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The Canada School Journal.

Vor. V.

TORONTO, JULY, 1880.

No. 88.

JAMES H. HOOSE, A.M., Ph.D.

The development of the system of Normal Schools in the United States of America has brought to the public notice several educators of remarkable powers. This work of foundation and nurture demands those peculiar characteristics with which few are gifted. Among the best known workers in this department of education is Dr. Janes H. Hoose, the present Principal of the State Normal and Training School in Cortland, New York. He was born in Schobarie County, New York, in 1885, but early removed to Oswego County, where he received his early education and collegiate preparatory training. He graduated in Genesee College, Lima, N.Y., in 1861. He received the degree of Doctor of Philosophy from | For several years past Dr. Hoose has been very earnest in efforts

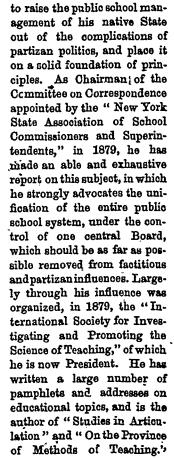
Syracuse University, of which institution he is a trustee.

Dr: Hoose has been a teacher from the age of eighteen. At this early age he manifested those qualities of mind and heart which thoroughly fit the man for à successful educator. He showed a most ardent onthusiasm in holding Institutes. and in studying and expounding those principles which must underlie all correct school government. Using all diligence to place hims if in the way of the best possible advantages for the study and obserration of school methods, his superiority became so marked that he early acted as instructor at County Institutes, and in 1866 he was employed by the Superintendent of Public Instruction, Hon. Victor M. Rice, to conduct Teachers' Institutes in various Counties of the State. His good fortune in enjoying the invigorating and exact training of those rare educators, Jno. R. French. LL.D., and James L. Alverson, LL.D., was most fully

appreciated and carefully improved. To the association with these | These treatises have been widely and favorably known among the men was he largely indebted for that power of lucid and thorough exposition which made him so valuable a helper to the younger members of the protession.

While Dr. Hoose has honorably filled various positions in Academies and Seminaries, his tastes and sympathies have ever been more heartily enlisted in the public school system of the State, and his best energies have been directed to the cause of training teachers for these public positions. As Professor of Theory and Practice of Teaching, and of English Language and Literature, in the State Normal School at Brockport, N.Y., he showed that rare ability for organization and government, as well as that untiring energy of purpose, which resulted in his election to the tined to take a foremost rank among the members of his profession.

Principalship of the State Normal School at Cortland, N.Y., at the time of its foundation, in 1869. Under his able superintendency this school has been placed in the very front rank of similar institutions in the United States. He has also been thoroughly identified with the general educational interests of the State, and has been a most active force in all movements for the unification of the school system. In 1871 he was elected President of the New York State Teachers' Association, a position which he filled with great acceptance to that highly influential body. In 1877 he travelled in Europe, where he studied especially the school systems of England and Scotland—embodying the results in "Notes on the Public School System of England and Scotland."





profession.

Dr. Hoose is a man of one aim. While he is in hearty sympathy with questions of current interest in Church and State, and is well informed on many subjects, his one work is that of an educator, and of a student of educational philosophy. He strongly believes that teaching should be elevated to the dignity of a profession. The energies of his nature and the activities of his life are directed towards the realization of this end. His absorbing ambition seems to be to make the Normal School, of which he is Principal, an abiding blessing to the commonwealth. He is a man of genial nature, but of strong and deep convictions. His immense will power is steadied by a sound judgment, and controlled by a healthy conscience and by firm Christian principle. He is already widely known as a highly successful educator and author, and seems des-

The Canada School Journal

IS PUBLISHED THE FIRST OF EACH MONTH AT

11 WELLINGTON ST. WEST, TORONTO, ONT., CAN Subscription \$1.00 per year, payable in advance.

Address—W. J. GAGE & CO., Toronto.

CANADA SCHOOL JOURNAL HAS RECEIVED

An Honorable Mention at Paris Exhibition, 1878.
Recommended by the Minister of Education for Ontario.
Recommended by the Council of Public Instruction, Quebec,
Recommended by Chief Superintendent of Education, New Branswick.
Recommended by Chief Superintendent of Education, Nova Scotia.
Recommended by Chief Superintendent of Education, British Columbia.
Recommended by Chief Superintendent of Education, Manitoba.

The Publishers frequently receive letters from their friends complaining of the non-receipt of the JOURNAL. In explanation they would state, as subscriptions are necessarily payable in advance, the mailing clerks have instructions to discontinue the paper when a subscription expires. The clerks are, of course, unable to make any distinction in a list containing names from all parts of the United States and Canada.

TORONTO, JULY, 1880.

-Special attention is directed to the Report of the Syndicate appointed by Cambridge University to consider the "Greek Question," and the opinions of the leading teachers of England upon the subject, which appear in another column. They form a mine of golden thought and ripe experience in relation to this question. We owe a debt of gratitude to the veteran educator, Robert Potts, M.A., for sending them to us.

SOURCES OF CANADIAN HISTORY.

It will be in the recollection of many of our readers that the study of Canadian History in our schools, even in its most elementary form, does not date back more than about twenty years. And, as a matter of fact, there are yet some schools in the Dominion, of more or less pretensions, in which every other history is taught but that of Canada. In such schools it is considered desirable that the pupils should know something of Ancient and English history, but nothing whatever of the his tory of their own country! This, of course, is a matter of taste. Formerly there was a sufficient excuse for this omission, as teachers were either destitute of manuals to aid them on the subject, or were dependent on the most meagre sources of information for materials on which to base their instruction. degrees, however, this source of information has been enlarged and thanks are due to Mr. John Lovell, of Montreal who (in addition to comprehensive manuals on the subject which he had published) placed, some years since, within the reach of teachers, "Garneau's History of Canada, translated by Andrew Bell, and issued in three volumes. Christie's "History of Lower Canada" also supplied a want. Warburton's 'Hochelaga," it is true, furnished a graphic sketch of the early incidents of our history; and the "Transactions of the Quebec Historical," as well as Lemoin's "Maple Leaves," contained most interesting episodes of the history of early Coloniel times -chiefly French. The Relations des Jesuites, and the "Documentary History of the State of New York" also contained a mine of historical wealth, but the labor of exploration in such a anticipate. These admirable volumes will amply repay readers

field deterred the vast majority of teachers from attempting it. Later on, our Colonial literature was enriched by the publication of the eloquent and romantic sketches of periods of early colonial history, by Francis Parkman. We have thus characterized these sketches of periods of our history—which are in themselves so full of stirring incident—and yet they are written by Parkman generally in sober language. The very nature of the task imposed upon this writer necessarily involved a spirited treatment of some of the subjects in his histories. of the incidents are, or themselves, both touching and romantic. They also involve the narration of details, showing, in most cases, great enterprise and resolution, or intense privation and prolonged endurance, as well as death in varied forms, not excluding martyrdom itself. With such material, and in such hands, it was not surprising that Parkman's successive volumes attracted a more than ordinary share of attention on the part They are invaluable of those interested in our early history. to the teacher and student as sources of authentic information on the periods treated.

After all, however, these works must be regarded as chiefly They deal only either with local or specific fragmentray. departments of our history, and do not touch, except incidentally, the primal sources or springs of our origin and growth as a people. This "missing link" has, however, been most opportunely and most satisfactorily supplied by the issue of two elaborate volumes from the press by the Rev. Dr. Ryerson—so justly noted as one of the most able and successful writers which the Dominion has yet produced. This work, entitled "The Loyalists of America and their Times, from 1620 to 1816," enters into an exhaustive discussion of "the causes and consequences" of the two-fold settlement of New England by the Pilgrims of New Plymouth, and the Puritans of Massachusetts Bay. These two settlements were united into one after a separate existence of seventy years, under a charter from William and Mary in 1690. The venerable writer analyses, with a steady and skilful hand, the growth of the mixed principles which governed the New Englanders in their relations to Old England and the other Never were the disguises of professed Colonies in America. friendship and hypocrisy of the actors in these times more fully understood and exposed. These elucidations furnish a clue to some of the misunderstandings and mystifications of the times. They expose the hollowness of some of the professions made to justify the resort to arms in support of the rights of the subject, and in the interests of free government. The unparalleled cruelty in the treatment and expatriation of the vanquished loyalists exhibits, in the strongest light, the utter hollowness of these professions, which, as if to add to the solemn mockery of their utterance under the circumstances, were duly enshrined in the famous "Declaration of Independence." It is true that this noted document was written by a philosophical infidel, and not by the immediate actors in the cruel tragedy of despoiling and ruining the loyalists, and then banishing them, but it was, nevertheless, hailed by them as a convenient shield, under the respectable ægis of which they could the more securely and effectually carry out their cruel and heartless designs towards the defeated and utterly defenceless loyalists. But we shall not for their perusal. They will prove a mine of wealth to teach ers and others, especially those parts of the work which deal specifically with the actual settlement of these provinces by the now historically famous United Empire Loyalists of Canada.

HOME WORK OF SCHOOL CHILDREN.

When so much is written on this subject by theorists and wouldbe reformers, it is a treat to read the following sensible views of the case, which are taken from the Scotsman and The Schoolmaster:

As regards elementary school children, the case is by no means so clear, more especially in England, where the amount of home work exacted from the children is, as a rule, much less than it is in Scotland. It is easy to talk about the Code; but it is certain that if the Code made no demand, and if teachers and scholars were left to manage matters at their will, the outcry would be much greater than it is at present against the abuses of the public school system. More elasticity may be desirable; but the difficulty is to admit elasticity and to keep the door shut against the numerous evils that would almost certainly seek for admission along with it. A system which is applied to thousands of schools and to millions of children, and which involves the expenditure of and to millions of children, and which involves the expenditure of millions of the public money, must be administered both with strictness and with a certain degree of uniformity. The truth which it is most likely to violate is the elementary one, that all minds are not cast in the same mould, and do not reach the same degree of development at the same age or in the same time. The pinch of the present rule is no doubt felt most in connection—not with the individual examination of substants. with the individual examination of scholars; that is both right and necessary; but-with the individual payments which make up the Perhaps the best and fairest way to remove this objection would be to adopt the plan previously suggested here—to examine the scholars individually as at present, but to make the payments depend on the average attainments of each class or standard. At the same time, it cannot be denied, and should not be concealed, that much if not most of the cerebral disorder or weakness ascribed to the Code is really due to the neglect of parents. The root of the evil is physical, not mental. If children were properly fed and fitly clothed, if they dwelt in well-sized and cleanly houses, they would be able to stand all the work the Code puts upon them, and even more, without injury either to body or to mind.

The loudest outcry, however, has come from the middle-class schools, and chiefly from middle-class schools for girls. It is not difficult to understand why this should be so. It is on the middle class that the pressure of education, as distinguished from educational pressure in the most objectionable sense, is greatest. With the members of that class education is now more than ever the passport to success in life. Every man who wishes to get on in the world must have at least a fair education; and now, it must be added, every woman who wishes to lead a useful and independent life must be educated. This does not necessarily imply oppressive or injurious brain-work, but it opens the way for it; and competior injurious brain-work, but it opens the way for it; and competition is now so great, and ambition so active, that the way thus opened is too often trodden. The peculiarity of middle-class education, which makes it specially liable to abuse in this respect, is the number of subjects which it is made to include. It is not uncommon to find boys of fifteen learning four languages beside their own, and girls of the same age learning three foreign languages, besides history, mathematics, music, and any number of occasional arts and sciences. Clearly this is putting too much work on the machine for good work to be done, or for the machine to remain unimpaired. And the more complete the organization of the school, the greater the pressure. In a well-organized school, every department has its separate teacher. Every teacher thinks his own subject the most important, and he gives to his pupils an amount of work which has no reference to the similar demands of his colleagues at the same time. It should be the duty of a head master or a head mistress to regulate the working of the whole master or a head mistress to regulate the working of the whole school; but these persons generally have their own classes and subjects to look after, and, instead of restraining others, they sin themselves. Here, too, as in the elementary school, peculiarities and differences of power are not sufficiently regarded. Each mind and differences of power are not sufficiently regarded. Each mind is treated as if it had been cast in the same mould as every other, and the same amount and kind of work are expected from the and in the Departmental Regulations, 152-158. There are, how-

weak as from the strong. Then, it must be said, we fear, that the habit is growing of casting the real hard work of learning and teaching on the home hours, which should be given to relaxation and to the recovery of tone lost at school. The scholars have to work double ties. They have their night shift as well as their day shift, and the night shift is generally the harder of the two. This is to make life a weariness to them, and home anything but a pleasant place. It cannot be understood too soon or too well, that teaching does not consist in listening to a recital of tasks previously conned with much labour-not in taking things out of the mouths of scholars, but in putting things into their heads-and that teaching in this sense ought to be done by the teacher in school hours. It is done in every well-conducted school, and by every teacher who takes a real interest in his work; and happily there are many such. But there are also some schools and some teachers of whom as much cannot be said, and it is in connection with them that educational pressure is really felt, and is doing real harm. Parental pressure ought to be sufficient to counteract the evil.

Public attention has not been withdrawn from the subject of brain-pressure in educational matters. Mrs. Garrett-Anderson delivered a lecture to the members of the Social Science Association, in which she dealt chiefly with the question as it affected the best secondary schools for girls. After discussing the medical best secondary schools for girls. After discussing the medical aspects of the matter, and the division of responsibility which lay between mother and mistress, the lecturer made the following suggestions:—(1) To get the elements of knowledge well and thoroughly taught at an early age, and not to urge the child to make up for early neglect by taking a very extensive range of subjects as soon as she goes to a good school; (2) to accept two and a half or three hours of class as long enough at one time and a hair or three hours of class as long enough at one time for almost all children, and to provide two or three short intervals of rest—e. g., five minutes or ten minutes in each hour—during even this time; (3) to insist upon every girls' school having a playground; (4) to aim at greatly reducing the amount of writing in the home work; (5) to reduce the number of examinations, and especially to make them as unstimulating as possible, and to apply them with great reserve to the children most likely to shine in them; and (6) not to aim at completing the education by the age of eighteen. The main purpose of Girton and Newnlam Colleges was to encourage young women to continue their education in an organized manner after they cease to need the restraints imposed upon school-girls, and the existence of these colleges rendered it more than ever unnecessary to attempt to teach girls everything they ought to know in early adolescence. These suggestions are all sensible and to the point Any blame as to the matter of overpressure must be placed to the account of the parents, the public as a whole, and the demands under the various examinatiou schemes of the period. If the parents require their children to pass a given ordeal, the teacher must do her best to secure success. Credit is at stake, and competition acts as a spur to excitement in the race of both teachers and taught. Some of the suggestions which have been made by Mrs. Garrett-Anderson are applicable to all schools, and none know that fact better than teachers themselves. It is a good thing that the public have apparently become interested in this subject on their own account. It is well to work hard and steadily, for Mr. Fitch's experience will be that of others. In the course of the discussion he declared that, as the result of his experience, he had found the greatest amount of result of his experience, he had found the greatest amount of health, cheerfulness, and happiness existing among pupils in schools where the intellectual aim and the instruction given were the highest. That may be quite true, where examinations are not superadded in excess, and where an unhealthy stimulus is not applied in vain searching after too great a degree of excellence. Educational work will ever continue to do less harm than educational results. tional worry.

Contributions and Correspondence.

GENERAL REMARKS AND SUGGESTIONS.

BY H. L. SLACE, M.A., PUBLIC SCHOOL INSPECTOR, LANARE CO.

I .- TO TRUSTEES.

ever, some points to which, from my experience, I feel that your particular attention should be directed:

(1) At the commencement of each year, and at as early a date as possible, you should meet for the purpose of organization. Appoint your Chairman and Secretary-Treasurer, and one of your number, either the latter official or some other member of the corporation, whose duty it shall be to keep the school-house in good repair; to see that the windows are properly filled with glass; that the school is comfortably heated; that the black-boards are in good repair; that the maps and other school apparatus are well kept; that the supply of water is abundant; that the outhouses are in a proper condition; and that everything is so ordered and arranged as to conduce to the convenience and comfort of both teacher and children. Such matters of detail do not require to be brought up at a Trustee meeting before action is taken; but acted on, as necessity requires, by one member duly appointed for the purpose, or by each trustee in rotation. It is by no means uncommon to find the furnishing of a broom or a tin-cup deferred until a Trustee meeting is called to consider the matter—and recently my attention was drawn to a notice calling a meeting of the ratepayers in a certain school section to debate the question of a new door which had for some time been off its hinges.

(2) Unless power has been given to any one Trustee to act in matters of detail, as above specified, never transact any business except at a meeting duly called and organized, and of the time and

place of which every member has been notified.

(3) Enter a full account of all your proceedings in your Minutebook, and keep a strict account, in detail, of all school moneys received and disbursed, closing your books and striking a balance at the end of each year. This statement should be duly audited before the annual meeting and entered in the "Financial Statement" in the "Annual Report," according to the classification of items there set forth. With reference to this the following clause appears in the "Public Sch ols Amended Act, 1880," viz.: "The Trustees of every rural school section and the Public School Board of every town, village or township shall keep, or cause to be kept, books of account of all school moneys of their section, town, village or township (as the case may be), according to such form as may be prescribed by the Minister of Education.'

(4) It is your duty to arrange for the payment of salaries of teachers at least quarterly; and if you have not sufficient funds for the purpose in the treasury, the law gives you power to borrow what you require until the taxes can be collected. This you are to

cent. per annum.
(5) In the engagement of a new teacher you should carefully examine the certificate, not simply to satisfy yourselves that it is valid for the full term of the engagement, but also to ascertain its general character, and the teaching capacity that it indicates. Remember that there is a vast difference in 3rd Class Certificates. Those that have been granted after attendance at the Model School are all rated from First to Sixth rate, and if you will only take the trouble to examine them, a great deal of dissatisfaction may be avoided.

(6) You are particularly requested to examine carefully the Half-Yearly and Annual Returns before transmitting them to the Inspector, and to see that they are forwarded in the proper time. Many returns come to me with errors and omissions which, to say

the least, are an evidence of gross carelessness and neglect.

(7) You should make provision, especially in the winter season, for the opening and warming of the schools, so that the exercises of the day may be commenced promptly at 9 o'clock a.m. At stated seasons you should see that the school house is properly cleaned. These particulars do not form any part of the Teacher's duties.

(8) You are to bear in mind that you have no legal right to allow the school-house to be used for any other than school purposes. Even a majority of the ratepayers cannot so sanction its use; nor yet is any special clause in the deeds of any binding effect on you or the section.

(9) You must bear in mind that every Trustee signing a false return—as well as every Teacher keeping a false Register—renders

himself liable to a fine of twenty dollars.

II .- TEACHERS.

Your specific duties are also clearly defined in the school law-see compendium, pages 74-78 and 177-182—but I would here make the following suggestions:

(1) Present your certificate to the Trustees before signing your engagement, and do not enter upon your work under any false

protences.

(2) Make yourself the master of your situation from the very outset, and discipline your school by a judicious combination of firmness and kind consideration. If corporal punishment is inflicted, let it not be rashly meted out, nor for every trivial offence; but administered in such a way as will conduce to the well-being, not only of the individual culprit, but of the whole school. It is a sign of weakness in the governing power of a teacher, to have to be perpetually resorting to punishment of any kind. If you find that you must do it, allow mo to romind you that you have missed your calling, and for your own peace of mind, as well as for the good of your charge, seek some other employment.

(3) Keep your Daily and General Register, your Class-book, Visitors' Book, and all school records, both accurately and neatly, and see that they and all your Returns will always bear close inspection. Many of them have not been in such a condition in

the past.

- (4) Be an example of order and neatness to your pupils, and never neglect to cultivate such habits in them. Teach them to be civil to those with whom they may come in contact. In these days you should watch, with unremitting care, the growth of that independent spirit, far too common, of setting aside lawful authority, and of each one doing just as he thinks best. Nip such a spirit in the bud—do not allow it to develop. It is hard to say where it will end. In the "Educational Notes" of one of our leading Provincial dailies, I have just read, "The St. Louis School Board has added oral lessons in etiquette (or manners) to the curriculum of the schools of that city." If "manners" are not on the programme, it is most certainly not too much to expect of any teacher to have a mannerly school. Space will not allow me to do any more than mention the subject here. If you desire to discharge your very urgent duty in this respect, you will find abundant opportunity.
- (5) Read educational works and subscribe to a School Journal. You want all the information and assistance you can get in the discharge of your arduous duties. I cannot see how a teacher can keep up to the times and satisfy himself without these aids in his profession.
- (6) As co-operation is an absolute necessity for your welfare and success, in addition to securing it on the part of your pupils, cultivate it in the section at large. By the system of reports, and by do by promissory note, given under the seal of the school corpora- constant visiting among the different families of the section, demon-tion, to be discounted at a rate of interest not exceeding eight per strate that the interests of parents, pupils and teachers are identical -that there must be a strong bond of sympathy between them--or else your labors are to a great extent in vain.
 - (7) Finally, do your work as if you feel its responsibility, and not merely because it furnishes you a means of earning your daily

III .- PARENTS.

I would not wish to close my suggestions without reminding you that you play no unimportant part in the welfare and ultimate success of our public school system. We cannot for a moment doubt that you are interested in it—that you must be interested in the education, in all its aspects, of those, your own children, for whom you are responsible. You can do a good deal to help the teacher in his work. Irregular attendance is one of the most common complaints. Do you always send your children to school as regularly as you can? Are you not aware of the evil influence you must exercise, not only on the individual, but on the school, by keeping them at home, often for trivial reasons? You complain of the slow progress your child is making. Are you sure that you have not something to do with it? Do you always provide the necessary books, slates, pencils, &c.? Do you endeavor, by all the means in your power, to strengthen the hands of your teacher, to encourage him in his work; or are you ready to listen to tales brought home, or to gossip circulated in the neighborhood, perhaps without the slightest foundation, and, at any rate, exaggerated as they go their rounds, until the usefulness of the teacher is well-nigh gone? These questions may well be put to many parents among us. Teachers are not immaculate; they have their failings; but I am bound to say that it would be hard to find a class of individuals whose self-denying labors are so often either not appreciated, or misrepresented, and whose little failings are so magnified. Co-operationhearty and genuino-between teachers, parents, trustees, pupils and all, is what we want, and, with all our other advantages, success must be our reward.—Annual Report 1879.

"CLEANLINESS AND ORDER."

BY W. F. MOORE, NOBLETON.

(Published by request of the North York Teachers' Association.)

CLEANLINESS .- Some poet, Tennyson I think, says "we are part of all we have ever met;" and although this may not be flattering to us in many respects, yet it is generally true. If our company be refined, we unwittingly, it may be, follow their example; if ignorant, we naturally adopt their style; and if cleanly, we necessarily will make the change. Therefore we should give particular attention to the grounds around the school-room; keep them as nest as possible: fences up, gate on its hinges, trees planted and trimmed, pump, with tight sloping platform; scrapers at the door, room carefully swept in the evening-dusted in the morning, windows clean and properly glazed. Every pupil should be held responsible during the day for papers on the floor, or anything of that kind around his or her seat.

Having these matters attended to, then, as "example is better than precept," let the teacher be scrupulous in his own person and clothing. It will be useless to practise one thing and teach another. A beard of a week's growth will give the boys and girls a license for uncombed hair; dust on the teacher's boots will justify mud on the boys'. These matters clearly belong to the teacher. and if they are attended to, he may, with a clear conscience, pay attention to the appearance of the pupils.

I know there is a delicacy on the part of teachers in speaking to the pupils personally. I would overcome this by giving a short a very nice one, "was to receive two slaps." To my utter horror, weekly lesson on Hygiene, in which this matter may be dealt with generally. Aside from the effect on the school, I think this lesson is an important part of the instruction imparted by the teacher. Do not allow the habit of spitting on the slate, and then using the hand to rub out the marks; insist on slate cloths—insist on the use of pocket handkerchiefs.

But there will be some pupils moulded on the same pattern as "Dirty Tim," and speak as you may, set the most correct example possible, yet they will be untidy and unclean. Tom will come with a band of faded crape fitting tightly to his chin and neck. Harry will have gauntlets fitting closely to his hands. A good plan to correct this, is to send Tom's sister or Harry's brother with him to the pump, to give that neck a good scouring or Harry's hands a good sembling. If the thermometer ranges one or two degrees below zero. it is not probable the operation will need to be repeated and further, you may depend on the matter being repeated to Mamma at home.

Again, in the class, I would make it a duty, at times, to look at the pupils narrowly. Have them hold their hands out, and let them be inspected. In nearly all cases this will prove effectual. If there are still a few stubborn ones, speak to them privately, and see their parents, but, in all cases, secure the desired end.

ORDER.—Again, I would pay attention to all external matters. Have no creaking doors-put oil on them; no shaking windows -have them fastened; no loose seats-insist on the trustees having them fastened down. Here, also, the teacher must set the example. If the teacher opens the door with noise, the pupils will do so. If he allows a slate or book to drep carelessly, the pupils have their one. I heard Dr. Sangster say at one time that "he would bring a noisy school to order by his habit of doing things quietly, and not once speak to them." But order cannot be secured without punctuality; for when the door opens to admit a late pupil the attention of teacher and pupils is attracted, and business for the time is suspended. Do not think that because the pupils are quiet they are orderly-often they are then deepest in mischief. The great principle of order is to keep the pupils busy. It is un-| cepted in place of one of them.

natural to expect that little folks, full of life and spirits, will remain in order at their seats if they have nothing to do. As a general thing they like work. Ask them to write their lesson or their slates, and bring their slates to their class with them, and let the teacher look at what they have done. A few simple figures in drawing on the board, with a request that they will repeat each figure five or six times, will keep then attention for half an hour.

Do not keep the small pupils in the school-room too long. Nature is their best teacher. Let them out half the time, and on the playground they will receive their first great lessons in natural history. Let not the word "if" be used. Pupils soon get accustomed to a threatening teacher, and will think what they are doing is right if the teacher do not find them out.

Give the pupils a few minutes several times in the forencon and afternoon to ask any questions from the teacher or from each other. Let the teacher pass round the room at this time, and answer the questions. Tell one the lesson, another the meaning of a word, give another the privilege of getting a book or slate from his brother or sister. Do not try to prevent unnecessary noise, though we should exert ourselves to reduce that noise to a minimum. It is impossible for forty or fifty pupils to be in a room and have as much quietness as if no person were present.

Make few, very few rules, but carry out those you do make. I remember the first day I went into my school. I had carefully made out beforehand a tabulated form of offences and the punishment due to each. The awful threatenings of that list were never carried out. One of the rules was that "whoever broke a pointer," a young lady, whom I had hardly dared to look at, accidentally committed this offence. She came and acknowledged the crime; the boys and girls stood a little aloof, but quickly took in the whole scene. I did not punish her, of course, and out rushed the boys whooping and yelling. How my heart sank! I saw in a moment my prestige was gone. I have never been guilty of the same imprudence since. In conclusion, I would recommend the practice of taking away pri ilege for infraction of law and order.

THE REPORT OF THE GREEK QUESTION.

The Syndicate appointed to consider the memorial presented to the University on the subject of the obligation of passing an examination in Greek have issued their report. They state that in June they addressed circular letters to the memorialists, head masters and assistant mesters of schools, copies of which and the replies are printed in an appendix. The Syndicate are of opinion that there is good reason to believe that the existing obligation to satisfy the examiners for the previous examination both in Greek and in Latin excludes from the University a number of able and industrious students educated in schools in which Greek is not taught, or in the modern departments of classical schools. The Syndicate are of opinion that this exclusion is injurious, not only to the students, who are deprived of the advantages of residence and study in the University, but also to the schools and departments of schools thus dissociated from the University and to the University itself. The Syndicate therefore recommend:—

1. That the existing obligation to satisfy the examiners for the previous examination in two classical languages be relaxed (a proper substitute being provided for the language omitted) in the case of condidates for honors who may desire it.

It would seem that a knowledge of the two principal languages of Continental Europe might fairly be recognized as a substitute for that of Greek or of Latin, especially as particular attention is usually given to modern languages in those schools and departments of schools in which Greek is not taught. The Syndicate therefore recommend:

2. That, in the case of those candidates for honors who do not take up both the classical languages French and German be acThe Syndicate further recommend:-

3. That candidates for honors be permitted to take, in place of one of the two classical languages, a paper in French and German, consisting of unprepared passages for translation, not too difficult,

with plain grammatical questions.

4. That candidates for honors be permitted, in case they take French and German in lieu of Greek, to take in place of the Gospel in Greek an alternative paper containing such questions on the Gospel selected for the Greek Testament subject, and such matters collatoral thereto, as do not require a knowledge of the Greek

With a view to the discrimination of honor men and pass men, and the relaxation, in the case of honor men only, of the existing obligation to satisfy the examiners for the previous examination in

both the classical languages, the Syndicate suggest :-

1. That an examination of candidates for honors be held twice in each year-nam ly, in the first third of the Michaelmas Term, and last third of the Lent Term.

That it consist of papers in (1) Mathematics, (2) Greek, (3)
 Latin, (4) French, (5) German, (6) the Elements of Physics.
 That the examinations in Mathematics consist of questions in

Euclid, algebra, trigonometry, the elements of conic sections and analytical geometry, and mechanics (including statics, dynamics, and hydrostatics).

4. That the examinations in Greek and Latin consist of (a) questions in grammar, (b) prose composition, and (c) the translation of unprepared passages, in each of which dinions the candidate shall

satisfy the examiners.

5. That the examination in French and German consist of (a) questions in grammer, (b) prose composition, and (c) the translation of unprepared passages, in each of which divisions the candidate shall satisfy the examiners.

6. That the examination in the elements of physics consist of questions in mechanical philosophy, the laws of heat, and chemis-

fry.
7. That no candidate be examined in more than one of these subjects. 8. That every candidate signify 14 days before the commence-

ment of the examination the subject which he presents.

9. That this examination be open to students in their first or

any later term of residence.

The report is signed by the Master of Trinity, Deputy Vice-Chancellor, Professor Kennedy, Professor Humphry, Professor Liveing, Professor Stuart, Mr. J. E. Sandys, the Public Orator, Mr. Todessor Stuart, Mr. J. E. Sandys, the Public Orator, Mr. Todhunter, St. John's; Mr. Oscar Browning, King's; Mr. Henry Jackson, Trinity; Mr. A. Austen Leigh, King's; Mr. J. E. Nixon, King's; and Mr. V. H. Stanton, Trinity.

1t is not signed by Dr. E. H. Perowne, Master of Corpus Christi College; Dr. Westcott, Regius Professor Divinity; Rev. J. E. B.

Mayor, Professor of Latin; and Rev. G. F. Browne, M.A., Senior

As stated above, in June last the Vice-Chancellor, at the request of the Syndicate, submitted a series of questions to the Memorialists and Masters of Schools, in order to obtain their views of the question. Their views and opinions are contained in the appendices to the report of the S indicate, and occupy upwards of forty quarto pages. The following extracts are taken from their communica-

Mr. Matthew Arnold should be glad if students following the Mathematical or Natural Sciences could be admitted to the University by an examination without Greek, and could also take an honor degree in those Sciences by an examination without Greek.

Professor Huxley says:-Assiduous application of the method of concomitant variations has not, as yet ena-bled me to discover any relation of cause and effect between ordinary Greek scholarship and literary culture properly so called, and I venture to think that a knowledge of Greek is no more an indispensable element of a liberal education, in the highest sense of the term, than is a knowledge of Sanscrit, or of the Differential Calculus, or of Mortebrate Morphology. Persons who happen to be unacquainted with any of these studies are unquestionably shut out from large and fertile fields of thought; but it will hardly be denied that they may have obtained a liberal, and even in an educational point of view, a complete culture, by the aid of other forms of mental discipline.

The Bishop of Manchester writes in favor of a removal of the

existing obligation.

Mr. W. A. Stone (late Fellow of Trinity), of Lea Park, Godulming, writes:—When the languages, literatures, and sciences his twenty lines of Xenophon for a lesson.

available for teaching purposes were few, waste of a boy's time, as regards acquirements, was comparatively of less importance, provided that the mind received a good training. Now, however, that the field of knowledge is so vast, it is very undesirable to waste any part of the time given to study in a line which is not to be followed far enough for some substantial result. I will venture to observe that if a more rational method of teaching Greek were adopted, a good knowledge of the language might be acquired in a much shorter time; and if it were possible to introduce the proper nodern pronunciation, instead of the present absurd and arbitrary one, a useful Modern Language would be added to the school course, with scarcely any additional labour. I may also say that I should be extremely sorry if any change were to lead to the diminution or abandonment of a real and scholarlike study of Greck, which, however, I believe, under the present system, to be confined to a very small number of students in our Schools and Universities.

The Rev. H. W. Watson, Berkeswell Rectory, Coventry: In its existing regulations for the attainment of an Honor degree, the University appears to recognise the distinction between general cultivation and the mental discipline required for the mastery of large and difficult subjects of study. The previous and Tripos Examinations are employed to test the state of the candidate in these two particulars respectively. Every large subject admitting of logical and accurate treatment, affords a valuable mental discpline, and we cannot refuse the title of educated man in the truest sense of that term to any one who has undergone such a training, either academically or professionally, even in those cases where the absence of early education is evident in a marked and painful degree. Greek is one of the widest subjects at present studied at the Uni-It claims to afford the best mental discipline of any, and on account of this very excellence it is unsuitable for an indispensable portion of the lower examinations. Wherever a man might achieve distinction in any of the Honor Triposes, and is prevented from doing so by the Greek of the previous examination, it would appear that a substantial advantage has been sacrificed to a This proceeds of course upon the assumption that more form. This proceeds of course upon the assumption that the Honor Triposes afford thoroughly satisfactory tests of the higher education.

The Rev. R. B. Poole, Head Master of Bedford Modern School, says: It would be a great advantage to us if Greek were not compulsory. As it now is, I have to coach boys who are going up to the University especially in Greck for perhaps six months, and to teach them just enough to get them through. This has not really any educational effect, and they are taken away from their staple

studies.

Mr. James M. Wilson, M.A., Principal of Clifton College, observes: About 20 per cent. of our boys proceed annually to Oxford and Cambridge. The school has two c'ief divisions, the classical and modern, which divide the school from the top to very nearly the bottom. On the modern side no Greek is taught. On the classical side it is taught to all but the youngest. There is also a military and engineering department, parallel to the fifth forms, in which Greek is taught to those boys who have previously learnt it. Any opinion on the educational value of Greek, by whomsoever given, is very liable to error, because the value attributed to Greek may be readily put to other causes. Of these, the chief are—(a) That Greek is a part of the regular school and university course. A boy who is not doing Greek is in a side stream, and knows that he is so. (b) That a boy who is learning Greek is associated with the abler boys. It is needless to point out how much boys stimulate one another. The loss to the duller boys in a school if all the abler bys in it were weeded out would be incalculable. methods of teaching Greek and the status in the school of the side on which Greek is taught, give this subject an advantage it is difficult to e timate. Some men also may form an unfavorable opinion of the value of Greek to boys of average ability, arguing simply from the fact that the knowledge is slender, inaccurate, and valueless for practical purposes, and soon forgotten unless maintained by subsequent reading. I think this is an error which would be corrected by more extensive and careful observation of boys at their lessons, and by a fair comparison—which is not yet possible—of boys who have been educated respectively with and without Greek, but alike in other respects. But after all allowance for such accidental advantages and such admitted failures. I attach a very great value to Greek even for boys of average ability. I am not now discussing the value of a knowledge of Greek literature, but the education il value of it to a fourth form boy who is doing his twenty lines of Xenophon for a lesson. For him it is second,

if second, only to Latin and perhaps to mathematics, where mathematics are exceptionally well taught—taught, that is, so as to make boys think as well as work. When the average boy is learning his Xenophon, his mind is in a more active state than it is over any lesson except perhaps Latin. There are small problems incessantly proposed; the solution of all of them is within his power. The grammar will teach him the inflections, the dictionary the meaning of the words, the Syntax the constructions; but the mere desire to save himself the trouble of using grammar and dictionary perpetually makes the boy think and try to make out the meaning. If he is slipshod in his work it is brought home to the meaning. If he is slipshod in his work it is brought home to him, and his conscience admits that he has been slipshod. The boy is busier and happier in preparing such a lesson than in preparing a lesson in German, or French, or English. or Natural Science, and in using his mind more than he would in working examples in arithmetic and algebra. Problems in geometry give him as good an exercise, but it is almost impossible to keep boys at work at problems in geometry. Hence I am clear that, speaking of English education as a whole, no subject could be substituted for Greek without educational loss to the boys at the time, besides all later and wider consequences of to the boys at the time, besides all later and wider consequences of such a change, which are of a most serious kind.—I should wish to see either French or German or Natural Sciences admitted as altersee either French or German or Natural Sciences admitted as alternatives for Greek. Modern schools and modern sides of Classical Schools exist, and will continue to exist; and at present they are not in a satisfactory state. They are outside the sphere of the University; the education they give is regarded at technical, not as liberal; on that account they are denuded of the more literary boys; there is no crown or goal to their work. They are to some extent a refuge for the incapable.

Dr. Hornby, Head Master of Eton, writes: Greek is taught to all boys in the school, and is required during their whole course. In some cases a few boys in the Army Class have been excused Greek, or part of their Greek lessons; but this has been discontinued. We may perhaps resume it in a few special cases. I think that its educational value is very great even for boys of average ability. It is a great gain for boys not intended for a learned profession, but for the army or for business, to have read, as some such boys in my time at school had read, the whole of Homer's As a means of literary culture this was no small gain, even when the language was not studied very critically. In other ways the gain from Greek teaching is, I think, greater now than it was

in my school days. I know of no subject which could be substituted for Greek without very scrious educational loss.

The Rev. E. H. Bradby, Head Master of Haileybury College:—Greek is taught to all boys on the classical side pari passu with Latin, though in the lower half of the school boys are generally more forward in Latin than they are in Greek. In the modern side it is not taught. As a rule, the abler boys do not join the modern side, but, so far as I can see, I consider the mental tibre and grasp produced by education on the classical. The schools must in due time follow the Universities, so far a the classical sides are concerned. The study of Greek would gradually flag, and be supplanted, more or less, by more favored subjects, in the same way that the study of Latin Verse writing (whether that be a thing to be regretted or not) has dwindled in the last 20 years.

The Rev. W. E. Pryke, Head Master of Lancaster School, says that of languages, Greek seems to be the best as an educational instrument. This is true even in the case of average boys, and of those who go no further than the Accidence and easy exercises. A boy cannot learn his Greek Grammar without acquiring a certain amount of exactness in thought and expression, and I believe that more boys get mental accuracy and method from their training in Greek than from their Euclid and Algebra. Speaking generally, the Greek boys do best in all their other subjects. There is much truth in the trite sarcasm that a "modern side" is the refuge of the intellectually destitute. Non-Greek boys never do well in Latin. If the Universities consent to discontinue their demand for some knowledge of Greek from all students, I fear that the study will gradually die out in ordinary Grammar Schools. If through the discontinuance of Greek, the tone of ordinary Grammar School education be lowered, and we cease to send classical scholars to the University, it seems to me that the Universities themselves will suffer serious loss. The lists of open scholarships in which the small schools are generally respectably represented, will in future contain the names of public school men only; and schools like mine will gradually cease to be seminaries of scholarships.

Dr. Huckin, Head Master of Repton School: Greek is taught

throughout the school, except in the me n form. In the case of boys of moderate ability, I consider that it matters very little what they are taught; they do not as a rule exercise any considerable degree of intellectual activity, but passively imbibe or acquire what their teachers impress upon them. Greek, if intelligently taught, is just as valuable to them as any other subject; certainly in my opinion not more valuable than some others may be, but not less valuable. German might be substituted without educational loss, but such an arrangement would seriously increase the expense of education without definitely improving it. education without definitely improving it. The substitution of any subject as an alternative for Greek would involve the bifurca-The substitution of tion of every form. This would nearly double the cost of education. The most promising Natural Science students are in the Classical School. I do not find that Natural Science is equal to tion. Literature as a vehicle of general instruction; but in some boys it certainly produces higher results than are produced by Greek. So far, however, as I can judge, the cases in which this can be predicted are less than 10 per cent. of those who learn Science. I have been (unwillingly to some extent) for. 11 to conclude that, for the purpose of the higher education of boys, Luin and Greek combined with Mathematics are more effectual than any other combination would be.

bination would be.

The Rev. Dr. Jex-Blake, Head Master of Rugby: In a complex educational organization it is hard to estimate the value of any single item in producing the general result; but probably there is no single force employed at Rugby so powerful for clearing and training the mind as Greek, for either the superior or the average boy. Even for inferior boys it would perhaps be as valuable as any linguistic training if there were not so many other subjects pressing linguistic training, if there were no: so many other subjects pressing on the boy's distracted understanding. An inferior boy cannot really master two Dead Languages + his native literature + two other Modern Languages + Mathematics + several other branches of Natural Science + History Ancient and Modern + Historical and Doctrinal Theology + Drawing + Music, between his four-teenth and his eighteenth year. Such a boy would learn more if he were taught less; and would at 18 have a better understanding if he had struggled at the rudiments of fewer things. Which of his inscrutable studies he was least fit for, must be a matter of per real consideration; but it is clear that two dead languages furnish too ambitious a basis for any educational structure that a really inferior boy should try to rear. It is not a smattering of many things that it is desirable to require of a lad of nineteen, but a sound knowledge of some fow main and primary studies; a knowledge not great in itself, but yet involving a knowledge of the conditions of all true learning; a knowledge of the difference between ignorance and knowledge; the only kind of knowledge which is suggestive and fertile and not easily lost.

The Rev. T. B. Rowe, of Tonbridge School, observes that pollmen are presumably average men, with no determining taste for either Science or Literature, and of moderate ability. A modicum of both Science and Literature may be required of them, and should include Greek, as hitherto. The "smattering" which pollmen are said to acquire of Greek is as sound as any knowledge within their grasp, and is usually the most educationally fruitful of their acquirements. There is no substitute for it possible. For Honors for a literary degree, of whatever sort, Greek is an essential. - No substitute is possible. For Honors for a scientific degree (including the Mathematical Tripos), Greek may well be excused, or rather a choice allowed, in the Previous examinations. The only choice I should think good would be "wider" Latin, including a serious testing in "unseen" translation: but it is possible that German might also be admissable.

The Rev. Edward Thring, Head Master of Uppingham, writes: In my opinion, unless we are to give up the idea of a literary educatica, boys of average ability must learn Greek. Badly taught subjects no doubt are profitless in proportion to their difficulty. But legislation should legislate for progress and improvement, not for retrograde movement. From this point of view I do not see how all the original thought, all the original beauty, and all the principle article is the project would be applied a profit by original artistic skill of the ancient world can be excluded profitably from high education. And if we destroy the steps up, we destroy the high education. If Greek is given up, Greek, and with it Asiatic History, will fall. Are we prepared for this? If Greek is given up, the most important poetry, philosophy, theology, and we may add Philology of the world, become a narrow monopoly. The Greek Testament would be closed to many more than it is at present. Are we prepared for this? The ignorance displayed by many eminent men of the facts of human progress is not encourage Greater ignorance must be the result of dropping Greek. ing.

do not see that the case of boys of average ability can be separated off, and dealt with singly by itself. If Greek continues to be taught universally in all schools of eminence, the ordinary educated Englishman will know something of Greek, and all will be able to go on, if they choose. If Greek is not continued, only a few will learn, the door will be closed to the majority, and the question whether they are boys of average ability will not come forward at all. No line can be drawn where the mere drudgery of training ends and literary power begins. Till that is possible, no answer can be given of the educational value of Gree': to the average boy, beyond the answer, which however evades the whole exercise of mental gymnastics, and as a matter of vocabulary, it is the best subject known. I do not see how any modern subject can be a substitute for the whole interest of the ancient thought power of mankind; or how any modern language, with the fatal facility of mistaking a parrot-like fluency for knowledge, can give the mental training that is involved in learning Greek. I should not alter the educational system or arrangements of this school in the least in consequence of the legislation of the Universities on the subject of Greek; remembering always how many years Cambridge had no Classical Tripos, but the schools nevertheless remained classical schools. The modern subjects are either worthy of a degree, or they are not. If they are there are there are the advanced to the schools. a degree, as I think they are, then a degree given for them is an intelligible honor, and a thoroughly satisfactory conclusion. If they are not worthy of a degree of their own (as some of their promoters appear to think), they ought not to make the B.A. degree less of a reality, in order that they may seem to share a

culture which they do not share.

The Rev. E. C. Wickham, Head Master of Wellington College: Theoretically, and supposing the arrangements for teaching to be put on a level, I feel it very difficult to weigh subjects against one another in respect of educational value. Practically I am convinced that the education on the modern side, although successful for its chief immediate purpose, viz., that of preparing boys for the Army Examinations, is not nearly so cultivating to the intelligence, even to average boys, as that on the Classical side. As to the effect of such a change as that suggested upon school education, I must say that I do not desire to encourage our 'Modern' departments by making them generally avenues to the Universities. They seem to me very valuable for their own purposes. They find boys who are going to the army, business, country life, studies more within their tastes and more directly and practically useful than the Classics. But go far as I have seen oneir working here (and our Modern School is successful for its own purpose, but perhaps dominated more than some by the necessities of Army Examinations), I do not feel that the new education is as educating as the old. A boy of the same age and capacity in the Classical School will understand an English author better, will write a better letter, speak better in the Debating Society, start more intelligently at a new subject, than his equal at the Modern School. Opening the University generally to boys in the Modern School would, no doubt, in the present temper of English parents, draw boys from the Classical to the Modern School. I doubt whether, in the face of the practical aims which limit the Modern School education, it would raise the tone of culture in it to a degree which would compensate.

The *Rev. Prebendary Scott, Head Master of Westminster

School, reports that the unanimous opinion of the masters there is in favor of retaining Greek as a compulsory subject for ordinary degrees at Cambridge. He adds:—I do not think any language could be substituted for it without serious educational loss, as things now stand. The precision of the Classical tongues and the accuracy with which the syntax has been analysed, as well as the fact that the rules are fixed and not liable to change from varying usage, make them of peculiar value for education. It is doubtful whether Latin would long survive the separation from Greek; and the Greek literature is infinitely richer and more full of interest for boys, as well as for grown men.

" BUT."

I have been much amused by the article on the word "But" in the Canada School Journal for May, by H. P. B. For puzzle-headedness it beats anything I ever met with. He tells us that "All but him had fled" must be bad grammar, because "all" is not the subject, for all had not fled; consequently "him" is a vergents. Now, Todhunter, Ex. XLIV., 18,

part of the subject, and as the subject must be in the nominative. "him" must be "he." Does he not see that if "he" is a part of the subject, since the verb states comething about that which the subject denotes, "had fled" must be stated of "he" as well as of "all," that is to say he had fled, which flatly contradicts the sense of the passage?

It is quite true that expressions like "All but he had fled" are so common that usage tolerates them, but it remains true that in such phrases "but" was originally and properly a preposition. The dative case follows it in Anglo-Saxon. For example, in Beowulf (1 705) we read: "Secotend sweeton calle buton anun," = "the men-at-arms slept, all but one." About that point there can be no dispute. The word buton (=but) is a preposition and not a conjunction in such constructions.

H. P. B. must try and master the fact that if x stands for a certain "all," then x-1 may be described in words as "all minus one," "all save one," "all except one" (i.e., "all, one being left out"), or "all leaving out one" indifferently.

C. P. MASON.

London, May, 1880.

Mathematical Department.

Communications intended for this part of the Journal should be on separate sheets, written on one side only, and properly paged to provent mistakes. They must be received on or before the 20th of the month to secure notice in the succeeding issue, and must be accompanied by the correspondents' names and addresses

SOLUTIONS OF PROBLEMS IN EXAMINATION PAPERS.

Not having room for solutions of all the questions in last issue, we give those of the problems in the Honor Algebra-Trigonometry and Problem Papers, as likely to be of greatest interest or present the greatest difficulty.

ALGEBRA AND TRIGONOMETRY-HONORS.

2. Rider. Let $1.1^{2} + ... + n(n^{2} + ... + 1^{2}) = A + Bn + Cn^{2} + Dn^{3} + En^{4} + Fn^{5}(1)$ Then... $+(n+1)\{(n+1)^2+...+1^2\} = A+B(n+1)+...$ Subtracting.

$$(n+1)\{(n+1)^2+...+1^2\} = B + C(2n+1) + D(3n^2+3n+1) + E(4n^3+6n^2+4n+1) + F(Fn^4+10n^3+10n^2+5n+1) +$$

$$\therefore (n+1)\frac{(n+1)(n+2)(2n+8)}{6} =$$

In this identity equating the coefficients of the different powers of n, we find B, C, D, E, F, the coefficients beyond F vanishing. A may be found by inserting in (1) the values of B......F, and putting n=1.

8. Rider.
$$\sqrt{n^2+1}-n=$$

$$\frac{1}{\sqrt{n^2+1}+n} > \frac{1}{\sqrt{n^2+2n+1}+n} > \frac{1}{2n+1}$$

... the series is greater than $\frac{1}{1} + \frac{1}{8} + \frac{1}{5} + \dots$, which is divergent (See Todhunter or Gross), and ... the series is diver-

4. Rider.
$$n f_p = \frac{n.(n+1).....(n+p-2)}{|p-1|}$$
 (Todhunter, § 669)

$$=\frac{\frac{|n+p-2|}{|p-1|}}{\frac{|p-1|}{|p-1|}} = \frac{p \cdot (p+1) \cdot \dots \cdot (p+n-2)}{\frac{|n-1|}{|p-1|}} =$$

coeff. of x^{n-1} in $(1-x)^{-p}$

$$(1-x)^{-r} = {}_{1}f_{r} + {}_{2}f_{r}x + \dots + {}_{m}f_{r}x^{m-1} + \dots$$

$$(1-x)^{-r} = {}_{1}f_{s} + {}_{2}f_{s}x + \dots + {}_{m}f_{s}x^{m-1} + \dots$$

... series is coeff. of x^{m-1} in $(1-x)^{-(r+s)} = {}_{m}f_{r+s}$, by (1).

5. Rider. Assume that it holds for the (n-1)th and nth con-

$$p_{n+1} = (n+1)(p_n+p_{n-1})$$

$$q_{n+1} = (n+1)(q_n+q_{n-1})$$

$$p_{n+1} + q_{n+1} = (n+1)(\frac{|n+1|+|n|}{n}), \text{ (by assumption)},$$

$$= \frac{|n+1|}{n}(n+1+1) = \frac{|n+2|}{n}.$$

Hence if the law holds for the (n-1)th and nth, it holds for the (n+1)th; but it may be shewn to hold for the first and second, therefore for the 3rd, and therefore for the 4th, &c., and therefore generally.

7. Rider.
$$f(2x) = \frac{\cos 2x}{\cos^2 x} f(x)$$

$$\therefore f(x) = \frac{\cos x}{\cos^2 \frac{x}{2}} \cdot f\left(\frac{x}{2}\right)$$

$$= \frac{\cos x}{\cos^2 \frac{x}{2}} \cdot \frac{\cos \frac{x}{2}}{\cos^2 \frac{x}{2^2}} f\left(\frac{x}{2^2}\right)$$

$$= \frac{\cos x}{\cos^2 \frac{x}{2}} \cdot \frac{\cos x}{\cos^2 \frac{x}{2^2}} f(x)$$

$$= \frac{\cos x}{\cos^2 \frac{x}{2}} \cdot \frac{\cos x}{\cos^2 \frac{x}{2^2}} \cdot \frac{\cos x}{2^2} \cdot$$

11. Rider. Todhunter, Trig., § 810.

12. Riders. See Todhunter's Trigonometry, Ex. XXIII., 4 and 5, also note on these in Answers.

PROBLEMS .- HONORS.

- 1. Let ABC be the triangle. Draw AD bisecting the angle A. In AD take any point E, and draw EF perpendicular to AC. Construct the triangle CGH so that CG=AE, GH=2EF and GH perpendicular to AC; and let CG meet AD in D. The proof is evident. The construction is suggested by the trigonometrical formula $\frac{\sin A}{\sin A} = \frac{\sin B}{\sin B}$
- 2. Let ABC be the triangle, and let the line bisecting the exterior angle at A meet BC in D. About ABC describe a circle, and let DA produced cut this circle in E. Then the triangles EAC, BAD are equiangular; $\therefore EA$, AD = BA, AC. To each add the sq. on AD, and BA, $AC+AD^2 = ED$, DA = BD, DC. Proof suggested by that of Prop. B, Euc., Bk. VI.
 - 8. Readily obtained from the formula

(area)
$$A = \sqrt{s(s-a)(s-b)(s-c)}$$

(area) $A = \sqrt{s(s-a)(s-b)(s-c)}$ by inserting $\frac{2A}{x}$ for $a, \frac{2A}{y}$ for b, &c., and reducing.

4. See Todhunter's Algebra, Examples XXXV., No. 20: "If t_0 , t1, &c."

5. Let
$$S' = \frac{1}{1} + \frac{1}{5} + \frac{1}{14} + \frac{1}{80} + \dots + \frac{1}{\frac{1}{4(n+1)(2n+1)}} + \frac{1}{\frac{1}{4(n+1)(n+2)(2n+8)}}$$

there being n+1 terms. It will be observed that the denominators are the sum of the squares of all the positive integers up to that which is the number of the term. Thus $80=1^2+2^2+3^2+4^2$.

$$\therefore S'-1 = \frac{1}{5} + \frac{1}{14} + \frac{1}{80} + \dots + \frac{1}{\frac{1}{(n+1)(n+2)(2n+3)}}$$

$$\therefore 1 = \frac{4}{1 \cdot 5} + \frac{9}{5 \cdot 14} + \dots + \frac{1}{\frac{1}{(n+1)(n+2)(2n+3)}}$$

$$\therefore \text{ required sories} = 1 - \frac{6}{(n+1)(n+2)(2n+3)}.$$

6. If r be the ending digit in the number. Then on raising the number to its nth power, to determine the digit in which it ends, we have only to consider p^n , as this is the only part of the power that can affect the units place.

By Fermat's Theorem, $p^{n-1}-1$ is a multiple of n. p^n-p

Also if p be odd, $p^{n-1}-1$ is a multiple of 2n, and therefore also $p^n - p$ is. And if p be even $p^n - p$ is a multiple of 2n. Hence p^n = a multiple of 2n+p, and the power ends in p.

7. It will be found that the quotients are all 1; and each numerator is therefore formed by adding together the two preceding numerators. Hence

$$p_{2n} - p_{2n-2} = p_{2n-1}$$

$$p_{2n-2} - p_{2n-4} = p_{2n-3}$$
&C.,
$$p_4 - p_2 = p_3.$$

And adding, the required result is obtained.

The problem is analogous to that discussed in Todhunter's Algebra, § 499. No combination formula, however, need be used. Thus in (2) we may take 12 α 's and 18 π 's, 11 and 14, or 10 and 15, giving three combinations. Also we may take 12α 's, 12π 's, and 1or 11, 18, 1, or 10, 14, 1, or 9, 15, 1; or 12, 11, 2, or 11, 12, 2, The answers are 15 and 12.

9. The problem is not correct. We suggest that it be altered to "Prove that $\varphi(0)+\dots+\varphi(n)=8^n$," and proceed as follows: Multiplying n into the bracket,

$$\varphi(r) = \frac{n(n-1).....(n-r+1)}{|r|} + \frac{n(n-1).....(n-r+2)}{|r-1|}.r + ...$$

$$\text{Now } (1+x)\{1+x(1+x)\}^n = (1+x)+nx(1+x)^2 +$$

$$+ \frac{n(n-1)...(n-r+1)}{|r|}x^r(1+x)^{r+1} + ...$$

In this the coefficient of x^r is

$$\frac{\frac{n(n-1)...(n-r+1)}{|\underline{r}|} + \frac{n(n-1)...(n-r+2)}{|\underline{r-1}|}.r + \frac{n(n-1)....(n-r+3)}{|\underline{r-2}|}.r + \frac{n(n-1)....(n-r+3)}{|\underline{r-2}|}.\frac{(r-1)(r-2)}{|\underline{2}|} +, i.e., \varphi(r).$$

Hence $\varphi(0) + + \varphi(2n+1) =$

sum of coeffs. in $(1+x)\{1+x(1+x)\}^n = 2\cdot 8^n$.

Or since coefficients equidistant from beginning and end are equal,

$$\begin{array}{c|c} \phi(0) + \dots + \phi(n) = 3^{n}. \\ 10. & \alpha, -1, -1 \\ -1, \beta, -1 \\ -1, -1, \gamma \end{array} = 0.$$

11. (1.) Substitute $\frac{\pi}{2} - (A+B)$ for C.

$$\frac{1}{\tan A} + \frac{1}{\tan B} + \tan (A+B) \frac{\tan A \tan B - 1}{\tan A \tan B} = 0, \text{ an identity.}$$
(2.) Laue if $\sin A \cos B \cos C + \dots + \dots = \sin A \sin B \sin C + 1$.

if $\sin (A+B+C)=1$

if
$$\sin \frac{\pi}{2} = 1$$
.

2. Let the circles intersect in BC at D; and let the tangents intersect in E; let the circle on AC have its centre at H, and let F (in DE) be the centre of the circle whose radius is required. Draw FG perpendicular to EO. Then

$$FH^2 = GC^2 + (HC - FG)^2$$
.

Or if a be the radius of the circle on AC, and x that of the small circle,

$$(a+x)^2 = \left(\frac{2a}{\sqrt{8}} - \frac{x}{\sqrt{8}}\right)^2 + (a-x)^2$$

13. $AA^{12} = a^2 + c^2 - 2ac \cos(B - 60^\circ)$.

 $AA''^2 = a^2 + c^2 - 2ac \cos (B + 60^\circ).$

Whence $(AA^{1}AA'')^{2} = a^{4} + b^{4} + c^{4} - a^{2}b^{2} - a^{2}c^{2} - b^{2}c^{2}$.

So also by symmetry (BB'.BB") and (CC'.CC'') equal the same.

14.
$$p = \frac{a}{2 \tan A}$$
, &c. Substituting, expression is true if

$$\frac{abc}{4 \tan B \tan C} + \dots = \frac{abc}{4}$$

if $\tan A + \tan B + \tan C = \tan A \tan B \tan C$.

15. The circle through the foci will plainly have its centre in the axis minor. Let this centre (B) be at distance β from the origin. Then the equation to this circle is $x^2 + y^2 - 2\beta y = a^2 e^2$, (1). Let A be the point from which tangents are drawn. Then the equation to a circle on AB as diameter is $x^2 + y^2 - ax - \beta y = 0$, (2). Evidently the points of contact which form the locus, will be where (1) cuts (2). Eliminating β , we obtain for this locus $(x-a)^2 + y^2 = a^2(1-e^2) = b^2$,—a circle whose radius is b. Of course by varying β in (1) we get circles which pass through all points of the ellipse, and on eliminating β we obtain a result which holds for all such circles.

16. If (x, y) be co-ordinates of P, since PE equals intercept of tangent at P on axis of y, $PE = \frac{b^2}{y}$; also CN = x. \therefore area $= \frac{1}{2}$

$$CN.PE = \frac{1}{2} \frac{b^2}{y}$$
, $x = \frac{1}{2}BC^2 \cdot \frac{CN}{PN}$,—a different result from that given.

17. Make CA, CI the axes, and form the equations to the lines passing through the ends of the perpendiculars, and thence find the angle between these lines. The results are cumbrous. Doubtless some short method exists.

18. Let r be the radius vector to the point of contact, and p the perpendicular from the focus on the tangent. The equation to PT may be written $x \cos \alpha + y \sin \alpha = \sqrt{a^2 \cos^2 \alpha + b^2 \sin^2 \alpha}$.

$$p = \sqrt{a^2 \cos^2 \alpha + b^2 \sin^2 \alpha} - ae \cos \alpha.$$

If (x', y') be the point of contact,

$$\frac{x'}{a^2} = \frac{y'}{b^2} = \frac{1}{\sqrt{\dots}}$$

$$\therefore x' = \frac{a^2 \cos \alpha}{\sqrt{\dots}}$$

$$\therefore r = a - cx' = a \cdot \frac{1}{\sqrt{\dots}} - ae \cos \alpha$$

$$\therefore \sin SPT = \frac{y}{T} = \frac{\sqrt{a^2 \cos^2 \alpha + b^2 \sin^2 \alpha}}{\sqrt{\dots}}$$

And ... since the other tangent is perpendicular to this

$$\sin SQT = \frac{\sqrt{a^2 \sin^2 \alpha + b^2 \cos^2 \alpha}}{a}$$

$$\therefore \sin^2 SPT + \sin^2 SQT = \frac{a^2 + b^2}{a^2} = \text{const.}$$

SOLUTIONS OF PROBLEMS IN APRIL NO.

1.
$$\sqrt[3]{a+x+\sqrt[3]{a-x}}=b$$
.

Cubing
$$a+x+3\sqrt[3]{a^2-x^2}$$
 ($\sqrt[3]{a+x}+\sqrt[3]{a-x}$) $+a-x=b^3$.
 $\therefore 8\sqrt[3]{a^2-x^2}$ (b) $=b^3-2a$.
 $x^2=a^2-\left(\frac{b^3-2a}{9b}\right)^3$; whence x .

8.
$$x^{2} - yz = a^{2}$$
, $y^{2} - zx = b^{2}$, $z^{2} - xy = c^{2}$.

Multiplying the second and third together, and subtracting the square of the first, we get

$$x(3xyz-x^3-y^3-z^3)=b^2c^2-a^4.$$

Hence by symmetry,

$$\frac{x}{a^4 - b^2c^2} = \frac{y}{b^4 - c^2a^2} = \frac{z}{c^4 - a^2b^2} = k, \text{ suppose.}$$

Hence substituting in the first equation,

$$k^2(a^6+b^6+c^6-3a^2b^2c^2)=1.$$

whence
$$x = \pm \frac{a^4 - b^2 c^2}{(a^6 + b^6 + c^6 - 3a^2b^2c^2)^4}$$

5. Solution by Neil Morrison, of Oro.

D goes 1760 while B goes 1720

$$\therefore \quad \text{``1700 ``} \quad \text{``} \quad \frac{1720 \times 1700}{1760} = 1661_{\text{Tr}}.$$

But C goes 1760 while D goes 1700, therefore C goes 1760 while B goes 1661.

Now A goes 1760 while B goes 1740.

$$\therefore B \text{ " } 1661_{\text{Y}}\text{ " } A \text{ " } \frac{1760}{1740} \times 1661_{\text{Y}} = 1668_{\text{1}}.$$

But C goes 1760 while B goes 1661. Therefore C beats $A \cdot by$ 91. yards.

We have received attempts at solutions of 2 and 4, none of which, however, were successful, and we leave the problems for the further exercise of the ingenuity of our subscribers. Of course they may may be solved by any of the methods used in the case of biquadratics. (D. M. C. Your solution of 4 failed at the point where you obtained $a-y-x^2=d(a-y-x^2)$, and concluded that d=1. It must be remembered that $x^2+y=a$, and that we are therefore not justified in dividing out by the factor $a-y-x^2$ which is zero. You will find that your values will not satisfy the second equation.

Mr. D. J. Scully, Lindsay, has forwarded the following solution of the ladder problem of the January issue, in which by a somewhat elaborate but sufficiently ingenious geometrical construction he has avoided the solution of an ordinary quadratic:

Let AB be the horizontal plane, AC the shorter column, and C the longer. At the point C in straight line C make an angle C equal to the angle of an equilateral triangle (I. 23) to meet horizontal plane in C. From C cut off a part C equal to the longer column. From C draw C at right angles to C to meet C in C in C. Upon C and C describe equilateral triangles C in C is seet angle C in C in C in C in C in C is seet angle C in C in C in C in C is seet angle C in C

Triangles CEF and GKF can be proved equal in all respects.

$$\therefore CE = GK = 180; CD = 220; \therefore ED = 90,$$

also $AD = 110\sqrt{8}$. $\therefore CL = 110\sqrt{8}$. Triangles CLD and DEF are equiangular, and therefore sides about the equal angles proportionals (VI. 4).

.. CL : LD :: ED : EF, or $110\sqrt{8} : 110 :: 90 : EF$, and hence $EF = \frac{110\times90}{110\sqrt{8}} = 80\sqrt{8}$,

.. $CF = \sqrt{(180)^4 + (80\sqrt{8})^4} = 140 = \text{required length of ladder.}$ The algebra solution gives also its length = 140.

PROBLEMS FOR SOLUTION.

Subscribers ask for solutions of the following:

- 1. A beam, AB, rests with one end, A, against a smooth vertical wall, and the other end, B, on a smooth, horizontal plane; it is prevented from sliding by a cord tied to one end of the beam, and to a peg at the bottom of the wall. The length of the beam is 10 ft. 6 in., and the length of the string 9 ft. Suppose the weight of the beam to be 112 lbs., and to act vertically through its middle point, find the forces acting on the leam.
- 2. The paper duty was 1½d. per lb., and the weight of a certain book 1½ lbs. The paper manufacturer realized 10 per cent. on his sale, and the publisher 20 per cent. on his outlay. What reduction might be made in the price of the book on the abolition of the paper duty, allowing to each tradesman the same rate of profit as before?
- 8. A broker charges me 1½ per cent. commission for purchasing some uncurrent bank bills at 25 per cent. discount; of these bills, three of \$10 each, and one of \$50 become worthless. I dispose of the remainder at par and thus make \$520. What was the amount of bills purchased?

 W. A. Moffat, South Gloucester.
- 4. In any triangle ABC it is required to find points D in AB, E in BC, and F in AC, such that AD = AF, BD = BE, and CE = CF, using no proposition beyond Book I., Euc.

W. S. CRANSTON, Amprior.

- A. M., Piukerton.—Space would not permit our inserting the solutions of these 24 problems. If, however, you copy and send any one which is particularly troublesome, we will send you the solution.
- G. R. M., Uxbridge.—Your problems have, in effect, appeared in a previous number.

Subscriber, New Brunswick.—There must be something wrong about your problem which says "\frac{2}{3} of 1\frac{1}{2} times his ready money, and \frac{1}{2} of what was then left," for \frac{2}{3} of 1\frac{1}{2} would be all. We fear, however, that the style of problem is too easy for insertion.

MR. J. J. PARKER, of Truro, Nova Scotia, sends us two solutions of the "Celebrated Problem," of our May issue. We regret that want of space prevents us from inserting them,—they are exceedingly good. He also informs us that he has two other solutions. We hope to be able to find space for all of them at some subsequent time.

Practical Department.

PROGRAMME OF EDUCATIONAL MEETINGS DURING THE HOLIDAYS.

The true teacher always learns more from men than from books. He will be intellectually quickened to a greater extent by a few days spent in actual contact with teachers, and the leaders of educational thought than by a year of study of books. Canadian teachers are exceptionally privileged this year in having three great meetings within their reach. The Ontario Teachers' Association meets in Toronto August 10th, 11th, and 12th, and an unusually good programme has been provided. The fact that the system of Industrial Drawing introduced into Boston by Mr. Walter Smith, will be explained and illustrated by a very large collection of the work done by the pupils in that city, is in itself a sufficient attraction to cause a large attendance.

The National Teachers' Association of the United States meets at the beautiful Lake Chautauqua in July, from the 13th to the 16th. The fare from Toronto and return is about \$5.00.

The International Society for the Investigation of the Principles of Traching meets at Wellesley Island on the 16th of August. A full day is to be devoted to the consideration of each subject. This is a very important society, and Canadian inspectors, and Normal and Model School teachers would obtain much benefit by joining it. All teachers are at liberty to attend its meetings. Professor Hoose, whose portrait is given on the first page of this number of the Journal, is the President of the Society.

Below are given the programmes of the meetings above named:

ONTARIO TEACHERS' ASSOCIATION.

The twentieth Annual Meeting will be held in the Public Hall of the Normal School, Toronto, on August 10th, 11th, and 12th, 1880.

The following subjects will be discussed:

Prosident's Opening Address-Mr. R. ALEXANDER, Newmarket.

Industrial Drawing, with an Art Exhibition of the work done in the Boston Schools, Mr. Walter Smith, State Director of Art, Mass.

The Teacher as a Moulder of Character, PROPESSOR WPLL, Canadian Literary Institute, Woodstock.

The Natural Sciences in Public Schools, MR. D BOYLE, Elora.

Physical Education in School, Mr. J. COYLE BROWN, I.P.S., Peterborough.

Professional Examinations in County Model Schools, Mr. J. DEARNESS, I.P.S.,
East Middlesox.

Recent School Legislation, Mr. D. Fotheringhay, LP.S., Aurora.

PROFESSOR GOLDWIN SMITH will address the Association, if in Toronto at the time of the Concention.

High School Section.

FIRST DAY -I. Legislative Aid for Secondary Education, introduced by A. Purslow B A., Lilb., High School, Port Hope, and A. P. Kright, M.A., Coll. Inst., Kingston. II High School Regulations, G20. H. Robinson, M.A., High School, Whitby.

SECOND DAY.—Text Books and Departmental Examinations, H. J. STRANG, B.A., High School, Goderich, and D. C. McHenry, M.A., Coll. Inst., Cobourg.

THIRD DAY. I. The University and the Righ Schools, J. MILLAR, M.A., Coll. Inst., St. Thomas. II. General Business.

Public School Section.

Becent School Legislation, MR. W. B. HARVEY, Barrie.

Rotation of Examiners, MR. S. MCALLISTER, Toronto.

Is I rovinctal Uniformity of Text Books Desirable 1 Mr.D. Herner, Waterloo. Is it desirable to make any change in the Superannuation Regulations 1 Mr. D. BOYLE, Elora.

Representation of the Provincial Association, Mr. F. W. CHAPMAN. Means of Supply of Teachers, Mr. H. DICESNSON, Stratford

The Inspector's Section will have interesting work in addition to the above.

PROGRAMME OF THE NINETEENTH ANNUAL MEETING OF THE NATIONAL EDUCATIONAL ASSOCIATION, TO BE HELD AT CHAU-TAUQUA, N. Y., JULY 13, 14, 15, 16, 1880.

TUPSDAY JULY 13.-Morning Session-1. Prayer. 2. The Inaugural Address: J. Ormond Wilson, Superintendent of the Public Schools of the District of Columbia, Washington, D. C. S. Paper: Object Lessons in Morals, the Rev. A. P. Mayo, Springfield, Mass. 4. Modelling in the Public Schools as well as in the Kindergar en-an Exercise in Clay Edward A. Spring, Sculptor, Perth Amboy, N. J. 5. Report of Messrs. J. P. Wickersham, M. A. Newell, and J. Ormond Wilson, the committee appointed at the Philadelphia Meeting to secure from Congress an Act of Incorporation of the Association. 6. Appointment of Committees; Miscellaneous unsiness. Afternoon Session-Department of Industrial Education-1. O: ening Address: Technical Training in American Education, President E. E. White, Purdue University, Lafayette, Indiana, President of the Department. 2. Paper: Technical Instruction in the Landgrant Colleges, President J M. Gregory, Illinois Industrial University, Urbana, Illinois. Evening Session-1. Paper: The Massachusotts System of Industrial Art Education, Prof. Walter Smith, State Director of Art Education, Boston, Massachusetts. 2. Paper: The Unattainable in Public School Education, A. P. Marble, Superintendent of Public Schools, Worcester, Massachusetts.

WEDNESDAY, JULY 14.—Morning Sestion—1. Prayer; Unfinished miscellaneous business. 2. Paper: The Domain of Nature and of Art in the Process of Education, Prof. W. H. Payne, Chair of Education, University of Michigan, Ann Arbor, Michigan. 3. Paper: Normal Departments in State Universities, Misson Grace C. Birr, Professor of Pedagogies, Missouri State University, Missonri. Afternoon Session—Department of Normal Schools—1. Opening Address, J. C. Gilchrist, Principal of the Iowa State Normal School, Cedar Falls, Iowa, President of the Department. 2. Paper: The Study of the Philosophy of Teaching—its value in the Preparation of Teachers, A. G. Boydon, Principal of the State Normal School, Bridgewater, Massachusetts. 3. Paper: Instruction in

Subject-Matter, a legitimate part of Normal School Work, G. L. Osborne, Prosident of the State Normal School, Warrensburg, Missouri. 4. Paper: The Obstructions, Natural and Interposed, that resist the Fornation and Growth of the Pedagogic Profession, G. P. Brown. Principal of the State Normal School, Terre Haute, Indisan. 5. Paper: The Science and the Art of Education—to what extent developed and what their Deficiencies, J. H. Hoose, Principal of the State Normal and Training School, Cortland, New York. Evening Session—1. Paper: The Development of the Superintendency, Charles Francis Adams, Jr., Quincy, Mussachusetts. 2. Paper: The Education of the Negro—its Ri o, Progress, and present Status, Gustavus J. Orr, State School Commissioner, Atlanta, Georgia.

THURSDAY, JULY 15.-Mörning Session-1. Prayer; unfinished miscellaucous business. 2. Paper: Effect of Methods of Instruction upon the Results of School Work, J. W. Dickinson, Secretary of the State Board of Education-Boston, Mass. 3. Paper: Text-Books and their Uses, William T. Harris, Superintendent of Public Schools, St. Louis, Missouri. Afternoon Session-Department of Elementary Schools-1 Opening Address, J. H Smart, State Superintendent of Public Schools, Indianapolis, Indiana, President of the Department 2. Paper. The Debasement of the Moral Currency. Miss Mary W Hinman, Teacher, La Porte, Indiana. 3. Paper: What should we seek to accomplish in the Reading Exercise, E G. Vaile, Principal Clark School, Chicago, Illinois, 4. Paper: How can Character be Symmetrically Developed, Miss Ellen Hyde. Teacher, Framingham, Massachusetts. Evening Session-1 Paper What Constitutes a Practical Course of Study in our Graded Schools, Edgar A. Singer Teacher Public Schools of Philadelphia, Pennsylvania. 2 Paper: From Pesta lozzi to Froobel, W. N. Hailmann, Editor "The New Education," Detroit Michigan.

FRIDAY, JULY 16 .- Morning Session-1. Prayer: unfinished miscellaneous business. 2. Report of Messrs. Joseph A. Paxson, J. P. Wickersham, and J. L. Pickard, the Committee appointed at the Philadelphia meeting of the Association to procure statistics showing what proportion of convicts in prisons and penitentiaries received full or partial education in Universities, Colleges, Normal, High, Grammar, or Primary Schools, public or private, and to report such other statistics as to the relation between education and crime as the committee may deem important. 3. Paper: The importance of having the Primary, Secondary, and Collegiate System of Education fit into each other, President James McCosh, the College of New Jersey, Princeton, New Jersey, Afternoon Session .- Department of Higher Instruction-1. Opening Address Prof. E. T. Tappan, Kenyon College, Gambier, Ohio, President of the Department. 2 Paper: Equivalents in a Liberal Course of Study, William T. Harris, Superintendent of Public Schools, St. Louis, Missouri. S. Paper Scholarships, President Josiah L. Pickard, State University of Iowa, Iowa City, Iowa. 4. Paper: Extra Class-Work, Prof. Edward S. Joynes, East Tennessee University, Knoxville, Tennessee. Evening Session-1. Paper: The Relations of Educators to Spelling Reform, Prof. F. A. March, Lafayette C llege, Easton, Pennsylvania. 2. Reports of Committees and unfinished business. 3. Reports from the several States and Territories represented.

The Hon. John Eaton, U.S. Commissioner of Education, the Hon. James A. Garfield, of Ohio, and Colonel F. A. Parker, late Superintendent of the Quincy (Mass.) Public Schools, have been specially invited and are expected to take part in the meeting. The President of the United States has also been invited to visit the Association during its sessions, and will consider the invitation favorably if his public duties will permit.

INTERNATIONAL SOCIETY FOR THE INVESTIGATION OF THE PRINCIPLES OF TEACHING .- Programme for 1850-The Society will hold public meetings in the Tabernacle at Thousand Island Park, beginning at 10 o'clock, a.m., Monday August 16th, and closing Saturday, 21st. The following subjects will be presented: L Intellectual Education: its Nature, Province and Method. By Dr. C. W. Bennett, D.D., Professor of History and Logic, Syracuse University, Syracuse, N. Y. H. Laws of Methods of Teaching. By Dr. W. T. Harris, LL.D., Superintendent of Public Schools, St. Louis, Mo. III. Moral Education in Public Schools: its Nature, Province and Method. By Dr D.H. McVicar, LL.D., Principal of Presbyterian College, Montreal, Que. IV. Art Education in Pub-He Schools. its Nature, Province and Method. By Prof. M. M. Maycock, Professor of Drawing, State Normal and Training School, Buffalo, N.Y. V. How . hildren Learn to Read. By Col.F. W. Parker, late Superintendent of the Public Schools Quincy, Mass., now of Boston, Mass. VI. Prof. W. Payne, A.M., of the Chair of Education, Michigan University, Ann Arbor, Mich., will give a paper, his subject to be announced. VII School Government: its Nature, Province and Method, by Dr. J. H. Hoose, Ph.D., Principal of the State Normal and Training School, Cortland, N. Y.

IMPORTANCE OF PHYSICAL EDUCATION.

PAPER READ BEFORE THE LINCOLN TEACHERS' ASSOCIATION, BY MISS

1. DARCHE, OF ST. CATHARINES.

Many and great minds have been occupied in planning and revising our educational system, till we find it one of the most

complete in the whole world; yet it is only a one-sided system after all, taking care only of the mind, and leaving the body to take care of itself as best it can; for, while every attention has been paid to the best methods of developing mental capabilities, and some attention to moral development, little or no attention has been paid to an equally important branch of education, the physical.

And what are the results of this one-sided system? We have only to look about us to see them. I have here an account of one result, that I but recently clipped out of the Globe: it reads as follows:—

Now if, in the education of this young man, this predisposition to weakness of lung power had been noted, and from the first exercises given that would have built up and strengthened this particular weakness, and if, all through his life as a student, attention had been given to his physical culture, so that, as his mind became trained and cultivated, his body had been also developed and strengthened, when the last hard pull came, would he not have been prepared for it, instead of its being the "last straw" to break him down?

How many in our High Schools and Universities are ruining their prospects for a useful and successful life by this almost entire disregard of physical culture? Inherited weaknesses, that might with a little systematic and persistent care be overcome, are gaining a greater and greater hold till, when at last the long-coveted goal is reached, the final examination passed, and the real struggle of life begins, the graduate, if he does not break down altogether, often finds himself afflicted with some chronic weakness or disease that will, in a great measure, impair his usefulness tor life.

Then look at men who are non-professional business men, men of sedentary habits, how few are strong and hearty, abounding with life and vitality!

Look at our mechanics! Although their work is such that a great deal of muscular action is required—enough, it may be, to insure them good digestion, good circulation and respiration—and in the main they are healthy; yet, as only some of the muscles are called into action, the rest remaining dormant, their bodies are not harmoniously developed; and thus we often find them disproportioned and ungainly.

How do we find the women of the present generation? How many of them do we find physically well developed? Sad to say, their number is even less than that of the men. How many of them, even if they have no chronic disease or especial weakness, have a general feeling of weariness, are "tired from morning till night?" A certain routine of work there is to be done, and it is is done, but not turned off as it might have been, with ease and pleasure, had the education of the body been thought as important as that of the mind.

These, then, are some of the results of the lack of physical culture in our system of education.

Few people appreciate the fact that the body can be trained and developed just as readily as the mind, and that a few minutes daily, if properly employed, will do much, very much, to draw out and strengthen the physical resources.

Everyone knows, if one arm be tied up and not used for a

month, and the other used vigorously during that time, what the result will be-which will be the stronger, the used arm, or the unused arm. So it is with all the muscles of the body-use them and they will strengthen. Emerson's rule that "in all human action, those faculties will be strong which are used," holds good here; so does Maclaren's, that "where the activity is, there will be the development." And this is easily explained; for exercising vigorously flushes the muscles used with blood, building them up; this calls for a fresh supply of blood, which demand is answered by increased appetite and greater supply of food, the respiration is increased, every air cell in the lungs being filled at least during the time of action; and if the exercise be of the right kind, the shoulders will be forced down into their proper place, the chest raised, and more room given to the stomach, lungs, heart and other vital organs to perform their part; and, as a result of all this, the whole body will be strengthened and invigorated. Who would not spare half an hour, or at least twenty minutes daily for such a purpose?

There are statistics to show that any person under forty years of age, by devoting only four hours a week, can, if he know the suitable methods, develop dormant muscles, straighten crooked tendencies, strengthen and in fact almost make over again the whole body. If so much can be done in the way of physical culture at this stage of life, how much more can be done in childhood, when the muscles are yet unstrained or hardened, and the framework is yet unsettled.

Every child should be taught that his body is of as much importance as his mind, that the one can be trained and cultivated just as much as the other, and that it is essential to his success in life that neither be neglected; he should know all the principal rules of hygiene, and should have instilled into him the importance of following them; he should be made to understand his body and the laws which govern it.

It is true the boy, while he is a boy, does unconsciously in his play hours do something towards this development; but, in our crowded school yards, with so many active games prohibited, he has not much chance. So then the teacher should take the matter in hand: it is his duty to educate the child, not only mentally and morally, but physically—to educate the whole child, not a part of him; and if it were known how easily, how efficiently, physical exercises may be carried on in school; how they do not detract from the mental work, but help it, freshening the mind, and doing away with much restlessness, how they promote order and discipline, many teachers, if only for the good derived in this way, would be glad to introduce them into their schools.

The method of physical training does not differ very much from that of mental. We all know if we want to educate a child's mind to grasp a chain of reasoning, we first give him two links of that chain, and when he understands just how these links are joined, we give him a third, and when he sees how that is connected to the ones already given, a fourth, and so on until he grasps the whole chain. So, if we want to educate his physical grasp, we must first give exercises suited to the present condition of his muscles, great care being taken not to overstrain any of them; then when these muscles become strong and hardened enough to perform these exercises readily, harder or longer should be given, and so on. Not only should he be trained in this practical way, but he should be made to understand the particular effect of each exercise—how that his body is developed in one direction by one set of exercises, while it will take an entirely different kind to strengthen it in another; how that a movement of one kind will surely make him erect, while the opposite will surely tend to bend him. This knowledge will prove beneficial to him all through life.

know enough of his muscular system to at once see which muscles are used and which unused by his work, and he will also know how to counterbalance the effect of this by a little vigorous exercising in the right direction, thus keeping his whole body in a state of harmonious development. Or, if his occupation be a sedentary one, one requiring brain work, how very important the knowledge to him then is, of how to tone up his body and keep it so. We all know that mental labor expends more nerve force and vitality than physical labor, while the habits of life and the work itself are all contrary to the production of this vitality. Then of how very much more importance is an intelligent knowledge of the body and its requirements to the advanced student, the professional man, or any one whose work is chiefly mental.

Other countries are alive to the importance of this branch of education. Sweden stands pre-eminent, having in all her schools, colleges and universities a thorough system of gymnastics. Germany, England, and other European countries, are imitating her good example.

Some of the colleges of the United States advertise gymnasia in connection with their institutions: thus the welcome note of progress in the right direction is being sounded on our own continent.

It will not be long before the educational authorities of this country will see they are defeating their own aims by this perpetual cramming of the intellect and utter disregard of the education of the body, and when this time comes we may then expect a more complete system—one that will educate mentally, morally, and physically. And though we cannot hope to alter this onesided system, we can, by a practical knowledge of the subject, do much to promote physical development in our own immediate spheres of action; and if what I have said to-day has awakened an interest or desire in any one present to investigate or read up for themselves what can be done in the way of physical education, my object in presenting this subject to the Association will be accomplished.

To those who may be thus desirous for further information, I would recommend as good books the following: "How to get Strong and how to keep so," by Blaikie; "Wear and Tear," by Dr. Mitchell; "Physical Education," by Maclaren; and "Drill and Calisthenics," by Hughes. Out of a multitude of exercises contained in these books, I have selected for daily use in my school, as adapted for the development of the principal muscles of the body, the movements that I now describe, and will afterwards illustrate by the class before us, to show how quickly and how easily physical work can be done in the school-room.

I. Let the children stand single file in the aisles, about six feet from each other. Let the first order be, that all heads and necks be held erect. Once these are placed in their right position, all other parts of their bodies at once fall into place. Now raise the hands directly over the head, and as high as possible, until the thumbs touch, the palms of the hands facing to the front, and the elbows being kept straight. Now, without bending the elbows, bring the hands downward in front towards the feet as far as can comfortably be done, generally at first about as low as the knee, taking care to keep the knees themselves absolutely straight; indeed, if possible, bowed even back. Now return the hands high over the head, and then repeat, say six times. This number twice a day for the first week will prove enough; and it may be increased to twelve the second week, and maintained at that number thereafter, care being taken to assure two things: one, that the knees are never bent; the other, that, after the first week, the hands are gradually brought lower down, until they touch the toes. The end sought in this exercise is to make the pupil stand straight on his feet, and to remove all tendency towards holding the knees slightly If he becomes a mechanic, or his life work be physical, he will bent, and so causing that weak, shaky, and sprung look about the

knees, so very common, to give way to a proper position."-Blaikie.*

II. "Let the pupils now stand erect. Raise the hands above the head as before, elbows straight, till the thumbs touch. Now, never bending the body or knees a hair's breadth, and keeping the elbows unbent, bring the hands slowly down, not in front this time, but at the sides just above the knees, the little finger and the inner edge of the hand alone touching the leg, and the palms facing straight in front. Now notice how difficult it is to warp the shoulders forward even an inch. The chest is out, the head and neck are erect, the shoulders are held low, the back vertical and hollowed in a little, and the knees straight. The whole frame is so held that every vital organ has free scope and play room, and their healthier and more vigorous action is directly encouraged. If steadily practised, it is one of the very best known exercises, as it not only gives strength, but a fine, erect carriage."-How to Get Strong.+

III. "ARM AND CHEST EXERCISE. One-Hands clenched and thrown forcibly back as high as the shoulders, elbows near the sides, nails to the front. Two-Throw them as high as possible. Three-Bring them back to the shoulders as in One. Four-Bring them to the sides. Continue 1, 2, 3, 4, at least five times. The whole exercise should be performed with considerable energy."-Hughes' Drill and Calisthenics.

IV. "TO EXPAND THE CHEST AND SET THE SHOULDERS BACK -One-Raise the arms quickly from the sides, palms of the hands meeting with a clap, as high as the forehead, and at the full extent of the arms. Two-Throw the arms back forcibly, elbows close to the sides, forearms perpendicular, palms to the front, fingers extended, chest well forward, and waist drawn back."-Drill and Calistheni:s.

V. Position—Arms akimbo, whole body erect, raise heels off the floor till the whole weight of the body rests on the soles and toes of the feet. One-Now, being careful to keep the heels well up, bend the knees gradually, bringing the body down in a stooping posture, as low as possible, taking care to keep the back straight all the while. Two-Now rise till the knees are straight, never letting the heels come down Repeat six times twice a day for the first week, and double that number the second week, and maintain at that. This exercise strengthens the muscles of the feet and legs, giving firmness and elasticity to the step in walking.

"It is of the utmost importance that pupils should maintain a correct position while engaged in calisthenic exercises."-Drill and

I would say, in conclusion, that for the past ten months I have gone through the above set of exercises twice a day; that it only greater and more marked than that of any other ten minutes work during the day.

To those who wish a happy school, a quiet school, a progressivo school, I say, "Try it."

GOOD BEHAVIOUR.

BY HON. J. W. DICKINSON.

The statutes of the Commonwealth require the teachers of the public schools to give instruction in good behaviour, as well as in what are known to be the common branches of study.

While the ordinary topics of school work are provided for in all our echools, there does not seem to be any systematic attempt to train the pupils to that state of mind and propriety of conduct which constitute good behavior. Teachers and school authorities are too often satisfied if the ordinary lessons are learned, and good order during school hours is observed. These two results are not enough for a course of instruction to produce, nor enough to meet the demands of an intelligent, thoughtful public. Character is of more consequence than learning, and the power of self control is superior to the ability to conform to school rules under the eye of a teacher.

When we consider how much of virtue there is in good behavior, we shall at once see the importance of introducing the subject as an essential element in our systems of education. Good behavior as an object of culture must not be confounded with good manners or with politoness. By good manners are meant those external forms of conduct which express a sense of the proprieties of life. Politeness is a gracefulness of manner which denotes a desire to please others by anticipating their wants and wishes, and by avoiding whatever may give offence. Good behaviour is that propriety of conduct which indicates a purpose to do what ought to be done.

One may have good manners, and be wanting in those mental states out of which they should spring. Politeness is the product of good early training, and a natural inclination to be agreeable. True politoness must have something in the mind of its possessor corresponding to it. Good behaviour includes good manners and politeness, and adds to both an element by which a sense of duty is expressed.

Good manners attract our attention, and generally limit it to what we may observe. Politeness also pleases us with its forms; but we derive a higher pleasure from a thought of what it denotes. Good behaviour holds an inseparable relation to goodness, and we value it because it is a sign of good character.

With this explanation of the nature and value of good behaviour, there will be suggested the manner and importance of its cultivation. It appears that manners may be obtained by imitation, while behavior must be produced by an appeal to the moral nature. The teacher, therefore, who would train his pupil to behave well, must direct his attention to the moral quality of his acts.

The child must be led from the first to perform those outward acts which are the natural expressions of right states of the mind; for such acts have a tendency to produce the states they express, and they lead the mind to form good habits.

A few simple, just rules of conduct should be given, and a

prompt, cheerful, and thorough conformity required.

Truthfulness is the soul of good behavior. In the application of the rules of conduct will be found the opportunities to cultivate the spirit of truthfulness.

As the young learn most readily from example, the teacher must be a good model of integrity. His school must be free from all those devices by which its real character is misrepresented. The marks which denote scholarship and conduct must be carefully and impartially made. Arbitrary rewards and punishments are to be applied when hope and fear have failed to secure conformity to school regulations; but, when applied, they should be adapted in kind and amount to add a proper incentive to good, and a proper restraint to bad behavior.

A truthful spirit predisposes the mind to exercise feelings of retakes ten minutes of school time—five in the morning and five in the afternoon; and that the results of that ten minutes' work are grateful for favors received, and to be inclined to make sacrifices, if necessary, that others may be made more happy or more prosperous.

The teacher should observe his pupils with a watchful care, that he may know when the selfish principal of action begins to give place to that higher principle, self-love, which leads one to reject an immediate good whenever a choice of it subjects him to the loss of a greater remote good. At this stage of the pupil's pro gress, present rewards and punishments may be withdrawn, and he may be trained to undertake the control of himself. He will not be able yet to do this always from a sense of duty,—the highest principle of action; but he may be influenced by an intelligent notion of what will contribute to his own future well-being on the

Great mistakes may be made in the moral as well as intellectual education of the young, by undertaking to train them in classes, without taking hold of the individual members, and arousing in each the principles of action that impel to good behavior.

The machinery of rules and regulations, with their associated rewards and penalties, are too frequently placed between the living

^{*}This is part 4 of the First Extension Motion, in "Setting up Drill."-ED.

This is part 2 of the First Extension Motion, but the hands do not start properly from above the head. This is a most important exercise in all its parts.—ED.

soul of the teacher and the unfolding moral nature of the pupil. Conformity may be secured by the application of external means; but obedience is the product of a higher principle than that to

which rewards and penalties appeal.

Some teachers stand apart from their pupils, and hold no personal relations to them. Wholly absorbed with their schools as institutions, they leave the individual pupils belonging to them, to be taught and controlled by the systems of teaching and government they have established.

The pupils study, and are in order, while the system is upon them; but they recite and move in classes, without entertaining a notion of their personal responsibilities; and when the school-hours are over, and they are away from the sensible presence of rules, they show by their behavior that they have been restrained, but not educated. Neither the spirit nor power of self control is in them, nor have they been put in the way to make it a possession.

On the other hand, there are teachers, who, believing the schools to be institutions for the formation of character, and that character is formed by individual effort stimulated by the contact of one mind with another, deal with their classes as though they were composed of individuals. Such teachers study their pupils for a knowledge of the peculiar wants of each; and they hold such relations to each, that all feel themselves to be in the constant presence of sympathizing leaders who are skilfully directing them to the ends they

The secret of Thomas Arnold's success in moulding the character the secret of Homas Arnold's success in mounting the character of his pupils is found in his deep love for them. He entered heartily into all their amusements, as well as into their mental occupations. He brought his own cultivated mind near to theirs, and awakened in them a love for truth and good conduct, and a disposition to depend on themselves for success. The result was that every boy who graduated from his school went away into life,

bearing with him something of the spirit of his great teacher.

If the young are the subjects of right influences at home and at school, they will early come to act from a sense of duty. After that, they will often judge incorrectly, and their youthful spirits will often urge them into indiscretions, but their general purposes will be right, and experience will fortify them against yielding to

Those who limit their study of persons to that which may be observed through the senses are apt to form a low estimate of the young. They think that those who philosophize over youthful tempers, for principles of action to guide them in the management of the young, will find their philosophy vanishing as soon as the children present themselves for control. Faith as well as knowledge is required to encourage a teacher to form his plans out of his philosophy, and apply them patiently with his eye fixed on future rather than on immediate results. All successful teachers have

been philosophers.

Dr. Arnold owed his success as a teacher to the insight he had into the inner life of his pupils, and to his knowledge of the springs of human action. From these sources he derived the idea that it is not enough for a teacher to work for his pupils: he must live with them, and inspire them to work for themselves, with that manner and spirit which are the elements of good behavior. If all teachers should thus live with their pupils, they would know their abilities and dispositions, and be able to save them from those disastrous consequences which are quite sure to fall upon those who are cut off from personal relations with their governors, and are left to be controlled by an inanimate system of rules and regulations. Whenever a pupil is found wanting in any of the virtues or graces that adorn private character, or contribute to the well-being of society, he should at once be subjected to that special instruction which will train him out of his defects. If he is found inclined to practise deception in any of its forms, he must be put to living in accordance with the truth, and under such circumstances that he will soon see the beauty of integrity. Should he exhibit a selfish spirit, he should be required to perform generous acts until he can find pleasure in bestowing favors on others. If he is affected by any vice, it must be displaced by introducing its opposite virtue; and his virtues must be strengthened by attaching to them their proper rewards.

These things are never accomplished except by those who have an intense love for others, and are able to make a persistent application of those personal influences that have a tendency to root out

what is evil, and strengthen what is good.

In connection with the virtues, there must be taught by personal means, also, those graces of manner which satisfy the requirements of a cultivated taste. Propriety of manner and purity of heart! high, 20 inches wide?

have a reflex influence on each other. Purity is an end; good manners are a means to be used in securing the end, and is also the result which the end is likely to produce.

The young are influenced by living examples rather than by precepts or by argument. They imitate those whom they love and respect, and, under favorable conditions, will grow to be like them. It is possible that the teachers of the Commonwealth are too exclusively occupied in keeping good order in their schools, and in teaching the topics arranged in their courses of studies.

They will fail of attaining the high ends for which our schools were established, if they lose sight of the important duty, -that of cultivating good behavior, -which the statutes of the State, and an

intelligent love for the well-being of the children, both demand.

In selecting teachers for the schools, too much care cannot be taken to choose those persons who by nature and education are fitted to train the young to a virtuous life, and to those proprieties of conduct which best express the conditions of such a life. In addition to this, the supervisors of the teachers should prepare for them as complete courses for the moral training of the young as those now provided for their intellects, and they should require them to be applied with the same fidelity. Then we should see intelligence and virtue growing up together, each shedding its lustre on the other

If the teachers of the Commonwealth fully appreciate that "good If the teachers of the Commonwealth fully appreciate that "good behavior," in the sense in which the Fathers used it, includes those elements of character, and those proprieties of manner, which are essential to every good citizen, then our schools, if they be secular, will be secular in no low sense. If they consider that in good behavior the Fathers meant to include "the principles of piety and justice, and a sacred regard to truth," then our schools will in no sense be godless, but will be nurseries of those "virtues which are the ornament of human society, and the basis upon which a republican constitution is founded."—Report of Massachusetts' Board of Education. Board of Education.

PROMOTION EXAMINATIONS-MARCH, 1880.

COUNTY OF PERTH. JOHN M. MORAN, INSPECTOR.

ENTRANCE TO FIFTH CLASS.

DICTATION.

- 1.—At first we imagined that it only proceeded from some magazines to which the Russians, as usual, had set fire in their retreat. Eager to know the cause of this conflagration, we sought in vain for some one who could tranquillize our restless curiosity; but the impossibility of satisfying it redoubled our impatience and increased our alarm.
- 2. Melancholy, campaign, difference, immense, commodities, asylums, victims, insatiable, incendiary, massacred, chisel, humorous, jingle.
- The baker is in need of a man to knead his dough. He shot the hart through the heart.

All the poor cobbler had was his awl.

The two deer which he bought were considered too dear. New editions, with additions, are in preparation.

Value 50. 5 marks off for each error. Write at once on paper.

WRITING.

Will be judged from this paper. Value 40.

READING.

Fourth Book. Page 239. "The inhabitants.....buried with them."

Value 50. Expression 15. Fluency 35.

ARITHMETIC.

1. How much will it cost to carpet a room 21 ft. 4 in. long and 16 ft. 8 in. wide, with carpet 2 ft. 8 in. wide, at \$1.371 per yard?

2. What part of a cord of wood is a pile 6 ft. 4 in. long, 31 ft.

- 3. What fraction of 4 chains is 31 rods?
- 4. Reduce 18 lbs. 10 c... Avoir. to Trey weight.
- 5. What will 1830 lbs. of hay cost at \$9 per ton?
- 6. Find the price of 3 loads of barley each containing 56 bu. and 20 lbs. at \$0.56½ per bu.
 - 7. Find the interest \$712.40 for 21 years at 21 per cent.
 - 8. Divide '01295 by '123.
 - 9. Divide $\frac{1\frac{3}{4}}{4\frac{1}{2}}$ by $\frac{2\frac{1}{3}}{2\frac{1}{4}}$.
- 10. A cistern has 3 pipes which will fill it in 10. 20, and 40 minutes. In what time will the three pipes, running together, fill it?

Values 10 each. Time-2 hours. Full work required.

GRAMMAR.

Values.

32 1. Analyse:-

With the fleetness of thought now commenced a race that had ostensibly for its object the recovery of the lost ball, and in which he who had driven it with resistless force outstripped them all.

- 82 2. Parse the italicized words in the above sentence.
- 3. Give examples of the different kinds of attributive adjuncts, underlying the adjuncts.
- 12 4. Correct, give reasons.

Many have profited from the misfortune of others. If there was better management there would be security.

After Columbus made his preparations he set out on his voyage of discovery.

Who do you think I saw to-day?

- 8 5. Give the double plurals with difference in meaning ofbrother, genius, penny, cloth.
- 6 6. Give the feminine of nephew, Sultan, negro; and the
 possessive plural of who, lady, hero.

100

Time-11 hours.

GEOGRAPHY.

Values.

- 5 1. Describe the physical features of Australia on the coast, and in the interior.
- 10 2. Name all the British colonies and dependencies in the Eastern Hemisphere, giving the position and chief towns of each.
- Name all the countries lying between the Russian Empire and British India.
- 14 4. In sailing along the coast from the mouth of the Seine to the Dardanelles which are the most noted cities and the most striking objects you might see? Give the position, and a short description of each.
- 16 5. Draw a small map (3 inches wide by 5 inches long on the border) of England, locating thereon the Capes, Bays, four Rivers, and the Cities of London, Liverpool, Leeds and Bristol.
- 6. What and where are Tay, Galway, Dronthem, Snowdon,
 Transvaal, Atlas, Melbourne, Valparaiso, Hillsborough, Odessa.

HISTORY.

- 10 1. Give a short account of the ancient Britons.
- 10 2. What were the causes and the consequences of the . struggle between the Houses of York and Lancaster?
- 5 3. Give the events which took place on the following dates, 1282, 1588, 1688, 1745, 1776.
- 15 4. Sketch the life of the Duke of Wellington.

40

Time-11 hours.

ENTRANCE TO SIXTH CLASS.

DICTATION.

Illuminate, liquefy, maritime, obloquy, dilapidate, Avoidupois. Value 60. 5 marks off for each error. Write at once on paper.

WRITING

Will be judged from the Dictation paper. Value 40.

READING.

Fifth Book. Paper 139. "This important document......have been based."

Value and marking as in preceding classes.

ARITHMETIC.

- 1. Find the sum, difference and product of 3.456 and .425.
- 2. What would be the proceeds of a note of \$150.00 for 90 days, bank discount being 8 per cent.?
- 3. A owes B \$300, to be paid as follows: $\frac{1}{3}$ in 3 months, $\frac{1}{4}$ in 4 months and the rest in 6 months; what is the equated time?
 - 4. \$500 Stratford, 25th March, 1879.

Seventy days after date, for value received, I promise to pay W. E. Jones, or order, five hundred dollars with interest at the rate of eight per cent. per annum, till paid.

JAMES SMITH.

Endorsements: April 15th, 1879, \$95; May 2nd, 1879, \$140. What is to pay when the note is due?

- 5. What must be paid for stocks paying 5 per cent., that the investment may return 8 per cent.?
- 6. What sum must be invested in stocks at 112 paying 9 per cent. to obtain a yearly Income of \$1260?
- 7. I sold a horse for \(\frac{1}{2} \) of 2\(\frac{1}{2} \) times the cost: what was the gain per cent. ?
- 8. A pond of 5 acres is covered with ice 9 inches thick. Find the weight of ice in tons, if a cu. ft. of ice weigh 865 oz. Avoir.?
 - 9. Find the square root of .00734449.
- 10. What must be the side of a square which shall contain 10 acres?

Values 10 each. Time-2 hours. Full work required.

GRAMMAR.

Values.

3

28 1. Analyse:-

To a certain degree the virtues of the ancients ought to inspire emulation, and are worthy of being precedents to all posterity; but that soft charm which a pure religion and more liberal notions diffuse over Christian manners, that animating prospect which is now held out to encourage laudable endeavors, and those terrors which are denounced against nefarious actions, could not operate on classical ages, because they were unknown.

- 32 2. Parse the italicized words.
- 18 3. Correct the following, if necessary, and quote the rule of syntax violated:—

The rapidity of his movements were beyond example. How beautiful it looks.

His argument was the best of all the others.

The book laid on the floor.

The river has overflown its banks.

Who are you looking for?

- Form verbs from—alien, fertile, just, public; and adjectives from—fame, notice, aim, defy.
- 10 5. Point out and give the meaning of the roots, prefixes and affixes of the following words:—homicide, facility, fugitive, supposition, subjunctive, inanimate, attributive, disturbance, refraction, correspondence.
- 4 6. Give the plural of—courtesy, genus, beau, madame.

100

COMPOSITION.

Write—(not less than twenty lines)—an account of "The Past Winter in Canada," enlarging on the agreeable and disagreeable features; the advantages and disadvantages of such a winter.

Time 11 hours.

Values.

GEOGRAPHY.

- Describe as accurately as you can the position of the equator in regard to the Continents, Oceans, Seas, Gulfs, Islands, &c., over which it passes.
- 10 2. There is a group of islands situated in about West Longitude 155° and North Latitude 20°, and a large island in East Longitude 140°, and South Latitude 25°; what are their respective names, and in what direction does the group lie from the large island?
- 10. 8. Enumerate five great physical differences between the Old and the New World.
- 4. Describe the Basin of the Nile, and mention any remarkable phenomena observed by travellers therein.
- 4 5. Name four Islands in the British Channel.
- 6 6. Describe the Gulf Stream, its causes and effects.
- 7. Draw a map of Africa, South of the Equator, locating thereon the countries, mountains, rivers, lakes, capes and towns.

HISTORY.

- 10 1. What great man died in prison at St. Helena? Give a sketch of his life.
- 10 2. Give an account and the date of the Battle of Naseby.
- 5 3. Give the date, reign, and cause assigned for the execution of Mary Queen of Scots.
- 15 4. Write short notes on Julius Cæsar, the Crusades, Oliver

 Cromwell, Columbus, and Wolfe.

Time-12 hours.

ALGEBRA, EUCLID AND MENSURATION.

- 1. Define a circle, a scalene triangle, parallel lines.
- 2. If two straight lines cut one another the vertical or opposite angles are equal. Prove.
- 8. Equal triangles upon equal bases in the same straight line and towards the same parts are between the same parallels.
 - 4. Divide $3x^6 + 7x^5 12x^4 + 2x^3 3x^2 + 18x 6$ by $x^2 + 3x 2$.
 - 5. Simplify $\frac{(2x^2 \frac{1}{2})}{2x + 1} + \frac{1}{2}$.
- 6. Solve the equations $\frac{5}{x-7} = 6 \frac{7}{x-7}$ and 2(3x-4) - 3(3-4x) + 9(2-x) = 10.
- 7. A person bought a buggy, horse, and harness for \$300. The horse cost twice as much as the harness, and the buggy twice as much as the horse and harness, find (by an equation) the value of the buggy.

- 8. Find the area of an equilateral triangle whose side measure 48 yards.
- 9. A wagon box is 9½ ft. long 3½ ft. wide and eighteen inches deep, how many bushels will it contain, allowing 5 cubic feet, = 4 bushels?
- 10. The diameter of the end of a cylindrical saw-log is 20 inches and its length 18 ft. What ought it to weigh allowing a cubic foot of it to weigh 35 lbs.

Value 10 each. Time-2 hours. Full work required.

ANSWERS TO QUERIES.

J. W. C., Almonte.—He could no. legally do as you propose.

STUDENT, Woodstock.—Candidates who wish to attend a Normal School for 2nd class training should write to the Minister of Education.

Subscriber, Seaforth.—(1) The "Intermediate Certificate" is of permanent value. (2) Creighton's Epoch Primer is authorized for use in Public Schools. (3) Candidates must pass the same Professional Examination at the Normal Schools. The optional group selected for the non-professional makes no difference. (4) Students in High Schools have options.

D. H. L., Renfrew.—First class students will still receive instruction in the non-professional work at Toronto Normal School.

A. P. G., Lower Newcastle.—You will be admitted in your turn to the Normal School if you write to the Minister of Education. Instruction is not given in non-professional subjects to second class teachers. If you have a certificate from the New Brunswick Normal School it may be recognized in Ontario by the Minister of Education. You may obtain a copy of the Revised School Law for Ontario by writing to Hunter, Rose & Co., Toronto.

Hotes and News.

NOVA SCOTIA.

The Corner Stone of the New Pictou Academy, was laid on the afternoon of the Queen's Birthday, by Dr. Allison, Superintendent of Education. The town was gaily decorated with bunting in honor of the event. The weather was propitious for the ceremony, the earlier heat being tempered by passing clouds, which, shortly after the exercises closed, produced a brief shower. An immense gathering, consisting of upwards of 2,000 persons, witnessed the ceremonial, among which were the resident Clergy, the chief business and professional men and members of both the Dominion and Local Legislatures. During the gathering of the crowds, the band of the Pictou Garrison Artillery battery played appropriate airs.

Mayor McLeod commenced proceeding by calling on the Rev. Mr. Burnett, of St. Andrew's Church, to offer prayer. The one

Mayor McLeod commenced proceeding by calling on the Rev. Mr. Burnett, of St. Andrew's Church, to offer prayer. The one hundredth Psalm was rendered by the band and some four or five hundred children of the schools. Mayor McLeod gave a brief, but interesting, historical address, read a list of the documents and articles deposited as memorials, and called on Dr. Allison to formally lay the stone. This was done in an appropriate manner, and the enterprise was commended to the considerate care and support of the people of Picton. The band then played "Auld

Lang Syne" in response to an invitation from the Mayor.

We take from the Halifax Herald the following synopsis of the address subsequently delivered by the Superintendent of Education on invitation of the Mayor:— In his opening remarks, he referred to the matter engaging their attention, as one in whose behalf they might fairly draw on the loyal inspirations of this featal day. The time honored spectacular mode of celebrating Her Majesty's birthday was proper enough, and doubtless did something to stimulate patriotism, but scenic displays of banners and troops did not reveal the true secret of British greatness, nor fairly represent the perfection of British civilization. Our national greatness reposes on a firm basis of popular intelligence and virtue. At least this is our proud belief and boast. Therefore, it might be claimed that the day was best celebrated when its traditional enthusiasm is enlisted

in some cause, or work, which represents the immaterial forces of

which our civilization is the product.

He alinded to the educational record of Pictou in early times, and to the great names she has added to our Provincial roll of honor. He did not address those who are just waking up to he importance of education. To suppose so would be an undeserved reflection on a very creditable past. Important as is the advance now being made, it is simply the continuance of a movement coeval with the settlement of the country. He alluded to the faithful successful labors of Principal McKay and his staff in the old building, and was glad that old principles and methods were not to be discarded, but to operate under more favorable conditions. He complimented the Mayor and Town Council on the wise initiation of a policy which would stand to their credit as long as these walls of solid brick and stone should stand, and longer! Gratification was expressed at the nice adaptation of the new edifice to the purposes contemplated by its erection, and, said the Superintendent, long may it subserve the noble and patriotic purpose of its erection! Long may it testify to those who approach this beautiful town both by land and sea, as it lifts its substantial form aimid these surrounding spires, that the people of Pictou place education next to religion in their scale of value.

The particular place of Pictou Academy and such institutions in our educational work was pointed out, and the logic of their utility demonstrated at some length. The speaker discussed also, more fully than we can now report, the proper curriculum for such institutions. He sympathized with current movements in favor of technical education. The peculiar conditions of Nova Scotia were glanced at. She must not thwart the creative wisdom which endowed her richly with the materials of progress and prosperity. To quote Mr. Howe, "Old ocean, not content with clasping her in his arms, has poured his sparkling treasures on her breast. Her hills are ribbed with iron, her rocks are seamed with gold. Fertile fields above, inexhaustible coal strata below. The improvement of these conditions requires peculiar training. Let it be given. The speaker showed that a judicious High School curriculum fits the mind for anything and everything that is good. Many of these studies lie in the exact direction of practical application. Science must be scientifically, not empirically taught. Mathematics is the basis of innumerable practical arts. While this is true, these branches have a high educational value, a quality which they share with the science of language, which the speaker vindicated as worthy of the greatest minds, and as contributing immensely to the progress of mankind. Pictou was to be envied for the possession of an institution where the foundation of a broad and generous culture can be laid.

The public exercises connected with the closing of the collegiate year of Acadia College were held at Wolfville on June 3rd. The large Assembly Hall of the new college building was packed to overflowing. The occasion was honored with the distinguished presence of General McDougall and Admiral Sir Leopold McClintock. The graduating class numbered thirteen. Five of the students were excused from delivering their prepared orations, to afford time for speeches from visitors present. The following was the programme: The Church in England in the time of Henry III., Caleb R. B. Dodge, Middleton; Diversity of Race—Its influence on National Prosperity, Clarence E. Griffin, Canard; *Mohamm.cdanism in the East. Howard Chambers, Truro. Music. Philosophical Speculations—Their Influence on Life, Edward J. Morse, Paradise; *The Literary Profession, Everett W. Sawyar, Wolfville; *Commerce and Civilization, Richmond Shafner, Williamstown; The Permanence of the Poetical Element in Man, Benj. F. Simpson, Bay View, P.E. I. Music. *Literature as subject to the law of Demand and Supply, Samuel N. Bentley, Wilmot; The Statesman and the People, G. J. Coultrie White, St. John, N. B., *To what extent does the advancement of Science promote Human happiness? Isaac C. Archibald, Upper Stewiacke. Music. Simplicity a test of Thought, G. Wilbert Cox, Upper Stewiacke; The Unrest of the People, George E. Croscup, Granville Ferry; Alius Et Idem—Valedictory, Walter Barss, Wolfville. The General and Admiral delivered brief addresses of appreciation and congratulation. Acadia had during the past year 67 undergraduates. J. Wilberford Langley, Esq., of Halifax, is President of the Alumni Association.

The annual examination for teachers' licenses begins on the 20th inst.

J. T. Mellish, Esq, A.M., Professor of Mathematics in the

Halifax High School, has sought relief from his duties for a few weeks on account of indisposition. His place is being temperarily filled by R. J. J. Emmorson, Esq., A.B.

The secretaryship to the Board of School Commissioners, made vacant by the resignation of C. C. Vaux, Esq., has been filled by the appointment of Mr. R. J. Wilson. The Board could not have

made a wiser selection.

The Provincial Educational Association meets for its first session at Traro, on the 14th inst. The published programme of exercises indicates an occasion of great interest.

It is understood that the Senate of the University of Halifax is

It is understood that the Senate of the University of Halifax is prepared to admit women to its examinations in Arts and Science.

NEW BRUNSWICK.

On the last days of May and the first days of June, Sackville was the scene of the usual enthusiastic gatherings of the friends of the Methodist educational institutions located there. First came the anniversary exercises of the Male Academy, consisting of declamations, reading of essays, music, addresses, and the distribution of prizes. The attendance during the year was said to have been 52. Dr. Allison, Superintendent of Education for Nova Scotia, in addressing the meeting, said, among other things, that this academy had more of its students in Parliament than all the other

institutions in the Maritime Provinces put together.

The public exercises of the Mount Allison Female Academy took place on the 1st of June, when the degree of M.L.A. (Mistress of the Liberal Arts) was conferred on Miss Leora R. Tweedie, of Apohaqui, and a number of prizes were awarded.* The literary and musical performances of the young ladies were greatly enjoyed. Three of the fair students had attended advanced classes in the College, and it was hoped that one would be repared to enter next year for the degree of B.A., or, as Dr. Kennedy, the Principal, suggested, the degree of Maid of Arts. There were 74 permanent students during the year, 57 of them boarders at the Academy. Much regret was felt at the retirement of the Lady Principal, Miss Whitfield, who is going to Chili, it is understood, to take charge of an institution there. The sum of \$50 had been given by Mrs. R. Brecken, to be expended in prizes by the authorities of the institution.

On the same day, the Alumni held their Annual Meeting, when the officers of the society were elected, as follows: President, Dr. 'llison: Vice-Presidents, Josiah Wood, A.B., Ceorge Smith, A.B., and H. A. Powell, A.B.; Secretary, J. F. Allison; Council, J. L. Black, M.P.P., A. A. Stockton, LL.B., C. A. Bowser, W. F. McCey, Q.C., and A. J. Chapman, A.B. The following were chosen members of the Board of Governors: J. L. Black and Prof. Burwash. In the evening there was a public meeting under the auspices of the Alumni and Alumnæ Societies, when William Elder, Esq., A.M., M.P.P., editor of the St. John Telegraph, delivered the alumni oration, on "Educational Culture in its Enfranchising Influences." A supper, followed by toasts, etc., concluded

the day's pleasures.

Wednesday, June 2nd, was devoted to the College Convocation. Among the interesting features were a Latin salutatory address by H. A. McKeown, and orations by the members of the graduating class. The degree of B.A. was conferred upon Messrs. A. J. Chapman, of Dorchester, N.B., S.B. Grigg, of Studholm, N.B., and John A. Smith, of Newport, N.S. The Elocution Prize for ministerial candidates, given by Mr. John Macdonald, of Toronto, was won by Mr. Doane. It was announced that Wm. Elder, Esq., had given a prize of \$25 to be awarded by the College Faculty, and one of \$10 to be awarded by the Alumnæ Society. An endowment fund of \$100,000 is to be raised by the friends of the College, one-half of which has been already subscribed. Josiah Wood, a graduate of the College, and one of the Governors, offers \$10,000 towards the proposed new college building, with an additional pledge conditioned on the completion of the endowment.

At the University of New Brunswick, the examinations for degrees were held on the 21st, 22nd, and 23rd of June, and the Eucoemal celebration took place on the 24th. Particulars of the latter will be given next month. In the examinations for scholarships and honor certificates, held two or three weeks previously, the following were the successful competitors: Senior Class.—Mathematics—J. M. Palmer, the Lorne gold medal and mathematical scholarship, worth \$60; 2nd, J. A. McIntyre. Classical and French—A. W. Wilkinson. Metaphysics—C. P. Hanington, A. F. Randoiph and J. W. McCready. Geology—C. P. Hanington

^{*}The Alumna Mathematical Scholarship was won by Miss Jaffery.

and Murray McLaren. Junior Class.—English—J. Fred. Harley, the English scholarship of \$60; H. C. Grant, H. V. B. Brydges, D. Fisk, A. D. Macpherson and G. R. Devitt. Logic—H. D. Montgomery, Bliss Carman and E. B. Hooper. French—A. D. Macpherson, G. R. Devitt, E. B. Hooper and J. Fred. Harley. Classics—J. Morrison and Bliss Carman. Mathematics—Bliss Carman. Science—W. S. Carter was successful in obtaining the achronatic microscope. Erecturen—Classics—I. McIntosh and achronatic microscope. Freshmen.—Classics—J. McIntosh and H. J. Taylor, the classical scholarship of \$60. Mathematics—W. Lorne Silver Medal-J. A. Johnson. Science-J. A. Johnson and O. W. Smith. French—E. D. Weldon. English— J. R. Cowie. The Douglas Gold Medal, for the best essay on "The importance to the people of New Brunswick of increased attention to agriculture," was assigned to A. W. Wilkinson, of Fredericton, who also carries off the French prize.

Three Teachers' Institutes will meet on the 5th and 9th of July

inst., viz.. at St. John, St. Stephen, and Hampton. At the last named place, the Chief Superintendent of Education is expected

to deliver a public lecture on the evening of the 8th.

The Educational Institute of the Province is to meet at Fredericion on the 13th, 14th and 15th inst., when matters of great interest to the profession will be discussed, including a proposed course of instruction for High Schools. All the Inspectors of Schools are

expected to be present.

The following order has been issued to the Inspectors, and the Education Department has sent copies to all the Teachers in the Province:—Ordered, by the Board of Education, April 24, 1880. 1. That the following Note be appended to Sec. 5 (3) of the Order of the Board in reference to Inspection of Schools (See Educational Circular No. 10), viz. :—Note—"If in any case the number of pupils presented for examination should be less than the per centage specified above, the Inspector shall assure himself of the cause or causes of the same; and if he chall be satisfied that the smallness of the attendance arises from causes which are not amenable to the reasonable influence of an industrious and earnest Teacher, he shall proceed to examine the School for classification, and report the facts to the Chief Superintendent for the considera-tion of the Board of Education." 2. That Sec. 5 (3) (c) of the Order of the Board, in reference to Inspection of Schools (See Educational Circular No. 10), be hereby amended to read as fol-lows: (c) "The additional grants to Teachers whose Schools or departments receive classification in any year shall be drawn by the Chief Superintendent, at the close of the Term in which they

are inspected, and paid in June or December (as the case may be.)"
The Chief Superintendent appends the following notes to the above, under date of June 10, 1880:—"In reference to the Schools examined by the Inspector during the Summer Term 1880, the Inspector will note any Teachers who were in charge of these Schools the past Winter Term, but who have removed to other Schools for the current Term. At the close of this Term, all such cases will be reported to the Board of Education, with a view of securing a Rank for the Schools taught during the Winter 1879-80 by such Teachers. Sec. 5 (3) requires that a School or department shall, on and after November 1, 1880, have been in charge of the same Teacher 'for more than one Term' in order to be eligible for classification." "The Rank reported for any School or department for the Term closed April 30, 1880, is confined to that Term. The Rank assigned hereafter (including the present Torm) will apply to the Year closing with the Term in which the School is

Considerable interest is being manifested, in the country districts as well as in cities and towns, in putting up pupils for examination by the Inspectors, with a view to certification of the pupils and participation by Teachers and Trustees in the superior allowance. Standard VI is the requirement for country districts, and Standard VIII for cities, towns and villages. It is noteworthy that the existing provisions in relation to the superior allowance are leading to the employment of class-room assistants in many districts. Inasmuch as the Assistants, as well as the Teacher, is pecuniarily benefited by the ranking of the school, it will be seen that it is advantageous for any school to employ an Assistant, whether seeking to participate in the allowance or not. The following Note, affixed to the regulations relative to the Course of Instruction, is in point here. Note.—"Where the number of pu pils enrolled is 50 or upwards, the Class Room Assistant, if holding a license from the Board of Education and regularly employed at least four hours a day, receives a Provincial grant equal to one-half that provided by Sec. 13 of Chap. 65 of the Consolidated Statutes, for teachers of the same class. It is, however, quite

competent to the Board of Trustees in Districts where the number of pupils is less than 50 (it matters not how many less), having first provided a Class-Room for the School-house, to employ an Assistant who has no license. A suitable Assistant could generally be selected from among the best qualified pupils. Under the direction of an efficient Teacher, fair work would be done in subjects requiring drill. The position is one that should be sought by those who intend entering the Normal School to qualify as Teachers. In this way, almost every school in the country districts could easily secure the tenefits of a Class-Room Assistant, and so carry on the Course of Instruction through the specified Standard VI, and participate in the superior allowance.

OTEREC.

A meeting of the Protestant Committee of the Council of Public Instruction was held on the 1st inst. in the Education Office, Quebec. There were present, His Lordship the Bishop of Quebec, the Hon. Judge Day, Dr. Dawson, the Venerable Archdeacon Leach, Dr. Cook, the Hon. Judge Dunkin, the Hon. James Ferrier, the Hon. L. R. Church, Q. C.; the Hon. W. W. Lynch. The Right Reverend James Williams, Lord Bishop of Quebec, was unanimously appointed Chairman of the Committee, in room of the Hon. George Irwin, who had resigned.

Some conversation was had in regard to a proposal made by Richard White, Esq., Montreal, for the publication of a journal of education, but it was felt that nothing could be done in this matter until the finances at the disposal of the Committee are more

clearly ascertained.

In reply to a complaint from the School Commissioners of Durham, County of Drummond, in regard to the withdrawal of the grant from the Superior Education Fund for the past year from the Durham or Utverton Model School, in which complaint it was contended that the annual returns had been sent to the Department of Public Instruction, and the claims of said school to the Government grant for the past year and the continuance of it in future were set forth, the secretary was instructed to say that its claims would be considered at the August meeting in connection with the distribution of the Superior Education Fund.

The Committee unanimously resolved to request the Hon. the Superintendent of Public Instruction to lay the names of the Rev. Thomas Blaylock, B.A., the Rev. William Murray, and John Le Grand, Esq., all of New Carlisle, before His Honor the Lieutenant-Governor in Council, with the respectful recommendation that these gentlemen be appointed members of the Board of Examiners or the County of Bonaventure, and in like manner that of Michael Felix Hackett, Esq., Advocate of Stanstead Plain, that he be appointed a member of the Board of Examiners, Stanstead.

The consideration of the subject of funds available for the ex-

penses of the Committee and the support of a journal of education was referred to the Sub-Committee on the arrears of marriage-license fees, with the request that they report at the August

The Hon. the Superintendent of Public Instruction was requested to have a fresh supply printed of Forms of Returns from Boards of Examiners to grant Teachers' Diplomas.

A complaint was laid before the Committee that two candidates under the legal age had received Teachers' Diplomes from the Board of Examiners, Aylmer, in May last. The Secretary was directed to make enquiry as to this charge of the secretary of the Ottawa Board of Examiners.

The following resolutions in regard to the proposed bill respect-

ing public instruction were unanimously adopted :-

1st. That this Committee feel it their duty to represent to the Provincial Executive their very strong conviction that it is important the fullest attention should be given to the whole subject of the School Laws of the Province before attempt is made to legislate finally for their consolidation, and with this view they think the measure will require, after discussion, to stand over for next session; and that this resolution be communicated to the Catholic Committee.

2nd. That the Hon. Judge Dunkin, Dr. Church, Mr. Heneker, and Dr. Dawson be a Sub-Committee to consider the bill respecting Public Instruction, submitted to this Committee with reference to its condensation and arrangement, and to the protection and advancement of the interests of Protestant education, and with power to confer with the members of the Government, and with the Superintendent of Education, and to report from time to time to this Committee.

The memoranda of Mr. Heneker on Educational grants and

tables were referred to the Sub-Committee on the Educational Act.

The Hon. the Superintendent of Public Instruction was requested to present to the Government the earnest request of the Committee that a sum of \$500 per annum may be placed at its disposal for the purpose of aiding the publication of an educational journal for the special benefit of the Protestant schools. The Superintendent was also requested to mention this resolution to the Catholic Committee.

A deputation, consisting of Messrs. Colby and Holmes, from the Stanstead Academy, and Stanstead Wesleyan Ladies' College, was heard in behalf of these Institutions, urging their claims to a larger grant from the Superior Education Fund. The Committee assured the deputation that the matter would receive their careful consideration when the distribution of the Superior Education

Fund was made next August.

Petitions from School Commissioners in the village of Huntingdon and from other School Commissioners in several municipalities of the Counties of Huntingdon, Chateauguay, and Beauharnois, were submitted to the Committee by the Hon. the Superintendent of Public Instruction, praying for the establishment in Huntingdon of a Board of Examiners to grant Teachers' Diplomas. The secretary was instructed to acknowledge the receipt of the petitions from the Superintendent, and to say that they are under the consideration of the Committee.

The Committee adjourned to meet on Wednesday, the 25th August next, or sooner if necessary, on the call of the chairman.

MANITOBA.

The regular quarterly meeting of the Board of Education and of the University of Manitoba took place on 3rd June. The Council made the necessary arrangements for taking the ad eundem degree-

Graduates of Universities within Her Majesty's dominions become eligible for an ad eundem degree by presenting their certificates to the Registrar, and paying the sum of ten dollars.

The Rev. Professor Forget Despatis moved, seconded by Rev. A. Chenier, the following resolutions, of which he had given notice at the last meeting, viz.:

1. That the Board of Studies shall prepare a certain number of questions on each of the subjects of examination determined by the Council.

2. That every year the Board of Examiners shall, in due time, select on each subject a certain number of questions prepared by the Board of Studies, to be balloted, and they shall at the same time determine how many of these selected questions shall be the matter of the present examination.

matter of the present examination.

3. That the Chancellor or the Registrar, or two other members appointed by the Council, shall ballot out of the selected questions the exact number determined upon by the Board of Examiners.

4. That at the time of examination the different papers shall be handed under seal, by the Registrar or any other member, to the person appointed to preside at the examination, in order to be distributed to the candidates in time, as provided by the Board of Studies.

A very animated and lengthy discussion took place upon these resolutions. Subsequently Canon O'Meara moved as an amendment, seconded by the Hon. Mr. Bannatyne, that the whole method of conducting examinations be referred to a Committee consisting of the Chancellor, (the Metropolitan of Rupert's Land), the Vice-Chancellor (Hon. J. Royal, M.P.), His Grace the Archbishop of St. Boniface, Professor Forget Despatus, Professor Bryce, Professor Hart and the mover. The amendment was carried.

An adjourned meeting of the Council was held on 9th June, to receive the report of the Board of Studies upon the university examinations, which commenced on 31st May. The following members of the Council were present, viz., The Chancellor, His Grace the Archbishop of St. Boniface, Rev. Dr. Larrie, Rev. O. Fortin, B.A., Rev. Canon Grisdale, B.A., Rev. Canon O'Meara, M.A., Rev. Professor Hart, M.A., B.D., Rev. S. P. Matheson, Rev. J. Robakon, Rev. W. Cyprian Pinkham, R.D., Rev. Professor Forget Despatis, and the Registrar.

The Board reported that the two medals presented by His Excellency the Governor General had been awarded as follows:—
The silver medal to Mr. W. R. Gunn, of Manitoba College, and the house medal to Mr. A. Hibert of St. Parifece College.

the bronze medal to Mr. A. Hibert, of St. Boniface College.

The candidates and a number of their friends were then called

in, and the assemblage was addressed by the Chancellor.

His Lordship congratulated the University upon the fact that in the progress of its work, the stage of conferring the first degree had been reached. He was happy in looking back to notice with

what very kind and generous feelings the members of the various colleges had united in the work of the University. He might say, on the part of the manbers of St. John's College, that they felt very deeply the very kind way in which the members of the other colleges had co-operated in the great work that was before them in the establishing of this University. They had had difficulties in the past, and they might expect to have difficulties in future; but he was sure that if they approached them all with the same loving, brotherly spirit that they had manifested in the past, those difficulties would be smoothed over and would pass away. He thought they had nothing to be ashamed of in the standard they were aiming at in this University. With regard to what was required for the ordinary degree, students who received the first or second class here would probably do the same it they went to any other institu-tion. One of the students of this University had done better at the previous examination of the University of Cambridge last year than he had done at the previous examination here. But in considering the standard required for honors, of course they must expect to find a very large difference between the standard where young men were prepared at about the age of sixteen, and that of the Universities of Oxford and Cambridge, where the students commenced at nineteen or twenty. Besides, there were at these Universities between 500 and 600 fellowships, yielding to each student elected thereto from \$1,400 to \$1,500 and upwards, about forty of these falling vacant every year. The effect was to draw to these Universities the best students of the other British Universities, who, after pursuing their studies at these, began again as undergraduates at Oxford or Cambridge, thereby attaining a higher standard of scholarship. Hence the standard for honors in these two Universities was not to be compared with that of the other British Universities. The standard for honors in the University of Manitoba would compare favorably with that of the British Universities, excepting the 'two named. It was a pleasure to observe that the first degree conferred in this University was obtained in honors. His Lordship did not undervalue the ordinary degree; still, he thought it of the utmost moment that students should, if possible, take up the honor subjects, as their minds would be much better trained by these higher studies. He thought he might express, on the part of the examiners, their very great satisfaction with the results of the examinations generally. The proportion of the students who had entirely failed was very, very small. It was more important that there should be a good average than that a few should do extremely well, while the majority were inferior. His Lordship concluded by reading the list of the successful candidates, with the standing of each in the several subjects.

The announcements that the Silver Medal had been awarded to W. R. Gunn, and the Bronze Medal to A. Hibert, were received

with applause.

The Chancellor stated that Mr. Betourney, who had gained such a distinguished place in the study of Moral Science, had received his examination papers in Latin, and had written all his answers in Latin; so that his examination had been conducted like those of the Universities of the olden time, the custom having in these modern days gone out of use.

Mr. W. R. Gunn is a native of Manitoba, the son of Mr. John Gunn, ex M.P.P. for North St. Andrew's; and Mr. Batourney is the eldest son of the late Mr. Justice Batourney, one of the Puisne

Judges of the Court of Queen's Bench of this Province.

Teachers' Associations.

The publishers of the JOURNAL will be obliged to Inspectors and Secretaries of Teachers' Associations if they will send for publication programmes of meetings to be held, and brief accounts of meetings held.

Prescott.—A very successful session of the County of Prescott Teachers' Association was held at Hawkesbury on the 4th and 5th of June. There were about seventy teachers, and others concerned in the teacher's work, present. The following was the programme: Opening Address, T. O. Steele, I.P.S., President; Object Lessons, E. Robinson, Esq.; Grammar, T. O. Steele, I.P.S.; Composition, A. J. Houston, B.A.; French Address, Rev. J. O. Routhier, P.P.; Geography, Henry Gray, Esq.; Lecture, John Maxwell, B.A., Subject—"Relations of State and Teacher;" Arithmetic, John McCutcheon, Esq.; General Business. Rev. Mr. Philips was present and took part in the work of the Association. The following resolutions, among others, were passed: "That this Association take fifty copies of the Canada School Journal for use of members who pay an annual fee of twenty-five cents." "That teachers should have the privilege of retiring from the profession, and being placed on the pension list of superannuated teachers, at the age of fifty, or after having taught

twenty-five years." "That the History for entrance to the High Schools at present covers too much ground, and that it would be better to take up some particular period." "That Henry Gray, Esq., be a delegate to the Ontario Teachers' Association at its next session." "That this Association hold its next session at Vankleck Hill on the 8th and 9th of October next."

T. O. Strelle, President.

HENRY GRAY, Secretary.

SOUTH ESSEX TEACHES. ASSOCIATION .- The teachers of South Essex met in convention in Kingsville on Thursday and Friday, the 20th and met in convention in Kingsville on Thursday and Friday, the 20th and 21st May. A motion was carried to divide the library into sections, and a committee was appointed to devise a scheme in accordance with the motion. On Friday morning the committee reported that the division of the library was beset with so many difficulties, that they would recommend the rescinding of the resolution of the previous day. On motion this was done. The books are to be kept in Kingsville. It was also decided that the Inspector should be empowered to add \$150 worth of books to the library. The following officers were elected:—D. A. Maxwell, President; Miss J. Henning, Vice-President; Geo. E. Wightman, Sectreas.; John Henning, Librarian; John Henning and Mat. R. Laycock, Auditors; and B. M. Brisbin, A. Dorsett, Wm. Irwin, D. A. Maxwell and George E. Wightman, Committee of Management. A committee to take into consideration the subject of text books was appointed, and reported George E. Wightman, Committee of Management. A committee to take into consideration the subject of text books was appointed, and reported in favor of the following books: Elementary Arithmetic, Kirkland & Scott, Readers, Canadian Edition; Spelling Book, Companion to Readers; Advanced Arithmetic, Uanadian Series of Hamblin Smith; Junior Grammar, Miller's Swinton's Language Lessons; Advanced Grammar, Mason, Mental Arithmetic, McLellan, Paris I and II; Algebra, Hamblin Smith; Euclid, Potts; History for 3rd class, Frith Jeffers; History for 4th and 5th classes, Creighton's Epochs; Geography, Campbell's Elementary; Copy Books, Beatty's or Campbell's, revised, and Payson, Dunton & Scribner. The offers of the Canada School Journal and the Hamilton Monthly were laid before the convention. Several teachers have already paid for the Canada School Journal for the year, hence they were not in a position to laid before the convention. Several teachers have already paid for the Ganada School Journal for the year, hence they were not in a position to accept the offer. It was resolved to recommend the Canada School Journal as the preterable one for the teachers of this county. At the last meeting of the Provincial Association the subject of its composition was under consideration. It was resolved to request the County Association to express an opinion on the subject. The different plans suggested were explained by the President, and on motion it was resolved that this convention is an favor of the Provincial Associations being composed only of vention is in favor of the Provincial Associations being composed only of delegates from the county conventions, and that the travelling expenses only of these delegates be paid by the Associations sending them. The Inspector was appointed delegate to the next Provincial Convention. It was resolved to have a competitive examination during the time of the was resolved to have a competitive examination during the time of the county agricultural exhibition, and a committee was appointed to prepare a scheme and to make necessary arrangements for holding such an examination. Some desire was expressed to have pupils classified according to age, but, on motion, the committee was instructed to classify pupils according to classes as graded in South Essex. School discipline was introduced by Mr. Brisbin, who gave some good thoughts on the subject. Much of the true philosophy of government was included in his remarks. During his remarks and in the subsequent discussion, the followmarks. During his remarks, and in the subsequent discussion, the following thoughts were evolved, viz.:—School discipline should be mild, firm, uniform, not arbitrary; a minimum of punishment, other things being equal, shows a maximum of management; self-government should be cultivated; the moral aspect of the government should be carefully guarded; unquestioning and instant obedience should be insisted upon. The Teachers' Home Preparation was introduced by Mr. Irwin, who gave some severe thrusts at those who think they can teach by having sometime looked at a subject, or at a remote time have understood it. time looked at a subject, or at a remote time have understood it. During the discussion it was suggested that the preparation by the teacher should be definite, thorough, not on the lesson to be taught to-morrow, but on the following teaching day; studied until it takes such possession of the teacher's mind that he can express his views on it in easy and familiar teacher's mind that he can express his views on it in easy and familiar language; studied until he finds the analogies in it to what the pupils know, or to his purposes in life; studied until he finds such aspects of the lesson as will lay hold of the peculiar views, or prejudices, or weaknesses of the pupils; studied until such illustrations are found as will interest all the children, but excess of illustration should be avoided, lest the mind be taken up with illustration and not with fact; studied until such portions of it as will develop the weaker qualities of the mind can be readily applied for the designed nursons. A teacher should, for instance, on Monof it as will develop the weaker qualities of the mind can be readily applied for the designed purpose. A teacher should, for instance, on Monday night, study the lessons for Wednesday rather than those for Tuesday, because if the lessons for Wednesday are not vell understood, a teacher cannot, on Tuesday, point out difficulties, suggest methods of study, or estimate properly how much should be assigned to the class. Incentives to Study was introduced by Mr. Dorsett, who gave his views at length on the subject. Many excellent thoughts were presented; among the incentives mentioned were: Approbation of parents, friends and teacher; the gaining of an honorable position in the class, or in the estimation of fellow-pupils; the love of excellence; the love of knowledge; the positions that may be gained by the educated; the pleasure derived from duty performed; the gaining of prizes; the approval of God. The prize system was considered at length, the preponderance of argument being against the plan usually adopted. Dr. McLellan, who was present during

much of the time of the convention, rendered very valuable assistance in discussing the subjects introduced by the teachers, in addition to those introduced by himself. His discussion on mathematics must be heard to be understood and appreciated. Many of his solutions in algebra were most excellent. Those teachers who were conspicuous by their absence, lost more than they will readily gain from other sources. In reading, the Dr. showed clearly the necessity of carefulness in emphasis, rhetorical pauses, etc., and also how careful we should be to understand the author's meaning. His illustrations were very happy. On Thursday evening the Dr. lectured in the Methodist Church, on "This Canada of Curs," to a large and highly appreciative audience. To say the people were delighted scarcely expressed the feelings aroused, if we may judge by the frequent and hearty applause given during the course of its delivery. Rarely do we find great truths enforced with such acumen, and accompanied with so much mirthfulness as in this lecture. Those who can best appreciate it are those who have listened to it. The chair was very ably filled by Mr. Wm. McCain, Warden of Essex County. Mr. Misener favored the audience with two songs, which were well received. A motion of thanks to the Dr. was moved by Mr. Smart, Reeve of Kingsville, seconded by Mr. Golden, and carried amid applause. This brought the Dr. to his feet, and for some time he entertained his audience with a most amusing address. This was the most pleasant and profitable convention yet held in South Essex. On Friday evening the Association adjourned, happy to meet, sorry to part, and happy to meet again.

West Victoria.—The sixth semi-annual meeting of West Victoria Teachers' Association was held at Woodville, on Friday and Saturday, 18th and 19th June. At 9,30 a.m. on Friday, the President took the chair, and gave a brief address on business. At 10:00, Mr. Gilchrist, Head Master of Woodville Public School, introduced "History." From 10:30 to 11:30, Mr. Fowler, H. M. of Little Britain Public Schools, dealt with "Parsing." Mr. Sandison next read his essay "Excelsior." At 2:00 p.m., Mr. Dickson, H. M., of Cambray Public Schools, took up the subject of "Factoring." Mr. Shuttleworth followed with "Parts of Speech." At 3:50 p.m., Mr. McFaul, Head Master of Lindsay Public Schools, introduced the subject of "Inventive Drawing." Cn Saturday, Mr. Griffith, of Oakwood High School, dealt with "Mathematical Geography," and Mr. Cundal, of Cameron, with "Map Geography." The following business was transacted: Resolved (1) That a fee of 75c be charged all members of this Association. (2) That this Association subscribes for as many copies of Canada School Journal as we have paid up members. (3) That the library be divided into four equal parts, to be kept a part at each of the following places, Woodville, I ittle Britain, Cameron, Kirkfield, and that the teachers in these respective localities be librarians. (4) That the next convention be held at Woodville. On Friday evening, Mr. J. L. Hughes, of Toronto, delivered his popular lecture on "Kindergarten," to a highly appreciative audience.

Readings and Recitations.

THE OLD SCHOOLMASTER.

He sat by his desk at the close of the day,
For he felt the weight of his many years;
His form was bent, and his hair was grey,
And his eyes were dim with the falling tears.
The school was out and the task was done,
And the house seemed now so strangely still,
As the last red beam of the setting sun
Stole silently over the window-sill.

Stole silently into the twilight gloom;
And the deepening shadows fell athwart
The vacant seats and the vacant room,
And the vacant place in the old man's heart;
For his school had been all in all to him,
Who had wife, nor children, nor land, nor gold,
But his frame was weak and his eye was dim,
'And the fiat was issued at last—"too old."

He bowed his head on his trembling hands
A moment, as one might bend to pray;
"Too old!" they say, and the school demands
A wiser and younger head to-day.
"Too old! too old!" these men forget
It was I who guided their tender years;
Their hearts were hard, and they pitied not
My trembling lips and my falling tears.

"Too old! too old!" It was all they said.
I looked in their faces one by one,
But they turned away, and my heart was lead;
Dear Lord, it is hard, but Thy will be done.
The night stole on, and a blacker gloom

Was over the vacant benches cast; The master sat in the silent room, But his mind was back in the days long past.

And the shadows took, to his tear-dimmed sight,
Well-known forms, and his heart was thrilled
With the blessed sense of its own delight,
For the vacant benches all were filled;
And he slowly rose at his desk and took
His well-worn Bible, that lay within,
And he said, as he lightly tapped the book,
"It is the hour, let school bog."."

And he smiled as his kindly glances fell
On the well-beloved faces there—
John, Rob, and Will, and laughing Nell,
And blue-eyed Bess, with the golden hair,
And Tom, and Charley, and Ben, and Paul,
Who stood at the head of the spelliug class—
All in their places—and yet they all
Were lying under the graveyard grass.

He read the book, and he knelt to pray,
And he called the classes to recito,
For the darkness all had rolled away
From a soul that saw by an inward light.
With words of praise for a work of care,
With kind reproof for a broken rule,
The old man tottered, now here, now there,
Thro' the spectral ranks of his shadowy school.

Thus all night long, till the morning came,
And darkness folded her robe of gloom,
And the sun looked in, with eyes of flame,
On the vacant seats of the silent room.
The wind stole over the window-sill,
And swept through the aisles in a merry rout.
But the face of the master was white and still;
His work was finished, and school was out.

REVIEWS.

Fossil Mrn. By J. W. Dawson, LL.D., Principal of McGill College. pp. 348, 8vo. Dawson Brothers, Montreal.

Though Principal Dawson is a geologist of the first rank, he is in his religious views strictly orthodox, and in regard to science an uncompromising opponent of Darwinism. In "Fossil Men" he examines carefully the evidence which has been supposed by many evolutionists to furnish proof that man first appeared on the earth long before the date commonly assigned to Adam, and that the human race in the Stone Age was less removed than at present from the brute creation. The point of attack is well chosen. The conclusions of many of the investigators of the early history of man have undoubtedly been too hastily formed, and those of others, though not fairly open to this objection, cannot be considered as completely established. Dr. Dawson, at any rate, has been very successful in discovering and laying bare the errors of the writers whom he combats. The constructive part of the work is, however, less satisfactory. The author's view that a period of 6,000 years affords sufficient time for all the changes which, according to his own admission, have occurred, seems somewhat forced; and his hypothesis that man's inventive faculty was more active at the beginning than at any subsequent time, except perhaps, the present day, may be well-founded, but certainly is not proved. Much, too, of what he says about the relationships of words and languages would not, we think, be admitted to be correct by Max Mullar or Whitney. But the work has, as a whole, greatly raised our previously high estimate of Dr. Dawson's ability and knowledge. It ranks very high, both as a popular exposition of what was already known, and as a treatise embodying the results of original investigations. The charm of the style, the interest of the subject, and the clearness of the expositions would, each by itself, be quite sufficient to make "Fossil Men" worth reading. To these attractions is added this, that it contains a very large amount of information about the North American Indians, and particularly those of Canada, never before published between the covers of a book. This new matter is of so great value that it will undoubtedly cause the work to be much quoted and referred to by subsequent writers. The mechanical execution is good, and a large number of wood-cuts renders aid in the elucidation of the subject.

A COMPLETE SCIENTIFIC GRAMMAR OF THE ENGLISH LANGUAGE, with an Appendix containing a Treatise on Composition, Specimens of English and American Literature, a Defence of Phonetics, &c., &c., for the use of Colleges, Schools, and Private Learners. By W. Colegrove, A.M., President of West Virginia College, New York. The Authors' Publishing Company. 1879. Pp. 362, octavo.

In this pretentious volume there are some things that are original and much that is crude. It fairly bristles with strange terms, and its word, phrase, and sentence charts leave little to be desired in the way of complexity. It contains a good deal of valuable matter, but we can hardly agree with the author, "that one year devoted to the study of this treatise will be worth more to the student than ten years spent on the ordinary books." The mechanical execution of the work is good.

Some Thoughts Concerning Education. By John Locke. Edited by Rov. R. H. Quick, M.A., Trin. Coll., Cambridge. Toronto: Copp, Clark & Co.

Two editions of this work have recently been issued almost simultaneously in England, as a result of the awakening of a deeper interest in professional training of teachers in the old world. Locke is recognized in his native country as one of its most profound writers on educational questions; he is regarded by foreigners, especially Germans, as the only Englishman who has contributed much to the discussion of the philosophy of education. In addition to Locke's "Thoughts on Education the book contains a critical and biographical introduction, and two valuable appendices; one on Working Schools, and the other on Study. The book is a most valuable one, and cannot fail to be suggestive to the thoughtful teacher.

APPLETON'S READERS; No. 5. New York: D. Appleton & Co.

In September, 1878, we reviewed the first four books of the series which this book completes, and in October of the same year an article appeared in the Practical Department of the Journal explaining the most striking features of these admirable works. The Fifth Reader is a worthy crown for its predecessors. The selections are carefully made, and the work to be done by the pupil is most judiciously selected and accurately prepared. They are arranged at the end of each lesson regularly, and consist of: 1. Spelling and pronunciation exercises; 2. Language lessons on the prin ciples of printed language as found in the lesson; 3. Definitions synonym, and paraphrases. In addition, copious notes are given on biograph cal, historical, geographical, scientific and literary allusions; and notes concerning the style and thought of the piece. These notes would form a suggestive study for teachers of advanced reading classes.

A Model Superintendent. By Rev. H. Clay Trumbull. New York: Harper Bros.

This is not a theoretical work. It is neither a description of an ideal Superintendent, or a statement of the characteristics and attainments which he should possess. Mr Trumbull could have written a valuable book of either kind. His training and experience eminently qualify him to write with great acceptation on this subject. He chose, however, to exhibit the Mode' Superintendent in a record of the life of the late well-known and highly esteemed Henry P. Haven, of New London, Connecticut. From the life of this carnest man, successful both in business and in Sunday School work, superintendents, teachers, and all church officers may learn many valuable lessons as to methods, management, and especially in faith and enthusiasm in their work. This book should be in every Sunday School library.

FIRST PRINCIPLES OF POLITICAL ECONOMY.—By A. L. Chapin, President of Baliol College. New York: Sheldon & Co. Sample copy 25 cents. This is intended for a text-book in High Schools and Academies. It is admirably arranged for the purpose. The author contents himself with stating principles, instead of advocating theories. In the last chapter, however, the issue between Free Trade and Protection is clearly and concisely discussed. We hope for the time when the students of our advanced schools shall study this important subject. This is one of the best school text-books issued on the subject in Europe or America.

QUESTIONS ON ENGLISH AND AMERICAN LITERLTUBE. Davis, Bardeen & Co., Syracuse. This little work has been issued by these enterprising educational publishers to aid in class drill and private study of the subject of which it treats. The author has three aims; 1. To present the

subject of literature in connection with prominent historical epochs, 2. To make the student acquainted with noted authors and points of interest or importance in connection with them: 3. To name the best known works of leading authors. It will be found useful in these departments.

THE DATE AND CHART BOOK. Thomas Lourie, London, Eng. 6d. This little primer is well arranged for a reference book, or for reviewing or calling up in the mind the facts and dates already learned in English, Roman and Grecian history. It gives also a brief synopsis of the characters of the sovereigns of England, and the names, dates and works of the leading writers of English Literature.

REPORTS RECEIVED.

We acknowledge with thanks the following:-

Annual Report of the Board of Education and Commissioner of Public Schools of Rhode Island. Thomas B. Stockwell, Commissioner.

PRINCE E1 WARD ISLAND, 1879, D. Montgomery, Chief Superintendent.

MISSOURI.-Thirtieth Report, R. D. Shannon, State Superintendent.

The June number of the North American Review contains "Popular Fallacles about Russia," by E. W. Stoughton, ex-Minister to Russia, "Divorces in New England," by Lathan Ailen;" "McClollan's Last Service to the Republic," by George Ticknor Curtis; " Has the Southern Pulpit Failed?" by Rev. Dr. F. A. Shoup; "Caste at West Point, by P. S. Michie, Professor of Philosophy at West Point; and "Some Interesting Publications," by M. W. Hazeltine. This number closes the 130th volume and 65th year of the Review. During the last few years this magazine has made a most remarkable advance in popular favor. Many of its numbers have passed through several editions, and its permanent circulation has increased more than sixfold. The New York Sun says of it: "It is full of masterly disquisitions on the great questions that occupy the minds of the world." The Brooklyn Times. "It is the cream of the nation's thought." The Albany Journal. "It is the representative of the best American thought and culture." The Hartford Courant: "It is interesting from cover to cover." The Boston Journal: 'It has not a page which an intelligent reader can afford to skip." The St. Louis Ohristian Observer: "It is a rich feast of intellectual enjoyment." The Troy Times. "It is endowed with unprecedented elements of popularity." The Cincinnati Times: "No other magazine has such a faculty for getting hold of live, fresh, i teresting contributions." The London (England) Academy: "It seems to have no difficulty in keeping its position at the head of the periodical literature of the United States.

LITTELL'S LIVING AGE.—The numbers of The Living Age for the weeks ending May 15th and 22nd, respectively, contain the following articles: "The History of Rent in England," Contemporary, "The Irish Small Farmer," Fortnightly; "Personal Recollections of Mary Carpenter," Modern Review; "Religion, Achaian and Semitic," by Rt. Hon. W. E. Gladstone, Nineteenth Century; "The Suppression of the Templars in England," Church Quarterly Review; "Illusions of Memory," Cornhill; "Notes on Infinity," by Richard A. Proctor, and "The Dog and its Folk-lore," Gentleman's Magazine; "Eleanour," a Tale of Non Performers, Blackwood; "The Civil Code of the Jews, Pall Mall; "Mr. Brudenell Carter on Short-Sight," Spectator; "A Russian Ice-House," Chambers Journal; with instalments of "Alam and Eve," "He that Will Not When He May," and "Verena Fontaine's Rebellion," and the usual amount of poetry. For fifty-two numbers of sixty-four large pages each (or more than 3,300 pages a year), the subscription price (\$8) is low, while for \$10.50 the publishers offer to send any one of the American \$4 monthlies with the Living Age for a year, including the extra numbers of the latter, both postpaid. Littell & Co., Boston, are the publishers.

The Contemporary Review for May. (Strachan & Co., 84 Paternoster Row, London), contains the following excellent "Bill of Fare": "The Gospel of Evolution," by Dr. Elam; "International Novelists and Mr. Howells," by Mrs. Orr; "Dr. Littledale's Plain Reasons against joining the Church of Rome," by Thomas Arnold; and a "Rejoinder," by Dr. Littledale; "Daltonism," by Wm. Pole, F.R.S.; "Ideas of the Day," by M. A. Doudney; "The Eleusinean Mysteries," by Francois Lenormant, "Miss Lonsdale on Guy's Hospital," by Dr. Mozon.

The Western (May-June) has been received from H. W. Jamieson & Co., St. Louis. It presents us with some interesting articles: "Sister Brenda," a Poem, by Edgar Fawcett; "AGhost's Adventure;" "Battle of Wilson's Creek; "Michael Angelo's Regret" (a Poem), by Helen E. Harriett; "Realism and Idealism," by J. M. Long; "A Thought" (Poem), by Lewis J. Brock; "Frederick Hohenstauffer," by A. E. Kroeger; Book Reviews and Current Notes. Subscription only £2 per annum.

The Journal of Speculative Philosophy for April, (by J. Jones & Co., St. Louis), contains, as usual, able articles, some of them of great interest to the teacher. "Schelling and Natural Science," by Ella S. Morgan; "Kant's Anthrogeology," by A. E. Kroeger; "Herman Grimen on Raphael and Michael Angelo," by Ida M. Eliot; "The Science of Education," by Anna C. Brackett; issued, we deem it right and fair to show the readers of the Journal how "Ars Pootics et Humans," by John Albee; "The Psychology of Dreams," by these books have been received in other countries. We therefore make

Julia H. Gulliver, "Laws of Creation," "Cltimate Science," by Theron Grey, "Educational Psychology," by the Editor, Dr. W. F. Harris, Notes and Discussions and Book Notices.

THE GENTLEMAN'S MAGAZINE for June contains three chapters of "Queen Cophetua," a very good novel by R. E. Francillon; "The Galates of Corvantes," by James Mew; "The Laws of Speech," by Andrew Wilson, F.R.S.F.; "How Shakspore became Popular in Germany," by Eleanor Marx; "The Fishes of the Great Canadian Lakes," by Alfred Rimmer; "Curiosities of Criticism," and "Table Talk," by Sylvanus Urban, the time-honored nom-deplume of the editor. All the articles are of more than average interest. Lovors of angling will read with delight Mr. Rimmer's account of our fishes and suggestions for their preservation. Mr. Wilson's contribution is an able exposition of his views as to the boginnings of language. "Table Talk" is remarkably good. This magazine deserves to be better known and more read in Canada.

THE POPULAR SCIENCE MONTHLY FOR JULY, 1880.—The July Popular Science Monthly is quite up to its usual standard. Its most interesting articles for teachers are a striking article on "The Interior of the Earth," by R. Radau. With the second part, which will appear in August, it will constitute a compact popular report on the present state of knowledge on this interesting question. Professor Tyndall's instructive paper on "Goetho's Theory of Colors" is concluded. "A Vindication of Scientific Ethics," by William D. Le Sueur, is the best exposition of Herbert Spencer's ethical system that has yet been made. "The Coming of Age of the Origin of Species," by Professor Huxley, is a lecture on what has been accomplished in the progress of knowlodge and liberality since Darwin published his book in 1859. Professor Muir has a study of scientific evolution entitled "The New Chemistry, a Development of the Old"; and there are asketch and portrait of the versatile German physicist, Professor Friedrich Mohr. The Editorials, Literary Notices, and Miscellany, are unusually full and varied in the number, which is altogether an excellent one. New York: D. Appleton & Company. Fifty cents per number, \$5 per year.

THE MIDSUMMER HOLIDAY SCRIBNER. - The custom of making the February and August numbers of Scribner's Monthly specially attractive has now become a recognized feature of the magazine, and seems to be apprecia ed by its readers. The August number will contain many interesting features, all of which the editors do not care to announce as yet; but the following are some of the articles which will make up the table of contents of this year's Midsummer Holiday Number: Philip Gilbert Hamerton will contribute an interesting paper on Seymour Haden, fully illustrated, with reproductions of Dr. Haden's etchings, a portrait, etc.; there will be an article on Savonarola, the great Italian Reformer, with pictures by Van Schaick; the first of a series on the localities of Dickens will be given in this number, illustrated by Mr. Charles A. Vanderhoof (whose charming work on "The Docks of New York" and elsewhere in Scribner will be remembered), who has been sent on a special trip to England for the purpose; an illustrated paper descriptive of American advertising; an article by John Burroughs on "Our River," with pictures by Mary Hallock Foote; the concluding paper of the series on Canada; an interesting and well-illustrated instalment of "Peter the Great;" a paper by Chas. Dud-ley Warner; and an original comic operetta, "The Sweet o' the Year," words by Nellie G. Cone and music by E. C. Phelps, will be some of the other features of this number.

ST. NICHOLAS.—They seem to have an odd idea, over in England, of the treatment of children in this country, as will be seen by the following extract from the London Sunday Times, of May 9th, 1880: "The American children-boys and girls-go to school together. They are said to be very difficult to manage and both boys and girls are whipped if they do not behave themselves, and they altogether have a somewhat rough time of it. But surely they are better off for magazines than any children in the world. The present number of St. Nicholas proves this. How excellent is 'A Talk with Girls and their Mothers,' 'Jackin-the-Pulpit, etc., etc. What a quantity of illustrations the number is crammed with! The little Americans need not mind being whipped if they have, every month, such an amusing magazine as St. Nicholas to comfort them!"

HARPER'S MAGAZINE.-Readers of Harper's might have been excused for holding the opinion that it was as near perfection as it is possible for a magazine to be. They must all have been astounded and delighted on the receipt of the June and July numbers. While its literary merit is quite equal to its best, its artistic work is rapidly improving. The illustrations are simply charming. To name the articles would give no adequate idea of the value of the July number. The sketch of the life of QUEEN VICTORIA by Mrs. Oliphant, with its sixteen illustrations, is worth more than the price of the magazine to Canadians.

Publishers' Department.

W. J. GAGE & CO.'S MANUALS FOR TEACHERS.

As certain interested persons have attacked the Manuals which we have issued, we deem it right and fair to show the readers of the Journal how selections from opinions expressed concerning them by nearly every educational journal published in England and America, and by several distinguished teachers. It will be remembered that these are the opinions of unprejudiced men, and therefore entitled to respect. The same cannot be said of the statements of a mere hired scribbler, paid to do the bidding of unscrupulous masters.

MISTARES IN TEACHINO. by Jas. L. Hughes. Toronto: W. J. Gage & Co. London: W. Kent & Co.

This little work, written by a Canadian Inspector of Schools, is intended to point out for the benefit of young teachers the more common mistakes made by those inexperienced in the teaching art. They are arranged under four heads—mistakes in school management, mistakes in discipline, mistakes in method, and mistakes in manner. They are clearly presented and distinctly expressed, and cannot fail to be useful to any young teacher who has not heard them from his master at school or a lecturer on school management at a training college.—The Schoolmaster, organ of the National Union of Elementary Teachers, England.

There are only three educational papers in America which are issued weekly. The following are the opinions expressed by them concerning "Mistakes in Teaching:"

This is one of the suggestive books of special adaptation and value to teachers who aim to improve their methods of managing and teaching their schools. Mr. Hughes evidences in this little manual the good results of earnest observation, and a thorough study of the philosophy of instruction, and shows practically how to avoid the mistakes young and inexperienced teachers are liable to make. In this book he has condensed an immense amount of sound advice. We advise every teacher to invest fifty cents in the purchase of this useful volume.—New England Journal of Education.

It will help any teacher to read this book and find out his own mistakes, with a view towards correcting them.—New York School Journal.

The chapters here presented were first published in the Canada School Journal, and quite generally republished by the educational journals of the United States. They have been regarded as embodying good sense and wise counsel for teachers. Only long experience and careful observation could furnish an author so fully with material for sound advice and timely caution. In four successive chapters, covering 111 pages, the author gives direct and practical counsel in regard to school management, discipline, method and manner. All young teachers will find the book a help in their work—one of the best to be had.—Educational Weekly, Chicago.

The following are from the American Educational Monthlies:

This is one of the most readable books of the kind that I have yet seen. It is evidently the fruit of much careful observation and a sound philosophy. Even old teachers may learn something from it, or at the least, may have the satisfaction of having their theories confirmed, or their practices approved. But for young teachers I know of no book that contains in the same compass so much matter directly bearing on their work, and capable of being immediately utilized. They cannot make a better investment of fifty cents.—Hon. M. A. Newell, State Supt. of Education, Maryland, in Maryland School Journal.

This book will prove of material service to the young teacher. Mr. Hughes has spent many years in practical school-room work, and he here presents the results of his experience in a manner calculated to do much good. One of the first things for the young teacher to learn is "how shall I avoid ruts and mistakes;" and a careful reading of this little volume will go far towards solving the question."—The Teacher, Philadelphia.

This little book is the work of a gentleman who is in a position to note teachers' mistakes, and he has evidently taken advantage of his opportunities. This work is of great value to teachers, because it is eminently practical. It is the most readable book for teachers that we have seen lately.—Teachers' Advocate, Pennsylvania.

This little book is as full of suggestions as an egg is of meat. We know no book of the size that contains so many valuable suggestions for teachers, young or old.—Educational Journal of Virginia.

It is not always pleasant to be told of our mistakes, yet no teacher can ultimately succeed who does not habitually see and correct his own mistakes. The little book under consideration treats the subject under four heads, Mistakes in Management, Mistakes in Discipline, Mistakes in Method, and Mistakes in Manner. It contains more hints of practical value to teachers than any book of its size known to us. Our teachers would find in it many helpful hints.—Ohio Educational Monthly.

This is a common-sense book, designed to correct common errors in school-room work. It is seldom that in the space of 111 small pages so many valuable and practical hints are found. It might with profit be read aboud at teachers' meetings everywhere, in fact it is a sort of Teachers' Looking-glass.—Barnes' Educational Monthly.

Our readers are not wholly unacquainted with this book, as most of the articles have appeared in our columns lately, taken from the Canada Schoo' Journal, at the time they were published. We know of no book containing more valuable suggestions to teachers.—Central School Journal, Iowa.

It is sensible and practical.—School Bulletin, Syracuse, N. Y.

Our Chautauqua friend, Mr. Hughes, has packed a great deal of sound sense into the one hundred and cleven pages of this little manual.—Dr. VINCENT, in S. S. Journal, New York.

Though brief, it is most comprehensive. In a clear and forcible manner it points out the errors that are constantly being made by young and even by experienced teachers, in "School Management," "Discipline," and "Method," and shows how the innumerable rocks on which many drift, and which are the cause of so many failures, are to be avoided.—The Evening Mail, Halifax.

I have read it through, and I am very much pleased with it. The thoroughly practical nature of the hints given in it is its very best feature, and that which must commend it as a most useful book for our young teachers—many of the works on "Teaching" available at present are filled with vague generalities which confuse rather than aid the teacher. I have been the more interested in the book from the fact that it treats of matters which, over and over again, I have brought prominently before my students in lectures.—J. A. MacCabe, M.A., Principal, Normal School, Ottawa.

I have never seen a book of more practical value to the teacher than Mr. Hughes' "Mistakes in Teaching," a copy of which you sent me in connection with my subscription to the Journal. I have loaned it to several of my teachers, who have expressed a wish to procure a copy. At what rate can I procure Twenty-five copies?—B. B. Snow, Superintendent of Schools, Auburn, New York.

The following letters speak for themselves:

"I can give no higher testimony for "Mistakes in Teaching" than the fact that on my submitting it to the Board of Protestant School Commissioners for the City of Montreal, I was instructed to procure copies for all our schools, for the guidance and instruction of the teachers."

S. P. ROBINS.

Supt. Protestant Schools, Montreal, and Prof. of Education, McGill Normal School.

"I cannot better express my estimate of the value of "Mistakes in Teaching," than by stating the fact that, on reading it, I at once resolved to present a copy to every teacher under my inspection. I have since been pleased to learn of their high appreciation of the work."

THOS. HENDERSON,

Public School Inspector, Paris.

The book was also adopted by the School Board of the City of Auburn, N. Y, and purchased for every School under its jurisdiction; and an order for a uhousand copies was recently received from one firm in the Southern States.

How to Secure and Retain Attention. By J. L. Hughes. Gage & Co., Toronto. Kent & Co., Paternoster Row, London, Eng.

Eere is a Canadian teaching us how to teach. We are very glad to welcome his volume, which is on an important subject, and is admirably executed. One of the most difficult things, as all teachers know, is how to secure attention. Imperfect teachers had better buy this book, which gives, so to speak, directions for self-measurement.—Educational Times, and Journal of the College of Preceptors, London, Eng.

We can unhesitatingly commend it to the notice of teachers as a brief, but satisfactory, exposition of the kinds and causes of attention, its conditions, and the means of obtaining, securing, and developing it.—School Guardian, issued by the National Society of England.

The following are the opinions of the three great American educational weeklies:

The topic, and the method of treating it, are of such importance, that we have read with great care what Mr. Hughes has presented, and commend most heartily his wise and eminently practical suggestions. He defines the kind of attention; the characteristics of positive attention; the elements of the teacher requisite to secure and retain the attention of his pupils; the proper conditions, and how to control the attention of a class; the methods of preserving and stimulating the pupil's desire for knowledge, and how to gratify and develop the natural desire for mental