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THE CANADA EDUCATIONAL MONTHLY

THE CANADA
EDUCATIONAL
MONTHLY

AND

“SCHOOL MAGAZINE.”

EDITED BY

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THE CANADA

EDUCATIONAL MONTHLY

AND SCHOOL MAGAZINE.

JANUARY, 1883.

SOCIAL LIFE IN THE REIGN OF QUEEN ANNE.*

THIS set of social pictures is an interesting and valuable addition to the materials for a history of the reign of Anne. It is strange, considering the extreme attractiveness of the subject, that a good history of that period has not yet been written. While Macaulay lived, the theme was appropriated to his pen. That he did not live to handle it was deemed an immense calamity, yet it may have been a literary blessing in disguise. His work, amazingly brilliant as it is, and wonderful as is the art of conducting a narrative displayed in it, is not history, as all who know the history are aware. It is a splendid Whig epic, of which William is the hero; and the character of the hero, like everything else, is marred by rhetorical exaggeration. Point, picturesqueness, antithesis are perpetually sought at the expense of fidelity, and some-

times in disregard of plain fact. Macaulay was devoid of philosophy; he never thinks of assigning his period to its place in general history; hardly ever does he even refer to anything beyond the four corners of his canvas. Hence his want of proportion and balance. Since his death the subject has been waiting for some one who could treat it worthily. Lord Stanhope tried, but the result was a mere abortion. The qualities which made his former work very pleasant reading, though not a masterpiece, seemed to have utterly deserted him. Mr. Burton had given us a history of Scotland which, albeit not brilliant, was deservedly esteemed as a sober, trustworthy, and judicial narrative. His "History of the Reign of Anne" is sober with a vengeance, and saving some display of Scottish feeling, judicial; but it can hardly be called a narrative at all. It is rather a series of dissertations on successive portions of the history, without a previous knowledge of which it would not be

* A Review: from the *New York Nation*, of "Social Life in the Reign of Queen Anne; taken from Original Sources by John Ashton, author of 'Chapbooks of the Eighteenth Century,'" etc. London: Hazell & Windus, New York: Scribner & Welford.

intelligible to the reader. So the War of the Succession, Marlborough and his victories, the union with Scotland, the great struggle between the Whigs and Tories, with its strongly marked characters and striking vicissitudes; the impeachment of Sacheverell, and the singular revolution to which it led; the intrigues and the fall of Bolingbroke; the glories of the Augustan literature and art—still solicit the pen of a historian who wishes for a theme full of dramatic life, and as complete in itself as the best constructed play.

Of the intellectual products of the reign of Anne, it is needless to speak. Mr. Ashton truly says that it was the merit of Addison, Steele, and their compeers, not only to refine literature, but to render reading popular. Science had made, in the reign of Charles II., a progress which throws Mr. Buckle off his balance, and leads him to glorify a by no means glorious period. Under Anne, the Royal Society is the butt of all the wits, not excepting the liberal-minded Addison; and perhaps the ridicule was partly deserved, if scientific collectors exhibited "the bones of mermaids" and "the horns of unicorns;" but even the author of "Laputa" would scarcely have sneered at Newton. An additional interest attaches to the giants of those days on account of their lack of the subsidiary appliances which now enable men who are not great to do great things. We admire Newton more when we think of the ponderous geometry which he wielded, and Bentley when we think of the editions which he must have used. The drama was at a low ebb—the genius of the nation had spent itself in the glorious profusion of the Elizabethan era; but the theatre was pretty flourishing, though not patronized by the Queen. There were good actors, and still better actresses, such as Mrs. Oldfield and Mrs. Bracegirdle, though as Mr. Ashton says, it was then not

more than forty years since the first appearance of women on the stage. Pamphleteering, both political and religious—or rather ecclesiastical—was lively, and had plenty of matter; political journalism was in its cradle. The chief organs of daily discussion seem to have been the coffee-houses, the closing of which under Charles II., was therefore equivalent to imposing silence on the press. The political oratory of the period was not reported. Probably from the very fact of its being addressed, not through reporters to constituents, but to the House and with the object of gaining votes, it was superior to the prolix editorials which fill the weary hours of Parliament at the present day. But as the avowed aim of Bolingbroke was "to show game to the Tory squires," it is not likely that in his speeches those of a second Demosthenes are lost.

To painting, sculpture, and music neither English genius inclined nor had Puritanism been propitious, though Cromwell himself loved music, and the miniature portraits of him by Cooper are superb. Engraving in Anne's reign was good; and carving, excellent after its fashion, both in wood and stone, was done by Grinling Gibbons. If the reign could claim St. Paul's, it might boast of having produced as noble an exterior as any in the world; but Wren and his work belong rather to the generation before. The great building of Anne's period is Vanbrugh's Blenheim, a work original, picturesque, and imposing; a real palace and a worthy embodiment of historical grandeur, let criticism say what it will. Mr. Ashton gives us a shock by treating the house architecture of the reign as almost a fiction, and telling us that what is taken for the Queen Anne style is really Dutch. As the best of the genuine specimens remaining, he names two town houses, Nos. 10 and 11 Austinfriars. But

surely there are country houses, the date of which is undeniable, that present a style of their own, far inferior in beauty to that of the Tudor mansions, yet characterized by an amplitude and a stately formality which seem to correspond well with full-bottomed wigs and My Lord's grand manner.

Of vital religion, Mr. Ashton is probably right in saying that there was not much : that had taken its departure with the Puritan. Freethinking was pretty rife, though often covered by a politic mask, as in the case of Bolingbroke, who, to gain the votes of the High Church party, framed persecuting laws against Dissenters, and left infidel treatises to be printed after his death. There was, however, a good deal of outward observance, such as daily prayer in churches and wearing black in Lent ; perhaps there was even rather more of real awe and reverence than is commonly supposed. Marlborough, before a battle, always had prayers read at the head of each regiment, and himself received the sacrament from his chaplain. Of political religion, such as the Sacheverell affair called forth, there was an amount fully proportioned to the lack of Christianity. It seems wonderful that the red hot supporters of the Church of England should have treated her clergy with contumely ; that they should have behaved to the chaplain as to a menial servant, made him leave the table before the dessert, and forced him, as the condition of being presented to a small living, to marry My Lady's waiting maid. But the solution is to be found in Swift's "Sermon on Brotherly Love," which, after a paragraph or two on a feeling of which the preacher himself had but a limited experience, proceeds to ask whose fault it is that Brotherly Love does not more prevail. The ready answer is, that it is the fault of the Papists and Nonconformists, upon whom

the preacher then heartily comes down. The Church of England was prized as the bulwark against these two foes—Popery, which, in the time of Louis XIV., the nation might still reasonably regard with terror, and Puritanism, of whose reign the gentry still retained the bitterest recollection. Besides, the subjection of the Anglican Establishment endeared, and still endears, it to the squire. "As soon as the sermon is finished, nobody presumes to stir till Sir Roger is gone out of the church. The knight walks down from his seat in the chancel between a double row of his tenants, that stand bowing to him on each side ; and every now and then inquires how such an one's wife, or mother, or son, or father do, whom he does not see at church ; which is understood as a secret reprimand to the person that is absent." What Sir Roger would not fight, or at least vote and drink, for a branch of the universal Church so "pure and reformed" as this ? Nor were the clergy always personally objects of reverence. Swift writes to Stella : "I walked here after nine, two miles, and I found a parson drunk fighting with a seaman, and Patrick and I were so wise as to part them, but the seaman followed him to Chelsea, cursing at him, and the parson slipped into a house, and I know no more. It mortified me to see a man in my coat so overtaken." Perhaps it might have equally mortified the "man in my coat" to see certain portions of the Dean's writings.

Saving in exceptional times, such as that of Scroggs and Jeffreys, the English courts of law seem to have been always dignified and, after their fashion, just. After their fashion, it was ; for the law was unscientific, irrational, and barbarous in the highest degree. All that could be said for it was that it did aim, in its narrow way, at upholding personal rights and liberties against arbitrary power. Even

the *peine forte et dure*, of which Mr. Ashton gives us a hideous picture, was a widely different thing from judicial torture ; its object was solely to compel the man to plead to the indictment, without which, it was supposed, his trial could not rightfully proceed ; and it ended the moment his obstinacy was overcome. There does not seem to have been on the part of the English courts the eagerness to convict which French courts have always shown. The death penalty was lavished with the cruel prodigality of an aristocratic legislature reckless of the blood of the people. Humane quibbles often tempered the cruelty of the code ; yet there were wholesale hangings, and there were frightful butcheries—the cart, not the drop, being used, and the friends of the victims pulling their legs and striking their breasts to shorten their agonies. The state of the prisons, also, was hideous, extortion on the part of the keepers conspiring with neglect. Lifelong imprisonment for debt was, perhaps, of all these barbarous pedantries, the most barbarous. The aspect of the courts must have been much what it is in England now. Wigs were worn by the judges and barristers, though in those days only as a part of the ordinary dress of a gentleman, and *green bags*, it seems, instead of blue, were carried. Lawyers were accused of roguery and of setting people by the ears for their own profit, but the accusation is not peculiar to the Augustan Age.

Medicine was mere empiricism. In the pharmacopœia given by Mr. Ashton were “Live Hog Lice,” “Man’s Skull,” “Leaves of Gold,” “Stone of a Carp’s Head,” “Frogs’ Livers,” “White dung of a Peacock dried,” with many other remedies equally sovereign. It earned its fee by purging and bleeding without stint. Its chief professors, whose skill probably, like that of our spiritualists,

was moral, made large incomes—incomes equal to at least \$60,000 or \$70,000 in our day—rode in coaches with six horses, and behaved themselves like pashas. Dr. Radcliffe, the most renowned of them, was sitting over his wine when he received a message from the Princess Anne, who had become somewhat hypochondriac after the death of her sister, desiring him to come at once to see her. He refused to go, and sent back a message that it was all fancy, and that her Royal Highness was as well as any one else. So Mr. Ashton decorously puts it ; but the real message, according to tradition, was too coarse to be repeated to ears polite. This cost Radcliffe his appointment at court. When the Queen was dying, he was sent for ; but the implacable old Turk answered that “he had taken physic, and could not come.” There was an outcry against him at the time ; in these days he would be torn to pieces. He was always saying the rudest things, and sometimes he met his match. He never would pay a bill without demurring, and he told a pavior who had been mending the pavement in front of his house, and applied for the money, that he had done his work badly and covered it with earth to hide it. “Doctor,” replied the pavior, “mine is not the only bad work that the earth hides.” Queen Anne, as we know from a passage in Boswell’s “Johnson,” touched for the King’s Evil : strange to say, it appears that she did it in response to a Jacobite challenge to prove her legitimate royalty, and that the result was satisfactory to the public mind ; so that the conditions proposed by Renan would seem to have been fulfilled by the performance of a miracle under critical inspection. On the part of Johnson or his parents there must have been a want of faith. With the treatment of children the medical faculty

would not have deigned to concern itself. It was such that the race may be said partly to have owed its vigour to a process of natural selection, carried on through a most desperate struggle for existence. The young Duke of Gloucester, the heir to the Crown, having water on the brain, and finding himself unable to get up stairs without help, his royal parents, to cure him of his sickness, shut themselves up with him and gave him a good whipping.

At the top of society was a grand urbanity of manner, of which the paragon was Marlborough, who found it of no small use to him in his diplomacy. There was also a set of fops, much like the fops of other times in their folly, their frippery, and their ridiculous adulation of the female sex, but distinguished from their counterparts in our day by brilliancy of costume, and, above all, by their wigs, the chief care of the dandy, for which immense prices seem to have been given, and which consequently became the mark of street marauders.

“Nor is thy flaxen wig with safety worn:
High on the shoulder, in the basket borne,
Lurks the sly boy; whose hand to rapine
bred
Plucks off the curling honors of the head.”

But social refinement had as yet extended little to the country, where Squire Western predominated, and not at all to the lower classes. Mr. Ashton has given us plenty of pictures of barbarism, such as riotous fairs, affrays in taverns, and bull and bear baiting, for which twin colosseums rose conspicuous above all the other buildings in Southwark. This is not the reproach of a particular reign or country; it is the state of European civilization two centuries ago. Bull and bear baiting were after all not so cruel an amusement as autos-da-fe. The people in Anne's time do not seem to have been gourmands or glut-

tons—they took only one substantial meal a day, and their cooking was plain; but they drank deeply. “How say you, Daniel Dammerree, are you guilty of the high treason for which you have been indicted, and are now arraigned, or not guilty?” “My Lord, I was so much in liquor that I did not know what I did.” “Night very drunk, as the two former,” is an entry, and not the only one of the kind, in the contemporary diary of Tom Brown. When Walpole was a boy, he was plied with wine by his father, because it was not becoming that the son should see his parent drunk. Manners at the watering-places were astoundingly free, and we have a squib upon somebody's matrimonial affairs posted in the chief resort of the company at Bath; not that this is worse than the society journal of England in the present day.

Gambling, also, was high, and so was its twin sister, speculation. A certain M. Bouchier, who had begun life as a footman, raised himself by success at the gaming-table, and by the grand style in which he operated, to the rank of a great social potentate. He went over to the camp in Flanders with a magnificent equipage, played with King William and won of him £2,500, an incident not mentioned by Macaulay. He played at the same time with the Duke of Bavaria; the Duke at last threw double or quits with him for £15,000, and “lost the money upon reputation, with which Bouchier was very well satisfied, as not doubting in the least; and so taking his leave of the King and those noblemen that were with him, he departed.” He died, Mr. Ashton tells us, very rich. The diversion of the “Mohocks,” as is well known, was filling the streets with outrage by night; and though panic seems to have exaggerated their atrocities, they appear undoubtedly to

have indulged in the merry practice of slitting people's noses. Other gangs of upper-class scamps practised the same thing under different names. But of all the ferocities of the time, the worst was the incessant duelling, which would have clouded with fear the lives of the class who were bound by honour to fight, if they had not been as reckless as they were. The Duke of Hamilton and Lord Mohun are opposing parties in a lawsuit. They meet in the chambers of a Master in Chancery, and the Duke remarks of a witness: "There is no truth or justice in him." Lord Mohun replies: "I know Mr. Whitworth; he is an honest man, and has as much truth as your Grace." This is enough: two days afterward His Grace and My Lord go to Hyde Park and fight; their seconds fighting also, or as they expressed it, "taking their share in the dance." Lord Mohun falls dead, and the Duke on the top of him mortally wounded. It was averred that Lord Mohun's second treacherously stabbed the Duke, but this seems clearly to have been a calumny bred by the fury of the Jacobites at the loss of the head of their party in Scotland.

Amid all the savagery and brutality of these people, however, there shine forth unmistakably immense vigour and fortitude. The army was recruited, as Mr. Ashton shows, from the loose and even from the criminal population; but it would be a mistake to fancy that it was a blackguard army. There were in larger numbers two centuries ago than now men out of whom perhaps the nomad had not been thoroughly worked, who were out of place in a state of regular industry, yet had their qualities, and made good soldiers, though bad citizens. These men service in an army, under a great commander, not only restrains and disciplines, but purifies and exalts. Marlborough seems to have felt perfect confidence in his

men: no misgiving as to their discipline, any more than as to their courage, made him hesitate in undertaking the most daring and critical operations. He found them trust-worthy in the deadly mines of Tournai as well as on the blood-stained slope of the Schellenberg and in the terrible passes of Malplaquet. Uncle Toby and Corporal Trim were rough people, but they had strong hearts in strong bodies, and they did their duty without a word. It was all the more to their credit, because their officers had no title to their confidence but valour, being generally destitute of military education; Marlborough, the grand exception, having been trained in the French school. The simplicity with which the victories of Marlborough and his soldiers over the veteran troops of the Great King were announced and celebrated is thrown into strong relief by the inordinate jubilation which has followed a triumph over the wretched mercenaries of Arabi, who fired one random volley and ran away. The seamen were even rougher than the soldiers. Benbow and Coudesley Shovel were, no doubt, as coarse as the salt-junk and grog on which they lived. But they were heroes, if by perfect fearlessness united with single-hearted devotion to professional duty a man can deserve that name. It was a French officer who said of them to the Prince de Condé, that they rode the sea in all seasons and in the worst weather with as much tranquillity as the swans floated on the lake at Chantilly. Nor had they, to sustain them, much hope of reward or honours. These old sea-lions could not exist now; they would be interviewed, feasted, photographed, decorated, harangued, and shown about till they had lost the rough simplicity of their nature. However, in paying them due honour, no Englishman would wish to return to their days, or to have a seaman's life made again

the display of fortitude under every sort of privation and suffering that it was in the days of Anne, and even in much later times.

On the most important point, perhaps, of all, the relations between the sexes and female character, there was little that was new to be said. The upper-class woman of that period is perfectly known to us all through the *Spectator* and other social literature. She was never a Saint Theresa nor a Mrs. Somerville; often she was a butterfly, sometimes she was naughty, and gambled at basset. Her hours were not later, the heels of her shoes were not higher, nor was her dress, even taking into account her patches, much more unnatural than those of her descendants. Dissipation for dissipation, perhaps hers and that of her partner in those days rather had the advantage over that of London society in these days, inasmuch as it was at all events real enjoyment. There was

no standing for hours in a hot and crowded room to talk to people to whom you did not want to talk, about things in which you felt no interest. Sir George Lewis might have said that the amusements were highly reprehensible; he could hardly have said that life would be pleasant enough if it were not for its amusements. Matrimony was far from spotless. There were Fleet marriages performed by tipsy parsons, forced marriages, runaway marriages, matrimonial wrongs, cruelties, and infidelities. But in England, on the whole, man and wife were true to each other—more so, certainly, in the upper classes than they were in France; and if that generation left plenty of work for marriage-law reformers, it also handed on the strength of conjugal affection and of domestic sentiment which makes the experiments of reformers on the constitution of the family safer than they would otherwise be.

A YEAR IN ENGLAND: WHAT I SAW, WHAT I HEARD, AND WHAT I THOUGHT.

BY A CANADIAN.

(Concluded, from Vol. IV., page 378.)

DRESS, HABITS, MANNERS.

DEAR SAMMY,—

I MUST at last satisfy your curious mind in regard to certain matters of inquiry. You insist upon being informed as to the dress of the Londoners. Well, my dear Sammy, as I am far enough away from the little island not to be heard I may whisper to you two convictions I have in regard to English ladies which are not flattering to them. As compared with their sisters on this side the water English ladies are comparatively homely; and in dress they show a decided lack of

taste. Sometimes the taste may be declared positively bad, a violation of plain æsthetic laws, but very often there is not so much this as a lack of that æsthetic fancy which is so conspicuous in American ladies, though often in their case carried to an extreme. An Englishman told me that when he first landed in New York he found it difficult on the street to discriminate between women that were virtuous and those that were the reverse. But certainly in any English assembly, in London at least, one never gets the impression that women gather at such places to

display either personal charms or dress. Again, English women wear much less jewellery than our American cousins, in which most Canadians will agree that they show better taste and better sense.

At the same time, it must be admitted, that with a little more taste many an English girl might enhance her appearance wonderfully. In the important matter of *boots*, I must say, the London ladies still to a great extent keep to the good old fashion of having a boot really large enough for the foot and adapted to the natural mode of progression in human beings. High heeled boots are worn, but not by the majority; with most a sufficiently broad sole and a broad low heel still gives nature a chance. Possibly the climate with its constant rains may contribute its share to aid common sense in this matter; but I am much inclined to believe that the absence of the mania for "pretty girls" in England accounts for the sensible habits of English women in many of these minor matters.

At a concert in New York one sees expensive dresses and an excess of jewellery; at a concert in London about half the people have the score of the music in their hands. Evidently such people go to the concerts for the music and not for display. If the Londoners are not a musical people, they are at least learned in music. On the other hand, the men, I am afraid, have not, in the matter of clothing, and especially of boots, maintained the sensible customs of their ancestors. I entered London with the expectation of seeing every man I met provided with a pair of boots, with soles half-an-inch thick; but nothing of the sort; even their sole and the pointed toe alike showed that customs in London change; and, in this respect, the change is not for the better.

But in the case of the silk hat old

ways prevail, and it is still the badge of respectability in old and young of the male sex. Well, now Sammy do you know, this same custom speaks volumes to me in regard to the English character. Men, by the hat they wear, can so change the appearance of the face, that it seems like maintaining the dignity of the race above either apes or villains to preserve a set of features and an expression, that one's friends may recognize as those of ten years before. May the respectable silk hat ever flourish!

You ask me whether the old fashioned coffee-houses we read of "where Johnson and Goldsmith may have had their chats" still exist. Scarcely, though their modern representatives furnish many a pleasant half-hour to the poor man over his cup of coffee or his steak; but the more fashionable *café* or restaurant is now the resort of the young dandy rather than of the literary man.

If you go to London, Sammy, and wish to get a true insight into the character of the lower classes, do not fail to visit the coffee-houses. This leads me to answer another of your questions, "How do the English eat? Has their mode of disposing of food all that merit we on this side of the water so commonly attribute to it?" This was a problem I endeavoured to study fully. As to the food itself, I was much astonished. My ideas were very erroneous before coming in contact with the facts. An English mechanic takes food regularly four times a day. Bear in mind, he goes to work about eight or nine o'clock in the morning, and continues till seven or eight p.m.; his breakfast is light; about eleven a.m., he takes a lunch of tea and perhaps of bread and butter. At one or two he takes dinner, which consists much more of such vegetables as cabbage, "greens," turnips, potatoes, etc., than I supposed. He gets very little

good meat; in fact the beef he does eat is mostly inferior to the Australian or Canadian. As a matter of fact, he may be almost ignorant of the taste of first-class English beef. Twenty-five cents a pound for beef is too high a price for most mechanics, and fish or a small "rasher of bacon" is what he takes to delude himself into the belief that he has had a substantial dinner. At five p.m. he takes his "tea"—*i. e.*, plenty of tea with a little bread and butter, or something of that sort—a light meal. Then after going home follows supper, which may mean something more substantial, with possibly some beer. Such a diet is manifestly not the best for a "working man." There is too much tea, and too little that represents meal, eggs, good milk, etc. The milk of London!!! Beer and spirit drinking is not the only curse of the poorer classes in London—tea-drinking is the foundation of dyspepsia of the worst sort in a large proportion of this class. Probably five pints of tea a day would be a small average for the majority of mechanics. Few stomachs can bear that.

Going higher in the scale, there is something to imitate and something to avoid in the English mode of feeding. The dinners are too heavy, but with the exception of a little wine or a small glass of ale (not so common as formerly), nothing is drunk with the food. After dinner comes the coffee or tea, and is taken very deliberately. Yes, deliberation over eating is the great secret of English digestion. This matter has not been exaggerated. I have known a poor man, in a coffee-house, take a full hour over his dinner. Above all other things we need in America is the feeling that when we sit down to eat we have plenty of time to do it, and to enjoy it, and the freedom from the anxiety of work that is to follow. I fancy there must be a good deal of

natural pleasure arising from the healthy discharge of the functions of the body that Englishmen enjoy, and Americans, including Canadians, do not know much about, after twenty-five years of age.

Like myself, Sammy, I notice, you have an interest in the dumb creation. It is surely not an unworthy interest, seeing that they contribute so much to our happiness and prosperity and seem to share, if not our vices and virtues, at least their consequences. Thoughtful men must in their gloomy moments inquire where the justice of many things in this world is to be sought; but if dogs could think many an unfortunate, bound to a vicious and hard-hearted master, must ask the question with ten-fold significance. Sammy, could you possibly believe in the goodness or piety of the man who abuses his dog or his horse? It must be against all laws, human and divine.

You want some facts in regard to the donkeys of London at the present day. We have heard our parents speak of them. I'm sorry to say he is the same overworked, underfed brute as ever. I believe in the survival of the fittest, but the poor "cuddy" seems best fitted to call out the brutality of his master, and so perhaps, he had better perish. As a matter of fact, the race seems to be dying out, and a fine class of small ponies is taking its place. Why, only at the Derby of 1881 I saw several donkey carts with four and five big fellows for poor "jack" to draw seventeen miles and back.

Ah! the Derby! Sammy, the Derby is an epitome of England! As you know, everybody goes to the Derby, from Royalty down to the urchin that turns summersaults for half-pence on the dusty roads on the way thither. And, it might be added, every one bets on the Derby; it may be sixpence or it may be five thou-

sand pounds. The Derby is England's day out. People go for a holiday, and not, except in a minor degree altogether, to see the races. The capacity of English people to enjoy a holiday, according to the method of each class in society, is extraordinary. I do not think we can equal it here. I may be wrong in this, however. But to show that I am right, in the main, I simply ask anyone to witness the hilarity and the genuine, social, enjoyment on that one great holiday. People on the road seem in a way to forget for that day class distinctions; and woe to the unlucky wight who will persist in upholding them. He may return a sadder if not a wiser man than he went. It is England's bacchanalian feast, and the master and servant, at least if they ride in different conveyances, are for that day equally jolly good fellows, and meet on that plane alone. In such a conservative country this must be beneficial. If the Derby is ever abolished and replaced by something more in keeping with advancing civilization, may this good feature of it never be changed by any æsthetic coldness or ceremonious, but heartless, propriety.

Now, Sammy, I must, with this letter, bring the series I promised you to a close. They have been very imperfect as media for the thoughts I wished to convey; but as you insisted upon having them, such as my absorbing engagements would allow, I have given you. It may have sometimes occurred to you that I saw too many virtues in the old land, and too many weaknesses and blemishes in the land of our birth and adoption; but Sammy, I am deeply convinced that the public press of this country is not serving its best interests by encouraging so much our provincial pride and prejudice. We are constantly spoken of as a great nation, a great people. We may become such; I hope we shall; but at present we are a

very small people with a very large and imperfectly developed country. Our progress would be greater if we knew where our weaknesses lay, and how to correct them. I never took up a Canadian newspaper in England without smiling at its pride, which seems to me childish. Hence, like other Canadians, when I went abroad I was unduly sensitive, from my education, in regard to Canada's importance. As yet, in real fact, she has to the rest of the world very little importance. Let us try to give her more—let us be honest with ourselves. What we have made our country in a few years may be creditable to us; but then we must expect other nations to look at us very much as we are. The man who with a capital of one hundred dollars in a few months makes it four hundred, does well; still he has only four hundred, not four thousand. Besides, we have been so busy developing our material resources that we have to a large degree forgotten higher things; and our transatlantic friends see that; and we might as well confess to the meagreness of culture of colonists at once, and leave our pride at home when we go abroad, or, better still, have none to leave, but set about this higher culture as soon as possible. But, Sammy, whether you agree with my views or not, let me assure you that I am more than ever a true lover of my native country; and with all her faults, or rather the weakness of her childhood, for still she is very young, I prefer her to older lands that have the wealth and culture, but also the class distinctions—the grinding poverty, the gross ignorance like a cloud over the masses, the effete institutions, the lack of individual liberty, the senseless restrictions and what not that fetter human development. May good old England, for she is good, never grow less, and may Canada yearly grow greater.

Ever yours,

TOMMY.

A BOY'S BOOKS, THEN AND NOW—IX.

BY HENRY SCADDING, D.D., TORONTO.

(Continued from Vol. II., p. 339.)

DICTIONARIES—GREEK, LATIN,
ENGLISH.

I HAVE thus far been reviewing only elementary Latin books, formerly used in classical schools amongst us. I could easily extend these notices; and, with the material at hand, I might be equally diffuse on our old Greek elementary books as well. I have by me early specimens of the "Westminster Greek Grammar" (Camden's), the Eton and the Port Royal—all three in Latin; as well as Wettenhall, the "Irish National Greek Grammar," formerly in Latin likewise, but in my copy translated; with innumerable Delectuses, Excerpts, Epigrammata, Græca Minora, each of them duly expounded and annotated in *usum studiosæ Juventutis*, in Latin. But, for the present, from this division of my subject I shall refrain, very tempting though it be. I purpose now to remark upon a number of venerable Dictionaries which have accumulated around me, Greek, Latin, and English; all of them for the most part superseded in the present day; but still, all of them, when re-examined, found to be replete with interest as monuments of by-gone times, and the essential ancestors of the manuals now in vogue.

1. *Greek*: (a) *Scapula*.—And first, let me introduce my *Scapula*; so, for brevity's sake, we used to designate Johannes Scapula's very copious folio, entitled "*Lexicon Græco-*

Latinum Novum." *Scapula*'s ponderous book used to be costly, and was the personal possession of few juvenile students. The first copy I ever saw, and probably the first copy imported here, was the one in the Principal's room at Upper Canada College, deposited there by Dr. Harris in 1830, for reference, along with *Stephanus'* "*Thesaurus Linguæ Latinæ*" in four volumes, folio, *Dammius*, *Facciolati*, and other formidable tomes which one used to gaze at with a degree of awe, and occasionally use, according to one's lights at the time.

Of late years, *Scapulas* of every edition are common enough in the street book-stalls of London and other places, marked very low, being of little use for modern linguistic purposes. My copy is to be prized as a curiosity, being of the rather early date of 1604, and bearing the imprint of *Sebastian Henric-Petri* at Basle, with a bold wood-cut of his device; it is also bound in the original wooden boards, covered with elaborately stamped hog-skin, and once had clasps, as may be seen. The volume opens with a dedication to the "Consuls" and "Senators" of the commonwealth of Berne, whom *Scapula* calls his liege-lords, and salutes as *Amplissimi* and *Magnifici*. He compliments them on the great zeal shown at Berne and Lausanne in the cause of public education, aforesaid and then. He speaks of scholastic buildings lately restored

at a great expense and in a style suited to the dignity of the republic. He speaks of himself as having been educated in early childhood in one of the public schools at Lausanne; where afterwards, by the favour of the authorities, he had been preferred to a "function," that of professor or teacher; and further, had been granted by them, a prolonged leave of absence at Paris, for the purpose of perfecting his Lexicon. He therefore thinks he will not be accused of audacity if he ventures to offer to them this his first literary production, which he hopes will be useful to studious youth everywhere, who are entering the field of Greek literature, but to the youth of the Bernese schools in particular. As in the erection of a great edifice, he says, those who assist in bringing even the small stones, earth, sand, and other like materials that are required, are held to help forward the work, as well as the architects and chief builders themselves, so he hopes by the timely presentation of his book, to contribute his humble quota of assistance to the Bernese Council or Senate in their noble undertaking, until he shall be able to present something of more value. He dates his epistle from Basle, Nov. 24, 1579 (viii Kal. Dec. MDLXXIX), the year, he observes, when the cap-stone was put to the new school of Berne, and the foundation of the Gymnasium at Lausanne was laid; in respect to which he piously prays "*quod faustum felixque esse velit præpotens rerum omnium opifex et moderator, Deus,*" subscribing himself "*vestræ amplitudini addictissimus, Johannes Scapula.*" After the dedication comes a long address to "Readers studious of the Greek language," in which he describes the scope and method of his book, and shows that its convenient grouping of words and compactness will

render Greek easy and pleasant to the scholar. As to the language itself, he remarks that no one can be considered learned who has not acquired some skill in it, whatever amount of erudition he may have acquired in other respects, for there is no art or science which can afford to dispense with the support it yields.

Henri Estienne, the second of that name in the famous family of the Estiennes or Stephani, asserts in the second issue of his "*Thesaurus Linguae Græcæ,*" published at Paris in four volumes, folio, in 1572, that Scapula, while in his employment, extracted from that work the substance of the "*Lexicon Græco-Latinum.*" But the way in which Scapula himself states his case, in his Address to the Readers, is this: He says that it was not until he had been working for a long time on his Lexicon, that he accidentally became acquainted with the Thesaurus of Henri Estienne, and that at the first view thereof he thought his own labour was now rendered useless, and might at once be brought to a close. But on second thoughts, he decided still to go on with his undertaking. A work of less intricacy, less size, and less price than Estienne's, he believed, would be advantageous to the cause of Greek learning. He speaks of Henri Estienne's Thesaurus as an achievement worthy of Hercules; and he does not deny that he availed himself of its help in the compilation of his Lexicon. It naturally followed that the publication of Scapula's book interfered with the sale of the Thesaurus at the time; but it does not appear that this was the sole cause, as some have supposed, of Estienne's subsequent pecuniary embarrassments. All the printers of ponderous works on Greek and Latin subjects in those days, who were not subsidized by princes and popes, became more or less embarrassed.

After the address to "Readers studious of Greek," there follows in the folio before us, according to a custom of the period, several Latin epigrams, and one in Greek, laudatory of the author and his work, contributed by friends. I observe in one of them a play upon Scapula's name, which means "shoulder-blade." When Johannes Scapula descended from the "high Roman fashion" of speech, to his own vernacular, he was plain Hans Schulterblatt. The conceit of the epigrammatist is, that the author of the lexicon is a second Atlas. The shoulder-blade of the first Atlas bore up the load of the whole starry sphere; this shoulder-blade bears up the full orb of the copious Greek tongue. While the one therefore is styled *Cœlifer*; the other may be described as *Græcifer*.

Assere nunc geminos vario sed tempor' Atlantias;

Cœlifer ante fuit, Græcifer alter adest.
Scilicet ille vagos cœli perculluit ignes,
Edocet hic voces Græcia quotquot habet.

Scapula subjoins an epigram of his own, in which he claims for his work the meritorious characteristics of novelty, comprehensiveness, and utility.

(b) *Suidas and Meursius*.—Here are two minor Greek lexicons of a somewhat special kind. Ernesti's edition of the Glossaries of Suidas and Phavorinus, on the Greek of the Old and New Testaments, printed at Leipsic in 1786, in the preface to which the editor speaks of Suidas as "magis monachus quam criticus," and says of his own discussion of a dry subject "quamvis erat molestissima, tamen sæpius etiam profuit." And John Meursius' Glossary of the Greek of the Lower Empire, replete with curious matter, and preceded by eight complimentary epigrams, one of them by Grotius, and two by D. Heinsius; with brief dedication and preface by Meursius, in which he promises other works hitherto inedited and main-

taining a fight for existence with moths and worms. "Habebis aliquando," Meursius says to the reader, "cum bono Deo, plures auctores nunquam ad hoc tempus editos, cum tuncis jam blattisque luctantes; quos oblivioni eripere et Posteritati vindicare decrevi, si Deus mihi vitam dederit in favorem. Illum rogo, he adds, ut porro mihi benedicat, te servet; vale, et quisquis es Æternitatem cogita."

(c) *Schrevelius*.—I must now speak of the world-famous Schrevelius, a name which, like Donat, Calepin, Euclid, conveyed to the eye and ear in former days the idea of a book rather than a person. But Schrevelius was a person; and I have pleasure in summoning up his shade. The old copy of the "Lexicon Manuale Græco-Latinum" which I possess, discloses to us very plainly in its frontispiece what manner of man he was. We see there a figure in scholar's gown and band; the lank hair falls about the neck, and is brought down over the forehead; the nose droops; the chin is long and pointed; the eyes speak as they direct themselves towards you out of their right corners; while over the cheek, moustache-covered lip and mouth below, breaks out a smile of dry humour. Altogether he looks the shrewd, able, hard-working Dutchman that he was. To his abundant equipment in Greek and Latin literature, he added, as it would seem, a scientific acquaintance with medicine. The inscription under his portrait reads as follows:—Cornelius Schrevelius, M.D., Gymnasiarcha Lugd. Batav., that is, C. S., Doctor of Medicine, and Rector of the Gymnasium or High School of Leyden.

In his *Præfatio* addressed to the "benignant reader," Schrevelius informs us how his "Lexicon Græco-Latinum" originated. While convers-

ing with his colleagues on the numerous appliances for study enjoyed by the youth of the day, he observed that, nevertheless, Pasor a lexicon then in general use—could be improved; there were many things wanting in Pasor, he remarked, which ought to be there, relating to roots, primitives, and derivations, with numerous expressions of common occurrence even in the early class-books used in schools and gymnasia, for which search had to be laboriously made in Indexes and a variety of Treatises; how much to be desired it was that all this useful matter should be gathered together in one volume for the tyro's convenience! But here was the rub! hic labor, hoc opus. Who would undertake what involved so much toil? And there was Scapula already, people would say. But how bulky and costly was Scapula! The upshot was that he determined to engage in the work himself; and he at once proceeded to the construction of a comprehensive Greek Lexicon, adding to Pasor from Martinus and others; from the Clavis and other Indexes to Homer, the Ionic and Doric Lexicons of Æmilius Portus and the Lyric and Pindaric Lexicon of the same scholar. So that in the new manual all these works were virtually included. Schrevelius refers to a reproduction of his Lexicon which had appeared in England, and said to be enriched by the addition of some 8,000 words. But cui bono? he asks. If acquaintance with all these added words were desired, recourse might be had to the larger dictionaries where they and a great many more might readily be found. As set forth in his preface, he had intended that his book should be compendious. He praised the diligence and industry of Hill, the English editor, but he expresses the wish that he had used better type and busied himself about

the productions of other writers, and not have interfered with the gain and profit of the Dutch printers. However, in consequence of these proceedings on the part of Hill, he had bestowed all the more pains on the new issue of his work, and he had rendered it superior "by many parasangs" to all other editions in neatness and elegance as well as in fulness, clearness, and accuracy. He even incorporated Hill's additions and subjoined besides the "Latino-Greek Lexicon" of Balthasar Barthius.

The scholar employed to revise minutely the English Schrevelius before the issue of the new edition at Amsterdam, was H. Ludolph Holtzkampius. He too proceeds to address the "Philhellenic" reader, as he styles him, and tells him that he has corrected very many faults both of editor and printer in the Cambridge edition, *i. e.*, Hill's; that he has in several places substituted better Latin renderings of the Greek words, and had everywhere attended to the generally-neglected accentuation. Holtzkampius seizes the occasion to lay the volume on which he has bestowed so much labour, at the feet of "his most clement liege-lord, the most high and most illustrious Frederick Adolphus, Count-regent of Lippia, hereditary Burgrave of Utrecht." At great length and in the customary strain of dedications, he tells his patron that he desires to adorn his work with his very resplendent name; and after glancing at his numerous virtues, public and private, and his military skill as proved on many occasions in the wars of former times—on all of which matters, he says, this is not the place to enlarge, although he does enlarge upon them sufficiently, nevertheless—yet there is one excellence which it would be an impiety (*nefas*) to pass over in silence, and that is, his distinguished friendliness and

liberality to the cultivators of polite literature—a liberality which he (Holtzkampius) had experienced more than once.

H. Cramer contributes a eulogy in Latin verse on the "Lexicon Manuale Clarissimi doctissimique viri Cornelii Schrevelii, M.D., et Gymnasii Leydenensis Rectoris vigilantissimi." It is to the effect that when Scapula appeared, the high road into the whole field of Greek learning seemed to be thrown open; and crowds rushed to take possession. But soon it was found that dense thickets and mists intervened. A few, of unconquerable spirit, pressed on; but large numbers, appalled by the difficulties of the way, gave up the quest. Then came Schrevelius dispelling clouds and absolutely reducing to nothing every obstruction. At once the Muses applaud, Apollo himself applauds. The path, Apollo cries, is now made plain and easy. The whole field of Greek learning is now indeed thrown open. On the engraved title-page, opposite the portrait, is to be seen the Muse of History, a Dutch Clio, recording the merits of Schrevelius, and holding a spur in her left hand. Milton's

"Fame is the spur which the clear spirit doth raise
To scorn delights and live laborious days"

might have been added; while into the printed title-page is worked the device of the printers of the book, Henry Boom and the widow of Theodoric Boom, Apollo watering a shoot springing up from the stump of a tree, with the motto subjoined, "Tandem fit surculus arbor"—in allusion to the name Boom, which means a tree. This Amsterdam edition is dated 1709. By the side of it I place the London edition of 1831, stated on the title-page to be the twenty-first, "prioribus auctior et emendatior," containing additions and

improvements now, not only by Hill, but also by Entick, Bowyer, Watts and Tayler. It is beautifully printed; but everything in it that is not Greek, is still Latin. In 1815, E. V. Blomfield, the translator at a later period of the famous Greek Grammar of Matthiæ had begun a Lexicon with the Greek words interpreted in English, but he never completed it. In 1829 Donnegan's Greek-English Lexicon had appeared, and had been welcomed by many who were beginning to be persuaded that a knowledge of the Greek language could be acquired more easily, as well as more accurately, if it were learned immediately from the English, without the intervention of Latin. Nevertheless, the untranslated Schrevelius maintained its ground in public schools, and was the only Greek lexicon known amongst young scholars here at the date just named. In the United States a translation of Schrevelius had been made. It was even in its second edition at Boston in 1829. It was this United States book that Professor Dunbar of Edinburgh, and E. H. Barker of Thetford, Norfolk, proposed to re-produce in England. On examination, however, "they found so much to correct and so much to add, that they saw it to be impossible to new-model the work so as to conform it to their own conception of what it ought to be." They therefore together compiled what was a wholly new Greek-English lexicon, incorporating in it everything that was likely to be useful, not only to the tyro, but also to the more advanced student, especially technical and scientific terms in Botany, Natural History, etc., collected from the works of ancient and modern scholars. Archæological articles, somewhat out of place, perhaps, in a mere verbal lexicon, but philologically treated, were inserted; and being full of curious and recon-

dite matter, were most acceptable to young men not having access to libraries of any account, and not yet provided with the copious dictionaries of "Antiquities" which are now so familiar. In subsequent editions this work was known as "Dunbar's Lexicon," and was extensively used. To this Lexicon was appended an English-Greek part as well, by Hutchison. But soon this lexicon, as well as Donnegan's, Schrevelius in English, and the rest,

was superseded and displaced by Liddell and Scott's work, based on Passow's Greek-German Lexicon, embracing in its columns, in a condensed form, the principal results of the indefatigable researches of modern German scholars. The absence of an English-Greek division in this lexicon is well supplied by Yonge's "English-Greek Lexicon," a work vastly exceeding in copiousness the vocabularies in Dunbar and Donnegan.

EDMUND BURKE.

BY J. O. MILLER, MADOC.

THE name of Edmund Burke flashes like a beacon-light over the dark and stormy age in which he lived. In literature, the father of a new era, in politics, the tutor of Fox, Sheridan, Windham and even Pitt; in morality, both political and social, surpassing the greatest statesmen of his time, he stands before us, at the interval of three quarters of a century, the brightest example of mental and physical energy, lofty genius, and moral purity. And though he has been reviled as the destroyer of his country, as a political renegade, and as a Popish adventurer, he has survived the attacks of his enemies, and his name is at last finding its place—and that a foremost one—among the great names of the earth. Yet the lustre of his name does not rest altogether upon his marvellous talent and equally marvellous performance; it is as the champion of liberty in an age when the ruling powers sought to restrain the freedom of parliament and the people; it is as the champion

of order in a reign which witnessed the disturbances of the Wilkites, the American Rebellion, and the French Revolution; it is as the champion of morality at a time when Lord Holland was paymaster of the forces, when the *Bedfords were in power*, and when Charles Fox was gambling away his patrimony, and committing worse sins against society, that Burke claims pre-eminence in a list of names, the most glorious in the history of England.

The exact date of Burke's birth is not known. It is thought, however, that he was born at Dublin in the year 1729 (New Style). Up to the age of twelve, but little is known of his surroundings except that his father was a solicitor, with a large practice. At that age he was sent to the school of Abraham Shackleton, at a village called Ballitore, near Dublin. It was here that the seeds were sown which bore such magnificent fruit in after-days. Burke's affection for his old schoolmaster is one of the most touching incidents of his life. Thirty

years after leaving school, he writes, "If I am anything, it is the education I had then that has made me so. I had a true honour and affection for that excellent man. I feel something like a satisfaction in the midst of my concern, that I was fortunate enough to have him once under my roof before his departure." His gratitude was proved by the favour he afterwards showed to Shackleton's son.

In 1743, Burke was entered at Trinity College, Dublin, and continued there for five years. It is interesting to notice his course of study — mathematics, logic, history and poetry, as the fancy seized him, rather than according to college routine, and each subject engrossing his attention while the fit lasted, only to be entirely discarded for its successor. Such a course would be fatal to an ordinary mind; yet the use he made of these desultory studies in after-life proved the strength of his memory and the power of his genius.

After leaving Trinity College he commenced the study of law, and removed to London. There he remained for about nine years, and of his work during that time we know but little. Though we have evidence that his legal studies were by no means neglected, he seems to have given his time and energies to the pursuit of literature. He was never called to the bar, and as he published his first book about the time when he ought to have begun to practise, we can easily understand that he rebelled against the dull routine of circuit travelling, and that his mind was working its way up through the early mistiness towards the goal to which destiny was leading him. Burke's first books were "A Vindication of Natural Society" and "A Philosophical Inquiry into the Origin of our Ideas on the Sublime and the Beautiful." The former was a

criticism on a work of Lord Bolingbroke who had died shortly before. So subtle was the irony that Chesterfield mistook the book for a posthumous work of Bolingbroke's, and years afterwards, when Burke presented himself as a candidate for parliament, he was obliged to print a second edition of the book with an explanatory preface. The two works gave him great fame as an author, and he quickly became known and respected by the literary *coterie* of whom Johnson was chief. He was one of the first members of the famous literary club to which Johnson, Reynolds, Goldsmith, and Garrick belonged. That Burke was held in the highest esteem by his literary brethren is attested by Johnson's remark that he was the greatest man in England. Even Gibbon, from his retreat at Lausanne, wrote that he admired his eloquence, approved his politics, adored his chivalry, and almost forgave his reverence for Church establishments.

But the fates ordained that the restless spirit of Burke was not to be confined to the field of literature. And it would have been strange indeed had he remained a mere book-worm in those stormy times. The Seven Years' War was being vigorously prosecuted, England was conquering India, and extending her possessions in North America. At home there were troubles of an equally distracting nature. Ireland was in a state of ferment, which continually threatened an outbreak; the Roman Catholic peasantry were ground under the heel of the Protestant traders, who were in their turn the victims of oppression by the English authorities. Nearer yet, the English political world was disturbed by the stubbornness of the King on the one hand, and cabals of disreputable politicians on the other. Pitt had been dismissed; and Bute, with his train of

Scotchmen, was fighting single-handed the prejudices and animosities of the nation.

Burke's entry into public life began with his appointment as private secretary to Hamilton, who was sent to Ireland as secretary to Lord Halifax. He remained there six years and was thus enabled to thoroughly inform himself upon the condition of his unhappy country. Not the least result of his sojourn in Ireland, are his letters on the "Penal Laws against the Catholics," and his still more masterly "Letter to Sir Hercules Langrishe," written in 1782 and 1792 respectively. In 1765 he quarrelled with Hamilton and returned to England.

But he was not long to remain inactive. Bute fell amidst the howls of his enemies; and in spite of the strong backing of the King, George Grenville came next and also failed, and the King as a *dernier resort* called in Lord Rockingham. This nobleman made Burke his private secretary.

It is a matter, at the same time, for regret and congratulation that Burke should have been induced to throw in his political fortunes with the Rockingham party. In the interests of morality it is well, for the Rockingham party was perhaps the only one which had any claim to political purity. It was composed of a set of men, whose personal honour was above suspicion, and who held the welfare of their country above individual advancement and political power. It was of this party that the great Chatham long afterwards said, "I am resolved that I will not even sit at council but to meet Lord Rockingham. He, and he alone, has a knot of spotless friends such as ought to govern this kingdom." On the other hand, he was condemned to a whole life of opposition, which embittered his nature, materially impaired his faculties, and at last

estranged his friends. We look back upon that long and bitter strife against an implacable minister backed by a hooting majority, with a wistful longing that it had been otherwise. Had Burke been subjected to a long course of official life, his fierce passions would doubtless have become subdued; he would have been in a position to serve better, not only the country of his adoption, but also his native land, whose interests party considerations, later on, induced him to oppose; and it is extremely doubtful that he would ever have committed himself to the fiercest tirades ever penned by mortal man, which resulted in the embarrassment of the empire, and the addition to its national debt of six hundred millions of money.

Besides, the manner and reason of his final rupture with Fox, Sheridan, and Portland, seem to point to the fact that Burke never should have joined the party he did. His principles *au fond* were Conservative, and his long union with the Rockingham party was the result of early associations, to which his passionate nature clung, and of a common cause against the tyranny of the court. He revered, almost worshipped, the Constitution to such a degree that to tamper with it was, with him, a crime inexpiable. He was the apostle of order, not of reform. He believed, with Turgot, that everything should be done for the people, nothing by them.

However, he took office under Lord Rockingham in 1765, and was returned to parliament for Wendover. His party remained in power for a year and a half, but then fell, and was succeeded by the Chatham government. Now was his chance. The change was merely one of individuals, not of principle. Burke was urged to take office under it by his friends; and his reputation as an orator had

been assured by the debates on the American discontents ; but no, he retired to Ireland and wrote his masterly "Observations on the Present State of the Nation." We may admire his fidelity to his patrons and party by his insisting on sharing their exclusion, while we regret his loss to the nation as an honourable and able official, and the still greater loss to himself of the kind of work that would have curbed his passions, given a hearing to his eloquent wisdom, and afforded him that serenity in old age which would have dispensed with the necessity for his saying, "At every step in my progress of life, for in every step was I traversed and opposed, and at every turnpike I met, I was obliged to show my passport, and again and again to prove my sole title to the honour of being useful to my country, by a proof that I was not wholly unacquainted with its laws, and the whole system of its interest both abroad and at home ; otherwise no rank, no toleration even for me."

The constitutional struggle was the first in which Burke proved himself to be among the foremost men of his day. It is not necessary in this place to go into the details. All know the victory of Wilkes at the polls, after his return from exile. All know of his imprisonment and the enormous fine he was compelled to pay. All know, also, of his triumph at the polls, while still in prison, and the excitement which sympathy on his behalf aroused. So great was the disturbance in London that Franklin, who was present, remarked, that if the King had had a bad character, and Wilkes a good one, the latter might have banished the former from his kingdom. The military were called out and some loss of life occurred. Burke moved for a committee of inquiry in a speech admirable for its lucidity and eloquence. He denounced calling out the troops and

condemned the action of the court in its fruitless and mischievous contest with Wilkes. Defeated in this, he wrote one of his most celebrated pamphlets, the "Present Discontents." In it, he took strong ground against the undue influence of the King. Taking the word *Constitution* for his text, he preached to the court a sermon it was not likely to forget. He defended the action of the people in the election of their chosen representative. The "Present Discontents" contains some memorable sentences. "I am not one of those," he says, "who think the people are never wrong. They have been so, frequently and outrageously, both in other countries and in this. But I do say that in all disputes between them and their rulers, the presumption is at least upon a par in favour of the people." Again :—"The people have no interest in disorder. When they go wrong, it is their error and not their crime." Once more :—"Nations are governed by the same methods and on the same principles by which an individual without authority is often able to govern those who are his equals or superiors ; by a knowledge of their temper and by a judicious management of it. Constitute government as you please, infinitely the greater part of it must depend upon the exercise of powers which are left at large to the prudence and uprightness of ministers of state. Without them the Commonwealth is no better than a scheme upon paper, and not a living, active, effective Constitution."

When Burke came to advise upon remedies for the present disorders, his Conservatism came to the surface. So sensitive was he about touching the sacred Constitution, and so fearful lest by tampering with it he might injure its delicate machinery, that he declined to advocate shorter parliaments, or the closing up of the rotten boroughs. He contented him-

self with proposing that lists of votes should be published, and that the people should themselves be the judges of the conduct of their representatives. No wonder that at the outset he offended his party, and that Chatham wrote to Lord Rockingham that the party craft was in danger.

But if Burke was thus tender about touching the Constitution and its source, and lending his aid to sweeping reforms in the franchise, he at least saw the necessity for internal rearrangement, and to this he gave himself up with all the intensity of his nature. In 1780, he brought in his scheme for Economical Reform in the civil establishment. He advocated the abolition of the whole establishment in the household, and thus swept from the court a large number of disreputable and subservient supporters, whose places depended upon their votes. He also reduced the salary of the paymaster of the forces to four thousand pounds, and was the first to accept that office under the new regulations. Though the bill passed in a modified form, it is perhaps the greatest of his parliamentary successes.

It is, however, upon Burke's position in regard to the revolt of the American colonists that we look back with the greatest complacence. Here he showed his love of liberty in the subject, his greater love of order in the nation, and that wise temper in dealing with disaffection which few great statesmen have ever possessed, and which, had it then been listened to, might have changed the whole subsequent course of England's dealings with her dependencies. Burke became strongly attached to the cause of the colonists from the commencement of the trouble. He supported the repeal of the Stamp Act. He denounced violent measures with all the force of his intellect and the splendour of his rhetoric. Speaking

upon England's right to tax the colonists, he said, "It is next to nothing in my consideration. The question with me is not whether you have a right to render your people miserable, but whether it is not your interest to make them happy. It is not what a lawyer tells me I may do, but what humanity, reason, and justice tell me I ought to do. I am not determining a point of law; I am restoring tranquillity; and the general character and situation of a people must determine what sort of government is fitted for them." Burke proposed a plan for allowing the Americans to grant their own supplies and aids in their colonial assemblies. Of course, this was rejected, and he could only watch in anguish the mistakes of his countrymen and the success of the American arms.

Burke's two great speeches on "American Taxation" and on "Conciliation with America," and his "Letter to the Sheriffs of Bristol," are among his greatest efforts. We cannot do better than give the words of Mr. Morley, an earnest student of Burke. "It is no exaggeration to say that they compose the most perfect manual in our literature, or in any literature, for one who approaches the study of public affairs, whether for knowledge or for practice. They are an example without fault of all the qualities which the critic, whether a theorist or an actor, of great political situations should strive by night and by day to possess. If the subject with which they deal were less near than it is to our interests and affections as free citizens, these three performances would still abound in the lessons of an incomparable political method. If their subject were as remote as the quarrel between the Corinthians and Corcyra, or the war between Rome and the Allies, instead of a conflict to which the world owes

the opportunity of the most important of political experiments, we should still have everything to learn from the author's treatment; the vigorous grasp of masses of compressed detail, the wide illumination from great principles of human experience, the strong and masculine feeling for the two great political ends of Justice and Freedom, the large and generous interpretation of expediency, the morality, the vision, the noble temper. If ever, in the fulness of time—and surely the fates of men and literature cannot have it otherwise—Burke becomes one of the half-dozen names of established and universal currency in education and in common books, rising above the waywardness of literary caprice or intellectual fashions, as Shakespeare, and Milton, and Bacon rise above it, it will be the mastery, the elevation, the wisdom of these far-shining discourses in which the world will in an especial degree recognize the combination of sovereign gifts with beneficent uses."

Our space will not permit us to treat fully of the trial of Warren Hastings. We pass it the more readily as it marks a decline in Burke's fame as a wise and prudent statesman. Suffice it to say, that it cost him fourteen years of the hardest labour, and that Hastings was in the end acquitted. True, he achieved the greater success, of overturning the system of rule then prevalent in India, and was indirectly the author of other valuable reforms; but the result of it to him was disappointment and chagrin, the loss of reputation, and the beginning of the end of his friendship with his political colleagues. We hasten to the second great event of his life—the French Revolution.

Burke has been strongly condemned, and perhaps justly, for the action he took upon the French question. But it is instructive to note the peculiar circumstances, when he first be-

gan to give attention to France. His private affairs were much straitened; he had been harassed and opposed at every step in his career; the "hunt of obloquy," as he himself called it, had pursued him all through life; he had been fighting in the cause of liberty and order against a hopeless majority, who were too ignorant to comprehend his wisdom, too noisy, and too servile to their leaders, who wished to discredit Burke, to appreciate his eloquence, who whispered abroad the significant words "St. Omar," "Papist," "Adventurer"; he had been openly and continuously charged with the crime of writing the "Letters of Junius"; he had wasted his talents, his temper, his eloquence and his best years in the prosecution of Hastings; he was surrounded by a following of somewhat disreputable Irish adherents who would have sunk anyone but himself; and to crown all, he did not at this time enjoy the confidence of the chiefs of his party. What wonder that his nature had become embittered, and that his passionate eloquence began to degenerate into the wordiness of a scold! What wonder that he sometimes finished his speeches "in a manner next to madness!" Is it not rather to be wondered at that he still retained his fine appreciation of the glorious truths of universal order, justice and humanity, with which the "Reflections on the French Revolution" abounds?

The key-note to Burke's attitude is easily found. He had the most profound reverence for the established order of things. He never ceased to combat the philosophers of his time who were untiring in their efforts to penetrate the mysteries of first principles. He appreciated the absurdity in the English Constitution of the King's wild grasping at absolute power. He had mastered the Constitution as few other men mastered it;

he revered, he worshipped it. "Study it," said he, "until you have learned how to admire it, and if you cannot know and admire, rather believe that you are dull than that the rest of the world has been imposed upon." "Never will I cut it in pieces, and put it into the kettle of any magician in order to boil it with the puddle of their compounds into youth and vigour; on the contrary, I will drive away such pretenders, I will nurse its venerable age, and with lenient arts extend a parent's breath." When he came to apply his principles to the case of France, Burke merely considered the Revolution as a political movement, a subversion of the best interests of the country to the private and selfish ends of such men as Rousseau and Mirabeau. Though he was partly alive to the distress of the lower classes, and to the intolerant tyranny of the clergy, he did not for a moment surmise that it was a social and religious movement, of which the political disturbance was the mere index, that was convulsing that unfortunate country. In fine, Burke committed the unpardonable error of not fully informing himself upon the facts of his subject. He refused to believe that the people were groaning under burdens no longer to be borne; he saw only the madness of the popular leaders, the upheaval of the whole system of government, and the destruction of the King and his beautiful Consort.

And yet if Burke had gone no further than his "Reflections," the danger might have been averted. The position he assumed was purely critical. He saw the chaos that was approaching, he warned his countrymen to withhold their sympathy from what was sure to lead to the destruction of

the monarchy; but it was not until after the final rupture with his friends that he gave vent to the sentiments contained in his "Letter to a Member of the National Assembly," where he advanced to the position of open and active hostility to France. He left the party he had, during a long life, managed and kept together; he, who during all that time had been regarded either as an ingenious madman or a cunning knave, became at last the idol of the people; he was favoured by the King and carressed by the King's ministers; he received a pension and the offer of other political honours; and he plunged his country into a dishonourable and disastrous war, from the effects of which, it has not, after the lapse of nearly a century, recovered.

It is fortunate for Burke's memory that his actions must not be judged by their issues. We are bound to keep in view the fact that he believed he was working for the salvation of his country. Conscientious throughout the whole of his career and concentrating all his energies upon what he believed to be necessary for the peace and happiness of his country, we cannot but accept the sad truth that he made a fatal mistake. In the pursuance of his object he sacrificed his party, his dearest friends, and himself; yet when history considers his great labours in the cause of national peace and political freedom; his untiring industry in everything pertaining to the good government of his country and its dependencies; his never failing generosity to struggling genius, and his unswerving attachment to public and private morality; he will then be assigned his proper place among the greatest sons of England.

NOTES ON THE GREAT COMET OF 1882.

BY PROF. E. FRISBY (M.A., UNIVERSITY COLLEGE, TORONTO), U. S. NAVAL OBSERVATORY, WASHINGTON, D.C.

FROM the time that the first announcement was made of the brilliant comet that has lately visited us, an unusual interest has been taken in it, both on account of its wonderful brilliancy and its apparent nearness to the sun. The first known of it here was from an announcement made by Mr. Cruls, the astronomer at Rio Janeiro, that a brilliant comet was visible to the naked eye on September 11th. The next statement was to the effect that it had been seen very close to the sun in Colorado. This was published in the morning papers, but nobody noticed it much until a gentleman in Washington came to the Observatory, and told us that he had seen it distinctly, near the middle of the day, and within a very few degrees of the sun. This was an astounding statement; but on looking at the heavens we saw it distinctly about mid-day. Unfortunately it had then passed the meridian, so that an accurate meridian observation could not be had. It was suggested to me, however, that measures had better be taken and compared with the sun. This proved to be no easy matter, as it had taken us all by surprise, and we were not supplied with appropriate sun glasses; but several measures of the comet's place were made and the circles read very carefully. The telescope was then turned on the sun and its image projected on a white ground, and the images of the wires in the telescope made to correspond with both limbs in declination; also transits of both

limbs were taken. These were carefully reduced for refraction and parallax of the sun. On the next morning the comet was carefully watched with the equatorial and its motion noted, in order to get a position so that it could be observed on the meridian. The experiment was entirely successful, and two good observations were taken on the meridian, on the mornings of the 20th and 21st of September, when cloudy weather intervened, so that it was impossible afterwards to observe it on the meridian. With these three observations, which were the best we could get, I, with the assistance of Mr. Skinner, of this Observatory, endeavoured to compute the elements of the orbit, a rather difficult task, because the whole interval of time between the first and last observations was less than two days, and the first observation was made under such unsatisfactory conditions. A parabolic orbit was assumed. The observations were not reduced to a fixed equinox, neither aberration nor parallax was taken into account, and only a first rough approximation to even a parabolic orbit was attempted, as it was thought nothing could be gained by making such refinements under the circumstances. The orbit obtained, however, notwithstanding all these difficulties, was remarkably accurate. For two months the observed place did not deviate from the computed place more than about three minutes of time and about eleven minutes of arc in declination.

The physical appearances of the comet were only incidentally observed by me, as I used all my exertions to obtain accurate places by which I could compute a good orbit. Still, as I observed it every morning and had very good opportunities, I noted a few most important details. The first thing noted was that it appeared slightly winged when seen with the naked eye. The nucleus was neither circular nor sharply defined: the tail was somewhat fan-shaped. On September 29th I find this record in my observing book: "The tail of the comet was well defined and sharp, about fifteen degrees in length and terminating suddenly. The nucleus extended about fifteen seconds of arc in the direction of the tail, and was quite irregular in shape, not more than three seconds wide." The tail extended towards the star α Hydræ. On the morning of October 5th it was announced through all the daily papers that Mr. E. E. Barnard, of Nashville, Tennessee, had observed a split in the nucleus of the comet; and the announcement was confirmed by Professors Wilson at Cincinnati, Hough at Chicago, and Brooks, at Phelps, New York. Many sensational articles were written on the subject, but as I happened to be observing it at the very time, I transcribe my notes made on the morning of the 5th of October: "The tail this morning was seventeen to eighteen degrees in length, the nucleus somewhat longer than on previous mornings. It was slightly more spread out, with a small central condensation about three-fourths of its length from the upper end, that is, the end nearest the tail. The central condensation was observed." On October 7th: "The nucleus this morning has at least two condensations of light, possibly three; it is, however, continuous. The north side of the tail has another faint but well-defined envel-

ope extending beyond the head. A vacant space commences about half way up the tail, and extends out to the extremity farthest from the head." I have always contended that there was no real split, although the form of the nucleus was continually changing, at one time extending over thirty or forty seconds of arc in length, and having three or four condensations, like beads strung along a line, which fact alone made the observations very difficult, as different parts of the nucleus might be noticed at different times and by different observers.

The earliest observation of the comet was probably made by Mr. Finlay, at the Cape of Good Hope, on the morning of the 8th of September, and the next morning he obtained a definite measure of its position. Perhaps the first attempt to compute elliptic elements was made by Mr. S. C. Chandler, in Boston, whose results, however, were vitiated by his unfortunately using one of our Washington observations, which were published hurriedly before they were corrected for differential refraction. A second set of elliptic elements was computed by him from a number of observations, from which he formed three normal places and computed an orbit. With these elements he obtained the position at the time of Mr. Finlay's observation, and found that it satisfied it within about one and a-half seconds of time in right ascension and seventy-six seconds of arc in declination. He reasons that on account of the smallness of these residuals it could not have passed through the sun's atmosphere or undergone any change of orbit near its perihelion. His period was about four thousand years. Dr. Oppenheim, of Berlin, then computed an orbit of three thousand and seventeen years. It occurred to me that, on account of the change of the nucleus and the combination of different observations under

such varying circumstances, it might be as well to wait until we had nearly as long an interval as possible, and use only three observations which were known to be good, and all made by the same individual, if practicable. I accordingly waited until the comet could be again observed on the meridian in the morning sky, and selected an observation made on the meridian on the morning of September 20th, and one on the meridian on the morning of November 25th, both by Mr. Winlock, and one made by myself on the morning of the 9th of October with the equatorial, the comet having been compared with a star which was afterwards observed by Mr. Winlock, and thought that the conditions were nearly fulfilled.

From the observations I have deduced the following results:—

Time of perihelion passage, September 17.22282, Greenwich mean time.	
Longitude of Node.....	346° 1' 7" 91
Perihelion to Node.....	69° 16' 12" 79
Inclination to ecliptic.....	141° 59' 52".16
Angle whose sine=eccentricity	89° 13' 42".70
Log. semi axis major.....	1.9331366
Log. perihelion distance.....	7.8904739
Period of revolution.....	793.689 years.
All referred to the mean equinox of 1882.0.	

By means of this computed perihelion distance, and the positions in orbit at the first and third observations, I computed the two corresponding perihelion times which agreed within two units in the 7th decimal of a day, which was altogether closer than I expected, even to take the logarithms from the tables. As a further test, from the perihelion time I computed the latitude and longitude for the middle place, which was even, if possible, more accurate, the latitudes agreeing with one hundredth of a second of arc and the longitudes within six hundredths. The next test was to see how the elements corresponded with Mr. Finlay's place as observed at the Cape of Good Hope, on the

morning of September 9th, when it was one hundred and sixty-five degrees on the other side of perihelion, and then compare with observations on December 12th and 29th. I find the following results:

The computed place agreed with Mr. Finlay's observed place within less than a half second of time in right ascension, and within one second and a half in declination, quantities altogether within the limits of errors of observation. The computed places for December 12th and 29th differ from the observed places by one second to one and a-half seconds of time, in right ascension, and sixteen to eighteen seconds of arc in declination, which is still very close considering the interval of time. But the deviation from the computed orbit, although exceedingly small, is just as marked on one side of the perihelion as the other, the latter two comparisons being slightly greater on account of the length of time from the observations that were used in getting out the elements, and being altogether independent of which side of the perihelion it is. In short, the comet seems to be describing at present a pure elliptic orbit, and there is no foundation whatever for the many sensational stories that have been going the round of the press to the effect that the comets of 1668, 1843, 1880, and 1882 are the same, that it passed through the sun's atmosphere and had its orbit changed, and that it will return in six months. Those who make such statements have certainly never taken the trouble to calculate or assure themselves that their speculations stand on a sound basis. The elements of the first three comets just mentioned are undoubtedly similar to those of the present comet, so also are the elements, as far as can be ascertained, of the comet seen about 371 B.C., mentioned by Diodorus Siculus, and de-

scribed at length by Aristotle. This comet may be the third return, but of that I am not at all certain. From the nature of the case the period is the most uncertain element. A very small change of position in any of the observations would change the ellipse into a parabola, and give an infinite period. I am, however, satisfied that these elements fit the observations remarkably well, and can be used immediately for finding the small outstanding differences and cor-

recting the period. The distance from the sun's centre accordingly at perihelion was about 718,000 miles, and the distance from the surface about 278,000 miles, allowing 440,000 miles for the sun's radius. Although, therefore, the distance was very small the comet could not have been within the sun's atmosphere. The aphelion distance is just as uncertain as the time; but according to the figures it is between eighty and ninety times as great as the diameter of the earth's orbit.

UNIVERSITY WORK.

MATHEMATICS.

ARCHIBALD MACMURCHY, M.A., TORONTO,
EDITOR.

SOLUTIONS TO CAMBRIDGE QUESTIONS, JUNE, 1882,

By A. J. AMES, B.A., Mathematical Master,
Collegiate Institute, St. Thomas. (See
November number of MONTHLY.)

2. Expression factors into

$$\{(ax + by + cz) + (ay + bz + cx) + (az + bx + cy)\} \\ \{(\dots)^2 + \dots - (ay + bz + cx)(az + bx + cy) \\ \dots - \}$$

(1) First factor = $(a + b + c)(x + y + z)$;

(2) Second factor = $(a^2 + b^2 + c^2 - bc - ca - ab)(x^2 + y^2 + z^2 - yz - zx - xy)$;

$\therefore (1) \cdot (2) = (a^2 + b^2 + c^2 - 3abc)(x^2 + y^2 + z^2 - 3xyz)$.

3. $S_m = a^m + (ar)^m + (ar^2)^m + \dots = \frac{a^m}{1 - r^m}$

$\therefore \left(\frac{1}{s_1} + \frac{1}{s_2} + \dots\right)^2 - \left(\frac{1}{s_2} + \frac{1}{s_3} + \dots\right)^2$

$= \left(\frac{1-r}{a} + \frac{1-r^2}{a^2} + \frac{1-r^4}{a^4} + \dots\right)^2$

$- \left(\frac{1-r^2}{a^2} + \frac{1-r^4}{a^4} + \dots\right)^2$

$$= \frac{(1-r)^2(a+r)^2a^4}{a^2(a^2-1)^2(a^2-r^2)^2} - \frac{(1-r^2)^2a^4}{(a^2-r^2)(a^2-1)^2}$$

$$= \frac{a^2}{a^2-1} \frac{(1-r)^2}{a^2-r^2}$$

4. $\frac{50x^2 + 75x - 1250}{5x + 8} - \frac{40x^2 - 592x}{4x^2 - 7} + 1 = 0$

i.e., $10x - 1 - \frac{1248}{5x + 8} - 10x + \frac{522x}{4x^2 - 7} + 1 = 0$.

or $-\frac{1248}{5x + 8} + \frac{522x}{4x^2 - 7} = 0$,

an ordinary quadratic.

$9^x - 8 \cdot 3^x + 3 = 0$.

$\therefore 3^{2x} - 8 \cdot 3^x + 3 = 0$,

$(3^x)^2 - 8 \cdot 3^x + 3 = 0 \Rightarrow -3 + 16 = 13$,

$3^x - 4 = \pm \sqrt{13}$, or $3^x = 4 \pm \sqrt{13}$,

$x = \log_3(4 \pm \sqrt{13})$.

7. (1) $\left(\frac{2n-4}{n}\right) 90^\circ$.

(2) Angle subtended at the centre of the inscribed circle by arc between touching points of consecutive sides of polygon = $\frac{m}{n} \cdot 360^\circ$. This angle and angle of polygon = 180° ;

\therefore angle of polygon = $180^\circ \left(\frac{n-2m}{n}\right)$.

Angle subtended at centre of inscribed circle by an arc between touching points of consecutive sides of polygon = $\frac{360^\circ \cdot 3}{10} = 108^\circ$, side = $2 \tan 54^\circ \cdot 1$ ft., and $\tan 54^\circ$ is known, hence solution.

8. Angle $QOS = \frac{1}{2}(a + \beta)$.
 $POQ = \frac{1}{2}(a - \beta)$. $\therefore POM = a$ and $ROS = \beta$ where angle $QOR = POQ$. PQ is perpendicular to OQ , and RQ is perpendicular to OQ , and PM, QN, RS perpendiculars on OS . $OP = OR, MN = NS$.

$$2 \cos \frac{1}{2}(a + \beta) \cos \frac{1}{2}(a - \beta) = 2 \frac{ON}{OQ} \cdot \frac{OQ}{OP}$$

$$= \frac{2ON}{OP} = \frac{OM}{OP} + \frac{OS}{OP} = \frac{OM}{OP} + \frac{OS}{OR}$$

$$= \cos a + \cos \beta.$$

$$2 \cos(a - \beta) \cos(\theta + a) \cos(\theta + \beta)$$

$$= \cos^2(\theta + a) + \cos(\theta + a) \cos(\theta - a + 2\beta)$$

$$= \frac{1}{2} \{ \cos 2(\theta + a) + \cos 2(\theta + \beta) + \cos 2(a - \beta) + 1 \},$$

with similar values for second and third line;

$$\therefore \text{result is } -\frac{1}{2} + \frac{1}{2} \{ \cos 2(\beta - \gamma) + \cos 2(\gamma - a) + \cos 2(a - \beta) \},$$

and is independent of θ

$$= \frac{1}{2} \{ 2 \cos(\beta - \gamma) \cos(\gamma - a) \cos(a - \beta) \}.$$

10. $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C},$

$\therefore \log a - \log \sin A = \log b - \log \sin B = \log c - \log \sin C$; differentiate then,

$$\frac{x}{a} - \cot A dA = \frac{y}{b} - \cot B dB = -\cot C dC.$$

$$(1) -dA = -\left(\frac{x}{a} + \cot C dC\right) \tan A,$$

$$(2) -dB = -\left(\frac{y}{b} + \cot C dC\right) \tan A,$$

and $A + B = \pi - C$, $\therefore -(dA + dB) = dC$,

$$\therefore \text{from (1) + (2) } -\frac{x}{a} \tan A - \frac{y}{b} \tan B = dC \{ 1 + \cot C (\tan A + \tan B) \}$$

$$[\because \pi - C = A + B] = dC \{ \tan A \tan B \}$$

$$dC = -\left\{ \frac{x}{a} \cot B + \frac{y}{b} \cot A \right\}.$$

Let $R = OA, OB$ or $OC =$ radius of circle about triangle ABC .

Let R_1 and $R_2 = OQ$ and OP , the radii of circles about triangle BOC and AOC respectively.

And P, Q, R , the centres of the three circles; then

$$R_2 = \frac{AC}{\sin AOC} = \frac{b}{\sin 2B} = \frac{b}{2 \sin B \cos B}$$

$$= R \sec B; \text{ similarly } R_1 = R \sec A.$$

Angle $POQ = A + B$; $PQ^2 = R^2 \sec^2 A + R^2 \sec^2 B - 2R^2 \sec A \sec B \cos(A + B)$

$$= R^2 (\tan A + \tan B)^2$$

$$= \frac{R^2}{\cos^2 A \cos^2 B \cos^2 C} \cdot \sin^2 C \cos^2 C.$$

$$\therefore \frac{PQ}{\sin 2C} = \frac{R}{2 \cos A \cos B \cos C} = \text{etc.}$$

The following problems were sent by W. J. Robertson, M.A., Mathematical Master St. Catharines Collegiate Institute, selected from Wolstenholme's Examples:—

1. The sum of the squares of all the numbers less than a given number N and prime to it is

$$\frac{N^3}{3} \left(1 - \frac{1}{a}\right) \left(1 - \frac{1}{b}\right) \left(1 - \frac{1}{c}\right) \dots$$

$$+ \frac{N}{6} (1-a)(1-b)(1-c) \dots$$

2. The sum of the cubes is

$$\frac{N^4}{4} \left(1 - \frac{1}{a}\right) \left(1 - \frac{1}{b}\right) \left(1 - \frac{1}{c}\right) \dots$$

$$+ \frac{N^3}{4} (1-a)(1-b)(1-c) \dots$$

3. The sum of the fourth powers is

$$\frac{N^5}{5} \left(1 - \frac{1}{a}\right) \left(1 - \frac{1}{b}\right) \left(1 - \frac{1}{c}\right) \dots$$

$$+ \frac{N^4}{3} (1-a)(1-b)(1-c) \dots$$

$$- \frac{N}{30} (1-a^4)(1-b^4)(1-c^4) \dots$$

where a, b, c are the different prime factors of N .

SELECTED QUESTIONS,

From Science and Arts Department, December, 1882 (England).

6. Show that $u^2 + x^2 + y^2 + z^2 = (u-x)^2 + (u-y)^2 + (u-z)^2 + 6xyz$, if $u = x + y + z$.

7. Solve the equations

$$(a) \frac{x}{x-a} + \frac{x}{x-b} + 2 = 0.$$

$$(b) x + y = a^2 \left(\frac{1}{x} + \frac{1}{y} \right)$$

$$\frac{1}{x} + \frac{1}{y} = \frac{1}{b} + \frac{1}{xy}.$$

8. *A* and *B* are two points on the bank of a river, which flows down from *A* to *B* at the rate of $2\frac{1}{2}$ miles an hour. A boat whose crew would row it in still water at the rate of $8\frac{1}{4}$ miles an hour starts from *B* for *A* at the same instant that a steam-launch starts from *A* for *B*. If the steam-launch (moving under a constant pressure) on reaching *B* returns without loss of time and arrives at *A* along with the boat, with what velocity would the launch move in still water under the constant pressure?

9. Given $a + \beta = a$ and $a\beta = b^2$, find the value of $a^2 + a^2\beta^2 + a^2\beta^4 + \beta^2$.

10. Show that the sum of the squares of the first n natural numbers is

$$n(n+1)(2n+1) \div 6.$$

Find an expression for the sum of the squares of the first n odd numbers.

11. Show that the convergents of a continued fraction taken in order are alternately greater and less than the fraction itself.

Show that the fraction

$$\frac{1}{2+} \frac{1}{3+} \frac{1}{100+} \frac{1}{a+} \frac{1}{b+}$$

etc., differs from $\frac{3}{7}$ by less than $\frac{1}{4914}$.

EDUCATION DEPARTMENT,
ONTARIO.

DECEMBER, 1882—SPECIAL EXAMINATION.

Intermediate.

ARITHMETIC.

1. There is a rectangle whose length is $1\frac{1}{2}$ times its width, and which may be planked

with boards of lengths 5, 8 or 9 feet, all running parallel to any (the same) side. What is the least size of the rectangle?

2. If an ounce of pure gold be worth £3 18s.; and $\frac{1}{2}$ in weight of a guinea be pure gold, and the remainder an alloy 50 times less valuable; what is the weight of the pure gold in a guinea?

3. How much money must be invested in stock at 97 $\frac{1}{2}$, which pays an annual dividend of 6 per cent., to realize a income of \$600 per annum?

4. A person invests \$4,500 in purchasing stock at 90 (par value 100). In three months he sells 30 shares at 95, and in three months thereafter the remainder at 87. If his money be worth 8 per cent., what does he gain or lose by the transaction, no dividend having been paid on the stock in the interval?

5. Shew that the following is approximately a correct method of calculating interest at 6 per cent. for a given number of days: "Divide the number of days by 6; multiply the quotient by the number of dollars on which interest is required; and the result is the interest expressed in mills."

6. A bill due 4 months hence is discounted at 7 per cent. per annum (true discount), and \$1,267 is received for it. What is its face value?

7. At what rate per cent. will \$100 in 3 years amount to as much as \$120 in 2 years at 7 per cent.?

8. A mortgage which is redeemed, principal and interest, by 3 equal annual payments of \$250 each, is to be sold. What justly should now (a year before the first payment) be paid for it; interest 7 per cent. per annum?

9. A grocer has teas at 5s. and 3s. 6d. per lb. He mixes them in equal quantities, and sells the mixture at such a price that he gains as much per cent. on one kind as he loses per cent. on the other. What was the selling price, and what does he gain or lose per cent.?

10. The volume of a solid whose faces are rectangles is 786 cubic feet, and its edges are as the numbers 1, 2, 3. Find lengths of these edges.

ALGEBRA.

1. Find the factors of $x^3 + y^3 + z^3$ when $x + y + z = 0$.

Find the binomial expression which equalled to zero will make

$$x^3 - (2a + b)x^2 + (2ab + a^2)x - a^2b$$

vanish.

2. Without simplifying

$$(a + b + c)(ab + bc + ca) - (a + b)(b + c)(c + a),$$

show that it is equal to abc .

3. Find the H.C.F. of

$$x^3 - 2x^2y + 4xy^2 - 8y^3$$

$$\text{and } x^3 + 2x^2y + 4xy^2 + 8y^3;$$

and the L.C.M. of

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

$$\text{and } 4b^2c^2 - (a^2 - b^2 - c^2)^2.$$

4. Simplify

$$(1) \frac{(x+a)(x+b)}{(b-c)(c-a)} + \frac{(x+b)(x+c)}{(c-a)(a-b)} + \frac{(x+c)(x+a)}{(a-b)(b-c)}.$$

$$(2) x(x-a)(x-b) + x(x-b)(x-c) + x(x-c)(x-a) - (x-a)(x-b)(x-c)$$

where $2x = a + b + c$.

5. Solve the equations:

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

$$(2) \frac{x}{a+b-c} + \frac{x}{a+b+c} = \frac{a+b}{a^2+b^2-c^2+2ab}.$$

$$(3) \frac{x}{(a-b)(b-c)} + \frac{x}{(b-c)(c-a)} + \frac{x}{(c-a)(a-b)} = \frac{1}{(a-b)(b-c)(c-a)}.$$

6. A man buys a shares of a certain stock for b dollars, and sells c shares of the stock at an advance of p per cent. At what price should he sell the remainder so as to gain $3p$ per cent. on the whole?

7. Extract the square root of

$$\frac{x}{y} + \frac{y}{x} + x + y + 2 + \frac{x}{\sqrt{y}} + \frac{y}{\sqrt{x}} + \sqrt{x} + \sqrt{y} + 2\sqrt{xy},$$

and the cube root of $a^3 + x^3$ to three terms.

8 (1) If $a^4 + \frac{1}{a^4} = a^2 + \frac{2}{a^2} + 2$, determine the value of $a^3 + \frac{1}{a^3}$.

(2) If

$$ax^3 + by^3 + cz^3 + 2a'yz + 2b'zx + 2c'xy = 0,$$

$$\text{and } (ax + c'y + b'z)^2 = Ay^2 + Byz + Cz^2,$$

determine A, B, C .

9. Solve the equations:

$$(1) \begin{cases} \frac{1}{x} + \frac{2}{y} = 8, \\ 6xy = 1. \end{cases}$$

$$(2) x^2 + xy^2 = 16 = y^2 + x^2y.$$

(3) Find values for x and y which will make $x^2y + y^2 + x$ and $xy^2 - x^2 + y$ simultaneously vanish.

10. There are three numbers; their sum is equal to their product; the sum of the first and third is half the second; and the product of the first and second, less the first, is equal to the third. Find the numbers.

EUCLID.

1. State the different conditions of equality of two triangles, as given in the first book of Euclid.

2. If two triangles have two sides in one equal to two sides in the other, each to each, and an angle, opposite an equal side, equal in each, are the triangles necessarily equal? Explain.

3. Any two sides of a triangle are together greater than the third side.

4. If a point be taken within a triangle and lines be drawn from it to the extremities of the base, the sum of these lines is less than the sum of the two sides of the triangle.

5. The three angles of a triangle are together equal to two right angles.

6. Three unlimited straight lines intersect one another not in a common point. What is the sum of all the angles formed?

7. If a line be divided into two equal and also into two unequal parts, the square upon the greater unequal part is equal to the square upon the less unequal part, together with four times the rectangle contained by the half line and the line between the points of section.

8. ABC is a triangle, and CD bisects the base AB in D . Show that $AC^2 + CB^2 = 2AD^2 + 2DC^2$.

9. Show how to construct a square equal to a given triangle.

NATURAL PHILOSOPHY.

1. What power (in pounds) is required to maintain a barrel weighing 150 pounds on an inclined plane? Plane inclined at an angle of 45° to the horizon.

2. A power, $\bar{}$ 6 pounds, applied at the end of a bar of metal of uniform thickness and density, balances a weight = 64 pounds, applied 4 inches from the fulcrum. The bar acts as a lever of the 1st class, and is 3 feet 6 inches long. Determine the pressure exerted by the system upon the fulcrum.

3. State the conditions of equilibrium of floating bodies.

4. Distinguish between :—

(i.) Mass and Weight ;

(ii.) Density and Specific Gravity.

5. What pressure must be exerted upon a cylinder of fir wood, the volume of which = 94.248 cubic inches, that it may be totally submerged in water? (Weight of cubic inch of water = 252.456 grains).

6. Explain the theory of the Siphon.

7. How may the centre of gravity of a body be determined experimentally?

8. A cylinder of wood 10 inches high sinks to a depth of $5\frac{1}{2}$ inches in water, to a depth of 7 inches in another liquid. What is the specific gravity of the latter liquid?

9. The diameter of the plate of a drostatic bellows is 16 inches, a weight of 180 pounds is placed upon it ; what will be the height of the water in the pipe? Diameter of pipe one inch.

SCIENCE.

GEO. DICKSON, M.A., AND R. B. HARR, PH.D.,
HAMILTON, EDITORS.

EDUCATION DEPARTMENT,
ONTARIO.

DECEMBER, 1882.—SPECIAL EXAMINATION.

Intermediate.

CHEMISTRY.

1. What experiments would you perform to demonstrate the properties of Chlorine?

(In answering this question employ dia-

grams of apparatus used to illustrate the description of your experiments.)

2. In the evolution of Ammonia from Li-
quor Ammoniac by heat aqueous vapour passes
over with the gas. Describe a method for
drying the Ammonia.

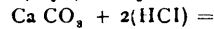
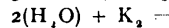
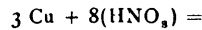
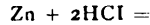
3. Describe and figure the apparatus used
for the evolution of Hydrogen from Zinc and
Sulphuric Acid.

4. What takes place when a cylinder filled
with Nitrogen Dioxide is inverted over a
cylinder filled with Oxygen? Write out the
equation representing the reaction.

5. How much Potassium Chlorate is re-
quired to furnish 12 litres of Oxygen measured
at 0°C . and 760^{mm} P.?

6. Explain method of preparing the amor-
phous variety of Sulphur.

7. Complete the following equations :



8. (i.) Compare the properties of Oxygen
with those of Nitrogen Monoxide.

(ii.) What test may be employed to dis-
tinguish between these two Gases?

CLASSICS.

G. H. ROBINSON, M.A., WHITBY, EDITOR.

ANSWERS TO CORRESPONDENTS.

N.B.—Smith's Dictionary of Greek and
Roman Biography and Mythology (3 vols.),
is the standard book of reference on these
subjects. It is expensive. The abridgment
by the author will probably serve your pur-
pose. Anthon's Classical Dictionary is a
very useful book, though growing somewhat
obsolete. *Lempriere* is now only a curiosity
for the book-hunter.

SCHOOL-BOY.—Take the advice of your
teacher. He is right, of course. A good
knowledge of classics is obtained only by
years of study. Above all, be patient. Avoid
"cribs," and do not look into a "transla-
tion" until you can translate your author
literally, and then see that your translation

is a good one. The market is swarming with pretenders.

CLASSIC.—Yes. Copies of Liddell & Scott's Greek Lexicon, seventh edition, have arrived in this country. See the advertisement in *Harper's Magazine*. It is in 4to. sheep, and the price is \$10.

TUTOR.—Jerram's Second Book of the Anabasis (Clarendon Press Series), is a very scholarly little book, and critically exact in points of syntax.

EDUCATION DEPARTMENT,
ONTARIO.

DECEMBER, 1882.—SPECIAL EXAMINATION.

Intermediate.

LATIN.

I.

Translate :

Carus fuit Africano superiori noster Ennius ; itaque etiam in sepulcro Scipionum putatur is esse constitutus ex marmore. At iis laudibus certe non solum ipse qui laudatur, sed etiam populi Romani nomen ornatur. In cœlum hujus *proavus* Cato tollitur ; magnus honos populi Romani rebus adjungitur. Omnes denique illi Maximi, Marcelli, Fulvii non sine communi omnium nostrum laude decorantur. Ergo illum, qui hæc fecerat, *Rudinum* hominem majores nostri in civitatem *receperunt* : nos hunc Heracleensem, multis civitatibus *expetitum*, in hac autem legibus constitutum, de nostra civitate ejiciemus ?

— *Cicero, Pro Archia.*

1. Mark the quantity of the penult of all words printed in italics in this extract.

2. Parse and conjugate the following verbs : *tollitur, receperunt, expeditum, ejiciemus.*

3. Write brief notes on the proper substantives and adjectives in the extract, except *Scipionum* and *Romani*.

4. *Constitutus*. When may a nominative accompany an infinitive ?

5. *Hujus*. To whom does this pronoun refer ?

6. *Honos*. Give the ordinary form of this word.

7. *Nostrum laude*. Parse.

8. *Fecerat*. Why not subjunctive ?

9. *Multis civitatibus expeditum*. Explain, and parse *civitatibus*.

10. To what political party did Cicero belong ? Give the date and place of his birth, and the date and manner of his death.

II.

Translate :

Eadem nocte accidit, ut esset luna plena, qui dies *maritimos* æstus maximos in *Oceano* efficere consuevit ; nostrisque id erat incognitum. Ita uno tempore et longas naves, quibus Cæsar exercitum transportandum curaverat quasque in aridum subduxerat, æstus complebat, et onerarias, quæ ad *ancoras* erant deligatæ, tempestas afflictabat, neque ulla nostris facultas aut administrandi, aut auxiliandi, dabatur. Compluribus navibus fractis, *reliquæ* quum essent—funibus, anchoris reliquisque armamentis amissis—ad navigandum *inutiles*, magna (id quod necesse erat accidere), *totius* exercitus perturbatio facta est. Neque enim naves erant aliæ, quibus reportari possent, et omnia *deerant*, quæ ad reficiendas naves erant usui, et, quod omnibus constabat hiemari in Gallia oportere, frumentum his in locis in *hiemen* provisum non erat.

—*Cæsar, Bell. Britann.*

1. Mark the quantity of all words printed in italics.

2. Parse and conjugate the following verbs : *accidit, consuevit, transportandum, dabatur, facta est, possent, deerant, constabat, provisum erat.*

3. *Accidit*. What other impersonal verbs are followed by *ut* with subj. ?

4. *esset*. Why is the imperf. subj. here used ?

5. *luna plena*. How does this circumstance determine the exact date of Cæsar's expedition ?

6. *incognitum*. Account for the ignorance of this phenomenon shown by the Romans.

7. *administrandi*. Supply the object.

8. *usui*. Parse.

9. *oportere*. Parse. Translate : "I ought to do this. You ought to have done this."

Translate :

III.

Invidia postquam pellacis Ulixi
(Haud ignota loquor) superis concessit ab oris,
Afflictus vitam in tenebris luctuque *tre rebam*,
Et *casum* insontis mecum *indignabar* amici.
Nec tacui demens; et me, fors si qua tulisset,
Si patrios unquam remeassem victor ad Argos,
Promisi *ultorem*, et verbis odia aspera movi.
Hinc *mih*i prima mali labes; hinc semper
Ulixes
Criminibus terrere novis; hinc *spargere* voces
In vulgum ambiguas, et *quærere* conscius
arma.
Nec *requievit* enim, donec Calchante *minis-*
tro —
Sed *quid* ego hæc autem nequidquam ingrata
revolve?
Quidve moror? si omnes uno ordine habetis
Achivos,
Idque audire *sat* est? Iamdudum *sumite* poe-
nas
Hoc Ithacus *velit*, et *magno* mercentur Atridæ.
—Virgil, *Æneid*, II., 90-104.

1. Parse the words in italics, conjugating the verbs.
2. Scan lines 93, 96, 97, 99, 101.
3. Derive *invidia*, *ignotus*, *casus*, *ambiguus*, *consci*us.
4. Write notes on *Argos*, *Calchas*, *Ithacus*, *Atrida*.
5. *Amici*. Who? What was his fate?
6. *Qua* (94). When is this form of the fem. used?
7. *Argos*. Give the two forms of this proper noun, with the gender of each.
8. *Idque*. To what does the pronoun refer?
9. *Velit*. Account for the tense and mood of this verb.
10. What is length by position?

IV.—Grammar.

1. Give the gen. pl. of *nubes*, *virgo*, *homo*, *pater*, *flos*, *arx*, *mons*, *sacerdos*, *comes*, *obses*.
2. Give the nom. pl. of *crus*, *os* "bone," *os* "mouth," *mare*, *bos*.
3. Give the gender of *urbs*, *vulgus*, *dies*, *domus*, *avis*.
4. Compare *malus*, *acer*, *dives*, *parvus*.
5. Give the whole of the pres. indic. of *sum*; also the 1st sing. of the impf. indic. and subj., of the pres. subj. and of the fut. indic. of the same verb.
6. What is the construction after each of

the following classes of verbs : verbs of teaching, remembering, sparing, accusing, obeying.

V.—Composition.

Translate into Latin :

- (a) 1. If I were to deny it, I should lie.
2. Many nations (*gens*) do not yet know why the moon is-eclipsed (*deficio*).
3. I exhort you to read studiously those books on philosophy.
4. I beg you not to forsake (*desero*) me.
5. Ariovistus answered that he would not return the hostages to the Ædui.
6. Nobody can be king of the Persians who has not learned (*percipio*) the discipline of the Magi.
7. When Cæsar had advanced three days' journey (*tridui viam*), it was announced to him that Ariovistus was hastening (*contendo*) to occupy Vesontio.

(b) What shall I say about the daily talk (*sermo*) and complaint of the Roman people? about this [fellow's] most impudent theft, or rather [his] new and singular robbery (*latrocinium*)? [Shall I say] that he dared in the temple of Castor, [that] most celebrated and illustrious [public] monument, which temple is situated in the sight (*oculus*, pl.) and view (*adspectus*) of the Roman people, in which the Senate is frequently convoked, in which the pleadings (*advocatio*) of the greatest causes (*res*) are daily made : [shall I say] that in that place [he dared] to leave a lasting monument of his audacity? P. Junius had the temple of Castor, O judges, under his charge [use *tu*ri in the gerundive]. He died in the consulship of L. Sulla [and] Q. Metellus.

NOTE.—Words in [] are to be omitted in translating; hyphens indicate that the words connected by them are to be translated by a single Latin word.

PAPERS ON VIRGIL'S ÆNEID, Bk. V.

Prepared by Messrs. Logan and Perry, Assistant Masters Trinity College School, Port Hope; Editors of Virgil's Æneid, Bk. V. (vv. 1-361).

I.

1. Translate vv. 72-93.
2. *Materis myrto*.—Why is the expression used? Who was the mother of Æneas?

3. Account for case in *œvi* (73), *caterva* (76), *lacte* (78), *auro* (87), *visu* (90).

4. *Nequiquam cineras recepti*.—What different renderings are there of the word *recepti*?

5. Derive *m...rus*, *arva*, *anguis*, *tumulum*, *Italos*.

6. What is the difference between *ara* and *altaria*? *infimus* and *imus*? Translate *vox infima*, *ima maris*, *ima montis*, *infimæ preces*, *imus mensis*.

7. Give synonymes of *adytis*, *serpens*.

8. What is meant by the Locative Case? Give rules for forming it. Write down Latin for "At Rome, Carthage, Athens."

9. *Carchæstia*, *pateras*, *poçula*. Describe.

10. Distinguish *pãrens*, *pãrens*; *nôte*, *nôte*; *consilium*, *concilium*.

II.

1. Translate *vv.* 114-123.

2. What do you mean by Arachronism and Synesis? Give an example of each from this passage.

3. Account for case in *remis* (114), *genus* (117), *mole* (118), *opus* (119), *Centauro* (122).

4. Write notes on *Chimæram*, *Centauro*, *Sylla*.

5. *Memmi* (117).—What nouns of ii. Dec. take Voc. Sing. in *I*? *Domus* (121).—What sort of noun? Mention other examples.

6. Translate *vv.* 144-154.

7. *Pinus* (153).—Name other words used by Metonymy for *ship*. Mention other examples of the same figure in these lines.

8. Scan lines 149, 152, marking quantity of all syllables. What is the general rule for the quantity of Monosyllables? Name exceptions.

9. Distinguish *tam*, *sic*, *ita*; *alii*, *reliqui*, *ceteri*.

10. Give synonymes of *nemus*, and derive *aurigæ*, *jugis*, *litora*.

III.

1. Translate *vv.* 183-200.

2. What figures are there in this passage? Explain what is meant by them, and give examples of the same in English.

3. Conjugate *premit*, *insurgite*, *vincere*,

vincite (196). *Delegi*.—What compounds of *lego* have *xi* in the perfect?

4. *Puppis*, decline. Give a list of words done in the same way.

5. Explain the figure Euphemism. Distinguish *pars*, *partes*: *supremus*, *summus*; *rostrum*, *rostra*.

6. Write out the synonymes of *animus*, giving Greek equivalents.

7. *Hectori*.—What other words are used to express the Trojans?

8. *Ærea puppis*.—Why is the epithet *ærea* used?

9. Parse fully *superare* (184), *carina* (186), *comites* (191), *extremos* (196).

10. Whence did Virgil derive his materials for Book V.? How does Virgil compare as an Epic Poet with Milton and Dante?

IV.

Translate *vv.* 159-180.

1. Parse *quo* (162), *sine* (163), *detorquet* (165), *subit* (176), *summa* (180).

2. Account for case of *scopulo* (159), *mihî* (162), *ossibus* (172), *lacrimis* (173), *gubernaclo* (176).

3. Derive *scopulo*, *pelagi*, *lacrimis*, *gubernaclo*, *clarum*.

4. Explain construction of *stringat* (163), *teneant* (164), *decoris* (174).

5. Distinguish *jam* and *nunc*; *iterum* and *rursus*; *tutus* and *securus*; *et*, *atque*, *ac* and *que*; *decõris* and *decõris*.

1. Name the chief works of Virgil, giving a short outline of each.

2. What writers did he imitate in the *Æneid*?

3. What was his probable motive in writing the *Æneid*? State the different opinions as to this.

4. Compare him as an Epic Poet with Homer, choosing any descriptive passages in either for such comparison.

5. Give a short account of Virgil's life.

V.

Translate *vv.* 244-257.

1. Explain construction of *Anchisa* (244), *ferre* (248), *anhelanti* (254).

2. Derive *talentum, præpes, sublimem, sidera, uncis*.

3. *Micandro, Melibæa*. State their geographical position.

4. *Victorem, Cloanthum*. Explain construction. What verbs in Latin require two accusatives?

5. Scan *v. 261*. What peculiarity here? What is the quantity of *o* final? Give exceptions.

1. *Malea* (193).—Where situated?

2. What figure in *v. 195*? Explain fully, giving other examples.

3. *Animi* (202).—Explain the construction. Give other examples from Virgil.

4. Distinguish *sequor, assequor, consequor, insequor, and persequor*.

5. *Ultero*.—Trace its meaning from its root. Distinguish from *sponte*. Translate the following:—" *Ultero compellare*," " *Ultero bellare*," " *Et misorescimus ultro*," " *Namque ultro adfata timentem*."

VI.

Translate *vv. 286-302*.

1. Write notes on *consessu* (290), *præmia ponit* (292), *Priami* (297), *Arcadia* (299), *Trinacrii* (300).

2. Compare *pius*. Inflect *heros*.

3. How are lines of the *Æneid* such as 294 accounted for?

4. Derive *collibus, theatre, silvæ, præmia*.

5. Give and distinguish synonyms of *collis, puer, alter, sanguis, comes*.

1. Give the Latin terms for the different parts of a ship.

2. Point out any instances of Anachronism in this book.

3. Mention figures of speech and peculiarities of construction which are often used by Virgil.

4. Give a description of the Roman chariot.

5. "The first thought of Virgil was the Emperor and court around the throne; the second, the elaboration of his verse." What here meant? Discuss this statement.

MODERN LANGUAGES.

JOHN SEATH, B.A., ST. CATHARINES, EDITOR.

NOTE.—The Editor of this Department will feel obliged if teachers and others send him a statement of such difficulties in English, History, or Moderns, as they may wish to see discussed. He will also be glad to receive Examination Papers in the work of the current year.

ENGLISH.

EDUCATION DEPARTMENT,
ONTARIO.

DECEMBER, 1882—SPECIAL EXAMINATION.

Intermediate.

ENGLISH GRAMMAR.

1. Strong Son of God, immortal Love,
Whom we, *that* have not seen thy face,
By faith, and faith alone, embrace,
Believing where we cannot prove ;
Thine are these orbs of light and shade ;
Thou madest life in man and brute ;
Thou madest Death ; and *lo*, thy foot
Is on the skull which thou hast made.
(a) Analyse the whole passage fully.
(b) Parse the words in italics.
(c) Write out the whole passage in prose, so as to show that you thoroughly understand the meaning.—[Note—The second value is for the literary form of the answer.]
(d) Explain the allusions in line 5, and in the last two lines.
(e) Derive *faith, embrace, prove, orbs, brute*.
(f) In what respect is the rhyme of lines 6 and 7 faulty?
2. Correct any errors in the following sentences, giving your reasons for each correction :—
(i.) The *Telegraph* might certainly have been expected to have outgrown the idea that either of the great American parties acknowledge hostility to England as its ruling principal.
(ii.) The more British Columbia becomes known, the more extraordinary appears its wonderful resources.
(iii.) The Northern and North-Western Railway have issued a new time table.
(iv.) While the plaintiff was being exam-

ined, his sister, who was sitting in the court-room, fell screaming to the floor, laying there insensible for some minutes.

(v.) A father, as well as his son, were terribly injured by the explosion of a waggon-load of gunpowder near Jackass Mountain, which they were conveying to the railway works.

(vi.) Addison contributed to the last volume of the 'Spectator' 24 numbers, many of them being the finest of his essays.

(vii.) If the privileges to which he has an undoubted right, and has so long enjoyed, should now be wrested from him, would be flagrant injustice.

(viii.) I shall live hereafter suitable to my station.

(ix.) I should be obliged to him, if he will gratify me in this matter.

(x.) This wheel will not turn; I must send it to the wheelwright to be fixed.

(xi.) Who learned you to fall trees so good?

(xii.) Those men who have not abandoned their hardly acquired knowledge, are anxious to do something to show that their devotion to letters are genuine.

(xiii.) Etymologically 'politics' mean the science of citizenship.

(xiv.) Is it not a plain hint to us that where denominational colleges are compelled to make strong appeals for assistance, that we will have to make vigorous efforts for to secure further aid?

3. Distinguish between *ingenuous* and *ingenious*, giving the abstract substantive formed from each of these adjectives; also between *contemptuous* and *contemptible*, *survey* and *survive*; *désert*, *desert* and *dessert*; *conjure* and *conjure*.

4. Accentuate—*theatre*, *catastrophe*, *condolence*, *precedent*, *accessory*.

5. Spell phonetically—*subtle*, *ironmonger*, *gauge*, *constable*, *sergeant*.

6. Give the full etymology of the following words:—trespass, journey, lord, veal, verdict, kerchief, feat, savage, hotel, pilgrim.

7. Give five words of Greek origin (not ending in *-ology*).

8. Give five derivatives of each of the following Latin words:—*capio*, *fero*, *gradus*, *loquor*, *cedo*, *cado*.

9. Give three instances of double plurals in English substantives, with the meaning of each form; and three of nouns plural in form and singular in signification.

10. Complete the elliptical clauses in the following sentences:—

(i.) I had rather die than endure such a disgrace.

(ii.) He is better to-day than yesterday.

(iii.) I'd rather be a dog, and bay the moon,
Than such a Roman.

11. Punctuate the following sentence:—

While we earnestly desire said he the approbation of our fellow men and this desire the better feelings of our nature cannot fail to awaken we should shrink from gaining it by dishonourable means.

ENGLISH LITERATURE.

I.—*Goldsmith's Deserted Village.*

1. Beside yon straggling fence that skirts the way,
With blossomed furze unprofitably gay,
There, in his noisy mansion, skilled to rule,
The village master taught his little school;
A man severe he was, and stern to view,
I knew him well, and every truant knew;
Well had the boding tremblers learned to trace
The day's disasters in his morning face.

(a) Explain: *unprofitably gay*; and the last two lines.

(b) *blossom'd*. How is the past part. here used? Substitute the more usual form.

(c) Parse *skill'd*, in the 3rd line, and show how the position of the words in this and in the 6th line causes ambiguity.

(d) Parse *view*, in the 5th line.

2. Quote the first ten lines of the address to Poetry, at the end of the poem.

3. What are the chief characteristics of Goldsmith's poetry? Name his chief poetical and dramatic works.

4. "Trade's unfeeling train
Usurp the land, and dispossess the swain."

Why is the verb plural ?

II.—*Cowper's Task*—*Bk. III.*

1. All flesh is grass, and all its glory fades
Like the fair flow'r dishevelled in the
wind,
Riches have wings, and grandeur is a
dream ;
The man we celebrate must find a tomb,
And we that worship him, ignoble graves.
Nothing is proof against the gen'ral curse
Of vanity, that seizes all below.
The only amaranthine flow'r on earth
Is virtue, th' only lasting treasure, truth.

(a) Parse *graves*, *all below*, *truth*, and fill up the ellipsis in each case.

(b) Give the meaning and derivation of *dishevell'd*, *gen'ral*, *vanity*, *amaranthine*, *treasure*.

(c) Explain fully the meaning of the passage from "The man we celebrate" to "virtue."

2. Explain the italicised words in the following passages, and state in what connection they occur :—

(i.) In whom
Our British *Themis* gloried with just cause,
Immortal Hale!

(ii.) Hideous nurseries of the *spleen*.

(iii.) Like a gross *fog Bæotian*.

(iv.) They form *one social shade*, as if convened
By magic summons of th' *Orphean*
lyre.

3. Sketch briefly the life and character of Cowper.

III.—*Addison's Sir Roger de Coverly.*

1. After having despatched all our country matters, Sir Roger made several inquiries concerning the club, and particularly of his old antagonist, Sir Andrew Freeport. He asked me, with a kind of smile, whether Sir Andrew had not taken advantage of his absence to vent among them some of his republican doctrines, but soon after, gathering up his countenance into a more than ordinary seriousness, 'Tell me truly,' says he, 'don't you think Sir Andrew had a hand in

the Pope's procession?' But without giving me time to answer him, 'Well, well,' says he, 'I know you are a wary man, and do not care to talk of public matters.'

(a) Parse the words in italics.

(b) What is meant by the "Pope's procession?" In what year did the particular procession here referred to occur, and what was the cause of the greater prominence given to the custom in that year?

2. Sketch the principal characters of the Spectator Club, besides Mr. Spectator and Sir Roger.

3. (a) Give an outline of the history of newspapers in England, down to the appearance of the Spectator, and show how this and its immediate predecessor differed from the newspaper of that day.

(b) Mention Addison's principal collaborators in the Spectator, and give some account of him.

HISTORY.

1. Sketch the career of Hannibal, giving the localities, dates and results of five of his chief battles, and the date and circumstances of his death.

2. Define the relations of the Italian races with the city of Rome from the end of the Second Punic War to the death of Sulla.

3. Give an account of the struggle between Marius and Sulla, and its results.

4. Show how the Wars of the Roses increased the power of the Crown on the one hand, and of the people on the other.

5. Describe the character of the reign of Charles II., and state what causes led to his restoration.

6. What principles of Constitutional Government were established by the Revolution?

7. State the objects and result of Lord Durham's mission to Canada.

8. Give the principal provisions of the Canada Constitutional Act of 1791, and estimate its results.

9. Name the five most important military engagements of the War of 1812-14, and state the origin and result of that war.

FRENCH.

EDUCATION DEPARTMENT,
ONTARIO.

DECEMBER, 1887.—SPECIAL EXAMINATION.

Intermediate.

FRENCH.

I. *Grammar and Composition.*

1. When do *vingt* and *cent* take an *s* in the plural? and state when cardinal numbers are used in French where ordinals are used in English.

2. Write out fully the future ind. of *mourir*; the imperfect subj. of *tenir*; the preterite of *s'asseoir*; and the pres. subj. of *pouvoir*.

3. Give the meaning and plural of the words—*petit-maître*; *chef-lieu*; *tête-à-tête*; *ouï-dire*; *casse-tête*; *contre-amiral*.

4. State what classes of adjectives are (1) always (2) generally placed after the nouns they qualify.

5. When are *I*, *thou*, *he*, *they* (*m.*) rendered by *moi*, *toi*, *lui*, *eux*?

6. When are *pas* and *point* in the negatives *ne-pas*, *ne-point*, suppressed?

7. Translate into French—

(a) To whom does that house belong?

(b) That is not worth more than a guinea.

(c) I shall not fail to do what you wish.

(d) They came to us when we were not thinking of them.

(e) It is the only place to which you can aspire.

(f) It was the Phœnicians who invented writing.

(g) I continued my walk, thoughtful but with a cheerful heart. If I had seen elsewhere the painful contrast of opulence and misery, here I found the friendly union of wealth and poverty. Good-will had softened on both sides the too glaring (rudes) inequalities, and established between the lowly workshop and the splendid mansion a way of kind intercourse (voisinage).

(h) He is a friend in whom I put my confidence.

(i) I know whom you mean.

(j) Whatever you study, you must apply yourself to it with ardour.

II. *Souvestre: Un Philosophe sous les Toits.*

Translate:

(a) Je reconnus aussitôt la rue, bien que je n'y fusse venu qu'une fois.

Il y avait de cela deux années: à la même époque, je longeais la Seine, dont les berges noyées dans l'ombre laissaient le regard s'étendre en tous sens, et à laquelle l'illumination des quais et des ponts donnait l'aspect d'un lac enguirlandé d'étoiles. J'avais atteint le Louvre, lorsqu'un rassemblement formé près du parapet m'arrêta: on entourait un enfant d'environ six ans, qui pleurait. Je demandai la cause de ses larmes.

— Il paraît qu'on l'a envoyé promener aux Tuileries, me dit un maçon qui revenait du travail, sa truelle à la main; le domestique qui le conduisait a trouvé là des amis, et a dit à l'enfant de l'attendre tandis qu'il allait prendre un canon; mais faut croire que la soif lui sera venue en buvant, car il n'a pas reparu, et le petit ne retrouve plus son logement.

1. *Fuuse*. Why in the subjunctive?

2. Write brief notes on Louvre, Tuileries, canon.

3. Give the principal parts of the verbs *reconnus*, *croire*, *buvant*.

Translate:

(b) *Veilles prolongées!* Au lieu d'employer la nuit au sommeil, vous la dépensez en lectures; votre alcôve est une bibliothèque, votre oreiller un pupitre! A l'heure où le cerveau fatigué demande du repos, vous le conduisez à une orgie, et vous vous étonnez de la trouver endolori le lendemain.

La mollesse des habitudes! Enfermé dans votre mansarde, vous vous êtes insensiblement entouré de mille précautions douillettes. Il a fallu des bourrelets pour votre porte, un paravent pour votre fenêtre, des tapis pour vos pieds, un poêle allumé au premier froid, une lampe à lumière adoucie, et, grâce à toutes ces précautions, le moindre vent vous enrhumé, les sièges ordinaires vous exposent à des courbatures, et il vous faut des lunettes pour supporter la lumière du jour. Vous avez

cru conquérir des jouissances, et vous n'avez fait que contracter des infirmités.

1. En lectures. Distinguish dans and en.
2. Du repos. When is the partitive article expressed by de simply?
3. Le moindre. Compare.

Translate :

Pepin, roi de France, fut surnommé *le Bref*, à cause de sa courte taille, que les courtisans tournaient quelquefois en ridicule. Cette licence venant à ses oreilles, il se détermina à établir son autorité par quelque exploit extraordinaire; et l'occasion s'en présenta bientôt. Dans une diversion magnifique qu'il donna au public, il y eut un combat entre un taureau et un lion. Ce dernier, dans sa fureur, avait

presque vaincu son antagoniste; quand Pepin se tournant vers sa noblesse dit: "Qui d'entre vous oserait aller séparer, ou tuer ces deux animaux furieux?" La seule idée les fit trembler; personne ne répondit: "Eh bien, ce sera moi," répliqua la monarche. Sur quoi tirant son sabre hors du fourreau, il sauta dans l'arène, alla vers le lion, le tua; et, sans le moindre délai, déchargea un si terrible coup sur le taureau, que la tête pendait par le dessous du cou. Les courtisans furent également étonnés de son courage et de sa force; et le roi leur dit d'un ton de hauteur héroïque: "David était petit; cependant il renversa le géant insolent, qui avait osé le mépriser."

SCHOOL WORK.

DAVID BOYLE, TORONTO, EDITOR.

SCHOOL MANAGEMENT.*

All candidates must answer question 1, and may not answer more than *eight* other questions.

1. Write full notes of a lesson on one of the following subjects:—(1) Leather; (2) Mountains; (3) Joan of Arc; (4) A Railway.

NOTES OF A LESSON ON "LEATHER."

(1) *Materials used*.—Leather is made from the skins of animals. The whole skin of the animal is called the *hide*. Among manufacturers the skin (before being made into leather) is called *pelt*.

The skins of various animals are used. Among others are calf-skins, sheep-skins, lamb-skins, dog-skins, deer-skins, pig-skins, and kangaroo-skins. Many hides are imported by us, especially from our Australian colonies, and from New Zealand.

(2) *Manufacture of Leather*.—Hides are made into leather by a process called *tanning*.

The hides are first soaked in water for a greater or less time, according to the kind and quality, in order to soften them. Then they are kept in a heated room, where the hairs become so loose that they can be removed without great difficulty. Sometimes this is effected by soaking the skins in milk of lime.

When the hair has been removed from the skins, they are placed in the *tan pits*. Here layers of skin and oak-bark (tan) are placed alternately. Then water is introduced into the pits, and the skins are allowed to remain there for a long period, sometimes for months; being turned from time to time.

Other substances are now used with or in the place of oak-bark, to render the process of tanning more speedy and effective. These exert a chemical action on the hides. Among these may be mentioned catechu and cutch (imported from the East Indies), gambier, and sumach-leaves (obtained from Turkey).

The object of tanning is to make the hides indestructible by arresting the progress of decomposition which is natural to

* From Page's "Scholarship Answers," Midsummer, 1882. London: Moffatt & Paige.

animal substances. If hides were not tanned, they would become a mass of corruption, like the flesh of the animal when kept too long after death. Tanning also renders the skins pliable and impermeable to water.

After being tanned, some kinds of leather are subjected to a further process called *currying*. This consists of cutting away or shaving off roughnesses of surface, soaking in water and oil, and rubbing on a smooth board. In this way the leather is made more pliable, smooth, and soft.

(3) *Kinds and uses of Leather*.—There are several kinds of leather, each of which requires a somewhat different mode of manufacture.

The hides of oxen and bulls are made into a strong, coarse kind of leather, used for general purposes, as boots and shoes.

Deer-skins are made into *shamoy* leather.

Pig-skins are used for making saddles.

Calf-skins are used for making the upper leather of boots and shoes. They are also used, as well as sheep-skins and lamb-skins, for book-binding purposes.

Skins of kids and lambs are used for making gloves.

Thick straps and belts are made from the hides of the hippopotamus and walrus.

"Patent leather" is made from seal-skins.

Kangaroo hides are employed for making leather of a superfine kind; used to make dress boots for gentlemen.

Morocco leather, much valued as a material for book-binding, is made from goat-skins. Russia leather is also much for book-binding.

2. Name, in progressive order of teaching, the apparatus required for lessons in Geography, and show how you would give a conception of scale and proportion in map-drawing to young children.

A plan of the school and its immediate surroundings.

A figure representing the four cardinal points.

A plan of the village or town in which the school is situated, and its immediate vicinity.

A chart representing physical features, both pictorially and geographically.

A map of the county. A terrestrial globe.

A map of the world.

A map of England and Wales, or the British Islands. A map of Europe.

A chart representing the chief facts in astronomy connected with the world as a planet. Maps of the Colonies, Asia, Africa, and America.

Draw a *small* picture of the front of a house. Then draw a larger picture of the same house, making the picture twice as high as before. Then draw another three times as high, and another four times as high. Let these be ranged side by side in order of size, the smallest to the left hand.

Show the children that we have four pictures of the *same* house. It may be represented by a small picture or by a large one. In other words, the picture may be on a *small scale* or on a *large scale*.

Now point out that in the larger pictures *each part* of the house is drawn larger than in the smaller ones. If we make the height of the whole house twice as great, then the height of each window, door, chimney, etc., must also be made twice as great.

The height of the real house is 20 feet, and the height of our smallest picture is 5 inches. Then we represent 20 feet by 5 inches, therefore we represent 4 feet by one inch, and our picture is drawn on a *scale of 4 feet to an inch*. If a real door of the house be 8 feet high and 4 feet broad, how long and how wide must it be made in our picture? [Two inches high and one inch wide.]

In the next picture the height of the house is represented by a line 10 inches long; that is, 10 inches represent 20 feet, and one inch represents 2 feet. Thus the scale is now 2 feet to an inch. How high and how broad must the door be made in the second picture? [Four inches high and two inches wide.]

A similar method may be adopted with the other two pictures.

3. What plan would you follow in giving a description of some battle? Illustrate

your answer by the battle of Flodden or Waterloo.

(1) Give a description of the nations who fought on each side, with the chief characteristics of each, as far as they were likely to affect the progress and result of the fight, and an account of their leaders.

Thus, in a lesson on the battle of Waterloo, there are on one side the allied troops, consisting of the British and Belgians under Wellington, and the Prussians (who came up late in the day) under Blucher. The British are mostly veterans of the Peninsula, the "heroes of a hundred fights," under their well-known and trusted leader, who said of them that they would "go anywhere, and do anything." They have the general stubborn and indomitable character of their nation, not knowing when they are defeated, and ready to die on the field to the last man rather than yield. The Belgians, a slower, but steadier race of men, are animated with a desire to do their best with their English comrades under the famous Wellington. The Prussians, under their somewhat slow but experienced leader, Blucher, are burning to avenge the defeats which they had formerly suffered at the hands of Napoleon.

(2) Draw on the black-board a plan of the battle-field and the surrounding country, showing the position of the opposing armies with respect to each other, and to the chief features of the district.

In a description of the battle of Waterloo it would be necessary to draw the high-road (through Waterloo to Brussels) which divided the allied troops from the French. The battalions of the two armies could be represented in their positions on each side of the road. Other points to be marked are the Château of Hougoumont, the Farm of La Haye Sainte, and the Farm of La Belle Alliance.

(3) Next describe the general progress of the battle, with the final result. This should be done as vividly as possible, referring to the plan at each point in the operations.

The battle of Waterloo was fought on

Sunday, June 18, 1815. The night before the rain had fallen in torrents, and the troops on both sides rose in the morning wet and weary. The battle began at eleven o'clock a.m., by a cannonade from the English. The French cavalry attacked the Château of Hougoumont with great fury; but, after various successes, ultimately failed to dislodge the English Guards who held it.

Napoleon sent his squadrons of cavalry against the English squares; but the latter held their ground with the most desperate tenacity, and the French horse recoiled from the showers of bullets and the points of the bayonets with which they were met.

Marshal Ney was for a time more fortunate in his attack on La Haye Sainte. He at first drove out the opposing troops; but was unable to maintain his position, owing partly to a failure of ammunition.

About four in the afternoon the head of the Prussian columns appeared emerging from a wood to the east of the battle-field. The attacks of the French had hitherto failed, and Napoleon, seeing fresh enemies advancing, determined on a last and desperate attempt to retrieve the fortunes of the day. He ordered an advance of the famous "Old Guard," a body of veteran troops who were deemed invincible, and had hitherto been kept in reserve. They were led by Ney up the slope occupied by the English troops. The latter awaited the attack, lying on the ground. When the French were at a distance of about fifty yards, Wellington ordered his men to rise and fire. They poured such a deadly volley into the ranks of the French, that the latter gave way, and fell back down the hill. Wellington, seeing that the crisis of the battle had arrived, ordered a general advance of the whole line. The English rushed on their enemies, who were thrown into confusion, and soon fled from the field. Napoleon, seeing that all was lost, turned his back and fled towards France with the remainder of his troops.

The Prussians had now arrived, and being comparatively fresh, undertook the pursuit of the fugitives, of whom thousands were killed or taken prisoners.

Wellington and Blucher met after the battle at the farm of La Belle Alliance.

4. Detail some of the advantages and disadvantages of teaching reading by the alphabetic method.

(a) *Advantages*.—(1) This method is the general one. Other things being equal, methods which are most in use are the best. If a boy came from another school, for example, where the ordinary method had been adopted, he would lose time if he had to recommence on another system.

(2) It is very minute in its processes, proceeding letter by letter, and thus cultivates the attention by requiring the scholars to pay regard to small details.

(3) It teaches spelling simultaneously with reading from the very commencement.

(4) Being the common method, it is provided with abundance of good material and apparatus. With other methods the books, sheets, etc., are more scarce, and not so perfected and elaborated by the labour and experience of many minds.

(5) It facilitates reference to dictionaries, encyclopædias, and other works drawn up in alphabetical order.

(6) It commands greater confidence among parents than any other. They can tell whether their children are "getting on" when their young ones are learning by the ordinary method, that with which they are acquainted themselves. They are apt to consider phonetic and other systems as mere "nonsense," and will sometimes take their children away in consequence. Of course mere prejudice against improved methods must not be regarded; this has to be overcome in the case of nearly all improvements. Still it has to be considered, and a novel system should not be introduced unless it presents decided advantages over the old one.

(b) *Disadvantages*.—(1) It is of a dry and formal character, requiring great and exceptional skill on the part of the teacher to awaken an interest in the learner.

(2) It follows the names of the letters instead of their sounds. As in English there is a great divergence between the names and

the sounds of the letters: this method is a difficult one.

(3) The teacher is obliged to begin with very small words, and even with syllables which do not alone constitute words. Hence it is impossible to present the children with interesting lessons at the early stages of their school course, when it is so important to gain their attention and interest.

(4) Owing to its difficulty, much time is required to make good progress under this system, and thus many children, who have to leave school at an early age, go forth into the world without the power of reading fluently and intelligently.

(5) The mechanical difficulties of this method absorb the time which, under an easier one, might be devoted to explanation and illustration of the matter of the lesson.

5. Define "a sentence" in grammar, and illustrate your definition by original examples of simple, complex, and compound sentences relating to events in English History.

A sentence is a number of words expressing a complete thought.

A sentence must contain a subject, denoting the thing spoken of, and a predicate, expressing that which is stated concerning it.

A sentence containing only one subject and predicate is a simple sentence; as—
"Queen Elizabeth was an able sovereign."
Here the subject is "Queen Elizabeth;" the predicate is "was an able sovereign."

A sentence which comprises more than one simple sentence, one of which contains the main assertion, each of the others being dependent on some part of the whole sentence, is called a complex sentence. The sentence which contains the main statement is called the principal sentence; the others are termed subordinate sentences. The following is an example:—"Magna Charta, which has been called the foundation of English liberty, was wrung from King John by the barons." Here the principal sentence is "Magna Charta was wrung from King John by the barons." This sentence is complete in itself, and does not depend on any other. It is the principal sentence.

"Which has been called the foundation of English liberty" is a subordinate sentence, containing a subject and predicate of its own, but depending on the principal sentence, which it serves to explain.

A compound sentence is one which is composed of more than one principal sentence, usually connected by a co-ordinative conjunction. The following is an example: "The people of England became discontented during the reign of James I., and soon after Charles I. came to the throne quarrels arose between the king and the parliament." Here we have two principal sentences: "The people of England became discontented during the reign of James I.," and "Quarrels arose between the king and the parliament." "Soon after Charles I. came to the throne" is a subordinate sentence, depending on the second main sentence.

6. Give short explanations suitable for children of the words italicised in the following passages:—

"No thought was there of distant flight;
Linked in the scerried phalanx tight,
Grooms fought like noble, *squirelike knight*."

As day *declines*, *nature* recovers from this *langour* and exhaustion; the *insects* again *flutter* across the open glades, and the larger animals *saunter* away from under cover in the direction of the ponds and *pastures*.

Linked; a link is one of the part of a chain. The links are joined together, and make up the whole chain. Each is of equal importance in forming the united whole. Thus the grooms and the nobles, the squires and knights fought in the same way, all on an equality, and each forgetting that he is master or servant.

Scerried; this word means closely packed, pressed, or crowded together.

Phalanx; a body of troops arranged in very close order. The word is derived from the Greek. The Macedonian phalanx is celebrated in ancient history. By its help Philip of Macedon conquered the Greeks, and his son Alexander overran the Persian Empire.

Groom; a word which formerly meant any servant or attendant. It is now limited to one who attends on horses. *Bridegroom* is a word having a different origin and meaning.

Squire; properly a shield-bearer. In the days of chivalry a squire attended on the knight. He was often of gentle birth, and hoped some day to become a knight himself.

Knight; this word formerly meant a youth. In the days of chivalry it signified a gentleman at-arms who fought on horseback. A perfect knight was distinguished by justice, courtesy, and courage; he was "without fear and without reproach."

Declines; from Lat. *de*, down, *clino*, I bend. The word properly refers to the course of the sun, sloping or inclining down to the west during the latter part of the day.

Nature; from Lat. *natus*, born; all created things. Here the word signifies *animated* nature; living, moving, and breathing creatures.

Langour; a dull, heavy, sleepy, sluggish state of the body.

Insects; from Lat. *in*, into, *seco*, I cut. Small living creatures, whose body seem divided into two or more parts by cuts or divisions which extend round them.

Flutter; to move the wings about quickly with rapid movements. The word seems connected with *float*.

Saunter; to move along at an easy and leisurely pace, as though there were no particular business on hand.

Pastures; from Lat. *pasco*, I feed; feeding-places for animals. It generally means grassy meadows or downs on which sheep or cattle feed.

7. Give an example of kindergarten exercises that may be used to stimulate invention and imitation in young children.

Froebel's third "gift" consists of a large cube, made up of eight small cubes. These may be arranged in an almost endless variety of forms by intelligent children, assisted by their teachers. Some of the forms have been thus designated by Froebel: A cube, or kitchen-table; fire-place; grandpapa's

chair; a sign-post; a cross; two crosses; a well; double ladder; triumphal arch; bridge, with keeper's house. These exercises stimulate the faculty of invention and of imitation.

Froebel's fourth "gift" consists of a large cube, made up of eight oblong parts. These may also be arranged into many forms, as—a bee-stand, a bell-tower, a closed garden wall; a city gate; a sofa; a writing-desk; tombstones of various shapes; monuments of various shapes; winding stairs.

Froebel's fifth "gift," a large cube consisting of whole, half, and quarter cubes, and his sixth "gift," consisting of doubly divided oblongs, may be used in a similar manner, to produce forms of a still more varied and complicated character. Thus the sixth gift may be arranged as a house without roof, a colonnade, a summer-house, an altar, etc.

The thirteen (one of the later or supplementary "gifts") consists of materials for cutting paper into various shapes, and mounting and combining these so as to produce different forms of greater or less degrees of complication.

Froebel's occupations or "plays," specially those which he called the "movement plays," are well calculated to stimulate the faculty of imitation. In them the children imitate various forms of natural life and motion, as—the flying of birds, the swimming of fish, the sowing of seed, mowing, threshing, grinding, etc. These may be accompanied by musical exercises.

8. Point out some of the uses of object lessons in infant schools, and illustrate your answer by short notes of a lesson on "The Whale," or on "Iron."

(a) To cultivate the power of *observation*. The children should be taught to observe each part of the object, to describe its position, shape, size, colour, etc.

(b) To cultivate the power of *thinking and reasoning*. This should be done chiefly with the elder children. They should be taught to reason out for themselves, *why* an object, or any part of it, is a certain size, shape,

colour, etc., or why it is formed of the particular material.

(c) To cultivate the power of *expression*. The children should be encouraged to describe for themselves the position, shape, etc., of the object, and of each part of it. They will thus gain the power of using the words already comprised in their vocabulary, and will acquire the command of additional ones, naturally and judiciously introduced by the teacher.

The points given above may be illustrated by the following sketch of a lesson on "The Whale."

I. *Structure*—(A picture should be hung up before the class.)—Immense size: Compare length with that of a man, or of a horse, or with that of the school-room; also with that of an elephant (our largest land animal); general shape.

Parts of the body: Great head—vast mouth (15 or 16 feet long)—small eyes—fins—blow-holes on the top of head—immense tail. Get the children to describe shape and size of each, comparing with similar parts of other animals.

II. *Habits*.—(Here and under next head children may be taught to *think* by being brought to notice how the structure is adapted to the habits and food of the animal.)—Swims rather slowly, not more than four or five miles an hour. This on account of vast size of body compared with that of fins. Can dive and dart very swiftly.

Whale is not properly a fish, though it lives in the water. Cannot remain under water so long as fishes. Generally swims on, or just under, the surface of the water, so that it may breathe the outside air frequently. Hence provided with large blow-holes.

Suckles its young like quadrupeds. When doing so, lies near the surface, and rolls from side to side, so that she and her young may be able to take breath in turns.

III. *Food*.—Feeds on small fish. Cannot swallow large ones, because its throat is very small for so large an animal.

When it wishes to eat, it opens its vast mouth, and a large volume of water, con-

taining fish, enters its jaws. The whale then closes its mouth, the water is forced out in high jets through the blow-holes, and the fish are swallowed.

[The above heads would be enough matter for one lesson in an infants' school. Another might be given on the capture of the whale, and its uses to man. Many interesting points might here be taken, as the kind of vessels and sailors employed in the whale-fishery, the mode of proceeding, the parts of the whale taken out before the carcase is abandoned, and the preparation of the oil and whalebone. Each point could be used for the three purposes mentioned above.]

SPECIAL EXAMINATIONS,
DECEMBER, 1882.

Intermediate.

BOOK-KEEPING.

1. Explain the use of the Day Book, Trial Balance, Cash Book. How do you transfer an entry from one book to another?

2. State the different kinds of Accounts; and explain the process of closing the Profit and Loss Account.

3. Define the terms Assignee, Bonded Goods, Bounty, Invoice.

4. Write out the form of (1) a Promissory Note, (2) a Bill of Exchange. What do you understand by "endorsing" a Note?

5. What are the advantages of Double Entry?

Make the proper entries for the following:

(a) Purchased Mdse. amounting to \$1,000, for which I paid in cash \$300, and for balance my note, due 3 months hence.

(b) Borrowed \$2,000 from *A. B.* for four years, for which I pay interest half yearly, at the rate of 6 per cent. per annum.

(c) Sold goods amounting to \$400, for which I received \$200 cash, and for balance note due six months hence.

(d) Note of \$200 overdue two months; interest at 6 per cent. per annum.

CONTEMPORARY LITERATURE.

THE ODYSSEY OF HOMER, done into English Prose, by S. H. Butcher, M.A., and A. Lang, M.A. Third edition. New York: Macmillan & Co. 1882.

THE readers of the versified translations of either the Iliad or the Odyssey must be exceedingly rare. Indeed it seems as if a poetical version of these epics were impossible. Nor are we now in need of poetical versions; but there is always room for a prose translation, executed in a scholarly way and in a literary spirit. To the English student unacquainted with Greek, such renderings are invaluable. But dreary indeed to such a reader must be the average translation of the ancient authors; and to such a one, also, the praise bestowed upon the ancients must seem greatly exaggerated.

The present version of the Odyssey has been for some time before the world, and it really needs no praise from us. It is not a "crib," nor a piece of literary hack-work, but a scholarly production, worked out in a literary spirit, and will give, we believe, a fuller, finer, and clearer idea of the original than any rendering we have seen of this fair

monument of ancient literary skill. The work would make an admirable prize for High School scholars who do not learn Greek.

A GRAMMAR OF THE MODERN SPANISH LANGUAGE, by William I. Knapp, Professor in Yale College. Boston: Ginn, Heath & Co. 1882.

WE hope that this grammar may incite many of our young men to a study of the beautiful language of Castile, though there is not perhaps in this language the same lively interest which French, German, or Italian excite. But to the scholar, Spanish presents many attractions, both literary and philological. It is easy of acquisition, even without the aid of a master, and that is no slight recommendation to one of studious habits and little leisure.

Professor Knapp, who is already known to students of Spanish, has prepared a manual of the present-day language of Madrid, which, we believe, will be exceedingly helpful to those whose tastes or necessities lead them to make a study of the language of Cervantes and Castelar.

EDITORIAL NOTES.

THE MINISTERSHIP OF EDUCATION.

THERE is no reader of the MONTHLY, we feel sure, who will not unfeignedly regret the illness of the Hon. Mr. Crooks, or withhold from him active sympathy in the trouble that has befallen him, in the midst of his trying and exacting duties. The break-down of his constitution is an impressive indication of the extent to which the Minister has taxed himself in the administration of his Department, as it also speaks of official friction and the cares and worries of office which bear heavily upon even the most robust frame in the enjoyment of the best of health. It is a question that will arise in many minds whether it is well for any public man to put such a strain upon himself as Mr. Crooks has for years past undergone. The charge of a Department, such as that of Education in Ontario, is certainly as much as one man can overtake, without having to assume his share of work in the general political administration of the Province. And this introduces the question whether we do wisely in connecting the Executive of Education with any Cabinet office, and of subjecting its administrator to the harassing troubles and the responsibility which attach to a Department of the Government. Nobody, of course, denies the advantages of having a head directly accountable to the House and the country in charge of our educational affairs; but it may reasonably be said that the plan has its disadvantages, and in one aspect it has its grave perils. Herbert Spencer has said that the aim of school discipline should be to produce a self-governing being, not to produce a being to be governed by others. The latter, we fear, is just what a Minister of Education must be. He is not and cannot be his own master. Attach the

bureau to a political party, and the political party will "run" and control it. There may be resistance, and the best of resolves to keep the Machine at arm's length, but at arm's length the Machine and the Bosses will not stay. We do not affirm that Mr. Crooks has of set purpose allowed politics to govern him; but if they have not governed him they exercise their influence both upon him and upon others about him. We must remember, moreover, that the Ministership has been tried under exceptionally favourable circumstances. Had there been repeated changes of Government during Mr. Crooks's régime, will any one say how the experiment of a political head to the Department would have fared? In the merely personal interests of Provincial politics it is not difficult to tell what disasters would have befallen education. As it is, Mr. Hardy may declaim as he likes upon the neutrality of the Department, but he will not remove the suspicion that our educational affairs have suffered and are suffering by the alliance with politics. This is not alone to be seen in acts of commission as in those of omission, and, particularly in Departmental acquiescence in the acts of others which were prompted by, and had their inspiration in, party politics. That the safety of education lies, and can only lie, in the complete severance of the political connection, scarcely requires to be said. The Government organs may be dragooned into affirming the contrary, but the opinion of the country at large is a unit on the point. Educational administration must of course be subject to legislative control, but this can be secured by machinery which will not put grit in the wheels and debase its work. Nor are the experiences of the Ryerson régime to be taken as an indication of the disadvantages of the other system. The Ryerson reign was an exceptional one, and its bureau-

cratic character the result of undue and unchecked license. In going back to a Chief Superintendency and a Council of Public Instruction, there is no desire, as there is no need, to go back to Absolutism.

DR. NELLES ON SCIENCE AND RELIGION.

WE make no apology for giving space in our columns to the address of President Nelles, of Victoria University, on the occasion of the installation of a Professor of Natural History and Chemistry in that institution. Dr. Nelles has a timely word for the necessity of having science taught in our academical institutions by men who are in sympathy with religion, and whose faith is not subverted by the destructive criticism of the age. The dogmatism of science is as objectionable as that of religion; and both are antagonistic to the spirit of culture and the literary instinct which enlightened thought and a true liberalism should seek to instil in the youth of the land. The rationalizing influences of modern scientific literature wants the wholesome corrective which a teacher of science loyal to Christian truth, imbued with a spirit of reverence, and impressed with a sense of the mystery of life, can most effectively impart. Nothing is more fatal to nobility of mind, or more depressingly checks aspiration, than the negation of the age; and any force in our colleges that will fight this influence, and deal with science, not in the mechanical and coldly intellectual spirit of the times, but, recognizing the essential spiritual facts of life and nature about one, and with that glow which a fervid religious spirit infuses, will do an inestimable service to mankind.

THE NORMAL SCHOOL SESSIONS.

WE cannot be charged with having much reverence for the work of the Normal Schools. What little we have we fear will speedily disappear if besides dissatisfaction with the character of their work we have to bear the infliction of endless communications

from incensed students complaining of the inconveniences to which they are unnecessarily subjected by recent changes in the Normal School Sessions. Hitherto these institutions have closed and re-opened at the same times as the Public Schools of the Province. Now the second session ends and the first begins in February. As the teachers' engagements are made in the beginning of January the serious embarrassment produced by this last official caprice will be readily understood. No possible reason can be assigned for the change other than the Minister's desire to secure for the half-dozen under-worked and under-qualified Normal School Masters the length of vacation to which their delicate constitutions have become inured. The true principle of government is the greatest good to the greatest number, but this, like many other wholesome maxims, is ignored at the Education Office. It is well known, too, that Mr. Crooks's most influential advisers have little sympathy with the toiling teacher and no regard for his convenience or comfort. In their estimation he is a creature whose morality is to be maintained by regulations, whose professional ability is the favourite subject of departmental experiment, but whose circumstances are to be considered—never!

SCRIPTURE READING IN PUBLIC SCHOOLS.

AFTER considerable inquiry on this important subject, we find the mode of conducting the devotional exercises and Scripture reading in our Public Schools to be one or other of the following:

1. No reading of the Scriptures or prayer morning or evening.
2. No reading of the Scriptures, but prayer by the teacher.
3. Reading of the Scriptures and prayer by the teacher.
4. Reading of the Scriptures by the teacher, scholars have their Bibles, look on and follow the teacher in his reading; prayer by the teacher.

5. Reading of the Scriptures by both teacher and scholars; prayer by the teacher.

The first mode largely prevails in the schools. The second mode, viz., Prayer but no reading of the Scriptures, is adopted by many of the masters; whilst the last, the most effective for instruction in morals, does not obtain in more than four out of every hundred schools.

The form of prayer used is that prescribed by the late Council of Public Instruction.

WE gladly welcome *The Acadian Scientist*, published at Wolfville, N.S., in the "interests of the Acadian Science Club." It promises to be an exceedingly useful little journal, and will no doubt do much towards fostering a love of science generally, but especially by way of providing a medium of communication between the members of the Club, which aims at the encouragement "of young men and women, who are not at present able, from whatever cause, to enjoy the advantages of an academic or collegiate training, to undertake and continue a systematic course of study at home." The *Scientist* is published monthly at twenty-five cents per annum. Every teacher should be a subscriber. Address A. J. Pineo, Wolfville, N.S.

THE readers of the MONTHLY who have been lately engaged in the critical study of Addison's *Spectator* will, we have no doubt, be interested in the perusal of the article on the "Social Life of the Reign of Queen Anne" which opens our present number. The paper is from the pen of a brilliant Canadian writer whose work needs no word of ours to secure it attention. The volumes of which the paper is a brief epitome contain an exhaustive and realistic picture of an age full of curious interest to the student of social and literary life.

THE pupils in Toronto schools are being drilled to save themselves in case of fire, and a minute sufficed to clear out a whole division. It is to be presumed that the drill includes methods of escape when the usual exits are barred by flames and smoke.—*Montreal Witness*.

VICTORIA UNIVERSITY.

INSTALLATION OF A PROFESSOR OF NATURAL HISTORY AND CHEMISTRY.—ADDRESS BY PRINCIPAL NELLES.—HE DWELLS UPON THE CONSONANCE OF SCIENCE AND RELIGION.

The installation of a new Professor in the Science Department of Victoria College, Cobourg, on January 19th, marks an important era in the progressive development of that institution. Previous to the building of Faraday Hall, about four years ago, the Scientific Department in Victoria occupied an inferior position, but since that time apparatus and equipments have been procured from Germany, and with those aids to the proper study of the physical sciences Dr. Haanel, the head of the department, has brought it to its present high state of efficiency.

The proceedings of the evening opened with the following address by the President of the College, Dr. Nelles:—

LADIES AND GENTLEMEN,—We are assembled this evening for the public and formal induction to office of a new Professor of Science in Victoria University, Dr. Arthur P. Coleman, who has been recently appointed by the College Board to the chair of Natural History and Geology.

In selecting men for such positions, the authorities of our University have never thought it right to be limited by narrow considerations of any kind, whether sectarian, national, or academic. Science and literature are cosmopolitan, and we feel it our duty to seek for the most competent and suitable men, in whatever University they have been trained, or to whatever nation they belong.

The gentleman who has so long and with such surpassing efficiency filled the chair of Classical Literature is a graduate of Trinity College, Dublin, one of the oldest and most famous of the universities of Europe. When, not long since, an adjunct professor was required to assist both in ancient and modern languages, the Board secured the services of a high honour man from the University of Toronto, and we have great reason to congratulate ourselves on the selection then made. Our Professor of Chemistry and Physics is a native of Germany, and a graduate of a celebrated German university. Under his guidance and inspiration a fresh impulse has been given

to the study of Natural Science, not only in Victoria University, but to some extent throughout the Dominion, and a reputation has already been acquired, of which the friends of the University are justly proud. Our other professors, including the Dean of the Faculty of Theology, are graduates in Arts of our own University, but each one of these has enjoyed for a term of several years the advantages of residence and study in the universities of other lands. In the case of Dr. Coleman we are glad to obtain the services of one who, having carried away the highest honours of his Canadian Alma Mater, has since resided for a lengthened period in Germany, in the earnest pursuit of science, especially of those branches of science which he is now appointed to teach. His degree of Doctor of Philosophy, won by close study and severe examination, is an additional guarantee of his fitness for the chair which he is here to occupy. There is always some risk in the importation of a foreigner for the discharge of such duties, and it is a happy condition of things when academic authorities can get possession of a well-tryed and distinguished graduate of their own, with the super-added accomplishments of a foreigner.

But the authorities of Victoria University are expected to look for other qualifications than those of a merely intellectual kind. Knowledge is not education, and a college professor, being an educator, is something more than a teacher of science or literature. It is a part of his work, and a very important and critical part, to inculcate high principles of action, to mould the character, and to foster the love of moral and religious excellence. The best, if not indeed the only adequate, foundation for such excellence, is to be found in a reverential regard for the Holy Scriptures, and a hearty acceptance of the Gospel of Christ. But the times in which we live give occasion for watchful and jealous care, lest, along with the acquisition of science, our students should receive a subtle but deep and permanent alienation from the Christian faith. There are many famous and popular teachers of science in our day who are out of sympathy with the religion of the Cross, and such men, however eminent in their special departments, are not the kind of men we would wish to have as educators in a Christian university. When authoritatively installed in a college

lecture room they are only the more dangerous in proportion as they are more learned, eloquent, and influential. And if it be replied that their business is to teach science and not religion, we cannot forget that a man of irreligious or sceptical spirit will soon be known as such, and the writings of men like Tyndall, Huxley, and others remind us that many of these so-called specialists of the laboratory are far from keeping themselves, in the manner thus alleged, within the boundaries of their own workshops; are in fact rather fond of proclaiming, as in the celebrated "Belfast Address," the antagonism of their scientific speculations to the doctrines of the Gospel. All due respect to the great name of Charles Darwin. Let us not complain that he was invested during life with the highest honours of a renowned English University, nor that he was laid at death with "triumphant obsequies," in Westminster Abbey, by the side of the illustrious and saintly dead. Let these things stand as a pleasing proof of the liberality of the age and as a deserved tribute to Darwin's eminent gifts, his ardent devotion to science, his conspicuous candour, his spotless life, and his marked success in throwing new light on many of the apparent anomalies of nature.

But for instructors and guides of youth, let us rather seek for men who, while possessed of a true love of learning and competent ability to teach, still adhere to the faith of Christ, the religion of Newton, Kepler, and Faraday, and, on this continent, the religion of Agassiz, Dana, and Dawson. Such men, too, are less likely to teach for science what is yet only in the region of conjecture, and after the manner of Milton's half created lion, is still "pawing to get free its hinder parts" from the rude groundwork of hypothesis. We have heard much in late years of the reconciliation of science and religion. One form of reconciliation, and perhaps the best form, is presented in the life and character of men who, like Michael Faraday, unite, in their own persons, a profound knowledge of science with an equally profound spirit of religious reverence and Christian faith. Such are the men whom we desire to have as professors in our University, and such a man, in spirit and promise, I believe we have in Dr. Coleman, whom now, on behalf of the Board, I have the pleasure of introducing to the Senate.