliminary instructions as may bo necessary or suitablo before the children attending the Pablic Schools are gathered together.
5. Tho Departmont has beon asked for information as to the apparatus. With which Schools, neting as County Nodel Schools, mast bo farnished. For the present gear, this mast necessarily be left somewhat indeterminable. Tho Ninistor, in determining what may suffice for tho present year, will bo rery mach ganded by the opinmon of the Connty Inspectors.
M. Inspertion of County Model Schools.-1. The Minister of Edacation haring intimated his intontion to get the trork of tomporarily inspecting

Connty Model Schools done by the Central (ommittec, who may assign it to any of their mumbar the Central Committee have appointed tho four membors of tha Cummitee, who aro l'ublic Sichool Inspectors, as a bub-committe for thin parpose.
2. The above-montioned hapection through a aub-commattee of the Central Committee is nut mitenhed to interfere in any measure wath the authority and rights of P'ublic Sehool Inspoctors. Public School Inspecturs rutain all the posers the $y$ have hathertu passe ed in regard to the oversight of Public Schools. But it is desirable, with a viow to possible future arrangements, that tho Minister of Filucatoon should be in pos. nestion of a more special and syntematized information than conld be furnibhed by the reports of the Prublic School Inspectors genernlly. It has, thereforo, been decided to mako an independent inspectoral visitation of the County Model Schools, with the exclurive object of ascertaining how they arn fulfilling thoir functions as traning institutions.
III. Candidates who shall be admetted into the County Model Schools. Cases in which attendance actll not be requared.- 1. The teachers-in-training, who shall have the privilge of attendag the several schools acting as County Model Schools, for the first and second sessons repectively, Ghall be selected from camblates fultilling the preseribud comditions, by the soveral County Boards of Examiners. Whilo the County Boards, as the parties best nequainted with all the circumstances thit should be taken into account, are left to therr full disctetion in making the selection, it 18 suggested, that, as a rule, they give the preference to those candidates who have been most successful in pasring the non-professional exammation for Third Class Certificates. Not more, howover, than twenty-five candalates should be admitted to any Model School without the special concurrence of the Connty Inspector, for reasons wheh may appear to justify the simission of a larger number.
2. Fnquiries have been addressed to the Dopartment as to whether Teachers, whe are at present teaching on Permits, or County Board Certificates, and who may succecd in passing the appronching non-professional examination for Third Class Certificates, must attend the County Model Schools, before obtaining a Third Class Certificate. The Minister is of opinion that the just claims of all parties will the best proFided for, and the least amount of hardship, consistent with the general educational interests of the Province. intlicted on individuals, by leaving the decision of this question in the hands of the Connty Boards. Sbould a Coanty Board be of opinion that a teacher, who is at present teaching on a Permit, or Connty Board Certificate, and who may succeed in passing the approaching non-professional exnmination for Third Class Certificates, has had an amonat of practical experience substantially equiralent to what rould bo gained by attendance at a County Model School, they may grant a special Ihird Class Certificate to such Teacher. Their action, hotever, must be reported to the Minister, and must bu subject to his approval.
IV. Conclusion. -The Nimster of Education, in inaugnrating the very important change in the system of training teschers to which this Circular reiere, invites the friendly co-operation of the Trustees and the Head Masters of the Schools selecied to act as County Model Schools. The success of this scheme must depend very much on the intelligence and devotion with which the Masters, in particular, enter on the performance of the responsible duties assigned to them; and it is the earnest request, as it is the confident expectation of the Minister, that these gentlemen, called to undertake a branch of work rhich mast be nerr to most of them, will prepare themselves for it es thoroughly as possible, and will be zealous in endearouring to contribute, in this as in other ways, to the intellectual and moral adrancement of the Province.
Ligt of Public Schools selecten to be teyporabili used as Coonty



I have the honour to he, Sir, your obedient servant,

## J. GEORGE HODGINS,

Dcputy Minister of Education.

## APPORTIONMENT OF GRANT TO THE HIGH SCHOOLS.

From a commanication addressed to the Ninistor of Education, a misapprehension appears to exist in regard to the principles on which the sum of 810.000 is annumlly distributed to the High Schools on the recommeudation of the Inspectors. These principles are fully explained in the regulation instituting the present system of payment by results. The regulation in as follows:-
III. A part on the results of inspection.

The sam of say ten thousand dollars will be distributed amongst the schools, according to their efficiency as determined by the roport of the Inspectors. In classifying the schools with a view to the distribution of the part of the grant which it is proposed to apportion on tho results of the inspection, nccount will be taken of the following.:
(a) School accommodation, condition of school premises, general educational appliances, (maps, apparatus, \&o)
(b) Number of masters employed as compared fith the number of pupils and classes, qualifications of musters, character of the teaohing, etc.
(c) Character of the work done between the two limits mentioned below; so that ans school which, owing to the operation of special canses, may propare but fow panils to pass the "Intermediate," will nevertheless be rewarded for the thorough work they may do below this higher limit.
(d) The quantity and quality of the work which may be done boyond the higher limit, i.e., by those pupils who shall continue thoir studies in the higher course prescribed for those who pass ine In. termediato Examination.
(c) Govornment, Discipline, General Morade.

## SUB-EXAXINERS, UNDER THE COMMITTEE

(Copy of an Ordar in Council, approred by His Honor the LiontenantGovernor, the 12th day of July, A. D. 1877.)
Upon recommendation of the Honorable Arthur Stargis Hardy, acting Mlinistor of Education, the Committee of Council adriso that the following gentlemen be appointed sub-eraminers ander the Committoo for second-class teachers and for intermediate certificates, namely, tho following Public School Inspectors:-A. Campbell, S. P. Devis, J. Dearness, M. J. Kelly, C. Moses, J. J. Wadsworth, and Messrs. C. Clarkson, B. A.. W. Scott, B. A. ; and that the following gentlemen be appointed substitutes, shonld any of the abovo be proventod from acting, namely: Adam Johnston, B.A., Classical Gold Medalist ; J. E. Wetteroll, B.A., Prince of Wales Prizeman ; Dr. Evans, of Trinity Collego; J. L. David| son, Mrovincid Gold Medallist, Model School, Toronto.

Certified.
(Signed)
J. G. SCOTT,

Clerk Erecative Council, Ont.
The Honorable A. 8. HARDY,
Acting Minister of Education.

## SUPERANNUATED TEACHERS.

(Copy of an Order in Council, approved by His Honor tho Lioutenant Governor, the 12th day of July, A.D. 1877.!
Upon the recommendation of the Honorable the Provinoial Socretary, acting Minister of Education, the Committeo of Council advise that the toachors named in the annexed list, having complied with the law and regulations in that behalf, bo granted pensions as buperannaated teqcherg in accordance with the provisions of the Act.

Certified.
(Bigued)
J. G. SCOTT,

Clerk Executive Council, Ont.
12th July, 1877.
The Honorable The Minigter of Education.

## SUPERANNUATED TEACHERS.

The Dopaty reports to the Minister of Education that he has carefully oxamined the accompanying applications of Public School Teachers, and as they have complied with the lav and regulations on the subject, rospectfully recommend the applicants for superannuation, riz.:

| T.-OVER 8IXTS PEARS OF AOE. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Namo. | Religious. | Birtb. juluce. | Rosidence. | Ago | Service in Ont. |
| Bernard Doly.. | IR. Cutholic. | Ireland | Chatham | 61 | 381 years. |
| John Dunlon | C. Apontolic | do. | Kingeton |  |  |
| Patrick O'Brien.... . . . | 12. Catholic | do. | St. Catharines. | 62 | 17 " |
| Rich'd W. Young, M.A. | Methodist., | do. | Toronto - .... | 60 | 20 " |

II.-UKDER gIXTX TEAIS OF AGE AND DIBADLED FROM TTEACHINO.


Hespectfully submitted.

> (Signed)
J. GEORGE HODGINS,

Eddcation Departiment,
June 20th, 1877.

## CHANGES TO BE MADE IN LATIN AND ENGLISEI

 LITERATURE.(Copy of an Order in Conncil, approved by His Honor the LieatenantGovernor, the 12th day of Jaly, A.D. 1877.)
The Committee of Council have had nuder consideration the annexed roport of the Honourable Wm. Hardy, Acting Minister of Education, with reference to cortain changes to be mado in the portions of Latin and of English Literature to be road for the December Intermedinte Examination, and adrise that the same be acted npou.

Certified.
(Signod)
J. G. SCOTT,

Clerk Executive Council, Ont.
12th July, 1877.
The Honorable A. S. HARDY,
Acting Minister of Edacation.

The andersigned respectfully begs to report for the consideration of His Honor the Iieatenant-Govornor in Cuancil, the following respecting the Education Department, that is to say :-

The Central Committee of Examiners recommend, in view of the revised carriculam of the University, that the follorring changes bo made in tho portions of Latin and Eaglinh Literature to be read for the December Intermediate Examination:-
(a) Latin.-For Cwsar, Book IL., substitute Cwsar Bellam Britannicam, baing Book IV., chapters 20-38, and Book V., chapters 1-23.
(b) English Literature.-Fo: Gray's Elegy, substitnto Goldsmith's Deserted Village. The other subjects to remain as before, viz. : Firgil, Eneid, Bools II., lines 1-300, and Scott's Lady of the Lake.
The nndersigned would respectfully recommend that an Order in Council bo passed to give effect to the above modifications.
Rospertfully submitted.
(Signed)
ARTEUR S. HARDY,
Pro.-मinister of Educotion.
Education Drpartiobnt, ?
Toronto, 1877.
THE ANNUAI CONVENTION OF THE TEAGEERS' ASSOCLATION OF THE PROVINCE OF ONTARLO.

To the Teachers, Inspectore of Schools, and Friends of Education, in the Province of Ontario:
The Seventeonth Annual Convention of tho Ontario Teachers' Association will be heid in the Examination Eall of the Normal School

Buildings, Toronto, on Thesday, the 14th day of August noxt, at two o'clock in the afternoon, and continue in Sersion three days.
Cickets of Mombership can be procured by communicating with the Secretary Tha Annual Fee is fifty conts to those who are membera of Branch Associations, and one dollar to others. Ladios, ongaged in tenching, froo.
Most of the Railway Companies hare agrood to grant return tickets to mombers attending the Convention, for one and a third fare, on the presentation of certificates, at the beginning of the journey.

Efforts will be made to secure ncoommodation on as favourable torms as possible for members of the Associstion while in Toronto. A person will be in attendanoe at the Theatre of the Normal School Buildings, on the first day of the Session, to give the necossary information.
The ordor of business will be as under;-
2 p. m. 'Tnesday-Treasurer's Report ; Samuel MeAllister, Esq.
2.30 p. m.-Township Soliool Eorxds ; Jos. H. Smith, Esq.
7.30 p. m-Opening Address : President, Rov. Principal Cavau.

Recoption of Delegates.
2 p. m. Wednesday-Uinitorm Promotion Examinations in Public Schools ; Jno. M. Moran, Esq.
3.30 p. m.-Training Schools for Teachers ; William Macintosh, Esq.
$7.30 \mathrm{p} . \mathrm{m}$. -The Rev. Dr. Fyfo.
Reception of Delegates.
$2 \mathrm{p} . \mathrm{m}$. Thursday-Nomination of Officers.
$2.15 \mathrm{p} . \mathrm{m} .-T h e$ relation of the Public and High Schools Programmes; Willian Tassie, LL.D.
7.30 p.m.-Dr. Ellis on some sabject in Chemistry with experiments.

John Irwin, Esq., Dissolving Views of Nare's Polar Expedition, Polarized Light, Solar Spectrum, Astronomy, \&c. public school section.
Arithmetic, Algebra and Geometry. How they should be tanght in Public Schools, by Thos. Kirkland, M. A. (Toronto Normal School).
Institute Iresson on Object Lessons, by James Haghes, I.P.S., Toronto. insiectons' section.
Report Formsand Registers.
School Inspection.

## high school section.

University Curriculam.
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