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THE CANADA
EDUCATIONAL MONTHLY
AND SCHOOL CHRONICLE.

FEBRUARY, 1881.

WALTER SCOTT.*

BY PROF. GOLDWIN SMITH M.A., TORONTO.

WALTER SCOTT ranks in imaginative power hardly below any writer save Homer and Shakespeare. His best works are his novels; but he holds a high place as a poet in virtue of his metrical romances and of his lyrical pieces and ballads. He was the first great British writer of the Romantic school, and the first who turned the thoughts and hearts of his countrymen towards the Middle Ages. The author of "The Castle of Otranto" and the builder of Strawberry Hill was his feeble precursor: Bishop Percy with his "Reliques" had lighted the way: Ellis with his "Specimens of Early English Poems and Romances" ministered to the same taste. In Germany the Romantic school prevailed at the same time over the Classical. There is in the poetry of Coleridge an ele-

ment derived from that school; and Scott's earliest works were translations from the German ballads of Bürger and of a romantic tragedy by Goethe, though the rill of foreign influence was soon lost in a river which flowed from a more abundant spring.

It is always said of Scott that he was above all things a Scotchman. The pride of Scotland he was indeed; and by the varied scenery and rich stores of romance, Lowland and Highland, Island and Border, which lie within the compass of that small realm, his creative genius was awakened and the materials for its exercise were supplied. But his culture, connections, and interests were British, and for the British public he wrote. To the Highland Celts, whose picturesqueness made them the special darlings of his patriotic fancy, he was, like other Lowlanders, really an alien. In his poems, at least, there is little

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which, so far as language or sentiment is concerned, might not have been written by a native of any part of the island. Even the scenes and characters of his great poems are partly English, and only to a small extent taken from Scott's own Lowlands. The Lowland Scotch generally were Presbyterians and Whigs: Scott was an Episcopalian and a Tory. He descended, and loved to trace his descent, from the wild Borderers who were not more Scotch than English. His solidity of character, his geniality, his shrewdness, like his massive head and shaggy brows, were of Southern Scotland; but a Southern Scotchman is a Northern Englishman. On the other hand, his genius and education were in an important sense Scotch, as not being classical: he knew no Greek, and his Latin was not so much classical as mediæval. He belonged entirely either to his own day or to the feudal age. Of Italian and Spanish Romance he had a tincture, but no deep dye.

The poetry of Scott flowed from a nature in which strength, high spirit, and active energy were united with tender sensibility and with an imagination wonderfully lively and directed by historic and antiquarian surroundings and by personal associations towards the feudal past. Homer may have been a warrior debarred from battle by blindness: Scott would perhaps have been a soldier if he had not been lame. War and its pageantry were his delight. He was the ardent quarter-master of a volunteer corps, and rode a hundred miles in twenty-four hours to muster, composing a poem by the way. It was not the only poem he composed on horseback. "Oh! man, I had many a grand gallop among those braes when I was thinking of Marmion." In boyhood, despite his lameness, he was renowned as a pugilist, both "in single fight and mixed affray," and in

after-life he was a keen sportsman, though he liked the chase best when it took him to historic scenes.

He loved to be, and to be thought, a man of action. Set to the law, though he did not love it, he faced the hard work gallantly, and could boast that when he was at the oar, no man pulled it harder: in fact it seems that had not his literary genius called him away he might have been a good lawyer. Of literature as a profession, he was not so proud as he ought to have been, though no man ever pursued it more steadily or made more by it. He thought much of his pedigree, which connected him through Border chiefs with the House of Buccleuch, and above all things he desired to be a gentleman. "Author as I am, I wish these good people would recollect that I began with being a gentleman and don't mean to give up the character." In his eagerness to become the owner of a lordship and of the rank attached to it, which had a romantic as well as a social value in his eyes, he wrecked his fortune and brought on his declining age tragic calamity, which he faced with unquailing courage. The character of the strong and proud man with the weaknesses attendant on pride underlies all his productions.

"The Violet" is the memorial of an early cross in love, which perhaps left its trace on Scott's character in a shade of pensiveness. He afterwards made a marriage of intellectual disparagement, but in his family as in his social relations he was happy. Loved by all, men and animals, he embraced in his sympathies everything that was not mean or cowardly. Though himself a keen Tory, he reconciled in his art Tory and Whig, Cavalier and Covenantant, Catholic and Puritan. He loves to depict the mutual courtesies of generous foes. Once he forgot his chivalry in attacking Fox; but in the introduction to

the first canto of "Marmion" he made full amends.

A nature so joyous, a life so happy, so full of physical as well as of mental enjoyment, social success so great, excluded all questionings about the mystery of being, and all sympathy with the desire of change. There is not in Scott's poems a particle of the philosophy which we find in Wordsworth, Byron and Shelley, or a shade of the melancholy which we find in the last two. He is as purely pictorial as Homer. The Revolution politically was his aversion; it seemed to him merely vulgar and levelling. He wished "to cleave the politic pates" of its Cobbetts as Homer revelled in the drubbing of Thersites. Intellectually it has left no more trace upon his poems than upon the waters of Loch Katrine.

Our generation has seen a strong current of religious reaction setting towards the Middle Ages. Of this there is nothing in Scott. The things which he loved in mediæval life were the chivalry, the adventure, the feudal force of character, the aristocratic sentiment, the military picturesqueness. For Dante he cared little, while he cared much for Ariosto. Roman Catholicism he contemned as a weak and effeminate superstition. Asceticism was utterly alien to him; in the Guard-room Song in "The Lady of the Lake" he is anti ascetic to the verge of coarseness. A boon companion was in his eyes "worth the whole Bernardine brood." In his writings the churchman appears only as the chaplain of the warrior. His priests and friars are either jolly fellows who patter a hasty mass for lords and knights impatient to be in their saddles, or wizards like Michael Scott. Ecclesiastical ruins, though he loves them as an antiquary, do not seem to move his reverence. At Kirkwall and Iona he thinks much more about the tombs of chieftains than about

the monuments of religion. In Kirkwall Cathedral, the Canterbury of the Orkneys, he says: "The church is as well fitted up as could be expected; much of the old carved oak remains, but with a motley mixture of modern deal pews: all however is neat and clean, and does great honour to the Kirk Session who maintain its decency." Not so would he have spoken of a famous castle of the Middle Ages.

The poet first drew the breath of mental life at Sandy Knowe, the home of his grandfather. There he looked on a district "in which every field has its battle and every rivulet its song;" on the ruined tower of Smailholme, the scene of "The Eve of St. John," Mertoun and Hume Castle, Dryburgh and Melrose, the purple bosks of Eildon, the hill of Faerie, the distant mountain region of the Gala, the Ettrick and the Yarrow. Edinburgh, in which he lived while reading law, he might well call "his own romantic town." In his vacations it was his delight to ramble through the dales of the Border, above all through Teviotdale, living with the dalesmen, drinking whiskey with them—sometimes too much, for there was an element of coarse conviviality as well as of popular joviality in his character—and garnering in his eager mind their Border tales and ballads. The fruits were a collection of "Border Minstrelsy" (1802), with which he published some ballads of his own. Being asked by Lady Dalkeith, wife of the heir of his "chieftain," the Duke of Buccleuch, to write her a ballad on the legend of Gilpin Horner, and finding the subject grow under his pen, he in a happy hour developed the ballad into the metrical romance and produced "The Lay of the Last Minstrel." The Last Minstrel is the poet himself, who revives in a prosaic and degenerate age the heroic memories of the older time.

Of those which followed "The Lady of the Lake" was the first revelation to the world of the lovely scenery and the poetry of clan life which lay enclasped and unknown to the cultivated world in the Highlands, into the fastnesses of which, physical and social, he had penetrated on a legal errand. This gave the poem an immense popularity. Otherwise "Marmion" is the greatest of his poems, while the "Lay" is the freshest. "Rokeby" and "The Lord of the Isles" shew exhaustion, the last in a sad degree. Two minor romances "The Bridal of Triermain" and "Harold the Dauntless," have not taken rank with the five: "Harold the Dauntless" is weak; but "Triermain," in narrative skill and picturesqueness, is certainly superior to "The Lord of the Isles." "The vision of Don Roderick" has been justly described by Mr. Palgrave as an unsuccessful attempt to blend the past history of Spain with the interests of the Peninsular War. The epistles introductory to the cantos of "Marmion" have been deemed out of place; but they are in themselves charming pictures of Scott among his literary friends. They seem also to shew that he well knew he was living in the present while he amused himself and his readers with the romantic past; although he was sometimes enough under the illusion to be taken with rapture by the mock-feudalism of George the Fourth's coronation, and to play with heart and soul the Cockney Highlander on the occasion of the same monarch's farcical visit to Scotland.

Before "The Lord of the Isles," "Waverley" appeared. Scott's career as a novelist began as his career as a poet ended. His vein was worked out, his popularity flagged, he was being eclipsed by Byron, one part of whose talisman the high-minded and self-repressing gentleman certainly would not have condescended to borrow.

Scott has vindicated the metre of his tales as preferable to Pope's couplet; in the case of a romance which was a development of the ballad, the vindication was needless. Scott's metre is the true English counterpart, if there be one, of Homer. In "The Lady of the Lake" and "Rokeby" it is the simple eight-syllable couplet. In the other poems variations are freely introduced with the best effect. Scott had no ear for music, but he had an ear for verse.

In each of the romances, "The Lord of the Isles" perhaps excepted, there is an exciting story, well told, for Scott was a thorough master of narration. In "The Lay of the Last Minstrel," it is true, the *diablerie* sits lorn on the general plot; but it was an imposed task, not his own idea. We are always carried on, as the writer was himself when he was composing "Marmion," by the elastic stride of a strong horse over green turf and in the freshest air. Abounding power, alike of invention and expression, is always there; and we feel throughout the influence of Scott's strong though genial and sympathetic character and the control of his masculine sense, which never permits bad taste or extravagance. The language, however, always good and flowing, is never very choice or memorable. There is not seldom a want of finish; and under the seductive influence of the facile measure, the wonderful ease not seldom runs into diffuseness, and sometimes, in the weaker poems, into a prolixity of common-place.

"Though wild as cloud, as stream, as gale,
Flow forth, flow unrestrained, my tale!"

Scott was a little too fond of unrestrained flow; and perhaps it rather pleased him to think that his works were carelessly thrown off by a gentleman writing for his amusement, not laboured by a professional writer.

He was a painter of action rather

than of character, at least in its higher grades. Something of insight and experience which Homer had he wanted. All the heroes of his novels are insipid except the Master of Ravenswood, who interests not by his character but by his circumstances; all the heroines except Di Vernon, who interests by her circumstances and her horsemanship. So it is with the heroes and heroines of the poems. Margaret, in the "Lay of the Last Minstrel," comes on with a charming movement, but she remains merely the fairest maid of Teviotdale. The best characters are heroic scoundrels, such as Marmion the stately forger, and Bertram Rivingham the buccaneer with a vein of good in his evil nature. "The worst of all my undertakings," says Scott himself, "is that my rogue always in despite of me turns out my hero." The author of "Paradise Lost" met with the same misfortune. Marmion is an almost impossible mixture of majesty and felony; but he is better than a seraph of a gentleman. There is not a happier passage in the poems than that in which, as a gentle judgment on his career of criminal ambition, the peasant takes his place in the baronial tomb. It is marred by the moralizing at the end. Scott did not know when enough had been said.

"To write a modern romance of chivalry," said Jeffrey in his review of "Marmion," "seems to be much such a phantasy as to build a modern abbey or an English pagoda." Restorations are forced and therefore they are weak, even when the mind of the restorer is so steeped in the lore of the past as was that of Scott. His best works, after all, are his novels of contemporary or nearly contemporary life. A revival, whether in fiction or in painting, is a masquerade. Scott knew the Middle Ages better perhaps than any other man of his time; but he did not know them as they are known now; and an antiquary would

pick many holes in his costume. His baronial mansion at Abbotsford was bastard Gothic, and so are many details of his poems. The pageantry not seldom makes us think of the circus, while in the sentiment there is too often a strain of the historical melodrama. The Convent Scene in Marmion is injured by the melodramatic passage in the speech of Constance about the impending dissolution of the monasteries.

All that a reviver could do by love of his period Scott did. He shews his passionate desire of realizing feudal life, and at the same time his circumstantial vividness of fancy, by a minuteness of detail like that which we find in Homer, who perhaps was also a Last Minstrel. He resembles Homer too in his love of local names, which to him were full of associations.

Scott has said of himself—"To me the wandering over the field of Banockburn was the source of more exquisite pleasure than gazing upon the celebrated landscape from the battlements of Stirling Castle. I do not by any means infer that I was dead to the feeling of picturesque scenery; on the contrary, few delighted more in its general effect. But I was unable with the eye of a painter to dissect the various parts of the scene, to comprehend how the one bore on the other, to estimate the effect which various features of the view had in producing its leading and general effect." It is true that he had not a painter's eye any more than he had a musician's ear; and we may be sure that the landscape charmed him most when it was the scene of some famous deed or the setting of some legendary tower. Yet he had a passionate love of the beauties of nature and communicated it to his readers. He turned the Highlands from a wilderness, at the thought of which culture shuddered, into a place of universal pilgrimage. He was conscien-

tious in his study of nature, going over the scene of "Rokeby" with book in hand and taking down all the plants and shrubs, though he sometimes lapsed into a closet description, as in saying of the buttresses of Melrose in the moonlight that they seem framed alternately of ebon and ivory. Many of his pictures, such as that of Coris-kin, are examples of pure landscape painting without the aid of historical accessories. In a nature so warm, feeling for colour was sure not to be wanting; the best judges have pronounced that Scott possessed this gift in an eminent degree; and his picture of Edinburgh and the Camp in "Marmion" has been given as an example. He never thought of lending a soul to Nature like the author of "Tintern Abbey," to whose genius he paid hearty homage across a wide gulf of difference. But he could give her life; and he could make her sympathize with the human drama, as in the lines at the end of the Convent Canon of "Marmion" and in the opening

of "Rokeby," which rivals the opening of "Hamlet" in the cold winter night on the lonely platform of Elsinore.

Of the ballads and lyrical pieces some were Scott's earliest productions; among these is the "Eve of St. John," in which his romantic imagination is at its height. Others are scattered through the romances and novels. In the ballads, even when they are most successful as imitations of the antique, there is inevitably something modern: but so, it may be said, there is in the old ballads themselves, or they would not touch us as they do. Edmund's song in "Rokeby" is an old ballad, only with a finer grace and a more tender pathos. There is nothing in Scott's lyrical poetry deep or spiritual; the same fresh, joyous unphilosophizing character runs through all his works; but in "County Guy" he shews a true lyrical power of awakening by suggestion thoughts which would suffer by distinct expression.

REMINISCENCES OF CHARTERHOUSE—III.

BY AN OLD CARTHUSIAN.

Being a series of Short Sketches descriptive of Public School Life in England.

(Continued from page 9, Vol. III.)

THE unanimous vote by which in 1871 the Common Peal Fight was abolished may safely be regarded as an unmistakable proof that a higher tone had fast been infusing itself amongst Carthusian boys.

Putting aside the "piggishness" of the fight itself—of which any gentleman might well have felt ashamed—the monstrous abuse into which the custom had grown must long have appealed to the common sense of the

authorities as an urgent reason for its discontinuance.

Possibly, however, it was, that foreseeing its fall as a necessary consequence of that higher tone which, no doubt, they felt was springing up, the authorities deemed it more prudent to await its natural and more certain death at the hands of the boys themselves. Otherwise, it seems well-nigh impossible to account for their having permitted it to exist for so long a time.

Now, however, that it is really a thing of the past, we need not feel quite so much ashamed of speaking of it.

The "fight" used to take place on Shrove Tuesday in every year. At dinner on that day, together with our pancakes we were each of us given a lemon, wherewith seemingly to flavour our pancakes, but in reality, wherewith to injure our neighbour's eye; great dissatisfaction prevailed where only half a lemon was provided for that ennobling purpose. Many boys, fearful lest their ammunition should run short, used to purchase additional lemons on their own account.

Everybody, housemasters included, appeared to be imbued with a generous spirit, suited to the requirements of the occasion; on that day alone of the whole year, we were allowed *two* helpings of pudding; and although few boys ever availed themselves of the opportunity, they all nevertheless fully appreciated the liberality of the housemasters. Many suggestions, of course *generous* suggestions, were offered to account for this goodness, but they need not be recounted here.

Immediately after the excellent repast was over, those boys who respected their clothes put on "hashers"* and made ready for the fight.

By the appointed hour the whole school had turned out on "green," and the boys ranged on their respective sides, lemon in hand, eagerly awaited the signal to begin.

Punctually, as the chapel clock struck two, a bell was rung and the fight opened with a furious charge from both sides. The ground soon became covered with lemons, which in turn also soon became covered with dirt, a circumstance which added considerably to the pleasure of receiving them in one's eyes.

Often too, some boys anxious for

the comfort of some special *friend*, would fill his lemons with ink, vinegar, mustard, or any other ingredient that might suggest itself to his mind as likely to produce the effect he desired.

My readers can, no doubt, picture to themselves the fight better than I can describe it, since they will agree with me in considering the word "beastly" far too mild a term to apply to the custom, in order to convey an adequate idea of its "piggishness."

After the fight had raged for twenty minutes, a bell again sounded, warning the boys that it was time to desist from throwing any more muddy lemons in each other's eyes.

How the custom grew into an abuse is not difficult to conceive. For the twenty minutes during which the fight lasted, no distinction existed between upper and lower boys; all were on the same level; a fag could, with impunity, spend his entire energy in attacking his fag-master; no after punishment would accrue to him for his conduct. Hence it was that all thoughts of a fair and honest fight vanished completely before a secret and more powerful thirst for revenge!

Revenge, what for? it may be asked, and indeed it is not so easy a matter to answer. In most cases, it was revenge for some imaginary wrong inflicted by the monitor upon the boy.

Many monitors, for various reasons, were unpopular in the extreme; some elated at, perhaps, their sudden elevation to the monitorial ranks, would "swagger" and give themselves airs; others would incur a similar hatred to these by unintentionally offending one or more boys in the performance of what they considered to be their duty.

But no matter how they came to be so, there were always unpopular monitors, and woe betide them on Shrove Tuesday!

Those boys who were offended at a certain monitor, would seize upon this

* Carthusian for jerseys.

their only opportunity during the year, to express in very practical terms their disapproval of his conduct by picking him out during the entire fight as their sole object of attack.

It was impossible for a boy thus set upon by a pack of blood-thirsty young savages to escape without the most painful, if not serious, injury to his face, his eyes in particular.

Indeed, I remember one fight, especially, when the head of the school was terribly hurt, having been attacked by at least sixty boys; he presented a pitiable spectacle, indeed, after the fray was over! That he bore it nobly was admitted by all, even by his most violent attackers, who, no doubt, felt some pang of remorse for the brutal part they played on that day.

The origin of "Lemon Peel Fight" I never knew, nor do I think that any one did really know. The following suggestion, which I venture to reprint from the *Carthusian*, was offered by a very small boy:—

In the Carthusian monastery of old,
The bell for the midday meal had toll'd,
And the monks to their dinner eagerly past
For the morrow began the Lenten fast;

And with the prospect of forty days' fish
They ate their dinner with extra relish.

At the head of the table the abbot sat
In a chair which hardly allowed for his fat;
And the holy brethren on either side
Talked and chatted on benches wide,
Carthusian silence forgetting, I fear,
But when did silence attend good cheer!

The meat is o'er and the dish of the day—
The pancakes—appeared in goodly array.
But 'twas at this point that something occurred

Which their further discussion a little deterred;
For Brother Adolphus, usually cool,
Waxing eloquent, termed Brother Peter a fool.

Brother Peter was not the man to brook
Such an insult; into his hand he took
A lemon, that lay hard by his plate;
Fast flew the messenger of fate—
And to join in the fray, from each side of the board

The monks arose with one accord.

The shower of lemons filled the air;
Nor *inky* missiles I ween were there;
The friar off his legs is thrown;
The weaker brethren all lie prone;
Thus they fought on, nor did their zeal expire
Till sheer exhaustion quenched their furious ire.

(To be continued.)

THE POSITION AND PROSPECTS OF TEACHERS.

BY MACHAON.

ALTHOUGH I am not engaged in the profession of teaching, yet I take a great interest in the welfare of teachers and in educational matters generally, having successively held the office of Grammar School and High School Trustee for about sixteen years continuously. Knowing how much the country owes to teachers and how inadequately their services are often appreciated, I have longed to see their status improved and their remuneration increased. It appears

to me that the facilities for getting into the profession are too great, the preliminary education being very cheaply obtained. The natural consequence is that there are large numbers possessing certificates but unable to procure employment, and when a vacancy occurs the crowd of applicants is so great that sordid and ignorant trustees take advantage of the superabundant supply. Many of the boards advertise for teachers, requiring candidates to state salary. This

system I have always set my face against. A board of trustees ought to name a respectable salary in their advertisements, and then they may expect teachers to apply who are qualified for the office. The certificate itself is a very bare qualification. There are many other adjuncts which render a preceptor's services peculiarly valuable; for example, a good address and a courteous manner; an avoidance of slang and low colloquialisms; an aptitude for conveying knowledge; a personal appearance that presents no point for the shafts of ridicule; a high character for morality, and a pronunciation free from dialectic provincialisms. A hundred dollars a year is nothing to a school section, in comparison with procuring the services of a thoroughly good teacher. But the low-priced one often carries the day. A certificated teacher once rushed into my house, exclaiming, "Doctor, I want you to give me a recommend." He was making application for a school in a section where I had some friends. I asked myself, "How can I give a testimonial as a teacher to a man who does not know a noun from a verb?" I complied with his request so far as to testify to his general character, stating that I knew nothing of his qualifications as a teacher. For even this much my conscience afterwards accused me; but I laid "the flattering unction to my soul" that it was the poor man's *disqualifications* that I knew most about. He got the school. On another occasion I was in the house of a person who was regarded as a model trustee. In fact he had been a teacher himself under the old *régime*. Being proud of his son's progress, he produced the boy's copy book for my inspection. The teacher had written the first line, a "copy" in "large-hand"—letters about an inch long between the lines—and the word was "*Openion*." It was spelled exactly

as the teacher pronounced it, and the boy had copied the blunder, nor had the delighted father suspected that anything was wrong. There were certain words which this teacher pronounced so strangely that his pupils used to lay snares for him by asking questions, with apparent submissiveness and politeness, the answers to which involved the pronunciation of one or more of these words. The young hypocrites would then, with their confederates, enjoy the fun.

Some trustees resolve to give only so much and no more. The other day I noticed in a city daily an advertisement for a teacher with a second-class Provincial certificate; salary \$200 *per annum*. Things have come to a sad pass. Distinguished graduates of Toronto University will now accept situations at a salary of \$400 or \$450 a year. The question is, "How is this state of affairs to be remedied?" I throw out a suggestion for the consideration of the friends of education and of the teacher, and would be glad to learn the opinions of wiser men than myself in the matter. I have come to the conclusion, despite a popular prejudice against centralization, that we already owe much to it in educational matters, and that we ought to have more of it. I believe ignorant and penurious trustees work education much evil; and I would propose that their powers should be curtailed. It is the duty of a State to act in a parental capacity, and where her children are not qualified to judge for their own interests to interpose the judgment of qualified persons. I have many improvements connected with our school system in view, but I must, through want of space, pass nearly all of these over, and refer merely to the selection of teachers and the rate of their remuneration. When there are vacancies in the Civil Service of England or of India, an advertisement is inserted in

several newspapers, stating that Civil Service examinations will be held in certain central localities on such and such a day. The grades of the vacancies are specified, with the salary attached to each; and forms of application are issued, as well as particulars published concerning the educational, moral, and physical qualifications required of the candidates. Those who have the highest marks get the appointments; and there can be no favouritism shewn. Teachers are, in Ontario, often appointed through local influence. There are localities in the Province where the sections for miles around are supplied by the sons or daughters, or sons-in-law of persons resident in the vicinity. This is all very well if other things are equal, but often they are not so. Politics, religion, and nationality have also frequently much to do with the selection of teachers. Now, I would suggest, that when a school section required a teacher, the trustees should have a central bureau, perhaps a county one, at which to apply in order to get the vacancy filled; that every half year the number of teachers wanted should be published, and arrangements made for a competitive examination; that all the qualifications necessary for a teacher be regarded in this examination; that the educational authorities of the Province should regulate the grades of teachers for the Collegiate Institutes, the High Schools, and the Public Schools, and establish a proper scale of salaries according to grade; that the interests of those at present employed be carefully protected; that if a teacher's position becomes, for any reason, uncomfortable, he may, for proper cause, by applying to the central bureau, effect a transfer or exchange; that if a teacher does not, from any cause, give satisfaction where employed, the central bureau shall investigate the case and make satisfactory ar-

rangements; that no candidates shall, after such a mode of appointment takes effect, be examined, unless when vacancies actually occur; that those who have the highest marks for all qualifications shall be selected for employment; that teachers of the lower grades may have an opportunity of competing for the higher positions; that teachers occupying positions in which they give satisfaction and with which they are themselves satisfied shall occupy these positions during good behaviour, or until they are superannuated.

This is a mere outline of a plan which would require many further details. The tendency of such a system would be to make the position of the teacher more independent of ignorant directors and dictators, and less precarious in its tenure; to check the superabundant supply of candidates for school-teaching; to secure the highest talent and efficiency; to ensure a proper remuneration for the teacher; to cause the teacher to be treated with more respect by his pupils, they knowing that he is not at the mercy of their parents; to encourage the teacher to make a home for himself, and devote himself to teaching as a worthy life-work.

We know that a great number adopt the profession of teaching merely as a temporary employment, and as ancillary to something that will bring more social consideration and more money. The country is a loser by this condition of affairs, and it would be to its interest to hold out inducements to persons of ability to devote themselves wholly to the honourable work of education. The remarks which I have offered on the subject of improving the position of the teacher may not be approved, but they may have the effect of directing attention to the necessity that exists for such improvement, and of eliciting suggestions of a more valuable kind.

ART EDUCATION.

BY RICHARD BAIGENT, A.R.C.A., COLLEGIATE INSTITUTE, TORONTO, TEACHER
IN THE ONTARIO SCHOOL OF ART, AND FORMERLY OF WINCHESTER
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THE wide-spread and growing feeling of the importance of Art Education, as a part of a liberal, or of an ordinary education, sufficiently attests the value of the intellectual and moral benefit to be derived from it, if it be rightly pursued. Scattered through the pages of the CANADA EDUCATIONAL MONTHLY many allusions to this subject from thoughtful minds bespeak their appreciation of its value—a sure augury that the time is approaching when it will be considered not only as an individual gain but as a matter of national benefit. Schools of Art and Design are being established for the furtherance of artistic production, and for the technical training of the artisan in design and embellishment; but what inducements has he to become foremost in the competition for excellence when the public, in whose appreciation is the reward, is incompetent to decide on the merits of his labour? If education be necessary for the production of works of Art and of beautiful design, it is equally necessary for their just appreciation, and herein lies the true secret of a national taste.

It is not sufficiently recognized (though it cannot longer remain so) how universal is the yearning towards Art. The young mind delights in pictures; nothing pleases and attracts it so much, and acknowledgment is made of this craving in the infant mind by the pictorial attractions supplied by parents who delight in the dawning intelligence of the little ones.

Nevertheless, no sooner is the child advanced in years than all this natural craving is forgotten, or is considered of little account in the practical education of the young.

Art has had to contend against many prejudices, for it is worthy of note that those who acquire information from books only, in their eager pursuit after knowledge, too often leave themselves no time for the study of Art; and having shut themselves out from its benign light, they not only are blind and dead to its impressions, but they drift into false ideas and contracted notions of its usefulness. The faculty to see and admire, it should be borne in mind, needs cultivation among educated people as much as it does among the uneducated.

Again, it is a prevalent error, which cannot be too earnestly refuted, that special inborn powers or natural gifts are indispensable to the acquisition of Art. Whatever ability or mental aptitude the young may shew in other paths of learning, if they be given the opportunity of studying Art they will exhibit equal aptitude; those who distinguish themselves in the general studies of the school-room will be equally certain of doing the same in the drawing class.

If general education thus advantageously helps and facilitates the acquisition of Art, Art is capable of and will undoubtedly repay all obligations, for it finds avenues to the understanding, not otherwise disclosed,

through which a great amount of knowledge may be gained, and which has access to the mind in no other way and by no other mode. Education means the unfolding or developing of the natural or original powers of the intellect, the soul and the senses; and to educate in Art is to develop and cultivate the sense of colour and form, as well as to make more skilful the powers of the hand or eye. To realize the infinite beauties of nature, to be able to produce what is meant by pictorial beauty, which is undoubtedly its highest faculty, is a further result of Art education. As, however, the greater includes the less, so the study of Art bestows the power to see and appreciate every graceful and beautiful form, and the marvellous beauty of the Creator's works becomes more clearly seen and delighted in.

Art must minister and appeal to the enjoyment of nature and to the sense of admiration. This, from its elevation and from its entire unselfishness is one of the purest forms of human pleasure; and the chief office of Art for the people is really to shew them how this great capacity of enjoyment is within the reach of everyone. That a person cannot see the beauty of natural objects until they are pointed out to him, does not make the study of Art less beneficial to him when he has discovered their secret. Having gained the power to see, he will progress in the new path of observation and enjoyment opened to his mind; and all thoughtful persons will admit that this is an important advance in his education. Art is the pursuit of beauty, of learning to produce or to appreciate it, and, as we have said, this requires education. If the earliest step in Art, which merely traces the form of an object, is difficult, because it must perceive that form, not as it really is, but as it appears to the eye, how necessary must the universality of Art education be, that all

may share in its higher manifestations, and be no longer ignorant of those revelations of genius which the agency of the pencil or the chisel has sent us from every age.

Generally speaking, the primary objects of Art education are to provide for the few in every class of life who are capable of producing original work such training as shall best acquaint them with their especial gifts and enable them by discipline, drill, and education to turn them to good account. A further purpose is to place within the reach of all such an education in form and colour as shall enable any one to ascertain and unfold whatever capability he may possess of observation and imitation or of pictorial expression.

The first purpose would result in a school of artists trained in their art, who would produce works of more or less originality and worth, influencing and moulding popular education, socially, morally, and intellectually.

The second object would happily result in a national and popular advance in all the branches of Art, from the numbers and rivalry of those who would take an interest in it.

To propose such an education, as a part of a liberal or of an ordinary education, raises the question, how far persons of average capacity, or with only a limited amount of time and energy, can learn or be taught drawing, for on accurate drawing of form all Art depends. A single course of freehand and object drawing, properly taught, and faithfully worked through by the pupil, will give him an amount of patience, firmness of hand and mental perception which will last him his life. This means, practically speaking, the insisting upon its study to a certain extent, and to cover a certain quantity of work, however small that quantity be; and it must be taught with the highest accuracy, because the smaller the advance made

by the pupil the greater the progress in after effort. Solid study of accurate form, however, must come first, or no educational result will follow. As to the question of power to learn to draw rightly, it is simply one of time and attention; make it really a part of education, and boys and girls will be educated by it.

It is a cheering sign that the enlightened teachers of Ontario are becoming alive to the importance of Art education, guided by the principle that all true education of whatever kind consists in the cultivation of the judgment. In this they are doing their part to lift Art into its proper rank among those studies which contribute to the mental and moral illumination of their pupils. In many of our Collegiate Institutes, drawing forms a part of the course, and it is bearing fruit in the approval of a discriminating public. Those institu-

tions in which the teaching of drawing is undervalued, or treated as a matter apart from education, will retrograde in popular estimation, and the masters of such need not be surprised if they be justly or unjustly credited with being behind the age and inadequately qualified for the highest work of an educator.

Art education is no longer a trifling or an indifferent question; we are in the midst of a universal and unexampled competition in every element which can advance our civilization. Government attention has been awakened to the importance and the necessity of Art education, and the great advance which our own times have witnessed in the growth of educational facilities in general, encourages the hope that all matters of Art culture will receive a similar wise direction, and that with fostering care the like beneficent results will follow.

PRIMARY READING—THE SENTENCE METHOD.

BY GEO. L. FARNHAM, A.M.

AS a rule, reading has not been successfully taught in our primary schools. Generally, habits of expression and habits of thought have been acquired that subsequent training has failed to overcome, so that good readers are the exception, both in the schools and out of them. There has been no want of careful study given to the subject, but the real causes of a failure so general have not been discovered.

Methods.—The old *a, b, c* method, the "*Penknife System*," has quite generally been succeeded by methods more rational, such as the *Phonetic*, having a letter to represent temporarily each elementary sound in the lan-

guage, the *phonic* making the elementary sounds the basis of instruction, but using the common alphabet and the *Word Method*. None of these, nor any combination of them, has met with complete success. While some difficulties have been overcome, others have presented themselves, so that the problem how to make natural, fluent readers from the first still remains practically unsolved. By each of these methods, children acquire facility in recognizing and pronouncing words, but there is a lack of naturalness of expression which can be overcome only by drill. This is so general that it is almost universally conceded that good reading can be

acquired only by imitation, as in singing.

Natural Expression.—All have observed that when children are free from external restraints; they express their thoughts with perfect clearness and propriety. They require no drill to make them throw the emphasis upon the right words or to give the right inflection to their voices. Indeed, for years we have been told to go to the playground for our models of delivery; but so far our instructors have failed to bring these models into the school-room.

It is too early to assert that the method here presented for your consideration has overcome all difficulties; but after a trial of several years in the schools of Binghamton, we can state that desirable results have been accomplished, and that bad habits have been avoided with an ease and certainty hitherto unknown in our experience.

THE SENTENCE METHOD.

We call this the Sentence method because we make the basis of our work the complete thought as expressed in the form of a complete sentence. We do this believing that the unit of thinking in the mind of a child is a thought, and that all his impulses are toward giving his thought complete expression in sentences.

We are led to this conclusion by observing the process by which children learn to talk. Parents are often anxious upon this point, and quite early attempt to teach their children the use of a language adapted to their infantile state. They practise "baby talk," repeat half-formed sentences for their children to imitate. Fortunately for the child and for our language, these efforts have little effect except to afford a temporary amusement. The child does not learn to talk by any such process.

It is to be observed that a child

understands what is said to him long before he attempts to express his own thoughts in any connected form. It is sometimes years before he begins to use the language of those around him. A child of four years, of my acquaintance, had never talked in complete sentences. Returning, after the absence of a week, he was talking so much that his parents were obliged to check him in the use of his new-found powers; and he was as fluent and correct in the use of language as any member of the family. It is related that Charles Wesley, the brother of the distinguished divine, did not talk until he was nearly or quite six years old. His parents were greatly afflicted at his backwardness, although he was bright enough in other respects. One day his mother called for him, when the boy himself answered, "Here I am, mother, in the parlour, under the table." This sudden gift of speech, in this instance, was regarded as a special interposition of Divine Providence. But every child exhibits the same phenomenon to a greater or less degree. Where he attains a considerable age, say three and a half or four years, before talking, the transition from his *patois* to correct speech will be quite abrupt, and he will use the forms of speech he is accustomed to hear. He glides into the use of complete language so naturally that he is unconscious of the change. He spontaneously thinks in thoughts and speaks in sentences. If it were otherwise—if it were conscious of separate ideas and of separate words to express them, it would require years of experience and effort before he could have any connected thought, or intelligent use of language. The very consciousness of the elements of the language would be fatal to both thought and expression. Language, as the instrument of thought, must be habitual—must be used without consciousness, while the attention is fixed upon the

thought expressed. Let us now consider the inquiry,—

“WHAT IS READING?”

Hon. J. W. Dickinson, Secretary of the Board of Education of Massachusetts, says :

“Reading consists, first, in forming ideas which are occasioned by recognizing the printed or written forms of words used as the names of these ideas ; second, in forming thoughts which are occasioned by recognizing the construction of these words into sentences used to express these thoughts. In addition to these two processes, ‘Oral Reading’ requires that these words and sentences shall be pronounced with the voice, so as to excite similar ideas and thoughts in the minds of others.”

I like this definition, for the reason that it recognizes the vital principle that lies at the foundation of all reading ; *viz.*, that thoughts are formed directly and *immediately* by recognizing their *graphic* expression. It excludes all calling of words, phrases, or sentences dissociated from intelligence. The thought being the constant unit in the mind, and the sentence the unit of expression, can the child so take in the written or printed expression with his eye as to form the thought, without being conscious of the elements, at least so far as words are concerned.

Sight is a sense quicker in action than hearing. No one is directly conscious of words when listening to speech ; why should he be while looking upon the written or printed page ? That this is possible is evident, for were it otherwise *eye-reading* would only keep pace with oral utterances ; while, as a fact, *good* readers are able to take in through the eye many times more matter than they are able to pronounce in words. This being the case, we have made progress in the solution of our problem. The thought

being formed directly from the page through the medium of sight, without translation into oral speech, will control the oral utterance the same as if it had its origin in the mind of the reader.

A New Use of the Eyes.—A difficulty here presents itself, not at first observable, and of which little note has hitherto been taken. Reading by the eye requires a *new* use of that organ. The child is accustomed to observe things as they actually appear. He judges with tolerable accuracy of the form, colour, and relations of objects by direct observation, and is accustomed to trust with confidence his power to discriminate between them. This power being in full and active exercise, when his attention is called directly to a letter, word, or even a sentence, he will judge of it as he judges of other tangible objects—by its visual characteristics. He learns these *objects* by their names, which, when repeated, recall these objects, and *nothing more, necessarily*. So it is no uncommon thing for a child to learn the names of all the letters of the alphabet, to arrange these letters into a great number of words, and to recognize these words at sight, and still do nothing more than exercise his external sense. No new power has been acquired. The eye has simply performed its accustomed office—that of discerning forms ; but these forms are no medium of thought, are no language.

THOUGHT PRIMARY—EXPRESSION
SECONDARY.

When the eyes rest upon a sentence, as “The cat plays,” the thought occasioned by recognizing these words and their arrangements should be formed directly, without reference to the sounds they represent when pronounced. All the attention bestowed upon the forms, to make us conscious of their peculiarities or elements,

either phonic or graphic, withdraws so much from the thought they express. But the necessary effect of teaching these forms *directly*, by whatever method, so that they shall be recognized at sight, is to *thrust them forward* into consciousness, and thus destroy their function as language. If we commence with the ultimate elements, either phonic or graphic, we interpose a great number of objects of attention before reaching the *ultimate object*, the thought.

It is a well-established law of the mind that a series of remembered facts will be recalled in the order in which they were first acquired. To illustrate, we will select the word "cat," and proceed according to an approved letter-method. We first give the letter *c*, then *a*, and then *t*. The child must then be told that these letters put together spell "cat." He may, or he may not, think of the object, cat. Whether he does or not according to the foregoing principle, whenever the word is presented for recognition, his attention is arrested by each letter in the order in which it was first learned; and each letter being an independent recognition, is complete in itself, and satisfies the mind for the time being, and leaves no impulse for going beyond. This process is repeated with each word, multiplying intermediate objects of attention, and making more and more difficult the attainment of the thought. An immediate and necessary result of all this is a laboured and monotonous naming of words without thought or naturalness of expression; and a still sadder result is the formation of the habit of being satisfied with this recognition and naming of words, that years, and often a life-time, fail to correct. If we begin with the elementary sounds, by either the phonic or phonic method, substantially the same results follow. By commencing with the whole word we

somewhat lessen the number of intermediate objects of attention, and thus increase the chances of not exhausting this power before the thought is reached.

Good readers are never made by any of these processes. But there are good readers in spite of our methods. They are those who have learned without the intervention of teachers, or have been brought to a good degree of excellence by drill, and by processes that have no necessary connection with the methods by which they were first taught. The written or the printed page, instead of being a *medium* through which the thought is unconsciously attained, becomes an obstacle by being made the direct object of attention, which is only removed by the laborious process of translation into oral speech. You look through your window to what is passing in the street; you do not notice the glass that intervenes. But turn your attention to the glass and it becomes a barrier almost as complete as if it were opaque.

Language, to be a medium of thought, must be used unconsciously. The words of the speaker only make us think his thoughts. We speak and are only conscious of what we say, and not of the means or manner of saying it. We look upon the printed or written page, and we should have no more consciousness of the letters or words upon it than of the glass through which we look at objects without. So language is a medium of thought. But if it be taught as *an end*, by any direct process, the order is reversed, and *long years of effort* will be required to make it take its proper place as a medium.

Language Taught Indirectly.—To meet these conditions, means must be devised for teaching graphic language as we have learned the oral, by making it a secondary, rather than the primary object of attention. It must

be taught incidentally and indirectly. The words, the letters, and all their arrangements must be arranged by being associated with the thought, which must in every instance precede the expression in order of time. But expression must immediately follow, or the thought itself has no power, and is soon lost.

LANGUAGE TAUGHT INDIRECTLY—
MEANS USED.

First Step.—We will now describe the means by which we, in Binghamton, sought to meet these conditions, and the results reached. Of course, we first secured the confidence of the child, without which no good results will follow from any method. This done, we commence by making the child conscious of simple definite thoughts by means of objects, which he is led to express orally. We place in his hands an object, and call upon him to tell us what he has. He will instinctively shew the object, which is usually some toy representing some animal, household utensil, or familiar object, as a cat, dog, doll, book, or knife, and will very likely answer, "I have got a knife," if he happens to hold that article. By the exercise of a little ingenuity on the part of the teacher, he will be led to correct his expression and say, "I have a knife."

In like manner each member of the class should be called upon to simply tell what he has, giving a complete expression, as in the first instance. The children should exchange objects with each other, and repeat the exercise. As they gain confidence and freedom of expression, two or more children may take hold of the same object, when one of them may express the thought, as, "We have a doll." One, two, or more children may hold the object, while another child makes the proper statement to the children with the object, as "You

have a book." Or speaking to the teacher or class, he may say, "They have a book." We proceeded in this manner until relations were formed calling for the use of most of the common pronouns, quite a number of descriptive adjectives, prepositions, and verbs, together with the names of the members of the class, and as many objects as we found it convenient to use.

The degree of intelligence of the class will determine the time to be devoted to this step. It may require a few days or weeks to give the children the necessary quickness in discovering the relations, and in giving exact expression to the thoughts thus formed. Little effort was made to teach new things or give new words. They were only led to give exact expression to the familiar thoughts, so that the habit of going from the conscious thought to its expression should be firmly fixed. Other forms of expression may be used; but we chose these forms because the relations are easily made concrete, and they appeal to an instinct in the children, which they often exhibit in their plays. Indeed, the children regard these exercises as play, and enter into them with great spirit.

Second Step.—The teacher should next come before her class with nothing visible in her hands, and tell them that she has something,—as, "I have a knife." She will then ask a child what she has. The child readily answers, "You have a knife." *Teacher:* "How do you know I have a knife?" *Child:* "You told us you had." The teacher will now shew the knife to confirm the statement.

It will be noticed that this step is the reverse of the first,—in that the thought is formed by the objects; in this the thoughts are formed by language, and the concrete relations formed in obedience to the impulse of the thought. This is a brief step,

requiring only a very few lessons. The object of it is accomplished when the children respond readily by making concrete the relations expressed by the language.

Third Step.—This step introduces the class to the written expression. The teacher informs the children that she will now tell them things by writing,—will talk to their eyes with her crayon and the black-board. She should then, in a clear, distinct hand, *write* what has before been expressed orally, "I have a knife." Of course the child has no idea what is said. The teacher will call a child to her and put the object in his hand, when he, holding up the knife, will respond orally, "I have a knife." Let him continue to hold the knife while she writes another sentence, as, "I have a doll." Putting the object into the hands of a little girl, she will respond with the proper oral expression. This process should be continued until several sentences are written upon the board.

She may now put the pointer into the hand of one of the children, and call upon him to point out his "story," or sentence, and tell what it says. This he will readily do as he still holds the object in his hand, and will remember its place upon the board. Should he forget its place, the teacher will point it out. In like manner each child will be called upon. Mistakes will occur, but they are readily corrected without the teacher reading a word, or telling the children what is said. The children, still depending upon the object for the expression, give only secondary attention to the words upon the board, and, as a consequence, only slight impression is made by them.

The play, as the little ones themselves call it, is now made a little more difficult by the children changing objects, and each one selecting the sentence that his new thought re-

quires. This quickens the attention and strengthens the impression; still, no direct effort is made to impress the sentence or the words upon the memory. The thought formed by the object in the hands of the child is still the first object of attention; the oral expression has all the naturalness of conversation. Only a few of the forms of expression used in the preceding steps should at first be used. The exercises should be repeated day after day, care being taken to avoid monotony, and to keep the children interested. This is the critical period,—not with the class, but with teacher and parent. They are not satisfied with the apparent results. Without experience they cannot see when the children will be able to read directly from the board, much less from the printed books, without first having the thought suggested by the object.

But wait a little! Have patience, and you shall receive your reward. By an inevitable law of mind, according to which every child before you has learned to talk, each repetition of the sentence upon the board has strengthened the impression. Some day, as you write, with all the eager eyes of the class upon you, watching every movement of your crayon, you will find a little hand stretched in eager entreaty for permission to speak. Grant the request, and the child will excitedly come to you, select the object from among a number before you, on the table, and make the sentence *true*. Of course it has been read, and it is only a matter of form to give it oral expression, which he does with a degree of enthusiasm only to be witnessed in a child that has accomplished something worthy by his own exertions.

The point of greatest difficulty is now passed. One after another of the members of the class will follow, until in a short time the teacher will complete a sentence; then all the

children will raise their hands to "make it true," and tell her what it is. By this indirect process, quite analogous to that by which they learned at first to talk, the children acquire a written vocabulary sufficient to express many simple thoughts, without having the elements, the letters, or the words directly pointed out to them, or exalted into objects of primary attention. The written words become a direct medium, and may be used in the expression of any thought coming within the experience of the pupils, or that they can comprehend, and "make true," with the full assurance that such words perform their legitimate function as language.

All the forms of expression used in the first two steps are now used in writing. New words are added to the vocabulary as the necessities of the child require. The pencil and the crayon are put into the hands of the children, and they are soon able to write the sentences quite legibly, and with the same accuracy that has characterized the teacher's work.

ANALYSES.

First Analysis.—Very soon an important discovery is made. As the teacher writes, it will be found that the children recognize the separate words. Sentences that have heretofore been to them wholes are discovered to be made up of parts, each one of which is common to many of the sentences they are accustomed to use. As this is a discovery of their own, made incidentally, there is little danger of their being exalted into primary objects of attention, and thus reversing the natural order which has thus far been preserved. They, however, now make use of these elements as steps to reach the thoughts expressed by new combinations, but they do not stop upon them nor enunciate them until the thought is complete and clearly defined. It is found that mis-

takes made by the teacher in writing, either repeating a word or using a wrong one, putting in a wrong letter and leaving one out, will as effectually arrest the class as if they were ignorant of the entire sentence. If the mistake be an obvious one, the children will correct it, when they will read without hesitation.

Second Analysis: Letters.—As the children observe the writing of the teacher, and practise writing themselves, they soon discover that the words are made up of parts. The teacher does not hesitate to talk as if these parts were known, and the children come into possession of the names of the letters unconcernedly, and soon are able to use them in the formation of words.

It is thus seen that this method is practically the reverse of the old one. Sentences are first recognized as wholes. By the first analysis, words are obtained out of which new sentences are formed; by the second analysis, letters are obtained out of which new words are constructed; the whole being in accordance with the law of mental action, which shews that wholes are cognized first, and that exact and completed knowledge of objects is obtained by successive analyses.

Results.—The direct results are as follows: *First*, perfect naturalness of expression without drill. Our teachers never read for the imitation of the children, and the children never give a wrong inflection or a wrong emphasis unless they mistake the meaning.

Second, the habit is formed of getting the thought of the author directly from the printed or written expression, and for looking first and always for a complete thought. It is not reading to them, if they are not able to understand what is written.

Third, the exact thought requiring exact expression. The children acquire a knowledge of words and a

power of discrimination which appear marvellous to those accustomed only to the old methods.

Fourth, they are almost perfect in orthography and in the use of capitals and punctuation-marks. A misspelled word is no word to them, and only serves to confuse.

Fifth, perfect clearness of thought. The dividing-line between what they know and what they do not know, so far as the written or printed expression is concerned, is clearly defined. A new thought, a new idea, or especially a new word, is at once noticed, and has to be cleared up before they proceed.

Sixth, the transition from the Script to the Roman characters is made without a perceptible break, provided it is not attempted too early. We began to put books into the hands of the children sometime during the second term, but no possible harm is done by delaying it to a still later period. With proper preparation, an ordinary First Reader will be completed in a few weeks, and two or three readers, if of the proper grade, can be read through in a single term.

Seventh, the use of the pencil becomes easy and pleasant, so that writ-

ing and composition are recreations, instead of drudgery. Of course we did not use copy or spelling books. Writing and spelling are used only for expressing thoughts.

We will not attempt to discuss the indirect results that follow from this method of training children. A love for the school, and an absence of coercive discipline, and general habits of industry, follow from rational methods of instruction.

Conclusion.—In conclusion, I would remark that these same principles are applicable in advanced grades. For intelligent reading and observation, together with the habit of correct expression, oral and written, are the keys that unlock the storehouse of all knowledge, and give their possessor the means and power of development to any degree of which he is capable.

The limits of this article necessarily compel the omission of many points about which questions naturally arise. But I trust enough has been said to direct attention to this important subject, so that more rational methods may be pursued, and the pathway of both teacher and pupil made more inviting.—*National Journal of Education.*

A LITTLE FRENCH FOR A LITTLE GIRL.

“Early to bed, and early to rise,
So little girlie, come shut up your eyes.”

“*Mes yeux*, that’s my eyes, will not shut up, *mon père*,
Because the old sandman has not been round there.”

Mon père, is my father, and this, *couchez-vous*,
Just means, go to bed, as papa calls for you.

A huit heures, eight o’clock, should you linger, he’d say,
“*Ma fille*, that’s my daughter, *et vous faut aller*.”

“You must go;” so, my darling, come give me a kiss,
These French words *embrasse moi*, means just about this.

So my girlie, go off with your mother, *la mère*,
Who will carefully comb *tes cheveux*; that’s your hair.

She will lovingly kiss you, and say, *bon nuit*,
Or good night, and in dream-land you quickly will be.

HORÆ HORATIANÆ—II.

BY GEORGE MURRAY, B.A. (OXON.), SENIOR CLASSICAL MASTER, HIGH SCHOOL,
MONTREAL.

(Continued from page 18.)

HORACE—BOOK I, ODE XXIV.

Why check the yearning for a friend
So loved? O Muse, to whom belong,
By Jove's own gift, both lyre and song,
Thy mournful inspiration lend.

Quintilius sleeps in endless night!
When shall his peer be found on earth,
For truth unblemished, modest worth,
And loyal faith that loves the right?

The Good all mourned him; but thy moan
Was saddest, Virgil! Thou in vain
Dost ask him of the Gods again,
Unmindful he was but a loan.

Nay—couldst thou sweeter strains command
Than Orpheus, whom the groves obeyed,
Thou couldst not animate the shade,
Which Maia's son, with gloomy wand,

Closing the gate of death, hath driv'n
To mingle with the spectral throng.
'Tis hard—but suffering makes us strong
To bear the unchanging will of Heav'n!

BOOK I, ODE XXVII.

O'er wine-cups destined for delight
The savage Thracians love to fight—
Such custom shun, my comrades all,
For modest Bacchus hates a brawl.

The Persian dagger ill contrasts
With lamps, and wine, and gay repasts;
Pray, Friends, this hideous din restrain,
And on your elbows rest again.

Must I, too, drink Falernian? Well—
Let Greek Megilla's brother tell

Whose glances shot the fatal dart
That blissfully transfixed his heart.

What, silent? Then no wine for me!
Whate'er thy charmer's name may be,
There needs no blush; for thine will prove
A frank and honourable love.

Out with the secret! Whisper low:
I'm dumb. Poor wretch! and is it so?
With what a Harpy dost thou mate,
Boy, worthy of a better fate!

What witchcraft, what Thessalian charms,
What God can snatch thee from her arms?
Scarce Pegasus himself could thee
From this three-formed Chimæra free!

BOOK I, ODE XXX.

O Cnidian, Paphian Queen! awhile
Thy darling Cyprus leave, and deign
'Mid clouds of frankincense to smile
On Glycera's graceful fane.

Bring thy flushed boy, and Mercury,
The Graces, too, with loosened zones,
The Nymphs, and Youth, who, reft of thee,
Slight charm or beauty owns.

BOOK I, ODE XXXVIII.

Boy, I detest all Persian state,
And crowns with linden-bark entwined:
Search not, the rose that lingers late
For me to find.

Enough, this simple myrtle-wreath,
Which decks not ill thy brows and mine,
As, served by thee, I drink beneath
The trellised vine.

ARTS DEPARTMENT.

ARCHIBALD MacMURCHY, M.A., MATHEMATICAL EDITOR, C. E. M.

Our correspondents will please bear in mind, that the arranging of the matter for the printer is greatly facilitated when they kindly write out their contributions, intended for insertion, on one side of the paper ONLY, or so that each distinct answer or subject may admit of an easy separation from other matter without the necessity of having it re-written.

SOLUTIONS,

to Problems in December number, by the proposer, J. L. Cox, B.A., Math. Master, Collegiate Institute, Collingwood.

$$183. \text{ Prove that } 1 + 3n + \frac{3 \cdot 4}{1 \cdot 2} \frac{n(n-1)}{2} + \frac{4 \cdot 5}{1 \cdot 2} \frac{n(n-1)(n-2)}{3} + \&c. \\ = 2^{n-3}(n^2 + 7n + 8). \quad (\text{Cam.})$$

$$(x+1)^n = x^n + nx^{n-1} + \frac{n \cdot n-1}{2} x^{n-2} + \frac{n(n-1)(n-2)}{3} x^{n-3} + \&c.$$

$$(1-x)^{-3} = 1 + 3x + \frac{3 \cdot 4}{1 \cdot 2} x^2 + \frac{3 \cdot 4 \cdot 5}{3} x^3 + \&c.$$

$$\therefore 1 + 3x + \frac{3 \cdot 4}{1 \cdot 2} \frac{n(n-1)}{2} + \frac{3 \cdot 4 \cdot 5}{1 \cdot 2 \cdot 3} \frac{n(n-1)(n-2)}{3}$$

is the coefficient of x^n in the product.

$$(1+x)^n (1-x)^{-3} = (1-x)^{-3} \{2 - (1-x)\}^n \\ = 2^n (1-x)^{-3} - x 2^{n-1} (1-x)^{-2} + \frac{n(n-1)}{2} 2^{n-2} (1-x)^{-1}$$

involving lower powers of x than x^n ; and picking out the coefficient of x^n in the three we get $2^{n-3}(n^2 + 7n + 8)$.

184.—Sum the series

$$\frac{1(x+2)}{2 \cdot 3 \dots (x+1)} + \frac{2(x+3)}{3 \cdot 4 \dots (x+2)} + \frac{3(x+4)}{4 \cdot 5 \dots (x+3)} + \&c., \text{ ad inf.}$$

[NOTE.—This question was incorrectly given in the December number.]

n^{th} term of given series

$$= \frac{n + (n-1+x)}{(n+1)(n+2) \dots (n+x)} = \frac{(n+1)(n+x) - x}{(n+1) \dots (n+x)}$$

$$= \frac{1}{(n+2) \dots (n+x-1)} - \frac{x}{(n+1) \dots (n+x)^2}$$

$$\therefore S_n = C - \frac{1}{(n+3) \dots (n+x-1)(x-3)} + \frac{x}{(n+2) \dots (n+x)(x-1)}$$

Putting $n=0$,

$$C = \frac{2}{(x-1)(x-3)} - \frac{x}{(x-1)}$$

$$\therefore S_n = \frac{(x+1)}{(x-1)(x-3)} - \frac{x}{(x-1)}$$

$$= \frac{1}{(n+3) \dots (n-3)} + \frac{x}{(n+2) \dots (n+x)(x-1)}$$

$$\therefore \text{sum to inf.} = \frac{x+1}{(x-1)(x-3)} - \frac{x}{x-1}$$

185. Find the sum of n terms of the series

$$\frac{1}{(x+2y+3z)(2x+3y+4z)} + \frac{1}{(2x+3y+4z)(3x+4y+5z)} + \dots$$

The n^{th} term of the above is

$$\frac{1}{\{nx + (n+1)y + (n+2)z\} \{ (n+1)x + (n+2)y + (n+3)z \}}$$

$$\therefore S_n = C -$$

$$\frac{1}{\{(n+1)x + (n+2)y + (n+3)z\} \{(x+y+z)\}}$$

$$O = C - \frac{1}{(x+2y+3z)(x+y+z)}$$

$$\text{and } C = \frac{1}{(x+y+z)(x+2y+3z)}$$

$$S_n = \frac{1}{(x+1)(x+2)(x+3)} - \frac{1}{(x+y+z)\{(n+1)x+(n+2)y+(n+3)z\}}$$

$$= \frac{1}{(x+2y+3z)\{(n+1)x+(n+2)y+(n+3)z\}}$$

186. Sum

$$1 - \frac{3}{4} + \frac{3.5}{4.8} - \frac{3.5.7}{4.8.12} + \&c. \text{ to infinity.}$$

$$1 - \frac{3}{4} + \frac{3.5}{4.8} - \frac{3.5.7}{4.8.12} + \dots$$

$$= \left(1 + \frac{1}{2}\right)^{-\frac{1}{2}} = \left(\frac{3}{2}\right)^{-\frac{1}{2}} = \left(\frac{1}{\frac{3}{2}}\right)^{\frac{1}{2}} = \left(\frac{2}{3}\right)^{\frac{1}{2}}$$

Solutions by proposer, W. S. ELLIS, B.A.,
Math. Master, Coll. Inst., Cobourg.

176. Apply the principles of algebraic expansion and factoring to the solution of the following arithmetical problems:—

Simplify

(a) $\frac{\frac{1}{2} - \frac{1}{3} + \frac{1}{4}}{\frac{1}{2} - \frac{1}{3}}$; (b) $\frac{(\frac{1}{2} + \frac{1}{3})^2 - \frac{1}{2} - \frac{1}{3} + \frac{1}{4}}{\frac{1}{2} + \frac{1}{3} - \frac{1}{4}}$

(c) $\frac{2499}{49}$; (d) $\frac{6364}{15 \times 5 + 11}$

(e) $\frac{8^2 + 1 + 8 + 8^{\frac{3}{2}}}{(8 + \frac{1}{2})^2}$; (f) $\frac{(\frac{1}{2})^4 + 2(\frac{1}{2} \times \frac{1}{3})^2 + (\frac{1}{3})^4}{\frac{1}{2} + \frac{1}{3}}$

(g) $\frac{.5 \times .25 - .25 \times .0625}{.5 - (.5)^2}$; (h) $\frac{2 \times 4 \times 8 - .5 \times .25}{5 - 1.5}$

(a) may be thrown into the form

$$\frac{(\frac{1}{2} - \frac{1}{3})^2}{\frac{1}{2} - \frac{1}{3}}, \text{ the quotient is } \frac{1}{2} - \frac{1}{3} = \frac{1}{6}$$

(b) $\frac{(\frac{1}{2} + \frac{1}{3})^2 - \frac{1}{2} - \frac{1}{3} + \frac{1}{4}}{\frac{1}{2} + \frac{1}{3} - \frac{1}{4}} = \frac{(\frac{1}{2} + \frac{1}{3} - \frac{1}{4})^2}{\frac{1}{2} + \frac{1}{3} - \frac{1}{4}} = \frac{1}{2} + \frac{1}{3} - \frac{1}{4} = \frac{1}{6} = \frac{1}{6}$

(c) $\frac{2499}{49} = \frac{50^2 - 1}{50 - 1} = \frac{(50 + 1)(50 - 1)}{50 - 1} = 50 + 1 = 51$

(d) $\frac{6364}{15 \times 5 + 11} = \frac{6400 - 36}{86} = \frac{(80 + 6)(80 - 6)}{80 + 6} = 74$

(e) $\frac{8^2 + 1 + 8 + 8^{\frac{3}{2}}}{(\frac{1}{2} + \frac{1}{3})^2} = \frac{(8 + \frac{1}{2})^2}{(\frac{1}{2} + \frac{1}{3})^2} = 8 + \frac{1}{2} = 8\frac{1}{2}$

(f) $\frac{(\frac{1}{2})^4 + 2(\frac{1}{2} \times \frac{1}{3})^2 + (\frac{1}{3})^4}{\frac{1}{2} + \frac{1}{3}} = \frac{(\frac{1}{2})^4 + (\frac{1}{3})^4}{\frac{1}{2} + \frac{1}{3}} = \frac{1}{2} + \frac{1}{3} = 1\frac{1}{6}$

(g) $\frac{.5 \times .25 - .25 \times .0625}{.5 - (.5)^2} = \frac{(.5)^2 - (.25)^2}{.5 - .25} = (.5)^2 + .5 \times .25 + (.25)^2 = .4375$

(h) $\frac{2 \times 4 \times 8 - .5 \times .25}{5 - 1.5} = \frac{(4)^2 - (.5)^2}{4 - .5} = (4)^2 + 4 \times .5 + (.5)^2 = 18.25$

177. Factor

(a) $(1+x)^2 + (1+x^2)^2 + 2(1+x^2) + 2x(1+x^2)$

(b) $(x+y+z)^2 + (x-y-z)^2 + 2x^2 - 2(y+z)^2$

(c) $(1+2x+x^2)^2 + (1-2x+x^2)^2 + 2(1-x^2)^2$

(d) $(x \times y)^2 - 5(x^2 + y^2) - 10xy - 24$

(e) $p+q+r(p+q+1) + s(1-p-q) + r^2 - s^2$

(f) $x^2 + y^2 + x+y+2xy - xs - yz$

(g) $p+q+r(p+q+r+s) - s(p+q+r+s) + r+s$

(a) $(1+x)^2 + (1+x^2)^2 + 2(1+x^2) + 2x(1+x^2) = (1+x)^2 + (1+x^2)^2 + 2(1+x)(1+x^2) = (2+x+x^2)^2$

(b) $(x+y+z)^2 + (x-y-z)^2 + 2x^2 - 2(y+z)^2 = (x+y+z)^2 + (x-y-z)^2 + 2\{x^2 - (y+z)^2\} = (x+y+z+x-y-z)^2 = (2x)^2$

(c) $(1+2x+x^2)^2 + (1-2x+x^2)^2 + 2(1-x^2)^2$ is a perfect square, being $(2+2x^2)^2$

(d) $(x+y)^2 - 5(x^2 + y^2) - 10xy - 24$, by combining two middle terms the expression becomes $\{(x+y)^2 - 6\} \{(x+y)^2 + 1\}$

(e) $p+q+r(p+q+1) + s(1-p-q) + r^2 - s^2 = p+q+(r-s)(p+q) + r+s+r^2 - s^2 = (p+q+r+s)(1+r-s)$

(f) $x^2 + y^2 + x+y+2xy - xs - yz = (x+y)^2 + (x+y) - x(x-y) = (x+y)(x+y-x+1) = (x+y)(x+y-z+1)$

(g) $p+q+r(p+q+r+s) - s(p+q+r+s) + r+s = p+q+(r-s)(p+q) + (r-s)(r+s) + r+s = (p+q+r+s)(1+r-s)$

178. Shew that

$$(x+a)^2 + (x-a)^2 = 2(x^2 + 3a^2x);$$

also that

$$(x+a)^2 - (x-a)^2 = 2(3ax^2 + a^2),$$

and from these formulæ simplify

(a) $(a+b+c)^2 + (a-b-c)^2$;

(b) $(a+b+c)^2 - (a-b-c)^2$;

(c) $(x+y+1)^2 - (x+y-1)^2 - 2\{3(x+y)^2 + 1\}$.

Expanding and collecting terms we get the two formulæ.

$$(a) (a+b+c)^3 + (a+b-c)^3 \\ = \{(a+b+c)\}^3 + \{(a+b)-c\}^3 \\ = 2\{(a+b)^3 + 3c^2(a+b)\}.$$

$$(b) (a+b+c)^3 - (a-b-c)^3 \\ = \{a+(b+c)\}^3 - \{a-(b+c)\}^3 \\ = 2\{3a^2(b+c) + (b+c)^3\}.$$

$$(c) (x+y+1)^3 - (x+y-1)^3 - 2\{3(x+y)^2 + 1\} \\ = 2\{3(x+y)^2 + 1\} - 2\{3(x+y)^2 + 1\} = 0.$$

179. Simplify

$$(a) (x+a+b)^3 + (x+a-b)^3 \\ + 6(x+a)(x+a-b)^2 - 6b^2(x+a);$$

$$(b) 8(x+a+b)^3 - (2x+2a)^3 \\ - 8b^3 - 24b(x+a)(x+a+b).$$

$$(a) (x+a+b)^3 + (x+a-b)^3 + 6(x+a)(x+a-b)^2 \\ - 6b^2(x+a) = (x+a+b)^3 + (x+a-b)^3 \\ + 3 \times 2(x+a)\{(x+a)^2 - b^2\} \\ = \{(x+a+b) + (x+a-b)\}^3 \\ = (2x+2a)^3.$$

$$(b) 8(x+a+b)^3 - (2x+2a)^3 \\ - 8b^3 - 24b(x+a)(x+a+b) \\ = (2x+2a+2b)^3 - \&c., \\ = \{(2x+2a)+2b\}^3 - \&c., \\ = (2x+2a)^3 + (2b)^3 + 3 \times 2b(2x+2a) \\ \{2x+2a+2b\} - \&c., \\ = (2x+2a)^3 + 8b^3 + 24b(x+a)(x+a+b) \\ - \{(2x+2a)^3 - 8b^3 - 24b(x+a) \\ (x+a+b)\} = 0.$$

180. If a cubic foot of water weighs 1,000 ounces, and the specific gravity of silver be 10.5, find how many ounces of silver would be required to make an inkstand, in the form of the frustrum of a regular hexagon, 4 inches high, each of whose sides at the base is two inches long and at the top 1 inch long, the hollow being in the form of a right cylinder, extending to within one inch of the bottom, and arranged about the central axis, so as to leave a wall $\frac{1}{2}$ of an inch thick at the middle of each side at the top.

Dividing the upper and under surfaces into equilateral triangles to find their areas, we get for the number of square inches in these respective surfaces $6\sqrt{3}$ & $2\sqrt{3}$ inches,

\therefore vol. of frustrum if solid would be

$$(6\sqrt{3} + 2\sqrt{3} + \frac{2}{3}\sqrt{3})\frac{4}{3} = 14\sqrt{3} \text{ cub. in.}$$

The diameter of hollow cylinder is .616 inches; \therefore its vol. is $(.616)^2 \times \pi \times 3 = 3.5762 +$ inches, \therefore number cubic inches of silver is $14\sqrt{3} - 3.5762 = 20.672$, and $\frac{20.672}{1728} \times 1000 \times 10.5 = 125.61$ ozs. of silver.

181. A owes \$4,000, due in three years, bearing interest at 6 per cent. per annum. He wishes to make equal half-yearly deposits in the bank, so that at the end of the three years, these deposits, with accrued interest, may be just sufficient to cancel the debt, the bank allowing interest at 5 per cent. per annum, payable half yearly, and the first deposit to be made at the end of the first half year. Just after making his payment at the end of the second year he is compelled to draw out of the bank \$1,000; find how much each of his last two payments must be increased on this account; also find the total amount of the last deposit.

Amount of debt in 3 years at 6 per cent. per annum is \$4764.064+; if paid as at first intended each deposit would be

$$4764.064 \div \{(1.025)^6 + (1.025)^4 + (1.025)^2 + (1.025)^2 + 1.025 + 1\} = \$145,814.$$

These deposits with interest, at end of 2nd year amount to

$$3097.0049 + 3097.0049 - 1000 = 2097.0049$$

which at end of 3rd year amounts to

$$\$2203.1678 + 4764.064 - 2203.1678 = 2667.058 = \text{amount to be met by last two deposits, } 2667.058 \div (1.025 + 1) = 1265.615 = \text{amount of each payment}$$

$$\$1265.615 - 745.814 = 518.801 + = \text{amount by which last payment was increased on account of } \$1000 \text{ being drawn; } 1265.615 = \text{amount of last payment.}$$

182. A brass scale of a barometer has been correctly graduated at 62° Fahr.; find the true reading of the barometer when it shews 30 inches at 87° Fahr., corrections being made for the expansions of the scale and the mercury, the coefficient of expansion of brass being .00001 for every degree Fahr.,

and one vol. of mercury at freezing point (+ 32°) occupying 1.0054 vols. at 87°.

$87^\circ - 62^\circ = 25^\circ$ ∴ every inch at 62° becomes 1.00025 inches at 87° ∴ correction for expansion of scale is 30×1.00025 . Again since vols. at 87° and 32° are as 1.0054 to 1 the true reading would be decreased in proportion to these numbers

$$\therefore 30 \times 1.00025 \times \frac{1}{1.0054} = 29.846 \text{ inches.}$$

Solutions to Numbers 176, 177, 178, 179, were given by Wilbur Grant, T. C. I.

PROBLEMS

For Entrance to High Schools and other Examinations, by W. S. ELLIS, B.A., Math. Master, Coll. Inst., Cobourg.

205. A customer bought a bar of iron $1\frac{1}{2}$ inches square and 8 feet long, which weighed 72 lbs. Finding that this did not suit his purpose, he took it back and exchanged it for another bar $1\frac{1}{2}$ inches square and 9 feet long; this time the dealer forgot to weigh the iron, with how many pounds should the customer be charged? *Ans.* $116\frac{1}{2}$ lbs.

206. A customer buys what he supposes is \$45 worth of tea, but a false weight having been used he only gets \$42 worth; how many ounces of tea are sold to him for a pound?

Ans. $14\frac{1}{3}$ oz.

207. $\frac{\frac{4}{9} + \frac{1}{25} - 1 - \frac{a}{b}}{\frac{2}{3} - \frac{1}{5} - 1} = \frac{22}{15}$, find the missing

term in the numerator for which $\frac{a}{b}$ stands.

Ans. $\frac{4}{15}$.

208. A river is running at the rate of 3 miles per hour, and a man spends one hour in rowing down stream, he then walks back by a semi-circular roadway to the starting point; if it be given that the course of the

river is straight, that the circumference of a circle is $\frac{2}{3}$ of its diameter, that the man can walk 4 miles while he can row 5, and that he is gone altogether 4½ hours; find his rate of rowing, his, rate of walking, and the whole distance travelled.

Ans. 5 mls., 4 mls., and 20½ mls.

209. *A* goes from *X* to *Y*, a distance of 25 miles; *B* goes from *X* to *Z*, and then from *Z* to *Y*; if the roads make a right angle at *Z*, if their lengths are as 3 to 4, if the rates at which *A* and *B* respectively travel are as 5 to 6, and if *A* is 5 hours on the road, find how long one of them will have reached *Y* before the other gets there.

Ans. *A* gets there 50' before *B*.

210. *A* lends \$25000 at 8 % per annum payable half-yearly, but afterwards makes an arrangement so as to get his interest in equal quarterly payments; what should be the amount of each payment so that neither party may suffer loss?

Ans. \$495.0495+.

211. The Canadian Government issued a loan of \$2000000, interest 4 % per annum payable half-yearly. How much money will be required every six months to pay the interest on this loan, and also to form a fund, made up of equal half-yearly instalments bearing interest at 5 % per annum, so that the debt may be cancelled at the end of five years?

212. The length of a room is one and a-half times its breadth, and the breadth is to the height as 3 : 2, and it contains 5832 cubic feet; find the entire cost of covering the walls with paper 18 inches wide, costing 2½ cents per yard, and of painting the ceiling at 7 cents per yard. *Ans.* \$9.78.

213. What is the length of an edge of a cube which is formed by beating together two solid spheres of gold, one two inches in diameter and the other weighing 8 times as much as this one?

Ans. $\sqrt[3]{\frac{4}{3}\pi(1^3+2^3)}$

PUPIL TEACHERS' DEPARTMENT.

ENGLISH PUPIL-TEACHERS' EXAMINATION PAPERS.

PUPIL-TEACHERS AT END OF FIRST YEAR

Three hours and a half allowed.

ARITHMETIC.

MALES.

1. Reduce 18 fur. 3 po. $3\frac{1}{2}$ yd. to decimal of 1 mile; and 4 ft. 6 in. to the decimal of 3 yd. 2 ft.

2. If 1,191 tons, 10 cwt. 1 qr. 14 lb. cost £595 15s. $2\frac{1}{2}$ d., what is the cost of half a million tons? Work this sum by fractions.

3. A farmer has 295 more sheep than cows, and this difference is $\frac{2}{3}$ of the number of sheep he possesses; how many cows has he?

4. In exchange for 1 cwt. of coffee at 1s. 6d. per lb., how much money would you expect to receive along with 18 lb. of tea at $.428571$ of a guinea per lb.?

Find the greatest common measure of 805 and 1311; and the least common multiple of 15863 and 21489.

FEMALES.

1. How many yards of lace can I buy for £685 17s. 9d., at the rate of 5 guineas for $12\frac{3}{4}$ yd.?

2. If, after paying income-tax at 1s. 2d. in the pound, a gentleman has £701 10s. 10d. remaining, what is his annual income?

3. If £69 0s. $11\frac{1}{2}$ d. pays the carriage of 47 tons 8 cwt. 33 lb. of goods for 764 miles, what weight should be carried 573 miles for the same sum?

4. If 72 oxen require 18 acres of turnips to supply them for 30 weeks, how many acres would supply 18 score of sheep for 45 weeks, on the supposition that 9 oxen eat as much as 30 sheep?

GRAMMAR.

1. What are the two kinds of participles? Describe them, and give examples of each.

2. Parse the pronouns in the following:—
“Which pillage they with merry march bring home
To the tent royal of their Emperor.”

3. The words *each* and *other* are used both as adjectives and as pronouns. Give examples of them in both uses.

GEOGRAPHY.

(Answer either Question 1 or Question 3, but not both.)

1. Trace minutely the line of *water-parting* which separates the basins of the Thames and Severn from those of rivers flowing into the English Channel, and describe those rivers in order.

2. Draw a full map of the coast from Cape Spartivento to Cape Matapan.

HISTORY.

1. Give the dates of Henry I., Richard II., Richard III., and Elizabeth; and name their immediate successors.

2. Write out a list of our sovereigns from Charles I. to Anne, with dates.

3. Why is this called the nineteenth century? When did it begin and when will it end.

PUPIL-TEACHERS AT END OF SECOND YEAR.

Three hours and a half allowed.

ARITHMETIC.

MALES.

1. I sell 185 bushels of wheat for £53 3s. 9d., thus gaining 15 per cent. At what price per bushel did I buy the wheat?

2. Having £825, I lend it at $3\frac{1}{2}$ per cent. simple interest. In how many years will it amount to £1,000, and what amount shall I have to receive at the end of 30 years, nothing having been paid in the meantime?

3. £91.6 amounts in 3.5 years to £105.302083. What is the rate per cent. per annum simple interest?

4. How must nutmegs which cost 18.75s. a lb. be sold so as to gain 16 per cent.?

5. A plumber sold 96 cwt. of lead for £109 2s. 6d. and gained at the rate of $12\frac{1}{2}$ per cent. What did the lead cost him per cwt.?

FEMALES.

1. Find the least common denominator of $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{6}$, and $\frac{1}{8}$.

2. What number added to $\frac{7}{8} + \frac{1}{2}$ will give $2\frac{1}{4}$?

3. Simplify $(2\frac{3}{4} + \frac{1}{2} \text{ of } \frac{7}{3\frac{1}{2}} - \frac{1}{2\frac{1}{2}}) \div \frac{1}{2\frac{1}{2}}$.

4. If a person travelling $13\frac{3}{4}$ hours a day, perform a journey in $27\frac{1}{2}$ days, in what time will he perform the same if he travel $10\frac{1}{2}$ hours a day?

GRAMMAR.

1. "And oh, when passion rules, how rare
The hours that fall to virtue's share!"

Analyze the above, supplying what is needed in the principal sentence, and taking care in your analysis to point out the character of each sentence.

2. Give examples of conjunctions of time, and frame passages with such conjunctions introduced, to shew their use.

3. Parse each word in the following—

"The evil that men do lives after them."

GEOGRAPHY.

(Answer two questions only.)

1. Describe, as fully as you can, the physical features, chief divisions, towns, and manufactures of the Austrian Empire. What title does the sovereign bear at Vienna, and what at Buda-Pesth? Why are they different?

2. Draw a full map of the Basin of the

Ganges, marking its tributaries and chief towns, and noting the point at which the course of the Jumna is nearest that of the Sutlej.

3. Give notes of a lesson on this sentence: "*All Europeans who live in Calcutta or Madras escape to the hills, if they can, for the hot season.*"

Arrange your notes under these heads:—

(a) Who are meant by "Europeans?" and why are they in India?

(b) Where are Calcutta and Madras? Why are they unhealthy in the hot season?

(c) What is "the hot season"? And what are the causes of it?

(d) What hills can they go to? Mention any places in the hills.

One hour allowed for Females.—Two hours and a half allowed for Males.

HISTORY.

1. What was the extent in time and territory of the Roman occupation of Britain? Compare the condition of the Romans and the Britons nineteen centuries ago.

2. Mention circumstances in the internal condition of England which facilitated the Norman Conquest.

3. Describe the end of Richard II., and tell how the Crown was settled after that event.

PENMANSHIP.

Write, in large hand, as a specimen of copy-setting, the word *Versatility*.

Write, in small hand, as a specimen of copy-setting, *Stirred up by Dorset, Buckingham, and Morton, he comes.*

COMPOSITION.

Write full notes of a lesson on a *desert*.

EUCLID.

[All generally understood abbreviations for words may be used, but not symbols of operation, such as -, +, x. In solving a rider, only the proposition to which it is appended, and preceding propositions, may be referred to.]

1. If two triangles have two sides of the one equal to two sides of the other, each to

each, and have likewise the angles contained by those sides equal to each other, they shall likewise have their bases or third sides equal, and the two triangles shall be equal, and their other angles shall be equal, each to each, viz., those to which the equal sides are opposite:

ABDE, *BFGC* are squares on two sides of the triangle *ABC*, and *AF*, *CD* are joined; shew that *AF*, *CD* are equal.

2. The greater side of every triangle is opposite to the greater angle.

Point out where the *demonstration* begins.

PUPIL-TEACHERS AT END OF THIRD YEAR.

Three hours and a half allowed.

ARITHMETIC.

MALES.

1. A gives B £63 17s. 6d. as payment of a loan and interest at the rate of $3\frac{3}{4}$ per cent. The money was lent $3\frac{3}{4}$ years before. What was the amount of the loan?

2. A person has $\frac{1}{4}$ of a ship worth £6,600, and insured for 91.25 per cent. of its real value. What amount of damage would he sustain in case of the ship being lost?

3. £825 for .825 of a year at 8.25 per cent. Find simple interest and amount.

4. At what price per yard must cloth be sold to gain 17 per cent., if selling 109 yards of it for £46 6s. 6d., 8 per cent be gained?

5. Divide £10,000 among *A*, *B*, *C*, so that *A* may have half as much again as *B*, and *B* a third as much again as *C*.

FEMALES.

1. Find the sum, differences, product, and quotient—the greater being divided by the less—of 1.015 and .01015.

2. Find the difference between $6\frac{1}{2}$ half guineas and £3.525; and reduce the result to the decimal of a crown.

3. Add $5\frac{1}{2}$ cwt. to 3.125 qr., and reduce the sum to the decimal of a ton.

GRAMMAR.

1. Words or phrases attached to the nouns of a sentence are called *enlargements*, attached

to the verbs they are called *extensions*. Give two examples of each.

2. "Dost thoug so *hunger* for my empty chair

That thou wilt *needs invest* thee with mine honours?

Stay but a little; for my cloud of dignity

Is held from *falling* with so weak a wind.

That it will quickly drop."

—Shakspeare ("Henry IV.")

(a) Analyze the last three lines.

(b) Parse the words in italics.

(c) Give the meaning of the above passage in your own words, explaining, so far as you can, the figures and metaphors.

3. What are the Latin prepositions that mean *out of*, *from*, *under*? Give examples of words in which they occur, pointing out the force of the preposition in each case.

One hour allowed for Females—Two hours and a half allowed for Males.

HISTORY.

1. Explain the relations of Mary Stuart to the thrones of Scotland, England and France.

2. How did Charles I. regard Parliament? What were the consequences?

3. Shew the descent of Queen Victoria from James I., and compare the extent of dominion of the two monarchs.

EUCLID.

[All generally understood abbreviations for words may be used, but not symbols of operation, such as -, +, ×.]

1. If a side of any triangle be produced, the exterior angle is equal to the two interior and opposite angles; and the three interior angles of every triangle are together equal to two right angles. The difference of the angles at the base of any triangle is double the angle contained by two lines drawn from the vertex, one bisecting the vertical angle, the other perpendicular to the base.

2. Equal triangles upon the same base and upon the same side of it are between the same parallels. Point out where the *demonstration* begins.

ALGEBRA.

1. Simplify

$$a - (b - c) - \{b - (a - c)\} - [a - \{2b - (a - c)\}];$$

and shew that

$$\frac{a+c}{a-b} - \frac{b+c}{(a-b)(x-b)} = \frac{x+c}{(x-a)(x-b)}$$

2. Find the G. C. M. of $a^2(b^4 - b^2c^2)$ and $b^3(ab + ac)^2$.

3. Solve the equations:—

$$(1) \frac{7 \cdot 1 - 3x}{.5} - .8x = 9.44$$

$$(2) \frac{12}{x} + \frac{1}{12x} = \frac{29}{24}$$

PUPIL-TEACHERS AT END OF FOURTH YEAR.

Three hours and a half allowed.

ARITHMETIC.

MALES.

1. Three persons rent a piece of land for £60 10s. The first puts in 5 sheep for 4½ months, the second 8 sheep for 5 months, the third 9 sheep for ½ months. What share should each pay of the rent?

2. Compare the incomes to be derived from investing £3,500 in the 3½ per cents at 98, and £3,995 in the same stock at 99½.

3. If teas at 2s. 9d., 3s. 3d., 2s. 4d., respectively be mixed in equal quantities, and the mixture be sold at 16 guineas per cwt., what will be the gain or loss per cent.

4. What percentage on $\sqrt[3]{1,000,000,000}$ is $\sqrt{112} \times \sqrt{175}$?

5. Find two decimal fractions together equal to $\frac{1}{12}$, and such that one shall be $\frac{1}{12}$ of the other.

FEMALES.

1. What sum of money will amount to £256 10s. in 4 years at 3½ per cent. simple interest.

2. If a man can travel 198 miles by railway for £2 9s. 6d., how far at the same rate of charge ought he be carried for £8 os. 10½d.?

3. The price of a work which comes out in parts is £2 16s. 8d., but if the price of each

part were 13d. more than it is, the price of the work would be £3 7s. 6d. How many parts are there?

4. Divide £11,000 among 4 persons, A, B, C, D, in the proportions of $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, and $\frac{1}{5}$.

GRAMMAR.

1. "And to a pleasant grove I 'gan to pass
 Long ere the bright sun uprisen was;
 In which were oakès great, straight as
 a line,
 Under the which the grass, so fresh
 of hue,
 Was newly sprung; and an eight foot
 or nine
 Every tree well from his fellow grew,
 With branchès broad, laden with
 leavès new,
 That sprangen out against the sunnè
 sheen;
 Some very red; and some a glad light
 green;
 Which, as me thought, was a right
 pleasant sight."

—Chaucer ("The Flower and the Leaf.")

(a) Notice any points in which the English of the above passage differs from modern English.

(b) How many sentences are there in it? and by what means are they connected?

(c) Name the particular kind of sentence to which each belongs.

(d) Parse the words in italics.

2. Give the origin (old English derivation) of the following words: *Ought, must, durst*; and of *better, worst, least, cunning*.

GEOGRAPHY.

1. Give notes of a lesson on Central America, and illustrate it by a map.

2. Describe fully the Indian Ocean, with the seas, gulfs, and bays connected with it, its chief currents, and periodical winds.

One hour allowed for Females. Two hours and a half allowed for Males.

HISTORY.

1. What families have occupied the throne of England since 1066, and from what countries did they severally spring?

2. Mention the chief foreign possessions

of the British Crown, and tell when they were severally acquired.

3. Give some account of the chief manufactures of England. Tell in what parts of the kingdom they are now carried on, and point out any changes which have taken place in this respect.

COMPOSITION.

Write an essay on the difference between trades and professions.

EUCLID.

[The only abbreviation allowed for "the square on AB " is "sq. on AB ," and for "the rectangle contained by AB and CD ," "rect. AB, CD ."]

1. Upon the same base, and on the same side of it, there cannot be two triangles that have their sides which are terminated in one extremity of the base, equal to one another, and likewise those which are terminated in the other extremity.

2. If a straight line be divided into two equal parts, and also into two unequal parts, the rectangle contained by the unequal parts, together with the square on the line between the points of section, is equal to the square on half the line.

3. If from the right angle of a right-angled

triangle lines be drawn to the opposite angles of the square described on the hypotenuse, the difference of the squares on these lines is equal to the difference of the squares on the two sides of the triangle. (Use II. 12.)

ALGEBRA.

1. Reduce to lowest terms—

$$\frac{9x^3 + 6x^2 - 2x - 4}{12x^3 - 5x^2 + 4x - 4}$$

An express train leaves London for Manchester (188 miles) at 9 a.m., travelling 40 miles an hour; a slow train leaves Manchester for London at 11 a.m., travelling 20 miles an hour; when will they meet?

3. Solve the equations:—

$$(1) \begin{cases} 7x - 16y = 42 \\ 5x + 17y = 30 \end{cases}$$

$$(2) -\frac{1}{1-x^2} - \frac{7}{8} = \frac{1}{1-x} - \frac{1}{1+x}$$

MENSURATION.

1. Find the length of a circular arc whose radius is 20ft. 9in., and which contains an angle of $15^\circ 9'$.

2. The sides of a triangle are 13ft., 15ft., 18ft.; find the two parts into which the greatest side is divided by the perpendicular from the opposite angle.

PUBLIC SCHOOL DEPARTMENT.

[Contributed to, and under the management of, Mr. S. McAllister, Headmaster of Ryerso School, Toronto.]

DEPUTATION TO THE MINISTER OF EDUCATION ON SUPERANNUATION.

OUR readers will remember that in our report of the interview the Committee of the Public School section of the Provincial Association had with Mr. Crooks, he asked them to suggest a scheme of Superannuation which they thought would be satisfactory to the teachers, and just to both them and the Government. They, at a subsequent interview, did so, and the following are its principal features:—

An annual compulsory contribution on the part of all male teachers in our Public Schools, of two per cent. of their salaries. An annual allowance to superannuated teachers of two per cent., or one-fiftieth of the average annual salary. Teachers to be allowed to retire and participate in the fund after twenty-five years' service. No allowance to be made for more than thirty years' service, nor for less than ten, except in case of disability. No deductions to be made from the fund in favour of those who retire before being entitled to an allowance. Those teach-

ers who do not contribute to the fund to pay an annual fee of not less than two dollars, which should go to the purposes of the fund. Training in the Normal School to be accounted as part of the term of service. Provision to be made for the widows of superannuated teachers. Those teachers who receive less than three hundred dollars per year to have the privilege of making an annual contribution large enough to entitle them to a pension on a salary up to that amount.

The Committee pointed out to the Minister that the main features of this scheme resembled those of the Civil Service, the Grand Trunk, and the Quebec schemes. A discussion then took place on matters of detail, in the course of which he expressed a favourable opinion of what the deputation laid before him, particularly as he saw that the amount to be taken from the revenue would be about equal to that contributed by the teachers. After receiving a promise from him that he would continue to give the subject his earnest consideration, the deputation withdrew.

INTERVIEW OF THE LEGISLATIVE COMMITTEE OF THE PROVINCIAL ASSOCIATION WITH MR. CROOKS.

THIS Committee held a preliminary meeting in the office of Mr. Hughes, Inspector of Toronto Public Schools, on Saturday, 5th February, at which a digest was made of all the answers to the Secretary's circular. It was agreed to drop the consideration of the Upper Canada College question, and that of the relations between the Collegiate Institutes and High Schools, as they were being dealt with by a special Committee of the High School section.

With a solitary exception, opinions were unanimous about the evil that resulted from giving power to Municipal Corporations to control school expenditure on capital account. The superannuation fund was considered, by most of the correspondents, to be in an unsatisfactory state. Participation in the fund after twenty-five years' service was

urged strongly. Larger contributions were recommended, so as to secure a better allowance. On other points, opinions varied considerably. In regard to Model Schools, longer sessions were urged, and a larger grant from both the Government and Municipalities.

On Monday, 7th February, the Committee, consisting of Messrs. Hughes, Dearness, and Fotheringham, Public School Inspectors; Mr. Oliver, High School Master; and Messrs. McAllister, Doan, and Spence, Public School Masters, met Mr. Crooks by appointment, at his office, in the Education Department. Mr. Hughes introduced the consideration of the limitation made to the power of School Corporations by the 29th clause of the Act of 1879, in regard to expenditure. He pointed out how this had worked disastrously in cities and towns, and shewed that Toronto, in particular, as Mr. Crooks himself was aware, had suffered. If no other remedy could be adopted to prevent this clause working so much evil, he suggested that the Government should give power to School Boards to expend the Government grant on capital account. Mr. Crooks admitted that the clause referred to had operated in a way that he had never contemplated, and he felt the necessity of modifying it to prevent the evils Mr. Hughes had spoken of. He hoped to introduce a clause in his new Bill that would effectively take from Municipal Corporations the power to prevent the supply of proper school accommodation. He thought that as the matter of superannuation had been so fully dealt with by Mr. McAllister's committee, it would be unnecessary to enter upon it now. He indicated, however, what he thought might be done in the way of legislation at a future session; and asked the Committee to take the most effective means of having the matter discussed by those concerned throughout the country, so that next session he would be in possession of the matured views of the teachers as a guide to any legislation he might propose. Mr. Dearness brought under his notice the subject of Model Schools, and urged the necessity of increased support. Mr. Crooks admitted that something would have to be

done to prevent the dissatisfaction that began to prevail in regard to the working of these schools. He said he would be glad to have the opinions of those connected with them; and Mr. Dearness handed him the paper containing an abstract of the answers, to the circular on this subject. He was told that the Legislative Committee had waived any reference to High School matters, as these were under the consideration of a special committee from the High School section. He said he hoped that the Committee would be prompt in laying any views they had before him, as he wished to introduce his Bill soon. Mr. Oliver asked him if there was any likelihood of change in the relations between Collegiate Institutes and High Schools. He said he did not see how there could be, as the special grant to the former was made by statute and not by the regulations of the Department. If the Legislature cancelled that grant to-morrow, it would not benefit the High Schools in the slightest degree. He said if he had the arrangement of the grant in his own hands, it might be put on a different basis. He remarked to Mr. Oliver further, that if he or anyone could point out how he could increase the income of High Schools in a reasonable way, without taking anything additional from the revenue, he would be glad to do it. He said, incidentally, that he often felt the need of consulting the minutes of the meetings of the Provincial Association, but did not always know where to lay his hand on them; and he would be willing to insert them in his own report for convenient reference. Mr. McAllister remarked that he would, in that case, have something more recent than the matter of his own Report to lay before the House.

Mr. Hughes also incidentally said, that a money grant to the Provincial Association was very desirable. Mr. Crooks asked how much would be wanted—one hundred dollars, or more? Mr. Spence, the treasurer, replied that the Association felt the need of money to pay the travelling expenses of distinguished educators that might be invited to lecture, and of delegates sent from local associations. The Minister indicated that he was not averse to a limited grant.

The Committee then withdrew. They subsequently met, and agreed to certain recommendations in regard to the Bill to be presented to the House. It was also decided to issue a circular to the various local associations to ask them to discuss a plan of Superannuation, and to send in their views to the Secretary. Mr. Hughes and Mr. Doan were appointed a deputation to lay before the Minister the changes the Committee proposed in his Bill.

SCHOOL-ROOM WORK.

FROM a variety of causes that it would be profitless now to investigate, the training in our Public Schools has been far from symmetrical, too much attention having been given to mathematical subjects to the neglect of English. The result has been that very few of those who remain even for a considerable length of time at school, can express themselves in decent English on leaving. How many of our boys and girls, who have advanced as far as the Fifth Book, can write a letter that would not be held up to scorn by pupils of similar standing in the majority of our private schools? Yet Public School teachers look with contempt on the training given in these schools. But whatever its defects may be, it cannot be said that the neglect of English composition is one of them. Now we hold that when a scholar reaches the Fourth Book, he should be able to write a letter correctly as to form, and to express himself clearly and grammatically, and with correct spelling. We propose to throw out a few hints for the teaching of this subject, and to supply some exercises to assist our readers in their daily work.

When should the teaching of Composition begin? It should begin with the first efforts that the child makes to express its feelings or its thoughts. It should be continued in the school-room without ceasing, with the tongue, with the pencil, and with the pen. Every utterance of the scholar should be required to be grammatically correct, and expressed in the most appropriate language. Teachers should not be content with giving a formal exercise in written composition at stated periods, but should require written

answers to questions in all the subjects that will admit of them, and thus habituate their scholars to express themselves with the pen as freely as with the voice. If this is supplemented at intervals by a formal exercise in composition, great improvement in the power of expression will be the infallible result. One of the difficulties of teaching composition is the selection of appropriate subjects. It is too often forgotten, that while children can be very little benefited by any attempt to develop their ideas through this medium, they may receive the greatest good by being taught to express themselves accurately and forcibly. The teacher must regard composition purely as an art, and teach it as such. He should always, therefore, supply his pupils with topics they can write freely about, such as a synopsis of a lesson in History, or other like subject; an account of something told or read by the teacher; or an exercise to supply appropriate words in elliptical passages, given either in prose or poetry. These passages should be always from the best authors. A capital exercise is to require an account of a visit to some place of interest, or of some recent event. In a class lately, the scholars were required to write a letter to a friend, describing the most important public events that had occurred during the previous week. They were nearly unanimous in selecting Hanlan's victory over Laycock as one, and the fall of the station at Buffalo as another. Of course, the school-boy's irrepressible sense of humour asserted itself, and we find one ending his letter thus: "I have no more news to tell, but that our dog Towser has died, Tabby the cat has gone blind, and there is only one feather in Jacky, the bantam's, tail, and he has to lean against the fence to crow."

The following extracts, containing errors in composition, spelling and punctuation, have been made from the papers handed in, and if our readers will write them on the black-board for the criticism of their classes, they will find them, under careful guidance, a source of interest and a means of improvement. The series may be divided into two or three lessons. We have italicized

some mistakes, and suggested corrections for others.

Correct or improve the following:—

You have heard a great deal more about the boat race than I have living so near. (You, living so near, &c.) The Australians not content with what they lost when Hanlan ran Trickett *had arranged* another boat race. At the start Hanlan got off with a slight lead which he soon made into a length. (Omit "at the start," and change "made into" to "increased to.") The Erie station has fallen in killing four men and 8 others were severely injured, (and severely injuring eight, not 8, others.) The station of the Erie R. R. has fallen in, and four or five persons *were killed but they were* still looking for bodies. (The station of the Erie R. R. has fallen in, killing a number of persons. The bodies of four or five have been already found.) Hanlan jumped off with the lead, as he usually does and kept it, and when *they* reached Hammersmith bridge *Hanlan* was leading by several lengths. The race was for £500 a side, and the *Sports-mans Challenge-Cup*, the race was to have been rowed some time ago. I suppose you would like to hear the news that is occurring. (News of events that are occurring.) There *was* a good many people to see the race. Another chief event was *about* the Hanlan race. About eight days ago the people of Buffalo *was* shocked by hearing that the station had fallen in. Those that *was* outside on the platform was mashed to jelly. The articles for this race were agreed upon, and signed six weeks before *the* race came off. There was not as much interest taken in this race as in Hanlan's previous one as it (what?) is becoming an old story. Laycock pressed Hanlan a little at first but for all that *Hanlan* won *it* easily *he* came in four lengths ahead. 4 men were killed all the labourers in the town being hired to dig out the bodies.

What is there wrong in the following, selected from other sources?

The volcano of Fujijama, in Japan, rises solitary and alone, out of a great plain to a height of 12,400 feet, nearly two and a half

miles, being unencumbered by other mountains hanging to or around it. The mountain is situated a little south of west of Tokio, and at a distance of nearly one hundred miles.

Distance of place, and distance of time makes trifles valuable.

Don Quixote is certainly the best novel in the world, beyond all comparison.

There is not ten people in the world whose deaths would spoil my dinner; but there is one or two whose death would break my heart.

AN EXERCISE IN PRONUNCIATION.

ADVERSE to my casement in my parents' house, in an oasis in the green environs, stands an alcove or balcony of an hospital. I contemplate there often, a plethoric, peremptory, splenetic, invalid inmate, who seems thoroughly acclimated, whose figure might indicate him to be the patron or confessor of Magdalen or Caius College. He, according to the legend, is an expert and an aspirant for the fame of a conjuror. He holds in his hand a vase, illustrated by a distich from a Latin satire, the contents whereof are a patent economical almond cement, with which he tries to envelop and cement a certain schedule into an envelope. This object is never perfected from irremediable discrepancies in the sizes of the objects. As the wind soughs, his apron, which is an accessory, often and again falls into the sewer below, from which it is haled by his nephew, who rushes after it with the speed of a winged Mercury.

THIRD CLASS TEACHERS' PROFESSIONAL EXAMINATION,

Held at Lindsay, December 17th and 18th, 1880.

MENTAL ARITHMETIC.

Examiner—H. Reazin. *Time*—One minute for each question.

1. The factors of a number are 4, 3, 10 and 15. Find the number.

2. One-half of a number plus 24 is 4544. Find the number.

3. The quotient is 1360, divisor 12, remainder 8. Find the dividend.

4. MDL + XL + XIX = 255.
How many minutes from 9.45 a.m., to 5.15 p.m.?

6. Find the sum of all the even numbers between 111 and 121.

7. How many pence in 5213 shillings?

8. To the L. C. M. of 21 and 48 add the G. C. M. of 143 and 187.

9. $\frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{5} + \frac{1}{6}$.

10. How many more 5-cent pieces than 25-cent pieces in \$28?

11. Simplify $3\frac{1}{2} + \frac{\frac{1}{2} + \frac{1}{3}}{\frac{1}{2}} + \frac{\frac{1}{3} - \frac{1}{4}}{\frac{1}{2}} - 1\frac{1}{2}$.

12. How many men can do a work in 2 days which 3 men can do in 18 days?

13. At \$1.96 per gallon, what will be the cost of 2 quarts, 1 pint, and 1 gill?

14. Find the interest on \$360 at 10 per cent. for 13 months.

15. Simplify

$$\left\{ \sqrt{(14 + 15 + 16)^2 - 2000} + \frac{1}{2} \right\} \times 5\frac{1}{2}.$$

HYGIENE.

Examiner—James White.

1. Describe briefly the structure of the heart and the manner in which the blood is purified.

2. State the effects of pure air, sunshine, and exercise upon the health of the individual.

3. Classify foods, and state the kinds best suited to young pupils and sedentary persons.

4. Shew the necessity of proper light and ventilation, and state the means you would take to secure them in your school.

5. What are the functions of the skin? What directions about bathing would you give your pupils?

HIGH SCHOOL DEPARTMENT.

HIGH SCHOOL INSPECTORS' REPORTS.

THE Reports of Messrs. Buchan and Marling are full of interest. Both deal impartially with the Collegiate Institute question and shew, what we admit, that the basis of the establishment of these schools is a bad one. The case is really, we believe, worse than they put it; for in several of the Institutes where little University work is done, there can be very little Latin and less Greek. We maintain, however, that it is the duty of the Department to insist on a genuine classical basis and to see that the spirit of the enactments is carried out. It has been satisfied with the letter hitherto. The announcement of the intention of the Government to create no more Institutes will intensify the injustice to those schools that are now on the border line, and we hope to see something done to reward them for the very meritorious work they are now doing. We hope also that Mr. Crooks will hereafter inaugurate more strict regulations in the matter of the Institutes, and that he will see that they are observed. Half the objections to the existence of the Institutes would disappear if this course were followed.

Mr. Buchan's Report deals with the questions of the distribution of the Legislative Grant, and he shews that under the so-called system of payment by results as great anomalies exist as under the old system.

The writer of this notice has all along been of the opinion that the true solution of the Institute and Legislative Grant difficulties is to regard the Institutes as a distinct order of schools, to expect them, as a condition of assistance, to do higher work than the High Schools, and to divide the Legislative Grant into two parts—one for the High Schools, and one for the Institutes—each High School competing for its share against High Schools,

and each Institute against Institutes. The Institutes would then be what some of them now are—centres of higher education in different parts of the Province—genuine Provincial Schools. It is, we admit, grossly unfair to give the Institutes \$750 each, and to allow them to grab all they can from their weaker brethren. But, nevertheless, we maintain that there should be Institutes, and that they should receive even a larger grant from the public chest.

Mr. Marling's remarks on the effects of the Intermediate are just, but we have heard them all before. They are the objections that have been urged again and again, and they will not disappear till that pest, the High School "Intermediate," with its cram and hurry, has been abolished by the Department. We hold that while this Examination has done a great deal of good, it has done a very great deal of harm, not the least being the unhealthy spirit of jealousy it has engendered amongst the Masters. It has, we believe, done more to injure the study of classics than anything else that has happened for years. Few students now begin Greek till they have passed the Intermediate, and it takes so long to make up this subject after they have passed the threshold of the Upper School that many give up the study of classics who would otherwise take it as an honor subject. Any one who scans the University Matriculation Honor Lists will see that this is become more and more evident.

Both Messrs. Buchan and Marling agree that too much attention is being paid to Mathematics. It is late in the day if they have only now found out what the Masters have been maintaining ever since the "Professor" got off his first Algebra paper—ever since he thought that a new text-book in Algebra was needed by the schools, and that he was the man to provide it.

If they knew this before, why haven't they

said so? But it is better late than never, and we hope they will have the courage to support their convictions. They may rest assured that they will have the Masters at their back.

UPPER CANADA COLLEGE.

MR. CROOKS has submitted to the Legislature a special Report on this subject, from which we cull the following:—63,996 acres were granted for the maintenance of Upper Canada College from the amount originally intended to endow a University. The total annual income from the endowment fund is now \$15,137, and the revenue from fees \$10,000. The total annual expenditure is \$23,616, of which \$16,168 goes for salaries. In 1879-1880, the total attendance was 282, of which number 139 came from Toronto; from other parts of Ontario, 130; from Quebec, 6; United States, 5; other places, 2. The University Scholarship and Honor lists shew that the High Schools and Collegiate Institutes have been gaining rapidly on Upper Canada College. A list is given shewing the high positions that have been held by *élèves* of the College. Considering that Upper Canada College is, and has been, an aristocratic and plutocratic hot-bed, it is not surprising that this list is a goodly one. The Masters' salaries are enough to make an ordinary High School Master's mouth water—Principal's salary, \$2,760, with a residence worth, we should say, over \$400 a year; Classical master, \$1,696, with a residence, and so on through a most appetizing list. Extras, as usual, are in a most flourishing condition.

The Report shews that a much larger proportion of the Upper Canada College pupils are in Classics than of the High Schools, and Mr. Crooks makes a point of this in behalf of the College, forgetting that no options are allowed at the College, whereas such are in operation in the High Schools, and the Intermediate from which inflection Upper Canada College is free, is positively injurious to classical studies.

A number of other differences are pointed out in the Report to which we cannot here

refer, but we shall put the whole case before our readers in our next issue. We print this month, however, an extract from a letter addressed to the *Mail* by Mr. Fessenden, of Napance. We may say, in passing, that in our opinion the endowment should be returned to our impoverished Provincial University.

The point to be decided is this: Is it best for the interests of secondary education in Ontario that so large a sum should be paid from the Provincial funds for the support of one High School? Those who say that it is, base their opinion upon the following propositions:—

- (1) A Provincial High School is required.
- (2) Upper Canada College is a Provincial High School.
- (3) The sum expended in its support would not materially aid the County High Schools if distributed among them.

It is not difficult to shew that all three propositions are untrue. A Provincial college is required, and no friend of education will grudge the money spent in maintaining University College; but whatever may have been the case years ago, at present the County High Schools and Collegiate Institutes are quite capable of doing the work of secondary education, and they are doing it. The results of the matriculation examinations in our colleges prove that most conclusively. As to the second proposition, Upper Canada College is a Provincial High School in only one respect. It is supported from Provincial funds, but it does not do Provincial work. Of its three hundred pupils fully two-thirds come from Toronto and Yorkville. It thus saves Toronto the expense of enlarging its Collegiate Institute to double its present capacity, but it saves the other towns and cities of the Province nothing at all.

With regard to the last proposition; the building and grounds of the College are worth probably \$200,000, which, at five per cent., would yield an annual income of \$10,000; the sum annually received from Provincial sources is fully \$20,000; there would therefore be a total of \$30,000 a year rendered available if the school were closed. This, distributed among the High Schools and Collegiate Institutes, would allow about \$300 a year each, a sum that would be of great use to all, and would be the means of changing some from inferior to first-class schools. Any High School Master or High School Trustee will understand the importance of an addition of \$300 a year to the Government grant.

CENTRAL COMMITTEE.

LAST summer's agitation has done some good. The principle of "Rotation of Examiners" has been conceded by the Minister, but it may be that he will offer us a stone for bread. Rumour has it that the three High School Inspectors are to be retained on the Committee. To Messrs. Buchan and Marling no objection can be offered. They have shewn themselves to be capable examiners, and their papers have, on the whole, been such as have suited the capabilities of our schools; but to retain the book-peddling senior Inspector would be little short of an outrage. The Public School element in the Committee, too, has been, comparatively speaking, inoffensive. When Mr. Glashan has had a chance to air his crotchets, the result has not, we admit, been conducive to the interests of education, but even this examiner's eccentricities would be endurable. Nothing, however, can palliate Dr. McLellan's conduct. At the Scandal investigation it was proved, on his own admission, that he had "asked a few of his friends to further the sale of his books." It is very improbable that he has changed his tactics since then. The signs of the times, however, point to the decay of his influence in educational circles. We have already referred to a gratifying proof of this, and we only regret that it has been so long in shewing itself.

UPPER CANADA COLLEGE.

To the Honourable the Legislature of the Province of Ontario.

The Petition of the undersigned High School Trustees and Teachers

HUMBLY SHEWETH:—

Whereas the work of Secondary Education in Ontario has, during the past few years, assumed an importance and created an interest, both local and general, not felt hitherto; and whereas, the work actually accomplished in our High Schools is proportionately increased—involving corresponding outlay in providing accommodations, furnishing and equipping our schools with the additional apparatus, furniture, and teachers rendered necessary—the amount received from Government should be proportionately increased.

We would refer, in general, to the comparatively high standard of our curriculum; and, particularly, to the increase of labour and expense entailed by reason of the Intermediate Examination, to the preparation of

First and Second Class Teachers in non-professional work, formerly obtained at the Normal School; besides the additional work in connection with Third Class Teachers, formerly shared by Public Schools, but now likely to fall almost entirely on High Schools.

Your petitioners beg leave to suggest, moreover, that a justifiable means of securing the increased aid asked for may readily be found in the large endowment now enjoyed by Upper Canada College, one of the Secondary Schools of Ontario.

That it is nothing more than a High School, with facilities for boarding and lodging provided, is clearly manifest from a comparison of its curriculum, its staff of teachers, and the results of their work, with the curriculum, teachers, and results of work in our best High Schools and Collegiate Institutes.

While we admit that prior to the establishment of our High Schools on their present basis, and before they attained their present proud position, there was some plausibility in perpetuating this institution,—we claim that it is no longer necessary,—the instruction which it was intended to supply being now supplied in our High Schools, many of which are doing better work and proportionately more work than U. C. C. We arrive at this conclusion from an examination of the work done by way of preparing students for University matriculation, and for other important examinations, and also from the position taken by such students as regards honors, scholarships, and prizes.

We beg to call your attention, further, to the fact that the endowment in question is from funds originally appropriated to Grammar School purposes.

The benefits, moreover, were to be enjoyed by the entire Province; whereas, we learn from official returns that nearly all the pupils of U. C. C. are from Toronto and vicinity.

The enormous cost per pupil is also in striking contrast to the average cost per pupil at our Institutes and High Schools.

From these and similar considerations, we respectfully urge upon your honourable Body the duty of restoring this endowment to the purpose originally intended, and of adding it to the amount now granted to High Schools and Collegiate Institutes.

And that the fund may not be diverted from the object for which it was originally set apart, we further suggest that its appropriation be directed by special regulation in such a manner as shall promote the best forms of Secondary Education attainable in our High School system.

And, as in duty bound, your petitioners will ever pray.

SCIENCE DEPARTMENT.

[A series of Examination Questions upon Botany and Human Anatomy and Physiology, prepared for THE MONTHLY by Henry Montgomery, M.A., B.Sc., Lecturer on Zoology and Botany in Toronto School of Medicine.]

BOTANY.

1. How may plants be distinguished from minerals and animals?
2. What are the properties of protoplasm or bioplasm?
3. Name the chief albuminoids that occur in the vegetable kingdom.
4. Name the most important vegetable alkaloids?
5. State clearly the difference between sugar and starch.
6. What kinds of sugar are found in plants?
7. Enumerate the chief mineral substances occurring in the vegetable kingdom.
8. Distinguish a vessel from a cell.
9. Explain the botanical meaning of *primordial utricle*.
10. What is the nucleus? Give tests for its presence.
11. What is the composition of the vegetable cell-wall?
12. How could you distinguish starch from cellulose?
13. Write the chemical formula for starch.
14. Compare the following different kinds of cells:—scalariform, annular, dotted (or pitted), spiral, and reticulated.
15. Name and describe four modes of cytogenesis (cell-reproduction).
16. Write notes on chlorophyll, parenchyma, and laticiferous vessels.
17. Describe *punctated tissue*, and name plants in which it is found.
18. Mention six of the forces employed in the circulation of fluids through a plant.
19. What is the chemical composition of the various crystals found in plants?
20. What are *raphides*?
21. From what sources do plants obtain nitrogen and carbon respectively?

22. Of what use is iron to vegetable life?
23. Mention plants from which malic acid may be obtained.
24. Name the organs of vegetation in a plant.
25. What is understood by the term *Root* in Botany?
26. What are adventitious roots? Give examples.
27. Give an explanation of the botanical term *pileorrhiza*.
28. Compare, as to shape, the roots of the carrot, the radish and wheat.
29. In the embryo, what names are respectively applied to the root portion and the stem portion.
30. Show by diagram the structure of an exogenous stem.
31. Describe a single bundle of vessels taken from an endogenous stem.

PHYSIOLOGY AND ANATOMY.

1. CLASSIFY the various kinds of foods necessary for the support of the human body.
2. Name the principal and accessory organs of digestion.
3. Give an outline of the structure and chemical composition of a human tooth.
4. How many temporary teeth are there? and how many permanent?
5. Give a classification of the permanent teeth; and also represent that classification by means of a dental formula.
6. By what other names is the temporary set of teeth known?
7. Give the names of the principal salivary glands, their position, and the names of their respective ducts.

8. What is the active nitrogenous substance found in saliva? what is its function? and in what parts of the alimentary tract is that function performed?

9. What three useful purposes may be effected by the thorough cooking of food-substances?

10. Describe the process of deglutition?

11. What is the pharynx? How many openings lead into it?

12. Draw up a set of at least eight rules the observance of which would greatly assist digestion.

13. What are the position, structure, and functions of the stomach?

14. Give the composition of the gastric juice.

15. What sort of food is acted upon by the gastric juice? and by what names is it known in the changed state?

16. Draw a comparison between chyme and chyle.

17. What is the secretion of the pancreas? and what are the functions of that secretion?

18. Write a brief sketch of bile, stating its uses in the human body.

MODERN LANGUAGES.

[Embracing Practical School Work in English, French and German subjects.]

NOTES ON CHRISTOPHE COLOMB.

(Continued from page 34, Vol. III.)

CHAPTER VII.

Homme....profession—A man well informed and prosperous in his vocation.

Si....penchants—Such studious inclinations. Science....du temps—An imaginary science of the period.

Qui vont....assez—Who always go beyond the goal at which the ordinary mind stops, and says (*far*) enough.

Pour disputer...etc.—To contend with the Spaniards, the Arabs, and the Mohammedans for control of its (the Mediterranean's) waves and seaports.

Soldat....fois—Soldier, scholar, and sailor at the same time.

Duc d'Anjou—Louis XI. of France.

Il se....à l'étroit—He felt himself circumscribed.

Ces petites choses—Those insignificant enterprises.

Ligurie—Liguria, the Roman name for that part of Italy bordering on the Gulf of Genoa.

CHAPTER VIII.

Trouvait à la fois—Found for the time being.

Ce petit commerce....etc.—This limited trade barely sufficed for his maintenance.

Poursuivaient....seul—Pursued in thought an object perceived by himself alone.

Un naufrage....naval—A shipwreck following in the wake of a naval engagement.

Pris alors....maritimes—Seized then with a passion for maritime discoveries.

De s'élançer....l'Océan—Of sailing forth upon the ocean in accordance with his desire.

Le travail ingrat—The thankless toil.

Aux religieuses—To the nuns.

Dona—Lady.

Seduite—Charmed.

Elle ressentit....inspiré—She reciprocated the love which she had inspired in him.

Sur la....amant—With a faith in Providence and in toil, the only dowry of Felippa and her husband.

Des globes recherchés—Well finished globes.

La femme *fil*le et *sœur*—(See De Fivas' Grammar, 399).

Comme il contournaient—As he mapped off his globes.

Ou flottantes—(See De Fivas' Gram., 583).

L'Occident—The Western countries of Europe as opposed to the Orient.

Moins vaste... l'est—Less vast than it is.
Ne used after the comparative *moins*. (See also De Fivas' Gram., 479, for use of *le*.)
 Les uns... les autres... ceux-là... ceux-ci d'autres—Some, others, now those, now these, others again.
 Ignorée alors—Ignored then.
 Se la figurèrent—(See De Fivas' Gram., 482, for position of pronouns.)
 Ignorant les lois—Ignorant of the laws.
 Du ciel—From the sky. (Give two forms of plural.)
 Qu'un génie... pensée—Which an investigating genius alone could touch in thought.
 Pour... un homme—More than a man was needed to attempt it.

QUESTIONS ON OTTO'S GERMAN GRAMMAR.

(Continued from page 35, Vol. III.)

LESSON IX.—(Continued.)

44. What (8) words of two syllables (neuter) take *er* in the plural?
45. How do words in *-al*, from the Latin, form their plural? Give the plural of *Mineral* and *Kapital*.
46. Distinguish between the following pairs of plurals: *Bünder* and *Bande*; *Dinge* and *Dinger*; *Gesichter* and *Gesichte*; *Wörter* and *Worte*; *Länder* and *Land*.
47. Give six examples of nouns which do not form a plural. To what classes do such belong?
48. When do masculine and neuter nouns of *measure*, *weight*, and *number* retain the singular form, though used in a plural sense? Give examples.
49. What is the rule for feminine nouns in similar circumstances?
50. How do substantives compounded with *-mann* usually form their plurals?

LESSON X.

51. What exceptions are there to the rule

- that "all appellations of men and male animals are masculine?"
52. Of what gender are the German names of the seasons, months and days? Write down these names, with the article in each case.
 53. Of what gender are infinitives used as nouns?
 54. What is the gender of the following nouns: *Kissen*, *Becken*, and *Wappen*, and to what rule are they exceptions?
 55. What four nouns ending in *ee* are masculine?
 56. What derivative endings distinguish the noun as masculine?
 57. What nouns are neuter, although "female appellations?"
 58. How are nouns ending in *-e* distinguished as masculine or feminine?
 59. What three neuter nouns end in *e*?
 60. What derivative terminations mark as feminine the nouns to which they are suffixed?
 61. What six classes of nouns are of the neuter gender? Give (14) exceptions.
 62. Of what gender are nouns in *-nisz*? Give two examples of each gender, with the definite article.
 63. What is the rule for the gender of compound nouns? Exceptions (4).
 64. What difference of meaning does difference of gender give to the following? (Write them down, with the article in each case): *Band*, *Bauer*, *Verdienst*, *Thor*, *See*, *Schild*, *Leiter*, *Kunde*, *Kiefer*, *Hut*, *Heide*, *Erbe*, *Chor*.
 65. What is the rule for forming "female appellations" from masculine nouns denoting persons?
 66. Form a feminine from *Graf*, *Maler*, *Koch*, and *Nachbar*.
 67. Give the feminine corresponding to each of the following: *Wittwer*, *Brautigam*, *Jungesell*, *Knabe*, (der) *Deutsche*, *Vetter*, *Nefte*, *Oheim*, *Onkel*, *Herr* (2).

CONTEMPORARY LITERATURE.

EXERCISES IN LATIN PROSE: A COMPANION TO HARKNESS' LATIN GRAMMAR, FOR THE USE OF INTERMEDIATE AND UNIVERSITY CLASSES, by John Seath, B.A., and John Henderson, M.A. Toronto: Copp, Clark & Co., 1881.

THIS, so far as we can recollect, is the first work on Latin Grammar or Latin Prose by Canadian authors, and, although a compilation, and avowedly of low range, is nevertheless a work of much merit. The authors, engaged as they are in teaching, have easily gauged the requirements of the average pupil going up for the High School Intermediate or the Matriculation Examination at Toronto University, and they have exerted themselves to put him in possession of the *matériel* that will enable him to face the examiner with a light heart.

The work is divided into three parts: Part I. consisting of short sentences to be rendered into Latin; Part II., of Ellisian Exercises; and Part III. of Examination Papers in Latin Grammar.

Part I. is, for the most part, made up of materials derived from Belcher's "Short Exercises in Latin Prose Composition," rearranged with a view to the syntax as found in Harkness' Latin Grammar. The authors have added exercises upon the parts of Latin Syntax not treated of in "The Short Exercises," but found in Harkness. This part of the work is, on the whole, very well done, and there cannot be the least doubt that the pupil who works his way through it will have a first-rate knowledge of the forms of Latin Syntax, and a *copia verborum* of not less than a thousand words and idioms—no slight assistance toward independent composition. It must be said, however, that the authors, in their desire to introduce as many idioms as possible, have taken such liberties with Mr. Belcher's sentences as, perhaps, that

author would not approve of. For instance, Mr. Belcher has: "He said that he had seen horses and men in the wood;" his editors: "Caius having been declared an exile, said that he had seen horses and men in the wood." "The Exercises:" "Have you heard that a new book has been sent to you?" and "It is very difficult to teach some people music." "The Companion:" "Have you heard that a new book has been sent to you by a friend who laughs at fortune?" and "It is very difficult to teach some people to be wise,"—with many others of like variation. Not a few, too, of the sentences in "The Companion" seem akin in meaning to the "nonsense-lines" of Latin verse. Surely the disembodied Latin might put on a less grotesque shape than these: "My name is Caius; my horse belongs to me; and I have three children;" "O wretched woman! we have always thought much of your daughter;" "Give me that man's book that says that the spider's web is not very fatal to flies;" "O, holy Jupiter! did he wish to go home to Rome with me yesterday?" "These grapes are very sweet, they are far sweeter than those which were bought for an ass." Copious as this part of the work undoubtedly is, it nevertheless seems deficient in that it lacks a few Latin examples; for "boys," says Dr. Roby, "in writing their exercises, do not obey a precept but follow a precedent." Still more deficient is it, we think, in that it lacks rules for *continued discourse*. The few rules given in "Harkness" are altogether too meagre to enable the pupil to collect the *dissecta membra* of elementary exercises into the correctness and beauty of a Latin sentence. A few paragraphs selected from "Potts' Hints towards Latin Prose Composition," would have come in admirably before the General Exercises in Part I. The chapter on *Prepositions*, too, in Hark-

ness, is singularly defective, and the subject merits a much fuller treatment than it has received either in "The Grammar" or "The Companion." Inasmuch as prepositions are of more frequent occurrence in prose than in verse, and as they very frequently involved delicate shades of meaning, a pupil cannot be made to see too early their force and beauty. A boy who knows his Harkness only will be posed by, "to pay a draft on Fufius;" "I can supply it from home;" "In Cicero's writings," and many other simple phrases involving the use of prepositions.

Part II. contains a large number of graded Ellisian Exercises, including the papers for the last sixteen years in Pass Prose, Toronto University. As "Ellis' Latin Prose," "Anthon's Latin Prose," and "Arnold's Ellisian Exercises," are but little used in this country, this part of the volume will be found very acceptable to "teachers who wish to save the time now lost in dictating exercises in the class." The exercises in this part are chiefly from Cæsar, Livy and Cicero, and, we may safely say, contain abundant practice upon the inflexions and syntax of the Latin tongue. The references to the grammar have evidently involved much labour, and they are, as a rule, not only copious but judicious. Notwithstanding the deprecation in the Preface, we must say that, in many places, the English version seems needlessly "literal" and too suggestive of Mr. Bohn's "cribs." In these Ellisian Exercises we think that, even for tyros, the English should be as perfect as possible, not only that they may be compelled to think how English idiom is to be expressed in Latin idiom, but may see how perfect Latin may be rendered into perfect English. "A boy has no real mental training," to quote Dr. Roby again, "unless some abstract thought be evoked, and Latin Syntax cannot be acquired without it. Of course, a boy need not go into the matter fully at first, but had better not

get into a wrong mode altogether." We would have liked to see some easy introductory sentences from *Viri Romæ* or *Eutropius*, to begin with, but perhaps Cæsar may not be found too difficult in practice.

Part III. contains thirty-four sets of Grammar Papers, selected chiefly from "Belcher's Short Exercises," and the Grammar Papers of London, Toronto, and other Universities. It is an exceedingly good collection, and the authors have made judicious use of the large amount of material at their disposal. Little is asked, too, but what the student will find answered in the Grammar. The only defects, considering the aim of the work, that we notice, are the omission of reference to the meaning of the inflexions and to the principles of word-building. These defects are, however, trifling, and do not mar, to any great extent, the value of the book.

As a whole, the work is very well done, and, though the scope of it did not admit of much more than compilation, yet there is abundant proof of accurate and discriminating scholarship in its preparation. That such a work, however, should be found necessary, cannot be considered complimentary to the state of classical culture amongst us. It is, perhaps, more an outcome of the examination craze that has seized upon the country and the age, than the legitimate product of learning and pædagogÿ. It will greatly assist both teachers and pupils in passing through Moloch's Examination Fire, we make no doubt, and to this end we heartily recommend it to the public. We may add that the publishers and printers have also well performed their part; but we cannot refrain from saying that we are sorry to see so much learning, and time, and money spent upon a book so much behind the times as Harkness's Latin Grammar. The editors had much better have edited the Grammar first, and then written their Companion to it.

EDITORIAL NOTES.

EDUCATIONAL MATTERS IN THE
ONTARIO "STONEHENGE."

THE consideration of Educational questions cannot be said to have been much advanced by the dislocated debates on the subject which, in the past month, have taken place in that Temple of the Druids—the Local Legislature of Ontario. To any one at all acquainted with our educational affairs, few things, we imagine, could have been more intolerable than to have been compelled to sit and listen to the "daily droppings" of debate on the several matters of grave moment connected with education which have fallen from the lips of the "assembled wisdom" during the six or seven weeks it has been gathered together in council. Nothing has wearied our patience so much as the effort we have made to follow the discussion, from day to day, since our last number appeared. To have been a reporter in the House would assuredly have driven us mad; and who shall say what softenings of the brain have not resulted from having to follow the chaotic and objectless mass of criticism which educational topics have recently called forth? One of our leading newspapers, we notice, has withdrawn from the field and abandoned the reporting of the subject. Need we inquire the reason why? It is true that educational matters did not fall into the hands of any but the senior wranglers of the House, and there were always the lucid and gifted utterances (!) of the Minister of Education himself to give zest and sparkle to the debate; but with what result? Only to shew that the House had not got beyond the Eocene period of parliamentary discussion, and that our educational questions could have been better handled by an assembly of Fifth-form boys from the neighbouring Upper Canada College.

The complacent tax-payer may of course console himself with the thought that we must now be nearing the end of the "seven lean years" of Provincial government, and that the days of intellectual famine in our Legislature will consequently soon be over and gone. Whether this be so or not, let us refrain in the meantime from deceiving ourselves with the notion that our chamber of Provincial legislation is a place for educational deliberation, any more than that our Parliaments in general are places that conduce, in any appreciable degree, to "plain living and high thinking." Neither let it be supposed that we have made a gain in giving a representation in the Cabinet to the Department of Education, and in bringing the Bureau within the administration of party politics. Nothing, we humbly think, could be farther from the fact. The experiment, of course, might have been made under more auspicious circumstances, but it might also have been made under much worse. The Central Committee, for instance, might have been a real aid to the Minister, and conserved, instead of debauched, the dignity and character of its office. Its services to education, moreover, might have been disinterested, and of greater practical value. The Minister, himself, might also have been a man of larger views, and of greater enthusiasm in his work. Yet, matters might have been worse than they are: we might, indeed, have had several changes in the incumbency of office. Had the latter taken place, and the book-peddling Inspectors assumed the regency of the Department, we shudder to think how it would have fared with education. Though this misfortune has not befallen it, there has been no lack of effort to counterplot Providence. If intrigue has not always compassed this, incapacity often has. With amazing effrontery, both of these factors have sometimes been at work,

as the scandalous disclosures in connection with the Education Depository bear witness. And in this case, the truth, unhappily, has not been fully told. Unfortunately, under the party system, the truth, in this as in other cases of malfesance in office, is rarely ever made known. What service a few earnest men, of broad and independent views, could have rendered to our educational interests during the session, need not here be dwelt upon. Each of our readers will not fail to form his own, and doubtless a just, estimate on the point. With us, he will, no doubt, have looked for some wise results of counsel, and with us, too, have been disappointed. There has been a heap of palaver, and no end of motions made and returns called for; but how these have illumined the dark places of Mr. Crooks's administrative policy, or advanced the general well-being of education, he would be a bold partisan who would say. There has been thrust and parry in the House, but it has been a mimic warfare, with little of strategy and less of sense. Upper Canada College matters are just where they were a year ago, with the same fruitless talk gone over, and closing with a rehearsal of the Minister's petulant threat of last session. Of the reconstructed Central Committee nothing has been told us; and we are as wise as we were about the University appointments. Much, of course, has been solemnly taken into consideration—only to pass into that waste-basket of ministerial cogitation, never again to see the light. Thus are we governed, and for this are we taxed. One more, and a fitting, scene remains to be enacted—to dismiss, with their country's gratitude, our representatives to their homes, and to invoke Heaven's blessing on their beneficent work!

UPPER CANADA COLLEGE.

In the matter of Upper Canada College, the Minister of Education has, for two sessions, been eager to pipe the music which shall woo assent to the appropriation of \$30,000 to enlarge the boarding-house of

the institution, but our legislators haven't danced. In every controversy untenable positions are taken up, and it may be, in regard to this question, that while Mr. Crooks has himself provoked discussion further than it was, perhaps, wise or profitable to go, an attitude of unreasonable hostility to the College has been the result of broaching the subject. A wise minister, however, would have proceeded with greater tact, and a less pragmatic one would have refrained from bringing such a hornet's nest about his ears. But this is not the manner of Mr. Crooks. On the other hand, a rude handling of the subject in the Legislature may work mischief, not only to the institution specially attacked, but to the numerous local institutions which, with the College, represent the broad interests of Secondary education. This, indeed, would be a misfortune, and its impudence ought to inspire caution and discretion. The subject, we cannot help thinking, however, is one alone for the consideration of specialists in education, who can take a calm and broad survey of all the circumstances of the case, and are not likely to be influenced either by partisanship or by passion. In the case of an institution which pleads antiquity in its defence, a reference to specialists would seem to be the more urgent, as the handling of the subject necessarily becomes more delicate. At the same time, we may reasonably be impatient with the axiom that abuses are consecrated by time, and demur to the notion that, in the case of the College, there is no call for the appliance of cold, unsentimental criticism. In the original diversion of the funds to the exclusive benefit of the College, there is a real though ancient grievance. That it should crop up now is but a proof of the unrighteousness of wrong, and of the working of a healthy endeavour, however interested the motive, to right it. Mr. Crooks is unwise in not recognizing this, and he will be still more unwise if he does not see that the ever-increasing rivalry of the High Schools and Institutes is bound to fight this point out, and to lessen, as the race goes on between them and the College, the advantage which the latter at present has over them. For the

time being, Mr. Crooks may amuse himself in preparing *ex parte* defences of the institution, and in throwing the régis of his position and office over the venerable establishment. But he will do well to remember that, in the march of these modern times, institutions of even higher claims to privileged maintenance have, in England, fallen before the levelling spirit of the age, and that under a democracy we are not likely to see an institution longer conserved merely on the score of antiquity or tradition. In writing as we do, we need hardly say that we have no designs on the spoil that may be recovered on the dismemberment of the College; still less have we any notion of looting Toronto University. If the College should go, we should gladly see the endowment revert to the source whence it came. By this the High Schools and Institutes would be the gainers, and the University itself receive that which it most stands in need of.

“CASUAL ADVANTAGES” IN THE EDUCATION DEPARTMENT.

THE scandalous disclosures in regard to the management of the Education Depository which the Public Accounts Committee of the Ontario Legislature has just brought to light, as published in the *Globe* of the 18th February, reveal a rottenness at the headquarters of our Educational administration which, though it now startles the public, is no surprise to many who for years have had an eye upon the Department. The evidence of Dr. May, the Depository Superintendent, however reluctantly it was wrung from him, is of itself sufficient to justify every statement that censors of the Depository have made, for at least ten years back, as to the corrupt management of this Government trading institution. This makes the matter all the more damaging to the Government, who, notwithstanding the repeated affirmations of those cognizant of the malpractices of the officials in-charge, and who from time to time have urged the Premier to inquire into the

management and working of the Depository, have turned a deaf ear to the warnings they have received, and continued till now to maintain the institution and harbour its officials, to the scandal of morals and the waste of the public revenue. But remiss, if not criminal, as the Government have been in the past, why, may we ask, is the inquiry not now pursued? Is the Government not strong enough to do right, and is there nothing due to the public, whose confidence has been outraged by practices, on the part of its servants, which should condemn the delinquents to instant dismissal and eternal obloquy? The Canadian School Apparatus Co., it is well known, was but an *alias* of Dr. May, and his establishment a back door for the Depository. That this official should for years be at once the requisitionist and the purveyor of the Depository, is a scandal that will ever adhere to the administration of the Department; while his transactions in the map and chemical trade, of an equally irregular character, are enough to demoralize the public service for all time. And it is this official who has stood in the way of the schools being supplied with adequate apparatus, and has so long palmed off on the profession a hawker's wares which, though they would not stand inspection, could be neither returned nor exchanged. To this official amateur trading is the country also indebted for the accumulated rubbish that still loads the Depository shelves, and in the injured name of literature remains a monument of administrative folly. Oh, that our path to fortune lay through a drug shop, a book establishment, and a museum! But the Hogarthian picture is not yet complete. “The Industrious Apprentice” is to be allowed to devote himself to a two years' research in the new-found library of the Education office, while he takes his recreation among the Assyrian Bulls of the adjoining museum. The “casual advantages” of this office, it is whispered, will be a commission on the printing of the library catalogue. After that he will be ripe for the Chaplaincy of the Education Office, or anything equally handy, moral, and money-making.

A SCANDALOUS CIRCULAR.*

WE have more than once had to call attention to the persistent tampering with the honour of the profession on the part of a Toronto publishing house whose questionable advertising arts and unconscionable greed lead it systematically to tempt Inspectors and Teachers to violate the Regulation of the Education Department against acting as paid agents for publishers. The latest operation of the firm in question will be seen from the subjoined circular, which has been sent us by an indignant Public School Inspector who resents being "approached" by this or any other firm in the manner indicated, and deems it "a righteous discharge of public duty" to disregard its confidential character, and expose its insidious attack upon professional rectitude and official propriety.

This new call, to hawk through the Inspectorate a trade organ, by a publishing house having intimate relations with the Education Department and the Central Committee, can surely not be sanctioned by the Minister of Education, who professes, in the stringent law he has drawn up for the guidance of the profession, to keep Teachers from being made the tools of greed and the serfs of an empty pocket. But we are not sure on this point, as this new attack on the morals of the profession is so kin to the other advertising arts of the house in question—such as making gifts to the Inspectors of books published by the firm, and the *free* distribution, where the favour will do most good, of another *quasi*-professional organ owned by the house—gratuities which are so freely spoken of, and in many instances

* PRIVATE.—Toronto, February 1st, 1881.—Dear Sir,—We have mailed to you a specimen copy of an attractive new periodical, *Gage's School Examiner and Monthly Review*, and shall be pleased to have your opinion of its merits, as well as your influence in its favour among the Teachers in your Inspectorate. The price is one dollar per annum. We are anxious to obtain some one in every county to push its sale, to whom we are prepared to allow a liberal commission, viz., fifty per cent., (50%). If you cannot see your way to take up the matter yourself, we shall be greatly obliged by your kindly recommending a smart, live man, among the Teachers in your county, who will undertake to press the introduction of the paper. We are, yours faithfully, W. J. Gage & Co.

denounced, that we can hardly think that the corrupt practice is unknown to the Minister. Of course, it may and doubtless will be said, that this is no concern of ours, and still less would it be, if the publishers of the *School Journal* and *Examiner* issued their serials for nothing. But this would only be true in the latter case, for we should not then see honest men tampered with, and solicited to tout in the name of Education for a journal which takes one dollar from a fellow-teacher to put half of it, as a *douceur*, in his own pocket and the other half in that of the publisher. The effrontery of the firm in this matter is the more apparent when it is recalled that the announcement emanates from a publishing concern which proclaims from the housetop its regard for the teacher and its scrupulous consideration for his pocket—protestations significantly indicated by charging him a dollar for what the house itself appraises at fifty cents—the balance to be illegally used to corrupt him who would rob, in the interest which both have at heart, his fellow-teacher of the difference. No wonder that our correspondent speaks of the proposal as "an insult to his official position, and a personal affront to himself." It is to be hoped that the Minister will act in this matter. It is quite time to suppress such scandalous tampering with the profession, and to save the teacher from his "friends."

FROM some Regulations published the other day by Mr. Crooks, we conclude that one class of students who fail at their professional examination will be ruled out of the profession altogether. This is as it should be, provided the students have proper training. It will only hasten the reorganization of the Toronto Normal School to have this regulation carried into effect, for it is improbable that under the change of circumstances the young men and women who are now brought to Toronto to fritter away their time will tamely submit to the continuance of the grievances of which they complain. It is a sore disgrace to Ontario, that its principal training school should have so long remained inefficient.

THE Galt half-time arrangement with the junior divisions in the Public Schools of that town is said to be quite a success.

MR. W. G. FALCONBRIDGE has resigned the Registrarship of Toronto University, and we are pleased to learn that he has been succeeded by the Mathematical Tutor of the College, Mr. Alfred Baker, M. A.

MR. SAMUEL WOODS, M. A., formerly Principal of the Kingston College Institute, and latterly acting Professor of Greek in Queen's University, has just accepted the Classical Mastership of the Stratford High School.

IT is said that representatives of the Professoriate of Queen's and Victoria Universities are to be on the remodelled Central Committee. We are glad to hear of this, but would suggest that before these appointments are made some new and wholsome name for the advisory body of the Minister of Education be hit upon. It will want this sweetening.

MR. CROOKS stated in the House that there were 362 applications for permits in 1879, of which 356 were granted. In 1880, there were 109 applications, and 88 were granted. We hope to find them, in 1881, becoming smaller by degrees, and beautifully less. There is such a plethora of teachers now to fill all the lower grades in the profession, that the localities where permits may be necessary can be circumscribed within very narrow limits.

AN elegant little volume of selections from the Essays of Addison, chosen and edited by J. H. Green, M. A., LL. D., author of the "History of the English People," has just been issued by Messrs. Macmillan & Co. of London and New York. The volume embraces the best pieces of the "Guardian" and "Spectator," and is prefaced by a suggestive and graceful introduction by Mr. Green, which lovers of our English Classics will do well to make acquaintance with. The chief charm of Addison, Mr. Green finds in "his delicate and quiet humour, exquisite reserve, subtle tenderness, geniality and pathos, and light and playful fancy." The volume is a little gem.

A NOVEL but useful collection of "Exercises in English Composition, with an introductory chapter on Analysis," by R. S. Knight (London, Longmans & Co.), has

just reached us. The exercises are (1) upon inflections and the use of relational particles and forms, and (2) upon the order of words and characteristic forms of expression. The exercises are based on extracts from standard writers printed ungrammatically, and presented so as to require changes of inflection, the substitution of prepositions, and the supply of pronouns etc., to restore the sense of the passages to the correct rendering in the key appended; It will be found of great value to masters.

WE learn with pleasure that Mr. George Jennings Hinde, F. G. S., for several years a resident of Toronto, after having prosecuted his studies for more than a year at Ludwig-Maximilians-Universität, in Munich, Germany, has recently been admitted to the degree of Ph. D. in that University. Mr. Hinde is the author of an able and original essay on the Geology of the Scarborough Heights of this Province, a work on the Sponge Spicules of the Upper Chalk, and various other valuable palaeontological papers read before the London Geological Society. We heartily congratulate Mr. Hinde on receiving this high distinction. It comes, we may say, from a University whose average attendance of students is nineteen hundred.

THOSE of our readers who have the edification of occasionally perusing the *Canada School Journal* would perhaps notice with a smile how adroitly, yet dishonestly, our contemporary had garbled the extract from the *New England Journal of Education* which appeared in our last issue, in transferring it into its own pages. The *School Journal* prefaced the extract with a few words of its own, commending our *New England* contemporary "as a paper which takes considerable pains to keep itself well informed on Educational matters in Canada." So as not to belie this expression of its opinion, it nonchalantly omitted from the extract the erroneous enumeration of the component parts of the Central Committee, viz., "Chief Superintendent, the Council of Public Instruction and four Public School Inspectors!" The conductors of the *Canada School Journal* are in a fair way to earn a reputation for forgery. This is the next step after garbling a quotation.

CLAIMS continue to be made for the admission of High Schools into the ranks of the Collegiate Institutes. Since Whitby gained her elevation, Perth has been admitted into the charmed circle. Now Chatham is memorializing the Department to consider her

claims. Other towns are plucking up courage to follow suit. All this is not unreasonable, indeed it is to be expected, and it marks in a gratifying manner the earnest labour and hard work being done by our Secondary schools. What a damper upon these efforts must be the Minister's proposal not to recognize any more Collegiate Institutes and his rumoured threat to withdraw the Government grant. Such a proceeding would be a breach of faith towards both the School authorities and the Masters, and this we trust the country would never endorse. The basis of the grant may be revised and readjusted, but it would be a calamitous blow to higher education to withdraw it.

OUR friend, Principal Hunter, of Brantford, we see, is in the toils of a Government inquiry, undertaken at his own request, to set at rest rumours of a disquieting character as to the management of the Institute for the Blind, which have had their origin among some few malcontents in the Asylum. We have had reason in another column to fulminate against mismanagement, and worse than this, in connection with a department in another institution of the Government; but here, we feel sure, that there is no occasion for other than the most kindly and considerate reference to the incriminated Principal, whose personal character, it is well known, is above reproach, and whose services to the Province have been well-nigh priceless. If there is anything to be said against Principal Hunter, it is that he is an old-fashioned disciplinarian, but one who may be trusted as a faithful servant, a man of principle, and an invaluable officer in command of a responsible and difficult post. His own devotion to duty would make him exacting in the fulfilment of it in others; and if this, as we believe, has got him into hot water, there is no doubt that he has the ability, the nerve, and the consciousness of right, that will enable him to overcome his troubles and live to confound his enemies. May it be proved that we are right!

THE debt we owe to our "Exchanges" is always an honest one. No editor can properly conduct his own enterprise without referring to, and comparing notes with, his contemporaries. Our "Exchanges" are therefore always welcome. The new *Educational Record*, of Montreal, comes to hand with its second and third numbers, and takes firm root in our regard and confidence as a publication that, under Mr. R. W. Boodle's able editorship, is sure to be of great service to the cause of education in the sister province. Among its

contributors are Principal Dawson, Prof. Moyses, Mr. Geo. Murray, Dr. Gardiner, and the editor; and we congratulate the teachers of Quebec that they have now got, in lieu of the forlorn Government broad-sheets which have hitherto been their only mental aliment in the serial literature of Education, a publication creditable alike to their intelligence and enterprise, and fittingly representative of their professional status. The *Educational Times*, of London, Eng., is another welcome visitor, and perhaps the most distinguished of our acquaintances. It is the organ of the London College of Preceptors, and publishes its proceedings, with other valuable professional matter from the best educational writers in England. Its Mathematical Department is especially valuable, and enlists, with that of its editor, Mr. J. O. Miller, M.A., the pens of the ablest mathematicians in Europe and America. The *Schoolmaster*, the organ of the National Union of Elementary Teachers in England and Wales, and the *Educational Chronicle* (London and Manchester), are also among the worthy guests at our table. They keep us well and fully informed of all that is transpiring in Educational circles in the mother country, and supply us with much good and suggestive thought from the excellent contributions to their pages. Our acknowledgment of our American contemporaries must, we apologize for it, stand until another time.

ANSWERS TO CORRESPONDENTS.

F. G. O.—We are not our brother's keeper, and cannot say what has come in these times of the "Directing Mind." True, the Senior Inspector has been keeping very quiet of late; perhaps he has taken to heart the rumoured dropping of his name from the reconstructed Central Committee. Mathematics, however, does well just now to refrain from vaunting. It has been airing itself too much as the tall poppies in the garden of education, and is soon likely to be shorn of much of its glory. Read Inspector Marling's last report, and write soon. No, we have no intention of illustrating the CANADA EDUCATIONAL MONTHLY by the artist of *Gage's Examiner*. You are wrong again, the editor of the latter deserves, but we believe does not, receive the wages of an ambassador. Is your informant correct in saying that the Public Accounts' Committee of the Legislature, in officially visiting the Education Depository, had hand-cuffs with them? We didn't hear this, though it may account for what the *Mail* complains of, that the Committee found no one courageous enough at the Department to receive them. Guilt is ever fearful.