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THE CANADA EDUCATIONAL MONTHLY.

MAY, 1902.

ARNOLD OF RUGBY.

Rev. Herbert Symonds, D.D., Head Master of Trinity College
School, Port Hope.

It will be interesting to consider the kind of assistant Arnold desired to associate with him. In writing a letter of enquiry for a master, he says "what I want is a man who is a Christian a gentleman, an active man and one who has common sense, and understands boys. I prefer activity of mind and interest in his work to high scholarship: for the one may be acquired far more easily than the other." To one of his masters upon his appointment he wrote. "The qualifications which I deem essential to the due performance of a master's duties here may in brief be expressed as the spirit of a Christian and a gentleman,—that a man should enter upon his business not as a side issue, but as a substantive and most important duty—that he should be public spirited, liberal and entering heartily into the interest, honour and respectability and distinction of the society which he has joined; and that he should have sufficient vigour of mind and thirst for knowledge, to persist in adding to his own stores without neglecting the full improvement of those whom he is teaching. I think our masterships here offer a wide field of duty, and I would not

bestow them on any one whom I thought would undertake them without entering into the spirit of our system heart and hand." In his dealings with his masters he always sought to increase in all possible ways their importance and their interest in the place. "In matters of school discipline he seldom or never acted without consulting them. Every three weeks a council was held, in which all school matters were discussed, and in which every one was free to express his opinion or propose any measure not in contradiction to any fundamental principle of school administration," and in which it even happened not infrequently that he was outvoted.

In all schools the question of discipline is at once one of the utmost importance and difficulty. To be just, kind, and firm, to estimate fairly the degrees of worry in school escapades, is a task of the most arduous difficulty. There are certain main positions taken by schoolmasters in regard to discipline. There are those who do and those who do not believe in corporal punishment. There are those who think that the discipline of a

school should be of the military type, and there are some who see a good model in the monastic type. Arnold's ideas of discipline seem to me to strike the happy mean. Military discipline is not good for a school, nor monastic. They are neither of them natural to growing boys. Military discipline exists for a certain end peculiar to one profession. On this head the following words by an American Superintendent of schools appear to me full of common sense. "Not long since I read in an educational journal an article upon school discipline, in which the writer said that obedience must be immediate and absolute.—Obedience immediate and absolute? For the soldier on the battle's edge—yes; but for the child with his instincts of self hood, his budding reason, his untrained will, and his intuition of freedom, the thing is unreasonable, absurd and impossible. Which of us can at all times control his will or command his attention to a dull discourse, a stupid book, or an uninteresting recital? Prompt and cheerful compliance, I admit; but "immediate and absolute"? The words savor of the drill master, the martinet, the tyrant, the despot, rather than the teacher, and guide of youth."

I think Arnold would have agreed with the spirit of this quotation. He came to Rugby in the days when the cane was the one great instrument of punishment, when little or no real consideration was given to the object of punishment. Every kind of offence was treated in the same way.—The result was bad. Arnold at once "made a great alteration in the whole system of punishment in the higher part of the school, keeping it as much as possible in the background, and by kindness and encouragement attracting the good and noble feelings of

those with whom he had to deal—Arnold did not abolish corporal punishment but he sought to diminish it in every possible way. "The *beau ideal* of school discipline with regard to young boys would seem to be this, that whilst corporal punishment was retained in principle as fitly answering to and marking the naturally inferior state of boyhood, and therefore as conveying no peculiar degradation to persons in such a state, we should cherish and encourage to the utmost all attempts made by the several boys, as individuals, to escape from the natural punishment of their age by rising above its naturally low tone of principle."

One of the evils of a great school of 300 or 400 boarders is the spirit of combination for evil. Cliques of lazy or bad boys are formed who find it sometimes easy to set up a low public opinion. They may discourage by sneers the industry of the school as a whole. No one who has ever had personal experience of a boarding school of the size of Rugby but knows how successive waves of public school opinion sweep over it, now high now low. At the very sight of a knot of vicious or careless boys gathered round the school house fire Arnold used to say that he seemed to see the Devil in the midst of them". He often preached about it, and it was always the source of his deepest anxiety.

He sought to overcome this difficulty through the medium of the highest form in the school, the VIth. He had difficulties here of course.

There was not always perfection, but he said. "When I have confidence in the sixth there is no post in England which I would exchange for this; but if they do not support me I must go."

Expulsion was a remedy he had determined to apply in cases of ob-

stinate badness. Unquestionably he was right. No doubt it may be a serious blow to a boys prospects in life. But when a boy is known to be hopelessly idle, when no form of punishment reforms him, when conscience itself seems, as unfortunately it sometimes does seem, to be dead in a boy, then expulsion is a necessity. It is not necessary always publicly to expel. A boy's father may be advised that his son is not spending his time profitably and be recommended to remove him. But there were not a few cases in which boys were either expelled or removed, and at first it provoked parents to wrath, and threatened serious loss. He was exposed to public attacks in the newspapers and the Governing Body had their misgivings. That he overcame all difficulties, and brought the school up to a high state of efficiency in numbers, discipline and scholarship every one knows. The time came when the numbers of the school rose beyond the limit within which he wished to keep. Moreover Rugby boys came to be noted for their excellent qualities when they went out into the large world. That Arnold felt that he had realized his ideals is far from the case. There is no man who cherishes worthy ideals but is conscious of falling short of them. "I came up to Rugby," he said, "full of plans for school reform; but I soon found that the reform of a public school was a more difficult thing than I imagined." "With regard to one's work" he wrote "be it school or parish. I suppose the desired feeling to entertain is always to expect to succeed, and never to think that you have succeeded."

No sketch of Arnold's school work would be complete without reference to Rugby Chapel. We have seen how at the outset of his

career Arnold thought it hardly possible to make Christian boys, but that the seeds of true Christian motives and ideals could be sown in their hearts so as to produce Christian men. It was in Rugby Chapel that these seeds were liberally sown. As we read those sermons to day we feel sure that many of the boys must have found their atmosphere too rarified for their spiritual constitutions. But over and above the words was the manner in which they were delivered. His intense earnestness affected all, and made an impression which the mere words alone could not. But on the other hand not a few boys were profoundly affected by the sermon itself. He sought to apply the lesson of the sermon to the boys' own circumstances and life. Many a head master in England has done this since. But it was a novelty in Arnold's days. Stanley writes that: "It is difficult to describe without seeming to exaggerate, the attention with which he was heard by all above the very young boys. Years have passed away, and many of his pupils can look back to hardly any greater interest than that with which, for those twenty minutes, Sunday after Sunday, they sat beneath that pulpit, with their eyes fixed upon him, and their attention strained to the utmost to catch every word he uttered."

Let us cull a few examples of his style and method from his published sermons. Here is a passage from a sermon in which with intense earnestness he is urging upon his hearers the duty of struggling against all evil everywhere, and to forward Christ's kingdom.

"Everyone of you has such a duty, and has to beware of the sin of neglecting it. But as the neglect of it is worst of all in us, so it is in

the last degree worst in those, who in age and station and authority, are advanced above the rest of the school. I cannot deny when I look around and see how many are here assembled, I cannot deny that the oldest and most advanced among you have an anxious duty, a duty which some might suppose too heavy for your years. But it seems to me the nobler as well as the truer way of stating the case to say, that it is the great privilege of this and other such institutions, to anticipate the common term of manhood; that by their whole training they fit the character for manly duties at an age when under another system such duties would be impracticable." He proceeds to address next the boys in the middle forms of the school and lastly the youngest ones. To these he says, "See whether you too have not your influence, and whether you also do not sin often by neglecting it or misusing it. By whom is it that new boys are corrupted? Not certainly by those much above them in the school, but necessarily by their own immediate companions. By whom are they laughed at for their conscientiousness, or reviled and annoyed for their knowledge or their diligence? Not certainly by those at or near the head of the school, but by those of their own age and form * * * I know not what greater sin can be committed, than so talking and so acting to a new boy, as to make him ashamed of anything good, or not ashamed of anything evil." In another sermon he speaks of the kind of sins to which boys are particularly liable. "The actual evil which may exist in a school consists, I suppose, first of all in direct sensual wickedness. It would consist in the next place in systematic practice of falsehood—when lies were told constantly by the great majori-

ty, and tolerated by all. Thirdly it would consist in systematic cruelty, or if cruelty be too strong a word, in the systematic annoyance of the weak and simple, so that a boy's life would be miserable unless he learnt some portion of the coarseness and spirit of persecution which he saw all around him. Fourthly, it would consist in a spirit of active disobedience—when all authority was hated, and there was a general pleasure in breaking rules simply because they were rules. Fifthly, it would include a general idleness, when everyone did as little as he possibly could. Sixthly, there would be a prevailing spirit of combination in evil and in companionship; by which a boy would regard himself as more bound to his companions in ties of wickedness, than to God or his neighbours in any ties of good."

To this last subject he devotes an entire sermon, seeking to promote a healthy kind of school boy friendship. "Earnestly" he cries, "do I desire to see such friendships grow up and multiply among you; most anxious am I that you should derive from each other a greater good than we could possibly communicate to you. I would be most thankful if any one of you, serving Christ faithfully hereafter were to look back on his life here, and feel that the good which he had derived from us, was as nothing to that which he had acquired from the friends whom he had found amongst his schoolfellows. This would be our greatest rejoicing and glory, that others amongst your own body should have helped you on the way to eternal life, far more than we had done. Overcome in this Christian contest, and there can be nothing so happy for yourselves, nothing, so happy for us."

How great an effect was produced

by this kind of preaching, united as it was to a life that was felt to be above all other things religious—the following letter will prove. I quote it at some length because of its interesting if melancholy description of the low ebb of religion in public institutions at the period when Arnold went to Rugby. It was written by another distinguished school master, the Head of Winchester School, Dr. Moberly. “The tone of the young men at the University” (when he was there) whether they came from Winchester, Eton, Rugby, Harrow, or wherever else, was universally irreligious. A religious undergraduate was very rare, very much laughed at when he appeared; I think I may confidently say, hardly to be found amongst public school men. . . . A most singular and striking change has come upon our public school. This change is undoubtedly part of a general improvement of our generation in respect of piety and reverence, but I am sure that to Dr. Arnold’s personal earnest simplicity of purpose, strength of character, power of influence and piety, which none who ever came near him could mistake or question, the carrying of this improvement into our schools is mainly attributable. He was the first. It soon came to be a matter of observation to us in the University, that his pupils brought quite a different character with them to Oxford than that which we knew elsewhere. . . . His pupils were thoughtful, manly-minded, conscious of duty and obligation, when they first came to college. This is the testimony of a man who held theological views the opposite of those of Arnold and is therefore of the more weight. He adds, “he regretted, indeed that his pupils were deeply imbued with principles which he disapproved, but he cordi-

ally acknowledged the immense improvement in their characters in respect of morality and personal piety and looked on Dr. Arnold as exercising an influence for good, which (for how many years, I know not) had been absolutely unknown in our public schools.”

In addressing such an audience as this upon the theological opinions of Arnold of Rugby, it is not necessary to speak at any great length. I do not propose to weary you with details of what would be only interesting to Anglicans. But some statement of his position in regard to religion whether of the Anglican or Nonconformist type, must be made if our outline is to be complete. There have been in the last 150 years three main religious movements in the Anglican Church. The Evangelical Revival which belongs to the eighteenth Century and the High Church and Broad Church movements which belong to the first and second quarters of the 19th Century. Arnold was a strong Broad Churchman, who in the midst of his cares and duties at Rugby found time to interest himself in the large life of the National Religion of England.

A Broad Churchman is sometimes supposed to be a Christian lukewarm in his Christianity and a Churchman who is positively cold to his Church. Both of these ideas are erroneous. We have but to name such men as Dean Stanley, F. D. Maurice, Robertson of Brighton, Charles Kingsley and many others who were amongst the most devoted men of the 19th Century. Nor shall we suppose that Arnold was lukewarm about anything. Nor must we assume too readily that because a man is not in sympathy with High Church views that he

therefore regards with coldness his own communion.

Arnold was strongly in favour of an established Church. In idea he regarded the Church as equivalent to the state. They were different aspects of one and the same thing. The State is the people looked at from the political side. The Church is the people regarded from the religious point of view. This was in truth the truly Anglican position as defined by many of its best writers. He regarded with intense grief the divided condition of Christendom. That men who were free should all exactly agree in either the matter of forms of worship or in the details of doctrine he did not suppose possible. But he did not think that such differences of necessity involved absolute separation. In the matter of doctrine the Church of England is liberal. She has in her bosom men whose doctrines are not so very far from those of the Roman Church. She has the most ardent Protestants in the world. She has Calvinists and Armenians and Latitudinarians. But she is less liberal in the matters of worship. Arnold would have altered all this, and have made the Church wide enough to have included all great denominations. "Arnold" says Mr. Fitch, "believed that so long as the only unity the churches can understand means uniformity of belief and opinion, and not identity in moral and spiritual aim; so long as the battle of the sects is a fight for creeds rather than a war against sin and ignorance, unity is simply impossible in any country in which there is any intellectual life at all." Arnold it is to be borne in mind died at the age of 47. Had he lived longer he would, no doubt, have been called to a Deanery or Bishopric where he could with greater power have urged his views

upon the country. But looking at the history of the movement for 19th century, it seems clear that unity is not to be obtained by any formal proposals of articles of belief or forms of worship, but rather by the spontaneous drawing together of all good people. The City of Toronto has seen within the last few weeks a remarkable gathering of young men of all denominations. Yet the question of denominationalism was not raised. For the time being unity was achieved. And so it is steadily coming to pass that the old barriers are melting away in the warmth of the sense of Christian brotherhood and a common purpose, and unity is actually being achieved as all great things are achieved by a process of growth. But we must not forget that although the cut and dried schemes of the pioneers of the movement have passed away, yet to such men as Arnold of Rugby belongs the title of seed sowers. He taught the truth that a deeper foundation for spiritual unity than that of systems, articles or forms of worship must be found, and even though it be not expressed—foundations remember are under surface—yet such great gatherings of all who profess and call themselves Christians as the Students Volunteer Mission Association, really rest upon that deeper foundation of personal love of Christ and ardent zeal to promote the kingdom of righteousness, peace and joy in the Holy Ghost.

Arnold's life fulfilled its promise. What Provost Hawkins predicted came to pass. Arnold did change the face of education all through the public schools of England. But he did more than this. He stands out as one of the great formative influences in the lives of modern Englishmen. Nay more, a recent American writer claims that his has been

the best educational influence in the United States. His ardent faith, his chivalrous hatred of all that was mean and base and low in human life; his noble ideals and aspirations for all things that are honourable and of good report, his lofty conception of the purpose and chief points of education, these things have given his name a place on the roll of the saints of God, and the leaders of men.

Splendidly has Arnold's distinguished son in his poem Rugby Chapel given expression to all this.

If, in the paths of the world
Stones might have wounded thy feet.
Toil or dejection have tried
Thy spirit, of that we saw
Nothing, to us thou wast still
Cheerful and helpful and firm ;
Therefore to thee it was given,
Many to save with thy self,
And at the end of thy day,
O faithful shepherd ; to come
Bearing thy sheep in thy hand.

And through thee I believe
In the noble and great who are gone

Pure souls honour'd and blest
By former ages, who else—
Such, so soulless, so poor,
In the race of men whom I see—
Seem'd but a cry of desire—
Yes ; I believe that there lived
Others like thee in the past
Not like the men in the crowd
Who all round me to-day
Bluster or cringe and make life
Hideous and arid and vile ;
But souls tempered with fire
Fervent, heroic and good,
Helpers and friends of mankind.

Servants of God ; or sons
Shall I not call you ? because
Not as servants ye know
Your Father's innermost mind,
His, who unwillingly sees
One of his little ones lost—
Yours is the praise, if mankind
Hath not as yet in its march
Fainted and fallen and died.

Then in such hour of need.
Of your fainting, dispirited race,
Ye like angels appear,
Radiant with ardour divine ;
Beacons of hope ye appear ;
Languor is not in your heart,
Weakness is not in your word,
Weariness not on your brow.

NOTES ON ENGLISH IN AMERICA.

Prof. William F. Stockley, M.A., University of N. B., Fredericton.

The San Francisco "Argonaut" lately gave the following pairs of words:—

ENGLISH.	AMERICAN.
Trousers	Pants
Braces	Suspenders
Jacket	Sack-coat
Waist-coat	Vest
Biscuits	Crackers
Crackers	Snapping-mottoes
Rolls	Biscuits
Treacle	Molasses
Tart	Pie
Porch	Stoop
Hall	Entry
Jug	Pitcher

ENGLISH.	AMERICAN.
Chest of Drawers	Bureau
Walking stick	Cane
Great-coat	Over-coat
Bearing-rein	Check-rein
Reins	Lines
Coachman	Driver
Shop	Store
Fruiterer's	Fruit store
Ironmonger's	Hardware store
Drapers or Haberdasher's	Dry goods' store
Chemist's	Drug store
Green grocer's	Vegetable store
Coals	Coal
Print	Calico
Thread	Cotton

ENGLISH.	AMERICAN.
Reel	Spool
Porridge	Mush
A jibbing horse	A balky horse
Tobacconist's	Cigar Store
Beet Root	Beet
Cotillion	German
Keyless watch	Stem-winder
Bitter	Beer
Railway	Railroad
The line	The track
The metals	The rails
To shunt	To switch
A siding	A turnout
Engine	Locomotive
Driver	Engineer
Stoker	Fireman
Guard	Conductor
Luggage	Baggage
Luggage-van	Carriage-car
Goods train	Freight train
Pointsman or Signalman	Switch tender
Ill	Sick
Goodnatured	Clever
Clever	Smart
Smart	Fashionable

So far the examples which that paper gives, they suggest the difference which exists. Certainly, from San Francisco to Fredericton "American" is generally in agreement, as opposed to "English."

Mr. Brander Matthews will have it that "Briticisms" are corrupting pure American English. And several other American writers declare the time is soon coming when of course the standard of good English will have been set up on this side of the Atlantic.

On the other hand, an angry Englishman writes to the London Daily Chronicle, on "American barbarisms, as theater, meager, scepter," and on "miserable exotics. . . of a foreign and repulsive diction. . . utter abom-

ination in the eyes of an ordinary Englishman"; making his protest against "once a man makes this attempt," for "as soon as a man has made. . ."; and against "quite a crowd"; against "over your signature," for "undet your signature"; "plurality," for majority"; "I expect he did," for "I suspect he did"; "smoke-room," for "smoking-room" "sidewalk," for "pavement," or "path."

Why not, says this Englishman, why not "dine-room," "sit-room," "wait-room," and "middle walk," for road?

But he lets quiet light in on his fury, by allowing that "plurality" is in old dictionaries. The fact is there are Americanisms and Americanisms. Many are survivals. "My own experience," says Mr. George Newcomen, in the Academy, "is that most 'Americanisms,' and indeed 'Irishisms,' are properly archaisms." No one can have listened to various forms of English literature without knowing the truth in that remark. This writer cites "let slide" from Chaucer's "Clerke's Tale," and, of course, "I guess," from the "Prologue." And "right," as in "right away," is in Chaucer, in his "Tale of Meliboeus":—"And all were it so that she right now were dede." He notes among Americans of today "many quaint words"; "fall," for autumn; "pitcher," for jug; "freshet" for brook (sic). "Homely," he says, is invariably used to imply absence of beauty, and he quotes the "Two Gentlemen of Verona" (ii. 4 98), "Upon a homely object love can wink."

"In conclusion, I would sincerely express a hope that Americans

may hold fast to all 'isms' which are not vulgarisms. Life would be unbearable if everyone talked like a book. It is far better to use 'isms' than in the words of an illustrious Irishman 'to hide one's nationality under a cloak of personal affectation.'"

And so, thus to treat these matters, without rage in one's heart, but with a sober, literary, not to say pedantic outward coolness.

Quite lately, in Mr. Stephen Phillips' "Herod," we read:

"Am I that Herod

That, ere the beard was on me,
burned up cities,
That fired the robbers out of Galilee?"

A low American vulgarism, said some critics. But,

"He that parts us shall bring a brand from heaven,
And fire us hence like foxes."

("King Lear," v. 3 22); and Shakespeare has also the metaphorical use:—

"Yet this shall I ne'er know, but
live in doubt,
Till my bad angel fire my good
one out."
(Sonnet cxliv.)

The Athenaeum (Feb. 1, 1901) concludes that "Since it was discovered that the verb to 'fire out'—that is, to expel—occurs in the Sonnets, there has been less haste to accuse the Americans of tampering with the well of English undefiled."

Here are some more "discoveries" of the older use of our Americanisms:—

Fool.

"You see me here, you gods,
poor old man,

As full of grief as age; wretched
in both!

If it be you that stir these
daughters' hearts
Against their father, fool me not
so much

To bear it tamely; touch me
with noble anger,
And let not women's weapons,
water-drops,
Stain my man's cheeks."

("King Lear," ii. 4, 275.)

"Fool not; for all may have,
If they dare try, a glorious life
or grave."

(George Herbert, d. 1633.)

Fooling.

"Have no more fooling about
it."

("Merch. of Ven.," ii., 2, 88.)

"Thou wast in very gracious
fooling."

("Twelfth Night," ii., 3, 22.)

"The Knight's in admirable
fooling."

(Ib., 1, 85)

Carry On (intransitive).

"When it was known that more
than one court negotiation
was carrying on with the
heads of the opposition."

Burke (On American Taxation,
1774).

Mad.

"Now, in faith, Gratiano,
You give your wife too unkind
a cause of grief:

An 'twere to me, I should be
mad at it"

("M. of V.," v., 1, 176.)

As Mr. Pepys, on his side actually was; when Mrs. Pepys not carefully hid his gold, those troublous times of the London plague

and fire. "My wife did give me so bad an account of her and my father's method in burying of our gold, that made me mad; and she herself is not pleased with it, she believing that my sister knows of it. My father and she did it on Sunday, when they were gone to church, in open daylight, in the midst of the garden; where, for aught they knew, many eyes might see them; which put me into trouble, and presently cast about how to have it back again to secure it here, the times being a little better now." (June 19th, 1667.)

"Mad, in the provincial sense of the word."

Lowell (on a certain condescension in foreigners).

Make Out.

"Byron, born rich and noble, made out even less than Burns, poor and pleb."

Carlyle ("Heroes and Hero Worship," 1840).

"Make-out" is said to be midland provincial English to-day.

Lay.

"Just room for the parcel to lay between us."

Sterne ("Sentimental Journey Through France and Italy," c., 176, s).

"There let him lay."

Byron ("Childe Harold," iv., 180, c, 1820).

Was.

"You was."

Smollet ("Humphrey Clinker," July 13, c., 1770).

Platform.

"It would be expected that those who for many years had

been active in such affairs should show that they had formed some clear and decided idea of the principles of colony government; and were capable of drawing out something like a platform of the ground which might be laid for future and permanent tranquility."

Burke (on Conciliation with the Colonies, 1775).

Exercise.

i.e. religious duties, acts of devotion.

"And in no worldly suit would he be moved,
To draw him from his holy exercise."

("Rich III.," iii., 7, 64.)

"Much castigation, exercise devout."

("Othello," iii., 4, 41.)

"Once a day I'll visit the chapel where they lie; and tears shed there shall be my recreation; so long as nature will bear up with this exercise, so long I daily vow to use it."

("Winter's Tale," iii., 2, 42.)

A Glorious Time.

"The sons of Belial had a glorious time."

Dryden ("Absalom and Achitophel," 1681).

Gape (yawn).

"With all this, Dr. Johnson is always entertaining, never trite, or dull. His style is just what you say; sometimes admirable, sometimes laughable, but he never lets you gape."

Twining (Correspondence, May 3, 1784).

Help,

followed by infinitive without
"to."

So Lowell ("On a Certain Con-
descension in Foreigners")
has "I helped maintain."
"Good German, but bad
English, this," says an Amer-
ican critic, ignorant of the
past.

Milton has advised us where we
might "help waste (i.e.
spend) a sullen day."

And, in 1814, Miss Austen
wrote: "Till you come, and
help choose yourself."
("Letters," vol. ii., p. 224.)

For the following three words I
have not the references; but, ,

Combine,

as a substantive, was used in
England in 1610—for a plot
or conspiracy.

Collide,

is in Dryden (d. 1700). Yet,
about 1860-70, it was objected to
as an Americanism.

Compete.

In 1824 called a Scotticism or
an Americanism. Yet it is in Bp.
Hall (1624).

However, these last two are
used in England; and so they are
only looked at here by the way.

Lovely.

To say a person was not pretty,
but was lovely—"she ain't pretty,
what you call pretty, but she has a
lovely face, I think"—would be
meaningless to an Englishman;
though he does at times remem-
ber and quote or allude to "They
were lovely and pleasant in their

lives," and to "whatsoever things
are lovely and of good report."

However, even there the gener-
al English meaning of the word
influences one's feeling of the
sense of these passages; one looks
at the objects as fair, in appear-
ance.

But Burke speaks of "Our busi-
ness . . . to bring the dispositions
that are lovely in private life into
the service and conduct of the
commonwealth; so to be patriots,
as not to forget we are gentle-
men."

("Thoughts on the Cause of the
Present Discontents," 1770.)

And Hume: "Those qualities
which render a person lovely or
valuable." ("Treatise on Human
Nature," iii, 4.)

Chores.

An English writer in 1893 (The
Gentleman's Magazine), when de-
scribing "The American Lan-
guage," defines this word as "odd
jobs in the house." Further, he
truly declares that "it is of the
same root as our English 'charwo-
man.'" And he might have quot-
ed Shakespeare on

"The meanest chores."

("Ant. and Cleop.," iv., 15, 75.)

"Chores," our writer informs
his readers, "often occurs in Amer-
ican books"; and (because Eng-
lish people, he says, generally read
the ch as k), he tells them that the
pronunciation is "tshores."

But indeed a modern book of
local South-western English has:
"Her own little bits of work—
chores, as she called them—didn't
take her long, and were all done up
early in the day." H. C. O'Neill
("Devonshire Idylls, 1892).

Except (unless).

"Yet hens of guinea full as good
I hold,
Except you eat the feathers
green and gold."

Pope ("Satires," ii., 19).

Family.

Not only for relations.

Dr. Grant said lately to Queen's University students:—"You constitute, in a real spiritual sense, my family."

And so a Canadian housekeeper said of her boarders.

And Bp. Burnet said of the Lady Mary and her household: "Neither she nor her family would be there," to hear Ridley preach.

Ugly.

"Looked ugly upon them."

("Pilgrim's Progress," i., in re Despair.)

Behoove.

Modern English, behave.

"But Cordeill said she lov'd him
as behoov'd."

("Faerie Queene," ii., 10, 28, 1590).

"If he be of such worth as behooves him, there cannot be a more tedious and unpleasing journey-work, a greater losse of time levied upon his head, then to be made, the perpetuall reader of unchosen books and pamphlets, oftimes huge volumes."

("Arcopagitica," p. 54, Arber, 1644.)

VOCAL MUSIC IN OUR PUBLIC SCHOOLS.

Principal Ernest Smith, King's School, Westmount.

A comparison of the "tonic solfa," and old notations.

It is claimed by teachers of the Tonic Solfa notation that a student of ordinary ability can in a very short time become sufficiently familiar with music to be able to sing any ordinary tune, or song, at first sight with a fair amount of accuracy, and that this correct rendering, without the aid of an instrument, cannot be obtained until a much longer time has been spent in practice, if the old notation is adhered to.

In this article I shall confine myself to the use of these two systems in our Public schools, and shall deal with them only so far as they can be used by pupils at school.

Some centuries ago the scale of C natural was taken as the standard, or model, scale. It is composed of two parts, exactly similar, each part being a reproduction of the other, called a tetrachord. The scale as a whole comprised eight sounds, C, D, E, F, G, A, B, and the octave C.

By singing the first four of these sounds, C, D, E, F, a certain impression was made upon the mind; and by following this with the sounds, G, A, B, C, the most casual observer could get the same mental impression for the intervals in each case are the same. From C to D is one tone, D to E one tone, E to F half a tone. From G to A is one tone, A to B is one tone, and B to C is half a

tone. Now, since the lines of the staff are equidistant and parallel, these tones and half tones cannot be shown; but the Tonic Solfa system presents these differences to its students in an excellent manner by means of a chart called a "modulator." If the Tonic Solfa system had never gone another step beyond the production of this chart, it would have conferred a blessing upon those who could not tell where and why the essential sharps and flats occur in the various major and minor scales.

The first thing a Tonic Solfaist teaches his pupils is the scale of C major. Some teach it in tetrachords, others teach the common chord first, and follow on by teaching the intermediate intervals. Both methods have their advantages. In teaching the scale in tetrachords it is necessary to point out that when the upper half is added to the lower half there is an interval of one tone between the highest note of the one and the lowest note of the other.

After the scale has been thoroughly practised from the "modulator," the student is introduced to the manual signs, representing the sounds or intervals of the scale. These, if properly taught, are excellent, for they suggest in themselves the mental effect produced by the sounds they are intended to represent. For instance, the closed fist represents the fundamental note of the scale, that on which the scale is built. The sixth note of the scale is represented by the fingers drooping like a weeping willow, and suggesting the mournful or minor effect on the mind. I like these manual signs because they assist in representing musical sounds as a language.

Having become familiar with the scale, the next question is the combination of time and sound. This is represented to the eye of the student by what are termed pulses, and the complete measure, as in the staff notation, is marked off by a perpendicular bar, thus

| : : | : : |

the faint line marking the place for the weak accent. Each of these spaces is called a pulse or beat, and the measure is called two-pulse, three pulse, or six pulse measure, as there are two, three, or six spaces between the two perpendicular bars limiting the measure.

The real difficulty in learning Tonic Solfa music is met when the student begins to learn the "time-names." Well do I remember attending a tonic solfa class in England, where we were compelled to sing in monotone, night after night, these names:—

Ta, ta, ti, ta, ta, ti, ta, ta, ta, ta, ti; or ta, ta, ti, ta, ta, i, tafa, tafi, ta, ta, ti. The objection to these time-names is that they mean nothing to anyone but a solfaist. They take up an enormous amount of valuable time and so far as I can judge are never used even by the solfaist after he has spent a few years in learning them. A teacher who holds excellent tonic solfa certificates, told me, not long ago, that she wasted much time in learning what she now considers to be useless, and that she feels every time she gives a lesson in "time-names" that she is inflicting an imposition on her pupils.

Many tonic solfa teachers have told me the same thing. They object to wasting their time in teaching their pupils to say "ta." Now, whether the system or method be good or bad, the

teacher who feels every singing lesson day that she is "wasting time" will not succeed. Her singing lesson will simply be treated as a necessary evil, and her pupils, all of whom catch her spirit, will be careless, listless, indifferent. The question is: Where is the fault? Does the fault lie with the teacher, the system or the pupil? I must confess that while I admit that a great deal of Tonic Solfa music can be learned in a short time, the pupils who are merely solfaists will not be able at the end of their sixth, or even their tenth year at school, to pick up an ordinary church hymn book and at once sing correctly any one of the four parts: soprano, alto, tenor, or bass, at sight, or in all probability at all. If this is all that a Tonic Solfa training can do for its students surely it is not the best system to adopt. I believe without using the syllables, "doh, ray, mi, fah, so, lah, si," or the "ta ti" time-names, or the manual signs, pupils can be taught to read at sight music written in the staff notation, in less time than that required to learn the Tonic Solfa method. Let me explain a method which I have tried successfully. First, I would draw out a chart similar to the "modulator" referred to at the beginning of this article, but instead of using the syllables, I would use figures, calling the chart a musical ladder, of seven rounds or steps. It is clear that the half-tone occurs between the third and fourth and the seventh and octave of this scale. This is true of all major diatonic scales. By explaining that any sound can be made, the first sound or step of a major diatonic scale, and that the first note is always called the tonic,

the principle of the "movable doh" system is explained. Then show what an important interval a perfect fifth is in music by counting from 1 to 5, i.e., from C to G, and calling 5 or G the tonic of the first sharp key. Apply the scale, and it will be shown that in order to have half a tone between the 7th and 8th note, the figure 4 or sound F must be sharpened.

Five notes, or steps, from G we reach D, the second step in our original scale, and find that unless we sharpen the third note we have too great an interval between the third and fourth note of our new scale, and the same occurs at the seventh step (C), this must be sharpened. A repetition of this counting in perfect fifths bring us to A, E, B, F, sharp, and C sharp respectively. The flat keys are treated in reverse order. Count from C down to F (a perfect fifth) call C 5, for it is the fifth note of the key of F major, and unless we flatten B there will be too small an interval between the fifth and fourth step of the new scale. Therefore B is the flattened note in the scale of F major. Continue this process, counting in perfect fifths downward, and we shall find the flat keys to be F, B flat, E flat, A flat, D flat, and G flat, respectively. Now, the pupils have learned perfectly the scale of C major. They can sing a major diatonic scale correctly at any pitch within the limit of their voices, and are in a position to see these intervals represented on the staff. They should have the scale of C major placed before them on the staff, then the scale of G, then D, then

A, and should be taught to sing these at sight.

It is, of course, immaterial whether the old letters, doh, re, mi, etc., or the figures, 1, 2, 3, etc., are used, the intervals are identical. But the figures are preferable from a theoretical point of view. Now with regard to time. It seems to me that as the semi breve is now the longest note used in ordinary music, and further, as its shape is a complete figure O, it is very easy to call this the unit of time, a whole note. Put a tail to it, and its value is diminished by one-half. Fill in the oval and add a stem, and the result is a quarter note. Add to this quarter note a dash, and the result is an eighth note. Let these be the names of the notes always; but, of course, if we are singing a piece of music in 12-8 time, for example, every quaver can for convenience be called 1 in beating time. It will be understood that the one means 1-8, and that there are in each bar 12 eighth notes or one and a half whole notes.

A splendid way to learn the relative value of notes and rests is to play musical dominoes. In this game a crotchet is always called one, and the many combinations that can be used to make up the required number of crotchets is wonderful. As a boy, I found this game first funny, then interesting, and afterwards fascinating. But, in addition to all this the game fixed firmly in my mind the relative value of notes and rests, and removed all difficulty in counting time.

I am convinced that pupils in the third and fourth year can be taught to sing from the staff, at

sight, easy exercises and songs, and that by the time they leave the sixth class, they ought to be able to sing either the alto or soprano part of any ordinary school song or hymn tune, written on the staff, at sight, and without a mistake. Can Tonic Solfa students do this?

In suggesting the use of figures instead of letters, I may be accused of using the Tonic Solfa system under a new name. It will be seen, however, that the figure system is centuries old, and that since the interval of half a tone occurs always between the third and fourth and the seventh and eighth notes of a major diatonic scale, the figures are easier to remember. But there are several objections apart from those mentioned to the Tonic Solfa system. I give the following as an example of one which came under my own notice: Some years ago, I opened a singing class in a country school. I hoped to enlist the support and encouragement of the people and worked very hard, using as the simplest method, the Tonic Solfa notation. No one knew anything about it, but many had studied music, and I was required to answer these questions:

"Is the solfa good for a piano?"

"Can my girl use it in playing the violin?"

"Is music music, and this, Tonic Solfa?"

"Can you get the latest dances in Tonic Solfa notation?" and so on.

There is a great prejudice against "doh, ray, me" music in the country, and the professors of music who teach the cornet, flute, harp, piano, and all kinds of music

for twenty-five cents a lesson, have to confess themselves beaten when asked to play the doxology from a Tonic Solfa tune-book. They certainly do not feel disposed to uphold the system.

In the face of this manifest opposition, is it wise to compel our pupils (and especially those in rural districts) to learn music in a particular way, when by the use of

the staff notation a better result can be obtained in less time? By the term better result I mean a result which will last and be of permanent benefit.

The Tonic Solfa system has some excellent points, but after it has been completely mastered, the old notation must be studied, independently. Then, why not study it from the beginning and save time?

STUDIES IN ENGLISH GRAMMAR.

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The Value of Form as a Differentiating Factor in Parsing.

It is not unusual to find in works on English grammar a statement to the effect that English is an almost "grammarless" tongue. A fair deduction from this would seem to be that the teaching of this subject would present few difficulties. How far this is from being the fact is well known to every teacher of this branch of study. It is true that an English verb has ordinarily but six or seven variations in form as compared with over a hundred different inflected forms in the Latin verb. Yet what at first sight would seem to favor simplicity of structure in the English, viz., the absence of inflections and the power of functional interchange in the use of words, is really at the bottom of the greater part of the difficulty met with in the study of it. The mind of the student naturally demands that difference of

function should be in some way indicated by difference in form. Why not? Common sense would dictate that as a useful principle for guidance in matters of everyday life. The druggist or the grocer who would not take advantage of this most obvious way of distinguishing his wares one from another would be accounted extremely dull. But what is often the case in the teaching of grammar? Why, the teacher, in view of the fact that many English words admit of being used as different parts of speech, and also in view of the use of words, even when parsed as the same part of speech, in different senses, where in a highly inflected language the difference would often be indicated by a slight change in the form of the word, is apt to emphasize the importance of paying attention to the meaning to the entire neglect of the form. What vagaries in the way of parsing this system is

producing in our schools is known to everyone who has had experience in examining the grammar papers of candidates for entrance to the High Schools. In their fancied freedom from all restrictions of a formal nature, candidates are found verily to out-English the English in the way of making their language an analytic one. Nouns, adjectives and words belonging to other parts of speech which are seldom or never used as verbs, are boldly parsed as such, with all the concomitants of voice, mood, tense, number and person, and vice versa. In such cases the strong influence of this notion that meaning must be the sole guide in determining function is often apparent. Consequently, it would seem that modern methods of teaching this subject produce almost as bad a state of affairs in the mind of the pupil as did the old system which sought to narrow the pupils' mental vision to a certain number of set forms, and to conventionalized methods of interpretation. The truth, of course, here, as in so many other cases, is that neither method is of itself sufficient to produce good results. To be guided in parsing altogether by the fancied meaning to the entire neglect of the form would be to assume what is certainly not the case, that all words in English are freely interchangeable in function and also that such inflections as we have remaining are practically without significance as guides to the true meaning. After all that has been said and written on this subject to the contrary, it must be admitted that the lines of demarcation in English between the different parts of speech, as well as between the different var-

ieties in the use of each, are, in the main, fairly well preserved.

As a practical exemplification of the value of attention to form in the study of English grammar, let us take the case of the subjunctive mood. Here the student's difficulties are increased by the fact that this use of the verb is likely to be almost unknown in the conversational English with which he is familiar. Yet, as the highest kinds of literature are full of examples of this use of the verb and often in such works the subtle power of a thought would be lost without a due appreciation of the force of a subjunctive used in expressing it, it cannot be ignored. Although the subjunctive of ordinary verbs differs so little in form from the indicative and at the same time, as has been said, suffers the further disadvantage of being practically unused by the ordinary speaker, yet there is one valuable exception to this rule, viz., the verb "to be." In this verb we find fulfilled the two necessary conditions of a good example for class-room purposes; that is to say, its subjunctive forms are so distinct from the indicative forms in the same tense that there is no mistaking the one for the other, and at the same time, these forms are both in common use, with well-marked difference of function. Thus, "If it be true," and "If I were rich," are commonly recognized as differing in predication from "If it is true" and "If I was to blame," "If I am to blame," and "If it is true." Beginning, then, with these easily recognizable examples, the learner will proceed with confidence to the detection of the rarer and more elusive examples, both as regards form and meaning, to

be found in poetry and the higher styles of expression in English prose literature.

Again the ordinary rules for government and agreement as commonly taught in English grammar must often appear meaningless and absurd to the student, since in the majority of the cases, where such government or agreement is asserted, no evidence of anything of the kind can be produced. Perhaps the grammarians of the future will reverse the rules in these cases, making the present rules appear as the exceptions, as they really are. Until that takes place, however, good use can be made of the few remaining cases where such government and agreement are actually evident to the eye, to justify to the pupil the occurrence of the statement, at any rate in parsing these particular cases. For instance, although no amount of ingenuity could make it appear that the verb "ran" in "we ran" agrees with, or is governed by its subject "we," in regard to person and number, yet the statement may be shown to be true of "he runs" or "thou knowest." Supplementing these latter by the forms of the same verbs in old English, in the same tenses, or even by the forms of the present and past tenses of corresponding Latin verbs, the teacher can make a fair showing for the existence of the rules spoken of.

The confusion which often arises in the mind of the pupil regarding the various functions of the verb forms ending in "ing" may often be obviated by showing the difference in form which formerly existed between the participles, gerund, and verbal noun, ending in old English, respectively,

in ende, enne, and ung. It matters little whether the pupil remembers exactly these endings. The demand of his mind for difference in form corresponding with difference of function has been thereby satisfied and the perplexing question as to whether these uses, that is, the participial and the gerund uses, are really distinct, or only, like the primary and the secondary meanings of a word, matters of degree, is definitely settled.

Again in the perplexing use of the passive participle in the perfect tenses of the active voice of transitive verbs, as in "I have written the letter," where according to the present usage the verb phrase have written, is said to have an active meaning, great advantage may be got from pointing out the fact that the old form of this expression was "I have the letter written" (compare French "La lettre laquelle j'ai écrite") in which the participle has its passive meaning. The foregoing remarks on this subject have been prompted by noticing the tendency of pupils in the junior classes of our High Schools to ignore almost entirely form as a guide to determination of function. Hence, in the immature state of their reasoning faculties, the wildest liberties are taken in parsing with the functions of words where even an elementary acquaintance with, and attention to, the conservative principles of our language in respect to form, would have warned them to beware of such invasions, except under the pressure of overwhelming evidence in support of the uncommon, rather than the common, use of the word.

DIET.

Edith M. M. Bendeley, Montreal and London, England.

The vexed question of what we shall eat, how much, when, and in what form, is daily before us. Not long ago there appeared in some local papers curious facts about the diet of certain people who had enjoyed unusual length of days. Whoever collected them must have been woefully disappointed at the absence of material for data, as to what one should eat in order to exceed the Psalmist's limit of life.

Apparently these venerable people, having found out by experience what their stomachs liked, said to those organs: "Well, here it is then and don't bother me!" And, like good, obedient servants, these, often most troublesome parts of our economy, rose to the occasion and contracted a most commendable habit of doing their best with the material at hand. From this it may be assumed that our physical organization is as much the creature of habit as our mental and moral constitution. It also proves the exceeding wisdom of following the line of least resistance, and avoiding civil war in our members which in the case of the stomach takes the form of indigestion and kindred evils. What would not many of us give for a good digestion? Perhaps we once possessed that priceless blessing and it is now, along with other golden opportunities only a faded memory of the past. What nice times those were long ago, when we ate hungrily and cheerfully whatever was going

and then went and enjoyed life on the strength of that food, till feeding time came round again. Life looked so pleasant then, and there was so much fun and frolic, and our cheeks were so rosy, our eyes so clear, and our fat little bodies so full of vigor and life. Since then we have grown wiser and more experienced. We know that we are the proud possessors of stomachs and livers, and 26 feet of intestine, not to speak of other valuables. They are a terrible source of anxiety to us, for they are like spoiled children. We are always trying to please them and they won't be pleased. We offer them the best dainties which culinary art creates; nay, we do not offer, we constrain them to receive these tasty viands, and yet the discontented things don't give us any peace. There seems to be a conspiracy afloat to make us uncomfortable whatever we eat. Somehow or other we have made an enemy of our digestion, and it takes a devilish revenge and plays the part of Irish Nationalist in the parliament of our being.

It is often a source of wonder what children can eat without suffering ill effects. The average school boy or girl will serenely put away an amount of food which would be almost fatal to many adults.

This fact proves that Nature starts most of us with a capacity for assimilating all the food necessary for the growth and maintenance of the frame. In a word,

she gives us a good and efficient digestive apparatus to begin with. We are apt, however, to forget that the large appetite of childhood is due to the necessities of growth, and to the rapid, functional, and bodily activity of that period of life. When the body has reached full maturity the appetite is normally less, because growth has ceased, and it is only the *statu quo* which has to be maintained. Your lean school boy appears to possess the stomach of an ostrich and a capacity for eating up everything you give him, which fairly dumbfounds you. Take him for a treat to a confectioner's and see what he will do. You watch the steady disappearance of good things till you begin to wonder if your purse will hold out and are afraid to look the grinning waiter in the face. You watch the rest of the day for dangerous symptoms, but the boy is still thin and shows no signs of apoplexy or even discomfort. The next day his tongue is clean, though saucy, and his aspect healthy, while the good things he habitually gets outside of seem to turn into legs and arms, and to cause his mother to sigh over the way he grows out of his clothes. "Bless the boy, how he do eat!" says the cook, when he periodically raids the larder and she sends him away with his pockets full of cake, and cautions him not to expect the same luck on his next visit! Years pass and the lean youth is a portly, family man, with a "presence," and a vocabulary which is more varied than choice, especially at meal times. He has a liver, and rheumatism attacks him every spring. Gout is stalking behind him, ready

to spring upon its victim within a few years. He can't run at all now and any attempt at football would end in apoplexy. He eats highly-seasoned, rich foods, and lots of meat and drinks, anything he can to wash it all down. He has lost the gentie art of blushing, but easily turns a bluish-purple on provocation. His eyes have assumed a prominent position, and stare uneasily out upon the world as his weary heart pumps the turbid blood through the system. One fine day this organ acts like "grandfather's clock," and "stops short, never to go again"; or he becomes a fractious and chronic invalid, of whom his relatives devoutly wish that he may shortly move on to a better world. And it is not only our men folk who lose the glory of physical beauty as the years go on. Who would recognize in that stout, unhappy-looking matron, who waddles uneasily along the street, the graceful, happy-hearted girl of 20 years ago? Where is the waist which her lover used to find such a natural place for his arm when he told her how charming she was? He couldn't find it now if he wanted to! Her face, too, is fat and the flesh flabby, where once were the graceful lines of cheek and neck which made her the delight of her admirers and of the photographer, who chose hers as the show picture of his studio.

Now all this physical decadence is unnecessary, and comes of our unnatural ways of living. The fact is that we overeat ourselves; not from gluttony, but from habit; not because we are deliberately coarse, but because we think that as the years go on we need "feed-

ing up," when the reverse is really the case; and we forget above all the very simple and obvious fact that our food must be adapted to our manner of life, and not our life to our diet.

St. Paul's advice to those who would be winners in life's race, is scientifically correct, and the pity is that it has been made so unattractive by religious fanatics. The man or woman who "brings his body into subjection" is not necessarily a lank spectre with a hungry void in his interior. The chastened body of the ascetic is oftentimes a poor slave with a dangerous capacity for revolt. Even a worm will turn, and this kind of body is almost as dangerous as the overfed one we have described. What we need for the practical purposes of life is a frame which will do its work as a good family servant does, thoroughly, regularly, and without fuss. We must treat it fairly and kindly, and give it a due amount of leisure so that it may last us for the term of our natural life.

The chief considerations we have before us, therefore, in the regulation of diet, are:—Age, which has already been touched upon.

CLIMATE AND SEASON.

In cold climates and during the winter we need and can assimilate more fats and sugars than during warm weather. The Icelander eats blubber, and is warm, the Hindoo makes a meal of rice and is cool as circumstances will allow. How many Anglo Indians come back to England with ruined digestions and sorry tempers, simply because they have disregarded the obvious laws of health. They

have fed on highly-seasoned foods and drinks, and have thereby injured their livers past remedy, and have overheated their blood till their whole system is in a chronic state of irritation.

Occupation is another most important point. Persons leading sedentary lives need less food than the actively employed. Those who are on the go all day need food which will assimilate easily and quickly, and of a kind which will renew the tissue waste going on during work.

Sex has something to do with the question, too, for women need about one-tenth less food than men, though it is doubtful if this applies to those who are engaged in laborious work.

Infants should have nothing but milk for the first year, and under eight years of age require chiefly milk and farinaceous foods, with fruit.

The times for eating vary somewhat according to the life conditions. As a general rule it is best to have three meals a day, each fairly nutritious, and to arrange that these meals be eaten without hurry and that there be no great strain on the mental or physical powers for an hour afterwards. The habit of eating a full meal and then dashing off to work is a deplorable one. When a large supply of food has entered the stomach a large amount of blood goes to the digestive organs to assist them in the process of digestion. The nerves also are stimulated in those regions, and the chief energies of the system are taken up for the time being with churning and generally digesting the supply. If, at the same time, there is a call from

the brain for nervous energy and blood, or from the muscles, to respond to mental or muscular activity, the energy which should be applied to digestion is diverted, and the result is that some food is undigested; valuable material is treated as waste because the organs cannot cope with it, or perhaps actual congestion of the stomach sets in, accompanied with pain, discomfort, and irritation. Better far if the exigencies of business require that we should take a hurried bite in the middle of the day, forego the meal altogether, and be content with an egg and milk beaten up and a few biscuits, which will give the stomach little work to do, and at the same time prevent hunger. There is much wisdom in the plan of dining at night, provided it be not too late. Mental and bodily quiescence is needful after a full meal, and can best be obtained after the day's work is done.

It takes the stomach usually four hours to digest a full meal; that is to say to complete its part in the complicated process of digestion, and having mixed the food well with gastric juice to pass it on to the other organs of the alimentary canal. After that it should have a rest and (except in certain exceptional instances) it is wise to allow five hours to elapse between meals.

Eating between times is one of the most injurious of habits. It means that our hard-worked stomach can never rest. Before it has well got rid of one lot of food down comes another, perhaps only in the form of a few candies, but requiring the same treatment exactly as the material of any ordi-

nary meal. This kind of digestive work is what wears the stomach out and creates chronic dyspepsia. When a meal is digesting it is an outrage to load the already busy stomach with a further supply of food, requiring more gastric juice for its dilution and hindering the half-completed process with the former quantity. And yet that is what we are continually doing allowing our children to get into the habit of doing. We should think ourselves badly used if we were made to walk for a whole day without pausing for rest, and our muscles would certainly show signs of fatigue, yet we set our luckless stomachs, with their wonderful muscular coats and secreting glands, to work as soon as we rise, and keep them going for the best part of the sixteen hours of the working day. Not only this, but we oftentimes take the food in a form which gives the digestive organs double work to extract nourishment from, and too often that which is practically useless for the purposes of nutrition.

What we need is food which contains the amount of nourishment, suitable to our condition, and prepared in a way which helps instead of hinders the action of the digestive juices upon it. We want food that can be turned easily and naturally into blood and muscle, not a congested mass of cookery which remains half digested in the body, breeding discomfort and disease.

There is one more consideration which we must take note of, and that is personal idiosyncrasy which exists in the matter of food digestion, just as it does in

the higher regions of mind and character. For reasons often inexplicable certain people have strong aversions to harmless and often nourishing foods. Others are unable to digest certain things which are good in themselves and palatable to most people. Peculiarities of this kind should be respected.

Children showing violent dislikes to certain foods should not be forced to eat them; at the same time, it is a most foolish habit to allow them to pick and choose and to make a fuss over their food. The old-fashioned custom of training children to eat what was set before them without question was productive of better regulated tastes and healthier bodies than

the very prevalent one of letting them demand and have anything their wandering fancy dictates.

The habit of over-indulgence in food or drink, and the morbid taste for rich eatables is usually contracted in childhood by the unwise parent, who makes sweets the reward of virtue and allows the children to scorn wholesome food and choose that which is wholly unsuitable for their digestion.

In the next paper we will consider the chief foodstuffs in their relation to the body, and how they can best be prepared for consumption, so as to procure the maximum of nutrition with a minimum of trouble to our digestive organs.

VOLUNTARY SCHOOLS.

Lawrence Baldwin, Toronto.

In the April issue of the *Canada Educational Monthly*, Mr. W. L. Grant, in a very full and fair-minded article, criticises the proposed scheme for the affiliation of Voluntary schools with our Public School system. Such criticism is a distinct help to the cause of our provincial education. Mr. Grant has very ably summarised the possible dangers in developing the scheme, and has, I think, very fairly questioned the advantage of the proposal in regard to one or two matters. His questions, I think, can be satisfactorily answered. At the outset, however, I feel that Mr. Grant's position cannot be accepted in regard to religious

instruction in day schools. It is quite true that the home, with the responsibility upon the parents, and the Church, with the responsibility upon its officers, must each fairly bear their weight of responsibility; that elementary knowledge, however, is as necessary in religion as in any other subject of study must surely be manifest to all, and so far as the parents are concerned they have surely the right to make what arrangements may seem to them best for imparting such religious instruction systematically in the day schools to which they may send their children without the State placing any difficulties in the way. Let me

take an illustration from the secular side of education. You may teach the rules of grammar and composition accurately in the day school, but if the home influence and the environment of the child is such that a good example of English is not always before him you will find no matter how complete the English instruction in the day school is, the child will not speak altogether correctly. It is really the home influence and the influence of the child's environment that completes his education and leads him to make proper use of the English language, and yet no one will disparage teaching him his a b c, and the rules of grammar and of composition in the day school. If the home influence and the child's surroundings are not religious the religious instruction he receives at school may be of little or no help to him; but it must surely be a distinct help and advantage to the parent that his child receives systematically religious instruction in the day school upon which the parent and the church may base the precepts and deeper truths of religion. For example, with regard to the work carried on in the Avenue Road Voluntary Public School, religious instruction is imparted for the first half-hour of each day. The school being non-denominational, this instruction is limited to the Bible story. An examination of the compositions which the pupils are occasionally asked to write, shows very convincingly how much can be accomplished with such instruction. That pupils should have a fair knowledge of the Bible story, and be able to give the out-

lines of such leading characters of the Old Testament as Adam, Noah, Moses, Joshua, and others, besides some of the leading characters of the New Testament, must be a distinct educational advantage quite apart from the religious influence.

The sum total of the essential work of the Public School should no doubt be limited sufficiently to allow scope for such religious or other special instruction as may be desired by a substantial number of parents. Mr. Grant concedes this as necessary. He admits that the Voluntary Public School scheme would be an immense advantage in the cities where there is a large enough population to support in efficiency both Public and Voluntary schools; but questions the adaptability of the scheme to rural districts; and I think he is quite justified in doing so. I do not think myself that Voluntary Schools are suitable to rural districts, except to a very limited extent, quite apart from the danger he suggests arising from the "narrowness and intolerance of the average country rector." The average rural Public School is now carrying on its work well, and is generally found to be a very satisfactory solution of the educational question in the country districts. As pointed out by Professor Goldwin Smith, in the article referred to by Mr. Grant, "In the country the Public Schools system seem to work better than it does in the city; the whole community using the school, which is thus really common; taking an interest in it; and having a voice in the selection of a teacher, and keeping the financial management

under control." Professor Goldwin Smith also points out what is very true that in the city quite the opposite of this is the case. The schools are hardly common, the Voluntary being frequently preferred by those who can afford it. Besides the financial obligations which must be undertaken by those who establish the Voluntary Schools will retard their growth in sections where they are likely to hinder the work of the existing common school. The economic fly wheel of "demand and supply" must regulate the establishment of these schools. They cannot possibly be of mushroom growth, but will adapt themselves here and there as they may appear necessary and where they can be worked in harmony, or affiliation with the existing system.

Mr. Grant seems unduly afraid of ecclesiastical domination; but if this is a real danger it can be adequately guarded against. The fact that the scheme contemplates that these Voluntary Schools would come under the management of a board of trustees elected by the parents who send their children to the school precludes any possibility of ecclesiastical domination. Besides the "continual bickering" of which Mr. Grant has visions in regard to the history of English education, can be explained to some extent, it seems to me, in the possible want of proportion there in the number of Voluntary Schools compared with the number of board schools. This lack of proportion is understood when we recall the fact that it is now not many years ago since the Voluntary Schools had complete possession of the country. The board schools have

been grafted on to that system, and while the latter have grown in numbers chiefly in cities and towns the financial burden to the taxpayer makes it somewhat difficult for the board school to obtain a foothold in the villages and rural districts. The "bickerings" then arise chiefly because there is no board (common) school, not because there is a Voluntary School. Work the two in harmony; but be careful first to establish a common (board) school, and all "bickering" should cease. In Ontario the common (board) schools are already well established throughout the length and breadth of the province; Voluntary Schools will very likely only be established in cities or towns where their presence cannot possibly injure the common school, on the contrary they should create a healthy rivalry, and the experiment prove of great benefit to our national education.

Mr. Harcourt's opposition to the bill introduced by Mr. Hill, of West York, at the last session of the Legislature, providing alone for inspection of Voluntary Schools, seemed to be very feeble. Feeble because he had to go outside the bill to find objections, and did not deal with the bill on its own merits. The bill did not provide and no one asked for any financial aid. This alone formed the grounds for the Minister of Education's objections to the bill. Surely financial aid may or may not be given, quite apart from inspection. In Germany, for instance, inspection is compulsory in all private schools in all the States, while financial aid is given only in a limited number of States. The question of inspection can and

ought to be treated quite apart from the question of financial aid.

Mr. Harcourt also showed a great lack of appreciation of the best work of the Public School Inspector. He treated this official in the narrowest possible way, allowing no credit for his work as a superintendent. Dr. Rice, an eminent authority on educational matters in the United States, has shown from his examination of the various Public schools there, that efficient superintendence by an official inspector is one of the best guarantees of good work.

The reason the promoters of Voluntary Schools wish to urge the employment of only qualified professional teachers, the use of proper text books, and the submitting of such schools to inspection, is not "an attempt to throw a sop to the Cerberus in St. James' Square," as Mr. Grant may suppose, but a real desire to maintain a standard of efficiency in what would otherwise be separate private schools; each with a system peculiarly its own, and having little or nothing in common with each other or with the national system of education. There is no doubt a weakness in private schools not employing professional teachers quite apart from personal qualifications. Our Normal College and Schools of Pedagogy may not be all that we may desire; but that their purpose is good there can be no doubt. Let the supporters then of Voluntary Schools, and of common schools unite in their effort to improve wherever it is possible, the conditions under which our teachers are trained for their most important

calling, so that they may be most thoroughly equipped for their work, whether it is to be carried on in the Common schools or in the Voluntary Schools. The advantage when pupils must pass from Voluntary Schools to the Common schools or vice versa, will be at once apparent. The standing and methods of promotion would have enough in common to enable the pupils to make steady progress notwithstanding a change in residence, necessitating a change from one school to another.

We see in the education bill now before the British House of Commons the principles of Voluntary Schools fully recognised and a substantial provision made for their support; and yet Mr. Harcourt ventured to assert before our own Legislative Assembly "that this system was being repudiated as fast as it could be repudiated by the sober thought of England." Mr. J. H. Voxall, M.P., has shown in a letter in the London Daily Mail (April 9th) the possible extinction of the private school unless such schools employ only the "hall-marked teacher" and accept Government inspection of "recognised schools."

Opinion in favour of a well regulated system of Voluntary Schools is developing, and must develop if our private schools are to accomplish satisfactory work for the State; and such schools must be recognised as an integral part of our national educational system if that system is to be liberal in its methods, and adapt itself to the varying needs of the community.

THE OUTLOOK FOR THE AVERAGE MAN, IN A NON-COMPETITIVE SOCIETY.*

Albert Shaw, PH.D. New York, N.Y.

I propose to-day to say something about the position and prospects of the average young man in the face of vast current and impending changes in economic and industrial society. Certainly, I shall not hope to exhaust the subject of such varied aspect and such profound importance. I shall be satisfied if I may make some suggestions and observations that may prove in the least degree useful to some of my hearers in their thinking upon general problems, or in their dealing with more personal or individual phases of the economic and social question—for it is obvious that there are prevalent just now two kinds of interest and anxiety in view of the enormous transitions that are taking place about us.

1. On the part of many young men who feel that they have their own way to make in the world, the natural optimism of youth is tempered by a considerable anxiety by reason of the disappearance of traditional landmarks, and of the new meanings that must be written into such terms as "success" and "getting on in the world." A more acute anxiety, relieved by far less of personal hope or general optimism, is that of older men of fixed habits and

diminished adaptability, who find themselves the victims of displacement as new methods of work and of organization ruthlessly supersede old methods.

2. Quite a different sort of anxiety is that which has a somewhat disinterested or philosophical basis and concerns itself not so much with the question, "How shall these things affect me, my fortunes, my future?" as with the questions, "How is the community to be affected?" and "Are these new tendencies making in the general sense for human emancipation and equality on an even higher plane, or are they making for a new and unpleasant kind of social and economic imperialism, in which the few shall be plutocratic masters and the many industrial subjects?"

I shall not try to take these questions ponderously or elaborately, and I shall be inclined, quite against my usual habit of mind, to give somewhat more attention to individual and personal aspects, and rather less to economic generalization. The clean-cut theory, the scientific formula, the beautiful presentation of the law of averages—all these bring only cold comfort to the individual young man who is seeking specific solutions for his own problems.

If we had our grounds for trepidation twenty or twenty-five years ago as we peered over the college wall, there were

*Delivered on the occasion of the Forty-first Quarterly Convocation of the University, held in Studebaker Theatre, March 18, 1902, at 3 p.m.

not so many notes of alarm sounded to affright us as the student is likely to hear in these days. The paragrapher's jokes about the college graduate, of course, have always been with us; but we did not hear so much twenty years ago about the overcrowding of the professions and the narrowed range of independent opportunity in the business world.

Let me say at once, to relieve suspense, and not to carry any needless air of gloom, that I for one do not believe in the least that there is any real shrinkage of opportunity in life for the worthy young man, or that the new conditions really threaten the prospects of the individual.

There are, however, certain principles that have new force in these altered times and that cannot be stated with too much emphasis. One of these principles is that the best possible investment any young man can make is in himself; that is to say, in his own training and development for useful and effective work in the world. The thing in general to be attained is power. The thing in particular is the special training of some kind that enables a man to make expert application of this developed force and ability. If trained capacity has been a valuable asset in the past, it becomes the one indispensable asset under the new conditions.

I shall not here broach directly the question whether or not it is worth while for the average young man to go to college. My observation has taught me not to draw too sharp a line in business or commercial life between men who have had a preliminary college

training and those who have not. It is useless to lay down rules. Opportunities nowadays are so numerous and varied that the young man of health and determination may reasonably hope to make his way in the world without regard to any beaten path. But in one way or another he must become educated and trained for efficiency. I have in mind an illustration of this principle that the modern young man should count investment in himself, the acquisition of trained capacity, as his one safeguard, his indispensable asset. Two brothers were left orphans at seventeen or eighteen years of age, each with a small patrimony of perhaps \$10,000. One brother was regarded as possessing a high sense of prudence. He was determined under no circumstances to impair the principal of his patrimony, and gradually he subordinated himself to the conserving of his petty inheritance. He was afraid to embark in active business because he had read that 95 or 99 per cent. of all business men and business ventures meet with failure. If he had placed his capital at the service of his business energies, it is quite true that he might soon have impaired it or lost it altogether; but in that process he would have gained his experience. And for any young business man who has perseverance and force of character, experience is a good investment at any pecuniary sacrifice—for, sooner or later, the business experience must be had, it being a necessary endowment for ultimate success in affairs; and if the experience can be had young, like measles or

other maladies of immaturity, it does not come so hard.

But the young man to whom I refer could not bring himself to risk his capital on the perilous billows of trade or commerce, and much less could he bring himself to the point of doing the next best thing, which would have been to use it up in mere expense or even in self-indulgence. He still exists, no longer so young. He has become a model of economy, and he has been adding something to his capital by saving a part of the interest; but he is disturbed and distressed by the fact that interest rates are falling and by the general insecurity of so-called "safe investments."

As I have watched this man I have satisfied myself that he is just on the eve of doing one or the other of two things. With his now \$15,000, he will either buy United States Government 2 per cent. bonds at a premium, in which case he will settle down for life with an income of less than \$300 a year, or else he will violently react, throw prudence to the winds, and—in the parlance of the day—buy a "gold brick." If he were much past middle age, we should be sorry for him if he did not buy the Government bonds. But since he is still comparatively young, the gold brick would be really his only means of salvation; for having lost his money, he would have to take some stock in himself and learn somehow to make use of his own energies.

The other young man had a different instinct altogether. It was not, perhaps, that he had fully reasoned it out, but he had by nature a higher spirit, a little more faith

in this world and in the universe at large, and altogether a better perception of the meaning of life. He aspired to do things, but even more, he longed to know and to be. The sole use of his little patrimony seemed to him to be the launching of a man. He believed in education and he was willing to invest in himself. This particular young man had at once a strong taste for the natural sciences and a sympathetic and humanitarian turn of mind. He went to college, threw himself with enthusiasm into his work, determined toward the end of his college course to study medicine, and also resolved to use what remained of his money without stint in fitting himself by study and research at home and abroad for the higher walks of his profession.

I need not dwell upon his early struggles or difficulties in getting himself established in practice. I merely wish to note the fact that he had gained the lifelong friendships and associations of college life. He had made his own those priceless mental resources that are acquired by study, travel, and foreign residence, where a high object is ever in control of conduct and the use of time. And he had established the habitual currents of thought that are engendered by enthusiastic devotion to work in fields of science where new treasures may always be found by diligent and well-directed search. In the very process of training for his life-work he had found unexpected safeguards and compensations. The financial side of the matter is of less importance, though I may add that our professional brother, who did not make money his chief

aim and object, was nevertheless in due time earning twice as much money every week as the prudent one could get in a whole year by clipping the coupons from his Government bonds.

This fragment of biography—or this parable, if you please—leads on to several other considerations that I should like to present. One of these is that, generally speaking, it is fortunate for a man if he can choose a pursuit in life in which the pecuniary returns come as an indirect rather than a direct result of his efforts. It was my pleasure a year or more ago to publish an article written for me by Mr. Hezekiah Butterworth, entitled "The Old Age of New England Authors." Mr. Butterworth pointed out the remarkably long period through which New England writers have on the average been enabled to continue their useful and valuable labors, and he attributed this largely to the fact that cheerfulness and serenity promote long life and the retention of the mental powers and faculties in old age. And all this is undoubtedly true.

But it was also true in a very important sense that this class of workers owed much of that cheerfulness of spirit to the fact that the day's work did not take them into the competitive struggle and clash of the marketplace, nor compel them to give much anxious thought for the morrow. It is not that one should aspire to mere quiet or aloofness, in order to cultivate serenity and live to be ninety years old. My point simply is that there are great compensations in any kind of active life, however

intense and severe its labors may be, if only the work itself absorb the mind, and the pay comes as a secondary consideration.

My friend, a physician, striving to save the life of a little child, lost much sleep, and labored incessantly; but I do not suppose that he gave the smallest fraction of one minute to a thought about the amount of his fee. Now an equal amount of effort, strain, and loss of sleep expended upon a money-making transaction, with nothing in mind except the dollars to be gained, would have a wholly different result, both immediate and permanent. It would break a man down, and that ingloriously.

Clergymen, professors, lawyers of the better class, physicians, engineers, architects, and even journalists and newspaper men who do work of a professional grade—all persons, moreover, engaged worthily and usefully in any sphere of education, philanthropy, or public service—and in the term public service I include not only the non-official classes, but also the better class of civil servants and also the army and navy—the people who choose to spend their lives in these and kindred callings may be said to form the advance guards of the social order that is yet to be.

Taking them on the average, they have neither wealth nor poverty, and they give their best efforts to kinds of work which are satisfactory in themselves. Such kinds of work to a very large extent have attached to them fixed or customary livelihoods that come of themselves where intelligent and faithful service is rendered to the community. I am confident

that the tendency in many other fields of endeavor will be towards some such non-competitive and permanent standards of income, with comparative fixity of tenure, and opportunity to render devotion to the work for its own sake.

Certainly I hope that the young men in our colleges will be Utopian enough to believe in a future state of economic society in which each man will be more free than now to render service to the community according to his special abilities, while in return the supply to all useful workers of their ordinary needs will become more and more a matter of easy assurance, and therefore much more in the background than now. But even with our present organization of economic society, the young man will find many compensations and many advantages—other things being equal—in the choice of a pursuit in life which interests and satisfies in itself while yielding its pecuniary rewards indirectly.

Let me refer again to the question of the relative value in this transitional period of the well-equipped, highly trained man; for we have been so gravely and so incessantly warned about the crushing out of opportunities for young men through the growth of capitalistic combinations, that many of us find it hard to believe that we are not in some danger of being enfolded, stifled, and crushed within the tentacles of the octopus. We have been told that the whole present tendency is one that endangers not only the position of the workingman—that is to say the man who labors with his hands, whether skilled or unskilled—but

also interposes obstacles in the way of the independence and prosperity of merit, education, and high training. For the young man who is not lucky enough to inherit a fortune, or to have influence and favor that gild his prospects, it is said that the world offers a poor and ever-diminishing opportunity for earning a livelihood and achieving success; in short, that the situation grows rapidly worse, and the clouds on the horizon are much darker than those over head.

Now it is true that we are moving fast in the most acutely transitional period of the world's economic history. A powerful financier remarked to me the other day that we had lived a thousand years since the Sherman anti-trust law was enacted in 1890. The production of wealth is on a prodigious scale, and its private accumulation, which has already in a number of instances given us the man who is a millionaire a hundred times over, is pointing to the possibility of the billionaire—the man with a thousand millions, as no solitary phenomenon ten or fifteen years hence. But the man of many millions is the incident, or by-product; he is not the fundamental cause, nor is he the chief or final result of the modern production of wealth. His status does not much affect the economic position of the average man.

Two things have brought about this recent wonderful outburst of economic production. One is the growth of human knowledge as respects the laws and powers of nature, resulting in practical achievements of science and invention. Many of the men represent-

ing this great force were brought together some three weeks ago as members of a luncheon party in New York to meet Prince Henry. A number of these were men with whose names even most of us had not been familiar, yet they have made astounding and revolutionary applications of science to useful production in mechanical or electrical or metallurgical fields, or else through great talents in organization and in the use of improved agencies, have become the masters of one or another of the great lines of industry or manufacture. These, rather than the soldiers or the politicians, are the typical leaders, the "Plutarch's men" of our new era. The second of the two agencies or forces that have brought about this great outburst of economic production has been the use of the principle of co-operation giving us great associations of capital and of labor, limiting more and more the wastefulness and meager results of competition on the small scale, working our production on the large scale, employing every conceivable mechanical device to heighten the productivity of labor—unity, harmony, and co-operation being the watchwords all along the line.

Now these two things—the application of science and the use of the principle of human co-operation—characteristic as they were of the closing years of the nineteenth century, are going to be still more characteristic of that period in the twentieth century in which the young men who are living today must do their work. They must be prepared, therefore, to accept the new ideas, and adjust themselves to the new society.

Science, invention, skill, special training, union of effort, harmonious co-operation—these are to be the keynotes, certainly, of the next two or three decades. Not only is it not in the least true that money, capital, mere dead material possessions, are getting the better of human flesh and blood, and that mankind is coming under a new form of slavery, but exactly the opposite is true. Capital and labor, of course, must continue in association with one another, but of the two it is labor—that is to say human service, where it shows the touch of efficiency and knowledge—that constantly grows relatively stronger. There never was a time when training and skill in the individual man counted for so much, and when mere money apart from training and skill counted for so little.

When money could earn 10 per cent. in safe forms of investment, the man with \$50,000 could think himself quite wealthy and perchance go through life without an occupation. But now, when the standard of living is advanced so much, while rates of interest have so greatly declined, the same sort of man—who in order to keep his relative position needs twice his old-time income—finds that mere capital counts for less and less, while highly skilled personal services count for more and more.

Even in the strict world of finance itself, it is scarcely true any longer that money breeds money. For special skill, trained organizing ability, broad outlook, and the highly developed personal faculties, even with an empty pocket, may prove a far better start in the race for wealth than a million dol-

lars without those qualifications. It is true that the big combination has united and absorbed many little enterprises, but the big combination absolutely demands for its success a high order of personal service. It is talent and skill rather than the dead weight of united capital upon which the great industrial and transportation systems must base their chief hope of permanent success.

Where one finds such enterprises under the active direction of men reputed to be multi-millionaires, one is likely to discover that such men are no drones, but, on the contrary, are men of higher personal capacity and qualification for leadership, quite irrespective of their millions, than other men who could be found to take their places. Certainly up to a certain point in their careers even men of such vast wealth as Mr. Carnegie and Mr. Rockefeller would stoutly declare that their trained skill in the organizing and conduct of business enterprises was worth more as a productive asset than their accumulations of capital. If Mr. Schwab, who was not forty years of age when made president of the United States Steel Corporation last year, received as large a salary as the newspapers credited him with receiving, it is easy to compute that it would have required a fortune of \$50,000,000, if invested in United States 2 per cent. bonds, to produce as great an income as this reputed salary, paid to one young man as the price of his personal services. I have no idea how wealthy Mr. J. Pierpont Morgan may be, but it would be safe enough to assert that the gains produced by his personal effort must be several times greater

each year than the income he would derive from his accumulated fortune if it were invested in Government securities and he were retired from active business.

I mention these names not in the least to be personal, but because they are well known, and solely for the way they bear upon this question of the outlook for the average young man, illustrating the principle that now, not less, but more than ever, the man is superior to the dollar.

To reiterate it, let us grasp firmly the underlying principle that in all this recent evolution, at so rapid a rate, of business and economic life, knowledge, skill, and character stand as the best and safest assets, and that they count for more both presently and prospectively than at any previous period.

The great business of a college is to help high-minded and progressive youth to develop into manhood of discipline, capacity, and power. And that being the case, the college certainly never had so important a work to do before as it has to do to-day, for never before was this particular kind of training so relatively advantageous, and never before was it so needful for young men of all degrees of fortune to be prepared to do a man's work in the world on the highest plane of their own particular capacity.

I am aware that the college and the university do not, from their traditional standpoint at least, aim so much to fit young men for bread and butter pursuits; but the college and the university do stand, not merely for acquisition, but for the high training of the whole man and the development of power.

And such a man is not likely to prove in the end a misfit in the practical world.

It is true, of course, that the problem of personal adjustment is a difficult one for a great many young men. Those older men who remember their own perplexities will have ample sympathy for the college junior or senior who is a well-balanced man and entirely willing to do faithful work in the world, but is not conscious of an overpowering call to enter any particular profession. Some young men decide these questions on broad principles, while others are guided by immediate considerations. I have never believed that the successful choice and pursuit of a calling should be thought chiefly a matter of affinity. Rather am I inclined to think it all a matter of character; that is to say, of steadfastness, whole-heartedness, and concentration. Not only is all good work honorable, but it can be made sufficiently interesting.

In some directions, of course, one must give a little heed to the law of supply and demand. Thus it would hardly pay for five hundred young men to rush violently into preparation for professorships of Sanskrit or anthropology; but even such miscalculations of the market need not be fatal, for re-adjustment is neither impossible nor disgraceful. Thus the anthropologist out of a job may in due time make fame and fortune as a criminal lawyer; and the Sanskrit man might have developed gifts that would fit him for a high place of service in the Philippine Islands if he did not feel inclined to go to India as a missionary. There is not much reason to be afraid that

honest effort at training oneself for work in the world may prove to have been misapplied. I have often heard men of widely varied and more or less unlucky experiences say how in the end all their previous studies, efforts, and ventures had seemed to bear exactly upon the particular task to which they finally settled down with success and contentment; so that, in the retrospect, a consistent purpose appeared to run through all their earlier career, giving unity and cumulative effect and value to what had once seemed fragmentary, unrelated, and quite unfortunate efforts.

Two things are quite certain under the new social and economic order; first, that there is to be a widening field of productive activity for the man of liberal attainments, and second, that there is to be a vastly improved environment of opportunity for the exercise and enjoyment of liberal attainments, quite apart from their usefulness in any direct sphere of productive employment. Both of these reasons seem to me to justify abundantly almost any effort and sacrifice that a young man might make to improve his mind by courses of study—and to obtain college and university training if he should feel himself drawn in that direction.

In college one ought to acquire the habit of seeking the truth and liking it for its own sake in a disinterested way. One's logical faculties ought to get good training in order that fallacious reasoning may easily be analyzed and disposed of. Scientific study should have as its great object the training of the powers of exact observation and of accurate analysis;

and from beginning to end a college course should train the student in the correct and exact use of the English language. As to special departments of knowledge—such as history, political economy, literature, ethics, and psychology—certainly it is important that the student should acquire and retain as large a fund of information as he conveniently can, but it is still more important that he should get his intellectual bearings, acquire certain methods and habits of thinking, verify certain standards and principles, and learn how to apply sound generalizations to current and passing phenomena.

The important thing is clearness, which means exact thinking, and next in importance is a certain sympathetic aptitude in more than one direction, together with some degree of capacity for enthusiasm, that is to say some optimism either temperamental or acquired. Men whose general training has done so much for them can adapt themselves pretty readily to special callings, learning the technique of almost any profession or industry, and earning a decent livelihood while possessing the capacity for a rational use and enjoyment of life.

THE BUDDING CHILD.

Here are the budding boughs again,
 But where the budding child
 That from green slopes to greener shores
 Last April was beguiled?

Here is the hurrying stream again,
 But where the hurrying feet
 That vanished with the ebbing wave
 Last year when spring was sweet?

Into my life the springtime came,
 Soft aired and thickly starred;

Out of my life the springtime went,
 Though I prayed hard—prayed hard.

O little life with ail thy buds
 Close-folded—laid in death;
 Would they had oped in bloom and fruit
 About thy mother's path!

Or would that faith might build morestrong
 The bridge between my heart
 And thy fair dwelling-place, so thou
 And spring should not depart.

ETHELWYN WETHERALD.

EDITORIAL NOTES.

Deliver not the tasks of might
 To weakness, neither hide the ray
 From those, not blind, who wait
 for day,
 Though sitting girt with doubtful
 light.

That from Discussion's lips may fall
 With Life, that working strongly
 binds—
 Set in all lights by many minds,
 So close the interests of all.

We take the opportunity of thanking the inspectors who have sent us lists of teachers, and especially for copy of their annual reports to the County Councils. This month we publish nearly all

of Inspector Platt's report, Prince Edward County.

Concentration of township schools is being discussed in some parts of the province.

Alexander Anderson, M.A., LL. D., Chief Superintendent of Education, Prince Edward Island, Canada, has kindly sent us a copy of his annual report. The schools of the "Island" have many points of which the superintendent is able to speak in very favorable terms. But there are many things connected with the schools of which he cannot, and does not, approve. (1) Many of the teachers are too young, really children; the superintendent recommends that no one should be allowed to teach in a Public School till he is at least 18 years old. (2) It appears from the report that many school districts are in the habit of engaging young teachers of the district for the sake of cheapness or to please a supporter of the school. The usual result follows: a poor school, serious discontent, fully justifying the old saying: "Cheap and hasty." (3) The superintendent in decided terms complains of many of the schoolhouses as being most unfit for the school children to live in. The learned gentleman appeals to the proper standard when he compares the schoolhouse with the houses of the people in the "school district," and he has to confess that it is the poorest in the "district." We find ourselves compelled to write unfavorably of the "Island." We do so with regret for we like the smallest province of Canada.

Such being the schoolhouses, we would expect the apparatus to be indifferent, and such it is; it is of the most meagre description. When the chief official of the schools of any of our provinces finds himself reluctantly

under the necessity of unfavorably criticising the schoolhouses, etc., etc., we may be certain that the salaries of the teachers will be small. We are under the impression that they are the lowest salaries of any province in the Dominion, unless it be the Province of Quebec, "bad eminence" Dr. Anderson reminds the people of the "Island" that for years past they have prospered in worldly goods. Their houses are better, their stock very much improved, all the signs of comfort and wealth are to be seen in all parts of the province, markets are good, all the products of industry are easily disposed of, and at fair paying rates. Then, why this poverty-stricken way of dealing with the schooling of their children? It is the children who suffer by this unworthy treatment. The heaviest loss comes to the taxpayer through providing unsuitable accommodation for the school children, poor apparatus for the teacher to work with and heaviest and worst of all losses, cheap teachers. The most precious asset of Prince Edward Island is its boys and girls. May the Island hear their appeal for decent treatment.

The Ontario Educational Association.

The Provincial Association was largely attended this year, the Easter holidays suiting the convenience of teachers and others. The attendance of all classes actively engaged in school work has been gradually increasing at the annual convention for several years past.

Many topics engaged the attention of the convention. The subject most discussed was the en-

trance examinations, into High Schools. A great deal of fault was found with the examination papers, as being too pretentious, far too much so. More than one speaker said that that was a prominent weakness of examination papers set by the university as well as of the Ontario Education Department. Many modifications were suggested and even abolition, but the opinion of the convention, as a whole, was strongly in favor of retaining the examination for admission to the High Schools. The advancement of education in Ontario depends more upon the wisdom displayed in order to secure the cordial co-operation of the elementary schools with the Secondary Schools, than upon any other question now in sight.

The proper recognition and place of the Bible in our schools received much consideration. The discussion showed that more thought and discussion are required before the Book comes to its own in our schools. A great

many persons forget that the Bible is not a Sectarian book; it is a book, the knowledge whereof is universally required by man. To educate even in Secular affairs, the Bible is needed. To save Canada, the principles taught in the Bible must be influential in her schools. To this end the teacher needs the Book in the school.

The Ontario method of preparing text-books was universally condemned, and school helps were mentioned with contempt. We were glad to hear the Minister's address the first evening of the convention and especially so on account of his appeal to the inspectors and teachers to assist him in securing a much better attendance at the schools an improvement very much needed in our school work. The tone of the association was freer and the attitude of the members more courageous than in recent years. If the association escapes the political partisan and his "slim" ways, its influence will be beneficial to the interests of education.

SCHOOL HYGIENE.

Helen MacMurchy, M.D.

Pure Food.—The New York Board of Health is making a vigorous crusade against the venders of impure foods, and endeavoring to prevent the sale of viands exposed in public places, partly decayed fish and vegetables and polluted milk. Formaldehyd has been extensively used for preserving milk since the use of boracic acid was prohibited, and it is feared that if radical measures are not taken to restrict its use, there will

be great loss of life among the children of the poorer classes during the summer months. A number of offenders have been arrested and fined in sums ranging from \$15 to \$30. The total amount of fines collected during March were \$7,000.

The health report of Montreal for 1900, recently issued, conveys information somewhat startling to the public. The prevailing

impression that Montreal is a very healthy city is contradicted by the statistics. The total number of deaths is given as 7,351, a rate of 25.46 per 1,000 persons. Comparing these figures with those of large cities the rate is found to be enormously high, in fact with the exception of Savannah, Ga., it is the highest percentage in the country. The marriage rate fell from 8.12 per 1,000 in 1899 to 7.76 per 1,000 in 1900, and the birth rate from 34.45 per 1,000 in 1898 to 34.26 per 1,000 in 1900. The health board claims that the existing sanitary conditions are to blame for the excessive mortality, which is especially heavy among infants, there being as many as 125 deaths of infants reported for some weeks during the summer. The department contends that the existence of "privy pits" has much to do with the heavy death rate and that in spite of repeated warnings the obnoxious pits still exist. The statement is made that with proper sanitation the average mortality would not exceed 100 deaths per week.

Illuminating Gas and the Public Health.—When financial interests are involved, public health too often is less considered than profits. There has long been a demand from the consumer for lower

prices for illuminating gas, but but there has been no corresponding inclination on the part of stockholders for smaller dividends. But, several decades ago, it was found that by using a liberal admixture of water-gas, an illuminant of fair quality could be furnished at a price much lower than coal gas and yield greater dividends. This was sufficient motive for energetic work by lobbyists in different states to secure the repeal of laws limiting the proportion of carbon monoxid in illuminating gas to 10 per cent., practically prohibiting water-gas, which contains at least 30 per cent. of this lethal agent. Following the repeal of these laws in Massachusetts, there has been a most remarkable increase of deaths and of accidents attributable to illuminating agents. In the thirteen years prior to the introduction of water-gas the number of deaths registered as due to illuminating gas was only eight, all from the inhaling of gas as a suicidal agent. In the thirteen years following the introduction of water-gas the number of deaths due to this cause is stated to have been 459, and there have been a number of accidental asphyxiations with recovery.—*American Medicine.*

BOOKS AND MAGAZINES.

To accommodate readers who may wish it, the publishers of THE CANADA EDUCATIONAL MONTHLY will send, postpaid, on receipt of the price, any Book reviewed in these columns.

The Scribner's Magazine for April is composed largely of fiction. Richard Harding Davis' serial, "Captain Macklin," is begun, and Hopkinson Smith's admirable

"Fortunes of Oliver Horn," is continued. Those contributing short stories are: Thomas Nelson Page, Josephine Dodge Daskam, and Mary R. S. Andrews.

The complete novel in the April Lippincott is "Diane, Priestess of Haiti," by John Stephens Durham. "Walnuts and Wine" is an admirably conducted humorous department.

The long story in the April St. Nicholas is "The Boys of the Rincon Ranch," by H. S. Caufield. Other features of interest are: "By Virtue of Phebe's Wit," by Alice Balch Abbot; and "Boy Choristers," by Frederic Dean.

The American Monthly Review of Reviews for April contains "American Captains of Industry," "A New Factor in Lake Shipping," "The Treaty Between England and Japan," "The New Lying-in Hospital in New York," "Educating the Deaf-Blind," and Francis Wayland Parker's "A Great Educator."

The cover of the April Book Buyer is particularly charming. The contents include an article on "The Animal Story of To-day," by Charles G. D. Roberts.

The Atlantic for April contains a number of remarkable contributions, chief among which is Bliss Carman's poem, "The Pipes of Pan." Others far above the usual average of a monthly magazine are: "Allegra," by Miss Replier; "The Play and the Gallery," by Elizabeth McCracken; "Prothalamion," by J. E. Spingam; and "Jane Austin," by Ferris Green-slet.

The Ladies' Home Journal for April is marked by the publication of the first instalment of "The Story of My Life," by Helen Keller.

SOLUTIONS OF QUESTIONS IN ARITHMETIC, ANNUAL EXAMINATIONS, 1901, PART I., JUNIOR MATRICULATION.

Nathan F Dupuis, F.R.S.C., Queen's University, Kingston.

1. Find the L.C.M. and the H.C.F. of 13230, 32050 and 23025.

This is best done by resolving the numbers into their prime factors.

Then the L.C.M. is the continued product of the highest power which occurs of each factor.

$$\text{Thus L.C.M. } 2.3^2.5^3.7^2.641 = 212010750.$$

And the H.C.F., or better G.C.M., is the continuous product of the factors common to all. This gives 5 as the H.C.F.

2. A stick was broken into two pieces so that $\frac{3}{8}$ of the longer piece equalled the shorter. The difference between the lengths of the two pieces was four inches. What was the length of the whole stick?

This is most readily done by Algebra. Let x = the longer piece, Then $\frac{3}{8}x$ the shorter.

$$\text{And } x - \frac{3}{8}x = 4 \text{ in. } \therefore x = 12 \text{ in.}$$

$$\text{And the stick. } x + \frac{3}{8}x = 12 \text{ in.} + 8 \text{ in.} = 20 \text{ in.}$$

It may also be done by proportion, as follows:—

Suppose the longer part to be 30 in. Then the shorter is 20 in., and the difference between the parts is 10 in., and the whole stick is 50 in.

But the difference should be 4 in $\therefore 10 : 4 \quad 50 : 20 \text{ in.}$ the length of stick.

$$\text{Or the whole length } \frac{4}{10} \times 50 = 20 \text{ in.}$$

Otherwise by analysis, as follows:—

If the stick were broken in the middle each part would be half the length, and there would be no difference. Hence by adding 2 in. to $\frac{3}{8}$ and taking 2 in. from the other, the latter length is $\frac{3}{8}$ the former. But $\frac{3}{8}$ of ($\frac{1}{2} - 2$ in.) is $\frac{3}{8} \times \frac{3}{2}$ in.

$$\therefore \frac{3}{8} \times \frac{3}{2}, \text{ or } \frac{9}{16} \text{ the stick} : 2 \text{ in.} + \frac{9}{16} \text{ in.} = 1\frac{1}{8} \text{ in.} \text{ And the whole stick} = 20 \text{ in.}$$

3. A sells a quantity of wheat at \$1 per bushel and gains 20%; afterwards he sold a quantity of the same wheat to the amount of \$37.50 and gains 50%. How many bushels were in the last lot, and at what rate per bushel did he sell it?

As he gained 20% in selling at \$1, the cost price was $\frac{100}{120} \times \$1 = \$\frac{5}{6}$ per bushel.

Hence in order to gain 50% he must sell at $\frac{150}{100} \times \frac{5}{6}$ or $\$1\frac{25}{24}$ per bushel. And the amount sold : $\frac{37.50}{1.25} = 30$ bushels.

4. Divide \$916 among A, B and C, so that 4% of A's share may equal 7 $\frac{1}{2}$ % of B's, and 12 $\frac{1}{2}$ % of B's may equal 20% of C's.

We are given, $\frac{4}{100}A - \frac{7\frac{1}{2}}{100}B$, and $\frac{12\frac{1}{2}}{100}B - \frac{20}{100}C$.

$\therefore 4A - 7\frac{1}{2}B$, and $12\frac{1}{2}B - 20C$.

Multiplying the first of these equations by 10 and the second one by 6 gives $40A - 75B$, and $75B - 120C$.

$\therefore A - 3C$, and $B - \frac{2}{3}C$.

And $A + B + C = 3C + \frac{2}{3}C + C = \frac{8}{3}C$
 $\therefore 916 = \frac{8}{3}C$

$$\therefore C = \frac{916 \times 3}{8} = 343\frac{1}{2}$$

$$A - 3C = 490\frac{1}{2}$$

$$B - \frac{2}{3}C = 261\frac{1}{2}$$

And the sum is \$916.

5. What sum of money would amount to \$1406.08 in 3 years at 4% per annum compound interest.

The amount for a given term of years at a given rate will be proportional to the sum invested.

Therefore, assume an investment of \$100.

In one year it amounts to \$100 and interest on \$100 = \$104

In the second year it amounts to \$104 + interest on \$104 = \$108.16.

In the third year it amounts to \$108.16 + interest on \$108.16 = \$112.4864.

But the amount should be \$1406.08.

$$\therefore \$112.4864 : \$1406.08 :: 100 : \text{sum required}$$

$$\text{or sum} = \frac{1406.08 \times 100}{112.4864} = \$1250.$$

Otherwise, if p be the sum invested, t be the time in years, and r be the rate per unit

The amount for 1 year is $p + pr = p(1+r)$; the amount for 2 years is $p(1+r)(1+r) = p(1+r)^2$; similarly, the amount for three years $p(1+r)^3$; and this is \$1406.08.

$$\therefore p = \frac{1406.08}{(1+r)^3} = \frac{1406.08}{(1.04)^3} = \frac{1406.08}{1.124864} = \$1250.$$

6. A note was discounted at a bank 120 days before it was due, at the rate of 7%, and the proceeds were \$35.66. For what amount was the note drawn?

The bank discount on \$100 at the given rate and time is simply the interest. Therefore it is

$$100 \times \frac{7}{100} \times \frac{120}{365} = \frac{7 \times 120}{365}$$

And the proceeds (remainder) is $100 - \frac{7 \times 120}{365} = \frac{35660}{365}$ which by the question should be 35.66.

$$\therefore \frac{35660}{365} : 35.66 = 100 : \text{amt. required.}$$

$$\text{Or amount required} = \frac{100 \times 35.66}{35.66} = \$36.50.$$

Otherwise, if p be the face value of the note the bank discount is

$p \times \frac{7}{100} \times \frac{120}{365}$ and the proceeds = $p - \text{bank discount} = p \left(1 - \frac{7 \times 120}{36500}\right) = \frac{35660}{36500}$ and this must be 35.66.

$$\therefore p = 35.66 \times \frac{36500}{35660} = \$36.50$$

7. If copper weighs 500 lbs., lead 600 lbs., tin 480 lbs., respectively to the cubic foot, find the weight of a cubic foot of metal composed of equal weights of copper, lead and tin.

As one cubic foot of copper weighs 500 lbs., \therefore 1 pound of copper = $\frac{1}{500}$ cubic ft. Similarly, 1 pound of lead = $\frac{1}{600}$ cubic ft.; 1 pound of tin = $\frac{1}{480}$ cubic ft. Adding, \therefore 3 pounds of alloy =

$$\frac{1}{500} + \frac{1}{600} + \frac{1}{480} \text{ cubic ft.} = \frac{23}{4000} \text{ cu. ft.}$$

Hence 1 cubic ft. alloy = $\frac{4000}{23} \times 3 = 521.74$ lbs.

8. Bank of Commerce Stock is divided into shares of \$50.00 each. Bank of Montreal Stock into shares of \$100.00 each. A person holding 220 shares of the former sells when it is quoted at 146, and purchases with the proceeds an integral number (and the greatest number possible) of shares of the latter stock when it is quoted at 248, and deposits the balance of the proceeds in a savings bank which pays interest at the rate of 3% per annum. Find the change in his yearly income caused by change of investment, if Bank of Commerce Stock pays an annual dividend of 7% and Bank of Montreal Stock an annual dividend of 12%.

220 shares B. of C. stock at \$50 per share = \$11000. Selling at \$146 for every 100 gives $\frac{146}{100} \times 11000 = \16060 , which is the money received from his sale.

He buys B. of M. stock by giving \$248 for each \$100 of stock.

Now 248 is contained in 16060, 64 times with a remainder of 188.

Therefore, he buys 64 shares of B of M stock and puts \$188. in the savings bank.

Hence, he begins with \$11,000. in B of C stock and receives 7% interest = \$770. yearly.

He ends with \$6400. in B of M stock and receives 12% interest = \$768.

With \$188 in S. B. at 3% interest = \$5.64.

Receipts at first = \$770.

“ “ last = \$773.64.

Gain = \$3.64.

Remarks: Questions 2 and 4 are not really arithmetical but algebraical, and would be solved by algebra by people acquainted with algebra.

Question 8 is unnecessary long in its wording and by its abundance of words appears more formidable than it really is.