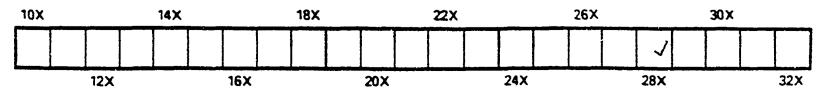
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The Canada School Journal.

Vol. XI.

1.

TORONTO, SEPTEMBER 15, 1886.

No. 18.

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THE CANADA SCHOOL JOURNAL

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

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CANAGA SCHOOL JOURNAL PUB. CO. (Limited), OFFICE; Toronto, Ontario.

MR. W. J. BLACK, Smithfield, P. O., is desirous of securing a copy of each of the following numbers of the SCHOOL JOURNAL, to complete his set, viz.— I'he numbers for November, 1882, January, March, September and November, 1883, and No. 2, 1886. If any subscriber has these numbers or any of them and will send them in good condition to Mr. Black, he will receive both thanks and payment.

WE beg to draw the attention of our readers to the series of Drawing papers commenced in this number. The plan proposed will doubtless prove a great boon to many of our teachers, whose work debars them from attending Art classes during the next session, but who yet desire to improve themselves in the subject of Drawing, or who may intend to try the spring examination in this subject. We heattily commend the offer made by Mr. Burns to our subscribers, and we are sure that they will do well to join this postal-club.

THE Jamaica *Evening Express* says that the blackboard is summer and then look ahead. *Make your work count this* looking up in Jamaica. Hitherto, the board was not wholly *year!* Start in with the determination to do the best work you unknown, but was very likely to be found in some out of the way have ever done Inspire your pupils with energy and resolucorner, or perhaps, in a state of wreck. Recently a preacher tion. Avoid the mistakes of the past. Be progressive.

rescued one in a chapel school from such a state, had the wreck nailed together, elevated it to the right hand side of the pulpit, and used it with effect to fix the divisions of his sermon in the minds of his hearers. The innovation was approved, and now blackboard stock is looning up in the Island. For our own part, we consider that any class-room, no matter to what subject deveted, without a blackboard, is minus one of the most essential implements of the skilful teacher. The proper blackboard is, of course, not a board at all, but an ample portion of the wall specially prepared.

WE give in this issue a paper on the first part of the "Vision of Mirza," as prescribed for the Entrance Examinations for December, 1886. This will be followed by similar papers upon such of the other literature lessons as have not already been annotated in the JOURNAL. Papers on "The Truant" and "A Christmas Carol," will be found in Nos. 5 and 9 respectively of the JOURNAL for the current year. Two papers by different writers on "Lochinvar," will be found in Nos. 4 and 10. The remaining lessons will be taken up in order. As will be seen from that given in this issue, it is proposed to make these notes rather suggestive than exhaustive or minute. We shall be glad, however, of criticisms and suggestions as to the best modes of treatment. Any questions for information will be answered when possible.

THE following three "Nevers" which we clip from an exchange, are worthy of being printed in letters of gold upon the walls of the innermost sanctum of every Public School Teacher, where they would be conspicuous by day and by night:

"Never compare one child with another."

"Never speak in a scolding manner,"

"Never use a hard word when an easy one will answer the same purpose."

Personally some of our most painful memories of months and years passed in the school-room, are connected with violations of one or other of those rules. If there are cachers of experience who have not to make, to themselves at least, the same confession, happy are they.

The following expresses so tersely and vigorously what we wished to say in a paragraph at the commencement of a new school year, that we appropriate it entire from the *Central School Journal*:—"The schools have opened! The teachers have again gathered, ready for the fray. From the ocean, the country, and the mountains, with new vigor and energy they take up the burden again. Take a parting look at the vanished vacation. Give one sigh for the past pleasure of the dying summer and then look ahead. *Make your work count this year!* Start in with the determination to do the best work you have ever done Inspire your pupils with energy and resolution. Avoid the mistakes of the past. Be progressive Examine new methods. Be keen to note the condition of your pupils' work. Be vigilant, dear teacher, and finally be good tempered."

In connection with our Minutes of the Teachers' Convention. we gave what may be called the practical part of Principal Dickson's paper on the proposed "Ontario College of Preceptors." "Copy" of the introductory part of the paper was not then to hand. Realizing that this question of organization is decidedly the most important matter now before the teachers of Ontario, we propose to publish the omitted part of Mr. Dickson's paper in our next issue, after which we may have something to say on the subject editorially. Our columns will also be open for its discussion. We shall follow this as soon as possible with Mr. Wetherell's and Mr. McHenry's able and interesting papers, and others of those read at the Convention. Mr. McHenry's on "Prizes and Scholarships" opens up another subject of special interest to all educators. It will thus be seen that our readers will not want for matter worthy of earnest thought and discussion for some time to come at least.

THE Education Department has issued a circular announce ing that every recommendation made by the local boards of examiners has been adopted, and that in addition several candidates whose marks were high have been passed. The cases of others whose standing is doubtful, have been referred to the local boards for consideration. Under the circumstances some such action was necessary to reduce to a minimum the injustice and hardship resulting from the lack of judgment displayed by some of the examiners. At the same time this action introduces an undesirable and dangerous precedent. If the Department can lower the standard, or change the regulations after the event, in order to admit large numbers who did not pass the examinations, why may it not on another occasion take the opposite course, and shut out those who have passed? The Department thus becomes absolute, and the examinations a farce. Some teachers argue with great force that the lesser of the two evils would have been to abide by the results of the examination, however great the injustice wrought to individuals. The public would then have had the satisfaction of knowing that the educational work was based on fixed principles.

ONE of the most important measures passed during the late session of the United States Congress, was the bill making education as to the effect of alcoholic drinks compulsory in all schools controlled by the Federal Government. No doubt such instruction is needed, and will be salutary, but great care should be taken to have it thoroughly scientific and reliable. We yield to none in our conviction of the monstrous evils wrought by the use of alcoholic beverages, and we believe in the justice and necessity of proper prohibitive legislation in order to stamp out the evil. At the same time there is, perhaps, some danger that some of the popular manuals may sanction extreme and consequently erroneous views as to the and the telling of the story of Godwin and the men of Dover, physical effects of such beverages. No exaggeration is neces- page 13, by leaving out what is really most interesting, the sary to stamp the drinking usages of the day with the disap-lattack of the Frenchmen on the Dover townsmen, gives a good proval and abhorrence of all right-thinking minds. The point example of the slovenly way in which the story is told. At page

we wish to make is the great importance of teaching the pupils in our schools to love above everything truth for its own sake. In all scientific instruction of the kind indicated, great care should be taken to teach as truth only that which is susceptible of the fullest demonstration.

AFTER an able and animated debate, the Colle se Confederaion scheme has been approved in the Methodist General Conference by a considerable majority. This foreshadows a new departure in the university policy of the Methodist Church. Steps will at once be taken, it may be presumed, for the removal of Victoria College to Toronto. The wealthier members of the denomination may doubtless be relied on to contribute liberally to the large fund that will be required to put up buildings, and inaugurate the work in Toronto on a scale worthy of the Canadian Methodists. Mr. John Macdonald intimated before the Conference his intention to give \$25,000. Another gentleman offered land for a building site. There is room for difference of opinion as to whether the work of higher education can be carried on more efficiently under such an arrangement as that which is to be the basis of the confederation, or by independent institutions scattered over the Province. Much may be said, and much has been well and forcibly said, The other denominations having universities, on both sides. or about to have them, seem to have finally decided in favor of independent development, so that for the present at least, Victoria will be the only one entering into the new arrangement. The matter having now been pronounced-upon by the highest ecclesiastical court, the Methodists will, no doubt, with their usual loyalty, accept the decision and spare no efforts to make the new arrangement a great success.

THE NEW HISTORY PRIMER.

I HAVE now read through the English portion of the History of England and Canada, by Messrs. Adam & Robertson. It is a book fairly done on the whole, not by any means without blunders, but showing considerable reading. Its main fault is that it is inexpressibly dull. The writers do not seem to be able to put important things in relief, a failing which results from a want of grasp in their own minds. Every now and then mistakes occur which show that they have painfully got up their knowledge without being men of knowledge themselves. The position of Normandy in the map at page 5, is a good instance of this. Another is the statement at page 7, that in early days the nation chose for King him who seemed most fitted for honor and trust; in forgetfulness that the choice was made out of the Royal family, and the following words seem to point to the election of the "wise men" by some popular body, which is certainly not the opinion of either Stubbs or Freeman, much as they differ from one another. To say at the end of page 8, that by the Treaty of Wedmore, Alked surrendered to the Danes only the Kingdom of East Anglia, is a pure blunder;

27; Richard is taken prisoner, according to the authors at an Austrian port. Evidently they think that Austria had Trieste and Dalmatia in the 12th Century, because it has them in the 19th. At page 34, Edward L, at the beginning of his reign had a nominal sovereignty over Scotland, which was precisely what had been abandoned by Richard I, and the account at Fage 36, that they should take no money, falsifies the record in a way which is important when the 17th Century is reached. At page 40, "Parliament" is said to impeach where the "House of Commons" is meant. At page 70, we have a new rebel chief as the Earl of Tyrconnel, at the head of what the authors call "the Tyrone rebellion," the authors being evidently ignorant of the fact that all the rebellion of the two Earls consisted in running away.

The statement at page 72, that immediately after the petition "the King broke his pledged word, and the Commons remonstrating, he threw some of its members into prison and angrily dissolved Parliament," is wrong from beginning to end. The King did not break his pledged word, and the men were imprisoned for making a tumult in refusing to be adjourned. The account of the short Parliament in page 73 is equally misleading.

The mistakes are not very heinous in themselves. Nothing is there which is not to be expected from writers like Mr. Adam and Mr. Robertson, but they testify to laborious preparation without full knowledge, the result of which stamps itself in the dulness which pervades every page of the book.

Spec al.

ADDRESS

/ DELIVERED BEFORE THE ONTARIO TEACHERS' ASSOCIATION, AUG. 10TH, BY THE PRESIDENT, MR. S. MCALLISTER.

[Continued from last issue].

As soon, however, as they get into the clutches of the law, then it begins to take an interest in them, and sets itself vigorously to work to reclaim them. "These strange people," our visitor might remark, "have a proverb which says prevention is better than cure, but in their public affairs they seem to think that cure is better than prevention." Surely it would be better to get hold of these boys and girls before they become inured to a life of crime, and place them in an institution where they would be brought up as useful and wealth-producing members of society by being taught, along with the rudiments of an ordinary education, some useful employment.

What our government has neglected to do, it has remained for a number of private individuals to attempt. Several gentlemen have formed themselves into an Industrial School Association, under the Act that was passed last session. The most active among these is Mr. W. H. Howland, the present Mayor of Toronto, whom I am glad to say, we shall have the pleasure of listening to upon this subject on Thur day evening. This Association has secured a piece of ground at Mimico from the Government, and has proceeded to erect buildings on it which will soon be ready for occupation. No efforts of it, however, nor any of the Toronto Public School Board, which is co-operating with it, will relieve the Government from its duty of trying to keep our street arabs from becoming criminals. The least that it can do is to liberally second the efforts that are successful, is not their fault, nor is it the fault of the teachers of

being made by these two bodies, and when next they ask bread. I trust they will not, as on a recent occasion, be tendered a stone. When schools like the one at Mimico have been established to receive those children that cannot be made to attend our Public Schools, we may regard our system of education as fairly complete. and only then can we consider our duty in keeping the question of industrial training before the Government and the country fulfilled.

One of the objects we aimed at from the start, and indeed one that is avowed in the preamble to our constitution, was to encourage the formation of Local Associations. This we did by making delegates from these Associations at one time members of our Board of Directors. We also regularly received reports from them regarding the condition and progress of the bodies which they represented. A time for this, until within the last year or two, was always provided at our meetings. I think that this custom of hearing the delegates' reports should still be honored in the observance. Our purpose was to secure greater interest in educational matters throughout the country by means which would afford teachers an opportunity of comparing their views, and of receiving benefit from each other's experience. We found in the person of the late Minister of Education, Mr. Crooks, a warm supporter of these institutions, and I am free to say that many which are now in a flourishing condition, owe their existence to him, and all owe a large increase of vitality to his friendly aid. When we consider that each of them is the centre of intellectual and professional activity among the teachers of the district; that they give an opportunity to improve professional work, and tend to foster a professional spirit; we cannot attach too much importance to their establishment. With the whole country mapped out in districts having local Associations, a question which has more than once occupied our attention will again come to the front. It will have to be considered whether the Ontario Teachers' Association should not become a purely representative body, composed of delegates from local Associations. I am aware that there are difficulties in the way, but these are not insuperable, and I feel sure that as years advance, we shall see our way through them to accomplish our purpose. I need hardly say that as a representative body the strength and influence of the Association would be greatly increased. It would then become in the full sense of the word an Educational Parliament, and would exercise an influence on the educational affairs of the country which would be beneficially felt to the utmost school section in it.

After having the examinations for teachers' certificates and the method of selecting inspectors put upon a satisfactory basis, our attention was turned to the training of teachers. Formerly the only place where professional training could be secured was in the Normal School. But the accommodation there soon proved inadequate to the wants of the Province; even before the establishment of a central board of examiners, when candidates had to pass one or perhaps two years at that institution, it was crowded. But when the change in the method of examining was made, it was found impossible to provide for the professional training of all classes of teachers at that institution. In 1873, the Public School Section of this Association took the matter up, and after due deliberation, recommended that County Model Schools be established, "and that all candidates for third-class certificates who have not previously taught a Public School for three years, be required to receive a training as Pupil Teacher in some such Model School for that period." Model Schools, such as those recommended were subsequently established, and they have been fairly successful in giving to our young people some of the intellectual equipment for taking charge of a school. That they are not more the Model School. It is the fault of the scanty training the srstem, as established, provides for them. It will be interesting to hue, and in many instances disregard of properly constituted examine this matter of Model School training more closely. When a candidate has secured a non-professional certificate, of the second or third class, he enters a Model School, not for a three years' course of prof. sional training as was recommended by the resolution above quoted, but for a three months' course. During that brief time the Principal of the Model School delivers to the student. in troining, three courses of lectures-twenty-eight on education, ten on scaool law, and eighteen on hygiene--or fifty-six lectures in all. In addition to these the student receives lessons in music, drawing, and drill or calisthenics; he is also expected to review his non-professional work in composition, grammar, arithmetic and literature. In addition to all this, the most important part of his three months' course, that of learning to teach, has to be randwiched in. He gives an average of thirty lessons to the pupils of the school, under the supervision of the Principal or his assistants. As the last seven weeks of the course are prescribed for this work, he must give at least four lessons a week, and since he is expected to make a thorough preparation for each lesson beforeinand, he must surely find that the work of preparing for his non-professional certificate was small compared to the enormous amount required of him during his short Model School term. The only person whose labor can compare with his own, is that of the Principal. With these facts before us it is vain to think that cram ends with the non-profess. ional course. It must be as rife in the Model School as it was in the High School. The students in training, however, have this crumb of comfort that there is much more certainty about their success, for while over fifty per cent. of those who write for the non-professional certificates fail, not more than six per cent. of the students in training, who write for third-class professional certificates are rejected. At the end of this hurried thirteen weeks' course, ninety-four per cent. of our students in training, stand forth as full fledged teachers, empowered by their certificates to take charge of any Public School in the country. In fact the Model School is supposed to do as much in thirteen weeks for them, as is done for pupil teachers in England, by a four years' course of training. While with us, a medical student has to go through a four years' course to minister to the wants of the body, and a theological student has to go through a similar course to minister to our spiritual wants, a student in training at our Model Schools is expected to acquire the knowledge and skill necessary to develop the mind and character of the young in thirteen weeks. The rudest of handicrafts requires a longer apprenticeship than this. It would need more time to learn to handle a spade, to wield a hammer or trowel, or to run a sewing machine. The time is not long enough for a student to learn, I will not say to present a subject before a class, but to present himself before one. Can we wonder that there are complaints among inspectors about the crude nature of the work done by these young people when they are put in charge of schools. Of course at first their efforts must be, to a large extent empirical in the most delicate and responsible task that can be entrusted to any human being-that of developing the linearments of the divine image that we are all made in. To make matters worse, these third-class teachers receive their so-called professional training in graded schools, and when they go to teach, in at least three cases out of four, they are placed in charge of ungraded schools, where they have classes from the alphabet to the Fourth Book. To a teacher experienced in the work of an ungraded school, the task of taking charge of a new school is difficult enough. What then must it be to a young person wholey inexperienced in that kind of work? Only those who have passed through the bitter ordeal can

of time, the formation of careless and idle habits, lazity of discipauthority.

I trust I have said enough to show that our offerts to secure a proper course of prefessional training should not be relaxed. In England, I have said, a pupil teacher has a four years' course. He begins at the age of fourteen as an apprentice in a school under a cortincated master, and carries on his professional and non-professional work together. His improvement in general and professional knowledge is tested by frequent examinations, the questions for which are prepared under the authority of the Education Department. At the end of his time as a pupil teacher, he passes an examination for entrance to a training college, where he has a two years' professional course, after which, if no has made fair use of his opportunities, and shown reasonable aptitude, he is supposed to be completely fitted to undertake the duties of a teacher. I do not think it possible for us to have a plan like this in Ontario ; nor, if it were possible, do I think it would be in all points desirable. We have a decided advantage in getting students who have finished most of their non-professional work before their professional training begins. They are thus en bled to learn in a shorter time their professional work. A 'wo years' course in connection with a Model School should be ample for that. I fear, however, that the meagre salaries paid to teachers, and the present state of opinion in the country, would not justify so long a course of Model School training. It might then, for the present, be limited to one year. The first part of that year should be spent in the Model School, doing work of a similar character to that at present, but less in quantity. After a short Model School term, the students should be distributed under the inspector's direction among the various schools of the district in which the Model School is situated. He would, of course, assign the students to those schools where they could best learn to teach.

In these schools under the eye of competent masters and mistresses, the students would LEARN TO TEACH, as they can only learn by teaching. And they would do so under the most favorable circumstances, having in each case a responsible person, and one who is interested in the work, to guide and assist them, and observe what they did with a friendly, though critical, eye. The work should be made as easy as possible for the student at first, for I believe with John Stuart Mill, that "It holds universally true, that the only mode of learning to do anything, is actually doing semething of the same kind under easier circumstances." The inspector should have the power to move the students from one school to another at the end of a certain time, if he thought the varied experience would benefit them. That they should not lose sight of the science while they are learning the art of teaching, they should assemble say onco a month at the Model School, to review their work and receive lectures on the subjects prescribed for their course. I have already spoken of the excessive amount of work thrown upon the Principal of the Model School. This he should be relieved of, so far at least as the lectures on education are concerned. These should be assigned to the inspector, whose wider experience in the district renders him better able to deal with the subject practically, in regard to such matters as school organization, school management, methods of discipline, and methods of teaching. As most of the students in training when they enter the Model School, have reached an age at which in many other occupations, they would be bread-winners, I think that some remuneration should be given to them during the time they are acting as assistants in the schools of the district. Pupil teachers in England are paid from the time they begin their apprenticeship. In London, for instance, boys receive salaries give the answer. And what must be the result to the pupils ? Loss ranging from one dollar and three quarters a week the first year, to

our dollars the fourth year; girls, from one dollar and a quarter the first year, to two dollars and a half the fourth year. A payment, however slight, would have the effect of reconciling them to the greater length of their apprenticeship. At the end of the year they would assemble at the Model Schoel for their professional examination; and in regard to practical tea nng, this examination should be commensurate with their extended experience. A course of training such as this would, I am sure, turn out better teachers. The longer apprenticeship would have the effect of creating a professional feeling among the students, and would wean them from the inclination so common at present to wander off into other pursuits. The presence of the students in the schools of the districi, would be a benefit to the teachers in charge of them in more ways than one.

Hitherto, the work of this Convention has been mainly devoted to matters which concerned the country at large, not to what concerned the teachers personally. In this respect, I fear we resemble these good people who attend to a great many charitable objects to the neglect of their home duties. I am glad to see that we are disposed to make an effort to remove this reproach. By the paper which Mr. Dickson is to read on, "A College of Preceptors for Ontario," you will be afforded an opportunity of discussing what position the teaching body should occupy as a factor in our school system. Up to this time, we have been little better than a rope of sand, and I am sure it would be of immense benefit not only to the teaching profession, but to the country, if some well-considered scheme for uniting the whole profession into one compact body with common aim for the good of both the profession and the public, could be carried into effect. But it will need all the visdom we have at command to inaugurate such a scheme. That this wisdom will be forthcoming our success in all well-considered efforts in the past, justifies me in expecting. In the consideration of this as well as the other subjects on the programme, let us look to that past, for guidance and encouragement, and I am sure our work will be the better for it :

> In the elder days of Art, Builders wrought with greater care, Each minuto and unseen part, For the Gods see everywhere.

Let us do our work as well, Both the unseen and the seen, Make the house where Gods may dwell, Beautiful, entire and clean.

I trust that your efforts will be crowned with abundant success, so that we shall be able to look back to the Convention of 1886, as one of the most successful ones in the annals of the Ontario Teachers' Association.

ENTRANCE LITERATURE. THE VISION OF MIRZA.

Page 63.

Grand Cairo.—This city is called in Arabic by a name which means "The Victorious Capital." It is situated in Egypt, on a sandy plain on the right bank of the Nile, and near its dolfa or branching mouths.

Oriental.—Eastern, from a Latin word which means rising. The word, therefore, properly denotes the countries towards the rising sun. It is opposed to occidental, western, or toward the setting sun.

Mirza.—This word is a contraction of Emir Zadah, "son of the prince." It is a common title of honor among the Persians.

Manuscript.-The pupil will bear in mind that this vision, or summit, allegory, is written by Addison as if translated from an Oriental hobbling.

manuscript, consequently all the religious customs and modes of thought are those of a Mohammedan.

Page 64.

On the fifth day.—The months were originally made to correspond exactly with the revolutions of the moon around the earth, by which they were measured. Thus the time of the Eastern nations was divided into moons, our lunar months.

¹After having wished myself. — The Mohammedan prayers are always preceded by purification, or washing; either the total immersion of the body as a special religious coremony, or a partial washing, which must include hands, face, ears and feet, and must be performed immediately before the prayer.

Bagdad.—This city is situated on both sides of the River Tigris. A few years ago its population was estimated at 60,000. It is a favorite residence of a certain sect of the Mohammedans.

Habit. -- The dress or costume.

Genius. —A good or eril spirit, supposed by the ancients to have charge over particular places, things, or persons.

Made himself visible:—The Genius of the place, being a spirit, wa usually supposed to be invisible, but here appears to view in the garb of a shepherd.

Page 65.

The highest pinnacle.—This is evidently suggested by cortain passages of Scripture. Can you refer to them ?

Rizes out of a thick mist.—This beautiful conception of the relation of time to the eternity which precedes, and the eternity which follows it, is set forth so clearly that the pupil by a little thought can make the picture his own. The leading features of the vision might be easily sketched on a large blackboard, and with good effect in helping the pupils both to understand and to remember. Their interest in the lesson would be greatly increased by such a representation of the tide, the bridge with its hundred arches, and the enshrouding mists at either end.

Page 66.

At first of a thousand arches.—According to the commonly received interpretation of Scripture, the length of human life before the flood bore about the same proportion to 1,000 that it now does to 100 years; that is, its average duration was about ten times greater than at present.

A black cloud.—Let the pupil exercise his reflective powers in discovering what is symbolized by the black cloud at either end of the bridge, and also by the concealed trap doors. It will be found an interesting exercise to let cach draw up a list of such doors as he may be able to think of, and label them with their respective names, as accidents, various discases, etc.

They grew thinner, etc. — This of course refers to the well-known fact that the mortality of the human family is much greater in infancy and childhood and in old age, than in middle life. But let the children think out the meaning for themselves if they can.

There are a good many long, though not very difficult, words in the lesson. It is suggested that the pupil be asked first to explain their meanings from the connection in which they stand, which is the natural method of learning the use of words. Then such exercices as the following will be of good service in fixing both forms and meanings in the memory, and as a practice in definition, which is vory useful as involving both exact thinking and correct use of language. In other words, it will be a good exercise in thinking and in expression.

I.

Define as accurately as you can the meanings of the following words, giving derivations when you can .- Manuscript, devotions, summit, melodious, raptures, prodigious, soliloguy, consummation, hobbling.

Write sentences containing each of the following words at least twice. The sentences must be such as to show that the pupil understands the meaning of the word. Where the words have two or more distinct meanings or uses, each should be illustrated :--Meditation, entertainment, contemplation, inexpressibly, impressions, transporting, apprehension, innumerable, arches, compassion, affability. III:

ÌÌ.

Give synonyms for as many of the words in the two foregoing lists as you can.

IV.

Mark carefully the pronunciation of each of the following words. A dash over a vowel indicates the long sound ; an upturned curve, the short sound; and a vortical stroke inclusing to the left, the chief accent, thus-con-tem plate. Doubtful sounds may be indicated by euphonic spelling, thus (ki-10) : - Manuscript, cision, airing, melodious, musician, subdued, soliloquies, prodigious, leisurely.

N.B. - Careful explanation by the teacher will be needed for a time, in order to teach the pupil to indicate pronunciation accurately by the written signs. Of course oral instructions and exercises should be freely used. We would suggest that the teacher take especial pains to correct the very common corruption of the sound of long u into that of oo, in such words as *subdued*.

Examination Papers Exam ned.

The circular, to which the following are replies, contained the following questions :

- (1). Were those Examination Papers, as a whole, such as to afford a fair and reasonable test of the fitn as of candidates to receive non-professional certificates and to enter the High Schools, respectively ?
- (2). If not, which of the papers were specially objectionable, and on what grounds?
- What appears to be the cause of the faults indicated, and what (3). remedy would you propose?

Yours respectfully,

Editor CANADA SCHOOL JOURNAL.

REPLIES FROM HEAD MASTERS OF MODEL AND PUBLIC SCHOOLS. Ι.

(1). They were not.

(2). Algebra for Second Class. Literature and Grammar for Second and Third Class. Chemistry for Second Class. Literature and Grammar, for High School Entrance. Only 30 per cent. of the algebra paper was capible of being answered by the average candidate. The other questions depended on some little crochet peculiar to the examiner. Mr. Seath's questions are in the right direction, but they are clothed in language not likely to be understood by one out of every five candidates who wrote either for High [School Entrance, Third or Second Class Certificates. Mr. Seath the Minister of Education, complaining of the unreasonableness of should state his questions in English, not in Seathese.

(3). The exuminers are apparently gauging the questions as to difficulty from their own standpoints, and not from that of the average candidate. The examiners do not confine themselves to the limits marked out by the Education Department In my opinion the remedy is stating the questions in language that any one can understand who has a fair knowledge of English, in avoiding technical questions, and in giving such questions either in Mathemattes, English or Science, as will test the pupil's knowledge of principles rather than his eleverness in detecting intricate points. The Professional Examination for Second Class Teachers should be made more difficult, and should be entirely taken out of the hands of the Normal School Masters, who invariably secure the passing of each candidate.

ĨT

difficult, many of the words given being beyond the circle of reading of such pupils as are fit to enter High Schools and Collegisto Institutes.

As to Teachers' Examinations, they are all right. It is about time that such obstacles should bar the entrance of illiteracy into the profession, especially into the higher grades of it. I speak from observation as Principal of a Model School,

ΤIΤ.

(1). Yes. I thought so, but there have been so many complaints, I begin to think I was mistaken in coming to this conclusion.

(2). The English papers were all pretty difficult, but I believe that is the way to raise the standard of English taught in our schools. History for Entrance Examination, assumes that the candidates have had a wider range of reading than we find in Fourth Book pupils.

(3). I think too much has been said on this question already. It is easier to find fault with a paper than to set a better one. In my opinion there ar. too many subjects in the prescribed course of both Public and High Schools.

(1). No ! (2). Second Class, Algebra; Second and Third Class, Grammar; Entrance, Orthoëpy, Orthography, History, Grammar and Drawing.

IV.

Second Class-Algebra.-Lack of time, and especially the giving of solated examples requiring special methods, no general. Grammar. -- Questions totally unlike previous on. *, and requiring

a nore critical knowledge of the subject than can be obtained from tub authorized text book.

Entrance.-Orthospy and Orthography too difficult in proportion to Th rd and Second Class History. For same reason Drawing.

(3). The causes are an inadequate knowledge of the status of our Public Schools. The High School pupils who become teachers, have too many subjects to pass examination in, and cannot become thorough in a short time.

The Remedy is to lesson the number of subjects for Third Class. For Sec and Class, lot the candidate pass on the additional subjects only, except perhaps Arithmetic. I would follow the plan as partly adopted now in case of First Class, when Arithmetic is dropped, for example.

I would make a fee of \$1.00 compulso; y on Entrance pupils, and thus do away with a number who come up on speculation.

V.

The papers set at the late Entrance Examination were all difficult, none of them specially so. Candidates properly prepared would not fail. The questions were of such a nature that correct methods of teaching only would insure success.

VI.

The following communication received from a Public School Master, was written we infer, before our circular had been received :

'After the December Entrance Examination, 1885, I wrote to Mr. Seath's papers, especially of the History paper. I complained not so much of the hardness of the questions, as of the obscure, ambiguous way in which they were put.

After the last Entrance Examination, I wrote again as follows : 'If Mr. Seath wishes to crush our High Schools, he is taking the most effectual method to accomplish his purpose. It is absurd to expect Fourth Class pupils to make a reasonable percentage on such papers as he sets. These Grammar and History papers require a inaturity of judgment which pupils between twelve and fourteen years of age do not possess. His paper on Orthography is more difficult than those set on the same subject for Second and Third Class teachers. Giving lists of isolated words for spelling is now under the ban of modern teaching. Our best authorities among whom I may name J. G. Fitch, condenn it. Yet we have Mr. Seath giving a list of fifteen isolated words of far more difficult orthograph; than any fifteen connected words which can be picked out of the Second or Third Class papers. Is this fair? I for one feel up to the second or third Class papers. (1). As to Entrance Examination, with the exception of the paper feel it, o be an injustice, and, whether heard or not, do most respect-n Spelling, I consider it a fair test. The Spelling paper was too fully protest against it."

VIL

(1). Entrancé papers as a whole, were not "such as to afford a fair test of a candinate's fitness for the High School."

(2). Grammar paper objectionable owing to the want of clear-ness in the questions. Pupils were not able to see what was wanted. They know the work and could have answered every question 'ad they been asked in a straightforward manner.

Orthoepy paper contained words that no child whose knowledge of the subject was not complete could be expected to answer. The words to an Entrance pupil were ten times as difficult as were those of the non-professional papers to candidates who were writing. Some of the words, as it was, were harder to pronounce than some on the non-professional papers. Orthography paper did not allow any margin to a pupil who might

be excellent in all other subjects, but weak in spelling, and consequently had to fail.

VIII.

The Examination Papers as a whole, I do not regard too difficult, Two or three of the questions on the Second Class Algebra might be regarded as too difficult.

1. No. 2. (a) The paper on Grammar was objectionable, because (1) the phraseology of the questions was such that pupils did not clearly understand what was asked, and (2) some of the questions were too difficult.

IX.

(b). The paper on Drawing was objectionable, because (1) the questions were too difficult, and (2) the amount of work was too great for the time.

(c). The paper on Orthography was objectionable, because (1) many of the words were uncommon and difficult; (2) too many isolated words wore given; (3) the examiner assumed that teachers should have taught all the lessons in the Fourth Reader during six months-an impossibility; and (4) nothing was asked from the authorized Spelling Book, which means, I suppose, that henceforth it will not be used in Public Schools.

(d). The paper on History was objectionable, because (1) the answers to some of the questions are not to be found in our authorized text-book ; (2) the questions were too few and not varied enough; (3) the phraseology of the questions was puzzling to many candidates.

3. Lack of judgment on the part of the examiner, seems to be the cause of the faults I have mentioned. The remedies I propose are (1) let the examiner be one who is familiar with Public School pupils and Public School work; (2) let no question be asked out-side of the authorized text-book; (3) let a greater variety of questions be asked requiring short answers; (4) let a text-book on Grammar suitable for Public Schools, be published at once.

X.

While writing, I take the opportunity of expressing my opinion of the Examination Papers. The matter is not a personal grievance with me, as my pupils succeeded in passing the Entrance Examination, one being second on the list ; but I can easily see many points

in the papers which render them unsuitable. The especial bugbear in the Public School work is the History. Teachers are required 'to teach the outlines of History," but when the papers are sent out, the pupils must "describe the character," "mention things wrong in the conduct and give reasons," and otherwise demonstrate their knowledge of the inner principles which govern the sequences of bioterm. of history.

The trouble with the examiners is simply that they are used to a university, and cannot realize that they were once children, and "understood as a child," and so the wording of the questions is suited to a college graduate. The question itself is easy enough, but the general misty grandeur of its phraselogy awes the child, and it thinks it does not know, and so fails to obtain a pass.

XI.

I consider the papers set in History, Grammar, and the list of words appended to the passage chosen for Dictation, far too difficult. The words referred to are "catchy," and no fair test of the ability intellectual training before passing candidates into the High

which would do credit to the average High School pupil in the second year. The passages chosen for analysis demand the literary attainments of a Third Class Teacher.

The Entrance Examination is not too difficult if it is held only once a year.

One term is too short to prepare the candidates for such papers as we had at last examination.

XIII.

Your circular of July 28th, came to hand on August 28th. In

reply i beg leave to state. 1. They were not. 2. The Entrance History, Grammar, Orthography and Orthoöpy. The questions in the first two were not given in language simple enough for young children.

The Third Class Grammar, Literature and Composition. The Second Class Grammar, Literature, Composition and Algebra.

3. Examiners seem to be aiming too high for the capabilities of the candidates... For a remedy I would suggest a change of examiners. 1. 1. 1. 1

··XIV. As I am not directly interested in the examinations for teachers, I shall answer your questions with regard to the Entrance Examination only.

1. With some exceptions, yes:

2. The paper on Orthography and Orthoepy. The words for spelling were too difficult. Entrance candidates could scarcely be expected to be familiar with many of the words given in that list.

Some of the questions set on the Grammar and the History papers were beyond the comprehension of an ordinary Fourth Class pupil.

In justice to the examiner, however, I will say that the questions on the latter subjects were suggestive of excellent teaching ; also at the late examination, I had no candidate fail whom I considered well prepared for the High Schools.

3. (a) An attempt on the part of the examiner to be original. (b). Have the examiner become better acquainted with the capacity of ordinary Public School pupils. This might be done, perhaps, by inducing him to teach a Public School for a term.

XV.

I have given the Examination Papers set for Second and Third Class Teachers a fair perusal, and must say that I do not regard them as a whole worthy the censure they have received.

Pupils well trained on the work that must be done in all our High Schools, should do enough of those in Grammar and Algebra to make the required percentages. It is the same old cry handed down from year to year.

XVI.

In my opinion the Examination Papers at recent Entrance Examination, were, as a whole, very unfair. No fault can be found with the papers prepared by Mr. Hodgson, but those bearing the name o. "John Scath, B.A.," deserve all the adverse criticism they have received. I do not consider the questions in all cases too difficult, though they are in many cases; but the phraseology employed is far beyond the comprehension of children so young as Entrance candidates.

While I object to all of Mr. Seath's papers, I consider three of them absurd-History, Grammar, Orthography and Orthoepy. A child might have a fair knowledge of the leading events

of British History, and yet not be able to give a complete answer to any one of the seven puzzles on the History paper. I do not think there is one fair number on the Grammar paper. No. 7 is practical, but the distinctions are too fine for young children. The paper would be fair for Third-Class teachers.

More difficult lists of words than those on the Orthography and Orthoëpy papers, could not easily be selected. Were all the difficult words given Second and Third-Class candidates for spelling or pronunciation selected, the list would not be so unfair as the one set for Entrance candidates.

Now, however desirable it may be to obtain a high standard of of even more advanced students than Entrance candidates. The Schools, it is very injudicious to exact from them thought and History and Grammar papers demand powers of generalization reason beyond their years.

2

The average pupil should enter the High School at thirteen years of age, and the papers should be set for children of that age. If Mr. Seath cunnot deal with children, as children, let him set no more papers. The wholesale plucking of Entranco candidates is as ruinous to High Schools, as it is discouraging to Public Schools. Out of 104 from this county who wrote at the recent Entrance Examination, only 19 secured half the number of marks, and some of those failed on individual subjects. There are two High Schools in the county besides the Hamilton Collegiate Institute.

If the Central Committee does, its duty, such papers will not appear again.

Examination Papers.

DRAWING PAPERS.

BY W. BURNS,

South Kensington Certificated Art Teacher.

The questions given will be arranged thus : 1 and 2, Freehand pencil; 3 and 4, Model-these can also be done by the student in crayon on coarse paper, to a larger scale; 5 and 6, Geometrical Drawing; 7 and 8, Perspective. In every case it is requested that the whole working be shown, and the answers luned in more heavily. As the object more especially to be attained is to prepare students for examination work, the papers should be worked as would be done at an examination, except in the matter of using books of reference. No verbal explanations are requisite. Should any student desire to take up only one or two branches, the arrangement of questions as above will allow of such selection. Students will also remember that such selection is allowed them at the examination, it not being compulsory to sit for all five branches at one time. We annex the first paper of simple questions, in order that those working them may show their neatness and accuracy of work. The answers to these are to be sent to Mr. William, Burns, Box 326, Brampton, and if the fee for examination of the answers for the course of ten papers (\$1.00) is enclosed, the papers will be mailed, when corrected and noted, to the student's own address, which should be annexed to each set of answers.

1. Draw square of 4-in. side ; divide it into four equal squares by its diameters ; within each smaller square inscribe the largest pos-sible octagon ; join opposite points of each octagon, forming crosses.

2. Draw square of 4-in. side ; draw its diagonals and diameters ; join end points of the diameters by lines curved towards centre of square. On the diagonals make a quatrefoil; then draw parallel curves at $\frac{1}{2}$ inch within these. Form an interlacing pattern. 3. Draw picture of two books lying on the table before you and

to your right, placing them so that you see the back and one end of each.

Lower book, 4 in. by 2 in.

Upper book, 2 in. by 1 in. 4. Draw picture of ordinary breakfast cup, showing handle. Height, 3 in.; top diameter, 3 in.; bottom diameter, 1 in.

5. On base of 2 inches construct two regular pentagons, one above and one below-use different methods.

6. Draw a triangle whose sides are $1\frac{1}{2}$ in., 1 in., $\frac{3}{2}$ in., and inscribe a similar one in a circle of 3 in. diameter. Within this triangle inscribe a circle. Also draw two taugents to the outer circle from any point $\frac{1}{2}$ in. from the circumference.

7. Give view in parallel perspective of a block 1 ft. high, 1 ft. broad, $\frac{1}{2}$ ft. thick, with another block one-half the size, standing upon the former, and situated centrally.

8. Give view of a plinth 2 ft. by 1 ft. by $\frac{1}{2}$ ft., surmounted at centre by a square column of $\frac{1}{2}$ ft. square side, and 2 ft. in height. One foot within the picture plane.

Dimensions for 7 and 8 : Scale, 12. Height of eye, 3 feet. Distance of spectator, 8 feet. Objects to right of spectator, 2 feet.

EDUCATION DEPARTMENT, ONTARIO.-MID-SUMMER EXAMINATIONS, 1886.

THIRD CLASS TEACHERS.

ENGLISH LITERATURE-COLERIDGE.

Examiner-John Seath, B.A.

1. Designate by appropriate titles the chief word-pictures in the Ancient Mariner, following the order in the poem. (Value. 8).

Her beams bemocked the sultry main, Like April hoar-frost spread ; But where the ship's huge shadow lay, The charmed water burnt alway A still and awful red.

Beyond the shadow of the ship I watched the water-snakes ; They moved in tracks of shining white, And when they reared, the elfish light Fell off in hoary flakes.

Within the madow of the ship, I watched their rich attice Blue, glossy green, and volvet black, They coiled and swam ; and every track

Was a flash of golden fire.

O, happy living things ! no, tongue Their beauty might declare ; A spring of love gushed from my heart, And I blessed them unaware : Sure my kind saint took pity on me, And I blessed them unaware.

[a] Develop fully the force of the following: "bemocked the suitry main, like April hear-frost spread," "The charmed water burnt alway a still and awful red," "the elfish light fell of in heary flakes," "A spring of love gushed." ($Value, 3 \times 4=12$).

[b] Account for the difference between the coloring of the word-

cture in ll. 6-10 and that in 11-15, (Value, 3). [c] Explain the relation of ll. 16-21 to the development of the plot of the poem. (Value, 3).

[d] Quote the word-picture that forms the contrast to that pre-sented above; and, by means of the above extract, illustrate Colo-ridge's statement: "We in ourselves rejoice." (Value, 5+5).

3.	Around, around, flew each sweet sound, Then darted to the Sun ; Slowly the sounds came back again, Now mixed, now one by one.
	Sometimes a dropping from the sky I heard the sky-lark sing; Sometimes all little birds that are, How they seemed to fill the sea and air With their sweet jargoning! And now 'twas like all instruments, Now like a lonely flute; And now it is ar angel's song, That makes the heavens be mute.
•	It ceased ; yet still the sails made on A pleasant noise till noon, A noise like that of a hidden brook In the leafy month of June, That to the sleeping woods all night

Singeth a quiet tune.

[a] What are we to understand by the motions described in II. 1.4 7

4 ? (Value, 3). [b] Contrast the language of 1. 1 and of 1. 3, and show how 1. 4 is

related to what follows. (Value, 4×2). [c] Ll. 5-9 are intended to describe what the sounds were like: [c] In. 0-5 are intended to describe what the sounds were like: account for the "ay in which the poet accomplished his purpose: account also for the tense-form of "is," l. 12. With what are "a-dropping" and "all little birds" connected in sense? What explanation does the poet himself give of "their sweet jargon-ing?" (Value, $3 \times 5 = 15$).

ing?" (Value, $3 \times 5 = 15$). (d) Explain the exact meaning of "heavens" and "mute," l. 13. (Value, 3×3).

[e] Develop the significance of the comparison in ll. 16-19, as expressed by "hidden," "In...June," and "That...tune"; com-menting on the sound of the words in ll. 14-19. (Value, 8).

(f) How does the context of the poem emphasize the beauty of the above extract? (Value, 3).

The Sensual and the Dark rebel in vain,

4.

Slaves by their own compulsion ! In mad game

They burst their manacles and wear the name

Of Freedom, graven on a heavier chain ! O Liberty ! with profitless endeavor

Have I pursued thee, many a weary hour ;

But thou nor swell'st the victor's strain, nor over Did'st breathe thy soul in forms of human power. Alike from all, howo'er they praise thee, (Nor prayer, nor boastf al name delays thee) Alike from Priestcraft's harpy minions; And facetions Blasphemy's obscener slaves, Thoa speedest on thy subtle pintons, The guide of homeless wraus, and playmates of the waves ! And there I felt thee !- on that sea-cliff's verge, Whose pines, scarce travelled by the breeze above, Had made one murmur with the distant surge ! Yes, while I stood and gazed, my temples bare, And shot my being through earth, sea and air,

Possessing all things with intensest love, O Liberty 1 my spirit felt thee there.

[a] Give briefly, without the poet's amplification, the meaning of this passage, and show its relation to the rest of the ode to which it belongs. (Value, 10).

[b] Explain the biographical and historical references, so far as is necessary for the comprehension of the author's meaning. (Value, 8).

[c] Give the force of "bo istful name," "harpy," "subtle," "that," l. 15, and "Yes." (*Value*, $2 \times 5 = 10$).

[d] By paraphrasing, explain the meaning of "But thou. power," 11. 7 and 8; and "And shot...love," 11. 19 and 20. (Value, 3 × 2=6).

[e] Distinguish the meaning of "servants," "slaves," and "minions"; "verge" and "edge"; and "surge" and "foam." (Value, 2+3=6).

[f] Show that the ode is a proper vehicle for such thoughts and feelings as an expressed above. (*Value*, 3).

Practical.

HOW TO PREVENT SAUCINESS.

In your issue of August 15th you asked teachers for the methods which they have successfully used to put down "the sauciness, the answering back, the defient look, &c.," which give such trouble to many of such rates and had at first much trouble with them, and have for some time been able to "fix off" each to my own satisfac-

tion, at least, I will give you some straggling ideas on my method. When, long ago, I found myself unable to copp satisfactorily with these difficulties, I began to look about for "handles." I saw what powerful ones fashion, prejudi e and habit were, and I resolved to use them. By a constant lookout for "wrinkles" in educational books and papers, by diligent study of each pupil's nature, circumstances and requirements, and by practice and self-inspection, I have been able to set up fashion in my school as a fetich before which all now willingly bow. I have been able in the same way to give laziness, disorder, thoughtlessness, sulks, irroyerence, talkativeness, and wras gling, such associations in the minds of most of them that they are by no means the nice things they used to be; and I flatter myself that I have done this in such a way that time and experience must deepen the impression. I found it of the highest importance, for all this, to be on "good terms" with the smartest and best bred of my pupils; at least to interest them, to make them laugh, to sympathize with them, and to have them sympathize with me. There are, however, some "toughs" who are not movable by any motive, however skilfully applied, but the inspired one (the rod). I have lately had such a one. Na-ture gave him the spirit of irreverence and wrangling, and the training of his ill conducted and wrange here a wrangling. training of his ill-conducted and vulgar home made it " most strong training of his ill-conducted and vulgar nome made it "most strong in him." I let him have his way until I though the must have felt guilty, tough as he was. I then brought him sharply to task. I had to beat him rather severely and perseveringly to stop the an-swering back and sulking. But once broken, the good example of the rest forced him along all right. To make beating successful, it must be used only as a last resort, but then promptly and suffici-ently, and accompanied by a something which the pupil reads in the even and manuers of the teacher : and which flows from consciouseyes and minners of the teacher; and which flows from conscious-ness of ability to conquer. This is far more powerful to subdue than the pain, and the thing which young teachers should study to arm thomselves with.

I am, sir, your obedient servant,

Bavers Cove, C. B., Sept. 6th, 1886.

J. D. McKINNON.

TO DETERMINE THE GREATEST COMMON DIVISOR OF NUMBERS BY INSPECTION.

BY RENRY A. JONES.

In nearly all of our schools it has been necessary for scholars, in determining the Greatest Common Measure, or Divisor of Numbers, to make the work a written exercise. By the application of the following tests, or principles, it can either wholly or at least in great part, be made a mental operation.

It is required to find the greatest common divisor of 12 and 13. The G. C. M. of any two numbers cannot be greater than the smaller number. Therefore the G. C. M. of these numbers can-not be greater than 12. It is likewise evident that it cannot be greater than the difference between the two. Therefore it cannot be greater, than 6; and as each number can be divided by 6, it is their G. C. M.

. If to the above numbers any other number be attached, as, for instance, 15, and the G. C. M. of the three numbers be desired, use the following tests, or principles : The G. C. M. of several numbers can not be greater than the number which is least in value. It likowise can not be greater (this is the important test) than the difference between the two which are the nearest to each other in value. Therefore the G. C. M of 12, 15 and 18, can not be greater than

three, and as each number can be divided by 3, it is their G. C. M.

If to 12, 15 and 18, the number 20 be attached, and the G. C. M. of the four numbers be desired, it is evident from, the application of the foregoing test that it can not be greater than two, but as one of the numbers is an odd number, and as an odd number can not be aivided by an even number, the G. C. M. of these numbers must be 1.

Is can be readily seen that the application of the above principles becomes easier in proportion to the number of numbers whose G. C. M. is to be determined, hence their great value.

It is required to determine the G. C. M. of 740, 333, 296. It can not be greater than 37, which is the difference between 333 and 296. Thirty-seven is a prime number, hence the fact is determined that if these numbers have a common divisor, it must be either 37 or 1, and as each number can be divided by 37, it is their G. C. M. It is obvious that the same reasoning could be applied to any other prime number which is in a similar manner found. Any quantity of examples in illustration of the above principles might be cited, but it is believed that enough have been given to show their value.

The use to which the G. C. M. is commonly applied is in the roduction of difficult fractions to their lowest terms. This operation should not be made, as is sometimes the case, a trial process. The thought in this, as well as in any other mathematical operation, should go DIRECTLY to the point desired. It is required to reduce 323-857 to its lowest terms. The differ-

ence between the two terms is 34. Thirty-iour is an even number, and can not be a divisor of 323, which is an odd number. Therefore the G. C. M. must be a factor or divisor of 34, which is an odd number, and such factor is 17. Seventeen is a prime number; therefore the fact is now determined that 17, and only 17, must be the divisor of the terms, or else they are prime to each other, 323 divided by 17 equals 19. At this point the scholar should be taught that it is unnecessary to divide 357 to determine the other term of the reduced fraction, for this term will be the sum of 19 and 2. which is 21. The reason should here be given that the sum of the quotients arising from the divisions of all the parts of a number by the same divisor, is the same as the quotient arising from a division of the entire number.

It is required to reduce to lowest terms 529-667; 667-529 equals 138. Exclude from 138 the factor 6, and the factor 23 remains. Twenty-three is a prime number; 529 divided by 23, equals 23. The remaining term divided by 28 must contain it 13 plus 6 times, or otherwise 29 times.

It may be asked why the factor six be expunged from 138. As one term is odd, and in this particular fraction both of the terms are odd, the factor two must be expunged. By the application of a well-known test the factor 3, which is contained in 138, is not a factor of 529, and as 138 can be divided by both 2 and 3, it can be divided by their product, 6.

It is required to reduce to lowest terms 649.1357. 1357-649= 708, which contains the factors 4 and 3, and these are not con-tained in 649. Therefore exclude from 708 the factor 12, and the factor 59 remains, which is a prime number. 649 divided by 59 equals 11. Fifty-nine next be contained in 1357 twelve more times, or 23 times. The reduced fraction is 11-23. It is required to re-

duce to lowest terms any fraction, one of whose terms is an odd number and the other an even number; as for instance 96-147. Exclude from the term which is an even number the highest power of fico, which is one of its factors, for such power is not a factor of any odd number. In the above instance it can thus be clearly seen that the G. C. M. can not exceed 3 The great advantage gained from the methods must be apparent to any teacher.

The knowledge of the G. C. M can be applied to the solutions of many classes of problems, which arithmeticians, so far as the writer has observed, have solved by means of lengthy processes of an-1 alytical induction. When the G. C. M. is applied to such problems, i the solution, in many cases, can not only be made mental, but nearly instantaneous operations by the boy or girl of average ability.

The citation and illustration of such problems may here fter appear in these columns. - Teachers' Institute.

Educational Notes and Acws.

The funds of Yale College have been increased \$162,000 in five years.

Mr. J. R. Street, B.A., his been engaged at Walkertown High School as modern language:teacher.

An official of the Turkish Ministry of Education is about to publish a translation of the Homeric puchta-

A gymnasium is being added to the Ingersoll Collegiate Institute, and an addition is boing mide to the Central School building. .

C. W. Harrison, late teacher of Science in Hamilton Ladies' College, has been appointed Head Master of Dannville High School.

Brussels University was almost destroyed by fire this summer. Valuable memorials and books were burned. The loss is about \$200.000.

It is stated that Professor Park has completed tifty years at Andover, and Professor Mark Hopkins completed lifty years at Williams College.

The German-Government his offered a bonus of \$1,000 to any teacher who will open a school at the Comercons, for the instruction of the natives;

The first volume or Barns's Poems was issued from the Press at Kilmarnock in 1786, and the interesting event was celebrated at that town on Saturday, August 7th.

The County Model Schools open on Tuesday, the 14th of September, at 9 a.m. For admission candidates must hold a first, second or third non-professional certificate, and be, if a female, 17 years of ago ; if a male, 18 years.

An archeological discovery just made at Athens. Greece, is exciting much interest. A number of columns, in a state of perfect preservation have been unearthed on the acropolis. They belong to

A gentleman once wrote to Mr Whittier, asking if he possessed a copy of the prem called "Maud Muller's Reply" "Dear sir," answered the poet, "I never saw or heard of 'Maud Muller's Reply' I am glad the poor soul could speak for herself. Thue truly, John G. Whittier."

An exchange gives the following recipe for hard finish for a blackboard :- 4 pecks of white mush, 4 pecks good sharp sand, History were unfair and objectionable, not only on account of their 4 pecks ground plaster, 4 pounds of lamp-black, 4 gallons good difficulty, but also because in some cases the questions were put in whisky or alcohol. Pat on only a small quantity at a time. This will be sufficient for twenty square yards of surface.

At one of the recent school examinations the scholars of the intermediate grade were required in physiology to locate the liver. Evidently they knew. for the answer of one girl was this :-" The liver is situated south of the stomich and a little to the right of it." The question is, ought she to be marked down on it? - Boston Record.

A writer in the Globe suggests that the names of the examiners be left off examination papers in future, on the ground that the examiner "is not personally responsible for the paper," and it " mercly serves as a cheap advertisement.

carriage out in front of Sayles' Meinorial Hall, wound cotton soaked in oil, tar, and turpentine all about it, and set fire to the vehicle. A dance, accompanied by music from fish-horns, was held about the honors have been opened to women. In the pass list of the sumfire until the chaise was in ashes. - Boston Journal.

Probably the largest literary prize ever offered is \$1,000,000 to be given in 1925 by the Russian National Academy for the best work on the life and reign of Alexander I. In 1825, shortly after the death of Alexander I., the sum of 50,000 roubles was offered by one of his favorito Ministers to be given as a prize a century after his death, and it is this sum at compound interest which will amount in 1925 to \$1,000,000.

Dr. Houler, the German scholar who discovered the Sallust fragments last winter in the National Library at Paris, is only 27 years old He was sent to Paris by a learned society of Vienna to collate some Latin MSS, there, and found that one of the palimpsests contained some decipherable writing beneath that which he was reading. By the aid of powerful lenses and endless patience-working often fourteen hours a day-he made out successfully many of the lost pages of the old Roman's history.

The Chinese youth who came to this country a few years ago, under the Yung Wing commission, to be educated, begin to be heard from. Lew Yuk Lin has recently arrived in New York as the Chinese vice-consul there, and Liang Pi Yuk is chief interpreter and translator to the Chinese Legation at Washington. Of the nine others who studied with them at Phillips Academy, Andover, one was drowned in the China Sea in the service of the Chinese Navy, one was killed in the French attack on Tonquin, one is a physician in the Imperial Hospital at Pekin, two are officers on the new ironclad bought of Gorminy by the Chinese Government, while another has just graduated from Columbia Law School, New York .- N. Y. Independent.

Since gaining her independence Greece has made remurkable progress in education. During the time of the supremacy of the Tucks, there was neither a Public School nor a printing press in the land. B fore the year 1821 the books were published in Amster-dim and L indon. Ten years after the war of liberation there were 252 Public Schools with 22,000 pupils in Greece. Thirty years after that there were 71,561 pupils in the Public Schools, 10,650 in private schools, 40,405 in so called middle schools and 1,500 students in the University at Athens. The libraries of Athens now contain 150,000 volumes, and about 200 periodicals appear in the country. -N. Y. Independent.

The results of the recent examinations have proved, in many cases, must unsatisfactory. Many of the best pupies of which the Collegiate institutes and High Schools can boast, have been plucked, whilst on the other hand the most indifferent, and in many cases, the least deserving havo been successful. Examinations that produce such results can never be satisfactory. Apparently, the papers in several subjects were set aside, and the examiners given the task of guessing what a candidate might do if he were given a fair trial. The examination was somewhat like trying to discover which of two boys was the stronger, by giving them a weight to lift which neither could move. You are just as likely to guess wrong as right in such a case. Taking many of those who were successful as our standard, we can mention as many more rejected candidates who would have

" I. That the papers in Orthography, Orthoepy, Grammar and such a way that many of the candidates failed to comprehend them:

"II. That the effect of giving such papers is to discourage teachers and pupils, and to exclude from the High Schools many candidates who are auxious to attend them, and who by their age, attainments and other circumstances, would be likely to profit by the training they afford.

"III. That the result will be to injure the High Schools, by unduly limiting the number of pupils attending them, and by making them unpopular with the community at large.

Yhen, recently, the list of successful candidates at the Cambridge Mathematical Tripos examination was published, it was alleged that the ladics of Girton and Newnham had not very highly distinguished themselves. But, whatever may be true of Cambridge, in the A mob of Brown University students stole into President themselves. But, whatever may be true of Cambridge, in the Robinson's barn, the other night, at Providence, dragged his family London University the ladies are establishing themselves very succossfully indeed; and possibly this fact is to be attributed to the completeness with which the London examinations, degrees and mer matriculation examination just published, though the numbers

of male candidates shows a slight decline, that of female candidates exhibits considerable increase. Last year the ladies were 106 out of 616—a little more than a sixth. This year they number 130 out of 591—considerably more than a fifth. If this rate of progress is continued, it cannot be very long before the number of male candidates is equalled. Ferhaps, indeed, it may be greatly surpassed when the Royal, College at Eghan gets into full working order, for Mr. Holloway's idea of a complete degree giving univer sity is not likely to be realized for a good while to come. It may be doubted, indeed, whether the ladies would desire such realization.-Pall Mall Budget.

Mr. J. Russell Endean, of the National Liberal Club, Eugland, sends to the Lendon Times the following figures showing the s_laries paid to teachers by the London School Board. Cauadian teachers may be interested in the comparison. We give the figures as we find them in pounds stg. They are for the year ending September, 1885 :-From £100 to £150 per annum, 95 head-teachers.

"	150 "	200	41	343	**
"	200 *	250	**	294	
41	250 "	300 ·	44	169	44
"	300 "	350	٤.	110	44
ş6	350 "	400	"	28	**
"	400 "	450	**	ō	66
"	450 **	500	**	1	66

Embraced in the foregoing it may not be amiss to state that to head-teachers occupied in amusing and striving to teach children in infants' schools between the ages of three and seven years the Board paid in salaries :-

From £100 to £150 per annum, 47 infants' school head-teachers.

	100						••	••	
65	200 **	250	42	"	107	"	61	64	
"	250 **	800	"	"	24	**	**	**	

In no case does the salary of an assistant-teacher exceed 200% a year.

A comparison of the statistics of the English schools in the year 1870 with those of 1885 gives these results :-

No. of Vol. Schools in 187	0 ==	8;281.;	in 188	õ ==	14,000
" Departments "	=	12,061	" "	¥	29,726
Accommodation "	=1	878,584;	44	Ξ	3,398,000
Average attendance		,152,389;	• 6		2,183,870
	10	1 1			2.11

A similar table relating to Board Schoole gives results as follows :

No. of Schools in 1	874	=	826,	ın	1885	==	4,295
" Departments	"		1,289;		44	=	7,630
Accommodation	#	=2	45,508;		"	=	1,600,718
Average attendance	• 6	=1	38,293;		"	=	1,187,155

In an address before the British Methodist Conference, Dr. Sutherland, of Ontario, gave the following statistics. The record is a good one :- "In the work of higher education we have been doing our share. The Methodist Church established the first Uni-versity in the Province of Ontario, an institution which conferred her forthcoming biography of the late Principal Tulloch. Although the first degree in arts bestowed in that province, and for more than forty years has been doing grand zervice. At the present time we have two colleges with university powers, four collegiate insti-tutes, three theological schools, and four colleges for women. On buildings and equipment we have expended nearly half a million of dollars, and have in permanent endowments some \$300,000 more. From the two universities we have sent out some 2,000 graduates in the various faculties of arts, law, medicine, and divinity, and we have over 2,000 atudents enrolled in the various institutions under our care.

Question Drawer.

"Subscriber " sends the following. Will some one furnish solution ?

Will you please to publish the following examples for some of the subscribers to THE JOURNAL to work. I would like to see them worked in a plain and casy manner for pupils to understand :-

L John spent \$80 less than 3 of his money at one time, and at another, \$40 more than 3 of the remainder, and now has \$40 left. How much had he at first?

II. If 7 men and 6 women can do a piece of work in 23 days, and 3 men and 8 boys can do it in 313 days, in what time can 1 man and 1 boy do it ?

III. A man invested \$300 more than 2 of his money in a house, and \$600 more than \$ of the remainder in a lot, and had now \$900 left. How much was he worth?

IV. A merchant overy year gains 25% on his capital, of which he spends £1,200 per annum in house and other expenses. At the end of 4 years he finds himself in possession of four times as much as he had at commencing business. What was his original captal?

V. Will you explain why, in working the following question, we have to multiply by 1000? The French metre is 39 371 inches in length. Express the length of 25 metres as a fraction of an English mile, there being 5,280 feet in a mile, and 12 loches in a foot. I have seen the work given as follows :--

$$\frac{25+39\cdot371}{12+5280} = \frac{1000+39\cdot371}{40+12+5280} = \frac{39\cdot271}{2536000}$$

Now, where Please publish the solution of all the examples given in this note, and oblige.

Literary Chit-Chat.

Over 50,000 copies of Mr. Wm. Blaikie's "How to Ge Strong" have been sold by the Harpers.

Joaquin Miller is to take charge of the Golden Era, a magazine published at San Francisco.

E. P. Roe's tall novel, "He Fell in Love with His Wife," is to appear simultaneously in England, the United States, and Canada.

A large volume comprising all the methods of church and Sundayschool work which have proven valuable in the experience of pastors. is to be published by Funk & Wagnalls.

"The Wellspring," published by the Congregational Publishing Society of Boston, offers four prizes for short articles and stories for children. Particulars may be learned by addressing the editor.

Mr. S. S. Cox, the American Minister to Turkey, has written for the September "Wide Awake," an article entitled "L'enfant Terrible Turk." It is richly illustrated with Turkish photographs.

Harper & Brothers are about to publish in book form the charm-ing story for the young, entitled "Jo's Opportunity," which has been running in their excellent jurenile Magazine, "Harper's Young People.'

The large sum of \$2,075 was paid the other day in England for a copy of the sermon preached by John Knox three hundred and twenty-one years ago this month, "For the whiche he was inhibite preaching for a season."

Gine & Company, Boston, have decided to publish a journal of animal morphology. Only original arcicles, which deal thoroughly with the subect in hand will be admitted to its pages. The first number will be issued early in 1887.

she has not yet commenced the purely narrative portion, the work will be issued in December by the Messrs. Blackwood.

Four years ago Shosuke Sato, a Japanese student, came to the United States entirely ignorant of English. He is now Dr. Sato and has written a book on the land question which is said to prove him a master both of the English language and of American politics.

D. C. Heath & Co. announce, for October, a book on Manua, Training by Professor C. M. Woodward, of Washington University St. Louis, than whom no man is better qualified to define and expound manual education. He was the founder of the first Manual Training School, strictly so-called, and he shares with Professor J. D. Runkle, of Boston, the honor of first advocating practical methods of tool instruction as an element in American education.

It is somewhat difficult to realize that Professor Leopold von Ranke, whose death in Germany recently occurred, is the writer whose histories of the Popes of Rome and of the princes and people of southern Europe were standard works more than half a century ago. But it is a fact that this venerable scholar has continued his labors down to the present time, multiplying his historical volumes almost indefinitely; even laboring to the last moments at a compre-hensive history of the world.-N.Y. School Journal.

A copy of the first edition of the Bible in the English language, translated by Miles Coverdale, and issued in 1535, was, says an ox-

change, sold in London the other day. It is so excessively rare that no perfect copy is known to exist, and the one under notice had the title and first few leaves supplied in fac-simile, as also was the map. With all these disadvantages, to which was added the one of being a "grubby" copy, it fotched £120.

The Inter-State Publishing Company, of Chicago and Boston, have issued a new edition of "The Supplemental Dictionary," by Right Rev. Samuel Fallows, D.D. It is claimed that this dictionby ary contains nearly 35,000 words, phrases, and new definitions of old words, not found in the latest editions of Webster's or Worcester's Unabridged. It is uniform in size and style with Webster's Unabridged, and contains 530 pages.

There was recently offered for sale in London, a copy of James Granger's "Biographical History of England," issued in three volumes in 1824, and extended to nineteen volumes. The additions comprise upward of 4,500 portraits, views, drawings and autographs. Among them is a verse by Robert Burns addressed to Syme, accompanying a present of a dozen of porter, which reads as follows :

"O had the malt thy strength of mind,

Or hops the flavor of thy wit; 'Twere Drink for first of Human Kind,

A gift that e'en for Syme were fit.

-Jerusalem Tavern, Monday evening [179'].

D. C. Heath & Co., of Boston, announce for September, An Introduction to the Study of Robert Browning's Poetry, by Huram Corson, M.A., LL.D., Professor of Rhetoric and Eaglish Literature in the Cornell University. The work will include, with additions, the papers on "The Idea of Personality, as embodied in Browning's Poetry," and on "Art as an intermediate agency of Personality," which Prof. Cor.on read before the Browning Society, in London, and which received high commendation from the poet. Several pages will be devoted to Browning's favorite art-form, the Dramatic Monologue, and to the chara teristics of his diction, especially those which sometimes occasion obscarity, if the reader is not familiar with them. In addition to the selections from his works, with explanatory notes, the editor will present excgeses of a number of peems, without the texts : also a bibliography of Browning Criticism.

Literary Reviews.

PAUCULA: A few Simple Jatin Syntax Rules for Lower and Middle Forms. By H. Awdry, M.A. Assistant Master at Wellington College. (Ricingtons, Waterloo Place, London.) A very useful little primer for tyros in their struggle with the intrica-cies and crookednesses of Latin construction.

FIRST NATURAL HISTORY READER, by the Rev. J. G. Wood, M.A. Thi FIRST NATURAL HISTORY READER, by the Rev. J. G. Wood, M. A. Th⁵ is a charming little book for the little ones who are just beginning to read. The words are nearly all of one sy liable, the type and illustrations are beau titully clear, and the matter is simple and well adapted to the child-mind. Children are sure to read it with delight, and when they have read it through they will know more about the structure and habits of the cat, the dog, the pig, the sheep, the goat, etc., than many of their parents and grown-up friends. We scarcely know which most to commend, the design or the execution of this little work, which is one of the Boston School Series, and is unlikelish by the Roston School Sunniv Commany. Series, and is published by the Boston School Supply Company.

School BULLETIN PUBLICATIONS - PLUMODATCAL BIOGRAPHY: No. I Schools of the Jesuits; No 2, Comenius. By B. H. Quick, -Nonthend's MENORY SELECTIONS.

The above come to us from the publishing establishment of C. W. Bardeen publisher, Syracuse, N.Y. The tractates are very brief, but con tain solve interesting information with regard to the educational views and tam sole interesting information with regard to the educational views and methods of the Jesuits and of Ascham, Montaigne, Ratich, Milkon, Come-nius, and other early school reformers. The Memory Selections embody an excellent idea. They are contained in packages of nearly printed cards. The Selections are brief, easily memorized, and many of them excellently adapted to fix themselves in the child-mind, and become useful, practical, and moral maxims annidst all the varied labors and temptations of adult if the selection of the selection of the selection of adult the selection of a selection of a selection of a selection of the selection of a selection of the selection of a selection of the sele life.

life. LECTURES IN THE TRAINING SCHOOLS FOR KINDEROARTSERS By Eliza-beth P. Peabody. (D. C. Heath & Company, Boston.) Miss Veabody and her work are too well known to need any elaborate introduction to our readers. The first of the eight lectures contained in this volume is the one which first interested the Boston public in kinder-garten education. The other seven are those which Miss Peabody addressed during nine or ten successive years to the training classes for kindergritners in Boston and other cities. The second deals with the natural exemplifica-tion of the idea which Frackel first embodied in a system, in the nursery. The two following show how "the nursery opens up into the kindergraterin through the project use of language and conversation with children, and finally develops into entirones the child's relations to his follows, to nature thring nine or ten successive years to the training classes for kindergartuers in Boston and other cities. The second deals with the natural exemplifica-tion of the idea which Frackel first emissive of an a system, in the nursery. The two following show how "the nursery opens up into the kindergartuers through the project use of language and conversation with children, and finally develops into equipose the child's relations to his follows, to nature, and to God." Miss leakedy adds that she has drawn many illustrations from own psychological observations of child-life, from which kondergart ners may learn how to study child life for themselves. The book is one

which every teacher, and especially every teacher of children, should read and ponder.

EASY ENGLISH PIECES FOR TRANSLATION INTO LATIN PROSE. Adapted for the use of the middle forms in schools. By A. C. Champneys, M.A., and G. U. Rundall, M.A., Assistant Masters at Marlborough College. (Rirrayfons, Waterloo Place, London.) Price 1s. 6d. This little book is just what its title describes The selections seem to have been made carefully and with good judgment. They are arranged in three parts, graduated in respect to difficulty Parts I, and H are mostly either translations from asy Latin authors for re-translation or are similar in style and hugence. Part III contains passages from ordinary Euclish in style and language. Part III, contains for re-translation of are similar writers such as Hume, More, Prescott, etc. The student will be greatly anded in his task with these by the notes, which contain many biots and helps for adapting them to Latin idiom. The book will be very useful for junior Latin classes.

SELECT OBATTONS OF CICEBO -Chronologically arranged, covering the

SELECT OUTTONS OF CICEND --Chronologically arranged, covering the entire period of his public life. Edited by J H and W F Allen and J. B. Greenough. Revised and illustrated edition, with a special vocabulary prepared by Professor Greenough. (Boston: Ginn & Company.) Thus is a new edition of the work which is well known as one of Allen & Greenough's Latin Series. It contains in all thirteen oritions, with in-troductions to connect them. The note-, it is claimed, have been thoroughly rewritten in the flight of the most recent invertigations and the best experi-nova of the classical for the provided in a provided as the Automire-written in the light of the most recent invertigations and the best experi-ence of the class-room. Topics of special importance, such as the Antiqui-ties are treated fully in brief essays or excensions, printed in smaller type. A full-page portrait of Cicero, a full-page view of the Forum as it was in 1835, and a double-page map of the Forum, showing the condition of things in Cicero's time, are among the illustrations. The binding is next and sub-stantial, and the letterpress beautifully clear. So far as we are able to judge from cursory examination, the notes and vocabulary are accurate, and scholarly, as well as brief and to the point. There is, perhaps, too much help given to the pupil in the shape of free translation, and not enough of suggestive criticism; but others, no doubt, might judge differently. On the whole, the authors have produced a valuable textbook.

SHELDON'S ELEMENTARY ARITHMETIC, with Oral and Written Exercises' Sheldon & Company, New York and Chicago.) We received some time since the advanced sheets of Pacts I. and II. of

We received some time since the advanced sheets of Parts I. and II. of the novel book, which we have now received complete. It forms one part of Sheldon's Two-book Series, the other part, Sheldon's Complete Arith-metic, having been previously issued. Apart from the superor and elegant letterpress, nustrations, and binding, the two chief features of the book which strike us as novel are the pictorial marginal illustrations and the very large number of examples it contains. The first of these is a pleasing and desirable mnovation. The constant reference to the individual objects represented in the pictures, as illustrative of the numbers introduced, can-not fail to simplify the arithmetical processes, and ald the young mind in its first efforts to grasp the mystery of abstract numbers. But we have never yet been able to see what is to be gained by filling page after pag-with the iteration and reiteration of such petty oral questions as any one worthy to be a teacher of bales can frame off-hand by the thousand. The early introduction of fractions and treating them at the same time and in the same way with units is a point to be commended. There is really no difference in kind between arithmetical processes as perfor aird in order bother is really no early introduction of fractions and treating them at the same time and in the same way with units is a point to be confineded. There is really no difference in kind between arithmetical processes as performed upon frac-tions and the same processes as performed upon whole binders. If this fact is rightly understood and used by the teacher, the pupil will be spared a hitle later on the great effort required to understand the rates for multi-plication and division of fractions.

plication and division of fractions. Our GOVENNENT: How it GNEW, WHAT IT DOES, AND How, IT DOES IT, By Jesse Macy, A.M., Professor of History and Political Science in Iowa College. (Boston: Gran. & Company.) This is an admirable little book. We could wish we had its counter-part for the use of schools in Canada. If some one would give us such a book, it might well replace any one of several which might be maned whoso study is now compulsory. Whether viewed from a practical or theoretical standpoint; whether as an instrument for developing the intelligence and the thinking faculty, or a means of fitting the future citizen for the proper discharge of the duties of citizenship, we know few studies more worthy of a place on the school programme than that of the constitution and mode of government under which w. live, together with the character and working flocal institutions if every grade. The little work before us provides a hand hook for such studies for the schools in the United States. It sets forth in language remarkable for its cleavies and simplicity the nature if hand book for such studies for the schools in the United States. It sets forth in language remarkable for its clearness and simplicity the nature of all the governmental institutions of the Republic and their relations to each other. In so doing it follows the historical method. It thus shows that the civil polity of the nation is not a piece of machinery invented for its purpose, but a thing of growth. As has been well said by one of the critics of this little back :-- 'It treats of the facts and realities of government. It progresses in the proper order of logic and history to the higher and more claborate forms of political organization." Those who have not had their attention directed to he subject would be surprised to find how very inmore canorate to never pointer of gamma data. Those who never have the transition of the subject would be surprised to find how very in-perfect is the acquantization of very many good cutzens of either sex with the structure and working of our political system in its more complicated